

## Scenario 3

Getting good fitting women's clothing can be difficult. There are so many different body types, and possible choices of styles in which to make clothes. For example, some women have "hourglass" figures, others have broad shoulders and narrow hips, others have more pear shapes, and further differences exist in neck and upper arm circumferences. This data is part of a large database of womens shapes, that is being collected in order to individualize clothing design. Each variable contains the value for one of the different body measurements, which have been standardized. There might be missing values, non-normal distributions, and outliers in the data.

Your primary job is to summarize the variation in the body types, especially to find a small set of typical body types that could be used to guide clothing design to fit most of the different shapes.