

## ***U.S. Meat Demand Update & Role of Financial Sentiment: 2020-2023***

### **Executive Summary**

In February 2020, the Meat Demand Monitor (MDM) project was launched collecting data from over 2,000 U.S. consumers each month. The MDM project is funded in-part by the beef and pork checkoffs and tracks U.S. consumer preferences, views, and demand for meat with separate analysis for retail and food service channels.<sup>1</sup>

In this report, we take data spanning 2020-2023 to highlight how domestic meat demand has differed by calendar year and across consumer segments varying in their household financial sentiment.

Key insights include:

- Household financial sentiment improved in 2021 from 2020 levels yet declined in 2022 and 2023.
- As commonly found in economic assessments, meat demand is notably higher for residents experiencing improvement in their financial situation. This was key to domestic meat demand growth in 2021 and presented meat demand challenges in both 2022 and 2023.
- Especially following periods of elevated, economy-wide inflation it is important to compare not only nominal (not inflation-adjusted) or store/menu posted values but real (inflation-adjusted) values. Here there are examples where nominal demand increased yet actually decreased when examined on an inflation-adjusted basis.

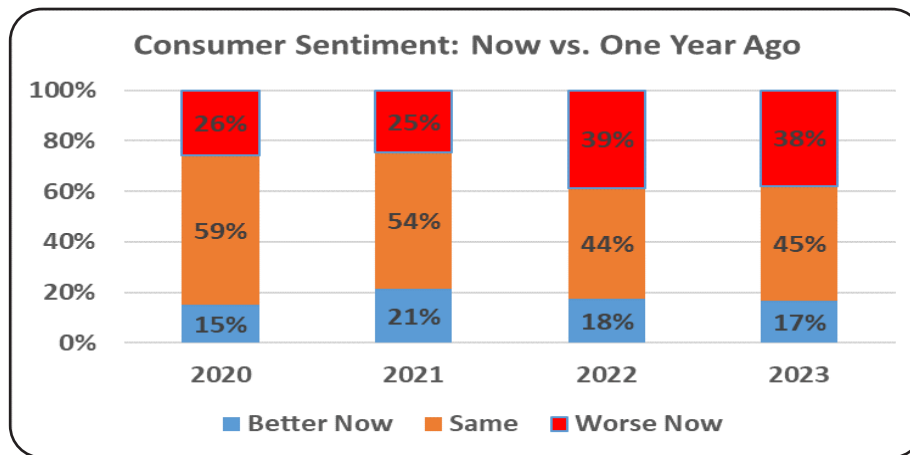
The foregoing provides additional details on the above summary of broad, take-home findings.

### **Domestic Meat Demand & Household Financial Sentiment Trends**

Willingness-to-pay (WTP) for eight different items and meals is calculated, separately for retail (grocery, at-home) and food service (dinner meal at a restaurant, away-from-home) channels, and reported for the representative survey respondent each month in short base MDM reports. Looking back at these values, several examples of national meat demand peaking in 2022 are readily identified.

A key aspect of this special report is that demand varies notably over residents who are experiencing different household financial realities. Following the approach used by the University of Michigan in their broader Consumer Sentiment project, each MDM respondent is asked if their household finances are better now, are the same, or are worse now than they were one year earlier.





The above figure summarizes patterns in financial sentiment over the four most recent years. Overall, financial sentiment improved in 2021 from 2020 levels and then declined notably in 2022 and sustained pessimistic levels in 2023. As noted in several 2023 base MDM reports, this is not surprising and aligns with broader macroeconomic developments such as inflation leading to cost of living exceeding earnings for a growing number of residents. This dissection is important as U.S. meat demand is well-known to be stronger (weaker) as economic conditions for residents improve (decline) - this special report dives in using MDM data.

Year	Diet Subset	Ribeye	Ground Beef	Pork Chop	Bacon	Chicken Breast	Plant-Based Patty	Shrimp	Beans and Rice	Respondents	Share of Respondents
2020	Better Now	\$ 20.51	\$ 10.44	\$ 8.26	\$ 5.99	\$ 9.56	\$ 9.35	\$ 9.50	\$ 2.14	1,327	14.85%
2020	Same	\$ 15.55	\$ 7.03	\$ 5.82	\$ 4.49	\$ 6.99	\$ 7.41	\$ 8.52	\$ 1.70	5,299	59.31%
2020	Worse Now	\$ 15.00	\$ 6.51	\$ 5.23	\$ 4.34	\$ 6.43	\$ 8.03	\$ 8.38	\$ 1.87	2,308	25.83%
2021	Better Now	\$ 24.03	\$ 13.80	\$ 11.68	\$ 9.56	\$ 13.23	\$ 13.24	\$ 13.55	\$ 5.79	3,148	21.60%
2021	Same	\$ 16.45	\$ 7.67	\$ 6.47	\$ 5.27	\$ 7.59	\$ 8.09	\$ 9.13	\$ 2.37	7,857	53.90%
2021	Worse Now	\$ 16.00	\$ 7.14	\$ 5.86	\$ 5.34	\$ 6.86	\$ 7.96	\$ 8.62	\$ 2.66	3,572	24.50%
2022	Better Now	\$ 29.76	\$ 19.61	\$ 17.15	\$ 14.56	\$ 19.05	\$ 17.37	\$ 16.90	\$ 8.63	3,075	17.68%
2022	Same	\$ 17.26	\$ 8.66	\$ 7.17	\$ 5.80	\$ 8.55	\$ 8.54	\$ 9.38	\$ 3.01	7,614	43.78%
2022	Worse Now	\$ 15.52	\$ 7.08	\$ 5.93	\$ 5.17	\$ 6.84	\$ 7.61	\$ 8.53	\$ 2.70	6,703	38.54%
2023	Better Now	\$ 27.10	\$ 17.22	\$ 14.72	\$ 10.40	\$ 15.86	\$ 12.67	\$ 13.67	\$ 6.98	2,815	17.17%
2023	Same	\$ 16.76	\$ 8.47	\$ 6.95	\$ 5.49	\$ 8.26	\$ 7.81	\$ 9.28	\$ 2.79	7,356	44.87%
2023	Worse Now	\$ 15.61	\$ 6.93	\$ 5.74	\$ 5.13	\$ 6.71	\$ 7.29	\$ 8.51	\$ 2.62	6,223	37.96%

Year	Diet Subset	Ribeye	Hamburger	Pork Chop	Babyback Ribs	Chicken Breast	Plant-Based Patty	Shrimp	Salmon	Respondents	Share of Respondents
2020	Better Now	\$ 33.65	\$ 25.24	\$ 18.98	\$ 21.86	\$ 21.45	\$ 14.94	\$ 21.25	\$ 21.48	1,369	15.29%
2020	Same	\$ 23.95	\$ 17.27	\$ 13.29	\$ 16.97	\$ 16.29	\$ 11.72	\$ 16.52	\$ 17.01	5,274	58.90%
2020	Worse Now	\$ 23.24	\$ 16.73	\$ 12.35	\$ 16.70	\$ 15.90	\$ 12.16	\$ 16.09	\$ 16.98	2,311	25.81%
2021	Better Now	\$ 34.89	\$ 28.01	\$ 21.70	\$ 23.72	\$ 23.23	\$ 18.75	\$ 22.32	\$ 23.08	3,073	20.94%
2021	Same	\$ 25.35	\$ 18.69	\$ 14.50	\$ 17.83	\$ 17.30	\$ 12.22	\$ 17.46	\$ 18.05	7,998	54.51%
2021	Worse Now	\$ 24.09	\$ 16.78	\$ 13.18	\$ 16.60	\$ 15.41	\$ 12.19	\$ 15.84	\$ 17.15	3,602	24.55%
2022	Better Now	\$ 44.89	\$ 37.54	\$ 30.57	\$ 31.80	\$ 32.40	\$ 25.58	\$ 30.01	\$ 29.61	3,105	17.74%
2022	Same	\$ 26.95	\$ 20.73	\$ 15.85	\$ 18.90	\$ 18.94	\$ 13.27	\$ 18.75	\$ 19.50	7,614	43.49%
2022	Worse Now	\$ 24.66	\$ 17.18	\$ 13.53	\$ 17.01	\$ 16.12	\$ 11.35	\$ 16.37	\$ 17.48	6,787	38.77%
2023	Better Now	\$ 41.12	\$ 34.51	\$ 27.09	\$ 28.34	\$ 28.74	\$ 22.25	\$ 27.92	\$ 27.67	2,702	16.50%
2023	Same	\$ 25.99	\$ 19.73	\$ 15.16	\$ 18.07	\$ 17.95	\$ 12.73	\$ 17.72	\$ 19.17	7,481	45.68%
2023	Worse Now	\$ 24.56	\$ 17.70	\$ 13.49	\$ 17.19	\$ 16.17	\$ 11.65	\$ 16.42	\$ 17.36	6,194	37.82%



Willingness-to-pay (WTP) for eight different items and meals, separately for retail and food service channels, and reported in the above two tables by calendar year for the representative survey respondent in each financial sentiment sub-group. WTP values are green (red) if they are statistically above (below) the intermediate prices presented in the MDM choice experiments (using a 5% confidence level). This quickly reveals differences across goods, products, and financial-sentiment sub-groups. As an example, in all four years, only residents reporting improved finances have retail ribeye demand that exceeds the intermediate price presented (\$16.99/lb) indicating only this group (15-22% depending on year) are likely purchasing retail ribeyes.

As expected those indicating their finances have improved convey much stronger demand (\$/lb or \$/meal). In 2023, for 23 of the 24 examined cases (8 products and 3 sentiment groups) retail demand was lower than in 2022. The only exception was Ribeye demand by those indicating worsening finances where WTP is statistically lower than intermediate prices in both years suggesting the group would not be retail ribeye buyers. Looking deeper reveals the segment reporting finances have improved (17% in 2023) had the largest percentage reduction in retail demand from 2022. This differs from the pattern in 2022 vs. 2021 where those indicating their finances had improved (18% in 2022) were a critical source of demand growth offsetting demand decline for most retail products by those reporting their finances had declined and represented a growing segment of the national population (39% in 2022 vs. 25% in 2021). In 2023, ground beef, pork chop, and chicken breast retail demand for all sentiment groups is estimated to exceed the intermediate prices presented suggesting all three of these products would likely be purchased if offered at mid-point levels. Conversely, those reporting finances eroded in 2023 would not buy ribeye steak, bacon, plant-based patty, shrimp, or beans and rice if offered at the retail mid-points examined.

In 2023, for 19 of the 24 examined cases (8 dinner meals and 3 sentiment groups) food service demand was lower than in 2022. All five exceptions were those indicating worsening finances (who had only small increases in demand relative to 2022). Looking deeper reveals the segment reporting finances have improved (17% in 2023) had the largest percentage reduction in food service demand from 2022 - a pattern consistent with retail demand discussed above. Meanwhile, this differs from the pattern in 2022 vs. 2021 where those indicating their finances had improved were a critical source of demand growth offsetting demand decline for most dinner meals by those reporting their finances had declined and represented a growing segment. For 2023, dinner meals featuring pork chop or plant-based patty as main entrees would likely not be selected in restaurants by those reporting same or worse finances than in 2022 (84% combined) as their demand is below the intermediate meal prices presented in the MDM survey questions.

## **Inflation-Impact and Percentage Change in Real Meat Demand**

The two tables above report nominal willingness-to-pay values that are not adjusted for inflation. Meanwhile, a strong driver of declining financial sentiment in recent years has been inflation that exceeded the previous experience of many U.S. residents. Accordingly it is important to go further and examine patterns in inflation-adjusted terms.

The final two tables show year-over-year percentage changes in WTP when accounting for inflation. Specifically annual values are deflated by Food CPI values the Bureau of Labor Statistics regularly publishes (3.9% in 2021, 9.9% in 2022, and 5.8% in 2023). This “nets out” the effect of inflation highlighting patterns in real demand, again by market channel, year, and consumer sentiment subgroup. Here green (red) values reflect increases (decreases) in WTP from the prior year on an inflation-adjusted basis. This is important as one can have nominal WTP increases yet inflation-adjusted demand declines.

Percentage Change in Inflation-Adjusted Retail Willingness to Pay vs. Prior Year, by Year and Financial Sentiment Subset											
Year	Diet Subset	Ribeye	Ground Beef	Pork Chop	Bacon	Chicken Breast	Plant-Based Patty	Shrimp	Beans and Rice	Respondents	Share of Respondents
2021	Better Now	12.72%	27.24%	36.05%	53.52%	33.15%	36.29%	37.32%	160.49%	3,148	21.60%
2021	Same	1.74%	5.02%	6.86%	13.08%	4.50%	5.01%	3.17%	33.79%	7,857	53.90%
2021	Worse Now	2.61%	5.58%	7.86%	18.22%	2.58%	-4.64%	-1.04%	37.29%	3,572	24.50%
2022	Better Now	12.63%	29.26%	33.48%	38.54%	30.94%	19.30%	13.39%	35.44%	3,075	17.68%
2022	Same	-4.56%	2.71%	0.84%	0.08%	2.48%	-4.02%	-6.56%	15.50%	7,614	43.78%
2022	Worse Now	-11.77%	-9.91%	-8.06%	-11.82%	-9.23%	-13.06%	-9.94%	-7.69%	6,703	38.54%
2023	Better Now	-13.89%	-16.97%	-18.83%	-32.47%	-21.30%	-31.01%	-23.51%	-23.52%	2,815	17.17%
2023	Same	-8.20%	-7.51%	-8.35%	-10.48%	-8.73%	-13.48%	-6.43%	-12.31%	7,356	44.87%
2023	Worse Now	-4.92%	-7.36%	-8.51%	-6.30%	-7.33%	-9.39%	-5.72%	-8.20%	6,223	37.96%

Percentage Change in Inflation-Adjusted Food Service Willingness to Pay vs. Prior Year, by Year and Financial Sentiment Subset											
Year	Diet Subset	Ribeye	Hamburger	Pork Chop	Babyback Ribs	Chicken Breast	Plant-Based Patty	Shrimp	Salmon	Respondents	Share of Respondents
2021	Better Now	-0.24%	6.77%	9.97%	4.41%	4.15%	20.75%	1.02%	3.39%	3,073	20.94%
2021	Same	1.83%	4.10%	4.96%	1.10%	2.20%	0.28%	1.67%	2.04%	7,998	54.51%
2021	Worse Now	-0.28%	-3.52%	2.65%	-4.39%	-6.75%	-3.58%	-5.27%	-2.85%	3,602	24.55%
2022	Better Now	17.03%	21.91%	28.11%	21.94%	26.88%	24.09%	22.28%	16.66%	3,105	17.74%
2022	Same	-3.31%	0.87%	-0.60%	-3.59%	-0.41%	-1.24%	-2.35%	-1.72%	7,614	43.49%
2022	Worse Now	-6.89%	-6.88%	-6.62%	-6.79%	-4.86%	-15.29%	-6.01%	-7.32%	6,787	38.77%
2023	Better Now	-13.39%	-13.09%	-16.20%	-15.74%	-16.11%	-17.75%	-12.01%	-11.64%	2,702	16.50%
2023	Same	-8.82%	-10.00%	-9.54%	-9.59%	-10.39%	-9.31%	-10.60%	-7.02%	7,481	45.68%
2023	Worse Now	-5.82%	-2.59%	-5.72%	-4.45%	-5.16%	-2.93%	-5.11%	-6.07%	6,194	37.82%

The impact of declining financial sentiment on domestic meat demand is clearly revealed. Recall overall financial sentiment in 2021 improved from 2020 levels. Not surprisingly, in 22 of 24 cases real retail demand increased in 2021. Furthermore, retail demand growth in 2021 was largely led by those indicating their household finances had improved. Moving to 2022, and elevated food inflation rates, the retail story evolved as additional robust demand growth occurred for those reporting improved finances (18%), mixed demand patterns across products characterized those experiencing no change in finances (44%), and general demand decline for those reporting worsening finances (39%). Then in 2023 the story for the meat industry became uncomfortably simple to describe as regardless of financial sentiment, inflation-adjusted retail demand declined from 2022 levels.

Switching over to dinner-meal, food service demand a similar story is revealed with more muted real demand growth in 2021 and broad demand declines in both 2022 and 2023. In 2021 dinner-meal, food service real demand grew, but generally at lower growth rates than retail demand, in most cases for those reporting improved or similar finances while demand generally declined for those with weakening finances. Then by 2022 only those reporting improving finances (18%) held higher inflation-adjusted demand. By 2023, as with retail demand, dinner-meal food service demand declined in real terms for all examined products and each financial sentiment group.

While much more granular assessment is possible, and encouraged by those interested using MDM information available online, a couple key take-home points are worth reiterating as a concluding summary. U.S. resident demand for meat products, whether at-home or away-from-home, has long been known to grow with improved household finances. This is reinforced here with MDM information by willingness-to-pay findings varying across households reporting distinct financial situations. Some products such as ground beef and chicken breast appear to comparatively be “staples” in that consumer demand, regardless of patterns in finances, regularly exceeds intermediate prices considered in the MDM survey. Meanwhile for pork chop and plant-based patty based meals, purchases for dinner meals at restaurants may only occur by those indicating their finances have improved. Ultimately as 2024 proceeds, and broader macroeconomic conditions continue to evolve, monitoring not only national consumer demand but demand for consumer segments delineated by financial sentiment (which hopefully will also improve in 2024!) is accordingly encouraged.

## Endnotes

1) MDM project details including survey instruments and individual monthly reports are available here:  
<https://www.agmanager.info/livestock-meat/meat-demand/monthly-meat-demand-monitor-survey-data>



Additional MDM Project details including survey questions, past report releases, and a description of methods are available online at:  
<https://www.agmanager.info/livestock-meat/meat-demand/monthly-meat-demand-monitor-survey-data>

The MDM Project is funded in-part by the beef checkoff and the pork checkoff.



**Funded in part by  
the Beef Checkoff.**

