

ECONOMIC ANALYSIS TOOLS USED IN EVALUATING THE EFFECTIVENESS OF TAX INCENTIVES

This memorandum provides information on various economic analysis tools used in evaluating the effectiveness of tax incentives. The information provided in this memorandum is not inclusive of all economic analysis tools that may be available.

REGIONAL INPUT-OUTPUT MODELING SYSTEM

In the 1970s, the United States Department of Commerce Bureau of Economic Analysis developed a method of estimating regional input-output multipliers known as the Regional Industrial Multiplier System (RIMS). The system was enhanced in the 1980s and renamed the Regional Input-Output Modeling System or "RIMS II." The Regional Input-Output Modeling System is a regional economic modeling tool used to assess the potential economic impacts of projects and programs on affected regions. The Regional Input-Output Modeling System is used by government agencies, economic development organizations, and businesses. It has been used by the United States Department of Defense to estimate the regional impacts of military base closings and by state transportation departments to estimate the regional impacts of airport construction and expansion. The system provides a variety of multipliers that can be applied by the user in a wide range of regional impact studies. The Regional Input-Output Modeling System multiplier tables are generated by the United States Bureau of Economic Analysis and can be customized to account for the economic activity in any set of contiguous United States counties. Impacts that can be measured using RIMS II include changes in gross output, value added, earnings, and employment.

IMPACT PLANNING AND ANALYSIS

Impact Planning and Analysis (IMPLAN) is a widely used computer software package that models the economic relationships between government, industry, and household sectors within a specific region to estimate the economic impacts that may result from various project or policy changes. Impact Planning and Analysis is used by government agencies, universities, and private companies. Impact Planning and Analysis's economic data is derived from data collected by the United States Department of Commerce, the United States Bureau of Labor Statistics, and various other federal and state government agencies. Data is also collected on a variety of industry sectors within the national economy and corresponding data sets are produced for each county in the United States to allow for more targeted regional economic analysis. Impact Planning and Analysis software allows for the application multipliers to determine the anticipated direct effects, indirect effects, and induced effects that may result under specified conditions. Impact Planning and Analysis offers online support and personal training as well as consultations and project reviews by IMPLAN's on-staff economist on a fee basis.

REGIONAL ECONOMIC MODELS, INC.

Regional Economic Models, Inc. (REMI) is a firm specializing in the development and use of economic models to help inform government and corporate policy decisions. The firm's primary customers are state governments but the firm's services are also utilized by federal agencies, consulting firms, universities, and private industries. Some of the firm's notable clients include the Iowa Departments of Transportation and Revenue, the Missouri Department of Economic Development, the Texas Comptroller of Public Accounts, and the Utah Governor's Office of Planning and Budget. Consultants hired by the Minnesota Department of Revenue also used REMI when analyzing the state's angel investor tax credit.

Regional Economic Models, Inc. provides software, support services, and employee expertise. Training is provided on the use of economic models including assistance in vetting data and variables, interpreting results, running simulations, and preparing final reports. The majority of the data REMI uses is derived from public data sources. Baseline data is derived from the Bureau of Labor Statistics, the United States Census Bureau, and the Energy Information Administration.

Two of the products offered by REMI include PI+ and Tax-PI. PI+ serves to generate realistic year-by-year estimates of the effects of policy initiatives. The product allows for a wide range of variables to be evaluated when assessing the potential economic effects of certain programs or tax policies. Tax-PI is a more recent tool that assists in the evaluation of fiscal and economic effects of tax policy changes. The program is based on over 30 years of the firm's experience in modeling the economic and fiscal effects of tax policies. Tax-PI provides a dynamic tool for use in determining the direct, indirect, and induced fiscal and economic effects of various policy changes. The program is capable of evaluating the economic and fiscal effects of a program or policy over an extended duration and has capabilities for analysis through calendar year 2050. Tax-PI provides customizable tables to reflect actual or projected revenues, a customized state government expenditure module,

and the ability for a user to assign specific variables to each revenue category to track both the fiscal and economic effects of policy changes.

ADDITIONAL RESOURCES

In addition to, or in place of, using software and economic modeling tools, states may also seek services from a variety of other sources when evaluating state tax incentives. The Pew Charitable Trusts has been instrumental in assisting many states structure state tax incentive review policies and provided materials, attached as an [appendix](#), to the 2013-14 interim Taxation Committee as that committee was drafting proposed legislation directing the regular review of state economic development tax incentives. The Pew Charitable Trusts also provided a report to Nebraska's Tax Incentive Evaluation Committee outlining how incentives could be evaluated in that state. The report provided information on the metrics used by other states when measuring the effectiveness of incentives, how other states have collected and assessed relevant data, and the pros and cons of using economic models to evaluate tax incentives. The report outline specific examples regarding states that had used economic models to evaluate incentives and states that had used other means to evaluate incentives.

The report indicated that REMI was used by Connecticut's Department of Economic and Community Development, to analyze business activity resulting from the award of incentives, and by consultants retained by the Minnesota Department of Revenue, to study the state's angel investor tax credit. Evaluators retained by Oregon's Department of Energy also used economic modeling tools and elected to use IMPLAN to estimate the economic impact of renewable energy incentives. The report also provided information regarding states that elected not to use economic models including New Jersey, Louisiana, and Washington. These states utilized business surveys, academic literature, and economic research when conducting an analysis of various programs and incentives. Additional resources that may be considered by the Political Subdivision Taxation Committee when evaluating state economic development tax incentives include resources provided by the University of North Dakota, North Dakota State University, and state and local economic development organizations and associations.

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