

## Executive Summary

The remanufacturing industry, a diverse aggregation of companies producing a broad array of products, is both huge and hidden. It operates at a very low level of visibility, restoring worn and discarded durable products to like-new condition. In so doing, the industry makes major contributions to the economy, employing hundreds of thousands of people, creating billions of dollars of products, and paying taxes on the profits. Because of its many product sectors, the industry has not presented a united presence to the public, and it has not been recognized for its economic importance. Nor has it been appreciated for its contributions to the environment in terms of energy, materials, labor, and capital equipment conservation, reduction of solid waste, and proper handling of hazardous materials.

This lack of public awareness of remanufacturing has been the primary motivator for this study, an attempt for the first time to define the industry from an economic perspective, and to establish means by which members of the industry can communicate among themselves and with the public.

With support from the Argonne National Laboratory, a team of researchers at Boston University under the direction of Professor Robert T. Lund established a database of 9,903 American remanufacturers. They surveyed a random sample of 1,003 firms to obtain information on company sales, employment, and product categories. On the basis of this information, plus further assessments from industry experts, they arrived at estimates of total industry size. Although the estimates are far from precise, the data suggest the following:

Total Number of Firms	73,000
Total Annual Industry Sales,	\$53 billion
Total Direct Employment	480,000
Average Annual Company Sales	\$2.9 million
Average Company Employment	24
Number of Product Areas	Over 46 major categories

This report also provides economic information on eight sectors of the industry: automotive, compressors, electrical apparatus, machinery, office furniture, tires, toner cartridges, and valves.

A new coordinating body, the Remanufacturing Industries Council, has been an outgrowth of this study. Uniting the various trade associations operating in the different product sectors, the Council promises to become an agency by which greater public

recognition can be achieved and by which more assistance to members of the industry can be provided.

Exploration of a means of communication among the trade associations and individual companies has resulted in a recommendation for an Internet network accessible by all in the industry. , Early vestiges of such a network are in place, and further steps toward realization are under way.

Finally, the report discusses perceived needs of the industry and makes recommendations for further action. Among these recommendations is a proposal to make a parallel study of the *environmental* importance of this industry, especially resource conservation aspects, which have hardly been explored.