Round 8.0 Regional Econometric Model: Initial Activities

Cooperative Forecasting and Data Subcommittee

March 3, 2009

Why an econometric model?

- The Cooperative Forecasting process is a "top-down bottom-up" process.

- Econometric model provides regional benchmark projections ("top-down") to be used to compare sum of local government forecasts ("bottom-up").

- Constitutes critical starting point in the regional forecasting process

Econometric model requirements

- Econometric model projections needed by June 30, 2009

- National and metropolitan area employment data, by NAICS, needed for a 15 to 20 year calibration period

- Employment projections by major NAICS industrial classification needed for 30-year forecast period

- Model flexibility needed to accommodate changes in Key Factor Assumptions

- Econometric model to be developed with limited staff and Subcommittee resources available for this effort

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Preliminary Activities

Staff evaluated potential data sources to use as base data in econometric model

- Woods & Poole (WP)
- National Planning Association (NPA)
- IHS Global Insight (GI)

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Staff selected Global Insight data because it provided best match with project requirements.

- Provides necessary documentation to understand underlying assumptions that may undergo Key Factor Assumption adjustments

- State & metropolitan area forecasts are not "straight-line" function of national growth.

- Industry (NAICS) employment data available back to 1990 with projections to 2038

- Employment data include non-farm (BLS) and military (BEA) employment.

- Data includes estimates and projections for 1990 – 2038 for:
  - Population by age group
  - Labor force, unemployment and household employment

- Other large MPOs use GI data and industry forecasts in econometric models and employment projections.

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Staff sought support from the George Mason University Center for Regional Analysis (GMU CRA) in developing the econometric model.

- GI data satisfies most of the data requirements, but not all (e.g., multiple job holding, omitted jobs, in-commuting, average household size, etc.).

- Support needed to carefully review, understand, and possibly modify underlying assumptions and methodology driving GI projections (e.g. federal employment, labor force participation, etc.).

- GMU CRA understands the regional Cooperative Forecasting process.

- GMU CRA possesses technical expertise to support econometric modeling effort, in light of limited staff and Subcommittee resources.

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GMU Center for Regional Analysis will support the development of the econometric model.

- Analyze GI data for Washington region and identify additional forecast items and definitional changes to correlate data with Cooperative Forecasting process

- Work with CFDS to review and validate the assumptions underlying the GI data and projections and to develop the needed key factor assumptions for the econometric model. (CFDS may consider appointing a key factors group)

- Assist staff with the forecasting process as it analyzes regional control totals and reconciles with local forecasts, including preparing and document any key factor assumption adjustments that may be needed

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Next Steps

- GMU CRA will present analysis of GI data and projections and their underlying assumptions at the April 7, 2009 CFDS meeting.

- GMU CRA and staff will work with CFDS (or key factors group) to identify appropriate changes to key factors assumptions (Schedule to be determined).

- Final regional econometric model projections to be completed by June 30, 2009 with briefings to CFDS, Planning Directors Technical Advisory Committee, and Metropolitan Development Policy Committee, as appropriate.

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Questions . . .

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