# Reconfiguring RECONS Regional IO Models as Multi-Regional IO Models

Topic: IO Data: Annual, Regional, and Multiregional Input-Output Accounts and intra- and international Trade
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The US Army Corps of Engineers (USACE) is responsible for providing navigation, flood risk management, hydropower, water supply, recreation, and environment with an annual budget of $5 billion (US). To estimate total regional economic impacts of USACE's programs, a Regional Economic System (RECONS) was developed for both direct federal spending and related economic activities associated with USACE's infrastructure and programs. The RECONS database contains more than 1,500 regional input-output (IO) models of individual counties, multi-county areas, states, multi-state regions and the US. This collection of IO models includes geographic redundancies, as a state-wide model may implicitly include a county contained in another local area model. As a result, estimated impacts cannot be reliably aggregated over the geographic hierarchy of models as the lower geographical regions may not sum to the higher geographical regions. To overcome these shortcomings, RECONS I-O models are being re-estimated as multi-regional (MRIO) models. The first approximation solution is to re-estimate all regional models as 4-region MRIO models. For example, a single county IO model would be reconfigured as a MRIO model consisting of 4 regions: the county (Local), the rest-of-state (RoS), the rest-of-US (RoUS), and the rest-of-world (RoW). Each 4-region MRIO is internally consistent and additive across geographic scales, but not additive across different MRIO models. Our ultimate solution is to build a single MRIO model of the US economy with county-level spatial granularity. That is, the highest spatial resolution of the MRIO is an individual county and spatial groupings like multi-county regions and states are straightforward aggregations of county components. This paper will discuss the methods we have developed to spatially disaggregate the US IO model and produce MRIO models and how we have blended some IMPLAN data used to construct the original regional IO models with our own estimates of county-to-county commodity shipments.