

UBID for **CEC**

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Data Source

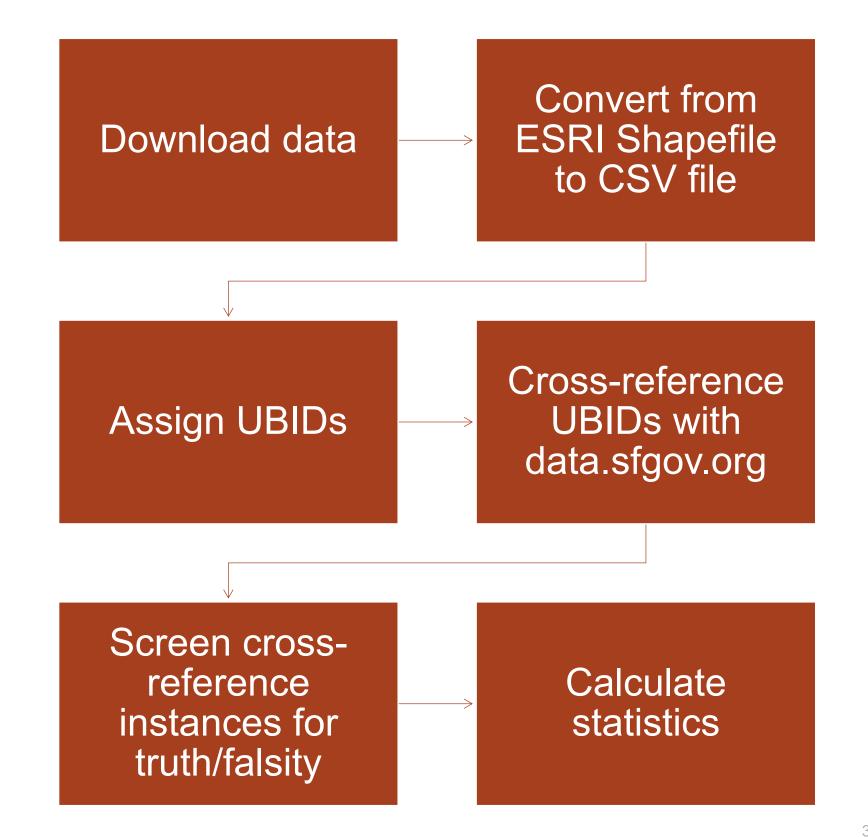
- ESRI Shapefile
 - Geographic coordinates
 - WGS-84

- CEC_Buildings_shapefile
 - UBID_Berkeley
 - UBID_LosAngeles
 - UBID_SanFrancisco ← Used for this study
 - UBID_Statewide1
 - UBID_Statewide2



Methodology

- Open source:
 - UBID assignment
- Closed source:
 - Cross-reference UBIDs





Cross-reference

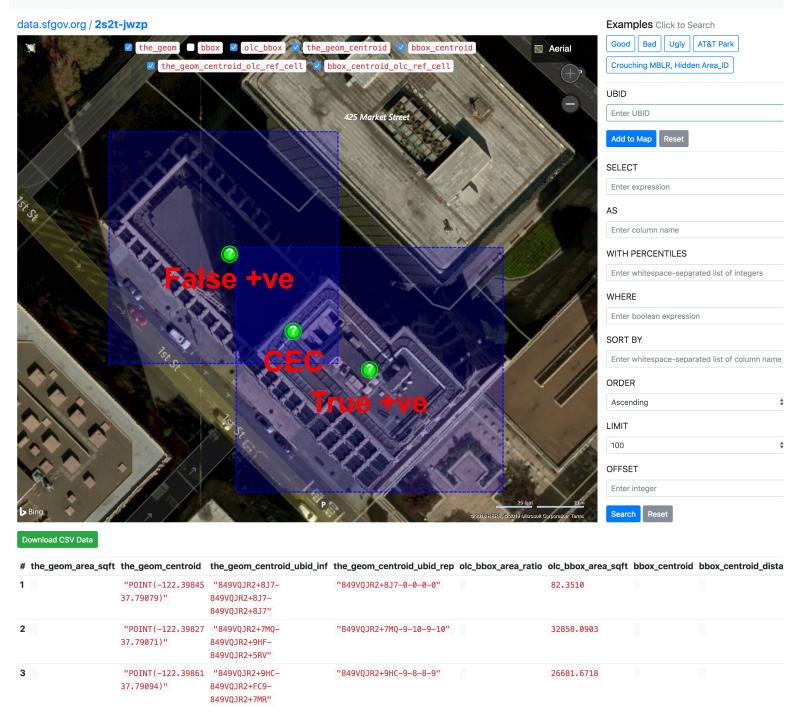
- Takes two files as input:
 - LHS = CEC
 - RHS = data.sfgov.org
 "2s2t-jwzp" dataset of building footprints

- Decide truth/falsity by comparing MBLRs
- By intersection of bounding boxes:
 - 407/435 records matched
 - 327 true positives
 - 80 false positives
 - Unknown number of true/false negatives
 - Precision = 80.3%
 - Recall = 100% (no false negatives), 92.1% (no true negatives)
 - F1 score = 89.1% (no false negatives), 85.8% (no true negatives)
- By Euclidean distance between centroids:
 - 407/435 records matched
 - 346 true positives
 - 61 false positives
 - Unknown number of true/false negatives
 - Precision = 85%
 - Recall = 100% (no false negatives), 92.5% (no true negatives)
 - F1 score = 91.9% (no false negatives), 88.6% (no true negatives)
- Combining the results of both approaches has 100% precision for the input datasets!



Cross-reference (cont.)

- CEC = 3709/011
- False +ve = SF3709011
 - By intersection
- True +ve = SF3709012
 - By Euclidean distance



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Cross-reference (cont.)

- CEC = 0292/004
- False +ve = SF0292015
 - By Euclidean distance
- True +ve = SF0292004
 - By intersection

data.sfgov.org / 2s2t-jwzp Examples Click to Search Good Bad Ugly AT&T Park the geom centroid olc ref cell 🗸 bbox centroid olc ref cel Crouching MBLR, Hidden Area_ID Add to Map Enter expression Crocker Galleric Enter column name WITH PERCENTILES Enter whitespace-separated list of integers Enter boolean expression Enter whitespace-separated list of column name Ascending LIMIT OFFSET Enter integer Download CSV Data # the_geom_area_sqft the_geom_centroid the_geom_centroid_ubid_inf the_geom_centroid_ubid_rep olc_bbox_area_ratio olc_bbox_area_sqft bbox_centroid bbox_centroid_dista "849VQHQW+MR6-0-0-0-0" 37.78916)" 849VQHQW+MR6-"POINT(-122.40305 "849VQHQW+RQ8-"849VQHQW+RQ8-13-8-17-48505.6042 37.78954)" 849V0H0W+WMR-849V0H0W+JVW" "849VQHQW+MMP-"POINT(-122,4033 "849VQHQW+MMP-8-10-8-11" 30799.9380 37.78921)" 849V0H0W+0G9-849VQHQW+JR2"

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Thank you

