Private Sector (Alt-) Data: Challenges & Opportunities

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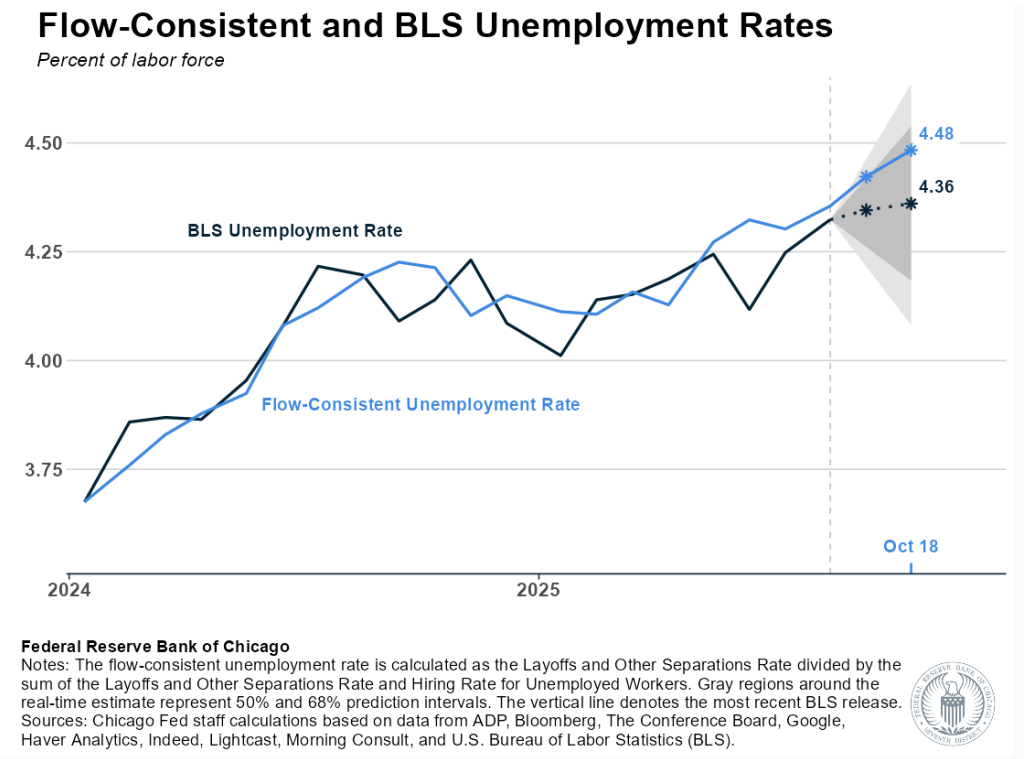
Can private sector (alt-) data help improve official statistics?

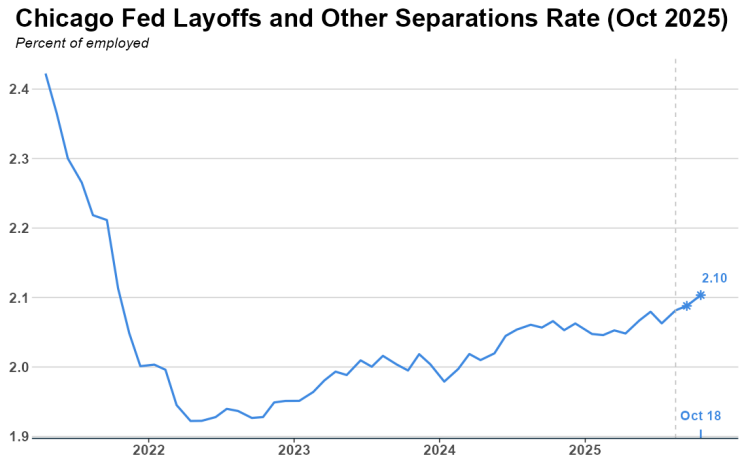
- **Perhaps… but they are *complements, not substitutes***

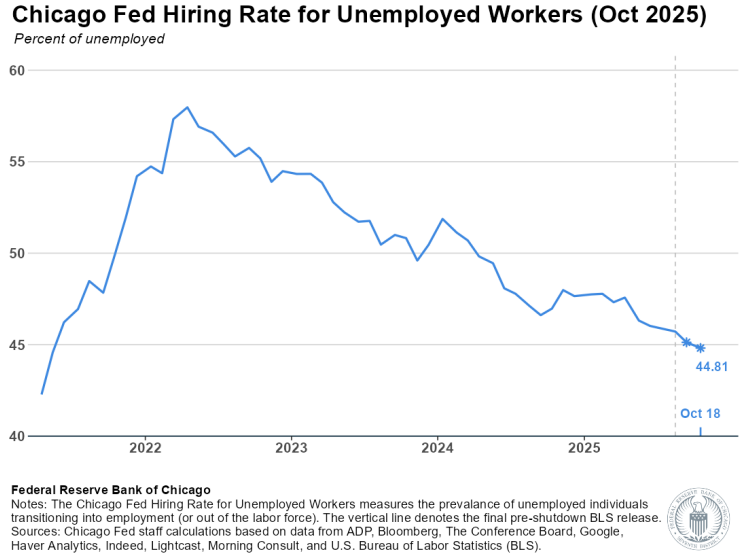
- **Alt-data are typically not representative…although they are often available fast**
  - Their timeliness makes them useful in nowcasting official statistics
  - Models typically used for this purpose (e.g., DFMs, VARs, etc.) are well-known

- **Chicago Fed examples where alt-data can be used to nowcast official statistics**
  - *Chicago Fed Advance Retail Trade Summary (CARTS)*
    - Combines high-frequency data on consumer transactions, foot traffic & consumer sentiment with monthly Census data to nowcast retail and food services sales ex. autos.
  - *Chicago Fed Labor Market Indicators*
    - Combines high-frequency data on separations and hiring with monthly CPS data for the inflow and outflow rates of unemployment to nowcast the civilian unemployment rate.

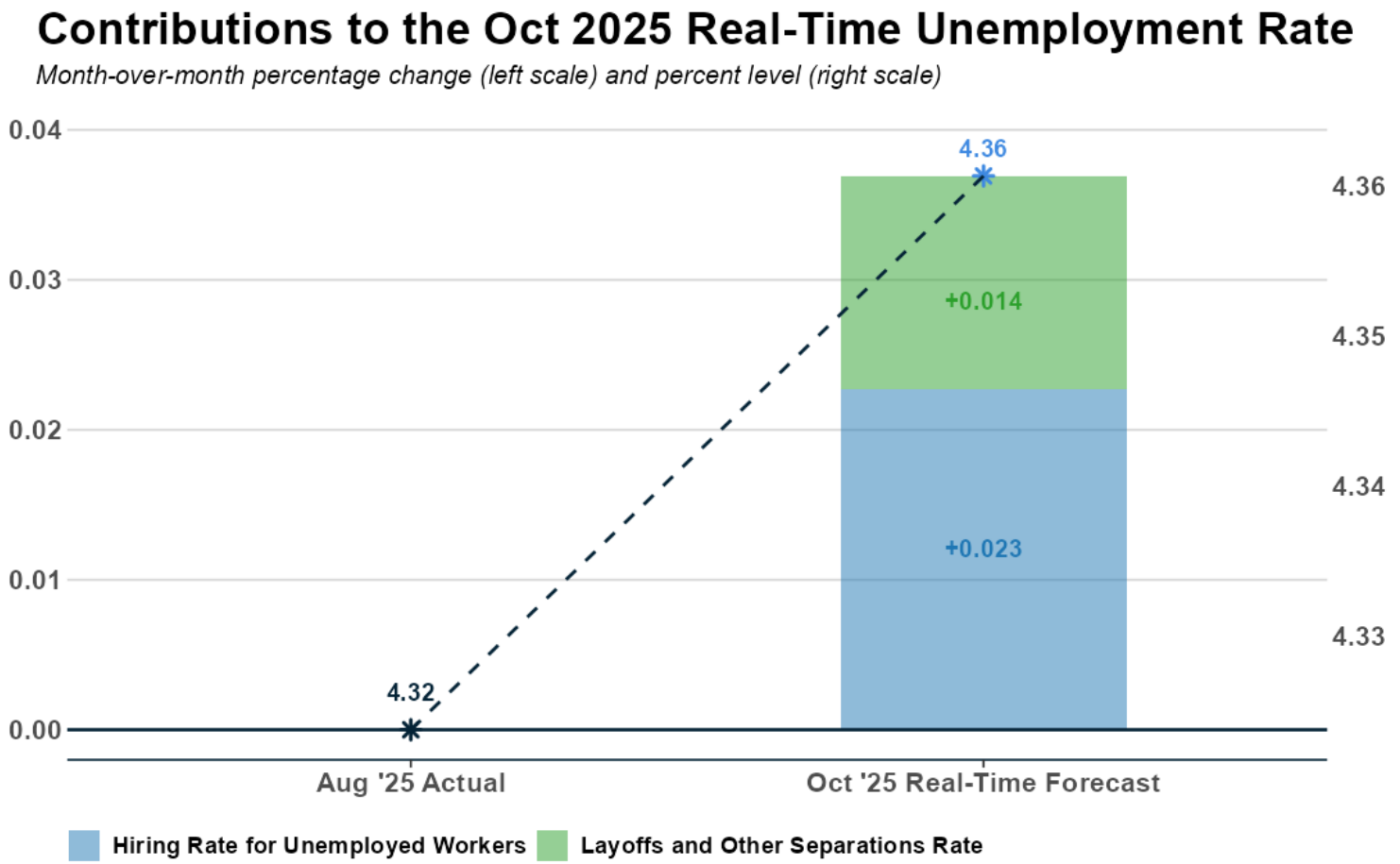
Chicago Fed Labor Market Indicators





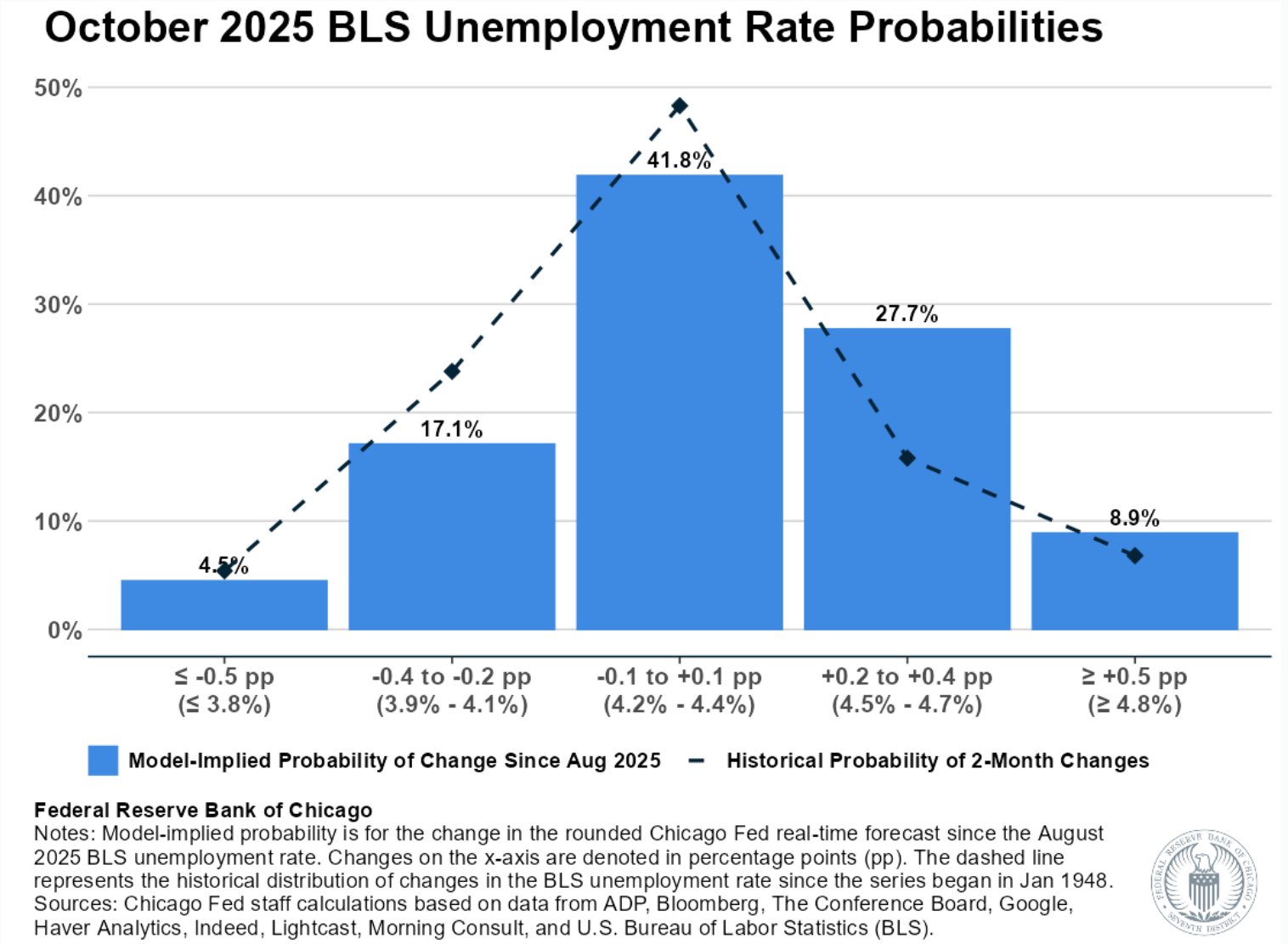


Nowcasting the Unemployment Rate

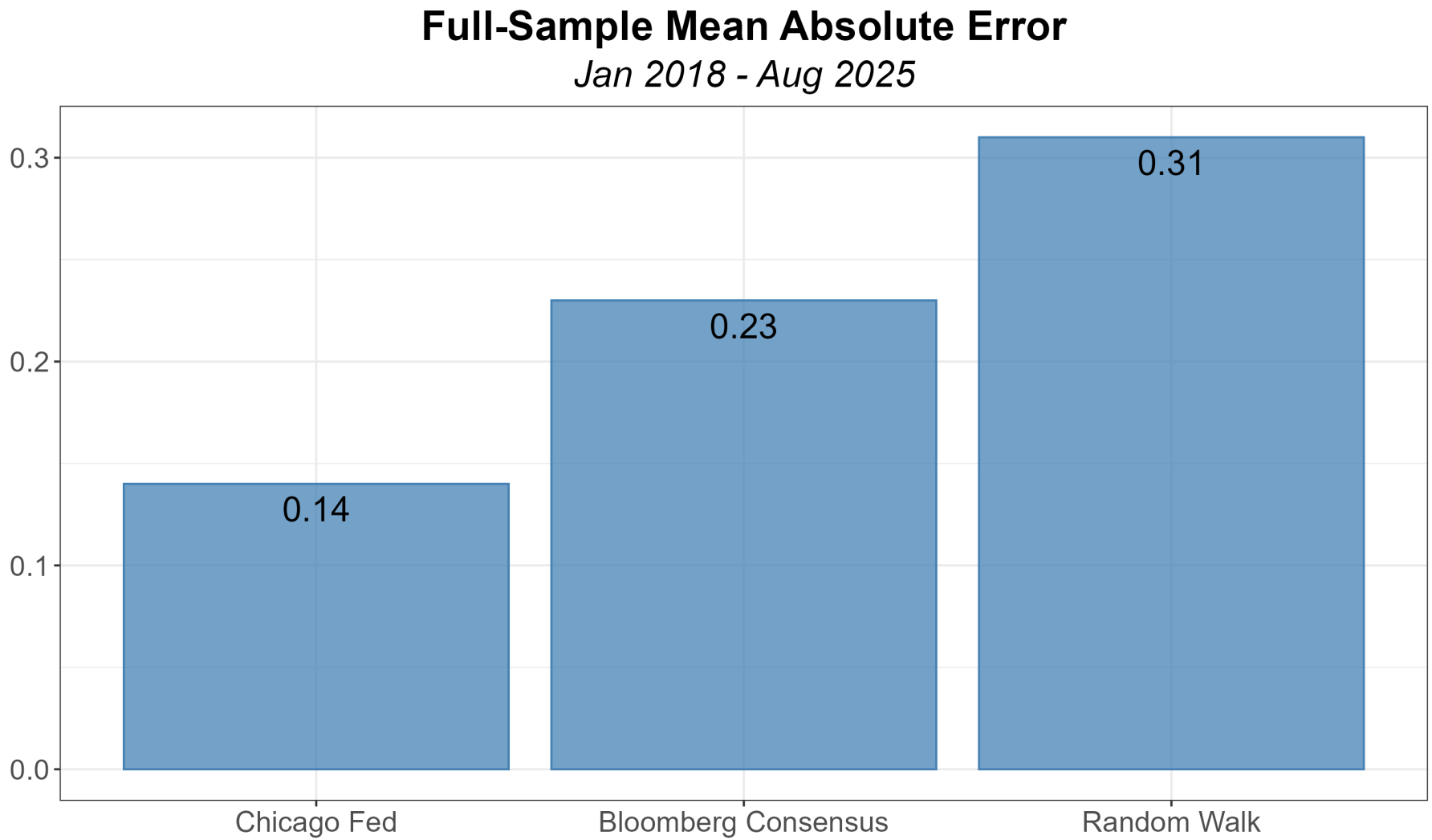


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Notes: This figure shows the different contributions from the Chicago Fed Layoffs and Other Separations Rate and Hiring Rate for Unemployed Workers. The black marker denotes the latest BLS release, and the blue marker refects the latest Chicago Fed Real-Time Unemployment Rate. May not sum due to rounding.
Sources: Chicago Fed staff calculations based on data from ADP, Bloomberg, The Conference Board, Google, Haver Analytics, Indeed, Lightcast, Morning Consult, and U.S. Bureau of Labor Statistics (BLS).

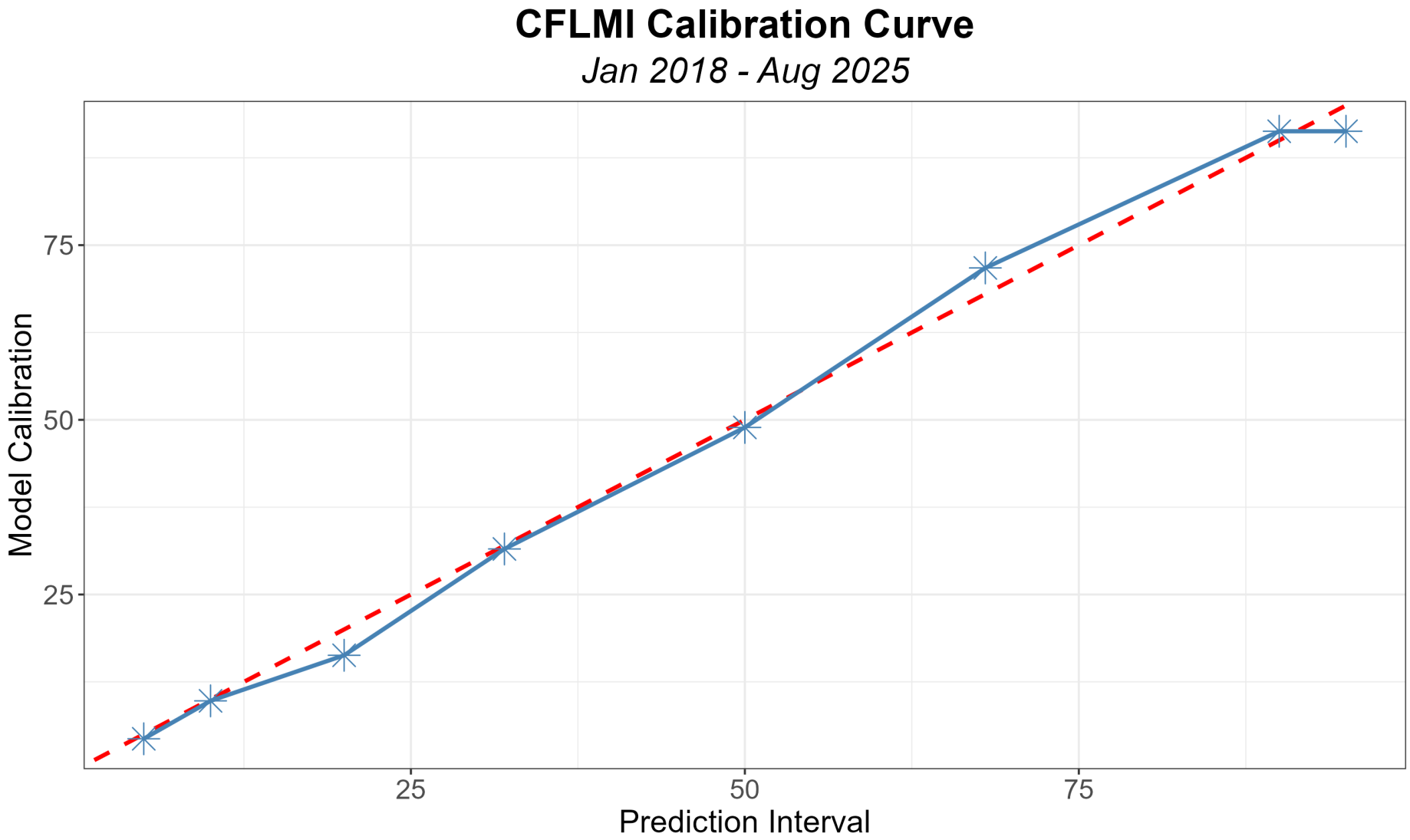
Nowcasting the Unemployment Rate



Performance of CFLMI



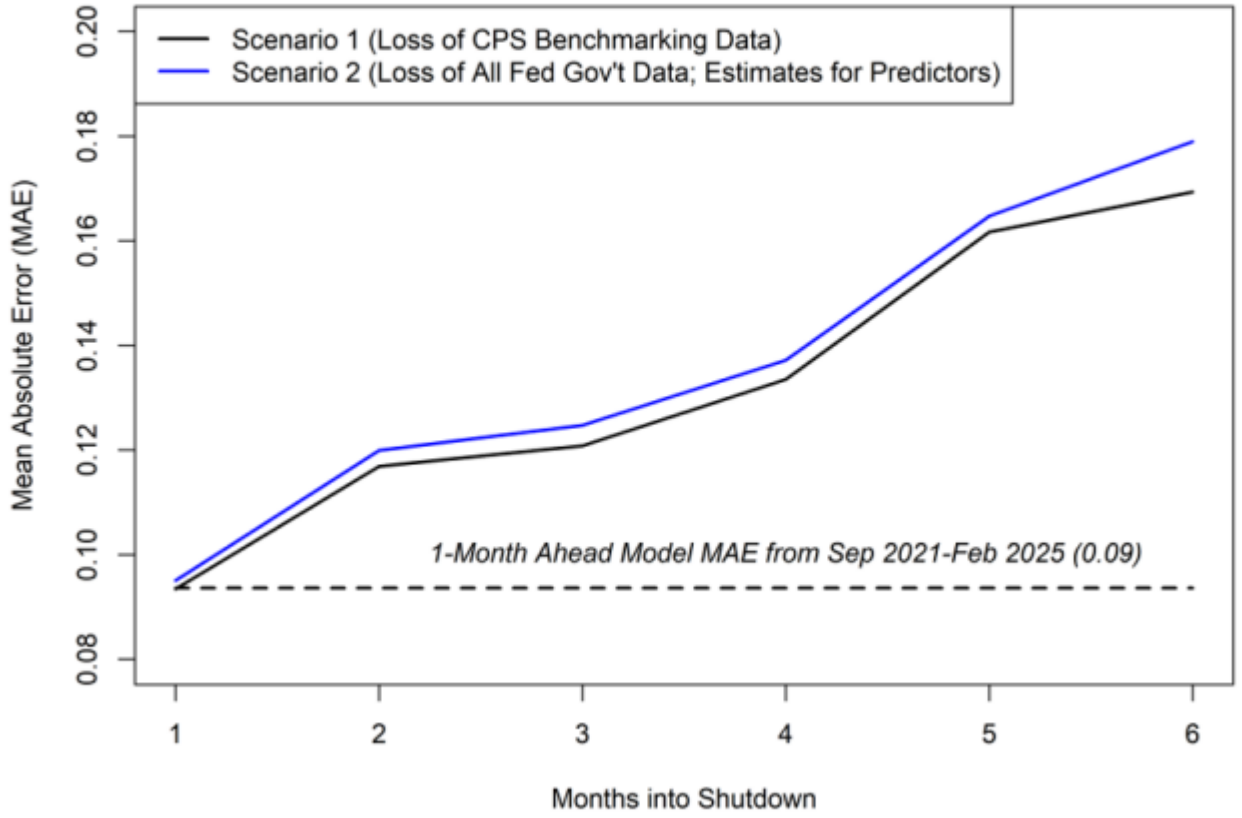
Performance of CFLMI



But official statistics provide something that alt-data cannot

- **Benchmarks – They provide a representative reference point for the population.**

Chart 1: Average Absolute Unemployment Rate Forecast Errors in Shutdown Scenarios



Finding appropriate use cases is key

- **Alt-data tend to be *convenience samples* generated from private sources**
  - Distinct from *stratified random samples* of public surveys underlying official statistics

- **Can be difficult to align methodologies with the statistical agencies**
  - Constructing methodologically consistent time series is difficult
    - Revisions are just as much a concern in alt-data as they are in official statistics
    - Having access to microdata can help (but can be costly or prohibited)
  - And may cause conflict with the primary commercial use cases for alt-data
    - What customers want from alt-data can be very different from what the statistical agencies need from alt-data.

Opportunity here for collaboration.

- **Plenty of challenges exist (e.g., cost, data access, etc.)**
- **But successful examples of partnerships are becoming more commonplace**
  - Google Trends, Morning Consult, Indeed, ADP, Lightcast, Bloomberg
- **And access to at least aggregate data is much easier**
  - Haver Analytics, Bloomberg, Macrobond and others tend to carry these data



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