SAT SCORES FOR SALE?

PSEUDOEXPERIMENTAL ASSESSMENT OF COMMERCIAL TEST PREPARATION VIA OPTIMAL FULL MATCHING

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Stratification is an old, flexible, efficient, and conceptually plain statistical technique. If there is sufficient pre-treatment data to discern which study subjects are comparable to one another, and if every treated subject is sufficiently like some control to justify comparison to it, then with the right stratification one can rightly estimate treatment effects simply by averaging and differencing outcomes.

The right stratification need not take a simple form, in which case algorithms commonly in use won’t find it. However, there is always a so-called full matching that is as good as any other possible stratification. Full matchings enjoy various practical and theoretical advantages over other matchings. Since no existing statistical software creates full matchings, I have developing S routines that do so easily; I shall illustrate their use by analyzing an observational study of effects of commercial test preparation on SAT scores.