

## Appendix A. Glossary of Economic Impact Terms

*Terms are presented in groups within a logical rather than alphabetical order*

**Region** – defines the geographic area for which impacts are estimated. NPS impact regions are generally an aggregation of one or more counties. MGM2 can also make estimates for larger regions.

**Sector** is a grouping of industries that produce similar products or services. Most economic reporting and models in the U.S. are based on the Standard Industrial Classification system (SIC code ) or the new North American Industrial Classification System (NAICS). Tourism is more an activity or type of customer than an industrial sector. While hotels (SIC 70) are a relatively pure tourism sector, restaurants, retail establishments and amusements sell to both tourists and local customers. There is therefore no simple way to identify tourism sales in the existing economic reporting systems, which is why visitor surveys are usually required to estimate tourist spending.

**Impact analysis** estimates the impact of dollars from outside the region (“new dollars”) on the region’s economy. Impact analysis typically includes only the spending of visitors from outside the region.

**Significance analysis** estimates the importance or significance of an industry or activity to a region and usually includes spending by both local residents and visitors from outside the region.

**Input-output (I-O) model.** An input-output model is a representation of the flows of economic activity between sectors within a region. The model captures what each business or sector must purchase from every other sector in order to produce a dollar’s worth of goods or services. Using such a model, flows of economic activity associated with any change in spending may be traced either forwards (e.g., spending generates employee wages which induces further spending) or backwards (e.g., visitor purchases of meals leads restaurants to purchase additional inputs -- groceries, utilities, etc.). Multipliers for a region may be derived from an input-output model of the region’s economy.

**IMPLAN** is a micro-computer-based input output modeling system. With IMPLAN, one can estimate I-O models of up to 528 sectors for any region consisting of one or more counties. IMPLAN includes procedures for generating multipliers and estimating impacts by applying final demand changes to the model. The current version of IMPLAN is IMPLAN Pro 2.0.

**Final Demand** is the term for sales to final consumers (households or government). Sales between industries are termed **intermediate sales**. Economic impact analysis generally estimates the regional economic impacts of final demand changes. Visitor spending is one type of final demand.

**Direct effects** are the changes in economic activity during the first round of spending. For tourism this involves the impacts on the tourism industries (businesses selling directly to tourists) themselves.

**Secondary effects** are the changes in economic activity from subsequent rounds of re-spending of tourism dollars. There are two types of secondary effects:

**Indirect effects** are the changes in sales, income or employment within the region in backward-linked industries supplying goods and services to tourism businesses. For example, the increased sales in linen supply firms resulting from more motel sales is an indirect effect of visitor spending.

**Induced effects** are the increased sales within the region from household spending of the income earned in tourism and supporting industries. Employees in tourism and supporting industries spend the income they earn from tourism on housing, utilities, groceries, and other consumer goods and services. This generates sales, income and employment throughout the region’s economy.

**Total effects** are the sum of direct, indirect and induced effects.

**Multipliers** capture the size of the secondary effects in a given region, generally as a ratio of the total change in economic activity in the region relative to the direct change. Multipliers may be expressed as ratios of sales, income or employment, or as ratios of total income or employment changes relative to direct sales. Multipliers express the degree of interdependency between sectors in a region's economy and therefore vary considerably across regions and sectors.

**Type I** multipliers include only direct and indirect effects. **Type II** multipliers also include induced effects. **Type SAM** multipliers used by IMPLAN adjust the Type II multipliers for income that is not normally re-spent immediately within the region, e.g. wages of commuting workers who live outside the region and contributions to retirement programs.

A **sector-specific multiplier** gives total changes throughout the economy associated with a unit change in sales in a given sector.

**Aggregate tourism multipliers** sum multiplier effects across many sectors with a single number. They are based on an assumed distribution of tourist spending across these economic sectors, i.e., a weighted average of sector specific multipliers with the percentage of spending in each sector as the weights.

**Capture rate** is the percentage of spending that accrues to the region's economy as direct sales or final demand. All tourist spending on services within the region is captured, however, tourist purchases of goods is generally not all treated as final demand to the region. For imported goods bought at retail establishments, typically only the retail and possibly wholesale margins will accrue to the local economy.

**Purchaser prices** are the prices paid by the final consumer of a good or service. **Producer prices** are the prices of goods at the factory or production point. For manufactured goods the purchaser price = producer price + retail margin + wholesale margin + transportation margin. For services, the producer and purchaser prices are equivalent. The **retail, wholesale and transportation margins** are the portions of the purchaser price accruing to the retailer, wholesaler, and shipper, respectively. Only the retail margins of many goods purchased by tourists accrue to the local region, as the wholesaler, shipper, and manufacturer often lie outside the local area.

#### Measures of economic activity:

**Sales or output** is the dollar volume of a good or service produced or sold

**Final Demand** = sales to final consumers

**Intermediate sales** = sales to other industrial sectors

**Income** is the money earned within the region from production and sales. Total income includes

Personal income : wage and salary income, including income of sole proprietor's profits and rents

**Jobs** or employment is a measure of the number of jobs required to produce a given volume of sales/production. Jobs are usually not expressed as full time equivalents, but include part time and seasonal positions.

**Value Added** is the sum of total income and indirect business taxes. Value added is the most commonly used measure of the contribution of a region to the national economy, as it avoids double counting of intermediate sales and captures only the "value added" by the region to final products.