1125-62-2054   **John P Higgins*** (`higgins4@vt.edu`). *De-identification through re-identification: using high-dimensional distance to mitigate statistical disclosure.*

When the Census Bureau releases public-use data files, they must be sure to not disclose any individual's information for ethical reasons. To protect public-use data, the Center for Disclosure Avoidance Research (CDAR) uses various methods such as adding noise and row swapping, but there are no currently comprehensive techniques to validate the efficacy of such methods. This research aims to re-identify subjects from the American Housing Survey (AHS) to those in an external dataset using high-dimensional Euclidean distance with an additive penalty to account for missing values and close but not exact matches. Ultimately, the prevalence of missing values in this study leads to an interesting conclusion that the results of re-identification studies are directly limited by the quality of the both the internal and the external data used. (Received September 19, 2016)