

Consumer Pork Demand Retail Price Sensitivity (January 2020 to July 2025 Comparison of 52 U.S. Retail Markets and 6 Pork Products)

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October 3, 2025

Acknowledgements: Grateful appreciation is extended to the National Pork Board for providing funding to support this project. Thanks to Rick Smith and Kiersten Tuerff-Hafer for assistance in obtaining data utilized in this study and coordinating its launch. All opinions in this study are solely those of the author.

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Executive Summary

This project updates and extends past assessments of retail pork price sensitivity in the U.S. The primary objective was to determine how sensitive consumer pork purchasing behavior is to price changes across U.S. retail markets and pork products during the January 2020-July 2025 period with an extended look at beef and chicken cross-price effects. As the broader U.S. meat sector continues to operate in evolving times, enhanced insights are needed to determine how consumer retail purchasing behavior differs both across geographically distinct markets and pork products.

This study used weekly retail scanner data from 52 U.S. retail markets and six different pork products to estimate market- and product-specific own-price elasticity estimates. The elasticity estimates quantify how sensitive consumers' purchases in each market, and for each product, are to changes in prices during the January 2020 – July 2025 period.

Beyond these updated market- and product-specific own-price elasticities, extensive documentation of cross-price effects is included. This outlines how purchasing of six retail pork products is impacted by changes in prices of five other pork products, six beef products, and four chicken products.

The full report documents raw data utilized, procedures employed, and results. The report includes multiple tables and figures intended to be resources for future applications and associated assessments benefiting from the provided market- and product-specific information. A corresponding Appendix is also included providing supplementary details.

Main findings:

- 1) There is a wide range in price-sensitivity spanning from inelastic to elastic demand within product categories and across markets. Stated differently, there is notable retail demand heterogeneity in the aggregate, U.S. pork market. For example, the own-price elasticity of demand for pork dinner sausage over January 2020 to July 2025 ranges from a low of -2.555 (Chicago, IL) to a high of -0.202 (Houston, TX) across the 52 retail markets examined.

- 2) Changes in prices of other pork products, beef products or chicken products have much smaller effects on pork purchases than inner-category price effects. Pork product purchases are much more influenced by the offer price on those retail items than price of other retail meat items.

Key Recommendations:

- 1) Wide heterogeneity in retail demand is prevalent across markets and pork products suggesting approaches treating all markets or products as equal should be made with caution and arguably is less appropriate with each passing year as the broader U.S. market evolves. The range of price-sensitivity warrants refined assessments where feasible and supports the value of periodic updated assessments as consumer behavior is dynamic. Some markets, across both pork product and geographic space, are inelastic and others are elastic, pointing to notably different economic impacts of anything altering prices or available quantities.
- 2) Variation in consumer price sensitivity spanning from inelastic to elastic indicates consumer expenditures (and pork seller revenues) will move in the same direction of pork prices in some cases (where demand is inelastic) and move in opposite directions in other cases (where demand is elastic). This points to diverse consumer and producer economic welfare effects across product-markets for any events altering pork prices or availability. The finding also suggests the benefit of targeted, by product and/or location, advertising and price promotion.
- 3) Because changes in beef and chicken product prices have much smaller impacts on pork product purchases than changes in a pork product's own price, the pork industry should focus on factors driving pork's pricing and competitiveness. This is consistent with how retail pork demand has not gained with elevated beef demand in recent years to the extent some stakeholders may have expected: cross-price effects exist but are smaller than some historically have presumed. Furthermore, across markets and products there is notable variation in substitute and complement relationships suggesting caution in broad-brush responses to adjustments in prices of other retail meat products.

Chapter 1. Introduction

The inner-workings of agricultural markets hinge upon supply and demand fundamentals with resulting market outcomes of price and quantity regularly being of high interest to industry stakeholders, analysts, and policy makers. As such, there is value in regularly re-examining past research and updating insights on supply and demand information to better understand contemporary agricultural markets. Unfortunately, a common impediment to understanding impacts that market or policy phenomena have on producers and consumers is the lack of granularity in consumer demand elasticity estimates. To illustrate this, note most prior research and analysis references broad, national-aggregate elasticities based on publicly available data when discussing the U.S. pork market. For instance, the domestic pork demand indices Dr. Tonsor maintains at Kansas State University utilize an own-price elasticity estimate of -0.31. This suggests the volume of pork consumers desire declines by 3.1% for each 10% increase in price. While the aggregate elasticity is a reasonable estimate for purposes of a broad, demand-strength tracking index, it masks important differences across geography, consumers, and pork products. The conventional approach would assume, for example, a 10% price increase will have the same effect on bacon and ribs purchases, and cannot identify differences in demand in, say, Phoenix, AZ vs. Orlando, FL.

This aggregation distinction motivated related reports previously composed in 2021 and 2024. This **2025 project's primary objective** is to determine how sensitive consumer pork purchasing is to price changes, both within and across meat categories, across 52 U.S. retail markets and six leading pork products. In meeting this objective, an enriched understanding of U.S. retail pork demand (specifically the role of own-price and cross-price effects on purchasing behavior) will in turn improve decision-making by industry stakeholders.

Chapter 2. Data Overview

This project utilizes multi-outlet retail market scanner data obtained by the National Pork Board from Circana (formerly IRI). Specifically, we use data from the 52 markets listed in table 1 covering Jan. 2020 to July 2025. It is our understanding coverage over each of the 52 examined markets is sound and as complete as feasible, yet there is variation nationally as presence of excluded retail outlets varies.¹ Further, there likely is adjustment in market coverage, beyond just temporal difference of being a newer dataset, in the latest retail data compared to past assessments as retail markets grow/shrink and Circana's definition of each retail market can correspondingly change. This should be noted in any comparison to past assessments.

Table 1. Retail Markets Examined

5 Boroughs New York City, NY	Nashville, TN
Albany, NY	New England
Atlanta, GA	New Orleans, LA/Mobile, AL
Baltimore, MD/Washington D.C.	New York, NY
Birmingham/Montgomery, AL	Orlando, FL
Boise, ID	Peoria/Springfield, IL
Boston, MA	Philadelphia, PA
Buffalo/Rochester, NY	Phoenix/Tucson, AZ
Charlotte, NC	Pittsburgh, PA
Chicago, IL	Portland, OR
Cincinnati/Dayton, OH	Providence, RI
Columbus, OH	Raleigh/Greensboro, NC
Dallas/Ft. Worth, TX	Richmond/Norfolk, VA
Denver, CO	Roanoke, VA
Detroit, MI	Sacramento, CA
Grand Rapids, MI	San Diego, CA
Harrisburg/Scranton, PA	San Francisco/Oakland, CA
Hartford, CT/Springfield, MA	Seattle/Tacoma, WA
Houston, TX	South Carolina
Indianapolis, IN	Spokane, WA
Jacksonville, FL	St. Louis, MO
Knoxville, TN	Syracuse, NY
Las Vegas, NV	Tampa/St. Petersburg, FL
Los Angeles, CA	Toledo, OH
Louisville, KY	West Texas/New Mexico
Miami/Ft. Lauderdale, FL	Wichita, KS

¹ As an example, omission of HEB markets in Texas is worth appreciating. This is not something that can easily be remedied and we have no reason to believe it skews our analysis in any particular way but rather is noted here for transparency.

We focus on major categories with robust volumes to support a confident analysis. We used a threshold of \$1 billion in 2024 retail sales nationally to identify categories included. As shown in table 2, this led to a total of 16 categories being examined: six pork, six beef, and four chicken products.² Our main interest is in how price effects within these six pork categories impact purchase volumes as well as in identifying cross-price effects from these major beef and chicken categories.

Table 2. Products Examined

<i>Pork Products</i>	<i>Beef Products</i>	<i>Chicken Products</i>
Bacon	Chuck	Breast
Breakfast Sausage	Loin	Legs
Dinner Sausage	Ribeye	Thighs
Loin	Round	Wings
Ribs	Sirloin	
Shoulder	Ground	

The following two tables begin to illustrate substantial variation across markets that quickly documents value in this deep-dive and associated periodic updates.³ We use 2024 data both to summarize the most recent, complete calendar year of data available and to mitigate issues with summary statistics spanning pre-pandemic, pandemic, and “post” pandemic periods. Using average values over the 2024 period for the 10 largest resident markets, tables 3 and 4 summarize volume and expenditure shares respectively for bacon, breakfast sausage, dinner sausage, loin, ribs and shoulder.⁴

² We use the sum of fixed and random weight products to capture total transactions and support improved comparisons across pork categories.

³ The Appendix contains parallel tables providing estimates for all examined markets.

⁴ Other pork categories were also considered yet each represent less than 2% expenditure shares on average and were not completely available for assessment in all cases leading us to omit them from further evaluation. Accordingly, the values in tables 3 and 4 sum to 100% by market (by row) over the six examined products of focus in this report. ⁵ The Appendix includes tables listing out the ranking of all markets, for all six examined pork products.

Table 3. Average Volume Shares of Pork Products (2024), in Largest Population Markets

<i>Market</i>	<i>Pork Bacon</i>	<i>Pork Breakfast Sausage</i>	<i>Pork Dinner Sausage</i>	<i>Pork Loin</i>	<i>Pork Ribs</i>	<i>Pork Shoulder</i>
New York, NY	20.3%	2.6%	14.2%	29.7%	21.0%	12.3%
Los Angeles, CA	25.7%	7.5%	13.5%	16.3%	23.8%	13.1%
Chicago, IL	25.7%	8.4%	18.5%	22.6%	16.0%	8.8%
Baltimore, MD/Washington D.C.	26.6%	10.6%	12.6%	23.2%	17.6%	9.4%
Dallas/Ft. Worth, TX	26.6%	10.4%	10.4%	20.6%	20.0%	12.1%
Houston, TX	20.2%	8.2%	11.1%	21.6%	22.7%	16.1%
Philadelphia, PA	24.6%	9.8%	15.8%	26.1%	14.8%	8.9%
San Francisco/Oakland, CA	22.8%	5.5%	11.2%	20.1%	26.1%	14.3%
Miami/Ft. Lauderdale, FL	17.3%	2.9%	8.8%	31.4%	26.7%	12.9%
Boston, MA	20.8%	4.0%	17.0%	30.9%	16.7%	10.6%

Table 4. Average Expenditure Shares of Pork Products (2024), in Largest Population Markets

<i>Market</i>	<i>Pork Bacon</i>	<i>Pork Breakfast Sausage</i>	<i>Pork Dinner Sausage</i>	<i>Pork Loin</i>	<i>Pork Ribs</i>	<i>Pork Shoulder</i>
New York, NY	33.4%	4.0%	15.0%	24.0%	17.4%	6.2%
Los Angeles, CA	37.7%	7.4%	12.5%	15.6%	19.5%	7.3%
Chicago, IL	36.4%	9.4%	17.5%	19.2%	13.1%	4.5%
Baltimore, MD/Washington D.C.	38.9%	11.7%	12.5%	18.8%	13.4%	4.7%
Dallas/Ft. Worth, TX	38.6%	11.4%	11.0%	18.6%	14.7%	5.8%
Houston, TX	31.9%	10.3%	12.9%	20.1%	17.2%	7.6%
Philadelphia, PA	35.6%	11.8%	15.1%	21.2%	11.6%	4.7%
San Francisco/Oakland, CA	34.8%	6.4%	12.3%	17.4%	20.9%	8.1%
Miami/Ft. Lauderdale, FL	28.1%	3.7%	10.2%	28.6%	22.1%	7.3%
Boston, MA	36.6%	4.4%	16.6%	24.8%	12.6%	5.0%

To further summarize product differences nationally, the following two figures help visually portray the average volume and expenditure shares across all 52 markets in 2024. The leading role of Loin and Bacon immediately is demonstrated. Observing expenditure share to be higher for Bacon and volume share to be higher for Loin reflects Bacon prices exceeding Loin prices. Similarly, the lowest average (across six examined pork products and 52 markets) price for Shoulder is readily apparent by observing volume share dominates expenditure share.

Figure 1. 2024 Volume Shares of Pork Products, Average of 52 Markets

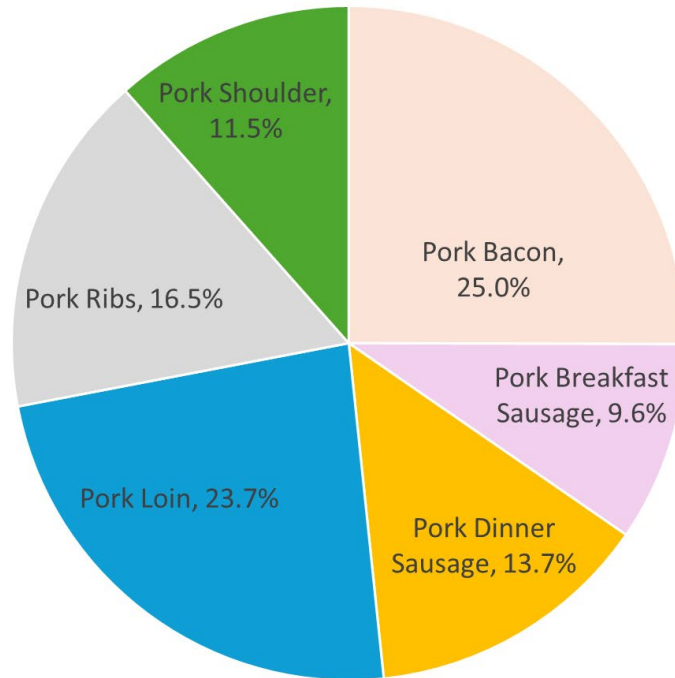
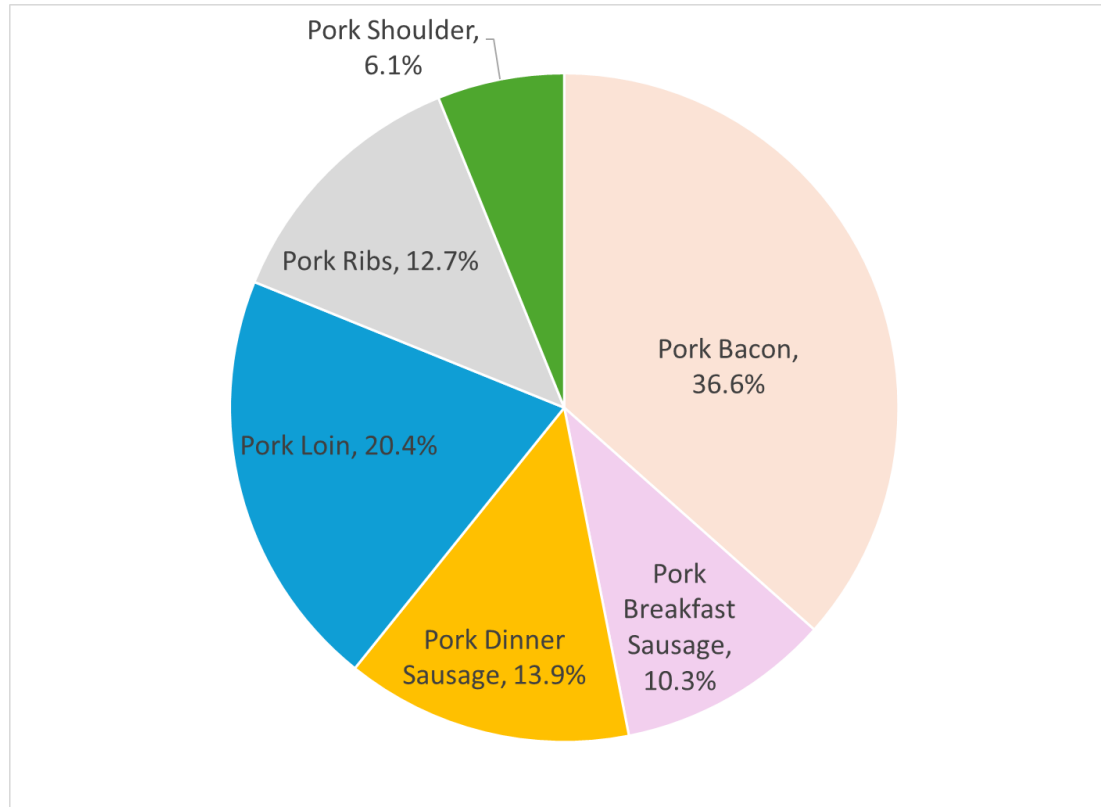


Figure 2. 2024 Expenditure Shares of Pork Products, Average of 52 Markets



To build upon the previous figures and illustrate heterogeneity masked in averages, consider the Los Angeles, CA market for 2024. Here, 16% of pork volume purchases in the form of loin; this is the lowest of the 10 markets shown in table 3. At the same time, in Los Angeles, 38% of pork expenditures were in the form of bacon (3rd highest of the 10 largest markets) and 20% of expenditures were on ribs (3rd highest of the 10 largest markets). Contrast this with the New York, NY market. New York ranks 3rd (following only Boston, MA and Miami/Ft. Lauderdale, FL) in volume share from Loin purchases among the 10 markets shown in table 3. Meanwhile, New York ranks 9th among the 10 markets in table 4 in expenditure share from Breakfast Sausage purchases and ranks 8th in Bacon. These simple examples demonstrate a **central point**: the mix of pork products purchased varies notably across U.S. consumer markets.⁵

⁵ The Appendix includes tables listing out the ranking of all markets, for all six examined pork products.

Chapter 3. Own- and Cross-Price Elasticities of Demand, Estimation Procedure

To document heterogeneity across markets in pork purchasing behavior we proceed to examine consumer price sensitivity by product and market. Specifically, we set up economic models to use variation in prices paid and quantities purchased to derive market- and product-specific own-price and cross-price elasticity of demand estimates. Our overall approach directly follows that applied by Tonsor and Lusk (2021; 2024).

In designing our model, we control for own-prices, prices of five other pork products, six beef product prices, four chicken product prices, monthly seasonality, and annual effects. The final model estimated is:

$$(1) \ln Q = \alpha + \beta \ln \text{Own}P + \Gamma \ln \text{OtherPork}P + \gamma \ln \text{Beef}P + \delta \ln \text{Chicken}P + \sum_{i=1}^{11} \mu_i \text{Month}_i + \sum_{j=2015}^{2021} \rho_j \text{Year}_j + \epsilon$$

where $\ln$ is the natural logarithm operator, Q is quantity of pork product purchased, $\text{Own}P$ is price of the examined pork product in its own market, $\text{OtherPork}P$ is vector of prices for five other pork products, $\text{Beef}P$ is a vector of six beef product prices, $\text{Chicken}P$ is a vector of four chicken product prices, Month_i is a dummy variable equal to one for month i and 0 otherwise, Year_j is a dummy variable equal to one for year j and 0 otherwise, ϵ is the model's normally-distributed error term, and remaining terms are parameters to be estimated.

This model contains 32 parameters to be estimated. We estimate each model separately for every market-product combination yielding market-product specific insights for the Jan. 2020 – July 2025 period. We omit time and market subscripts from equation (1) for presentation convenience.

Our final, preferred approach applies two-stage least squares methods to avoid assuming retail meat prices in a market are exogenous. Instrumental variables for retail prices are needed that are highly correlated with the product price in the respective location but have no direct, independent effect on the outcome of interest, the quantity demanded. Often times, such instruments will be cost-side drivers of retail price changes. We utilize two types of instruments. The first type are so-called Hausman-instruments (1996) that have been widely used in the literature (e.g., Nevo, 2001), in which we use the weighted average price in the other 51 markets besides the one being examined as an instrument for the pork product price in the location in question. The assumption is that correlation among prices across two locations is due to common cost shocks, whereas it is assumed demand changes across two locations are likely to be more idiosyncratic. The other type of instruments include more direct costs to the retail sector (current and up to 8 week-lagged national pork and beef cutout wholesale values, exchange rate variables, corn and soybean meal feed cost variables, gasoline prices and interest rates) as instruments.

Ultimately our primary interest lies in the β , Γ , γ , and δ parameters shown in equation 1. Here β quantifies how own-price sensitive consumers are for a given product in a particular market. Specifically, this parameter is an elasticity estimate representing how a 1% change in a product's own-price impacts the quantity purchased in a given market (e.g. impact of pork loin price on the quantity of pork loin purchased). In estimating our model for each market and product, we quickly gain new insight into multiple dimensions of heterogeneous, own-price sensitivity patterns.

Further, the Γ parameters convey important cross-price sensitivity insights within the pork sector. This parameter is an elasticity estimate representing how a 1% change in an alternative pork product's price impacts the quantity purchased in a given market of interest (e.g. impact of pork loin price on pork shoulder volume purchased).

Finally, the γ and δ parameters respectively reflect cross-price information on how beef and chicken price changes impact pork purchase volumes. For instance, an unanswered question before this assessment was how a 1% change in retail ground beef price or chicken breast price separately impacted consumer demand for pork loin and pork ribs. Here a host of related and new cross-price impacts are estimated accordingly to enrich understanding of overall consumer price responsiveness when making pork purchasing decisions.

Chapter 4. Jan. 2020 – July 2025 Elasticity of Demand Results

Table 5 reports our main elasticity results for six separate pork products as well as pork when modeled as an aggregate good.⁶ This table reports mean (average) and median statistics of elasticity estimates over the 52 evaluated retail markets. Further, to highlight the dispersion across markets we also report minimum, 1st quartile, 3rd quartile, and maximum estimates. Figure 3 presents the same information in visual format. Not surprisingly given the comments above regarding variation in volume and expenditure shares, there is notable variation across products in price sensitivity.

First consider the differences across products using median estimates over markets. The Loin category is estimated to have a -1.159 own-price elasticity, suggesting that for each 1% increase (decrease) in price, Loin retail purchases will decline (increase) by 1.16%. In fact, of the six main pork categories examined, Loin is identified to be the least sensitive to price changes.⁷ That is, a decline (or increase) in pork loin price results in the smallest purchase volume adjustment. Conversely Pork Shoulder (-1.916), Breakfast Sausage (-1.870), Pork Ribs (-1.787), and Dinner Sausage (-1.637) categories are found to be more price responsive. Bacon falls between being slightly more price responsive than Loin, but less than the other four categories assessed.

While these differences across products based on median values are important to appreciate in providing broad-brush, aggregate category-level insights, they represent only one dimension of dispersion in demand patterns. Examining elasticity estimates across markets, within product categories is also critical. Consider first loin products. The median own-price elasticity estimate is -1.159, yet across the 52 markets, this ranges from -0.573 (Denver, CO) to -2.262 (Harrisburg/Scranton, PA). A convenient statistical metric used to summarize dispersion is the interquartile range (IQR), which is the difference between the 3rd quartile and 1st quartile. For loin products, the IQR is 0.32, which is 28% the magnitude of the median estimate reflecting notable variation. Stated differently, in response to a 1% increase in loin prices 25% of the loin markets decreased purchase volume by more than 1.39%, 50% of markets reduced purchase volume by 1.07% to 1.39%, and the remaining 25% of markets decreased purchase volume by less than 1.07%.

Similar results of notable variation across markets are observed for all pork products. Using the IQR as a way to compare dispersion, loin (IQR=0.32) is the product category that varies the least across markets while ribs (IQR=0.407), dinner sausage (IQR=0.429), shoulder (IQR=0.433), bacon (IQR=0.434), and breakfast sausage (IQR=0.512) are product categories that differ more across markets. That is, while there is notable price sensitivity across the 52

⁶ Note the aggregate pork analysis reflects the aggregate pork category as provided by Circana and not just the sum of the six, individually examined pork products.

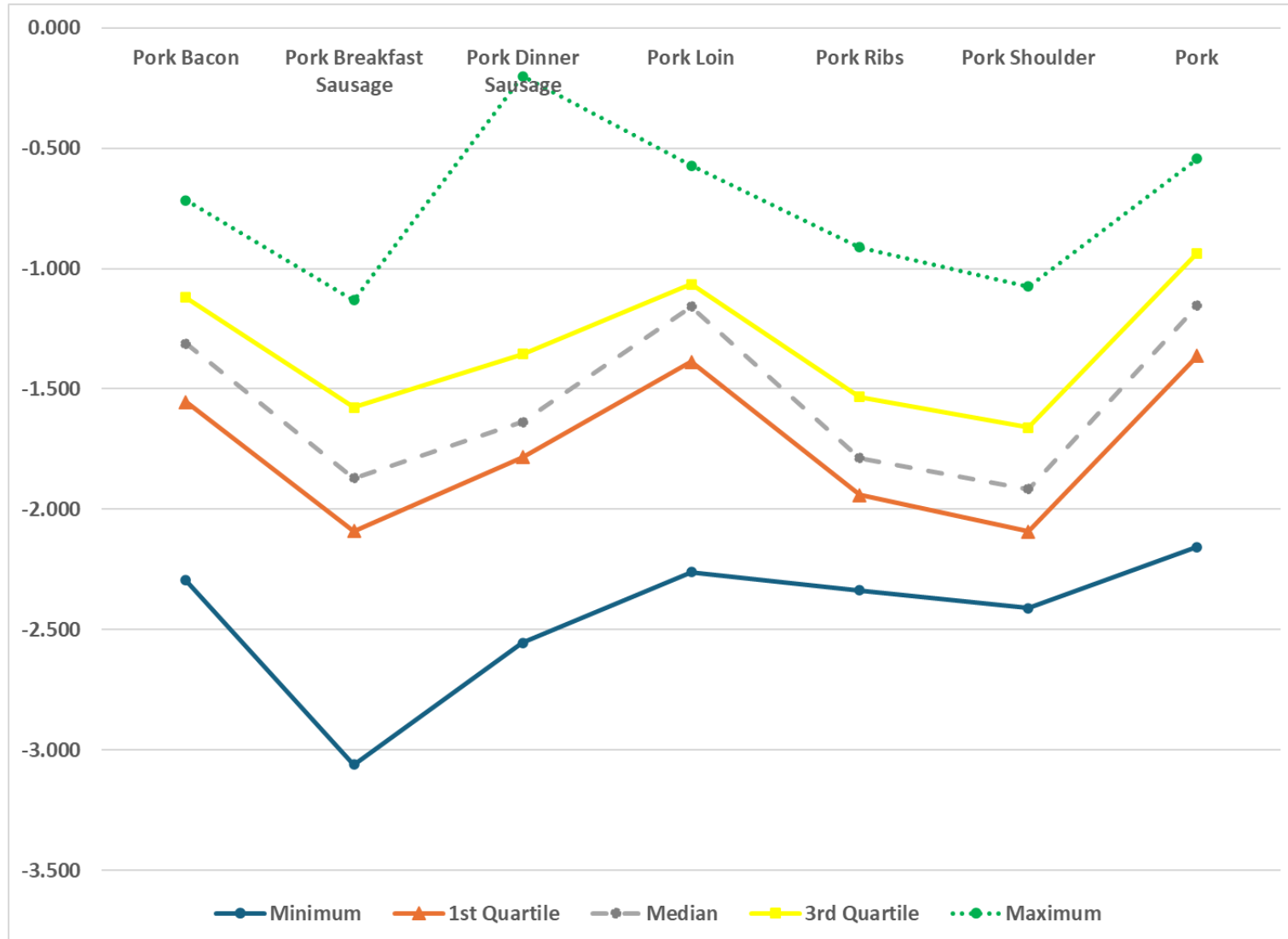
⁷ The comparatively limited price sensitivity for pork loin may motivate additional assessment of non-price factors impacting loin demand. Recall this assessment using Circana data can solely examine price sensitivity and not examine non-price demand determinants.

examined markets for all pork items, this variation is widest for breakfast sausage and narrowest for loin.

Table 5. Summary Statistics on Own-Price Elasticities across 52 Markets
(Jan. 2020 - July 2025)

	Pork Bacon	Pork Breakfast Sausage	Pork Dinner Sausage	Pork Loin	Pork Ribs	Pork Shoulder	Pork
Mean	-1.339	-1.853	-1.562	-1.201	-1.707	-1.861	-1.197
Minimum	-2.296	-3.060	-2.555	-2.262	-2.337	-2.410	-2.157
1st Quartile	-1.554	-2.090	-1.783	-1.387	-1.941	-2.093	-1.364
Median	-1.312	-1.870	-1.637	-1.159	-1.787	-1.916	-1.155
3rd Quartile	-1.120	-1.578	-1.354	-1.066	-1.534	-1.660	-0.937
Maximum	-0.717	-1.132	-0.202	-0.573	-0.911	-1.075	-0.544
Count	52	52	52	52	52	52	52
Number Positive	0	0	0	0	0	0	0

Figure 3. Dispersion of Own-Price Elasticity Estimates Across Markets (Jan. 2020 – July 2025)



Complete documentation of market-product specific own-price elasticity estimates is provided in table 6. For each product (down each column), the five most elastic markets are identified in green, and the five most inelastic markets are identified in orange.

Some locations were consistently among the most inelastic for the Jan. 2020-July 2025 period. For example, Denver, CO was one of the five most inelastic locations for both loin and ribs and New Orleans, LA/Mobile, AL was one of the five most inelastic locations for both dinner sausage and ribs.

Importantly, there are other locations that are on either end of the price sensitivity spectrum depending on product. For example, New York, NY is one of the 5 most inelastic locations for loin but one of the 5 most elastic locations for dinner sausage. Similarly, Philadelphia, PA is one of the 5 most inelastic locations for shoulder but one of the 5 most elastic locations for dinner sausage. **Indeed, price sensitivity varies notably across pork products AND retail markets.**

Table 6. Own-Price Pork Elasticity of Markets (Jan. 2020 - July 2025), by Product

Market	Pork Bacon	Pork Breakfast Sausage	Pork Dinner Sausage	Pork Loin	Pork Ribs	Pork Shoulder	Pork
5 Boroughs New York City, NY	-0.946	-2.302	-1.901	-1.079	-1.738	-2.155	-0.903
Albany, NY	-1.760	-2.195	-1.809	-0.719	-1.801	-1.938	-0.949
Atlanta, GA	-1.115	-2.179	-1.337	-1.066	-1.748	-2.064	-1.512
Baltimore, MD/Washington D.C.	-1.159	-2.021	-1.298	-1.263	-1.773	-1.470	-0.817
Birmingham/Montgomery, AL	-1.183	-1.132	-1.780	-1.423	-2.108	-2.344	-1.924
Boise, ID	-1.466	-2.116	-1.636	-1.417	-1.791	-1.718	-1.235
Boston, MA	-1.571	-1.870	-1.639	-1.181	-2.064	-1.579	-0.841
Buffalo/Rochester, NY	-2.296	-3.060	-1.874	-1.512	-1.278	-1.075	-1.804
Charlotte, NC	-1.155	-1.404	-1.717	-1.063	-1.842	-2.171	-1.267
Chicago, IL	-1.366	-1.341	-2.555	-1.538	-0.911	-2.222	-1.361
Cincinnati/Dayton, OH	-1.266	-2.316	-2.076	-1.548	-1.806	-2.115	-1.195
Columbus, OH	-1.119	-2.578	-1.635	-1.586	-1.324	-2.002	-1.269
Dallas/Ft. Worth, TX	-0.997	-2.085	-1.021	-1.015	-1.941	-1.763	-0.629
Denver, CO	-1.105	-2.061	-1.769	-0.573	-1.182	-1.725	-0.844
Detroit, MI	-0.996	-2.631	-1.522	-0.967	-1.337	-2.116	-0.688
Grand Rapids, MI	-1.006	-2.482	-1.387	-1.107	-1.323	-1.840	-0.768
Harrisburg/Scranton, PA	-1.693	-2.003	-1.791	-2.262	-2.097	-1.113	-1.717
Hartford, CT/Springfield, MA	-1.768	-2.385	-1.712	-1.182	-1.625	-1.704	-1.002
Houston, TX	-1.328	-2.086	-0.202	-1.282	-2.023	-2.008	-0.793
Indianapolis, IN	-1.299	-2.102	-1.971	-0.961	-0.945	-1.741	-0.544
Jacksonville, FL	-1.623	-1.891	-1.650	-1.147	-1.794	-2.349	-2.083

Knoxville, TN	-1.662	-1.926	-1.757	-1.466	-1.868	-2.331	-1.167
Las Vegas, NV	-1.407	-1.718	-1.132	-1.119	-2.052	-1.702	-0.739
Los Angeles, CA	-1.318	-1.170	-1.576	-0.929	-1.676	-1.425	-1.172
Louisville, KY	-1.155	-1.780	-1.100	-1.618	-1.966	-2.103	-0.948
Miami/Ft. Lauderdale, FL	-1.379	-1.755	-0.863	-0.957	-1.927	-1.726	-1.749
Nashville, TN	-1.451	-1.133	-1.358	-1.149	-1.552	-2.090	-1.178
New England	-1.349	-1.201	-1.495	-1.143	-2.098	-1.677	-0.787
New Orleans, LA/Mobile, AL	-1.007	-1.557	-0.353	-1.185	-1.175	-2.010	-1.565
New York, NY	-1.669	-1.989	-2.217	-0.609	-1.323	-1.669	-0.815
Orlando, FL	-1.552	-1.870	-1.781	-1.097	-2.125	-2.126	-2.157
Peoria/Springfield, IL	-1.313	-1.369	-1.583	-0.921	-0.935	-1.606	-0.990
Philadelphia, PA	-1.120	-1.599	-2.349	-1.275	-1.621	-1.084	-0.962
Phoenix/Tucson, AZ	-1.194	-1.978	-1.627	-1.167	-1.995	-1.887	-1.158
Pittsburgh, PA	-1.476	-2.028	-0.866	-1.632	-2.149	-2.410	-1.732
Portland, OR	-1.766	-1.777	-1.438	-1.378	-1.924	-1.893	-1.357
Providence, RI	-1.836	-2.133	-1.345	-1.490	-2.337	-1.634	-1.051
Raleigh/Greensboro, NC	-0.983	-1.621	-1.651	-0.941	-1.793	-2.018	-1.152
Richmond/Norfolk, VA	-1.168	-1.296	-1.850	-0.765	-1.756	-2.042	-1.145
Roanoke, VA	-1.561	-1.360	-1.569	-1.113	-1.875	-2.081	-1.048
Sacramento, CA	-1.400	-1.369	-1.758	-1.303	-1.605	-1.497	-1.063
San Diego, CA	-1.312	-1.195	-1.527	-1.081	-1.782	-1.412	-1.093
San Francisco/Oakland, CA	-1.200	-1.606	-1.097	-1.482	-1.725	-1.608	-1.004
Seattle/Tacoma, WA	-1.159	-1.553	-1.741	-1.340	-1.941	-1.730	-1.267
South Carolina	-0.957	-1.783	-2.131	-1.094	-1.810	-2.088	-1.375
Spokane, WA	-1.075	-1.824	-2.050	-1.328	-1.884	-2.135	-1.371
St. Louis, MO	-1.012	-1.828	-0.834	-1.185	-1.397	-2.320	-1.794
Syracuse, NY	-1.953	-1.899	-1.643	-0.642	-1.551	-1.613	-1.278
Tampa/St. Petersburg, FL	-1.680	-1.857	-1.717	-1.089	-1.482	-2.061	-2.075
Toledo, OH	-1.142	-2.276	-1.265	-1.344	-1.362	-1.973	-0.966
West Texas/New Mexico	-0.717	-1.585	-1.399	-1.151	-2.008	-1.619	-0.773
Wichita, KS	-1.452	-2.072	-1.876	-1.553	-1.616	-1.963	-1.184

To further help see relative rankings, Table 7 presents rankings of the 52 evaluated markets by own-price elasticity. These rankings are on values reported in table 6 and are derived in descending order so a rank=1 implies the largest (or least negative, most inelastic) estimate (the maximum value shown in table 5) while a rank=52 applies to the smallest (or most negative, most elastic) estimate (the minimum value in table 5).

As an example, consider pork in aggregate (far-right column) – the most inelastic market is Indianapolis, IN (-0.544 in table 6) and the most elastic market is Orlando, FL (-2.157). To drive home the point, percentage changes in pork purchasing volumes are four times larger (-2.157/-0.544) in Orlando than Indianapolis to the same percentage offer price change.

Table 7. Own-Price Pork Elasticity Ranking of Markets (Jan. 2020 - July 2025), by Product

<i>Market</i>	<i>Pork Bacon</i>	<i>Pork Breakfast Sausage</i>	<i>Pork Dinner Sausage</i>	<i>Pork Loin</i>	<i>Pork Ribs</i>	<i>Pork Shoulder</i>	<i>Pork</i>
5 Boroughs New York City, NY	2	46	45	15	22	45	13
Albany, NY	47	44	41	4	30	27	15
Atlanta, GA	12	43	12	14	23	36	42
Baltimore, MD/Washington D.C.	18	34	11	32	25	6	10
Birmingham/Montgomery, AL	21	1	38	41	49	50	49
Boise, ID	37	41	26	40	27	18	33
Boston, MA	41	26	27	28	46	8	11
Buffalo/Rochester, NY	52	52	43	45	6	1	48
Charlotte, NC	16	11	33	13	33	46	34
Chicago, IL	31	7	52	46	1	47	39
Cincinnati/Dayton, OH	24	47	48	47	31	41	32
Columbus, OH	13	50	25	49	9	30	36
Dallas/Ft. Worth, TX	6	38	6	12	39	23	2
Denver, CO	11	36	37	1	5	19	12
Detroit, MI	5	51	19	11	10	42	3
Grand Rapids, MI	7	49	15	20	7	24	5
Harrisburg/Scranton, PA	46	33	40	52	47	3	44
Hartford, CT/Springfield, MA	49	48	31	29	19	17	19
Houston, TX	29	39	1	34	44	31	8
Indianapolis, IN	25	40	46	10	3	22	1
Jacksonville, FL	42	28	29	24	29	51	51
Knoxville, TN	43	30	35	42	34	49	28
Las Vegas, NV	34	18	9	22	45	16	4
Los Angeles, CA	28	3	22	7	20	5	29
Louisville, KY	17	21	8	50	41	40	14
Miami/Ft. Lauderdale, FL	32	19	4	9	38	20	46
Nashville, TN	35	2	14	25	15	39	30
New England	30	5	18	23	48	15	7
New Orleans, LA/Mobile, AL	8	13	2	30	4	32	43
New York, NY	44	32	50	2	8	14	9
Orlando, FL	39	27	39	19	50	43	52
Peoria/Springfield, IL	27	10	23	6	2	9	18
Philadelphia, PA	14	15	51	33	18	2	16
Phoenix/Tucson, AZ	22	31	24	27	42	25	27
Pittsburgh, PA	38	35	5	51	51	52	45
Portland, OR	48	20	17	39	37	26	38
Providence, RI	50	42	13	44	52	13	22
Raleigh/Greensboro, NC	4	17	30	8	28	33	26

Richmond/Norfolk, VA	20	6	42	5	24	34	25
Roanoke, VA	40	8	21	21	35	37	21
Sacramento, CA	33	9	36	35	16	7	23
San Diego, CA	26	4	20	16	26	4	24
San Francisco/Oakland, CA	23	16	7	43	21	10	20
Seattle/Tacoma, WA	19	12	34	37	40	21	35
South Carolina	3	22	49	18	32	38	41
Spokane, WA	10	23	47	36	36	44	40
St. Louis, MO	9	24	3	31	12	48	47
Syracuse, NY	51	29	28	3	14	11	37
Tampa/St. Petersburg, FL	45	25	32	17	13	35	50
Toledo, OH	15	45	10	38	11	29	17
West Texas/New Mexico	1	14	16	26	43	12	6
Wichita, KS	36	37	44	48	17	28	31

To help connect with earlier raw data summary statistics for the largest population markets, entries in table 7 are also gray highlighted for these ten markets. To demonstrate key differences, consider the Jan. 2020 – July 2025 rankings for Chicago and Los Angeles. Chicago has the most inelastic ribs demand yet the most elastic (52nd most inelastic) dinner sausage demand. Accordingly, a 1% change in both ribs and dinner sausage offer price would result in much larger volume adjustment for dinner sausage in Chicago. Meanwhile Los Angeles has the 3rd most inelastic breakfast sausage demand and 5th most inelastic Shoulder demand yet the 28th most inelastic Bacon demand.

Beyond documenting variation in sensitivity to changes in own-category pork prices, our approach yields updated insight into how prices of other pork products as well as beef and chicken products impact pork demand. Tables 8-13 summarize inner-pork category, price elasticity effects for the six major pork categories of focus (e.g. pork rib price impacts on pork loin demand) while tables 14-19 summarize cross-price impacts of six beef and four chicken categories on the six main pork categories examined.

Table 8. Summary Statistics on Pork Bacon, Demand Elasticities across 52 Markets (Jan. 2020 - July 2025)

	Pork Bacon	Pork Breakfast Sausage	Pork Dinner Sausage	Pork Loin	Pork Ribs	Pork Shoulder
Mean	-1.339	-0.086	0.473	0.025	0.196	-0.046
Minimum	-2.296	-0.597	-0.422	-0.708	-0.161	-0.381
1st Quartile	-1.554	-0.314	0.185	-0.037	0.086	-0.123
Median	-1.312	-0.069	0.469	0.085	0.179	-0.032
3rd Quartile	-1.120	0.096	0.705	0.199	0.297	0.030
Maximum	-0.717	0.652	2.034	0.398	0.577	0.300
Count	52	52	52	52	52	52
Number Positive	0	18	44	35	48	20
QR	0.434	0.410	0.520	0.236	0.211	0.153

Table 9. Summary Statistics on Pork Breakfast Sausage, Demand Elasticities across 52 Markets (Jan. 2020 - July 2025)

	Pork Bacon	Pork Breakfast Sausage	Pork Dinner Sausage	Pork Loin	Pork Ribs	Pork Shoulder
Mean	-0.239	-1.853	0.885	0.103	0.095	-0.028
Minimum	-0.792	-3.060	-0.165	-0.634	-0.298	-0.426
1st Quartile	-0.397	-2.090	0.496	0.042	-0.039	-0.082
Median	-0.232	-1.870	0.888	0.139	0.091	-0.017
3rd Quartile	-0.086	-1.578	1.263	0.218	0.180	0.039
Maximum	0.342	-1.132	2.502	0.462	0.589	0.214
Count	52	52	52	52	52	52
Number Positive	12	0	49	43	35	23
QR	0.311	0.512	0.767	0.176	0.219	0.122

Table 10. Summary Statistics on Pork Dinner Sausage, Demand Elasticities across 52 Markets (Jan. 2020 - July 2025)

	Pork Bacon	Pork Breakfast Sausage	Pork Dinner Sausage	Pork Loin	Pork Ribs	Pork Shoulder
Mean	-0.327	0.700	-1.562	0.292	-0.024	-0.029
Minimum	-1.400	-0.106	-2.555	-0.380	-0.574	-0.488
1st Quartile	-0.567	0.335	-1.783	0.141	-0.178	-0.130
Median	-0.384	0.653	-1.637	0.266	-0.051	-0.008
3rd Quartile	-0.126	1.007	-1.354	0.435	0.099	0.061
Maximum	0.748	1.783	-0.202	0.965	0.721	0.360
Count	52	52	52	52	52	52
Number Positive	9	51	0	47	20	25
QR	0.441	0.672	0.429	0.294	0.277	0.191

Table 11. Summary Statistics on Pork Loin, Demand Elasticities across 52 Markets (Jan. 2020 - July 2025)

	Pork Bacon	Pork Breakfast Sausage	Pork Dinner Sausage	Pork Loin	Pork Ribs	Pork Shoulder
Mean	-0.118	0.279	0.144	-1.201	0.150	0.039
Minimum	-0.797	-0.413	-0.853	-2.262	-0.415	-0.434
1st Quartile	-0.284	0.111	-0.052	-1.387	0.020	-0.028
Median	-0.128	0.252	0.117	-1.159	0.177	0.056
3rd Quartile	0.032	0.437	0.307	-1.066	0.273	0.115
Maximum	0.467	1.422	1.033	-0.573	0.669	0.341
Count	52	52	52	52	52	52
Number Positive	17	46	37	0	40	35
QR	0.316	0.326	0.359	0.322	0.253	0.142

Table 12. Summary Statistics on Pork Ribs, Demand Elasticities across 52 Markets (Jan. 2020 - July 2025)

	Pork Bacon	Pork Breakfast Sausage	Pork Dinner Sausage	Pork Loin	Pork Ribs	Pork Shoulder
Mean	0.062	0.858	-0.807	0.431	-1.707	-0.020
Minimum	-0.842	-0.469	-3.201	-0.521	-2.337	-0.702
1st Quartile	-0.167	0.484	-1.212	0.193	-1.941	-0.218
Median	-0.040	0.804	-0.801	0.415	-1.787	0.074
3rd Quartile	0.337	1.129	-0.272	0.637	-1.534	0.171
Maximum	1.681	2.119	0.895	1.303	-0.911	0.439
Count	52	52	52	52	52	52
Number Positive	25	50	4	47	0	30
QR	0.503	0.645	0.940	0.444	0.407	0.389

Table 13. Summary Statistics on Pork Shoulder, Demand Elasticities across 52 Markets (Jan. 2020 - July 2025)

	Pork Bacon	Pork Breakfast Sausage	Pork Dinner Sausage	Pork Loin	Pork Ribs	Pork Shoulder
Mean	-0.203	0.377	-0.160	0.287	0.160	-1.861
Minimum	-1.362	-0.911	-1.902	-1.718	-0.822	-2.410
1st Quartile	-0.435	0.104	-0.437	0.118	-0.037	-2.093
Median	-0.254	0.297	-0.141	0.357	0.133	-1.916
3rd Quartile	0.016	0.643	0.194	0.532	0.391	-1.660
Maximum	0.923	1.897	1.780	1.228	0.977	-1.075
Count	52	52	52	52	52	52
Number Positive	14	42	22	42	37	0
QR	0.451	0.540	0.631	0.413	0.428	0.433

To help guide the use of tables 8-13, first note the own-price column appearing in each table is duplicative from table 5. For instance, for pork bacon the first column of elasticities in table 8 mirrors the first column of elasticities in table 5. That is, each column in table 5 reappears as one column in tables 8-13. What is added in tables 8-13 is cross-price elasticities to compare with own-price effects. For bacon (table 8) the median own-price elasticity across 52 retail markets is -1.312. By comparison, no cross-price elasticity is larger than 0.47 (pork dinner sausage) in absolute magnitude. This indicates a core trend appearing in all six pork product assessments - **pork purchases are much more sensitive to their own offer price than the price of other pork products.**

As one example, note here that a 1% decrease in bacon offer price is expected (using median estimates) to increase bacon purchase volumes by 1.31%. Meanwhile, a 1% increase in pork dinner sausage may correspond with a 0.47% increase in bacon purchase volumes – reflecting bacon and pork dinner sausage being substitutes. The effect of pork breakfast sausage, pork loin, pork ribs, and pork shoulder prices on bacon demand is notably lower (i.e. absolute value of median cross-price elasticities are smaller). To go further, there is notable variation (see *Number Positive*, final row of table 8) in whether other pork products are substitutes or compliments to bacon. In the case of pork dinner sausage and ribs most markets have a substitute relationship (as dinner sausage or rib prices increase, bacon purchase volumes increase as these cross-price elasticities are positive) while there is a higher prevalence of complimentary relations (i.e. for 34 markets when pork breakfast sausage price increases, bacon purchase volumes decline) between bacon and breakfast sausage, loin, and shoulder.

A similar summary can be provided for breakfast sausage, dinner sausage, loin, ribs, and shoulder from tables 9-13. Here we will reiterate that own-price effects remain much larger than cross-price effects. Some of the strongest (based on median estimates) substitute relationships are between breakfast and dinner sausage (both directions) and breakfast sausage as a substitute for ribs. Meanwhile there is limited evidence of complimentary relationships (again based on median values across 52 markets) as negative cross-price elasticities are generally small in absolute terms and particularly small compared to own-category effects.

A new addition to this 2025 assessment not present in past price sensitivity reports is a deep look at the cross-price effects of six beef products and four chicken products on retail pork demand. Tables 14-19 are built like tables 8-13 to convey these beef and chicken-product cross-price effects on the six pork products examined. Looking at median values again reinforces the above noted point that cross-price effects are small in comparison to own-category price effects (i.e. table 5 median estimates are notably larger in absolute value than tables 14-19 cross-price, median estimates).

Consider again the case of pork bacon demand and cross-price median estimates in table 14. The largest substitute category is beef round with a 1% increase in beef round price associated with a 0.21% increase in pork bacon purchase volumes. The largest compliment

category is beef ribeye with a 1% increase in beef ribeye price associated with a 0.22% decrease in bacon purchase volumes. Importantly, the own-price responsiveness of -1.31% (table 5) is much larger pointing to inner-category price effects being much larger than cross-price effects of the 10 beef and chicken products examined.

Looking across all six pork products, the strongest substitute relationships (using medians estimates) are beef round for pork dinner sausage, chicken wings and beef round for pork ribs, beef round for pork shoulder. While most cross-price effects from the examined beef and chicken products are small (and clearly smaller than own-category effects), beef round price effects do arise among the ten beef and chicken products examined as the non-pork category with the strongest (based on median and Number positive estimates) impacts on retail pork demand.

Table 14. Summary Statistics on Pork Bacon, Beef & Chicken Product Cross-Price Elasticities across 52 Markets (Jan. 2020 - July 2025)

	Beef Chuck	Beef Loin	Beef Ribeye	Beef Round	Beef Sirloin	Ground Beef	Chicken Breast	Chicken Legs	Chicken Thighs	Chicken Wings
Mean	0.108	0.033	-0.242	0.273	0.040	-0.137	-0.145	0.029	-0.069	0.192
Minimum	-0.258	-0.155	-0.550	-0.045	-0.252	-0.922	-1.314	-0.738	-0.915	-0.264
1st Quartile	0.041	-0.024	-0.345	0.132	-0.057	-0.268	-0.295	-0.161	-0.238	0.044
Median	0.107	0.022	-0.217	0.210	0.049	-0.093	-0.097	0.025	-0.024	0.175
3rd Quartile	0.169	0.083	-0.154	0.341	0.131	0.009	0.060	0.231	0.141	0.299
Maximum	0.373	0.449	-0.004	1.002	0.223	0.643	0.764	1.048	0.452	0.850
Count	52	52	52	52	52	52	52	52	52	52
Number Positive	45	31	0	51	35	15	18	28	24	44
QR	0.128	0.107	0.191	0.209	0.189	0.277	0.355	0.392	0.379	0.255

Table 15. Summary Statistics on Pork Breakfast Sausage, Beef & Chicken Product Cross-Price Elasticities across 52 Markets (Jan. 2020 - July 2025)

	Beef Chuck	Beef Loin	Beef Ribeye	Beef Round	Beef Sirloin	Ground Beef	Chicken Breast	Chicken Legs	Chicken Thighs	Chicken Wings
Mean	0.133	0.035	-0.354	0.271	0.078	-0.157	0.110	0.047	0.006	0.178
Minimum	-0.149	-0.225	-0.841	-0.096	-0.347	-1.084	-0.594	-0.833	-0.937	-0.510
1st Quartile	0.032	-0.038	-0.462	0.099	-0.021	-0.338	-0.029	-0.199	-0.206	-0.029
Median	0.132	0.049	-0.367	0.217	0.073	-0.069	0.128	0.011	0.048	0.156
3rd Quartile	0.253	0.111	-0.215	0.321	0.178	0.052	0.256	0.274	0.237	0.327
Maximum	0.512	0.250	0.045	0.972	0.341	0.582	0.761	1.529	0.655	1.333
Count	52	52	52	52	52	52	52	52	52	52
Number Positive	40	33	1	47	36	17	36	27	28	37
QR	0.220	0.149	0.247	0.223	0.199	0.390	0.285	0.474	0.443	0.355

Table 16. Summary Statistics on Pork Dinner Sausage, Beef & Chicken Product Cross-Price Elasticities across 52 Markets (Jan. 2020 - July 2025)

	Beef Chuck	Beef Loin	Beef Ribeye	Beef Round	Beef Sirloin	Ground Beef	Chicken Breast	Chicken Legs	Chicken Thighs	Chicken Wings
Mean	0.130	-0.063	-0.139	0.333	0.094	-0.205	-0.044	0.043	-0.074	0.076
Minimum	-0.176	-0.443	-0.424	-0.009	-0.474	-1.180	-1.367	-0.708	-0.861	-0.626
1st Quartile	0.049	-0.127	-0.216	0.144	-0.008	-0.353	-0.239	-0.188	-0.248	-0.052
Median	0.132	-0.052	-0.158	0.248	0.076	-0.107	0.006	0.001	-0.029	0.088
3rd Quartile	0.213	0.029	-0.057	0.463	0.204	0.011	0.165	0.259	0.161	0.224
Maximum	0.450	0.245	0.375	1.239	0.478	0.595	0.760	1.228	0.639	0.611
Count	52	52	52	52	52	52	52	52	52	52
Number Positive	43	19	9	51	37	15	27	26	24	33
QR	0.164	0.156	0.159	0.319	0.212	0.365	0.404	0.447	0.409	0.276

Table 17. Summary Statistics on Pork Loin, Beef & Chicken Product Cross-Price Elasticities across 52 Markets (Jan. 2020 - July 2025)

	Beef Chuck	Beef Loin	Beef Ribeye	Beef Round	Beef Sirloin	Ground Beef	Chicken Breast	Chicken Legs	Chicken Thighs	Chicken Wings
Mean	0.013	-0.052	0.078	0.170	-0.028	0.110	0.051	-0.013	0.073	-0.004
Minimum	-0.283	-0.471	-0.218	-0.127	-0.294	-0.377	-0.803	-0.659	-0.431	-0.445
1st Quartile	-0.062	-0.144	-0.042	0.040	-0.112	-0.076	-0.117	-0.180	-0.101	-0.140
Median	0.024	-0.023	0.092	0.174	-0.045	0.088	0.113	-0.005	0.101	-0.018
3rd Quartile	0.087	0.059	0.169	0.265	0.061	0.273	0.248	0.200	0.203	0.162
Maximum	0.279	0.381	0.318	0.553	0.454	0.615	0.639	0.480	0.542	0.528
Count	52	52	52	52	52	52	52	52	52	52
Number Positive	31	23	34	43	19	34	32	26	34	24
QR	0.149	0.203	0.211	0.225	0.173	0.350	0.365	0.381	0.304	0.302

Table 18. Summary Statistics on Pork Ribs, Beef & Chicken Product Cross-Price Elasticities across 52 Markets (Jan. 2020 - July 2025)

	Beef Chuck	Beef Loin	Beef Ribeye	Beef Round	Beef Sirloin	Ground Beef	Chicken Breast	Chicken Legs	Chicken Thighs	Chicken Wings
Mean	0.235	-0.081	-0.226	0.461	0.165	-0.411	-0.169	0.090	-0.311	0.416
Minimum	-0.322	-0.651	-0.744	-0.307	-0.702	-2.092	-1.294	-0.975	-2.398	-0.563
1st Quartile	0.084	-0.227	-0.429	0.212	0.025	-0.707	-0.480	-0.205	-0.532	0.125
Median	0.209	-0.046	-0.250	0.397	0.168	-0.322	-0.198	0.051	-0.086	0.434
3rd Quartile	0.419	0.094	-0.054	0.634	0.396	-0.003	0.118	0.354	0.135	0.706
Maximum	0.867	0.416	0.753	1.559	0.844	0.687	0.807	1.845	0.810	1.357
Count	52	52	52	52	52	52	52	52	52	52
Number Positive	44	23	11	47	40	13	19	29	21	43
QR	0.335	0.321	0.375	0.422	0.371	0.705	0.598	0.559	0.667	0.581

Table 19. Summary Statistics on Pork Shoulder, Beef & Chicken Product Cross-Price Elasticities across 52 Markets (Jan. 2020 - July 2025)

	Beef Chuck	Beef Loin	Beef Ribeye	Beef Round	Beef Sirloin	Ground Beef	Chicken Breast	Chicken Legs	Chicken Thighs	Chicken Wings
Mean	0.192	0.099	-0.112	0.473	0.214	-0.110	0.056	0.083	0.002	0.176
Minimum	-0.274	-0.176	-0.700	-0.057	-0.554	-1.109	-1.072	-1.225	-1.360	-0.561
1st Quartile	0.048	-0.047	-0.231	0.191	0.029	-0.312	-0.091	-0.103	-0.292	-0.174
Median	0.178	0.111	-0.141	0.373	0.146	-0.068	0.081	0.067	0.053	0.116
3rd Quartile	0.278	0.205	0.034	0.652	0.394	0.163	0.293	0.285	0.256	0.453
Maximum	0.888	0.510	0.465	1.754	0.879	0.549	0.856	1.882	1.297	1.379
Count	52	52	52	52	52	52	52	52	52	52
Number Positive	43	33	15	51	41	19	33	31	30	32
QR	0.231	0.251	0.265	0.461	0.365	0.476	0.384	0.388	0.548	0.626

To further help visualize *relative* impacts of own-price, price of other pork items, and price of available beef and chicken items figures 4-9 were composed. These figures simply plot the median own- (single purple bar) and cross-price (15 blue bars) elasticities from previously presented tables. As noted above, these figures clearly convey how own-price effects notably exceed cross-price effects. That is, 1% changes in offer prices within a given pork category impact purchase volumes much more than 1% changes in other pork, beef, or chicken product offer prices.

For instance, figure 4 shows that for pork bacon purchases, a 1% change in bacon price has 2.8 times (or more; $-1.312/0.469 = 2.8$ in absolute value) the impact of other product prices. Similarly, a 1% change in breakfast sausage has 2.1 (figure 5) times, a 1% change in dinner sausage has 2.5 (figure 6) times, a 1% change in loin has 4.6 (figure 7) times, a 1% change in ribs has 2.2 (figure 8) times, and a 1% change in shoulder has 5.1 (figure 9) times or more the impact of other pork, beef, or chicken product prices. The particularly dominant, relative role of own-price effects within pork loin demand stand out conveying within category effects are much more influential on loin purchases than the price of other pork, beef, or chicken products.

Figure 4. Pork Bacon, Median Demand Elasticities across 52 Markets (Jan. 2020 - July 2025)

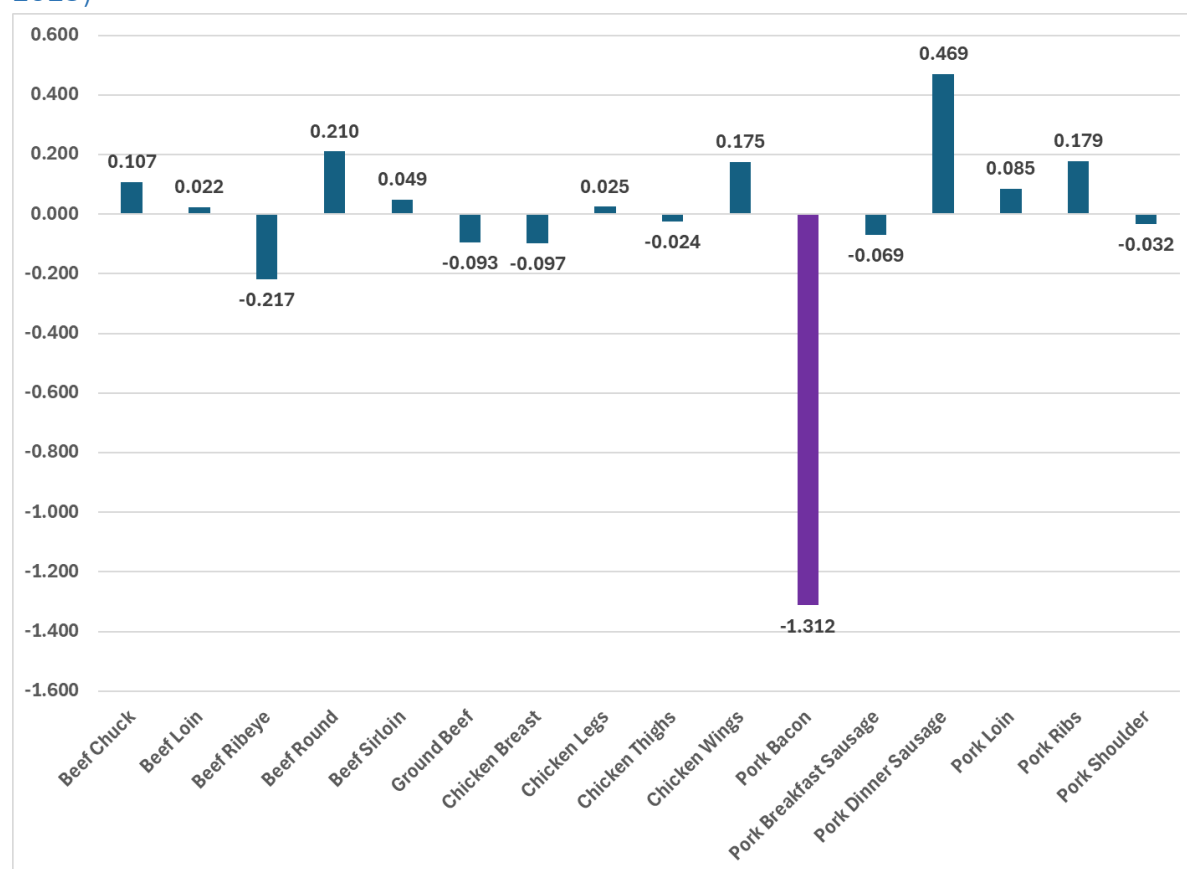


Figure 5. Pork Breakfast Sausage, Median Demand Elasticities across 52 Markets (Jan. 2020 - July 2025)

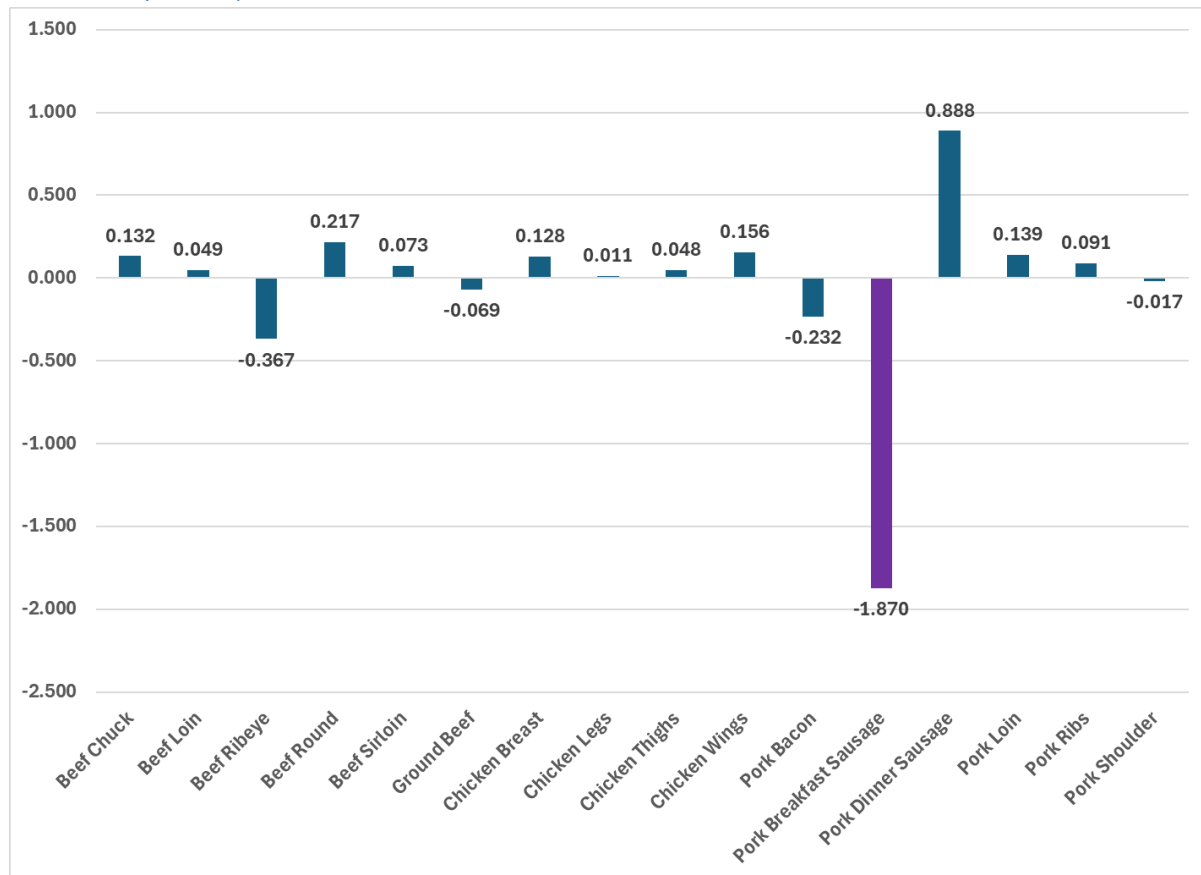


Figure 6. Pork Dinner Sausage, Median Demand Elasticities across 52 Markets (Jan. 2020 - July 2025)

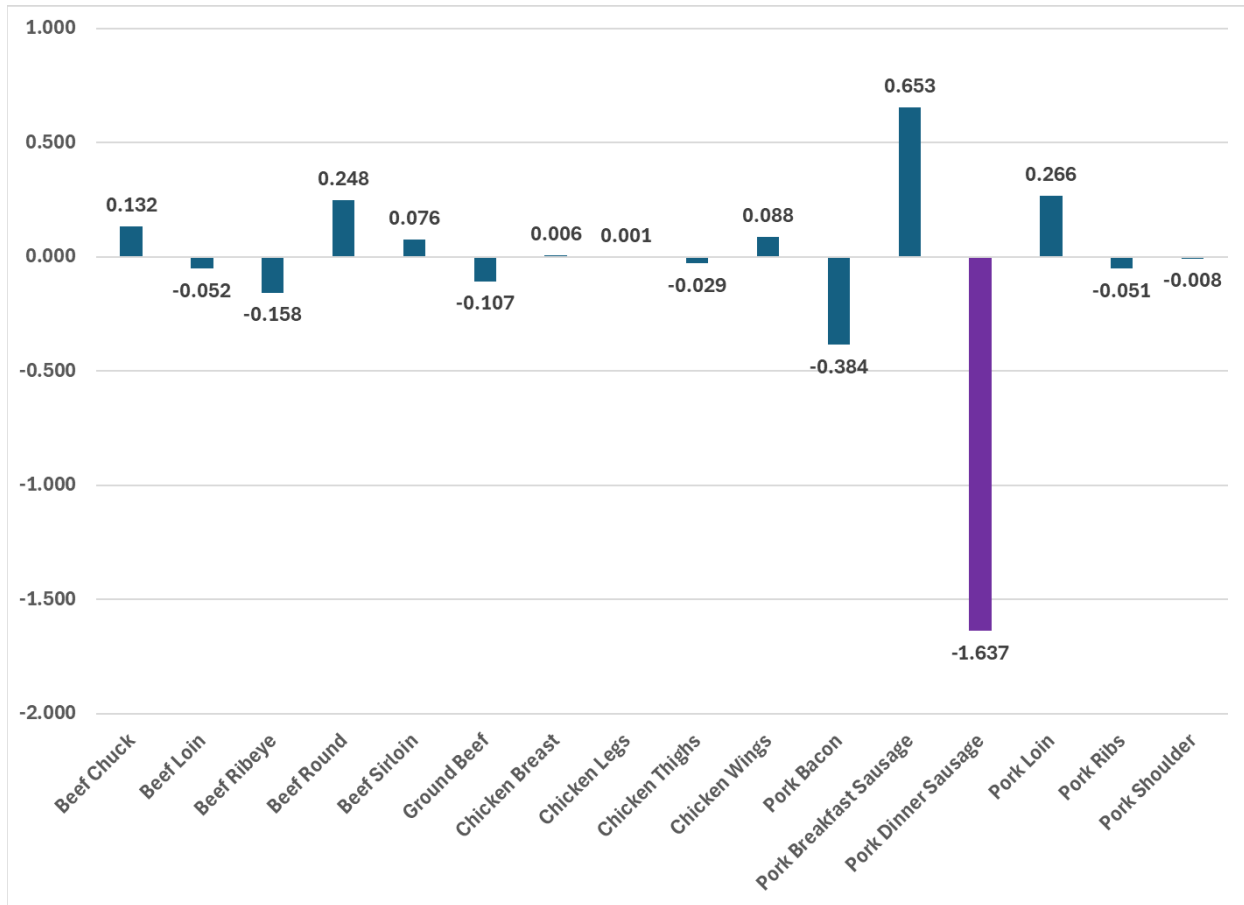


Figure 7. Pork Loin, Median Demand Elasticities across 52 Markets (Jan. 2020 - July 2025)

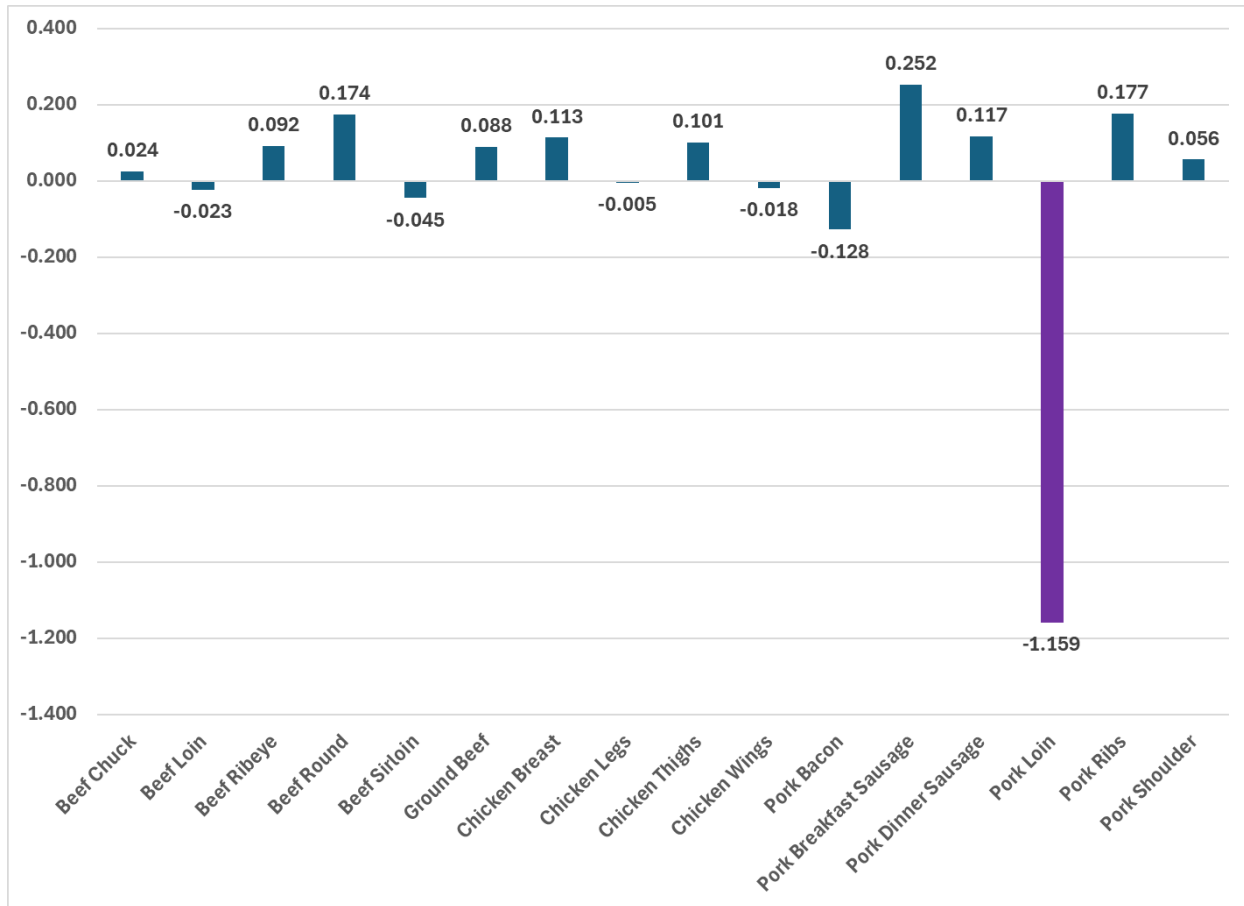


Figure 8. Pork Ribs, Median Demand Elasticities across 52 Markets (Jan. 2020 - July 2025)

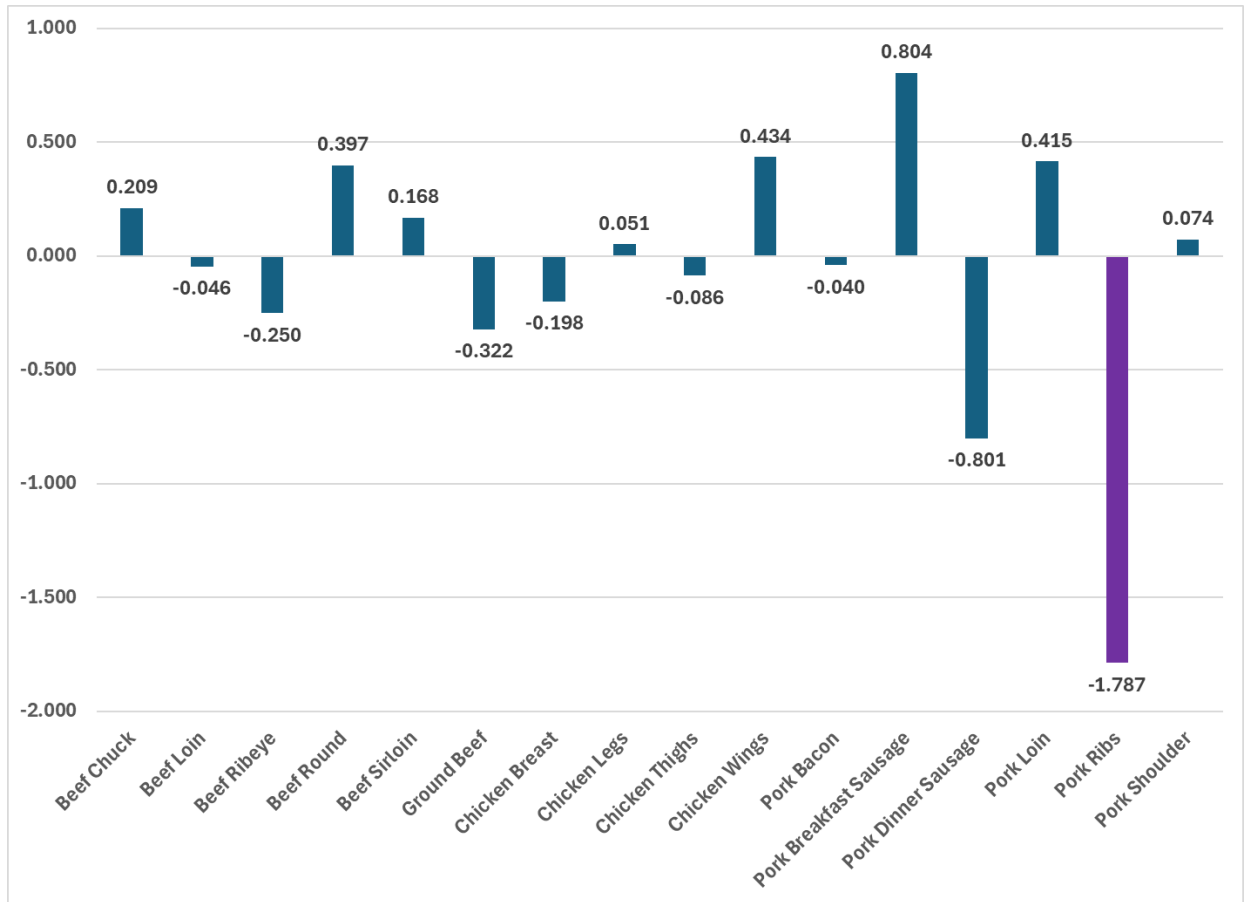
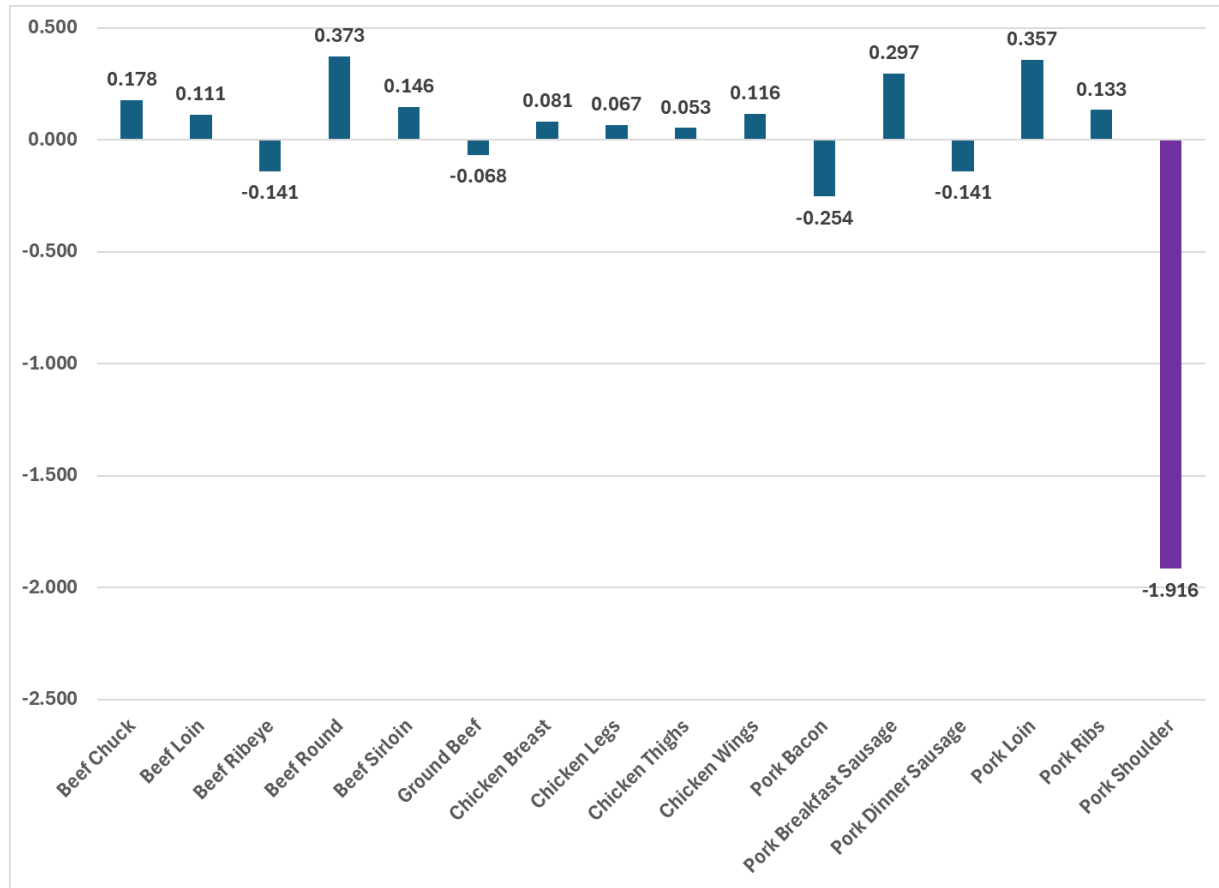


Figure 9. Pork Shoulder, Median Demand Elasticities across 52 Markets (Jan. 2020 - July 2025)



Chapter 5. Implications and Discussion

As a final, “so what” comment we will repeat the illustration included in past assessments as the fundamental application remains the same (with more current and extended details provided in this 2025 report). If a good’s demand is elastic, then price and consumer expenditures move in opposite direction. That is, if price declines (increases) then quantities adjust by a larger percentage resulting in consumer expenditure increases (decreases). Accordingly, all-else-equal (i.e. absent demand growth) for seller revenues to increase on products with elastic demand sales prices need to decline. Conversely if a product’s demand is inelastic, then price and consumer expenditures move in the same direction. Here with inelastic demand, seller revenues are expected to decrease when sales prices decrease.

As a simple illustration, supply-side factors that ultimately reduce retail pork prices (e.g. reduced feed costs, gains in production efficiencies, etc.) will result in lower consumer expenditures and seller revenues in markets where demand is inelastic. As shown in table 5 the median estimates for all six pork categories are elastic (-1.312 for bacon to -1.916 for shoulder). Accordingly, we would expect consumer expenditures and seller revenues for bacon, breakfast sausage, dinner sausage, loin, ribs, and shoulder to increase (decrease) when sales prices decline (increase).

Perhaps of most importance, even this example using median values masks important heterogeneity over markets and time – a key motivational point for this and related periodic updates. In the case of bacon, dinner sausage, loin, and ribs across the 52 markets demand spans from being elastic to inelastic such that price increases result in higher consumer expenditures in some markets and lower in others. Conversely, for breakfast sausage and shoulder demand is estimated to be elastic in all 52 markets indicating consumer expenditure change will be in the opposite direction of any price change in all 52 markets. The application examples in the previous section provide specific demonstrations of this but the broader point should be kept in mind as future users reference this report – **pork demand heterogeneity is noteworthy.**

Chapter 6. References

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Appendix

This appendix includes multiple tables and figures designed to further document project details.

Table A1. Average Volume Shares of Pork Products (2024), by Market

<i>Market</i>	<i>Pork Bacon</i>	<i>Pork Breakfast Sausage</i>	<i>Pork Dinner Sausage</i>	<i>Pork Loin</i>	<i>Pork Ribs</i>	<i>Pork Shoulder</i>
5 Boroughs New York City, NY	26.6%	2.4%	13.5%	29.4%	18.4%	9.7%
Albany, NY	22.5%	5.1%	20.5%	30.0%	11.9%	9.9%
Atlanta, GA	28.5%	10.8%	11.5%	22.0%	17.4%	9.9%
Baltimore, MD/Washington D.C.	26.6%	10.6%	12.6%	23.2%	17.6%	9.4%
Birmingham/Montgomery, AL	27.7%	13.8%	14.5%	21.4%	13.7%	9.0%
Boise, ID	32.8%	12.5%	13.6%	19.1%	12.2%	9.8%
Boston, MA	20.8%	4.0%	17.0%	30.9%	16.7%	10.6%
Buffalo/Rochester, NY	24.3%	6.2%	18.9%	26.8%	13.1%	10.8%
Charlotte, NC	25.1%	11.8%	10.2%	24.7%	13.8%	14.4%
Chicago, IL	25.7%	8.4%	18.5%	22.6%	16.0%	8.8%
Cincinnati/Dayton, OH	25.1%	15.8%	13.1%	22.8%	13.9%	9.4%
Columbus, OH	25.6%	12.9%	15.1%	21.9%	14.6%	9.9%
Dallas/Ft. Worth, TX	26.6%	10.4%	10.4%	20.6%	20.0%	12.1%
Denver, CO	25.6%	9.9%	15.3%	20.7%	15.9%	12.5%
Detroit, MI	26.0%	12.3%	16.0%	20.1%	17.1%	8.5%
Grand Rapids, MI	24.0%	11.3%	15.6%	19.8%	15.6%	13.6%
Harrisburg/Scranton, PA	22.2%	6.8%	18.3%	28.8%	14.1%	9.8%
Hartford, CT/Springfield, MA	22.2%	3.3%	16.5%	30.9%	16.0%	11.1%
Houston, TX	20.2%	8.2%	11.1%	21.6%	22.7%	16.1%
Indianapolis, IN	24.5%	13.2%	12.0%	23.4%	16.3%	10.5%
Jacksonville, FL	23.3%	8.8%	11.2%	25.7%	18.9%	12.3%
Knoxville, TN	26.5%	17.8%	9.2%	24.1%	12.4%	10.0%
Las Vegas, NV	25.6%	8.3%	14.1%	20.3%	21.1%	10.7%
Los Angeles, CA	25.7%	7.5%	13.5%	16.3%	23.8%	13.1%
Louisville, KY	27.1%	11.8%	11.3%	24.1%	14.7%	11.1%
Miami/Ft. Lauderdale, FL	17.3%	2.9%	8.8%	31.4%	26.7%	12.9%
Nashville, TN	28.3%	12.5%	10.6%	22.3%	15.2%	11.2%
New England	23.5%	6.0%	14.9%	31.1%	13.8%	10.7%
New Orleans, LA/Mobile, AL	20.3%	8.4%	22.1%	23.5%	16.5%	9.2%
New York, NY	20.3%	2.6%	14.2%	29.7%	21.0%	12.3%
Orlando, FL	23.6%	7.2%	11.0%	28.6%	18.7%	10.9%
Peoria/Springfield, IL	23.9%	11.9%	16.4%	23.0%	12.0%	12.8%
Philadelphia, PA	24.6%	9.8%	15.8%	26.1%	14.8%	8.9%
Phoenix/Tucson, AZ	25.4%	7.9%	15.0%	21.1%	19.1%	11.5%
Pittsburgh, PA	27.0%	11.0%	13.4%	25.3%	14.7%	8.6%

Portland, OR	32.4%	9.9%	13.1%	20.9%	13.9%	9.8%
Providence, RI	24.6%	4.2%	18.8%	28.6%	16.0%	7.9%
Raleigh/Greensboro, NC	25.4%	13.2%	10.2%	24.7%	14.1%	12.4%
Richmond/Norfolk, VA	26.0%	12.7%	11.6%	23.8%	14.1%	11.9%
Roanoke, VA	27.8%	17.1%	8.1%	25.0%	10.1%	11.9%
Sacramento, CA	26.3%	8.1%	10.9%	17.7%	22.9%	14.2%
San Diego, CA	27.6%	7.5%	13.8%	15.5%	20.9%	14.7%
San Francisco/Oakland, CA	22.8%	5.5%	11.2%	20.1%	26.1%	14.3%
Seattle/Tacoma, WA	27.3%	9.3%	11.5%	19.4%	19.5%	13.0%
South Carolina	23.2%	11.8%	9.9%	25.6%	16.0%	13.5%
Spokane, WA	31.1%	13.3%	12.4%	19.3%	13.7%	10.2%
St. Louis, MO	23.4%	10.7%	13.6%	19.0%	11.6%	21.7%
Syracuse, NY	22.4%	5.7%	21.9%	26.3%	11.9%	11.8%
Tampa/St. Petersburg, FL	22.9%	7.5%	12.2%	27.4%	18.9%	11.1%
Toledo, OH	23.8%	14.2%	15.6%	20.9%	13.9%	11.5%
West Texas/New Mexico	26.0%	10.1%	10.2%	22.7%	18.1%	12.8%
Wichita, KS	24.6%	12.8%	12.9%	20.0%	14.1%	15.6%
Average	25.0%	9.6%	13.7%	23.7%	16.5%	11.5%
Minimum	17.3%	2.4%	8.1%	15.5%	10.1%	7.9%
Maximum	32.8%	17.8%	22.1%	31.4%	26.7%	21.7%

Table A2. Average Expenditure Shares of Pork Products (2024), by Market

<i>Market</i>	<i>Pork Bacon</i>	<i>Pork Breakfast Sausage</i>	<i>Pork Dinner Sausage</i>	<i>Pork Loin</i>	<i>Pork Ribs</i>	<i>Pork Shoulder</i>
5 Boroughs New York City, NY	41.4%	3.3%	13.8%	22.6%	14.4%	4.4%
Albany, NY	34.9%	6.0%	20.3%	24.6%	9.6%	4.5%
Atlanta, GA	39.3%	11.1%	11.4%	19.7%	13.2%	5.3%
Baltimore, MD/Washington D.C.	38.9%	11.7%	12.5%	18.8%	13.4%	4.7%
Birmingham/Montgomery, AL	37.0%	13.1%	15.8%	19.0%	10.0%	5.0%
Boise, ID	42.7%	12.8%	13.5%	15.8%	9.6%	5.7%
Boston, MA	36.6%	4.4%	16.6%	24.8%	12.6%	5.0%
Buffalo/Rochester, NY	33.7%	6.7%	20.0%	23.3%	10.6%	5.7%
Charlotte, NC	37.3%	12.8%	10.2%	22.0%	11.0%	6.6%
Chicago, IL	36.4%	9.4%	17.5%	19.2%	13.1%	4.5%
Cincinnati/Dayton, OH	35.2%	16.3%	13.1%	20.0%	10.2%	5.2%
Columbus, OH	36.6%	12.9%	14.4%	19.8%	11.0%	5.2%
Dallas/Ft. Worth, TX	38.6%	11.4%	11.0%	18.6%	14.7%	5.8%
Denver, CO	36.5%	11.2%	15.6%	18.0%	11.9%	6.8%
Detroit, MI	37.7%	12.8%	15.4%	16.9%	12.7%	4.5%
Grand Rapids, MI	35.5%	12.1%	15.5%	17.1%	11.8%	8.0%
Harrisburg/Scranton, PA	33.0%	8.3%	17.6%	24.2%	11.2%	5.7%
Hartford, CT/Springfield, MA	35.0%	3.8%	17.2%	25.9%	12.6%	5.4%
Houston, TX	31.9%	10.3%	12.9%	20.1%	17.2%	7.6%
Indianapolis, IN	35.6%	13.6%	11.7%	21.0%	12.2%	6.0%
Jacksonville, FL	34.3%	9.9%	11.7%	22.6%	14.5%	7.0%
Knoxville, TN	38.9%	17.1%	9.1%	20.1%	9.7%	5.2%
Las Vegas, NV	37.9%	9.5%	13.0%	17.4%	16.2%	6.0%
Los Angeles, CA	37.7%	7.4%	12.5%	15.6%	19.5%	7.3%
Louisville, KY	38.7%	11.8%	11.2%	21.2%	11.2%	5.9%
Miami/Ft. Lauderdale, FL	28.1%	3.7%	10.2%	28.6%	22.1%	7.3%
Nashville, TN	39.4%	12.5%	10.4%	20.3%	11.5%	5.9%
New England	38.4%	7.2%	15.8%	23.6%	10.3%	4.7%
New Orleans, LA/Mobile, AL	28.2%	9.0%	25.6%	20.4%	11.9%	4.9%
New York, NY	33.4%	4.0%	15.0%	24.0%	17.4%	6.2%
Orlando, FL	34.6%	8.1%	10.9%	25.6%	14.5%	6.3%
Peoria/Springfield, IL	34.2%	12.7%	15.7%	20.8%	9.3%	7.2%
Philadelphia, PA	35.6%	11.8%	15.1%	21.2%	11.6%	4.7%
Phoenix/Tucson, AZ	38.5%	9.1%	14.9%	17.7%	13.7%	6.1%
Pittsburgh, PA	36.5%	12.1%	13.2%	22.0%	11.0%	5.3%
Portland, OR	42.4%	10.8%	13.5%	17.3%	10.6%	5.4%
Providence, RI	37.2%	4.7%	19.5%	23.1%	11.5%	4.0%
Raleigh/Greensboro, NC	37.1%	14.6%	10.3%	21.3%	11.0%	5.7%
Richmond/Norfolk, VA	38.0%	13.4%	11.6%	20.4%	11.0%	5.6%

Roanoke, VA	40.4%	16.9%	7.9%	21.3%	7.9%	5.6%
Sacramento, CA	37.8%	8.9%	11.2%	15.4%	18.7%	8.0%
San Diego, CA	40.1%	7.8%	12.6%	14.8%	16.6%	8.1%
San Francisco/Oakland, CA	34.8%	6.4%	12.3%	17.4%	20.9%	8.1%
Seattle/Tacoma, WA	39.3%	10.6%	12.2%	16.1%	14.9%	6.9%
South Carolina	34.5%	12.8%	10.1%	23.0%	12.8%	6.8%
Spokane, WA	42.2%	14.1%	12.4%	15.3%	10.4%	5.6%
St. Louis, MO	35.0%	12.9%	13.4%	17.3%	9.1%	12.4%
Syracuse, NY	32.1%	6.3%	23.5%	22.1%	9.8%	6.2%
Tampa/St. Petersburg, FL	33.8%	8.5%	12.1%	24.4%	14.6%	6.6%
Toledo, OH	34.3%	14.6%	15.7%	18.8%	10.4%	6.2%
West Texas/New Mexico	38.1%	11.3%	10.1%	19.5%	13.4%	7.5%
Wichita, KS	35.4%	13.5%	12.9%	18.5%	11.1%	8.7%
Average	36.6%	10.3%	13.9%	20.4%	12.7%	6.1%
Minimum	28.1%	3.3%	7.9%	14.8%	7.9%	4.0%
Maximum	42.7%	17.1%	25.6%	28.6%	22.1%	12.4%

Table A3. Pork Bacon Demand Elasticities, by Market (Jan. 2020 - July 2025)

Market	Pork Bacon	Pork Breakfast Sausage	Pork Dinner Sausage	Pork Loin	Pork Ribs	Pork Shoulder
5 Boroughs New York City, NY	-0.946	-0.186	-0.046	0.270	-0.065	-0.206
Albany, NY	-1.760	0.221	-0.010	0.000	0.403	-0.022
Atlanta, GA	-1.115	-0.354	0.894	-0.376	0.181	-0.190
Baltimore, MD/Washington D.C.	-1.159	0.047	0.812	-0.107	0.219	0.088
Birmingham/Montgomery, AL	-1.183	-0.001	0.455	-0.708	0.176	-0.137
Boise, ID	-1.466	0.102	0.082	0.106	0.167	0.010
Boston, MA	-1.571	-0.327	0.356	0.245	0.297	-0.121
Buffalo/Rochester, NY	-2.296	-0.380	0.703	-0.682	0.233	0.300
Charlotte, NC	-1.155	-0.072	0.263	-0.068	0.190	0.008
Chicago, IL	-1.366	0.193	-0.165	0.013	0.234	-0.020
Cincinnati/Dayton, OH	-1.266	-0.034	0.584	0.133	0.350	-0.057
Columbus, OH	-1.119	-0.376	0.506	0.061	0.324	0.028
Dallas/Ft. Worth, TX	-0.997	-0.154	1.518	0.116	-0.161	0.112
Denver, CO	-1.105	-0.410	0.543	0.060	0.144	0.005
Detroit, MI	-0.996	-0.550	1.025	0.081	0.336	-0.130
Grand Rapids, MI	-1.006	-0.487	0.710	0.133	0.292	-0.121
Harrisburg/Scranton, PA	-1.693	0.082	0.283	-0.033	0.406	-0.174
Hartford, CT/Springfield, MA	-1.768	0.067	0.150	0.234	0.167	-0.164
Houston, TX	-1.328	-0.595	2.034	0.171	0.119	0.156
Indianapolis, IN	-1.299	-0.298	0.579	0.207	0.423	-0.048
Jacksonville, FL	-1.623	-0.307	0.372	-0.339	0.239	-0.203
Knoxville, TN	-1.662	0.431	0.483	0.053	0.201	-0.107
Las Vegas, NV	-1.407	-0.005	1.062	0.258	0.090	-0.034
Los Angeles, CA	-1.318	0.060	0.696	0.197	0.121	-0.030
Louisville, KY	-1.155	-0.175	0.809	-0.017	0.063	0.071
Miami/Ft. Lauderdale, FL	-1.379	-0.323	0.852	-0.174	-0.151	-0.208
Nashville, TN	-1.451	0.249	0.985	-0.205	0.577	-0.249
New England	-1.349	-0.065	0.140	0.093	0.520	0.008
New Orleans, LA/Mobile, AL	-1.007	-0.435	0.913	0.032	0.225	0.016
New York, NY	-1.669	0.171	-0.212	0.130	0.073	-0.381
Orlando, FL	-1.552	-0.222	0.617	-0.614	0.065	-0.162
Peoria/Springfield, IL	-1.313	-0.007	0.599	0.208	0.488	0.069
Philadelphia, PA	-1.120	0.422	-0.159	0.398	0.129	-0.354
Phoenix/Tucson, AZ	-1.194	-0.129	0.712	0.206	0.008	-0.007
Pittsburgh, PA	-1.476	0.094	0.597	-0.027	0.144	-0.053
Portland, OR	-1.766	0.144	0.139	-0.050	0.113	0.044
Providence, RI	-1.836	-0.168	0.402	0.292	0.102	-0.070

Raleigh/Greensboro, NC	-0.983	-0.102	0.328	0.051	0.257	-0.008
Richmond/Norfolk, VA	-1.168	0.207	0.324	0.232	0.409	0.045
Roanoke, VA	-1.561	0.466	0.215	0.218	0.437	0.036
Sacramento, CA	-1.400	-0.065	-0.019	0.157	0.413	-0.078
San Diego, CA	-1.312	-0.029	0.360	0.247	0.008	-0.049
San Francisco/Oakland, CA	-1.200	-0.311	0.366	0.146	0.058	-0.075
Seattle/Tacoma, WA	-1.159	-0.006	0.159	0.075	0.164	-0.009
South Carolina	-0.957	-0.377	0.281	-0.069	0.014	0.050
Spokane, WA	-1.075	0.110	-0.251	0.145	0.252	-0.036
St. Louis, MO	-1.012	-0.597	0.193	0.230	0.067	-0.050
Syracuse, NY	-1.953	0.652	-0.422	-0.028	0.067	0.066
Tampa/St. Petersburg, FL	-1.680	-0.134	0.538	-0.532	0.297	-0.147
Toledo, OH	-1.142	-0.430	0.917	0.090	0.192	0.021
West Texas/New Mexico	-0.717	-0.230	0.695	0.165	-0.004	0.087
Wichita, KS	-1.452	0.125	0.621	-0.144	0.115	0.082

Table A4. Pork Breakfast Sausage Demand Elasticities, by Market (Jan. 2020 - July 2025)

<i>Market</i>	<i>Pork Bacon</i>	<i>Pork Breakfast Sausage</i>	<i>Pork Dinner Sausage</i>	<i>Pork Loin</i>	<i>Pork Ribs</i>	<i>Pork Shoulder</i>
5 Boroughs New York City, NY	-0.225	-2.302	0.006	0.120	0.210	-0.191
Albany, NY	-0.286	-2.195	0.094	0.166	0.589	-0.019
Atlanta, GA	0.251	-2.179	1.572	-0.352	-0.109	-0.113
Baltimore, MD/Washington D.C.	-0.375	-2.021	1.376	0.011	0.085	0.095
Birmingham/Montgomery, AL	-0.507	-1.132	1.546	-0.634	-0.073	-0.061
Boise, ID	-0.294	-2.116	0.766	0.097	0.061	-0.049
Boston, MA	-0.603	-1.870	0.514	0.360	0.139	-0.112
Buffalo/Rochester, NY	-0.141	-3.060	0.535	-0.304	0.179	-0.015
Charlotte, NC	-0.606	-1.404	0.570	0.118	0.087	0.038
Chicago, IL	-0.211	-1.341	0.160	0.108	-0.259	-0.026
Cincinnati/Dayton, OH	0.078	-2.316	1.040	0.242	0.341	0.001
Columbus, OH	0.136	-2.578	0.861	0.034	0.372	0.093
Dallas/Ft. Worth, TX	0.081	-2.085	1.881	0.122	-0.114	0.114
Denver, CO	-0.311	-2.061	0.987	0.003	0.150	-0.018
Detroit, MI	0.342	-2.631	1.732	0.088	0.243	-0.088
Grand Rapids, MI	0.116	-2.482	1.307	0.183	0.207	-0.076
Harrisburg/Scranton, PA	-0.753	-2.003	0.538	0.133	0.343	-0.141
Hartford, CT/Springfield, MA	-0.792	-2.385	0.311	0.344	0.095	-0.044
Houston, TX	-0.144	-2.086	2.502	0.097	0.072	0.214
Indianapolis, IN	-0.257	-2.102	1.513	0.411	0.137	0.043

Jacksonville, FL	-0.116	-1.891	0.915	0.009	-0.023	-0.064
Knoxville, TN	-0.319	-1.926	1.075	0.239	0.001	-0.088
Las Vegas, NV	-0.382	-1.718	1.625	0.214	0.071	0.020
Los Angeles, CA	-0.317	-1.170	1.210	0.229	0.169	-0.080
Louisville, KY	-0.110	-1.780	1.346	-0.034	0.072	0.114
Miami/Ft. Lauderdale, FL	-0.201	-1.755	1.305	0.150	-0.174	-0.225
Nashville, TN	-0.769	-1.133	1.878	-0.077	0.338	-0.298
New England	-0.322	-1.201	0.163	0.201	0.422	-0.008
New Orleans, LA/Mobile, AL	-0.128	-1.557	1.114	-0.114	0.158	0.085
New York, NY	-0.488	-1.989	-0.137	0.153	0.126	-0.426
Orlando, FL	0.049	-1.870	1.249	-0.229	-0.298	-0.049
Peoria/Springfield, IL	-0.277	-1.369	1.123	0.203	0.127	-0.018
Philadelphia, PA	0.128	-1.599	0.033	0.462	-0.055	-0.378
Phoenix/Tucson, AZ	0.037	-1.978	1.168	0.169	-0.021	0.001
Pittsburgh, PA	-0.446	-2.028	1.133	0.056	0.051	0.032
Portland, OR	0.018	-1.777	0.642	0.048	-0.067	0.028
Providence, RI	-0.580	-2.133	0.444	0.242	-0.034	-0.075
Raleigh/Greensboro, NC	-0.456	-1.621	0.661	0.282	0.109	0.038
Richmond/Norfolk, VA	-0.441	-1.296	0.812	0.161	0.318	0.056
Roanoke, VA	-0.719	-1.360	0.845	0.388	0.467	0.092
Sacramento, CA	-0.234	-1.369	0.386	0.162	0.169	-0.121
San Diego, CA	-0.431	-1.195	0.752	0.269	0.145	-0.099
San Francisco/Oakland, CA	-0.223	-1.606	0.398	0.151	-0.071	-0.158
Seattle/Tacoma, WA	-0.386	-1.553	0.773	0.144	0.140	0.007
South Carolina	-0.084	-1.783	0.845	0.044	-0.072	0.077
Spokane, WA	-0.289	-1.824	0.224	0.246	0.184	0.018
St. Louis, MO	0.041	-1.828	-0.053	0.394	-0.118	-0.017
Syracuse, NY	-0.229	-1.899	-0.165	0.159	0.191	0.034
Tampa/St. Petersburg, FL	-0.185	-1.857	1.023	-0.243	-0.012	-0.081
Toledo, OH	0.088	-2.276	1.340	0.101	-0.069	0.110
West Texas/New Mexico	-0.087	-1.585	0.981	0.088	-0.095	0.136
Wichita, KS	-0.091	-2.072	1.079	-0.281	0.044	0.212

Table A5. Pork Dinner Sausage Demand Elasticities, by Market (Jan. 2020 - July 2025)

Market	Pork Bacon	Pork Breakfast Sausage	Pork Dinner Sausage	Pork Loin	Pork Ribs	Pork Shoulder
5 Boroughs New York City, NY	0.307	0.126	-1.901	0.515	-0.389	-0.290
Albany, NY	-0.482	0.612	-1.809	0.206	-0.153	0.016
Atlanta, GA	-0.033	0.633	-1.337	-0.083	-0.236	-0.141

Baltimore, MD/Washington D.C.	-0.523	1.102	-1.298	0.482	-0.125	0.112
Birmingham/Montgomery, AL	-0.299	0.848	-1.780	-0.380	-0.258	-0.252
Boise, ID	-0.588	0.784	-1.636	0.052	0.057	0.011
Boston, MA	-0.616	0.335	-1.639	0.661	-0.076	-0.029
Buffalo/Rochester, NY	-0.535	0.240	-1.874	-0.200	0.001	0.360
Charlotte, NC	-0.735	1.403	-1.717	0.262	0.053	-0.031
Chicago, IL	-0.473	0.880	-2.555	0.161	0.288	-0.015
Cincinnati/Dayton, OH	0.136	0.493	-2.076	0.619	0.333	-0.265
Columbus, OH	0.362	0.579	-1.635	0.526	0.238	0.002
Dallas/Ft. Worth, TX	-0.083	0.555	-1.021	0.395	-0.340	0.166
Denver, CO	-0.594	0.452	-1.769	0.965	0.012	0.088
Detroit, MI	0.748	-0.106	-1.522	0.431	0.267	0.092
Grand Rapids, MI	-0.210	0.275	-1.387	0.200	0.404	-0.126
Harrisburg/Scranton, PA	-0.301	1.347	-1.791	0.409	-0.037	-0.165
Hartford, CT/Springfield, MA	-0.626	0.315	-1.712	0.738	-0.103	0.018
Houston, TX	-0.629	0.092	-0.202	0.395	-0.009	0.241
Indianapolis, IN	-0.130	0.979	-1.971	0.662	0.606	-0.016
Jacksonville, FL	-0.389	0.669	-1.650	0.119	-0.105	-0.227
Knoxville, TN	-0.665	0.854	-1.757	0.158	0.086	-0.121
Las Vegas, NV	-0.847	1.130	-1.132	0.462	-0.215	0.025
Los Angeles, CA	-0.603	0.676	-1.576	0.314	-0.101	-0.056
Louisville, KY	0.419	0.334	-1.100	0.101	-0.224	0.082
Miami/Ft. Lauderdale, FL	-0.104	0.282	-0.863	0.056	-0.574	-0.141
Nashville, TN	-0.114	1.142	-1.358	0.310	0.050	-0.143
New England	-0.324	0.424	-1.495	0.240	-0.015	0.051
New Orleans, LA/Mobile, AL	-0.243	0.019	-0.353	-0.058	0.206	-0.038
New York, NY	0.021	0.332	-2.217	0.270	-0.313	0.087
Orlando, FL	-0.380	0.750	-1.781	0.024	-0.343	-0.208
Peoria/Springfield, IL	-1.400	1.783	-1.583	0.813	0.721	-0.163
Philadelphia, PA	0.065	1.525	-2.349	0.677	-0.173	-0.030
Phoenix/Tucson, AZ	-0.233	0.676	-1.627	0.393	-0.116	0.031
Pittsburgh, PA	-0.481	0.751	-0.866	0.139	-0.189	-0.013
Portland, OR	-0.141	0.525	-1.438	0.141	-0.061	0.100
Providence, RI	-0.455	0.042	-1.345	0.490	-0.174	-0.045
Raleigh/Greensboro, NC	-0.439	1.257	-1.651	0.335	0.118	-0.025
Richmond/Norfolk, VA	-0.515	1.480	-1.850	0.397	0.141	0.021
Roanoke, VA	-0.700	1.093	-1.569	0.448	0.093	0.002
Sacramento, CA	-0.277	0.596	-1.758	0.206	-0.086	0.065
San Diego, CA	-0.560	0.638	-1.527	0.201	-0.236	0.090
San Francisco/Oakland, CA	0.152	0.345	-1.097	0.122	-0.296	0.094
Seattle/Tacoma, WA	-0.282	0.495	-1.741	0.147	-0.160	-0.041
South Carolina	-0.651	1.503	-2.131	0.176	-0.018	-0.003

Spokane, WA	-0.543	1.168	-2.050	0.237	-0.041	-0.158
St. Louis, MO	-0.255	0.069	-0.834	0.301	0.183	-0.488
Syracuse, NY	-0.870	0.969	-1.643	0.216	-0.215	0.001
Tampa/St. Petersburg, FL	-0.393	0.722	-1.717	0.024	-0.019	-0.205
Toledo, OH	0.360	0.237	-1.265	0.351	0.273	0.060
West Texas/New Mexico	-0.499	0.875	-1.399	0.398	-0.123	0.031
Wichita, KS	-0.349	1.107	-1.876	-0.050	0.165	0.082

Table A6. Pork Loin Demand Elasticities, by Market (Jan. 2020 - July 2025)

<i>Market</i>	<i>Pork Bacon</i>	<i>Pork Breakfast Sausage</i>	<i>Pork Dinner Sausage</i>	<i>Pork Loin</i>	<i>Pork Ribs</i>	<i>Pork Shoulder</i>
5 Boroughs New York City, NY	0.467	0.160	-0.124	-1.079	-0.415	-0.041
Albany, NY	-0.320	0.193	-0.180	-0.719	0.064	0.184
Atlanta, GA	-0.102	0.014	0.079	-1.066	0.370	-0.165
Baltimore, MD/Washington D.C.	-0.222	0.502	0.593	-1.263	0.135	0.093
Birmingham/Montgomery, AL	-0.164	0.450	-0.666	-1.423	0.666	-0.081
Boise, ID	-0.561	0.494	-0.197	-1.417	0.344	0.114
Boston, MA	-0.253	0.688	0.267	-1.181	0.182	0.062
Buffalo/Rochester, NY	-0.797	0.288	-0.097	-1.512	-0.197	0.341
Charlotte, NC	-0.354	0.282	0.124	-1.063	0.253	0.051
Chicago, IL	0.034	0.000	0.259	-1.538	-0.208	0.056
Cincinnati/Dayton, OH	0.368	0.179	0.135	-1.548	0.216	-0.086
Columbus, OH	0.201	0.289	0.299	-1.586	0.451	-0.093
Dallas/Ft. Worth, TX	0.126	0.170	0.513	-1.015	-0.189	0.094
Denver, CO	-0.442	-0.046	0.265	-0.573	0.445	0.061
Detroit, MI	0.424	-0.373	0.100	-0.967	0.195	0.069
Grand Rapids, MI	0.324	-0.080	0.331	-1.107	0.083	0.120
Harrisburg/Scranton, PA	-0.075	1.001	0.097	-2.262	0.621	0.050
Hartford, CT/Springfield, MA	-0.308	0.673	0.059	-1.182	-0.201	-0.040
Houston, TX	0.029	0.030	0.666	-1.282	-0.086	0.120
Indianapolis, IN	0.097	-0.080	-0.051	-0.961	0.361	-0.045
Jacksonville, FL	-0.157	0.274	-0.055	-1.147	0.293	-0.052
Knoxville, TN	-0.283	0.113	-0.057	-1.466	0.210	0.044
Las Vegas, NV	-0.547	0.506	1.033	-1.119	-0.066	0.135
Los Angeles, CA	0.026	0.178	0.375	-0.929	0.119	0.135
Louisville, KY	0.132	0.005	0.589	-1.618	0.102	0.036
Miami/Ft. Lauderdale, FL	-0.119	0.423	0.060	-0.957	0.023	0.140
Nashville, TN	0.026	0.256	-0.017	-1.149	0.669	-0.049
New England	0.078	0.226	0.240	-1.143	-0.084	0.131

New Orleans, LA/Mobile, AL	0.135	0.382	-0.749	-1.185	0.327	0.047
New York, NY	-0.057	0.599	0.008	-0.609	-0.342	-0.170
Orlando, FL	-0.133	0.219	0.025	-1.097	0.106	0.014
Peoria/Springfield, IL	-0.713	0.248	0.170	-0.921	0.563	-0.137
Philadelphia, PA	0.032	1.422	-0.390	-1.275	0.257	-0.122
Phoenix/Tucson, AZ	-0.200	0.208	0.691	-1.167	-0.052	0.095
Pittsburgh, PA	-0.062	0.556	0.393	-1.632	-0.343	-0.434
Portland, OR	-0.053	0.102	0.040	-1.378	0.134	0.066
Providence, RI	-0.025	0.432	0.256	-1.490	0.173	-0.004
Raleigh/Greensboro, NC	-0.131	0.230	0.111	-0.941	0.227	0.060
Richmond/Norfolk, VA	-0.341	0.804	-0.078	-0.765	0.194	0.077
Roanoke, VA	-0.286	0.454	0.225	-1.113	0.142	0.056
Sacramento, CA	-0.226	0.077	0.433	-1.303	0.191	0.117
San Diego, CA	-0.143	0.269	0.038	-1.081	0.115	0.177
San Francisco/Oakland, CA	0.304	0.365	0.546	-1.482	0.011	0.180
Seattle/Tacoma, WA	-0.208	0.261	-0.128	-1.340	0.263	0.054
South Carolina	-0.125	0.261	0.077	-1.094	0.265	0.067
Spokane, WA	-0.389	0.420	-0.081	-1.328	0.266	-0.004
St. Louis, MO	-0.251	-0.413	0.755	-1.185	0.329	-0.023
Syracuse, NY	-0.690	0.531	-0.853	-0.642	-0.211	0.275
Tampa/St. Petersburg, FL	-0.193	0.221	0.205	-1.089	0.169	0.032
Toledo, OH	0.451	0.011	0.163	-1.344	0.359	-0.016
West Texas/New Mexico	-0.321	-0.171	0.733	-1.151	0.098	0.154
Wichita, KS	-0.120	0.223	0.235	-1.553	0.208	0.100

Table A7. Pork Ribs Demand Elasticities, by Market (Jan. 2020 - July 2025)

Market	Pork Bacon	Pork Breakfast Sausage	Pork Dinner Sausage	Pork Loin	Pork Ribs	Pork Shoulder
5 Boroughs New York City, NY	0.056	0.636	-0.619	0.690	-1.738	-0.074
Albany, NY	-0.342	1.521	-0.723	0.714	-1.801	0.081
Atlanta, GA	0.503	1.107	-1.275	-0.258	-1.748	-0.216
Baltimore, MD/Washington D.C.	0.419	0.781	-1.204	0.712	-1.773	0.215
Birmingham/Montgomery, AL	0.178	2.119	-3.201	-0.521	-2.108	-0.680
Boise, ID	-0.383	1.358	-1.016	0.317	-1.791	0.111
Boston, MA	-0.573	0.826	-0.320	1.136	-2.064	0.116
Buffalo/Rochester, NY	-0.533	0.779	-1.932	-0.279	-1.278	0.168
Charlotte, NC	-0.097	0.703	-0.908	0.279	-1.842	-0.039
Chicago, IL	-0.432	1.951	-2.715	0.430	-0.911	0.171
Cincinnati/Dayton, OH	0.536	1.290	-0.718	0.414	-1.806	-0.280

Columbus, OH	0.682	0.766	0.025	0.128	-1.324	-0.224
Dallas/Ft. Worth, TX	0.243	0.654	-0.006	0.532	-1.941	0.288
Denver, CO	-0.058	0.342	-1.101	1.216	-1.182	0.172
Detroit, MI	1.681	-0.151	-0.758	0.583	-1.337	0.041
Grand Rapids, MI	0.477	0.071	-0.245	0.472	-1.323	0.028
Harrisburg/Scranton, PA	0.536	1.990	-0.510	0.297	-2.097	-0.484
Hartford, CT/Springfield, MA	-0.474	1.035	-0.348	0.620	-1.625	0.073
Houston, TX	-0.155	-0.469	0.462	0.616	-2.023	0.439
Indianapolis, IN	0.056	0.720	-1.028	0.830	-0.945	-0.026
Jacksonville, FL	-0.127	1.070	-1.696	0.151	-1.794	-0.702
Knoxville, TN	-0.581	1.162	-1.281	0.481	-1.868	-0.333
Las Vegas, NV	-0.209	1.118	-0.089	0.619	-2.052	0.095
Los Angeles, CA	-0.085	0.452	-1.045	0.192	-1.676	0.206
Louisville, KY	0.671	0.444	-0.173	-0.130	-1.966	0.125
Miami/Ft. Lauderdale, FL	0.198	0.259	-0.192	0.249	-1.927	-0.260
Nashville, TN	0.193	0.881	-0.920	0.596	-1.552	-0.225
New England	-0.118	0.856	-0.086	0.957	-2.098	0.240
New Orleans, LA/Mobile, AL	-0.092	0.521	0.895	0.740	-1.175	-0.272
New York, NY	-0.113	0.757	-0.801	0.194	-1.323	0.326
Orlando, FL	-0.131	0.998	-1.117	0.164	-2.125	-0.663
Peoria/Springfield, IL	-0.492	0.907	-0.213	1.303	-0.935	-0.095
Philadelphia, PA	0.647	1.860	-1.278	0.919	-1.621	0.233
Phoenix/Tucson, AZ	0.028	0.849	-1.202	0.577	-1.995	0.115
Pittsburgh, PA	0.488	1.222	-0.144	0.343	-2.149	-0.262
Portland, OR	0.028	1.037	-1.237	0.220	-1.924	0.280
Providence, RI	-0.306	0.486	-0.281	0.867	-2.337	0.147
Raleigh/Greensboro, NC	0.267	0.524	-0.831	0.372	-1.793	-0.035
Richmond/Norfolk, VA	-0.123	1.413	-1.257	0.502	-1.756	0.101
Roanoke, VA	-0.231	1.237	-0.799	0.615	-1.875	0.039
Sacramento, CA	0.010	0.337	-1.488	0.222	-1.605	0.184
San Diego, CA	-0.112	0.416	-1.191	0.072	-1.782	0.267
San Francisco/Oakland, CA	0.309	0.156	-0.421	0.125	-1.725	0.143
Seattle/Tacoma, WA	0.638	0.325	-1.363	0.213	-1.941	0.094
South Carolina	-0.069	1.727	-1.464	-0.104	-1.810	-0.163
Spokane, WA	-0.022	0.884	-1.365	0.325	-1.884	-0.027
St. Louis, MO	0.181	0.476	0.107	0.908	-1.397	-0.471
Syracuse, NY	-0.842	1.536	-0.802	0.695	-1.551	0.074
Tampa/St. Petersburg, FL	-0.203	1.057	-1.192	0.162	-1.482	-0.579
Toledo, OH	0.782	0.644	-0.162	0.392	-1.362	-0.074
West Texas/New Mexico	0.450	0.449	-0.345	0.416	-2.008	0.289
Wichita, KS	-0.117	0.520	-0.408	0.136	-1.616	0.263

Table A8. Pork Shoulder Demand Elasticities, by Market (Jan. 2020 - July 2025)

Market	Pork Bacon	Pork Breakfast Sausage	Pork Dinner Sausage	Pork Loin	Pork Ribs	Pork Shoulder
5 Boroughs New York City, NY	-0.391	-0.911	-0.359	0.635	-0.028	-2.155
Albany, NY	-0.288	0.157	-0.263	0.282	0.268	-1.938
Atlanta, GA	-0.361	0.578	-0.268	-0.082	0.043	-2.064
Baltimore, MD/Washington D.C.	0.222	0.344	0.023	0.066	-0.135	-1.470
Birmingham/Montgomery, AL	-0.140	1.897	-1.902	-0.495	-0.042	-2.344
Boise, ID	-0.614	1.318	-1.147	0.365	-0.098	-1.718
Boston, MA	-0.591	0.148	0.192	0.679	0.077	-1.579
Buffalo/Rochester, NY	-0.350	0.121	-0.327	-0.345	-0.332	-1.075
Charlotte, NC	-0.428	0.880	-0.713	-0.042	0.158	-2.171
Chicago, IL	-0.575	1.205	0.069	0.242	0.917	-2.222
Cincinnati/Dayton, OH	0.353	-0.159	0.031	0.142	0.111	-2.115
Columbus, OH	0.856	-0.400	-0.294	-0.051	0.435	-2.002
Dallas/Ft. Worth, TX	0.280	-0.156	0.343	0.504	0.042	-1.763
Denver, CO	-0.460	0.250	-0.303	1.228	0.833	-1.725
Detroit, MI	-0.443	-0.262	0.194	0.308	0.414	-2.116
Grand Rapids, MI	-0.066	0.168	0.330	0.418	0.330	-1.840
Harrisburg/Scranton, PA	0.319	0.577	0.195	-1.718	0.667	-1.113
Hartford, CT/Springfield, MA	-1.362	0.576	-0.219	0.748	0.116	-1.704
Houston, TX	0.005	0.160	0.494	0.723	-0.318	-2.008
Indianapolis, IN	-0.061	-0.312	0.277	0.634	0.261	-1.741
Jacksonville, FL	-0.432	0.372	-0.105	-0.099	0.160	-2.349
Knoxville, TN	-0.622	1.281	-1.506	0.599	0.464	-2.331
Las Vegas, NV	-0.375	0.166	0.776	0.349	-0.094	-1.702
Los Angeles, CA	-0.598	0.262	0.044	0.791	0.350	-1.425
Louisville, KY	0.104	0.125	-0.325	0.431	0.223	-2.103
Miami/Ft. Lauderdale, FL	-0.248	0.198	1.780	0.158	-0.822	-1.726
Nashville, TN	-0.355	0.940	-0.988	0.465	0.688	-2.090
New England	-0.233	0.037	-0.252	0.389	0.386	-1.677
New Orleans, LA/Mobile, AL	-0.220	0.738	0.148	0.418	0.601	-2.010
New York, NY	-0.704	0.054	-0.695	0.154	0.037	-1.669
Orlando, FL	-0.093	0.174	0.858	-0.690	-0.555	-2.126
Peoria/Springfield, IL	-0.654	0.647	-0.177	0.693	0.720	-1.606
Philadelphia, PA	-0.070	0.878	-0.846	0.052	0.151	-1.084
Phoenix/Tucson, AZ	0.061	-0.077	0.099	0.381	0.003	-1.887
Pittsburgh, PA	-0.353	0.472	1.279	0.032	-0.355	-2.410
Portland, OR	-0.017	0.322	-0.010	0.509	-0.044	-1.893
Providence, RI	-0.522	-0.139	0.383	0.432	-0.035	-1.634

Raleigh/Greensboro, NC	-0.260	0.667	-0.643	0.135	0.173	-2.018
Richmond/Norfolk, VA	-0.720	1.185	-0.909	0.243	0.407	-2.042
Roanoke, VA	-0.459	1.056	-0.911	0.235	0.525	-2.081
Sacramento, CA	-0.147	0.505	-0.100	0.295	0.977	-1.497
San Diego, CA	0.218	0.038	-0.292	0.999	0.104	-1.412
San Francisco/Oakland, CA	0.214	0.382	0.006	0.454	0.341	-1.608
Seattle/Tacoma, WA	0.129	0.209	-0.449	0.699	-0.100	-1.730
South Carolina	-0.214	1.344	-1.244	-0.114	-0.149	-2.088
Spokane, WA	-0.087	0.403	-0.433	0.655	0.013	-2.135
St. Louis, MO	-0.337	0.272	0.331	0.881	0.512	-2.320
Syracuse, NY	-0.288	0.642	-0.018	0.340	-0.616	-1.613
Tampa/St. Petersburg, FL	-0.263	0.524	0.252	-0.248	0.052	-2.061
Toledo, OH	0.923	-0.277	-0.402	0.221	0.292	-1.973
West Texas/New Mexico	0.098	-0.515	0.194	0.469	0.020	-1.619
Wichita, KS	0.049	0.541	-0.526	0.365	0.180	-1.963