

Regionalization in the RIMS II Model

Stanislaw Rzeknik
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Presentation Overview

- The RIMS II model
- Regionalization
- Best practices





**RIMS II is a
single region
demand-driven
model**

Summary Multipliers

Final-demand Multipliers, Type II

Austin-Round Rock, Texas, MSA	Output	Value Added	Earnings	Employment (jobs/ \$1 million)
Colleges and universities	2.1871	1.2982	0.7603	24.0101

Direct-Effect Multipliers, Type II

Austin-Round Rock, Texas, MSA	Earnings	Employment
Colleges and universities	1.7261	1.6338

Break-out Multipliers

Final-Demand Output Multiplier Breakout, Type II

Austin-Round Rock, Texas, MSA	Farming	Utilit.	Finance	Real Estate	Prof. Svc.	Educat.	Other Svc.	Total
Colleges and universities	0.001	0.0762	0.1054	0.2762	0.0969	1.0159	0.0747	2.1871
Share	0.00	0.04	0.05	0.13	0.04	0.47	0.03	1.00

Regionalization Adjustments

- Local and non-local purchases
- Commuting patterns
- State wage rates
- Taxes and savings

Regionalizing I-O Tables

- Assume locally-produced output is preferred
- Regionalizing indexes are applied to I-O data
Higher index = more self sufficient
- Regionalization provides an I-O table weighted to reflect local self-sufficiency

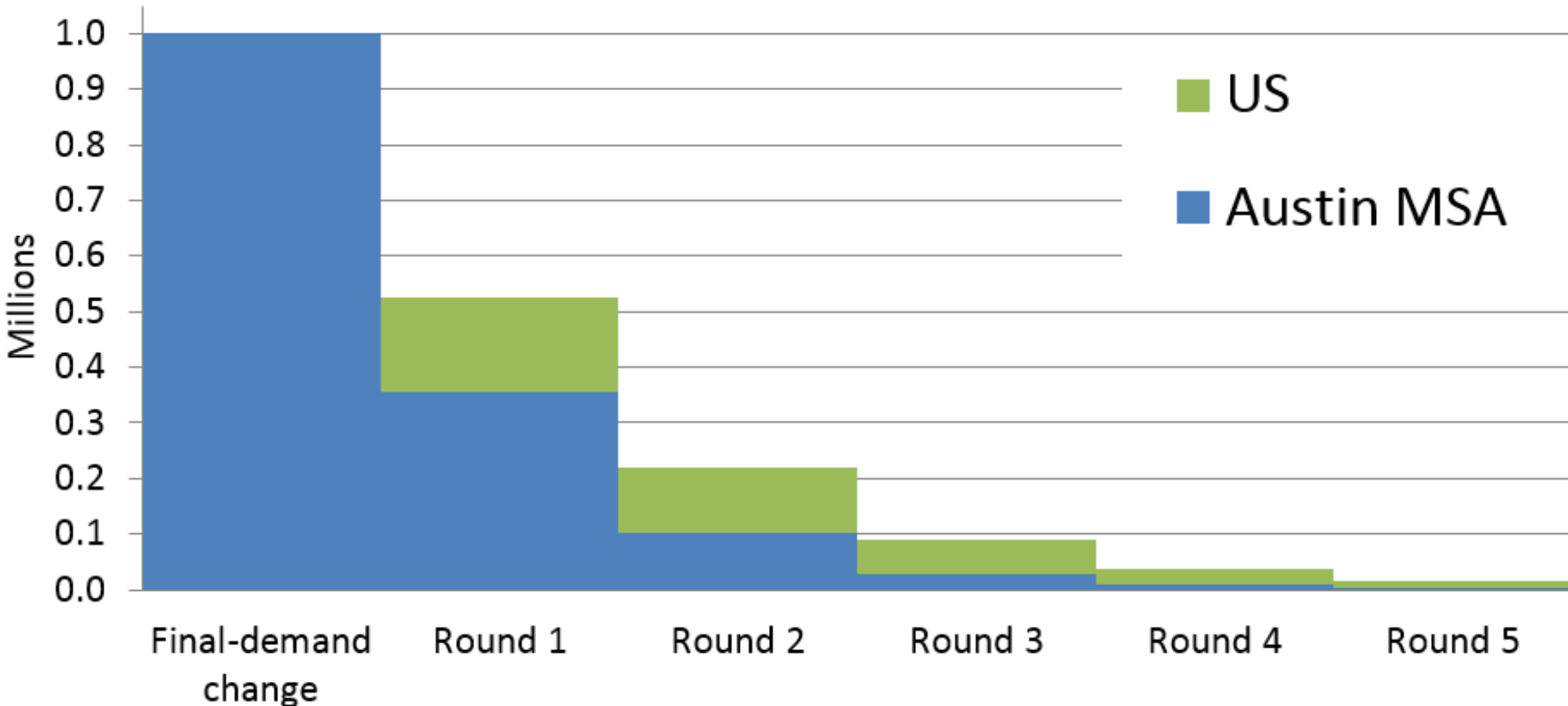
Regionalization Indexes (LQs)

$$\left[\frac{\text{Austin Colleges Earnings} / \text{Austin All Earnings}}{\text{U.S. Colleges Earnings} / \text{U.S. All Earnings}} \right]$$

$$= \left[\frac{1/100}{200/10,000} \right] = \left[\frac{1}{2} \right]$$

Leakages Reduce Potential Impacts

Impact of \$1 million Increase in Sales,
Austin-Round Rock, Texas, MSA



Commuting Patterns Adjust for Residency

- Commuters living outside the region reduce local earnings and employment impacts
- Type II multipliers only include the induced impact of residence-adjusted worker spending
- Ideally, the region selected for an impact will match the regional commuter shed

Local Labor Markets

- State-level wage and tax rates
- National-level savings rates
- Assume labor (and other resources) are freely available at current wages (and prices)

Data Gaps

- Universal, periodic, consistent regional data are difficult and costly to collect
- Model users need to know how their model fills gaps in regional data
- Ask whether model results look reasonable

Questions

Contact us at
RIMS@BEA.GOV