**Friday, June 10**

**10:30 a.m. – 12:00 p.m.**

**MCRSA Plenary Session**

**“Best Available Science:”  
Quality Assurance Standards and   
Applied Regional Economics in an Era of Big Data and Big Science**

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**Abstract**

To assure the quality of applied research, the federal government uses the standard of “Best Available Science.” Regional science—a branch of applied economics—does a lot of research funded by the federal government. Therefore, this standard presents a set of practical challenges. For example: ‘Who decides what is the best available science?’ and ‘How do we know when this standard is met?’.

We assert that there is a missing institution linking the knowledge in academic journals to the conclusions found in applied research reports. An example of institutional innovation to assure quality within the applied regional economics is downstream from the Journals. In an era of big data and big science, a Community Intelligence Laboratory can help meet the standard of best available regional science across the forward-linked chain of data-information-knowledge-action.

In particular, we provide a status report on the AICS Community Intelligence Laboratory attempts at quality assurance. Three lines of data-information-knowledge ‘best available science’ work, as we see it, will be highlighted: (1) Data: we have developed procedures to create SAMs for CGE analysis and show how these SAMs differ from SAMs for I-O analysis; (2) Information: we have standardized contribution analysis using output base and gross measures to determine bringing and keepings roles for sectors like forestry and agriculture; and (3) Knowledge: We have used base and gross output measures to create additional insights into competitive advantage and economic diversity.