

**JUSTIFICATION FOR CHANGE
RECREATIONAL BAIT AND TACKLE ECONOMIC SURVEY
OMB CONTROL NO. 0648-0695**

This change request seeks the addition of a modeling component to the Recreational Bait and Tackle Economic Survey (RBTES) (OMB Control Number 0648-0695). The goal of the RBTES is to provide the National Oceanic and Atmospheric Administration's (NOAA) Fisheries with a better understanding of the economic characteristics of the saltwater bait and tackle retail industry in the United States (U.S.). The survey will provide the agency with the data needed to generate more precise estimates of the industry's economic contributions to coastal regions. NOAA Fisheries generally conducts analyses of economic contribution in IMPLAN, a software and data package designed specifically for building economic input-output models to estimate the economic impacts of regional business activities (Minnesota IMPLAN Group, Inc., 2010).

IMPLAN combines mathematical algorithms and county-level economic data on 440 distinct business sectors, available for individual states or the entire nation, to estimate input-output models. Input-output models are assembled in IMPLAN by first selecting the appropriate regional models (national, state, or county level) of interest, and then assigning expenditure estimates (retail sales or business costs) to the appropriate economic sectors. When an input-output model is assembled and run, IMPLAN estimates a series of economic indicators: total output, value added output, labor income, taxes generated, and employment (number of full-time equivalent jobs supported by the modeled expenditures).

One common complication when working with IMPLAN is its tendency to aggregate diverse businesses within broad economic sectors. Businesses that specialize in selling bait and tackle to recreational fishermen are generally included within the *Retail Stores – Sporting Goods, Hobby, Book and Music* sector, which includes businesses that specialize in catering to a broad range of recreational and leisure activity participants of which recreational anglers are only a small fraction. While Sporting Goods is certainly an appropriate category under which to broadly classify bait and tackle stores, the majority of products sold under this sector are not used for recreational fishing. For example, Sportsman's Warehouse, a large sporting goods chain that caters exclusively to tradition outdoor recreation activities (hunting, fishing, camping), reported in its most recent public quarterly financial report that sales of fishing-related equipment only accounted for 10 percent of total sales (Sportsman's Warehouse Holdings Inc., 2014). Additionally, many businesses included within the sporting goods and hobby sector do not sell fishing equipment at all, but instead focus exclusively on other athletic activities (hunting, cycling, golf), books, musical instruments and records, or general hobbies. Furthermore, the Sporting Goods and Hobby sector is also largely dominated by large national chains (e.g., Dick's Sporting Goods, Hobby Lobby, Barnes and Noble) whose operational expenses and earnings are not reflective of the smaller, independent bait and tackle shops that are the primary focus of the RBTES. Given these issues, an economic impact analysis that relies solely on a sector that aggregates the economic activity of all these disparate businesses cannot be expected to accurately represent the operations of independently owned bait and tackle stores.

NOAA Fisheries was faced with a similar issue when examining the economic contribution of recreational for-hire (e.g., charter and headboats) in the Northeast (Steinback and Brinson, 2013). Recreational fishing for-hire vessels fall under the *Scenic and Sightseeing Transportation* sector in IMPAN which includes all land, air, and water-related transportation businesses that cater to sightseeing tourists. To generate a more accurate picture of the economic contributions of recreational fishing for-hire operations in the northeast, NOAA Fisheries staff assembled an IMPLAN production model based on

the costs and earnings of for-hire vessel operations in the region. In 2011, recreational for-hire fishing vessel in the northeast generated over \$140 million in sales which contributed an estimated \$116 million in labor income to the regional economy based on the IMPLAN model assembled by NOAA Fisheries. In comparison, attributing the same \$140 million in sales to the standard *Scenic and Sightseeing Transportation* sector in IMPLAN would estimate an economic contribution of \$141 million in labor income to the regional economy.

Another problem associated with relying solely on any retail store sector in IMPLAN is that these sectors only account for economic impacts associated with store operations, and exclude impacts associated with the stores' purchases of the goods they sell. The reason for this is the economic impact of goods manufacturing is included in the various manufacturing and production sectors included within the IMPLAN model, and to include these impacts within the retail sectors would result in double counting of impacts within the broader IMPLAN model. IMPLAN includes a *Sporting and Athletic Goods* manufacturing sector that incorporates the manufacturing of fishing bait and tackle in addition to all the other sporting goods sold on the market. However, there are several other types of goods commonly sold at bait and tackle stores that are included in other manufacturing and production sectors. Live and dead bait are included in the *Fish* sector (3017) which also incorporates the commercial fisheries and aquaculture operations. Fishing lines and nets are included in the *Artificial and synthetic fibers and filaments* sector (3129). Other examples of manufacturing sectors that produce goods commonly sold at bait and tackle stores can be found in Table 1. If we relied solely on the sporting goods retail sector, we would fail to account for the impacts of the manufacturing of the various goods sold at bait and tackle stores. However, by assembling a detailed input-output model we can include these items within our model in order to generate a fuller picture of the economic contribution of the recreational fishing bait and tackle industry.

The RBTES seeks to construct an input-output model in IMPLAN that will provide a more accurate picture of the economic contributions of retail stores that sell recreational fishing bait and tackle. To do this, the RBTES will quantify the gross revenues, expenses by type, and net returns of bait and tackle stores by region (Northeast, Mid-Atlantic, Southeast, Gulf of Mexico, West Coast, Alaska, and Hawaii). The estimated expenditures by type will then be used to construct a detailed economic impact model of bait and tackle stores by assigning them to the appropriate economic sectors in IMPLAN (Table 1). Such a model will provide a much more accurate, and defensible assessment of the economic contribution of bait and tackle stores to regional economies than that provided by the standard aggregated *Retail Stores – Sporting Goods, Hobby, Book and Music* sector in IMPLAN. These models will be used to calculate multiplier effects for bait and tackle stores in each region analyzed which can in turn be used to inform and improve NOAA's existing recreational fishing expenditure economic impact models (Lovell et al., 2013).

Table 1. Bait and tackle store IMPLAN sector scheme.

Expenditure/Income Category	IMPLAN Sector(s)	IMPLAN Description
Inventory		
Bait	3017	Fish
Fishing tackle (rods, lures, etc.)	3311	Sporting goods
Fishing lines and nets	3129	Artificial and synthetic fibers and filaments
Accessories (clippers, pliers, etc.)	3185	Hand tools
Fishing apparel	3085, 3093	All other textile products; Footwear
Boat accessories and electronics	3249, 3238	Search, detection, and navigation instruments; Broadcast and wireless communication equipment
Employee pay and benefits	5001	Employee compensation
Building rent/mortgage	360	Real estate
Facility and equipment maintenance	385	Facilities support services
Utility expenses	351, 31, 33	Telecommunications; Electricity and distribution services; Water, sewage treatment, and other utility services
Marketing/advertising	377	Advertising and related services
Professional services (legal, accounting)	367, 368	Legal services, accounting services
Insurance	357	Insurance
Taxes and licensing fees		State/Local Government NISP; Federal Government NISP
Shipping fees	427	US Postal delivery services

References

Lovell, S. J., S. Steinback, and J. Hilger. 2013. The economic contribution of marine angler expenditures in the United States, 2011. US Department of Commerce, NOAA Technical Memorandum NMFS-F/SPO-134.

Minnesota IMPLAN Group, Inc. 2010. IMPLAN professional: social accounting and impact analysis software. Minnesota IMPLAN Group, Inc., Minneapolis, MN.

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Steinback S, Brinson A. 2013. The Economics of the Recreational For-hire Fishing Industry in the Northeast United States. US Department of Commerce, Northeast Fisheries Science Center Reference Document 13-03, 49 p.