Fabozzi/Fong present an alternative to the equally-weighted approach used by McEnally/Boardman. Their method consists of the following steps:

• Define the classes into which the index universe is to be divided. Make the number of classes = number of securities to be held.

• Select securities to hold.

• Use quadratic programming to calculate the security weights. The objective is to minimize the sum of squares of the differences between the relative weights in the portfolio and the weights in the class.

The constraints are (1) Match the duration of the portfolio and the index; (2) Match other characteristics.