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U.S. DEPARTMENT OF AGRICULTURE

# Food Price Outlook

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2023 USDA Agricultural Outlook Forum  
February 23<sup>rd</sup> – 24<sup>th</sup>, 2023

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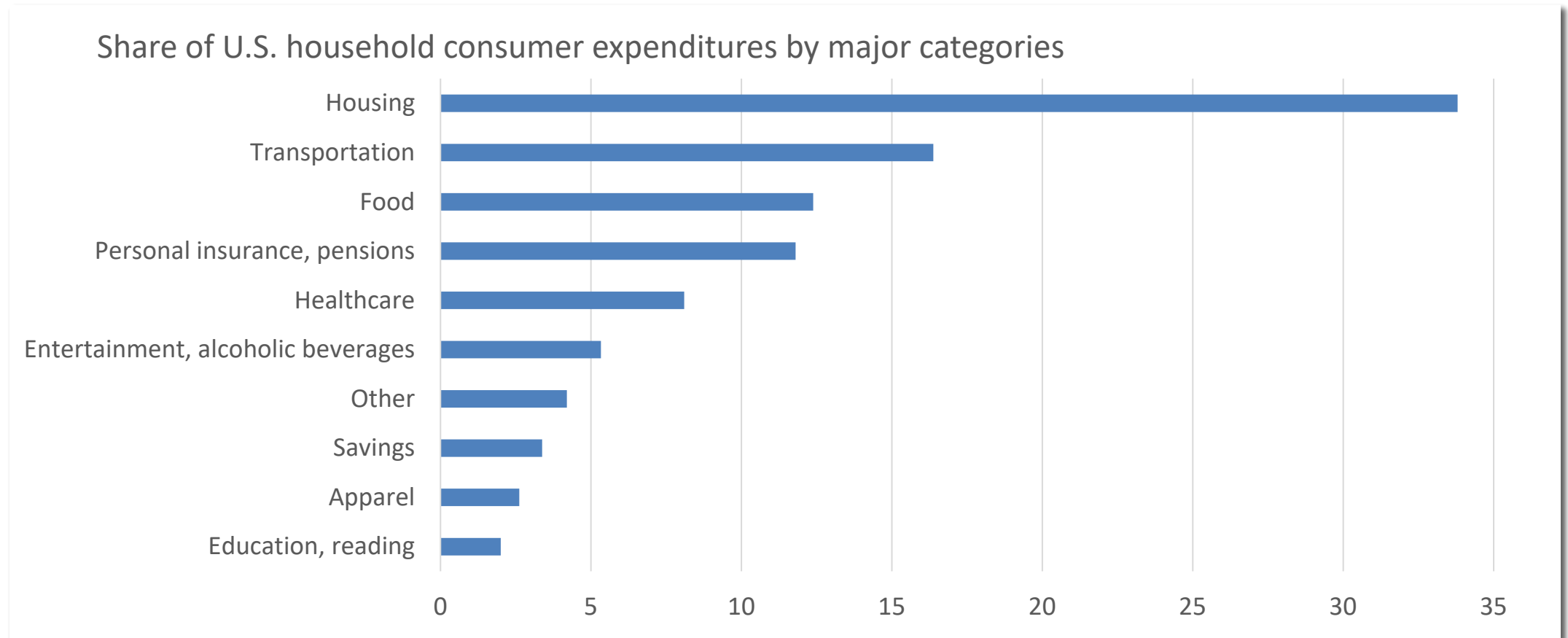


# Outline

1. Consumer spending on food
2. Long-term food price trends
3. Food prices in 2022
4. Updates to the food price forecasting methodology
5. 2023 food price forecasts in (recent) historical context
6. Food Price Outlook released: today (February 23<sup>rd</sup>, 2023)
7. Additional ERS Publications



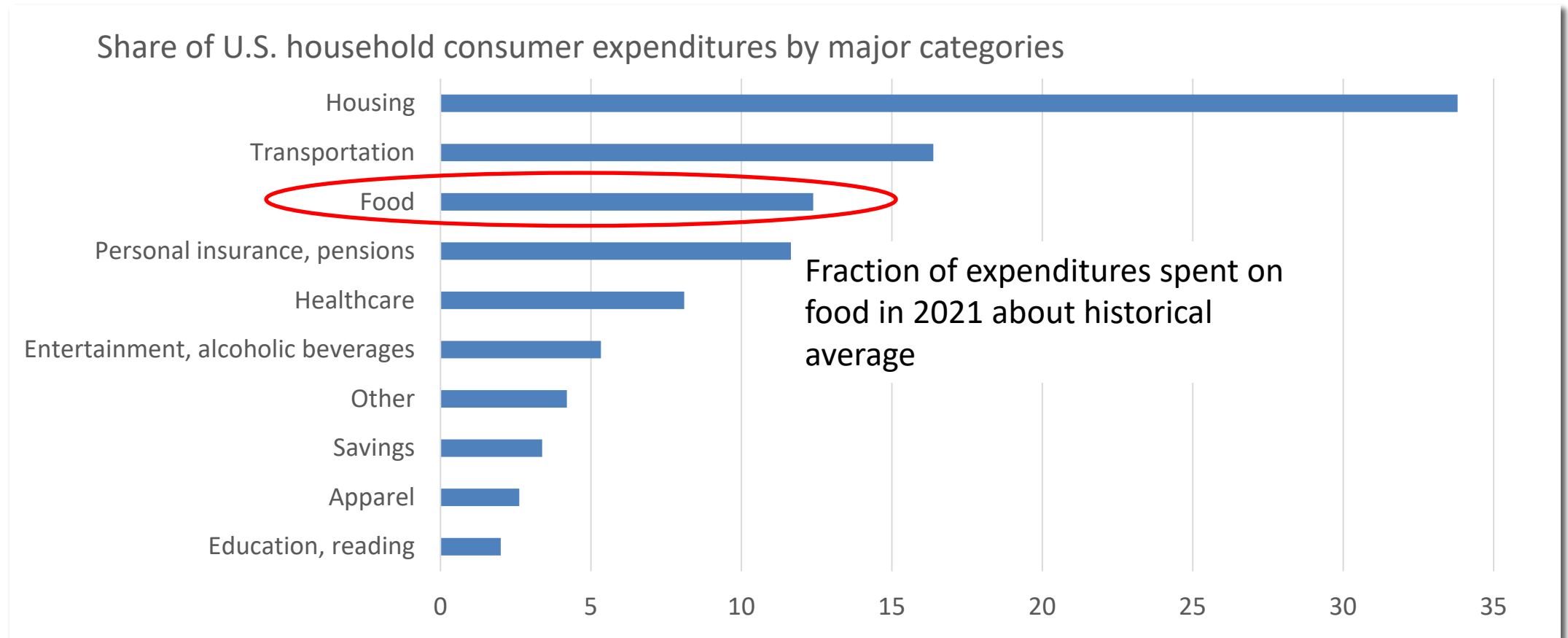
# U.S. consumers spent 12 percent of total expenditures on food in 2021



Source: USDA - ERS using BLS Consumer Expenditure Survey Data



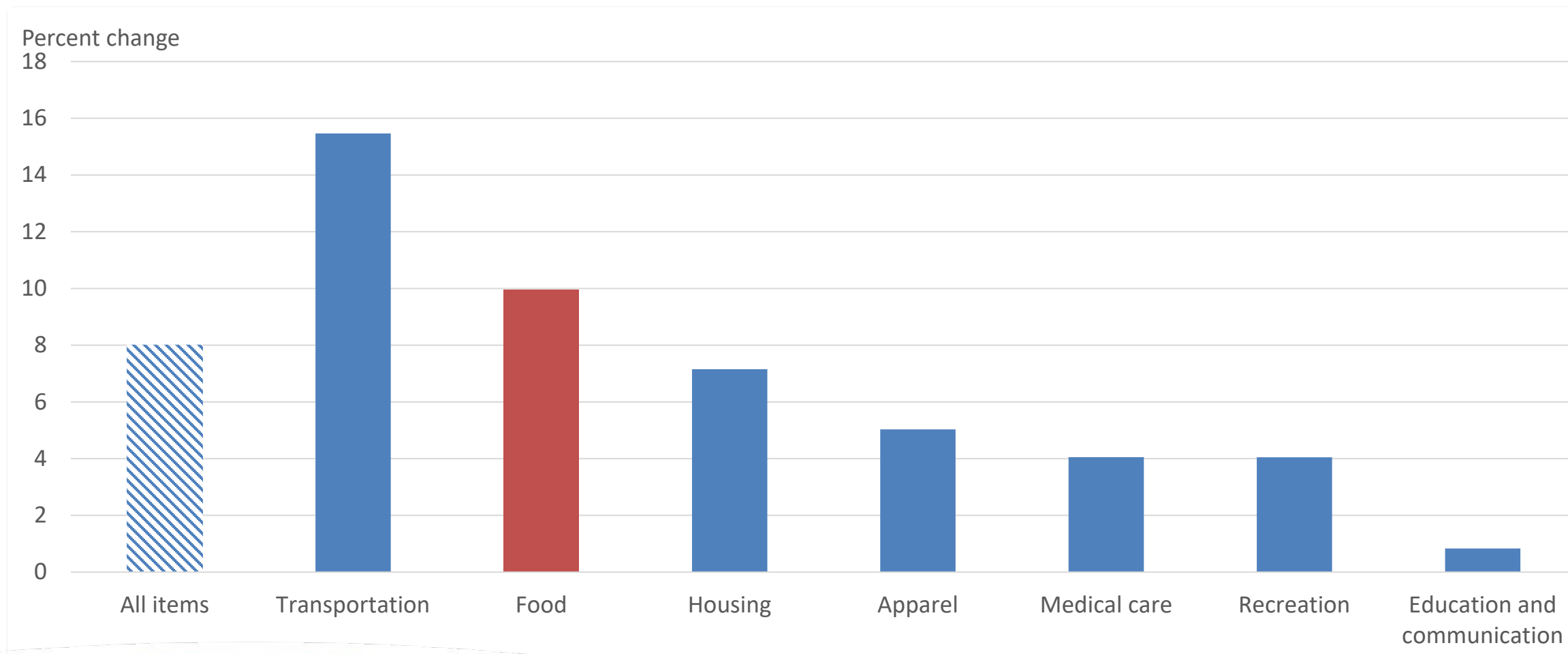
# U.S. consumers spent 12 percent of total expenditures on food in 2021



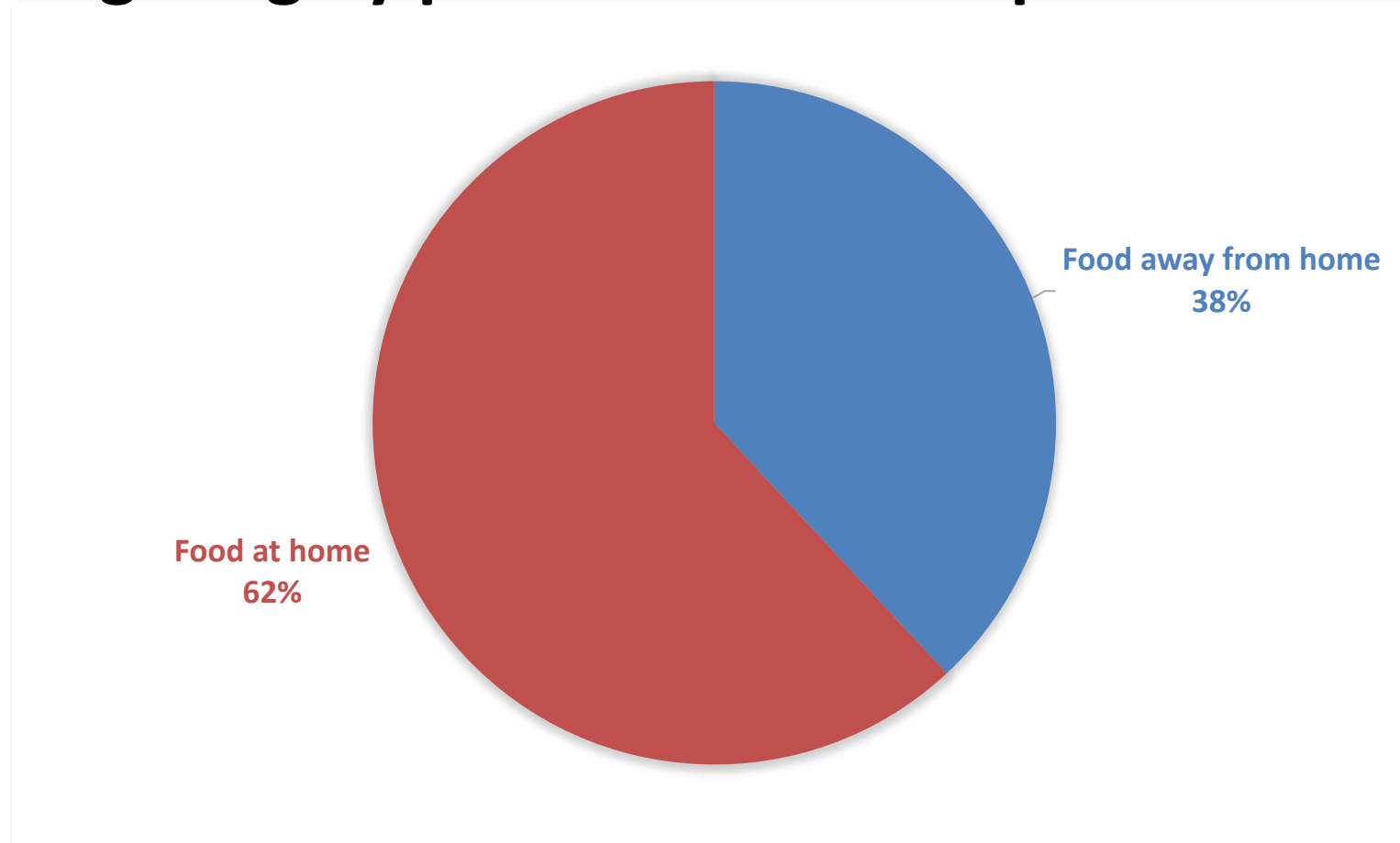
Source: USDA - ERS using BLS Consumer Expenditure Survey Data



# In 2022, food prices grew faster than the all-items CPI and all other major consumption categories except transportation



# Consumers spend different amounts on food categories— weighting by percent of food expenditures

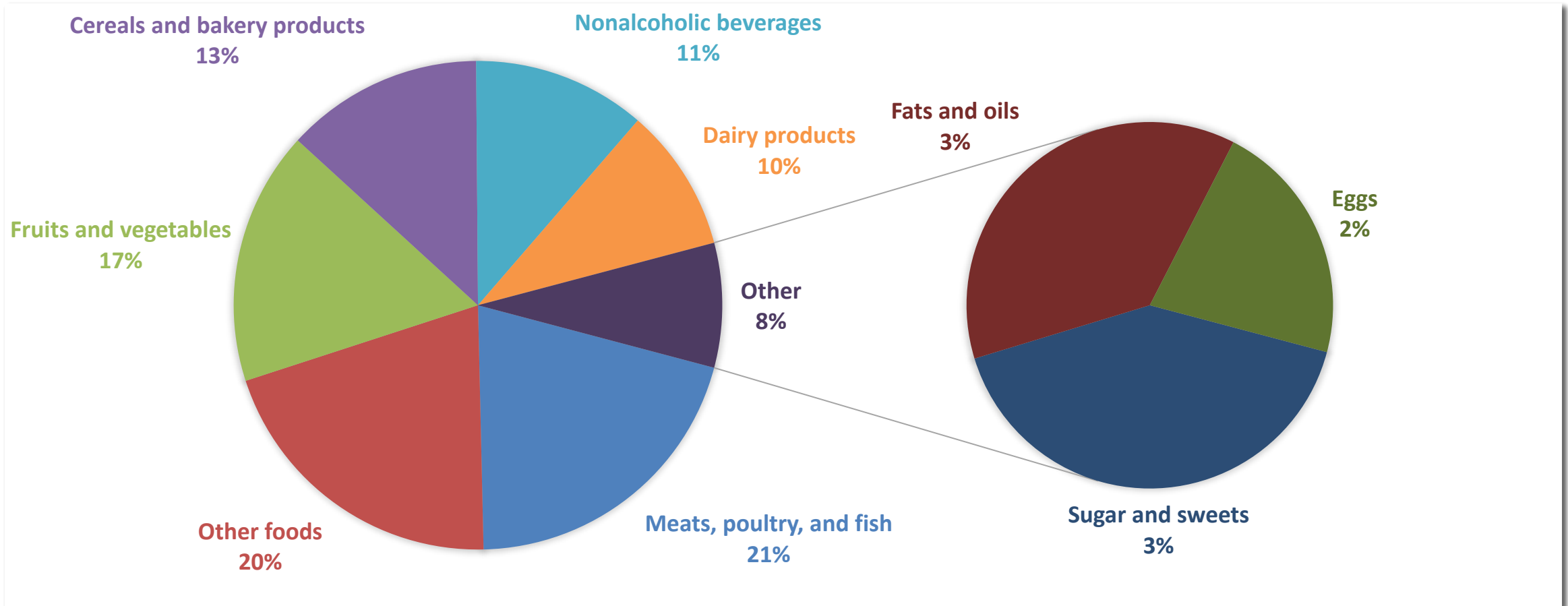


Source: USDA - ERS using BLS Consumer Price Index Data,  
December 2022





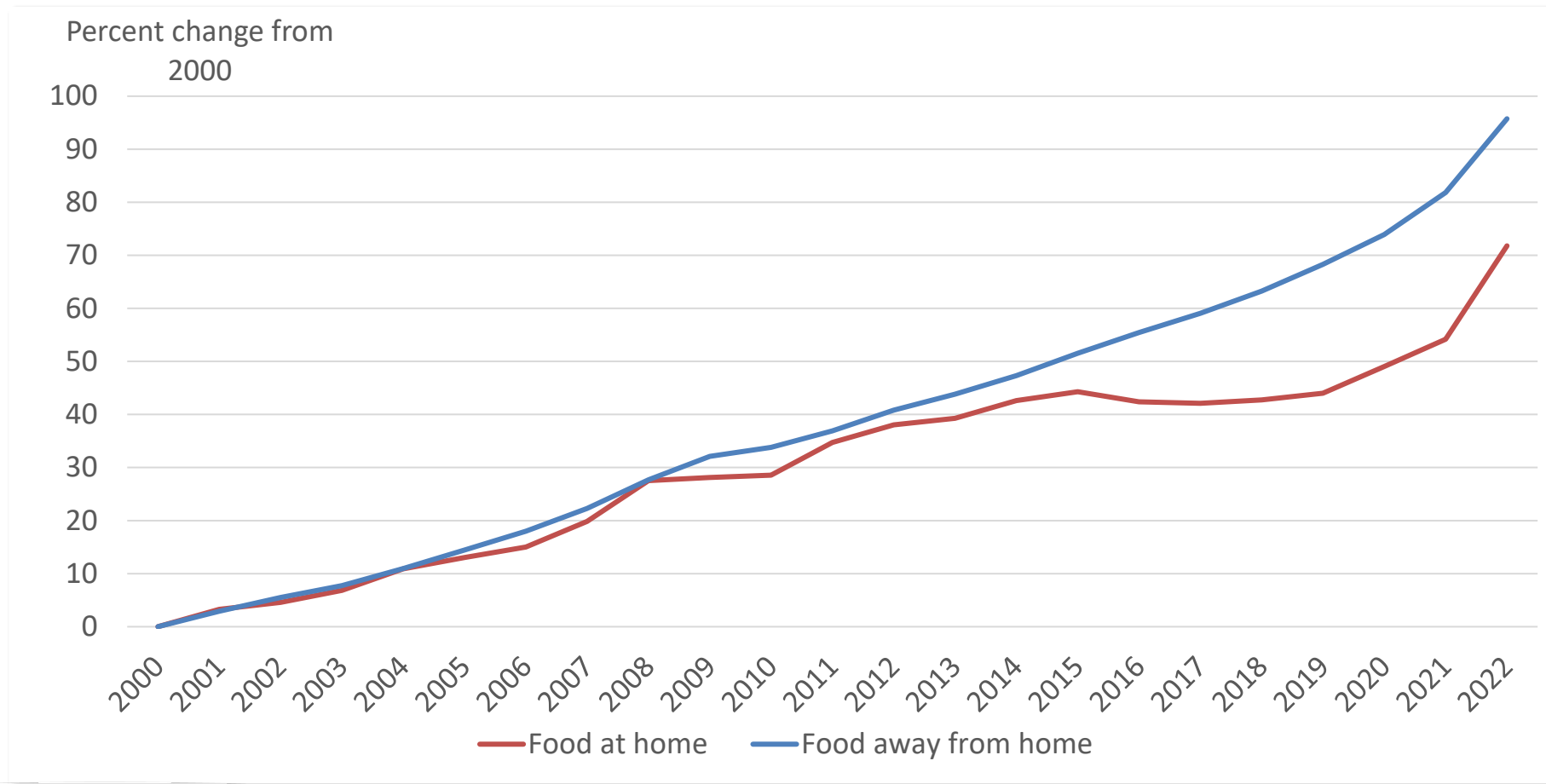
# ERS also reports food-at-home categories—percent of food-at-home expenditures by category



Source: USDA - ERS using BLS Consumer Price Index Data, December 2022



# Prices grew slower for food consumed at home versus away from home 2009–2019; similar growth rates 2020–2022



Source: USDA - ERS using BLS Consumer Price Index Data

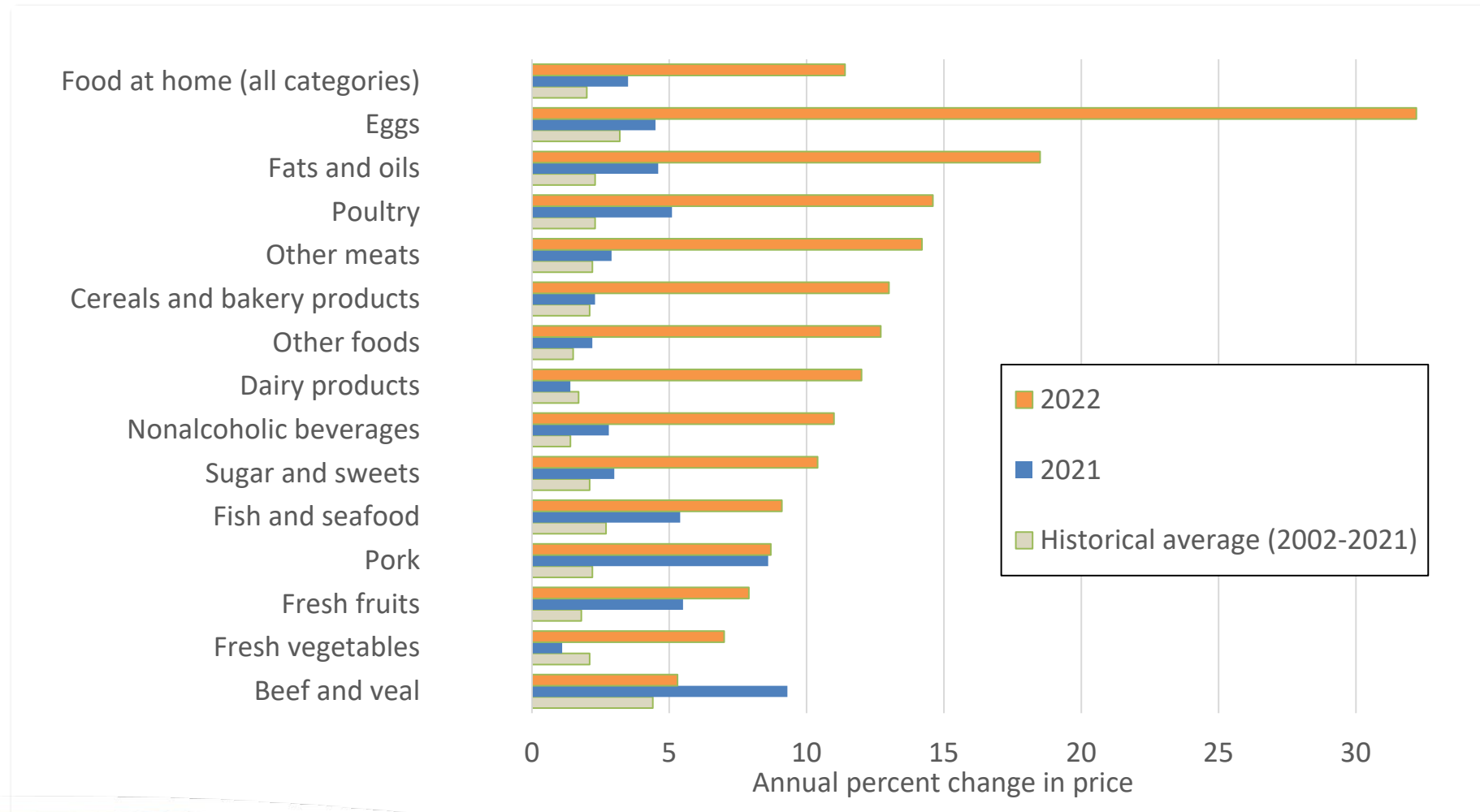


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# Prices for all food-at-home categories tracked by ERS grew by at least 5 percent in 2022



Source: USDA - ERS using BLS Consumer Expenditure Survey Data



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# New forecasting methods implemented January 2023

1. Models selected each month based on historical data
  - Improve forecasting precision
  - Allow real-time adjustments to changing food systems
2. Uncertainty about forecasts
  - Differs by food category based on price volatility and model fit
  - Resolves throughout the year as more data become available

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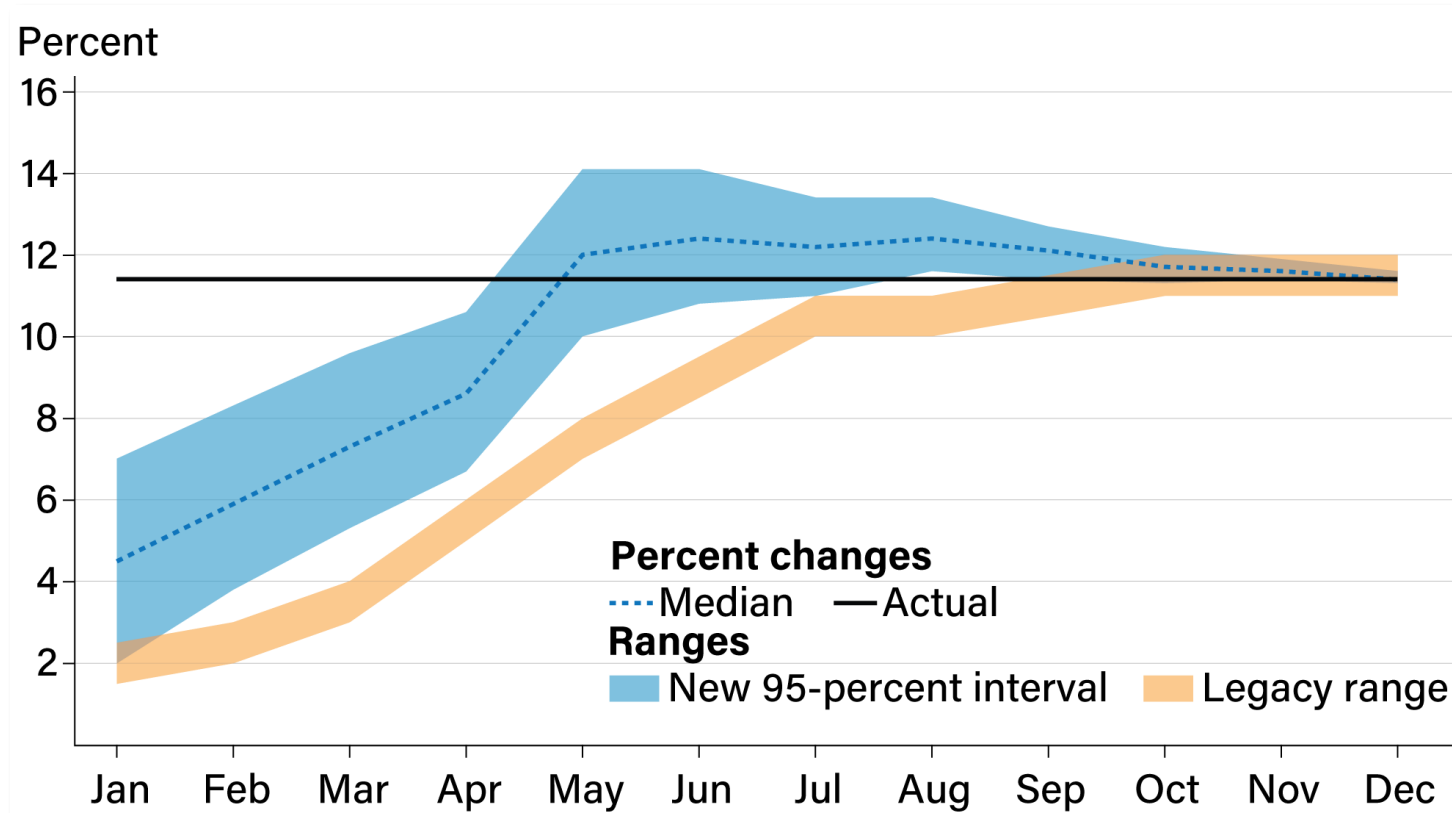
Economic  
Research  
Service  
  
Technical  
Bulletin  
Number 1957  
  
August 2022

## Time-Series Methods for Forecasting and Modeling Uncertainty in the Food Price Outlook

Matthew J. MacLachlan, Carolyn A. Chelius, and Gianna Short



# Comparison of updated and legacy approaches: food-at-home price forecast for 2022



Source: USDA, Economic Research Service using data from its Food Price Outlook data product and the U.S. Bureau of Labor Statistics' Consumer Price Index.

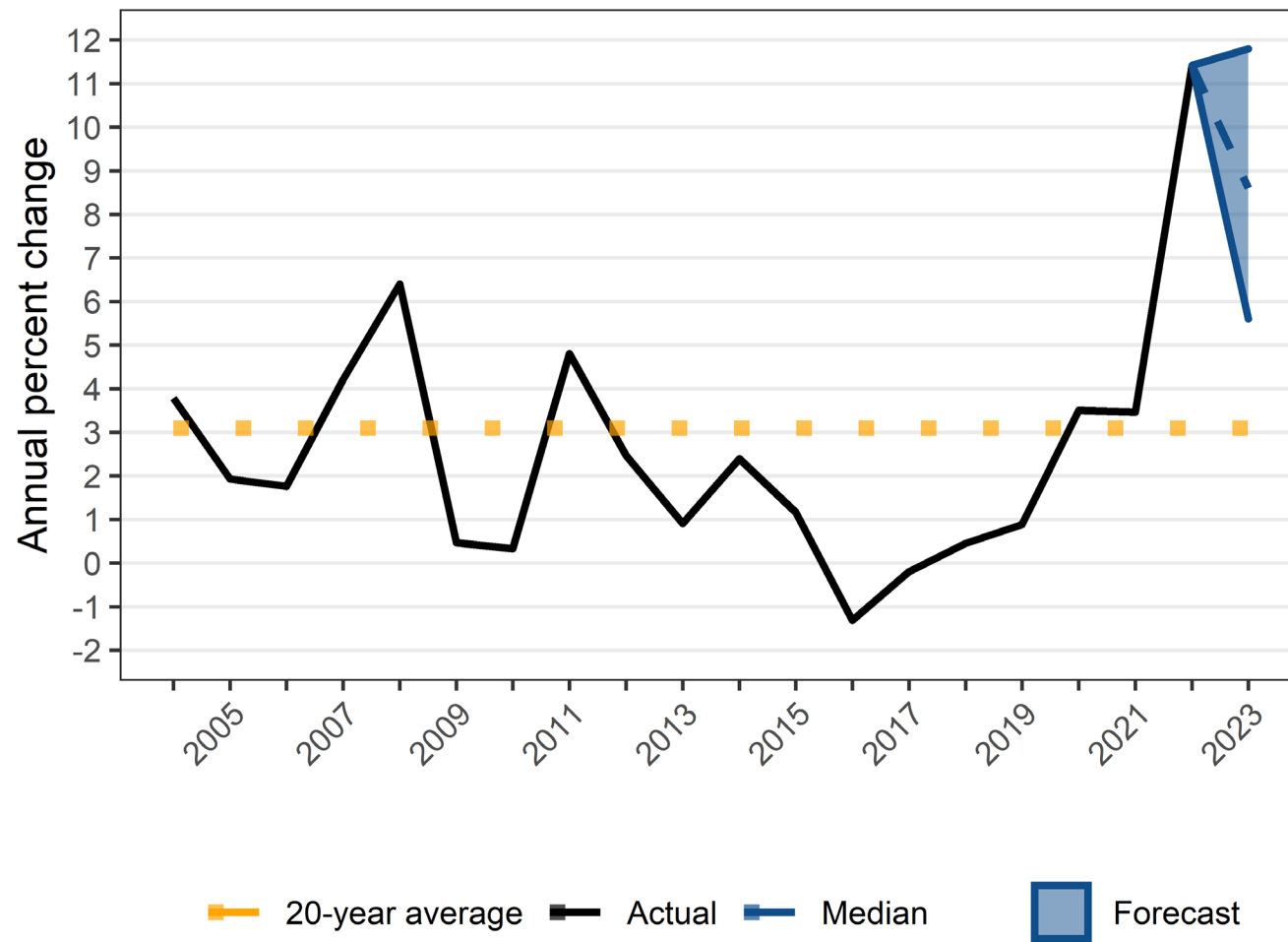
*Amber Waves* (Sweitzer and MacLachlan, 2023)



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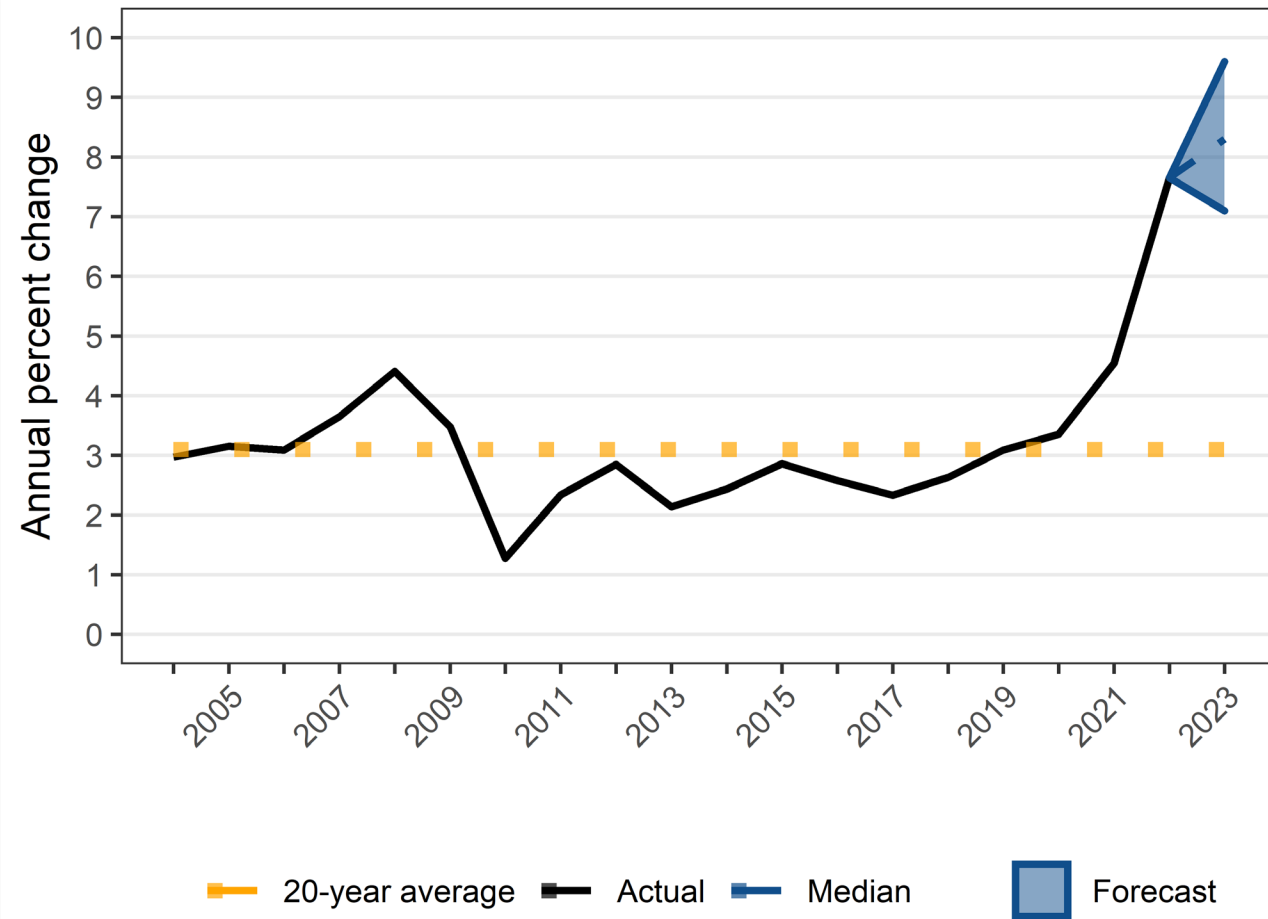
# Slower forecasted food-at-home price increases in 2023



Source: USDA - ERS using BLS Consumer Price Index Data



# Food-away-from-home prices increased more rapidly than in recent history and have gradually slowed



Source: USDA - ERS using BLS Consumer Price Index Data





# Takeaways

- Last year (2022)
  - Highest food price inflation since 1979
  - Prices did not decrease for any category; beef and veal prices increased the least
- This year (2023)
  - Food-at-homes prices predicted to increase 8.6 percent, food-away-from-home prices 8.3 percent
  - Substantial uncertainty persists, particularly for egg prices





# What's next?

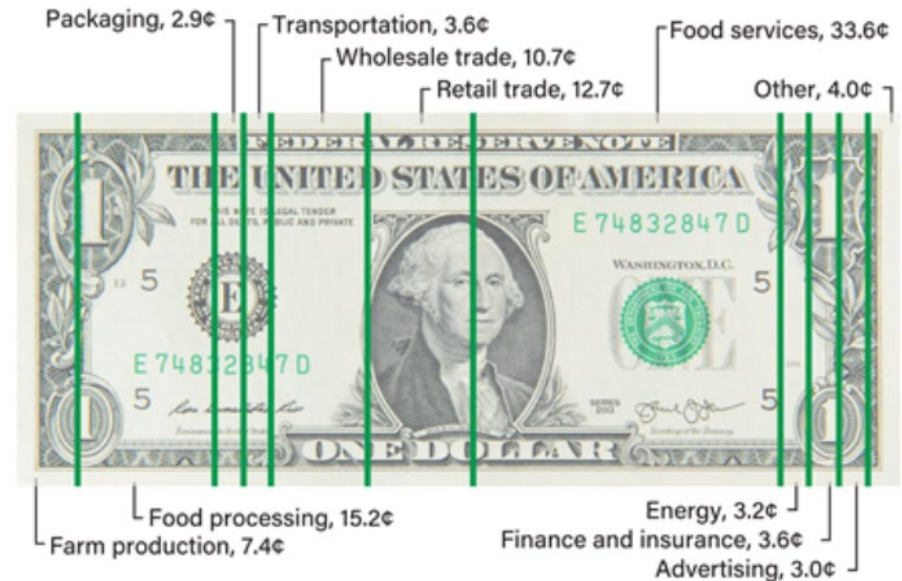
- Food Price Outlook updated: **Thursday, February 23<sup>rd</sup>**
  - Forecasts cover 2023, and 2024 starting in July
  - Forecast 7 farm, 6 wholesale, and 22 retail food categories
  - Available at [www.ers.usda.gov/data-products/food-price-outlook](http://www.ers.usda.gov/data-products/food-price-outlook)
- **Additional research** addressing forecasting methods used in the Food Price Outlook



# Other work from ERS Food Markets Branch

- **USDA Food Dollar Series:** Measures annual expenditures on food. [www.ers.usda.gov/data-products/food-dollar-series](http://www.ers.usda.gov/data-products/food-dollar-series)
- **Food Expenditure Series:** Comprehensive data on the U.S. food systems, quantifying the value of food acquired in the United States by type of product, outlet, and purchaser. [www.ers.usda.gov/data-products/food-expenditure-series](http://www.ers.usda.gov/data-products/food-expenditure-series)
- **Price Spreads from Farm to Consumer:** Comparisons or prices paid by consumers with prices received by farmers for corresponding commodities. [www.ers.usda.gov/data-products/price-spreads-from-farm-to-consumer](http://www.ers.usda.gov/data-products/price-spreads-from-farm-to-consumer)

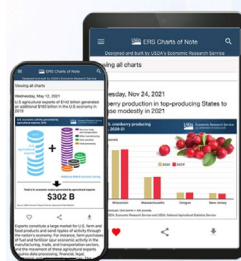
2021 nominal food dollar by industry group



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# Thank you!

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