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**Mohammed Quazi\***, mquazi@unm.edu, NM 87106, and **Yan Lu**, NM. *Adjusted Design Effect Model for Individual Variables in Survey Data.*

In this study we have extended longitudinal generalized variance functions (LGVF) for grouped variables variance estimation to individual variables variance estimation. Effect of survey design and change of population over time are incorporated into modeling to estimate variance of a survey statistic. Six such LGVF models are studied and results produced span over 15 years of Current Population Survey's (CPS) March Supplement data from socio-economic category. In addition to this, variables grouped together are also studied. 18 binary variables are considered. Simulation shows that individual variable variance estimation outperforms grouped variable variance estimation. (Received August 30, 2021)