

Table 1
Selected Examples of Preference Programming Methods

Method	Score elicitation	Weight assessment	Observations
White et al. (1984)	Upper and lower bounds on scores	Linear constraints on attribute weights	Eliminates inconsistencies through linear programming
Hazen (1986)	Completely specified score information	Linear constraints on attribute weights	Gives an extensive mathematical treatment of optimality conditions
HOPIE (Weber, 1985)	Derived indirectly from holistic comparisons among alternatives	Derived indirectly from holistic comparisons among alternatives	Offers recommendations from the consideration of probability distributions over the alternatives' values
PAIRS (Salo and Hämäläinen, 1992)	Lower and upper bounds on score information	Interval-valued statements about ratios of attribute weights	Computes dominance structures through hierarchically structured linear optimization problems
Preference Programming (Salo and Hämäläinen, 1995)	Interval-valued ratio statements using AHP-style pairwise comparisons	Interval-valued ratio statements using AHP-style pairwise comparisons	Offers an ambiguity index for measuring the amount of incompleteness in the preference specification
Ahn et al. (2000)	Linear constraints on alternatives' scores	Linear constraints on attribute weights	Suggests the use of aggregated net preference as a decision rule
PRIME (Salo and Hämäläinen, 2001)	Upper or lower bounds on scores	Interval-valued statements about ratios of value difference	Introduces several decision rules and examines their computational properties
Eum et al. (2001)	Both complete and incomplete score information considered	Several kinds of preference statements that correspond to linear constraints on weights	Offers a taxonomy of several forms of incomplete information
RICH (Salo and Punkka, 2003)	Lower and upper bounds on attribute-specific scores	Incomplete ordinal preference information about the relative importance of attributes	Introduces an incompleteness measure for ordinal preference information