

Duluth Public Schools Residential Survey

SURVEY METHODOLOGY – Conducted by Decision Resources, Ltd.

The survey results are based upon a random-digit dialing telephone sample of households within the School District. This approach was chosen because both e-mail surveys and mail-out surveys have inherent limitations. In both cases, there is a self-selection bias resulting in a disproportionate representation of respondents who feel intense about the issue. In addition, these methods do not assure a random sample of all residents, calling into question the accuracy of the findings.

To assemble a random sample of households, the telephone exchanges (the first three digits) serving the area and the proportion of households on each exchange are established. Computer-generated four-digit random numerical sequences are then added to the exchanges to form seven-digit telephone numbers. These telephone numbers form the basis of the sample. In this way, the sample is able to include unlisted telephone numbers not found in directories.

At the beginning of the interview process, business telephone numbers and numbers outside of the School District are screened out through the first few questions. The adult respondent in the household is also randomly determined at the outset of the interview. In this way, all adult residents in households with telephones have an equal probability of being included in this sample.

Typically, households without “land-lines” present a problem for telephone samples; but, the problem is minimal since only 2%-3% of the households in Minnesota rely solely upon cellular telephones. Regardless, the Duluth School District sample does contain respondents who rely solely upon cellular telephones.

Questionnaires are administered over the telephone by trained and supervised interviewers. Telephone numbers are tried at least fifteen times during a two-week period, before another household is substituted for the original selection. In this way, the sample is not biased against individuals with active lifestyles. Similarly, foreign language interviewers are used with non-English speakers.

The sample size upon which the survey results are based is 300 adult School District residents. A random sample of this size provides a margin of error of $\pm 5.5\%$ at the .05 significance level. The margin of error refers to the accuracy of the survey results in comparison with the entire population. While the proportion of Duluth School District households is small, it does not impact the margin of error. Instead, the margin of error in a random sample is determined simply by the size of the sample. As an example, the well-known Gallup Poll has a margin of error of $\pm 3.0\%$ in its nationwide survey based upon only interviewing 1,200 residents across the nation. In most communities or school districts, 250 to 400 household random samples is the norm.

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