Using SizeUSA to Improve Apparel Fit

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Consumer dissatisfaction with apparel fit is a major issue for the apparel industry, and causes big problems for fashion designers who are trying to improve fit. Much of the difficulties inherent in current efforts to improve fit can be attributed to the lack of size and shape information available for today's U.S. population. The advent of 3D body scanning has enabled the collection of anthropometric data that can be obtained more quickly and accurately than traditional manual measurement allows. SizeUSA, a national sizing survey of the U.S. population, was conducted in 2003 and used 3D body scanning technology to acquire measurement data of roughly 10,000 men and women. This study provides the most comprehensive and representative data that is currently available, and has allowed for research that could transform and dramatically improve the apparel design process and the fit of resulting garments.

This study utilized body shape classification software known as FFIT© for Apparel to analyze and discover the true shapes of current U.S. women. Results showed that the most predominant shape in the population is the Rectangle shape, followed by the Spoon, the Inverted Triangle, and then the Hourglass. Measurement data from current ASTM sizing standards used by the industry was then analyzed using the software to determine the shapes that each of these standards best fit. Results showed that ASTM Missy, Junior, and Over 55 standards seem to be largely ineffective at accommodating the predominant shapes in the current population of women, with the Missy and Junior standards exclusively targeting the Hourglass shape. Development of new ASTM sizing standards or modification of company sizing strategies based on these results would improve technical design processes, apparel fit, and consumer satisfaction.