Names and Dates of Birth in the Death Master File

How They Are Formatted, and Why Rocket Vetting Follows Suit

A Rocket Vetting White Paper

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In brief. The Social Security Administration keeps a national list of people who have died, and organizations check their own lists against it. The government writes every name in a strict, simple style: capital letters only, no accents, and fixed rules for hyphens and apostrophes. If your list spells a name even slightly differently, a real death can be missed. Rocket Vetting rewrites the names on your list in exactly the government's style before comparing them. It also handles missing middle names, missing suffixes such as "Jr." and incomplete birth dates sensibly. Your only job is to tell us which columns on your list hold which parts of each name.

Summary

Organizations compare their rosters (their lists of employees, members, beneficiaries or customers) with the Social Security Administration's (SSA's) Limited Access Death Master File (LADMF). The LADMF is SSA's national file of reported deaths, released only to certified users. Organizations use it to stop payments to the deceased, update benefit and pension rolls, and detect identity fraud.

The Social Security number (SSN) anchors each match; the name confirms it. But the LADMF stores names in a fixed, uppercase, punctuation-free form, and SSA's rules differ by name part. Compare "José Hernández-López" with the LADMF's JOSE and HERNANDEZ LOPEZ as written, and a true death goes unflagged. Loosening the comparison is not the answer. Consistency is.

- **SSA writes each name part differently.** First names lose spaces, hyphens and apostrophes. Middle and last names keep spaces, turn hyphens into spaces and drop apostrophes. Rocket Vetting applies the same rules to every roster name.
- **Middle names and suffixes are often absent.** Of 117.9 million decedent records, 50.4% have no middle name and only 0.25% have a suffix. Rocket Vetting treats both as optional.
- **About 1.16% of records lack a full, exact date of birth.** Rocket Vetting compares each date only as precisely as the record supports.
- **Roster data needs cleaning, not just conversion.** In a controlled test on made-up data, naive normalization (a simple rewrite of each name into one standard form) matched 67.9% of true records. Rocket Vetting's SSA-exact normalization matched 79.4%, with no false positives (wrong matches). The remaining misses were roster names that differ from what SSA recorded.
- **Customers map their fields; Rocket Vetting does the rest.**

1. How the LADMF stores names

The National Technical Information Service (NTIS), a Commerce Department agency, distributes the LADMF. It publishes the record layout: each record is a 100-character line, and every item sits in a fixed position, like boxes on a paper form. The name occupies four boxes:

Field	Width (characters)
Last name	20
Name suffix	4
First name	15
Middle name	15

The layout gives positions and widths only. Rocket Vetting's review of LADMF data confirms what the format implies. Names are uppercase, start at the left edge of the box and are padded with spaces. A longer name is truncated: cut off when the box is full.

LADMF names come from the Numident, SSA's master record of Social Security numbers. SSA's staff manual, the Program Operations Manual System (POMS), sets the name rules in section RM 10205.125. It accepts letters, spaces, hyphens and apostrophes, then treats each part differently:

Rule	First name	Middle name	Last name	Suffix
Spaces	Removed (MARY JANE → MARYJANE)	Kept	Kept (RANDLE EL stays RANDLE EL)	—
Hyphens	Removed (JO-ANNE → JOANNE)	Replaced with a space	Replaced with a space (JONES-DREW → JONES DREW)	—
Apostrophes	Removed (D'BRICKASHAW → DBRICKASHAW)	Removed, no space left	Removed, no space left (O'SULLIVAN → OSULLIVAN)	—
Allowed values	Any	Any	Any	Fixed set: I, II, III, IV, V, VI, IX, JR, SR, or none
LADMF field width	15	15	20	4
Role in matching	Core (legal name)	Optional	Core (legal name)	Optional

The difference matters. A hyphen joins the halves of a first name but separates the halves of a last name. Normalization software that applies one rule to every part gets one of them wrong. Rocket Vetting treats first and last name as the legal name that must agree. Middle name and suffix are not part of the legal name and carry less weight.

2. What the data shows

Rocket Vetting's LADMF database, current through April 2026, contains 117,907,983 decedent records:

Measure	Records	Share
Total decedent records	117,907,983	100%
No middle name	59,381,618	50.4%
No suffix	117,609,968	99.75%
Suffix present	298,015	0.25%

Half of all records have no middle name, and about one in four hundred has a suffix. A rule that requires either field to agree rejects real deaths simply because SSA never recorded them. A roster's "Robert James Smith Jr." may appear in the LADMF only as ROBERT SMITH. SSA also records suffixes from a short, fixed list: I, II, III, IV, V, VI, IX, JR and SR, or none at all.

A profile of one 34,293-record weekly update file adds detail. Name fields held only A–Z and spaces, and no first name contained a space. Sixteen surnames carried a suffix inside the last-name field (JR, in three cases spelled JUNIOR, plus III, II and IV). Surnames that begin with a particle, a short word such as DE or ST, appeared both spaced and joined (DE LA ROSA and DELAROSA; ST CLAIR and STCLAIR). Some names filled their boxes completely, consistent with truncation.

These are SSA's own choices for those individuals. They are why Rocket Vetting treats SSA as the source of truth: it keeps every name exactly as SSA writes it. A roster's "Smith, Jr." becomes SMITH JR and matches an SSA record that holds the suffix in the surname.

3. Dates of birth

After SSN and name, date of birth is the strongest confirming item, but it is not always complete. The LADMF stores it as eight digits, month-day-year (MMDDCCYY), and fills unknown parts with zeros. In the weekly sample, 551 records had a partial date: 373 with the day set to 00, 176 with month and day set to 00, and 2 with only the month set to 00. A value such as 03001948 ("March 0, 1948") is not a real calendar date.

Rocket Vetting's database gives each date a status and compares roster dates according to that status:

Date-of-birth status	Records	Share	How Rocket Vetting compares
Date of birth provided	116,545,600	98.84%	Full date; a disagreement is evidence against the match
Day not provided; day defaulted to the 1st of the month	325,583	0.28%	Year and month only; the 1st is never treated as the actual day
Date of birth not provided	1,023,690	0.87%	No penalty; the match rests on SSN and name
Invalid date; date reduced by 1 day from the one provided	13,110	0.01%	Plus or minus one day
Total	**117,907,983**	**100%**	

The 1st-of-month default and the one-day reduction are Rocket Vetting database handling, as the status labels describe. They are not SSA practices. In total, 1,362,383 records (about 1.16%) carry no full, exact date of birth. Treating every stored date as exact would mishandle them.

4. What Rocket Vetting does

Rocket Vetting's production normalizers apply SSA's rules, part by part, to every roster record before matching. They also fix the problems that data entry, spreadsheets and word processors introduce:

Problem	Example	How Rocket Vetting handles it
Part-specific SSA rules	Mary-Jane (first) vs Jones-Drew (last)	Applies POMS RM 10205.125 by part, uppercased: MARYJANE, JONES DREW
Accented letters deleted instead of converted	José → JOS; Pérez → PREZ	Folds accents to plain letters first: JOSE, PEREZ*
Word-processor dashes and curly apostrophes	Mora–Ortega → MORAORTEGA	Maps every dash and apostrophe variant before applying SSA rules: MORA ORTEGA
Suffix typed into the last name	"Smith, Jr."	Keeps it exactly as SSA writes such names, with punctuation removed: SMITH JR
Digits and stray characters	Ann2	Keeps letters (and spaces where SSA keeps them) only, repeated spaces collapsed: ANN
Names longer than the field	A 24-character surname	Truncates to LADMF widths: 15 first, 15 middle, 20 last
Suffixes spelled out or outside SSA's set	"Junior", "3rd", "Esq."	Maps spellings onto SSA's set (JUNIOR → JR, 3RD → III); anything SSA never records, such as ESQ, MD or VII, is treated as no suffix
Missing middle name or suffix	Roster has a middle name; LADMF does not	Compares middle name (on first initial) and suffix only when both sides have a value
Incomplete dates of birth	Day stored as 00	Compares at the precision each record supports (Section 3)

* Accent folding (turning É into E, Ñ into N) is Rocket Vetting practice, inferred from the LADMF containing only plain ASCII letters, the basic unaccented English alphabet. It is not a rule documented by SSA; POMS lists only letters, spaces, hyphens and apostrophes as acceptable characters.

The SSN remains the anchor: name and date-of-birth checks confirm SSN matches and never replace them. Names are compared as keyed hashes, coded fingerprints made with a secret key, so plain names are not exposed during matching. Rocket Vetting's companion paper explains that design.

Measured effect. In a controlled test, names from the LADMF sample were deliberately "dirtied" with one known problem each: accents, dash-joined names, suffixes added to the last name, joined and spaced particles and others. The test also included clean controls and 100 known non-matches. Each record was matched on SSN plus normalized first and last name, against SSA's names exactly as delivered.

Approach	True records matched	False positives (of 100 non-matches)
Naive normalization	67.9%	0
Rocket Vetting SSA-exact normalization	79.4%	0

SSA-exact normalization matched every accented, dash-joined, apostrophe, split-first-name and stray-character variant. Naive normalization matched only 32.3% of dash-joined names and none of the accented names. The remaining misses were roster names that differ from what SSA recorded: a suffix added to a surname SSA holds without one, or a particle surname spaced differently from SSA's spelling. Because SSA is the source of truth, those do not match on the strict name check.

Read these results with care. The test predates the current policy: an earlier setup that stripped suffixes and ignored surname spacing matched 100%, and the figures above are a rerun under the current SSA-exact rules. The test was synthetic (built from made-up variations) and used rules Rocket Vetting implements. Real rosters also contain typos, nicknames, maiden or married names and swapped fields. The zero false-positive result shows only that normalization created no obvious false matches, given the small non-match set and the weight of the SSN.

What customers do: map their fields

The customer's one job is field mapping: telling Rocket Vetting which roster columns hold first name, middle name, last name and suffix. Customers are responsible for that mapping. Normalization cannot repair a full name in a single column, or first and last names that are swapped. If a roster uses placeholder birth dates, such as January 1 for an unknown birthday, flag them so they are not treated as exact.

5. Conclusion

The Death Master File is unforgiving of inconsistency. SSA applies clear, documented rules to each part of a name. The data shows the result: uppercase letters and spaces only, hyphens handled by name part, many missing middle names, rare suffixes and some incomplete birth dates. Rosters carry accents, typographic punctuation, embedded suffixes and inconsistent spacing. Rocket Vetting bridges the two. It writes every roster name the way SSA writes it, cleans the messy data rosters contain, treats middle name and suffix as optional, and compares dates of birth only as precisely as each record allows. The result: more true deaths found, without loosening matching standards.

About Rocket Vetting

Rocket Vetting (rocketvetting.com) is a death-record vetting service that publicly launched on September 22, 2026. It matches customer rosters against the LADMF and applies the rules in this paper to every roster record: SSA's per-part name rules, accent folding, dash and apostrophe mapping and truncation to LADMF field widths, with dates of birth compared at the precision each record supports.

References

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3. Social Security Administration. *POMS RM 10205.125, Entering NH's Name in SSNAP.* https://secure.ssa.gov/poms.nsf/lnx/0110205125

4. Rocket Vetting. Internal analysis of the LADMF database (117,907,983 decedent records, through April 2026) including date-of-birth status classifications, and of a 34,293-record LADMF weekly update file, 2026.
5. Rocket Vetting. Internal name-normalizer testing and synthetic end-to-end match test, October 2026.