1. data description: There are nine skeletal measurements included in the study. A broad-blade anthropometer was used to measure the biacromial, biiliac, bitrochanteric , and chest diameters along the trunk and a smaller version of this anthropometer was used for the four skeletal measurements along the limbs - the elbow, wrist, knee, and ankle diameters. For the chest depth measurement, the depth attachment of the anthropometer was activated. Firm pressure was applied at each bodily site to compress the flesh and obtain "bone to bone" measurements. Twelve girth (or circumference) measurements are used in the study. They, in contrast to skeletal (diameter) measurements, are not fixed over time except for the three "bony" girths of the wrist, knee, and ankle, which remain relatively constant over the life span. The other nine girths, the changeable ones, were measured at these sites: shoulder, chest, waist, navel, hip, thigh, bicep, forearm, and calf. A plastic tape was used with uniform compression and horizontally, as prescribed by Behnke and Wilmore (1974, pp. 45-47).

2.data source: The initial measurements were taken at San Jose State University and at the U.S. Naval Postgraduate School in Monterey, California, primarily by the first two authors, Grete Heinz, Louis J. Peterson. Additional measurements were performed by technicians in dozens of California health and fitness clubs. Every effort was made to assure consistency in these different settings by having one of the authors (G.H.) monitor the technicians’ measurement techniques. Journal of Statistics Education. http://ww2.amstat.org/publications/jse/datasets/body.dat.txt

3. central research questions: 1.how well weight as linear combination of all of the girth measurements and height? 2. how well weight could be predicted from body build within the normal weight range? 3. What kind of variables contribute to forensic science classification problem of determining gender?

4. statistical methodology: Essential statistical method could be included like principle component analysis and factor analysis. Simple descriptive analysis also will be included. There are some interesting problems that will need discriminant analysis/classification analysis and multiple regressions analysis.

References:

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