



National Employment Report

Improving Forecasts of BLS Employment

*Dr. Joel L. Prakken, Chairman
Macroeconomic Advisers, LLC*

December 18, 2008

Macroeconomic Advisers, LLC

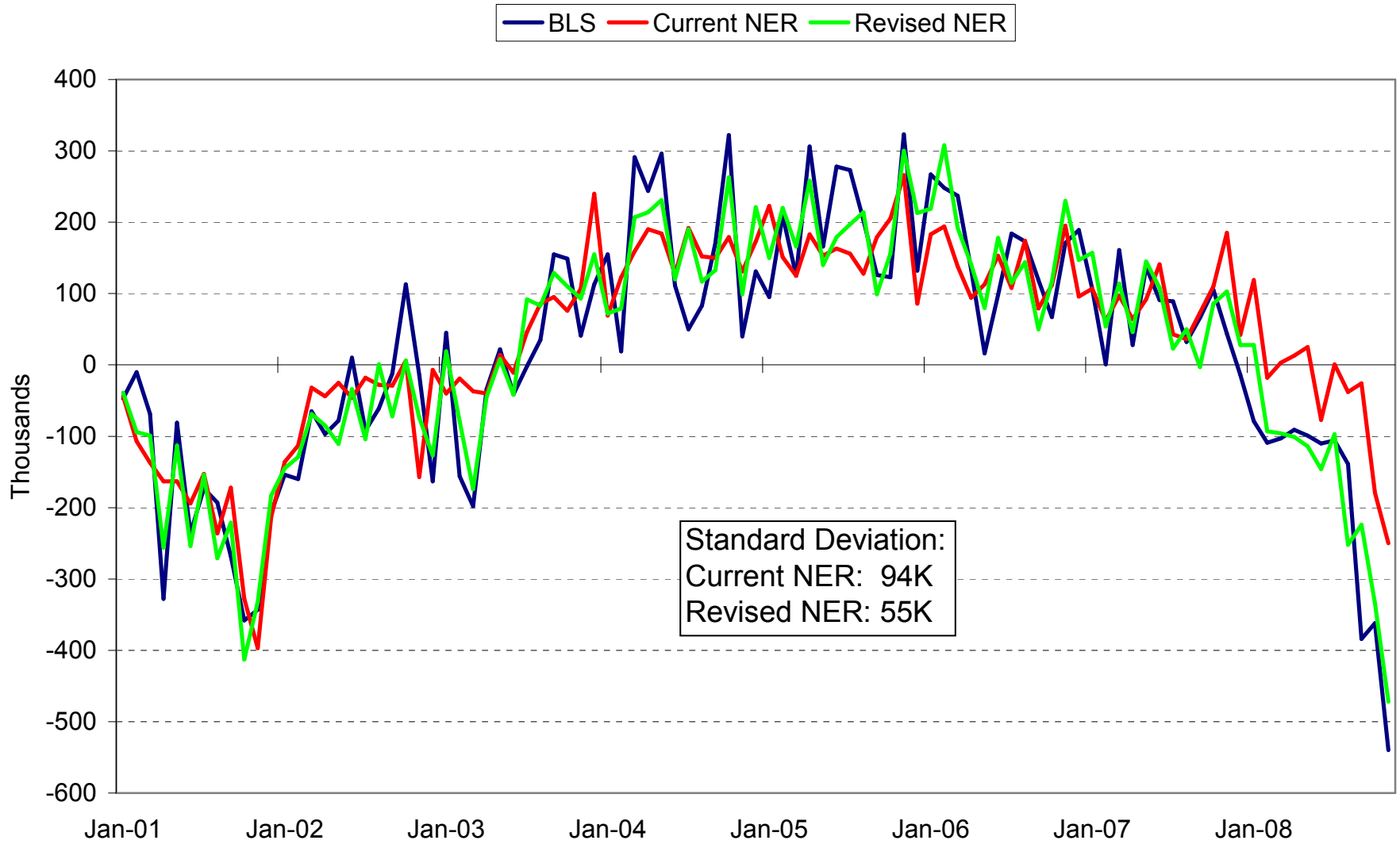
Summary Presentation

- Predominant use of *ADP National Employment Report* has become to help forecast BLS estimates
- Since November, estimates of employment shown in the *Report* have exceeded BLS estimates
- Divergences arise from differences in: measurement; definitions of employment; coverage; sampling
- Consensus forecasts suggest analysts are attempting to adjust for the recent divergence
- Better approach is to adapt empirical methodology to control better for divergences in general

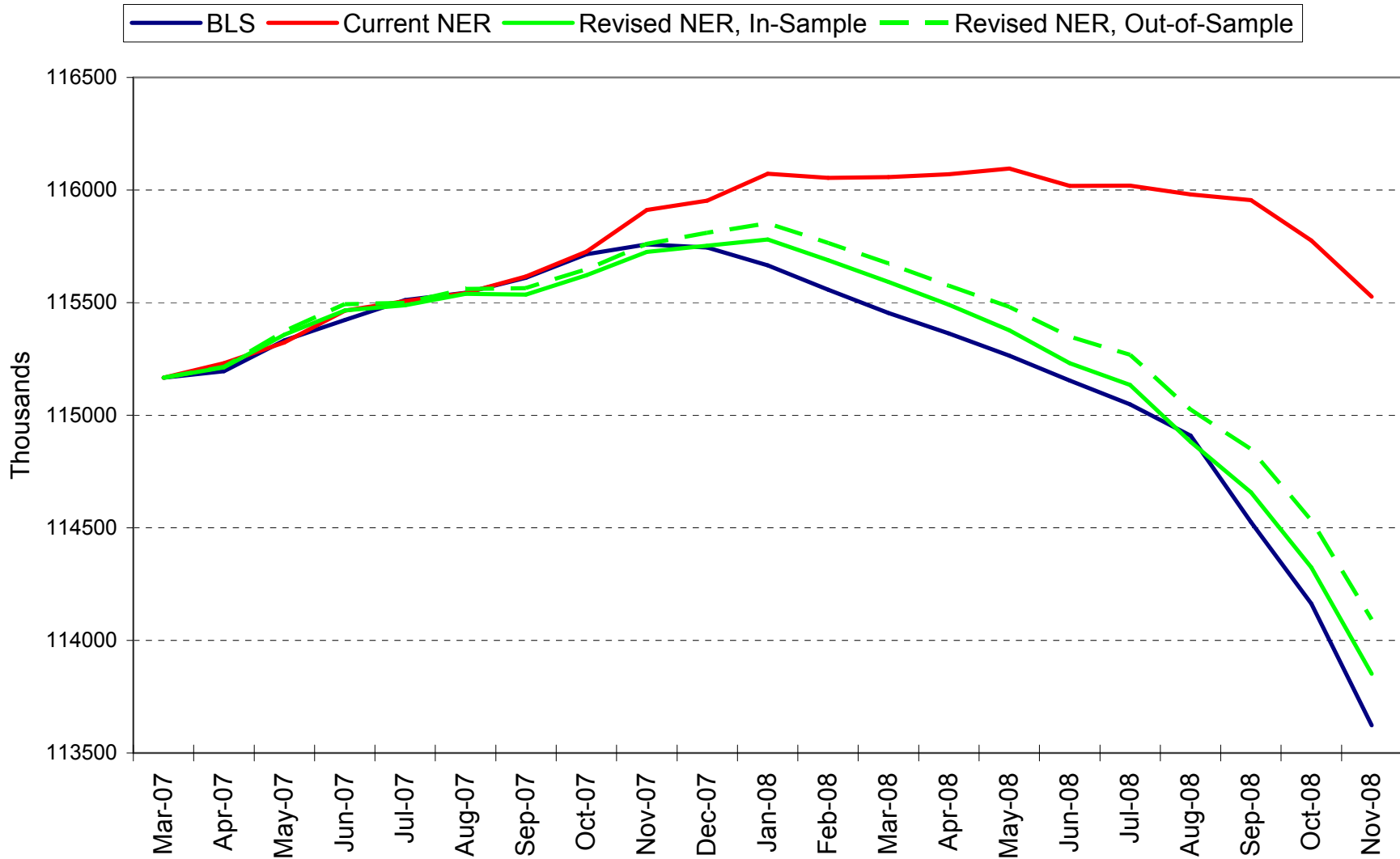
Summary Presentation

- Currently, *Report* shows predictions from industry regressions of BLS on ADP data over a fixed sample
- New methodology adds to industry regressions two information sets available in “real” time.
 - Past BLS employment by industry: controls for shifts in differences due to sampling
 - Initial unemployment claims: controls for shifts due to differences in definitions of employment
- New method also updates regressions every month
- Notable improvement in performance, including recent performance

Monthly Changes to Nonfarm Private Employment



Cumulated Monthly Changes to Nonfarm Private Employment



Summary Presentation

- Visit www.adpemploymentreport.com website for
 - Revised history
 - Methodology “White Paper”
 - Replay of this webinar

Bottom Line

- Expect smaller differences between the monthly change in private nonfarm establishment employment reported by the BLS and the corresponding estimate published in the *ADP National Employment Report* two days earlier.
- Going forward, estimates in the *Report* won't necessarily be higher than corresponding BLS estimate.

Comparing BLS and ADP Data

- Differences in coverage
 - by size
 - and industry
- Differences in measurement
 - BLS survey method
 - vs. ADP computerized count
- Differences in definitions
 - BLS employment (“paid or working”) is a net concept
 - ADP “active employees” is partly a gross concept
 - ADP “pays” is a net concept, but sample is limited
- Differences in sample selection
- Differences in net birth / death assumptions

Overview of Current NER Methodology

Growth of BLS employment

$$\dot{E}_t = \sum_{i=1}^{10} w_{i,t-1} \dot{E}_{i,t}$$

Lagged BLS industry weights; these adjust for differences in coverage

Fixed industry regressions using only benchmarked BLS data

"Matched-sample" growth rate of ADP industry data

$$\dot{E}_{i,t} = \alpha_i + \beta_i \dot{A}_{i,t} + \varepsilon_{i,t}$$

Constant term adjusts for average historical differences in definitions of employment, sample selections, and net birth / death adjustments

Slope coefficient adjusts for average historical measurement error

Overview of Improved NER Methodology

$$\dot{E}_t = \sum_{i=1}^{10} w_{i,t-1} \dot{E}_{i,t}$$

Initial unemployment
claims filed week before
BLS reference week

Concurrent industry regressions
using BLS data

Proxy for net change
in employment

$$\dot{E}_{i,t} = \alpha_i + \sum_{i=1}^{10} \sum_{j=1}^3 \delta_{i,t-j} \dot{E}_{i,t-j} + \beta_i \dot{A}_{i,t} - \gamma_i IUC_t + \varepsilon_{i,t}$$

Vector Auto-Regressive
(VAR) structure

Contemporaneous
innovation in the VAR

Summary

The revised *ADP National Employment Report* should narrow the divergence between the monthly change in private non-farm establishment employment reported by the BLS and the corresponding estimate published in the *ADP National Employment Report*

- Visit adpemploymentreport.com for:
 - Revised history
 - Methodology “White Paper”
 - Replay of the webinar