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Adjusting for bias in a mixed-mode CAWI survey on University students

Abstract

In a CAWI (Computer-Assisted Web Interview) survey self-selection is a potential source of bias, even if it is a census survey. In fact, people who participate in the survey can be very different with respect to other eligible units who decided not to answer the questionnaire. A careful contact strategy and some weighting procedures to compensate for non-response, can be used to control bias.

In this work we present the efforts made to compensate for this non-response bias in a CAWI survey conducted in early 2012 on a cohort of 8,473 first-degree course students, enrolled in academic year 2006/07 at Padova University. The survey aimed to investigate students’ attitudes, emotions and motivations towards university studies, and how they use support services.

Information about university careers and students’ household characteristics are also collected (see [1]). University administrative archives provided information to contact individuals (university email, private email, phone number, mobile phone number, postal address), as well as some basic characteristics of the students (gender, age at enrolment, type of high school, high school final grades, citizenship, place of residence, faculty of enrolment, university outcomes at the third year of course). The presence of several contact details enables us to use a mixed-mode invitation to the web survey ([2], [3], [4]). The contact to the target population was organized in four phases. In the first one we invited by email the whole cohort of student, while in the next three phases we invited by phone some individuals, chosen in order to obtain a representative sample of the entire cohort, the representativeness being considered with respect to the observed distribution of the university outcomes at the third year (information obtained from the administrative archive). This “controlled” quota sample and the mixed-mode invitation in the web survey prevent from high level of bias due to self-selection. Finally an ex-post weighting procedure based on propensity scores ([5]), performed on the basis of individual data from administrative archives, compensate for the remaining bias.

References


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