User's Guide and Codebook for the ANES 2024 Time Series Voter Validation Supplemental Data

American National Election Studies
The University of Michigan and Stanford University
June 23, 2026

Suggested Citation

ANES. 2026. User's Guide and Codebook for the ANES 2024 Time Series Voter Validation Supplemental Data. Ann Arbor, MI and Palo Alto, CA: the University of Michigan and Stanford University.

Acknowledgments

This study was funded by the National Science Foundation (www.nsf.gov) under grant SES-1835731 to the University of Michigan. Any opinions, findings and conclusions, or recommendations expressed in these materials are those of the ANES staff author(s) and do not necessarily reflect the views of the National Science Foundation.

The Principal Investigators for the 2024 ANES were Nicholas Valentino (University of Michigan), Shanto Iyengar (Stanford University), D. Sunshine Hillygus (Duke University), and Daron Shaw (University of Texas). The directors of Stanford and Michigan operations, respectively, were Matthew DeBell and David Howell.

The 2024 vote validation process was directed by Matthew DeBell. Record linkage was performed by Minako Edgar with support from Raphael Nishimura. Record linkage was performed with probabilistic linkage software (*fastlink*) developed by Ted Enamorado, Ben Fifield, and Kosuke Imai, and clerical review of probabilistic results was performed using software developed in Python by Minako Edgar, Yara Sevilla, and Matthew DeBell. Validation relied on a national voter file compiled by L2, Inc., and licensed by Stanford University Libraries.

This documentation may reprint some material from previous ANES documentation without explicit attribution.

Contact

The ANES website address is www.electionstudies.org
Any questions not answered on the ANES website or by this report may be directed to ANES staff by email at anes@electionstudies.org

Contents

Introduction and Purpose of the Dataset

This is documentation for the ANES 2024 Time Series Voter Validation Supplemental Data. The data file provides data on voter turnout that were compiled from official voting records by a commercial vendor and were then matched to the ANES 2024 Time Series Study's sample by ANES personnel. The data are provided for purposes of methodological evaluation and for the analysis of voter turnout status. This documentation describes the matching procedures and resulting data.

Several commercial vendors compile voter data for sale for use in campaigns. Stanford University Libraries obtained access to a national voter file from one of these vendors, L2, Inc. ANES personnel used a probabilistic matching process supplemented by deterministic matching evaluations to link ANES respondents and sampled addresses to their corresponding records on this voter file.

Person and Address Records
This file includes voter data of two distinct types: person records and address records. Address records apply to the addresses that were sampled for the ANES 2024 Time Series Study. Person records apply to individuals who were sampled at the sampled addresses. Because individuals were not sampled at every address due to nonresponse, person records do not exist for all sample units. Person records of turnout are intended for comparison to self-reported turnout. Address records of turnout, which indicate the number of voters associated with a sampled address, may be used to analyze nonresponse, household context for sampled persons, or for other purposes.

Person records include voter turnout for the 2024, 2022, and 2020 general elections, and metadata about match quality. Address records include the number of registered voters at the sampled address who voted in the 2024, 2022, and 2020 general elections, and the numbers of registered voters, families, Democrats, independents, and Republicans at each sampled address.

Multiple Person Matches and Matching Methods
ANES respondent records were linked to voter file records using four distinct methods, often producing multiple prospective matches to different voter records.

1. *Probabilistic record linkage with fastlink*. We used the *fastlink*[1] probabilistic record linkage package for the *R* statistical programming language to identify prospective voter-file matches and assign each a fastlink-calculated posterior match probability score. We also identified one voter file record with the highest fastlink-calculated posterior match probability score across in-state and out-of-state searches; this approximates the record linkage method used by ANES for the 2016 Time Series Study.[2]
2. *Automated clerical review*. We performed an automated clerical review procedure, using software developed in Python by ANES for this purpose, that compared ANES records to each prospective voter-file match and produced match-quality indicators used to rule out matches that appeared implausible. This review result for the prospective match with the highest fastlink-calculated match score (above) approximates method used by ANES for the

[1] Ted Enamorado, Benjamin Fifield, and Kosuke Imai (2017). fastLink: Fast Probabilistic Record Linkage with Missing Data. Version 0.6.1. Available at https://github.com/kosukeimai/fastLink
[2] See Ted Enamorado, Benjamin Fifield, and Kosuke Imai (2018). User's Guide and Codebook for the ANES 2016 Time Series Voter Validation Supplemental Data. Available at https://electionstudies.org/wp-content/uploads/2018/03/anes_timeseries_2016voteval_userguidecodebook.pdf

2020 Time Series Study's "vendor 2" validated turnout data, but used an automated clerical review procedure, in contrast to the manual coder review performed for the 2020 dataset.[3]

3. *ANES questionnaire validation check*. After the pre-election study, we selected up to five plausible candidate voter-file records for each eligible case and, in the post-election questionnaire, presented these records (name, gender, date of birth, and address) to participants and asked them to indicate whether any record described them, to confirm the selected record if correct, or to provide corrections if not. See the VOTEVAL section of the 2024 post-election questionnaire. If a record was corrected, we searched the voter file again using the corrected information.
4. *Selecting the best match*. After performing the three procedures above, we selected what appeared to be the best match from among what was often more than one possibility.

These procedures are described in more detail in the sections below. The dataset includes 177 variables with results from all of these procedures.

Data Quality and Recommended Usage

ANES makes no representations about the quality of the voter data from its commercial sources. Users should be aware that evaluations of the quality of such data are controversial, in part because such vendors, as commercial political campaign operatives, do not build or document their datasets for research purposes and do not follow norms of scientific transparency. Errors from several sources may affect the accuracy of voter validation data. Sources of errors in these data include data entry and transcription errors when individuals complete voter registration forms and when government agencies enter data from registration forms into their databases, data entry errors when elections officials record voter turnout, imputation errors when data vendors use statistical models to predict and impute demographic characteristics for individuals, address matching errors when ANES personnel matched ANES sampled addresses to records on vendor files, person matching errors when ANES personnel matched the names, addresses, and birth date information of ANES respondents to records on vendor files, and other data processing errors. Combinations of such errors may be common in these data, and one of the purposes of collecting the data was to evaluate their value.[4]

To use this dataset, users may merge the data file with the ANES 2024 Time Series Study by case ID (`V240001`) to obtain additional data about sampled persons and households. Many users may focus on the variable `val_turnout24`, which gives the best available indication of validated turnout status in the 2024 presidential election. The most conservative approach to this variable is to treat unlinked cases (coded 1 or 2) as missing data. Many analysts of validated turnout data treat unlinked cases as non-voters, but it is also possible that these are voters who could not be successfully linked to a voter file records due to the types of errors noted in the paragraph above. When choosing whether to use self-reported turnout or validated turnout, and whether to treat unlinked cases as non-voters or as missing data, users should consider the tradeoffs between false

[3] For a description of the ANES 2020 procedures, see ANES (2022). User's Guide and Codebook for the ANES 2020 Time Series Voter Validation Supplemental Data. Available at https://electionstudies.org/wp-content/uploads/2022/10/anes_timeseries_2020_userguidecodebook_VoterValidation.pdf

[4] For discussion of the methods and accuracy of vote validation procedures, see Matthew DeBell (forthcoming), Towards Credible Vote Validation, *methods, data, analyses*; Ted Enamorado and Kosuke Imai (2019), Validating Self-Reported Turnout by Linking Public Opinion Surveys with Administrative Records. *Public Opinion Quarterly*, 83, 723-748.

positives (treating actual voters as non-voters) and false negatives (treating actual non-voters as voters) for their analysis. Self-reported turnout is likely to generate the most false positives, while validated turnout that treats unlinked cases as non-voters is likely to generate the most false negatives.

Probabilistic Record Linkage with Fastlink

ANES linked ANES 2024 sample records to the L2 national voter file using probabilistic record linkage implemented in the *fastlink* package for R. *Fastlink* estimates the likelihood that a given ANES sample record and a given voter-file record refer to the same individual by comparing multiple personally identifying information (PII) fields simultaneously and producing a posterior match probability score for each candidate pair. These probabilities are used here as an *index* of match strength and to rank prospective matches; they should not be interpreted as calibrated probabilities that a match is correct (see `val_matchprob` and `val_nn_matchprob`).

Fastlink searches with non-VOTEVAL information
Linkage using information collected outside the VOTEVAL section used three fastlink-based searches that differ in their matching variables and in how search candidates were restricted:

- *In-state person matching*. Person matching was performed within state-by-gender subsets (e.g., searching women in California, then separately searching men in California). In-state matches were based on first name, last name, house number, street name, ZIP code, and birth year. String similarity (via Jaro–Winkler) was used for first name, last name, and street name, and numeric distance was used for birth year.
- *In-state address matching*. Address matching was performed within state (without gender subsetting). Matches were based on house number, street name, and ZIP code, using string similarity for street name.
- *Out-of-state person matching*. Out-of-state person matching was performed within gender subsets and searched across voter records from multiple states. Matches were based on first name, middle name, last name, and full date of birth (birth year, month, and day).

Before matching, L2 voter-file fields were standardized for linkage (e.g., names were uppercased and ZIP codes were truncated to five digits).

Out-of-state matching was run selectively for cases where in-state matching did not yield any candidate matches, or where the best in-state person or address match was below a high-probability threshold, .9 (as indicated by the top posterior probability score).

Fastlink implementation
Fastlink compares records across multiple fields by classifying each field comparison as an agreement, partial agreement, or disagreement. For string fields listed in stringdist.match, it uses Jaro–Winkler similarity, treating values as agreements when similarity is at least cut.a and as partial agreements when similarity is at least cut.p (with lower similarity treated as disagreement). For numeric fields listed in numeric.match, it uses absolute differences, treating values as agreements when the difference is at most cut.a.num; in runs where partial numeric matching is enabled, differences up to cut.p.num are treated as partial agreements. In all runs shown here, return.all = TRUE retains multiple candidate matches per ANES record, and dedupe.matches = FALSE allows the same ANES record to match multiple voter-file records for later evaluation.

In-state person matching used the following script (with another version allowing for ZIP code to be missing):

```
fastLink(
  dfA = df.input, dfB = df.orig,
  varnames = c("FirstName","LastName","house_number","street_name","postalcode","BirthYear"),
  stringdist.match = c("FirstName","LastName","street_name"),
  numeric.match = c("BirthYear"),
  partial.match = c("FirstName","LastName","street_name","BirthYear"),
  cut.a = 0.94, cut.p = 0.85,
  cut.a.num = 1, cut.p.num = 2.5,
  return.all = TRUE,
  dedupe.matches = FALSE
)
```

Out-of-state matching script (with another version allowing for middle name to be missing):

```
fastLink(
  dfA = df.input, dfB = df.orig,
  varnames = c("FirstName","MiddleName","LastName","BirthYear","BirthMonth","BirthDay"),
  stringdist.match = c("FirstName","MiddleName","LastName"),
  numeric.match = c("BirthYear","BirthMonth","BirthDay"),
  cut.a = 0.94, cut.a.num = 1,
  return.all = TRUE,
  dedupe.matches = FALSE
)
```

Address-based script:

```
fastLink(
  dfA = df.input, dfB = df.orig,
  varnames = c("house_number","street_name","postalcode"),
  stringdist.match = c("street_name"),
  partial.match = c("street_name"),
  cut.a = 0.94, cut.p = 0.85,
  cut.a.num = 1, cut.p.num = 2.5,
  return.all = TRUE,
  dedupe.matches = FALSE
)
```

The fastlink highest probability match (FHPM)

The dataset includes a fastlink-based linkage result referred to as the fastlink highest probability match (FHPM). This is defined as the single prospective match having the highest fastlink posterior probability score across the in-state, out-of-state, and address searches, excluding any information from the VOTEVAL section. (In case of ties, preference was given to in-state matches, then address-based matches, then out-of-state matches.) In the public dataset, the FHPM corresponds to key type 12 (see the val_12_* variables, including val_12_matchprob).

Post-election re-search after respondent corrections

Fastlink was also used after the post-election validation check (described below) when a respondent corrected information for a prospective voter-file record shown in the questionnaire. In these cases, ANES performed a new fastlink search using the respondent-corrected information to identify additional possible matches and compute corresponding posterior probabilities (recorded in the relevant `val_nn_matchprob` variables). Because these later searches can differ from the initial linkage step (for example, due to respondent corrections that change search inputs), the FHPM is not necessarily the same record as the highest-probability match that might appear among other prospective matches identified later.

Fastlink outputs were used for ranking and selection of matches, but final linkage decisions in the released "best match" variables incorporate additional information, including automated match-quality evaluation and respondent feedback.

Automated Clerical Review[5]

In addition to probabilistic linkage scores from fastlink, ANES evaluated prospective person-level matches using an automated "clerical review" procedure implemented in a Python program developed for ANES vote validation work. This step is intended to approximate the judgments that a human reviewer would make when comparing an ANES record to a linked voter-file record and deciding whether the match is plausible, while also producing standardized metadata that can be used to evaluate match quality and analyze sensitivity to alternative linkage decisions.

For each prospective match (up to 12 per case, including the initial fastlink highest-probability match, the set of pre-election candidate matches selected for presentation in the VOTEVAL section of the questionnaire, and any later matches produced after respondent edits), the clerical review program compares identification fields on the ANES case to the corresponding fields on the candidate L2 voter-file record. (These prospective matches correspond to the match types indicated by the variables `val_01_key` through `val_12_key`.) The program then produces:

- counts of **minor** and **major** discrepancies (`val_`*nn*`_minor` and `val_`*nn*`_major`) between the ANES record and the voter-file record, and
- an ordinal **match quality concern score** (`val_`*nn*`_quality`, with lower values indicating fewer concerns and higher values indicating more concerns; -9 indicates the prospective match does not exist), and
- a dichotomous indicator of whether the prospective match is considered a **good match** (`val_`*nn*`_match`, coded 1 for good and 0 for not good; -9 indicates the prospective match does not exist).

Counting minor and major differences: The clerical review logic evaluates discrepancies in name, address, and date of birth. (Gender is not examined in clerical review because the matching procedures generating in-state and out-of-state matches are blocked on gender.) The discrepancy counts ignore formatting and other substantively equivalent representations, including capitalization, spacing, and punctuation, as well as common equivalences in suffixes (e.g., Junior and jr are treated as identical), street-type and directional variants (e.g., "E 5th Ave" and "East Fifth Avenue"), leading zeros in dates and ZIP codes, and city-name differences when ZIP codes match. A middle name written out in one record and reduced to an initial is also treated as no difference. *Minor* differences include, for example, a small typographical error (Levenshtein distance[6] ≤ 2), a recognizable nickname for a first name (e.g. Billy for William, or Peg for Margaret), the omission of a suffix when it is present in the other record, or the omission of an apartment number when present in the other record, or a difference in exactly one DOB component (month, day, or year) when the other two match. *Major* differences include, for example, different first or last names (beyond a single typo or nickname), different (non-missing) suffixes, differences in key address elements

[5] The clerical review procedure is described in greater detail in DeBell (forthcoming), cited above, footnote 4.
[6] Levenshtein distance is a measure of the difference of two alphanumeric strings. It indicates the minimum number of single-character edits (insertions, deletions, or substitutions) to change one string to the other. For example, the distance between Oak and Oat is 1, and the distance between Michael and Michelle is 3.

(street number, street name, unit number, state, or ZIP), multiple DOB differences, large DOB differences exceeding 15 years, and cumulative differences where discrepancies reinforce each other, such as the combination of a different name and street number or a suffix difference combined with a DOB gap exceeding 15 years.

Considering alternate names addresses: Survey respondents sometimes report their name differently at different times, or report being registered to vote at a different address than the one where they were sampled. We compared matches to alternate names and addresses when they were available and used the least discrepant match available. The automated clerical review evaluated both the primary and alternate values and used the name that minimized the discrepancy score for the name and the address that minimized the discrepancy score for the address.

Judging matches as good or not: The match quality concern scores (`val_quality` for the best match and `val_nn_quality` for the prospective matches) are calculated from the number of minor and major differences: if minor < 3, quality = major, with quality values capped at 3; else if minor $\geq$ 3, quality = major + 1, with quality values capped at 3. The dichotomous match indicator is based on the quality score, where values of 0 or 1 for (concerns about) quality are treated as a good match and values of 2 or 3 (concerns about) quality are treated as not good. Cases were not selected as best matches if there were serious concerns about quality, so `val_quality` does not have values of 2 or 3, but `val_nn_quality` variables do.

These clerical-review outputs serve two distinct purposes in the dataset. First, they provide users with diagnostic information about the plausibility of each prospective match, including matches that were ultimately not selected as the best match. Second, they inform the selection of the single "best matched" voter-file record reported in the summary turnout variables (`val_turnout24`, `val_turnout22`, `val_turnout20`) and summary match metadata (`val_match`, `val_quality`, `val_minor`, `val_major`, `val_matchprob`). In the public file, the "best match" summary variables correspond to whichever prospective match was selected as best (indicated by val_keymatch), and the associated clerical review results for that selected prospective match are propagated to `val_match, val_quality, val_minor, and val_major`.

Because the clerical review is algorithmic, it can be applied consistently across all cases and all match types, but it is not a guarantee of correctness. Users analyzing turnout or linkage performance may wish to incorporate these clerical review measures to assess robustness (for example, by restricting analyses to cases with low concern scores or few discrepancies, or by comparing results across alternative prospective matches).

ANES Questionnaire Validation Check

After the pre-election linkage work, ANES incorporated an additional validation step into the post-election questionnaire (the VOTEVAL section) that allowed survey participants to help adjudicate their own potential voter-file matches. This step served two purposes: (1) to evaluate how often algorithmically generated linkages appear correct when reviewed by respondents themselves, and (2) to improve linkage quality in cases where the best available match required corrections (e.g., name or address spelling corrections) or where multiple plausible matches existed.

For sampled persons with sufficient information and at least one plausible prospective match, and meeting other qualifying criteria,[7] ANES presented up to five candidate voter-file records to the respondent. These candidates were selected using pre-election fastlink-based linkage results generated by in-state person matching, out-of-state person matching, and an address-based matching search[8] (based on house number, street name, and ZIP code), and then filtered and selected using a set of deterministic selection rules ("VOTEVAL rules") designed to identify a small set of plausible possibilities to present to survey participants. In outline, the VOTEVAL rules:

- *Filter candidates by fastlink probability*, dropping very low-probability pairs (posterior probability < 0.1).
- *Treat in-state and out-of-state candidates differently*, applying stricter retention criteria for out-of-state candidates (e.g., requiring posterior probability > 0.8 and strong agreement on date of birth and/or name, with a limited allowance for small date-of-birth discrepancies).
- Where many out-of-state candidates are tied, *apply a small tie-break adjustment* based on exact agreement on name components (including middle initial and suffix when available) and closeness of date of birth; if ties remain too numerous to adjudicate, out-of-state candidates are dropped for that case.
- *Deduplicate* candidates that appear multiple times across sources (in-state, out-of-state, and address-based searches), using a consistent priority ordering so that each underlying voter-file record appears only once among the presented candidates.
- *Select up to five total candidates* by retaining the highest-probability candidates within source categories (i.e., the two remaining top in-state candidates, the remaining top out-of-state candidate, and the top address-based candidate where available) and then filling remaining slots with the highest remaining posterior probabilities.
- *Apply additional filtering* to address-based candidate matches (generated from an address-only fastlink search), including dropping candidates when first line of the address (i.e., the house number, name, and unit, if any, such as 123 Main St Apt 4) differs and posterior probability is below a very high threshold of .999, and retaining only the highest-posterior address-based candidate(s) when posterior scores are differentiated.

These selection rules were designed to identify a small set of plausible possibilities rather than simply listing cases with the top five posterior probabilities. As a result, the candidates shown in the VOTEVAL questionnaire module are not guaranteed to include the single record with the highest fastlink posterior probability from the separate FHPM linkage step, though this was often the case, and the FHPM is not necessarily the highest-probability record among all candidates shown to the respondent (although it often is).

During the VOTEVAL module, respondents were shown the full name, gender, date of birth, and address of up to five prospective voter-file records identified as resembling the respondent or linked to the sampled address. Respondents were asked to (a) select which candidate record appeared to be theirs, if any, and then (b) either confirm that the selected record was correct or indicate that it was not entirely correct and provide corrections. The public dataset captures these outcomes using:

---

[7] VOTEVAL was not asked if the participant was in the GSS sample or completed the FTF survey by video or phone.

[8] The address-based matching search used here produces candidate person records for respondent review and is distinct from the address-level household aggregate variables (val_hh_*) included elsewhere in the dataset.

- `val_confirmed`, indicating that a respondent selected one of the VOTEVAL candidates and confirmed it as correct with no edits;
- `val_corrected`, indicating that a respondent selected a candidate but reported corrections; and
- `val_selected_FHPM`, indicating whether the respondent-selected record was the same voter-file record as the initial fastlink highest probability match.

When a respondent provided corrections in VOTEVAL, ANES used the corrected information to perform an additional voter-file search to identify up to five new prospective matches based on the respondent-edited details. These post-edit prospective matches are included among the "considered matches" in the dataset (alongside pre-election prospective matches) and are evaluated with the same match metadata (including fastlink probability scores and automated clerical review outputs). In combination, these questionnaire-based checks and (when applicable) post-edit searches provide a respondent-informed linkage pathway that can be compared to purely algorithmic linkage approaches.

Selecting the Best Match

Voter validation efforts often produced more than one plausible voter-file record for a given ANES case. The public dataset therefore includes (a) turnout indicators and match metadata for *up to 12 prospective matches* (the `val_01_*` through `val_12_*` series), and (b) a single set of summary turnout and match variables (`val_turnout24, val_turnout22, val_turnout20, val_match, val_quality, val_minor, val_major, val_matchprob`) corresponding to the *best matched* voter-file record selected by ANES. The variable `val_keymatch` indicates which prospective match (key 1–12) was selected as the best match; a value of 0 indicates that no match was selected.

Best-match selection followed a hierarchy of preference that prioritized respondent-confirmed information when available and otherwise relied on algorithmic linkage results as evaluated by automated clerical review. Specifically, ANES selected the first available match in the list ordered below; except for respondent-confirmed matches, candidates were required to be judged a good match by clerical review to be selected as the best match.

1. *Respondent-confirmed match (no edits).* If, in the post-election VOTEVAL section, the respondent selected one of the candidate records and confirmed it as correct with no edits (`val_confirmed`), that record was taken as the best match (key type 1). This respondent-confirmed match does not require additional agreement from clerical review to be selected as best.
2. *Matches from a new search after respondent edits.* If the respondent selected a candidate record but provided corrections (`val_corrected`), ANES used the corrected information to run an additional fastlink-based search and identify up to five new prospective matches. These post-edit prospective matches were considered next, in order (key types 2–6 in the public file's key scheme).
3. *Pre-election VOTEVAL candidate matches.* If no respondent-confirmed match was available (for instance, because the respondent did not complete the post-election questionnaire) and either no corrections were provided or the post-edit search yielded no acceptable match, ANES next considered the up-to-five pre-election VOTEVAL candidate matches (key types 7–11).

4. *Fastlink highest probability match (FHPM).* If none of the above produced an acceptable match, ANES considered the initial fastlink highest probability match from the FHPM linkage step (key type 12).

This hierarchy is designed to (a) make maximal use of respondent adjudication when it exists, while (b) retaining an algorithmic "best match" for cases without respondent confirmation or successful post-edit linkage. Because prospective matches can sometimes refer to the same underlying voter-file record, the dataset also provides indicators of duplicate matches across keys (the `val_*vs*` variables) and summary counts of the number of matches considered (`val_totalmatches`) and the number of unique voter-file records among them (`val_nummatch`).

Contents of the Dataset

The dataset has 12,955 cases, corresponding to the ANES sample, excluding cases from the General Social Survey's GSS-ANES sample and a small number of additional cases for which critical identification data were missing.

The dataset contains 177 variables, as follows.

version. ANES 2024 Voter Validation dataset version. This variable identifies the version of the vote validation dataset release. The first release version is 20260619 (produced June 19, 2026).

V240001. ANES 2024 case ID. This case identification number corresponds to the case IDs on the ANES 2024 Time Series Study and Methodology data files.

val_turnout24: Voting status, 2024 presidential election, for the best matched person record. Most data users seeking validated voter turnout for the 2024 presidential election will want to use this variable.

1 Linkage not attempted due to missing PII (usually unit nonresponse)
2 Linkage attempted, no record found
3 Linked, not voting
4 Linked, voting

val_turnout22: Voting status, 2022 general election, for the best matched person record. Same codes as val_turnout24.

val_turnout20: Voting status, 2020 presidential election, for the best matched person record. Same codes as val_turnout24.

val_match: Match status from clerical review for the best-matched person record that was considered good. The code 1 indicates a person match was found for the respondent, while 0 indicates linkage was attempted but no satisfactory match was found, and -1 indicates no person match was attempted due to insufficient information (usually for cases of unit nonresponse). The same cases coded 2 for val_turnout24, val_turnout22, and val_turnout20 are coded 0 for val_match.

val_quality: Match quality concern score from clerical review, for the best matched person record that was considered good. Codes:

-1 No satisfactory match was found.
0 Lowest concern (highest quality match)
1 Some concern (satisfactory match with some discrepancy)

val_minor: Count of minor discrepancies between the ANES record and the best-matched voter file record for cases where a person match was successful. A code of -9 indicates no successful match (either because linkage was not attempted or because no satisfactory record was found when linkage was attempted; these are indicated by a code of -1 on val_quality), and other codes are the integer count of minor discrepancies. See Automated Clerical Review section, above, for definitions of minor and major discrepancies.

val_major: Count of major discrepancies between the ANES record and the best-matched voter file record for cases where a person match was successful. Cases with more than 1 major discrepancy were considered unsuccessful matches and are coded only as "no successful match" in this variable, so the largest value shown is 1. When counts were higher, they are shown in the val_*nn*_major variables described later.

-9 No successful match
0 No major discrepancies
1 One major discrepancy

val_matchprob: The posterior probability calculated by fastlink to index the likelihood of a successful match. This is coded -9 for non-matches and takes a value between 0 and 1 for matches. This is not a calibrated probability; multiple scores with sums exceeding 1 are often generated for possible matches for the same case, and these probabilities differ substantially from the probability that the match is considered correct. See DeBell (forthcoming) for discussion.

val_keymatch: Values from 1 through 12 indicate which of the potential matches indicated by the variables val_01_key through val_12_key, below, was selected as the best match and reported for the variables above. A 0 indicates no match was selected.

val_01_turnout24 through **val_12_turnout24**: Turnout status in the 2024 general election for the prospective match with key value 1 through 12 as indicated in the variable name. Codes are -1 (no match of this type), 3 (not voting), or 4 (voting). See val_01_key through val_12_key (below) for record types indicated by the numbers (key values).

val_01_turnout22 through **val_12_turnout22**: As above, but for the 2022 general election.

val_01_turnout20 through **val_12_turnout20**: As above, but for the 2020 general election.

val_01_key through **val_12_key**: These 12 variables respectively indicate whether there was a prospective match of each of 12 possible match types, as follows. Key 12 is the fastlink highest probability match (FHPM): the single candidate with the highest fastlink posterior probability score across the searches excluding VOTEVAL information. Key 7 through 11 are the prospective matches selected for display in the VOTEVAL section of the post-election questionnaire (with their clerical review results indicated in val_07_match through val_11_match and val_07_quality through val_11_quality) (and correspond, respectively, to VOTEVAL persons 1 through 5 in the VOTEVAL section of the post-election questionnaire). Key 1 reflects respondent selection of one of the matches 7 through 11, and key 2 through key 6 reflect the results of a follow-up search based on

respondent corrections (to one possible match) provided during the post-election questionnaire. Codes for these variables are 0 to indicate no prospective match of this type, or the number of the variable to indicate a match exists (e.g., val_02_key is coded 0 or 2, val_05_key is coded 0 or 5, etc.).

01 Prospective match status: R-confirmed best match with no edits
02 Prospective match status: Second search with R-corrected information, person 1
03 Prospective match status: Second search with R-corrected information, person 2
04 Prospective match status: Second search with R-corrected information, person 3
05 Prospective match status: Second search with R-corrected information, person 4
06 Prospective match status: Second search with R-corrected information, person 5
07 Prospective match status: Questionnaire match candidate, VOTEVAL person 1
08 Prospective match status: Questionnaire match candidate, VOTEVAL person 2
09 Prospective match status: Questionnaire match candidate, VOTEVAL person 3
10 Prospective match status: Questionnaire match candidate, VOTEVAL person 4
11 Prospective match status: Questionnaire match candidate, VOTEVAL person 5
12 Prospective match status: Fastlink highest probability match (FHPM)

val_fhpm: Indicates if the best match is also the fastlink highest probability match (FHPM). Also see val_selected_FHPM, below.

val_nummatch: Indicates the number of prospective matches (among key 1 through 12) that are unique, that is, that have different voter IDs on the voter file.

val_totalmatches: Indicates the number of prospective matches among key 1 through 12. This is a count of key values present and includes duplicates. It takes values from 0 through 11. The range is 0 to 11 (not 12) because key 01 (respondent-confirmed with no edits) and keys 02 through 06 (second search after respondent corrections) are mutually exclusive; a case can have key 01, or one or more of keys 02 through 06, but not both.

val_corrected: R corrected matching record at VOTEVAL. This indicates the respondent edited a match in the post-election questionnaire. Codes:

-1 Not applicable, VOTEVAL not administered
0 No correction at VOTEVAL (incl. item nonresponse and confirmation without edits)
1 VOTEVAL person 1 (key 7) was corrected
2 VOTEVAL person 2 (key 8) was corrected
3 VOTEVAL person 3 (key 9) was corrected
4 VOTEVAL person 4 (key 10) was corrected
5 VOTEVAL person 5 (key 11) was corrected

val_confirmed: R confirmed matching record at VOTEVAL. Codes 1-5 indicate the respondent selected the indicated record at VOTEVAL_LIST and confirmed that it was correct with no edits. Codes:

-1 Not applicable, VOTEVAL not administered
0 No confirmation at VOTEVAL (includes item nonresponse and corrections)
1 VOTEVAL person 1 (key 7) was correct
2 VOTEVAL person 2 (key 8) was correct
3 VOTEVAL person 3 (key 9) was correct
4 VOTEVAL person 4 (key 10) was correct
5 VOTEVAL person 5 (key 11) was correct

val_selected_FHPM: R selected FHPM at VOTEVAL. Indicates if the case the R selected at VOTEVAL is the fastlink highest probability match. Codes:

-1 Not applicable, VOTEVAL not administered
0 No, case selected at VOTEVAL is not FHPM
1 Yes, VOTEVAL person 1 (key 7) is FHPM
2 Yes, VOTEVAL person 2 (key 8) is FHPM
3 Yes, VOTEVAL person 3 (key 9) is FHPM
4 Yes, VOTEVAL person 4 (key 10) is FHPM
5 Yes, VOTEVAL person 5 (key 11) is FHPM

val_selected_best: At VOTEVAL, R selected the voter record that was ultimately designated the best match after any further record searches and clerical review. Codes:

-1 Not applicable, VOTEVAL not administered
0 No, case selected at VOTEVAL is not best match
1 Yes, VOTEVAL person 1 (key 7) is best match
2 Yes, VOTEVAL person 2 (key 8) is best match
3 Yes, VOTEVAL person 3 (key 9) is best match
4 Yes, VOTEVAL person 4 (key 10) is best match
5 Yes, VOTEVAL person 5 (key 11) is best match

val_01_match through **val_12_match**: Match status of each prospective match as determined by clerical review. Codes -9 (no prospective match), 0 (not good) and 1 (good). Variables 01 through 12 correspond to key values above.

val_01_quality through **val_12_quality**: Match quality score from algorithmic clerical review. -9 indicates no prospective match of this type, and codes from 0 (best) to 3 (worst) indicate match quality/concerns.

val_01_minor through **val_12_minor**: count of "minor" differences between the ANES record and the prospective match indicated by the number 01 through 12.

val_01_major through **val_12_major**: count of "major" differences between the ANES record and the prospective match indicated by the number 01 through 12.

val_01_matchprob through **val_12_matchprob**: fastlink posterior probability assigned to the prospective match indicated by the number 01 through 12.

val_hh_addmatch: Address/household match status (1=yes, 0=no)

val_hh_number: Number of registered voters (i.e., persons on the L2 voter file) in the matched household. -9 inapplicable. High values for this variable and the other *hh* variables below are likely to constitute errors in the voter database resulting from failures to distinguish among households at a particular address (such as apartment buildings where all units at the address are aggregated). Values for this and the next 7 variables (through val_hh_independents) higher than 3 (or 5 for val_hh_number only) are topcoded to limit participant disclosure risk.

val_hh_families: Number of families in the matched household.

val_hh_turnout24: Number of household voters who voted in the 2024 presidential election.

val_hh_turnout22: Number of household voters who voted in the 2022 general election.

val_hh_turnout20: Number of household voters who voted in the 2020 presidential election.

val_hh_democrats: Number of registered Democrats in the matched household (modeled).

val_hh_republicans: Number of registered Republicans in the matched household (modeled).

val_hh_independents: Number of registered independents in the matched household (modeled).

val_hh_matchtype: Household match type:

0 No address match
1 Address match only (without a person match)
2 Address match with a person match

val_01vs07 through **val_11vs12**: Indicates if the cases indicated by the two numbers corresponding to val_*nn*_key are duplicates. That is, for example, if val_01vs07 has the value of 1 (yes), this indicates that the voter data val_01_turnout and val_07_turnout refer to the same voter file case. Duplication indicator variables are not included when duplicates are precluded by the data generation process. For example, key values 02 through 06 were created to be mutually exclusive so there is no duplication indicator for, for example, 02vs03.

Codebook

```
-------------------------------------------------------------------------------------------------------------
version                                                                                      Dataset version
-------------------------------------------------------------------------------------------------------------

                  Type: String (str51)

         Unique values: 1                        Missing "": 0/12,955

            Tabulation: Freq.  Value
                        12,955  "ANES 2024 Voter Validation dataset
                                version 20260623"

               Warning: Variable has embedded blanks.

-------------------------------------------------------------------------------------------------------------
V240001                                                                                                Case ID
-------------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)

                 Range: [140001,399997]               Units: 1
         Unique values: 12,955                    Missing .: 0/12,955

                  Mean:  240678
             Std. dev.: 77860.2

           Percentiles:     10%       25%       50%       75%       90%
```

```
                        141308    203489    222666    317835    367009

-------------------------------------------------------------------------------------------------------------
val_turnout24                                                                 Voter turnout 2024 presidential
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_turnout24

                Range: [1,4]                         Units: 1
        Unique values: 4                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       7,679         1  Linkage not attempted
                         672         2  Linkage attempted, no record
                                        found
                         850         3  Linked, not voting
                       3,754         4  Linked, voting

-------------------------------------------------------------------------------------------------------------
val_turnout22                                                                 Voter turnout 2022 general
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_turnout22

                Range: [1,4]                         Units: 1
        Unique values: 4                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       7,679         1  Linkage not attempted
                         672         2  Linkage attempted, no record
                                        found
                       1,464         3  Linked, not voting
                       3,140         4  Linked, voting

-------------------------------------------------------------------------------------------------------------
val_turnout20                                                                 Voter turnout 2020 presidential
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_turnout20

                Range: [1,4]                         Units: 1
        Unique values: 4                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       7,679         1  Linkage not attempted
                         672         2  Linkage attempted, no record
                                        found
                         914         3  Linked, not voting
                       3,690         4  Linked, voting

-------------------------------------------------------------------------------------------------------------
val_match                                                                                   Person match status
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_match

                Range: [-1,1]                        Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       7,679        -1  Linkage not attempted
                         672         0  Linkage attempted, no match
                                        found
                       4,604         1  Match found
```

```
-------------------------------------------------------------------------------------------------------------
val_quality                                                                    Person match quality (0=best)
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_quality

                Range: [-1,1]                        Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       8,351        -1  No satisfactory match found
                       3,740         0  Lowest concern (highest quality
                                        match)
                         864         1  Some concern (satisfactory
                                        match with some discrepancy)

-------------------------------------------------------------------------------------------------------------
val_minor                                                    Person match, count of minor discrepancies
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_minor, but 5 nonmissing values are not labeled

                Range: [-9,4]                        Units: 1
        Unique values: 6                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       8,351        -9  No successful match
                       1,606         0
                       2,280         1
                         656         2
                          60         3
                           2         4

-------------------------------------------------------------------------------------------------------------
val_major                                                    Person match, count of major discrepancies
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_major, but 2 nonmissing values are not labeled

                Range: [-9,1]                        Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       8,351        -9  No successful match
                       3,802         0
                         802         1

-------------------------------------------------------------------------------------------------------------
val_matchprob                                  Fastlink match quality score (posterior probability)
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_matchprob, but 1003 nonmissing values are not labeled

                Range: [-9,1]                        Units: 1.000e-10
        Unique values: 1,004                      Missing .: 0/12,955

             Examples: -9    No successful match
                       -9    No successful match
                       -9    No successful match
                       1

-------------------------------------------------------------------------------------------------------------
val_keymatch                               Which match from val_01_key thru val_12_key selected as best
-------------------------------------------------------------------------------------------------------------
```

```
                 Type: Numeric (double)
                Label: val_keymatch, but 10 nonmissing values are not labeled

                Range: [0,12]                        Units: 1
        Unique values: 11                       Missing .: 0/12,955

             Examples: 0     None
                       0     None
                       0     None
                       1
```

---

val_01_turnout24 — 2024 turnout status for prospective match key=1

```
                 Type: Numeric (double)
                Label: val_01_turnout24

                Range: [-1,4]                        Units: 1
        Unique values: 3                        Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       9,880        -1  No match of this type
                         517         3  Not voting
                       2,558         4  Voting
```

---

val_01_turnout22 — 2022 turnout status for prospective match key=1

```
                 Type: Numeric (double)
                Label: val_01_turnout22

                Range: [-1,4]                        Units: 1
        Unique values: 3                        Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       9,880        -1  No match of this type
                         844         3  Not voting
                       2,231         4  Voting
```

---

val_01_turnout20 — 2020 turnout status for prospective match key=1

```
                 Type: Numeric (double)
                Label: val_01_turnout20

                Range: [-1,4]                        Units: 1
        Unique values: 3                        Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       9,880        -1  No match of this type
                         486         3  Not voting
                       2,589         4  Voting
```

---

val_02_turnout24 — 2024 turnout status for prospective match key=2

```
                 Type: Numeric (double)
                Label: val_02_turnout24

                Range: [-1,4]                        Units: 1
        Unique values: 3                        Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                      12,526        -1  No match of this type
                         105         3  Not voting
```

```
                        324         4  Voting

-------------------------------------------------------------------------------------------------------------
val_02_turnout22                                          2022 turnout status for prospective match key=2
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_02_turnout22

                Range: [-1,4]                        Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                      12,526        -1  No match of this type
                         164         3  Not voting
                         265         4  Voting

-------------------------------------------------------------------------------------------------------------
val_02_turnout20                                          2020 turnout status for prospective match key=2
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_02_turnout20

                Range: [-1,4]                        Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                      12,526        -1  No match of this type
                         103         3  Not voting
                         326         4  Voting

-------------------------------------------------------------------------------------------------------------
val_03_turnout24                                          2024 turnout status for prospective match key=3
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_03_turnout24

                Range: [-1,4]                        Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                      12,692        -1  No match of this type
                          84         3  Not voting
                         179         4  Voting

-------------------------------------------------------------------------------------------------------------
val_03_turnout22                                          2022 turnout status for prospective match key=3
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_03_turnout22

                Range: [-1,4]                        Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                      12,692        -1  No match of this type
                         112         3  Not voting
                         151         4  Voting

-------------------------------------------------------------------------------------------------------------
val_03_turnout20                                          2020 turnout status for prospective match key=3
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_03_turnout20
```

```
                Range: [-1,4]                       Units: 1
        Unique values: 3                        Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,692       -1  No match of this type
                           79        3  Not voting
                          184        4  Voting

------------------------------------------------------------------------------------------------------------------
val_04_turnout24                                        2024 turnout status for prospective match key=4
------------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_04_turnout24

                Range: [-1,4]                       Units: 1
        Unique values: 3                        Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,847       -1  No match of this type
                           36        3  Not voting
                           72        4  Voting

------------------------------------------------------------------------------------------------------------------
val_04_turnout22                                        2022 turnout status for prospective match key=4
------------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_04_turnout22

                Range: [-1,4]                       Units: 1
        Unique values: 3                        Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,847       -1  No match of this type
                           58        3  Not voting
                           50        4  Voting

------------------------------------------------------------------------------------------------------------------
val_04_turnout20                                        2020 turnout status for prospective match key=4
------------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_04_turnout20

                Range: [-1,4]                       Units: 1
        Unique values: 3                        Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,847       -1  No match of this type
                           45        3  Not voting
                           63        4  Voting

------------------------------------------------------------------------------------------------------------------
val_05_turnout24                                        2024 turnout status for prospective match key=5
------------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_05_turnout24

                Range: [-1,4]                       Units: 1
        Unique values: 3                        Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,905       -1  No match of this type
                           15        3  Not voting
                           35        4  Voting

------------------------------------------------------------------------------------------------------------------
```

```
val_05_turnout22                                        2022 turnout status for prospective match key=5
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_05_turnout22

                Range: [-1,4]                        Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,905        -1  No match of this type
                           22         3  Not voting
                           28         4  Voting

-------------------------------------------------------------------------------------------------------
val_05_turnout20                                        2020 turnout status for prospective match key=5
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_05_turnout20

                Range: [-1,4]                        Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,905        -1  No match of this type
                           20         3  Not voting
                           30         4  Voting

-------------------------------------------------------------------------------------------------------
val_06_turnout24                                        2024 turnout status for prospective match key=6
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_06_turnout24

                Range: [-1,4]                        Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,944        -1  No match of this type
                            3         3  Not voting
                            8         4  Voting

-------------------------------------------------------------------------------------------------------
val_06_turnout22                                        2022 turnout status for prospective match key=6
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_06_turnout22

                Range: [-1,4]                        Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,944        -1  No match of this type
                            4         3  Not voting
                            7         4  Voting

-------------------------------------------------------------------------------------------------------
val_06_turnout20                                        2020 turnout status for prospective match key=6
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_06_turnout20

                Range: [-1,4]                        Units: 1
        Unique values: 3                          Missing .: 0/12,955
```

```
            Tabulation: Freq.   Numeric  Label
                       12,944        -1  No match of this type
                            2         3  Not voting
                            9         4  Voting

-------------------------------------------------------------------------------------------------------------
val_07_turnout24                                        2024 turnout status for prospective match key=7
-------------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_07_turnout24

                 Range: [-1,4]                        Units: 1
         Unique values: 3                          Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                        7,900        -1  No match of this type
                        1,090         3  Not voting
                        3,965         4  Voting

-------------------------------------------------------------------------------------------------------------
val_07_turnout22                                        2022 turnout status for prospective match key=7
-------------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_07_turnout22

                 Range: [-1,4]                        Units: 1
         Unique values: 3                          Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                        7,900        -1  No match of this type
                        1,710         3  Not voting
                        3,345         4  Voting

-------------------------------------------------------------------------------------------------------------
val_07_turnout20                                        2020 turnout status for prospective match key=7
-------------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_07_turnout20

                 Range: [-1,4]                        Units: 1
         Unique values: 3                          Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                        7,900        -1  No match of this type
                        1,044         3  Not voting
                        4,011         4  Voting

-------------------------------------------------------------------------------------------------------------
val_08_turnout24                                        2024 turnout status for prospective match key=8
-------------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_08_turnout24

                 Range: [-1,4]                        Units: 1
         Unique values: 3                          Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                        9,125        -1  No match of this type
                        1,104         3  Not voting
                        2,726         4  Voting

-------------------------------------------------------------------------------------------------------------
val_08_turnout22                                        2022 turnout status for prospective match key=8
-------------------------------------------------------------------------------------------------------------
```

```
                 Type: Numeric (double)
                Label: val_08_turnout22

                Range: [-1,4]                        Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       9,125        -1  No match of this type
                       1,543         3  Not voting
                       2,287         4  Voting

-------------------------------------------------------------------------------------------------------------
val_08_turnout20                                          2020 turnout status for prospective match key=8
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_08_turnout20

                Range: [-1,4]                        Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       9,125        -1  No match of this type
                       1,026         3  Not voting
                       2,804         4  Voting

-------------------------------------------------------------------------------------------------------------
val_09_turnout24                                          2024 turnout status for prospective match key=9
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_09_turnout24

                Range: [-1,4]                        Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                      10,984        -1  No match of this type
                         716         3  Not voting
                       1,255         4  Voting

-------------------------------------------------------------------------------------------------------------
val_09_turnout22                                          2022 turnout status for prospective match key=9
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_09_turnout22

                Range: [-1,4]                        Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                      10,984        -1  No match of this type
                       1,017         3  Not voting
                         954         4  Voting

-------------------------------------------------------------------------------------------------------------
val_09_turnout20                                          2020 turnout status for prospective match key=9
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_09_turnout20

                Range: [-1,4]                        Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                      10,984        -1  No match of this type
                         663         3  Not voting
```

```
                      1,308         4  Voting

-------------------------------------------------------------------------------------------------------------
val_10_turnout24                                          2024 turnout status for prospective match key=10
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_10_turnout24

                Range: [-1,4]                       Units: 1
        Unique values: 3                         Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                      11,953        -1  No match of this type
                         371         3  Not voting
                         631         4  Voting

-------------------------------------------------------------------------------------------------------------
val_10_turnout22                                          2022 turnout status for prospective match key=10
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_10_turnout22

                Range: [-1,4]                       Units: 1
        Unique values: 3                         Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                      11,953        -1  No match of this type
                         535         3  Not voting
                         467         4  Voting

-------------------------------------------------------------------------------------------------------------
val_10_turnout20                                          2020 turnout status for prospective match key=10
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_10_turnout20

                Range: [-1,4]                       Units: 1
        Unique values: 3                         Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                      11,953        -1  No match of this type
                         381         3  Not voting
                         621         4  Voting

-------------------------------------------------------------------------------------------------------------
val_11_turnout24                                          2024 turnout status for prospective match key=11
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_11_turnout24

                Range: [-1,4]                       Units: 1
        Unique values: 3                         Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                      12,512        -1  No match of this type
                         169         3  Not voting
                         274         4  Voting

-------------------------------------------------------------------------------------------------------------
val_11_turnout22                                          2022 turnout status for prospective match key=11
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_11_turnout22
```

```
                Range: [-1,4]                       Units: 1
        Unique values: 3                        Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                      12,512        -1  No match of this type
                         242         3  Not voting
                         201         4  Voting

-------------------------------------------------------------------------------------------------------------
val_11_turnout20                                        2020 turnout status for prospective match key=11
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_11_turnout20

                Range: [-1,4]                       Units: 1
        Unique values: 3                        Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                      12,512        -1  No match of this type
                         156         3  Not voting
                         287         4  Voting

-------------------------------------------------------------------------------------------------------------
val_12_turnout24                                        2024 turnout status for prospective match key=12
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_12_turnout24

                Range: [-1,4]                       Units: 1
        Unique values: 3                        Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       7,679        -1  No match of this type
                       1,101         3  Not voting
                       4,175         4  Voting

-------------------------------------------------------------------------------------------------------------
val_12_turnout22                                        2022 turnout status for prospective match key=12
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_12_turnout22

                Range: [-1,4]                       Units: 1
        Unique values: 3                        Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       7,679        -1  No match of this type
                       1,930         3  Not voting
                       3,346         4  Voting

-------------------------------------------------------------------------------------------------------------
val_12_turnout20                                        2020 turnout status for prospective match key=12
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_12_turnout20

                Range: [-1,4]                       Units: 1
        Unique values: 3                        Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       7,679        -1  No match of this type
                       1,252         3  Not voting
                       4,024         4  Voting

-------------------------------------------------------------------------------------------------------------
```

```
val_01_key                              Prospective match status: R-confirmed best match with no edits
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_01_key

                Range: [0,1]                         Units: 1
        Unique values: 2                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       9,880         0  No match of this type
                       3,075         1  The respondent-confirmed best
                                        match with no edits

-------------------------------------------------------------------------------------------------------
val_02_key                        Prospective match status: Second search with R-corrected info, person 1
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_02_key

                Range: [0,2]                         Units: 1
        Unique values: 2                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                      12,526         0  No match of this type
                         429         2  Second search with R-corrected
                                        info, person 1

-------------------------------------------------------------------------------------------------------
val_03_key                        Prospective match status: Second search with R-corrected info, person 2
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_03_key

                Range: [0,3]                         Units: 1
        Unique values: 2                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                      12,692         0  No match of this type
                         263         3  Second search with R-corrected
                                        info, person 2

-------------------------------------------------------------------------------------------------------
val_04_key                        Prospective match status: Second search with R-corrected info, person 3
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_04_key

                Range: [0,4]                         Units: 1
        Unique values: 2                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                      12,847         0  No match of this type
                         108         4  Second search with R-corrected
                                        info, person 3

-------------------------------------------------------------------------------------------------------
val_05_key                        Prospective match status: Second search with R-corrected info, person 4
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_05_key

                Range: [0,5]                         Units: 1
        Unique values: 2                          Missing .: 0/12,955
```

```
            Tabulation: Freq.   Numeric  Label
                       12,905         0  No match of this type
                           50         5  Second search with R-corrected
                                         info, person 4

-------------------------------------------------------------------------------------------------------
val_06_key                        Prospective match status: Second search with R-corrected info, person 5
-------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_06_key

                 Range: [0,6]                        Units: 1
         Unique values: 2                          Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                       12,944         0  No match of this type
                           11         6  Second search with R-corrected
                                         info, person 5

-------------------------------------------------------------------------------------------------------
val_07_key                        Prospective match status: Questionnaire match candidate, VOTEVAL person 1
-------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_07_key

                 Range: [0,7]                        Units: 1
         Unique values: 2                          Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                        7,900         0  No match of this type
                        5,055         7  Questionnaire match candidate,
                                         VOTEVAL person 1

-------------------------------------------------------------------------------------------------------
val_08_key                        Prospective match status: Questionnaire match candidate, VOTEVAL person 2
-------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_08_key

                 Range: [0,8]                        Units: 1
         Unique values: 2                          Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                        9,125         0  No match of this type
                        3,830         8  Questionnaire match candidate,
                                         VOTEVAL person 2

-------------------------------------------------------------------------------------------------------
val_09_key                        Prospective match status: Questionnaire match candidate, VOTEVAL person 3
-------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_09_key

                 Range: [0,9]                        Units: 1
         Unique values: 2                          Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                       10,984         0  No match of this type
                        1,971         9  Questionnaire match candidate,
                                         VOTEVAL person 3

-------------------------------------------------------------------------------------------------------
val_10_key                        Prospective match status: Questionnaire match candidate, VOTEVAL person 4
-------------------------------------------------------------------------------------------------------
```

```
                 Type: Numeric (double)
                Label: val_10_key

                Range: [0,10]                        Units: 10
        Unique values: 2                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                      11,953         0  No match of this type
                       1,002        10  Questionnaire match candidate,
                                        VOTEVAL person 4
```

```
-------------------------------------------------------------------------------------------------------
val_11_key                      Prospective match status: Questionnaire match candidate, VOTEVAL person 5
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_11_key

                Range: [0,11]                        Units: 1
        Unique values: 2                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                      12,512         0  No match of this type
                         443        11  Questionnaire match candidate,
                                        VOTEVAL person 5
```

```
-------------------------------------------------------------------------------------------------------
val_12_key                           Prospective match status: Fastlink highest probability match (FHPM)
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_12_key

                Range: [0,12]                        Units: 1
        Unique values: 2                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       7,679         0  No match of this type
                       5,276        12  Fastlink highest probability
                                        match (FHPM)
```

```
-------------------------------------------------------------------------------------------------------
val_fhpm                                        Is best match the fastlink highest probability match?
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_fhpm

                Range: [-1,1]                        Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       8,351        -1  No person match
                         352         0  No
                       4,252         1  Yes
```

```
-------------------------------------------------------------------------------------------------------
val_nummatch                         Number of unique prospective matches among key 01 through key 12
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)

                Range: [0,8]                         Units: 1
        Unique values: 9                          Missing .: 0/12,955

           Tabulation: Freq.  Value
                       7,679  0
                       1,244  1
                       1,930  2
```

```
                        993  3
                        611  4
                        429  5
                         64  6
                          3  7
                          2  8

-------------------------------------------------------------------------------------------------------------
val_totalmatches          Number of prospective matches among key 01 through key 12 (includes duplicates)
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)

                Range: [0,11]                        Units: 1
        Unique values: 12                         Missing .: 0/12,955

                 Mean: 1.66059
             Std. dev.: 2.22421

           Percentiles:     10%       25%       50%       75%       90%
                              0         0         0         4         5

-------------------------------------------------------------------------------------------------------------
val_corrected                                          Which VOTEVAL record was corrected by respondent
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_corrected

                Range: [-1,5]                        Units: 1
        Unique values: 7                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       8,986        -1  Not applicable, VOTEVAL not
                                        administered
                       3,521         0  No correction at VOTEVAL (incl
                                        item nonresp and conf w/o
                                        edits)
                         414         1  VOTEVAL person 1 (key 07) was
                                        corrected
                          25         2  VOTEVAL person 2 (key 08) was
                                        corrected
                           7         3  VOTEVAL person 3 (key 09) was
                                        corrected
                           1         4  VOTEVAL person 4 (key 10) was
                                        corrected
                           1         5  VOTEVAL person 5 (key 11) was
                                        corrected

-------------------------------------------------------------------------------------------------------------
val_confirmed                                          Which VOTEVAL record was confirmed correct by R
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_confirmed

                Range: [-1,4]                        Units: 1
        Unique values: 6                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       8,986        -1  Not applicable, VOTEVAL not
                                        administered
                         900         0  No confirmation at VOTEVAL
                                        (includes item nonresponse and
                                        corrections)
                       2,939         1  VOTEVAL person 1 (key 07) was
                                        correct
                         108         2  VOTEVAL person 2 (key 08) was
                                        correct
```

```
                          17         3  VOTEVAL person 3 (key 09) was
                                        correct
                           5         4  VOTEVAL person 4 (key 10) was
                                        correct

-------------------------------------------------------------------------------------------------------
val_selected_FHPM                                  R selected fastlink highest prob match at VOTEVAL
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_selected_FHPM

                Range: [-1,5]                        Units: 1
        Unique values: 7                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       8,986        -1  Not applicable, VOTEVAL not
                                        administered
                         763         0  No, case selected at VOTEVAL is
                                        not FHPM
                       3,163         1  Yes, VOTEVAL person 1 (key 07)
                                        is FHPM
                          36         2  Yes, VOTEVAL person 2 (key 08)
                                        is FHPM
                           3         3  Yes, VOTEVAL person 3 (key 09)
                                        is FHPM
                           3         4  Yes, VOTEVAL person 4 (key 10)
                                        is FHPM
                           1         5  Yes, VOTEVAL person 5 (key 11)
                                        is FHPM

-------------------------------------------------------------------------------------------------------
val_selected_best                                                  R selected best match at VOTEVAL
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_selected_best

                Range: [-1,5]                        Units: 1
        Unique values: 7                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       9,432        -1  Not applicable, VOTEVAL not
                                        administered
                         126         0  No, case selected at VOTEVAL is
                                        not best match
                       3,278         1  Yes, VOTEVAL person 1 (key 07)
                                        is best match
                         102         2  Yes, VOTEVAL person 2 (key 08)
                                        is best match
                          13         3  Yes, VOTEVAL person 3 (key 09)
                                        is best match
                           3         4  Yes, VOTEVAL person 4 (key 10)
                                        is best match
                           1         5  Yes, VOTEVAL person 5 (key 11)
                                        is best match

-------------------------------------------------------------------------------------------------------
val_01_match                                    Match status of prospective match identified by key 01
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_01_match

                Range: [-9,1]                        Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       9,880        -9  No prospective match of this
```

```
                            type
                  82         0  Not good
               2,993         1  Good

-------------------------------------------------------------------------------------------------------
val_01_quality                                         Match quality score for match identified by key 01
-------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_01_quality

                 Range: [-9,3]                       Units: 1
         Unique values: 5                        Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                        9,880        -9  No prospective match of this
                                         type
                        2,606         0  Best
                          387         1  Likely match, not best
                           38         2  Unlikely match, not worst
                           44         3  Worst

-------------------------------------------------------------------------------------------------------
val_01_minor                                          Minor difference count b/w ANES and record key 01
-------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_01_minor, but 5 nonmissing values are not labeled

                 Range: [-9,4]                       Units: 1
         Unique values: 6                        Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                        9,880        -9  No prospective match of this
                                         type
                        1,087         0
                        1,511         1
                          426         2
                           50         3
                            1         4

-------------------------------------------------------------------------------------------------------
val_01_major                                          Major difference count b/w ANES and record key 01
-------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_01_major, but 7 nonmissing values are not labeled

                 Range: [-9,6]                       Units: 1
         Unique values: 8                        Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                        9,880        -9  No prospective match of this
                                         type
                        2,651         0
                          347         1
                           33         2
                           21         3
                           15         4
                            4         5
                            4         6

-------------------------------------------------------------------------------------------------------
val_01_matchprob                                                    Fastlink posterior prob for key 01
-------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)

                 Range: [-9,1]                       Units: 1.000e-10
```

```
         Unique values: 568                      Missing .: 0/12,955

                  Mean: -6.62756
             Std. dev.:  4.25279

            Percentiles:      10%       25%       50%       75%       90%
                               -9        -9        -9        -9         1
```

```
------------------------------------------------------------------------------------------------------------
val_02_match                                      Match status of prospective match identified by key 02
------------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_02_match

                 Range: [-9,1]                        Units: 1
         Unique values: 3                        Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                        12,526        -9  No prospective match of this
                                          type
                            42         0  Not good
                           387         1  Good
```

```
------------------------------------------------------------------------------------------------------------
val_02_quality                                     Match quality score for match identified by key 02
------------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_02_quality

                 Range: [-9,3]                        Units: 1
         Unique values: 5                        Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                        12,526        -9  No prospective match of this
                                          type
                           227         0  Best
                           160         1  Likely match, not best
                            25         2  Unlikely match, not worst
                            17         3  Worst
```

```
------------------------------------------------------------------------------------------------------------
val_02_minor                                       Minor difference count b/w ANES and record key 02
------------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_02_minor, but 4 nonmissing values are not labeled

                 Range: [-9,3]                        Units: 1
         Unique values: 5                        Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                        12,526        -9  No prospective match of this
                                          type
                           222         0
                           196         1
                             9         2
                             2         3
```

```
------------------------------------------------------------------------------------------------------------
val_02_major                                       Major difference count b/w ANES and record key 02
------------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_02_major, but 7 nonmissing values are not labeled

                 Range: [-9,6]                        Units: 1
         Unique values: 8                        Missing .: 0/12,955
```

```
            Tabulation: Freq.   Numeric  Label
                       12,526        -9  No prospective match of this
                                         type
                          227         0
                          160         1
                           27         2
                            6         3
                            5         4
                            3         5
                            1         6

------------------------------------------------------------------------------------------------------------
val_02_matchprob                                                      Fastlink posterior prob for key 02
------------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)

                 Range: [-9,1]                        Units: 1.000e-09
          Unique values: 198                      Missing .: 0/12,955

                  Mean: -8.66917
             Std. dev.:  1.78774

            Percentiles:      10%       25%       50%       75%       90%
                               -9        -9        -9        -9        -9

------------------------------------------------------------------------------------------------------------
val_03_match                                        Match status of prospective match identified by key 03
------------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_03_match

                 Range: [-9,1]                        Units: 1
          Unique values: 3                        Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                       12,692        -9  No prospective match of this
                                         type
                          248         0  Not good
                           15         1  Good

------------------------------------------------------------------------------------------------------------
val_03_quality                                       Match quality score for match identified by key 03
------------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_03_quality

                 Range: [-9,3]                        Units: 1
          Unique values: 5                        Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                       12,692        -9  No prospective match of this
                                         type
                            3         0  Best
                           12         1  Likely match, not best
                           12         2  Unlikely match, not worst
                          236         3  Worst

------------------------------------------------------------------------------------------------------------
val_03_minor                                          Minor difference count b/w ANES and record key 03
------------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_03_minor, but 4 nonmissing values are not labeled

                 Range: [-9,3]                        Units: 1
```

```
         Unique values: 5                        Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                       12,692        -9  No prospective match of this
                                         type
                          160         0
                           90         1
                           12         2
                            1         3

-------------------------------------------------------------------------------------------------------------
val_03_major                                          Major difference count b/w ANES and record key 03
-------------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_03_major, but 8 nonmissing values are not labeled

                 Range: [-9,7]                       Units: 1
         Unique values: 9                        Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                       12,692        -9  No prospective match of this
                                         type
                           3         0
                          12         1
                          12         2
                          62         3
                         105         4
                          45         5
                          18         6
                           6         7

-------------------------------------------------------------------------------------------------------------
val_03_matchprob                                                  Fastlink posterior prob for key 03
-------------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)

                 Range: [-9,1]                       Units: 1.000e-08
         Unique values: 80                       Missing .: 0/12,955

                  Mean: -8.7975
             Std. dev.: 1.40692

           Percentiles:     10%       25%       50%       75%       90%
                             -9        -9        -9        -9        -9

-------------------------------------------------------------------------------------------------------------
val_04_match                                       Match status of prospective match identified by key 04
-------------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_04_match

                 Range: [-9,1]                       Units: 1
         Unique values: 3                        Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                       12,847        -9  No prospective match of this
                                         type
                          105         0  Not good
                            3         1  Good

-------------------------------------------------------------------------------------------------------------
val_04_quality                                      Match quality score for match identified by key 04
-------------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_04_quality
```

```
                Range: [-9,3]                       Units: 1
        Unique values: 4                         Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,847       -9  No prospective match of this
                                        type
                            3        1  Likely match, not best
                            8        2  Unlikely match, not worst
                           97        3  Worst

-------------------------------------------------------------------------------------------------------------
val_04_minor                                          Minor difference count b/w ANES and record key 04
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_04_minor, but 3 nonmissing values are not labeled

                Range: [-9,2]                       Units: 1
        Unique values: 4                         Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,847       -9  No prospective match of this
                                        type
                           58        0
                           43        1
                            7        2

-------------------------------------------------------------------------------------------------------------
val_04_major                                          Major difference count b/w ANES and record key 04
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_04_major, but 8 nonmissing values are not labeled

                Range: [-9,8]                       Units: 1
        Unique values: 9                         Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,847       -9  No prospective match of this
                                        type
                            3        1
                            8        2
                           17        3
                           39        4
                           25        5
                           12        6
                            3        7
                            1        8

-------------------------------------------------------------------------------------------------------------
val_04_matchprob                                                 Fastlink posterior prob for key 04
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)

                Range: [-9,1]                       Units: 1.000e-10
        Unique values: 56                        Missing .: 0/12,955

                 Mean: -8.91712
            Std. dev.:  .904095

          Percentiles:      10%       25%       50%       75%       90%
                             -9        -9        -9        -9        -9

-------------------------------------------------------------------------------------------------------------
val_05_match                                      Match status of prospective match identified by key 05
-------------------------------------------------------------------------------------------------------------
```

```
                 Type: Numeric (double)
                Label: val_05_match

                Range: [-9,1]                        Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,905       -9  No prospective match of this
                                        type
                           48         0  Not good
                            2         1  Good
```

```
-------------------------------------------------------------------------------------------------------
val_05_quality                                    Match quality score for match identified by key 05
-------------------------------------------------------------------------------------------------------
```

```
                 Type: Numeric (double)
                Label: val_05_quality

                Range: [-9,3]                        Units: 1
        Unique values: 5                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,905       -9  No prospective match of this
                                        type
                            1         0  Best
                            1         1  Likely match, not best
                            3         2  Unlikely match, not worst
                           45         3  Worst
```

```
-------------------------------------------------------------------------------------------------------
val_05_minor                                       Minor difference count b/w ANES and record key 05
-------------------------------------------------------------------------------------------------------
```

```
                 Type: Numeric (double)
                Label: val_05_minor, but 3 nonmissing values are not labeled

                Range: [-9,2]                        Units: 1
        Unique values: 4                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,905       -9  No prospective match of this
                                        type
                           30         0
                           17         1
                            3         2
```

```
-------------------------------------------------------------------------------------------------------
val_05_major                                       Major difference count b/w ANES and record key 05
-------------------------------------------------------------------------------------------------------
```

```
                 Type: Numeric (double)
                Label: val_05_major, but 9 nonmissing values are not labeled

                Range: [-9,8]                        Units: 1
        Unique values: 10                         Missing .: 0/12,955

             Examples: -9    No prospective match of this type
                       -9    No prospective match of this type
                       -9    No prospective match of this type
                       -9    No prospective match of this type
```

```
-------------------------------------------------------------------------------------------------------
val_05_matchprob                                        Fastlink posterior prob for key 05
-------------------------------------------------------------------------------------------------------
```

```
                 Type: Numeric (double)

                Range: [-9,1]                        Units: 1.000e-09
```

```
         Unique values: 34                       Missing .: 0/12,955

                  Mean: -8.96168
             Std. dev.:  .615816

            Percentiles:      10%       25%       50%       75%       90%
                               -9        -9        -9        -9        -9

-------------------------------------------------------------------------------------------------------------
val_06_match                                      Match status of prospective match identified by key 06
-------------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_06_match

                 Range: [-9,0]                        Units: 1
         Unique values: 2                        Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                        12,944        -9  No prospective match of this
                                          type
                            11         0  Not good

-------------------------------------------------------------------------------------------------------------
val_06_quality                                     Match quality score for match identified by key 06
-------------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_06_quality

                 Range: [-9,3]                        Units: 1
         Unique values: 2                        Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                        12,944        -9  No prospective match of this
                                          type
                            11         3  Worst

-------------------------------------------------------------------------------------------------------------
val_06_minor                                        Minor difference count b/w ANES and record key 06
-------------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_06_minor, but 3 nonmissing values are not labeled

                 Range: [-9,2]                        Units: 1
         Unique values: 4                        Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                        12,944        -9  No prospective match of this
                                          type
                             4         0
                             6         1
                             1         2

-------------------------------------------------------------------------------------------------------------
val_06_major                                        Major difference count b/w ANES and record key 06
-------------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_06_major, but 5 nonmissing values are not labeled

                 Range: [-9,7]                        Units: 1
         Unique values: 6                        Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                        12,944        -9  No prospective match of this
                                          type
                             1         3
```

```
                          1         4
                          5         5
                          2         6
                          2         7

-------------------------------------------------------------------------------------------------------------
val_06_matchprob                                                        Fastlink posterior prob for key 06
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)

                Range: [-9,.99999563]                Units: 1.000e-08
        Unique values: 9                          Missing .: 0/12,955

           Tabulation: Freq.  Value
                      12,944  -9
                           1  .49547108
                           1  .9842693
                           1  .99879134
                           1  .999175
                           1  .99992972
                           2  .99999509
                           3  .9999955
                           1  .99999563

-------------------------------------------------------------------------------------------------------------
val_07_match                                          Match status of prospective match identified by key 07
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_07_match

                Range: [-9,1]                        Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       7,900        -9  No prospective match of this
                                        type
                         743         0  Not good
                       4,312         1  Good

-------------------------------------------------------------------------------------------------------------
val_07_quality                                         Match quality score for match identified by key 07
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_07_quality

                Range: [-9,3]                        Units: 1
        Unique values: 5                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       7,900        -9  No prospective match of this
                                        type
                       3,572         0  Best
                         740         1  Likely match, not best
                         163         2  Unlikely match, not worst
                         580         3  Worst

-------------------------------------------------------------------------------------------------------------
val_07_minor                                            Minor difference count b/w ANES and record key 07
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_07_minor, but 5 nonmissing values are not labeled

                Range: [-9,4]                        Units: 1
        Unique values: 6                          Missing .: 0/12,955
```

```
            Tabulation: Freq.   Numeric  Label
                        7,900        -9  No prospective match of this
                                         type
                        1,584         0
                        2,648         1
                          756         2
                           66         3
                            1         4

-------------------------------------------------------------------------------------------------------------
val_07_major                                          Major difference count b/w ANES and record key 07
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_07_major, but 8 nonmissing values are not labeled

                Range: [-9,7]                        Units: 1
         Unique values: 9                          Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                        7,900        -9  No prospective match of this
                                         type
                        3,623         0
                          698         1
                          156         2
                          148         3
                          223         4
                          147         5
                           54         6
                            6         7

-------------------------------------------------------------------------------------------------------------
val_07_matchprob                                                    Fastlink posterior prob for key 07
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)

                Range: [-9,1]                        Units: 1.000e-10
         Unique values: 1,154                      Missing .: 0/12,955

                 Mean: -5.10755
            Std. dev.:  4.86674

           Percentiles:      10%       25%       50%       75%       90%
                              -9        -9        -9         1         1

-------------------------------------------------------------------------------------------------------------
val_08_match                                        Match status of prospective match identified by key 08
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_08_match

                Range: [-9,1]                        Units: 1
         Unique values: 3                          Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                        9,125        -9  No prospective match of this
                                         type
                        3,611         0  Not good
                          219         1  Good

-------------------------------------------------------------------------------------------------------------
val_08_quality                                       Match quality score for match identified by key 08
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_08_quality
```

```
                Range: [-9,3]                       Units: 1
        Unique values: 5                         Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       9,125        -9  No prospective match of this
                                        type
                          44         0  Best
                         175         1  Likely match, not best
                         267         2  Unlikely match, not worst
                       3,344         3  Worst

-------------------------------------------------------------------------------------------------------------
val_08_minor                                          Minor difference count b/w ANES and record key 08
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_08_minor, but 4 nonmissing values are not labeled

                Range: [-9,3]                       Units: 1
        Unique values: 5                         Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       9,125        -9  No prospective match of this
                                        type
                         985         0
                       2,376         1
                         436         2
                          33         3

-------------------------------------------------------------------------------------------------------------
val_08_major                                          Major difference count b/w ANES and record key 08
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_08_major, but 9 nonmissing values are not labeled

                Range: [-9,8]                       Units: 1
        Unique values: 10                        Missing .: 0/12,955

             Examples: -9    No prospective match of this type
                       -9    No prospective match of this type
                       -9    No prospective match of this type
                       3

-------------------------------------------------------------------------------------------------------------
val_08_matchprob                                                 Fastlink posterior prob for key 08
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)

                Range: [-9,1]                       Units: 1.000e-11
        Unique values: 649                       Missing .: 0/12,955

                 Mean: -6.06013
            Std. dev.:  4.53901

          Percentiles:      10%       25%       50%       75%       90%
                             -9        -9        -9   .992119   .999987

-------------------------------------------------------------------------------------------------------------
val_09_match                                      Match status of prospective match identified by key 09
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_09_match

                Range: [-9,1]                       Units: 1
        Unique values: 3                         Missing .: 0/12,955
```

```
            Tabulation: Freq.   Numeric  Label
                       10,984        -9  No prospective match of this
                                         type
                        1,936         0  Not good
                           35         1  Good

-------------------------------------------------------------------------------------------------------------
val_09_quality                                          Match quality score for match identified by key 09
-------------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_09_quality

                 Range: [-9,3]                        Units: 1
         Unique values: 5                          Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                       10,984        -9  No prospective match of this
                                         type
                            9         0  Best
                           26         1  Likely match, not best
                           90         2  Unlikely match, not worst
                        1,846         3  Worst

-------------------------------------------------------------------------------------------------------------
val_09_minor                                             Minor difference count b/w ANES and record key 09
-------------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_09_minor, but 5 nonmissing values are not labeled

                 Range: [-9,4]                        Units: 1
         Unique values: 6                          Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                       10,984        -9  No prospective match of this
                                         type
                          492         0
                        1,172         1
                          278         2
                           28         3
                            1         4

-------------------------------------------------------------------------------------------------------------
val_09_major                                             Major difference count b/w ANES and record key 09
-------------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_09_major, but 9 nonmissing values are not labeled

                 Range: [-9,8]                        Units: 1
         Unique values: 10                         Missing .: 0/12,955

              Examples: -9    No prospective match of this type
                        -9    No prospective match of this type
                        -9    No prospective match of this type
                        -9    No prospective match of this type

-------------------------------------------------------------------------------------------------------------
val_09_matchprob                                                 Fastlink posterior prob for key 09
-------------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)

                 Range: [-9,1]                        Units: 1.000e-11
         Unique values: 683                        Missing .: 0/12,955

                  Mean: -7.50475
             Std. dev.:  3.53169
```

```
          Percentiles:      10%       25%       50%       75%       90%
                             -9        -9        -9        -9   .954795

-------------------------------------------------------------------------------------------------------
val_10_match                                    Match status of prospective match identified by key 10
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_10_match

                Range: [-9,1]                        Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                      11,953        -9  No prospective match of this
                                        type
                          994         0  Not good
                            8         1  Good

-------------------------------------------------------------------------------------------------------
val_10_quality                                   Match quality score for match identified by key 10
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_10_quality

                Range: [-9,3]                        Units: 1
        Unique values: 5                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                      11,953        -9  No prospective match of this
                                        type
                           3         0  Best
                           5         1  Likely match, not best
                          41         2  Unlikely match, not worst
                         953         3  Worst

-------------------------------------------------------------------------------------------------------
val_10_minor                                      Minor difference count b/w ANES and record key 10
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_10_minor, but 4 nonmissing values are not labeled

                Range: [-9,3]                        Units: 1
        Unique values: 5                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                      11,953        -9  No prospective match of this
                                        type
                          223         0
                          601         1
                          166         2
                           12         3

-------------------------------------------------------------------------------------------------------
val_10_major                                      Major difference count b/w ANES and record key 10
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_10_major, but 9 nonmissing values are not labeled

                Range: [-9,8]                        Units: 1
        Unique values: 10                         Missing .: 0/12,955

             Examples: -9    No prospective match of this type
                       -9    No prospective match of this type
                       -9    No prospective match of this type
```

```
                      -9    No prospective match of this type

-------------------------------------------------------------------------------------------------------------
val_10_matchprob                                                          Fastlink posterior prob for key 10
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)

                Range: [-9,.99999988]               Units: 1.000e-10
        Unique values: 497                       Missing .: 0/12,955

                 Mean: -8.24757
             Std. dev.:  2.60049

          Percentiles:      10%       25%       50%       75%       90%
                             -9        -9        -9        -9        -9

-------------------------------------------------------------------------------------------------------------
val_11_match                                        Match status of prospective match identified by key 11
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_11_match

                Range: [-9,1]                       Units: 1
        Unique values: 3                         Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,512        -9  No prospective match of this
                                         type
                          441         0  Not good
                            2         1  Good

-------------------------------------------------------------------------------------------------------------
val_11_quality                                       Match quality score for match identified by key 11
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_11_quality

                Range: [-9,3]                       Units: 1
        Unique values: 4                         Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,512        -9  No prospective match of this
                                         type
                            2         1  Likely match, not best
                           16         2  Unlikely match, not worst
                          425         3  Worst

-------------------------------------------------------------------------------------------------------------
val_11_minor                                          Minor difference count b/w ANES and record key 11
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_11_minor, but 4 nonmissing values are not labeled

                Range: [-9,3]                       Units: 1
        Unique values: 5                         Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,512        -9  No prospective match of this
                                         type
                          103         0
                          247         1
                           89         2
                            4         3

-------------------------------------------------------------------------------------------------------------
```

```
val_11_major                                          Major difference count b/w ANES and record key 11
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_11_major, but 8 nonmissing values are not labeled

                Range: [-9,8]                        Units: 1
        Unique values: 9                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                      12,512        -9  No prospective match of this
                                        type
                           2         1
                          17         2
                          42         3
                         120         4
                         170         5
                          78         6
                          12         7
                           2         8

-------------------------------------------------------------------------------------------------------
val_11_matchprob                                                  Fastlink posterior prob for key 11
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)

                Range: [-9,.99999779]                Units: 1.000e-10
        Unique values: 304                        Missing .: 0/12,955

                 Mean: -8.67028
            Std. dev.:  1.75349

          Percentiles:      10%       25%       50%       75%       90%
                             -9        -9        -9        -9        -9

-------------------------------------------------------------------------------------------------------
val_12_match                                       Match status of prospective match identified by key 12
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_12_match

                Range: [-9,1]                        Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       7,679        -9  No prospective match of this
                                        type
                         961         0  Not good
                       4,315         1  Good

-------------------------------------------------------------------------------------------------------
val_12_quality                                       Match quality score for match identified by key 12
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_12_quality

                Range: [-9,3]                        Units: 1
        Unique values: 5                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       7,679        -9  No prospective match of this
                                        type
                       3,619         0  Best
                         696         1  Likely match, not best
                         143         2  Unlikely match, not worst
                         818         3  Worst
```

```
-------------------------------------------------------------------------------------------------------------
val_12_minor                                          Minor difference count b/w ANES and record key 12
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_12_minor, but 5 nonmissing values are not labeled

                Range: [-9,4]                        Units: 1
        Unique values: 6                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       7,679        -9  No prospective match of this
                                        type
                       1,611         0
                       2,689         1
                         878         2
                          96         3
                           2         4

-------------------------------------------------------------------------------------------------------------
val_12_major                                          Major difference count b/w ANES and record key 12
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_12_major, but 9 nonmissing values are not labeled

                Range: [-9,8]                        Units: 1
        Unique values: 10                         Missing .: 0/12,955

             Examples: -9    No prospective match of this type
                       -9    No prospective match of this type
                       0
                       0

-------------------------------------------------------------------------------------------------------------
val_12_matchprob                                                  Fastlink posterior prob for key 12
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)

                Range: [-9,1]                        Units: 1.000e-10
        Unique values: 790                        Missing .: 0/12,955

                 Mean: -4.93361
            Std. dev.:  4.90628

          Percentiles:      10%       25%       50%       75%       90%
                             -9        -9        -9         1         1

-------------------------------------------------------------------------------------------------------------
val_hh_addmatch                                                  Address/household match status
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_hh_addmatch

                Range: [0,1]                         Units: 1
        Unique values: 2                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       3,264         0  No
                       9,691         1  Yes

-------------------------------------------------------------------------------------------------------------
val_hh_number                                                     Number of voters in household
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
```

```
                Label: val_hh_number, but 4 nonmissing values are not labeled

                Range: [-9,5]                        Units: 1
        Unique values: 6                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       3,264        -9  Inapplicable
                       3,441         1
                       3,970         2
                       1,398         3
                         608         4
                         274         5  5 or more (topcoded)

-------------------------------------------------------------------------------------------------------------
val_hh_families                                                 Number of families in matched household
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_hh_families, but 2 nonmissing values are not labeled

                Range: [-9,3]                        Units: 1
        Unique values: 4                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       3,264        -9  No household match
                       8,840         1
                         309         2
                         542         3  3 or more (topcoded)

-------------------------------------------------------------------------------------------------------------
val_hh_turnout24                              Number of household voters who voted in 2024 pres election
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_hh_turnout24, but 3 nonmissing values are not labeled

                Range: [-9,3]                        Units: 1
        Unique values: 5                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       3,264        -9  No household match
                       2,038         0
                       3,121         1
                       3,403         2
                       1,129         3  3 or more (topcoded)

-------------------------------------------------------------------------------------------------------------
val_hh_turnout22                            Number of household voters who voted in 2022 general election
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_hh_turnout22, but 3 nonmissing values are not labeled

                Range: [-9,3]                        Units: 1
        Unique values: 5                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       3,264        -9  No household match
                       3,538         0
                       2,772         1
                       2,813         2
                         568         3  3 or more (topcoded)

-------------------------------------------------------------------------------------------------------------
val_hh_turnout20                              Number of household voters who voted in 2020 pres election
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_hh_turnout20, but 3 nonmissing values are not labeled
```

```
                Range: [-9,3]                       Units: 1
        Unique values: 5                         Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       3,264        -9  No household match
                       1,978         0
                       3,329         1
                       3,410         2
                         974         3  3 or more (topcoded)

-------------------------------------------------------------------------------------------------------------
val_hh_democrats                            Number of registered Democrats in matched household (modeled)
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_hh_democrats, but 3 nonmissing values are not labeled

                Range: [-9,3]                       Units: 1
        Unique values: 5                         Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       3,264        -9  No household match
                       5,171         0
                       2,476         1
                       1,451         2
                         593         3  3 or more (topcoded)

-------------------------------------------------------------------------------------------------------------
val_hh_republicans                           Number of registered Republicans in matched household (modeled)
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_hh_republicans, but 3 nonmissing values are not labeled

                Range: [-9,3]                       Units: 1
        Unique values: 5                         Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       3,264        -9  No household match
                       5,767         0
                       1,907         1
                       1,526         2
                         491         3  3 or more (topcoded)

-------------------------------------------------------------------------------------------------------------
val_hh_independents                         Number of registered independents in matched household (modeled)
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_hh_independents, but 3 nonmissing values are not labeled

                Range: [-9,3]                       Units: 1
        Unique values: 5                         Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       3,264        -9  No household match
                       6,095         0
                       2,362         1
                         942         2
                         292         3  3 or more (topcoded)

-------------------------------------------------------------------------------------------------------------
val_hh_matchtype                                                                      Household match type
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_hh_matchtype
```

```
               Range: [0,2]                      Units: 1
      Unique values: 3                       Missing .: 0/12,955

         Tabulation: Freq.   Numeric  Label
                     3,264         0  No address match
                     5,515         1  Address match only (without a
                                        person match)
                     4,176         2  Address match with a person
                                        match

-------------------------------------------------------------------------------------------------------
val_01vs07                                             Duplicate status of matches in key 01 vs key 07
-------------------------------------------------------------------------------------------------------

                Type: Numeric (double)
               Label: val_01vs07

               Range: [-1,1]                     Units: 1
      Unique values: 3                       Missing .: 0/12,955

         Tabulation: Freq.   Numeric  Label
                     9,880        -1  No pairing (so not a duplicate
                                        either)
                       130         0  Not duplicate
                     2,945         1  Duplicate

-------------------------------------------------------------------------------------------------------
val_01vs08                                             Duplicate status of matches in key 01 vs key 08
-------------------------------------------------------------------------------------------------------

                Type: Numeric (double)
               Label: val_01vs08

               Range: [-1,1]                     Units: 1
      Unique values: 3                       Missing .: 0/12,955

         Tabulation: Freq.   Numeric  Label
                    10,574        -1  No pairing (so not a duplicate
                                        either)
                     2,273         0  Not duplicate
                       108         1  Duplicate

-------------------------------------------------------------------------------------------------------
val_01vs09                                             Duplicate status of matches in key 01 vs key 09
-------------------------------------------------------------------------------------------------------

                Type: Numeric (double)
               Label: val_01vs09

               Range: [-1,1]                     Units: 1
      Unique values: 3                       Missing .: 0/12,955

         Tabulation: Freq.   Numeric  Label
                    11,775        -1  No pairing (so not a duplicate
                                        either)
                     1,163         0  Not duplicate
                        17         1  Duplicate

-------------------------------------------------------------------------------------------------------
val_01vs10                                             Duplicate status of matches in key 01 vs key 10
-------------------------------------------------------------------------------------------------------

                Type: Numeric (double)
               Label: val_01vs10

               Range: [-1,1]                     Units: 1
      Unique values: 3                       Missing .: 0/12,955

         Tabulation: Freq.   Numeric  Label
```

```
                    12,361        -1  No pairing (so not a duplicate
                                      either)
                       589         0  Not duplicate
                         5         1  Duplicate

-------------------------------------------------------------------------------------------------------
val_01vs11                                            Duplicate status of matches in key 01 vs key 11
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_01vs11

                Range: [-1,0]                       Units: 1
        Unique values: 2                         Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                    12,716        -1  No pairing (so not a duplicate
                                      either)
                       239         0  Not duplicate

-------------------------------------------------------------------------------------------------------
val_01vs12                                            Duplicate status of matches in key 01 vs key 12
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_01vs12

                Range: [-1,1]                       Units: 1
        Unique values: 3                         Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                     9,880        -1  No pairing (so not a duplicate
                                      either)
                       213         0  Not duplicate
                     2,862         1  Duplicate

-------------------------------------------------------------------------------------------------------
val_02vs07                                            Duplicate status of matches in key 02 vs key 07
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_02vs07

                Range: [-1,1]                       Units: 1
        Unique values: 3                         Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                    12,526        -1  No pairing (so not a duplicate
                                      either)
                        57         0  Not duplicate
                       372         1  Duplicate

-------------------------------------------------------------------------------------------------------
val_02vs08                                            Duplicate status of matches in key 02 vs key 08
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_02vs08

                Range: [-1,1]                       Units: 1
        Unique values: 3                         Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                    12,652        -1  No pairing (so not a duplicate
                                      either)
                       282         0  Not duplicate
                        21         1  Duplicate

-------------------------------------------------------------------------------------------------------
```

```
val_02vs09                                              Duplicate status of matches in key 02 vs key 09
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_02vs09

                Range: [-1,1]                       Units: 1
        Unique values: 3                        Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,812       -1  No pairing (so not a duplicate
                                        either)
                          139         0  Not duplicate
                            4         1  Duplicate

-------------------------------------------------------------------------------------------------------
val_02vs10                                              Duplicate status of matches in key 02 vs key 10
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_02vs10

                Range: [-1,1]                       Units: 1
        Unique values: 3                        Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,887       -1  No pairing (so not a duplicate
                                        either)
                           67         0  Not duplicate
                            1         1  Duplicate

-------------------------------------------------------------------------------------------------------
val_02vs11                                              Duplicate status of matches in key 02 vs key 11
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_02vs11

                Range: [-1,1]                       Units: 1
        Unique values: 3                        Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,923       -1  No pairing (so not a duplicate
                                        either)
                           31         0  Not duplicate
                            1         1  Duplicate

-------------------------------------------------------------------------------------------------------
val_02vs12                                              Duplicate status of matches in key 02 vs key 12
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_02vs12

                Range: [-1,1]                       Units: 1
        Unique values: 3                        Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,526       -1  No pairing (so not a duplicate
                                        either)
                           63         0  Not duplicate
                          366         1  Duplicate

-------------------------------------------------------------------------------------------------------
val_03vs07                                              Duplicate status of matches in key 03 vs key 07
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_03vs07
```

```
                Range: [-1,1]                       Units: 1
        Unique values: 3                        Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,692       -1  No pairing (so not a duplicate
                                        either)
                          253        0  Not duplicate
                           10        1  Duplicate

-------------------------------------------------------------------------------------------------------------
val_03vs08                                              Duplicate status of matches in key 03 vs key 08
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_03vs08

                Range: [-1,1]                       Units: 1
        Unique values: 3                        Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,717       -1  No pairing (so not a duplicate
                                        either)
                           86        0  Not duplicate
                          152        1  Duplicate

-------------------------------------------------------------------------------------------------------------
val_03vs09                                              Duplicate status of matches in key 03 vs key 09
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_03vs09

                Range: [-1,1]                       Units: 1
        Unique values: 3                        Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,846       -1  No pairing (so not a duplicate
                                        either)
                           74        0  Not duplicate
                           35        1  Duplicate

-------------------------------------------------------------------------------------------------------------
val_03vs10                                              Duplicate status of matches in key 03 vs key 10
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_03vs10

                Range: [-1,1]                       Units: 1
        Unique values: 3                        Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,904       -1  No pairing (so not a duplicate
                                        either)
                           42        0  Not duplicate
                            9        1  Duplicate

-------------------------------------------------------------------------------------------------------------
val_03vs11                                              Duplicate status of matches in key 03 vs key 11
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_03vs11

                Range: [-1,1]                       Units: 1
        Unique values: 3                        Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
```

```
                     12,934        -1  No pairing (so not a duplicate
                                       either)
                         19         0  Not duplicate
                          2         1  Duplicate

-------------------------------------------------------------------------------------------------------
val_03vs12                                              Duplicate status of matches in key 03 vs key 12
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_03vs12

                Range: [-1,1]                        Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                     12,692        -1  No pairing (so not a duplicate
                                       either)
                        248         0  Not duplicate
                         15         1  Duplicate

-------------------------------------------------------------------------------------------------------
val_04vs07                                              Duplicate status of matches in key 04 vs key 07
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_04vs07

                Range: [-1,1]                        Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                     12,847        -1  No pairing (so not a duplicate
                                       either)
                        101         0  Not duplicate
                          7         1  Duplicate

-------------------------------------------------------------------------------------------------------
val_04vs08                                              Duplicate status of matches in key 04 vs key 08
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_04vs08

                Range: [-1,1]                        Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                     12,859        -1  No pairing (so not a duplicate
                                       either)
                         63         0  Not duplicate
                         33         1  Duplicate

-------------------------------------------------------------------------------------------------------
val_04vs09                                              Duplicate status of matches in key 04 vs key 09
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_04vs09

                Range: [-1,1]                        Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                     12,873        -1  No pairing (so not a duplicate
                                       either)
                         56         0  Not duplicate
                         26         1  Duplicate
```

```
-------------------------------------------------------------------------------------------------------------
val_04vs10                                                Duplicate status of matches in key 04 vs key 10
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_04vs10

                Range: [-1,1]                       Units: 1
        Unique values: 3                         Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,914        -1  No pairing (so not a duplicate
                                         either)
                           34         0  Not duplicate
                            7         1  Duplicate

-------------------------------------------------------------------------------------------------------------
val_04vs11                                                Duplicate status of matches in key 04 vs key 11
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_04vs11

                Range: [-1,1]                       Units: 1
        Unique values: 3                         Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,940        -1  No pairing (so not a duplicate
                                         either)
                           14         0  Not duplicate
                            1         1  Duplicate

-------------------------------------------------------------------------------------------------------------
val_04vs12                                                Duplicate status of matches in key 04 vs key 12
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_04vs12

                Range: [-1,1]                       Units: 1
        Unique values: 3                         Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,847        -1  No pairing (so not a duplicate
                                         either)
                          106         0  Not duplicate
                            2         1  Duplicate

-------------------------------------------------------------------------------------------------------------
val_05vs07                                                Duplicate status of matches in key 05 vs key 07
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_05vs07

                Range: [-1,1]                       Units: 1
        Unique values: 3                         Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,905        -1  No pairing (so not a duplicate
                                         either)
                           48         0  Not duplicate
                            2         1  Duplicate

-------------------------------------------------------------------------------------------------------------
val_05vs08                                                Duplicate status of matches in key 05 vs key 08
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
```

```
                Label: val_05vs08

                Range: [-1,1]                       Units: 1
        Unique values: 3                        Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,909       -1  No pairing (so not a duplicate
                                        either)
                           39        0  Not duplicate
                            7        1  Duplicate

-------------------------------------------------------------------------------------------------------
val_05vs09                                              Duplicate status of matches in key 05 vs key 09
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_05vs09

                Range: [-1,1]                       Units: 1
        Unique values: 3                        Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,914       -1  No pairing (so not a duplicate
                                        either)
                           27        0  Not duplicate
                           14        1  Duplicate

-------------------------------------------------------------------------------------------------------
val_05vs10                                              Duplicate status of matches in key 05 vs key 10
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_05vs10

                Range: [-1,1]                       Units: 1
        Unique values: 3                        Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,922       -1  No pairing (so not a duplicate
                                        either)
                           21        0  Not duplicate
                           12        1  Duplicate

-------------------------------------------------------------------------------------------------------
val_05vs11                                              Duplicate status of matches in key 05 vs key 11
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_05vs11

                Range: [-1,1]                       Units: 1
        Unique values: 3                        Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,944       -1  No pairing (so not a duplicate
                                        either)
                           10        0  Not duplicate
                            1        1  Duplicate

-------------------------------------------------------------------------------------------------------
val_05vs12                                              Duplicate status of matches in key 05 vs key 12
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_05vs12

                Range: [-1,1]                       Units: 1
        Unique values: 3                        Missing .: 0/12,955
```

```
            Tabulation: Freq.   Numeric  Label
                       12,905        -1  No pairing (so not a duplicate
                                         either)
                           49         0  Not duplicate
                            1         1  Duplicate

-------------------------------------------------------------------------------------------------------
val_06vs07                                              Duplicate status of matches in key 06 vs key 07
-------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_06vs07

                 Range: [-1,1]                        Units: 1
         Unique values: 3                          Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                       12,944        -1  No pairing (so not a duplicate
                                         either)
                           10         0  Not duplicate
                            1         1  Duplicate

-------------------------------------------------------------------------------------------------------
val_06vs08                                              Duplicate status of matches in key 06 vs key 08
-------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_06vs08

                 Range: [-1,1]                        Units: 1
         Unique values: 3                          Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                       12,946        -1  No pairing (so not a duplicate
                                         either)
                            8         0  Not duplicate
                            1         1  Duplicate

-------------------------------------------------------------------------------------------------------
val_06vs09                                              Duplicate status of matches in key 06 vs key 09
-------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_06vs09

                 Range: [-1,1]                        Units: 1
         Unique values: 3                          Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                       12,947        -1  No pairing (so not a duplicate
                                         either)
                            6         0  Not duplicate
                            2         1  Duplicate

-------------------------------------------------------------------------------------------------------
val_06vs10                                              Duplicate status of matches in key 06 vs key 10
-------------------------------------------------------------------------------------------------------

                  Type: Numeric (double)
                 Label: val_06vs10

                 Range: [-1,1]                        Units: 1
         Unique values: 3                          Missing .: 0/12,955

            Tabulation: Freq.   Numeric  Label
                       12,948        -1  No pairing (so not a duplicate
                                         either)
                            6         0  Not duplicate
                            1         1  Duplicate
```

```
-------------------------------------------------------------------------------------------------------
val_06vs11                                                Duplicate status of matches in key 06 vs key 11
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_06vs11

                Range: [-1,1]                       Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                      12,951        -1  No pairing (so not a duplicate
                                        either)
                           3         0  Not duplicate
                           1         1  Duplicate

-------------------------------------------------------------------------------------------------------
val_06vs12                                                Duplicate status of matches in key 06 vs key 12
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_06vs12

                Range: [-1,1]                       Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                      12,944        -1  No pairing (so not a duplicate
                                        either)
                          10         0  Not duplicate
                           1         1  Duplicate

-------------------------------------------------------------------------------------------------------
val_07vs12                                                Duplicate status of matches in key 07 vs key 12
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_07vs12

                Range: [-1,1]                       Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       7,900        -1  No pairing (so not a duplicate
                                        either)
                         777         0  Not duplicate
                       4,278         1  Duplicate

-------------------------------------------------------------------------------------------------------
val_08vs12                                                Duplicate status of matches in key 08 vs key 12
-------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_08vs12

                Range: [-1,1]                       Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       9,125        -1  No pairing (so not a duplicate
                                        either)
                       3,618         0  Not duplicate
                         212         1  Duplicate

-------------------------------------------------------------------------------------------------------
val_09vs12                                                Duplicate status of matches in key 09 vs key 12
-------------------------------------------------------------------------------------------------------
```

```
                 Type: Numeric (double)
                Label: val_09vs12

                Range: [-1,1]                        Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       10,984       -1  No pairing (so not a duplicate
                                        either)
                        1,891         0  Not duplicate
                           80         1  Duplicate

-------------------------------------------------------------------------------------------------------------
val_10vs12                                              Duplicate status of matches in key 10 vs key 12
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_10vs12

                Range: [-1,1]                        Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       11,953       -1  No pairing (so not a duplicate
                                        either)
                          977         0  Not duplicate
                           25         1  Duplicate

-------------------------------------------------------------------------------------------------------------
val_11vs12                                              Duplicate status of matches in key 11 vs key 12
-------------------------------------------------------------------------------------------------------------

                 Type: Numeric (double)
                Label: val_11vs12

                Range: [-1,1]                        Units: 1
        Unique values: 3                          Missing .: 0/12,955

           Tabulation: Freq.   Numeric  Label
                       12,512       -1  No pairing (so not a duplicate
                                        either)
                          436         0  Not duplicate
                            7         1  Duplicate
```