

PREPARED FOR
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BY THE NUMBERS

472

county boundary corrections or
changes recorded by the US Census,
2008–2024

\$13.6B

LFP payments adjudicated against
county boundaries since 2008

18

National Geospatial Data Asset
themes, including Governmental Units,
established under OMB Circular A-16

\$2.8T

federal funds allocated annually using
Census boundary and population data

PROJECT AT A GLANCE

Three-year cooperative agreement
with the USDA Office of the Chief
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DATA & CODE

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County Boundaries, the Drought Monitor, and LFP Eligibility

The Geospatial Data Act and the case for authoritative boundary data

BOTTOM LINE

LFP eligibility is adjudicated at the intersection of the US Drought Monitor and county boundaries — yet the boundary dataset in use is non-authoritative and essentially frozen, while federal law designates the US Census Bureau as the steward of authoritative boundaries. Adopting Census boundaries is both a compliance measure under the Geospatial Data Act and a fiscal-integrity fix.

County boundaries are essential to LFP administration

The Livestock Forage Disaster Program (LFP) is the nation's primary drought disaster relief program serving livestock producers. Administered by the USDA Farm Service Agency, LFP has distributed more than \$13.6 billion in direct assistance to producers experiencing losses from severe drought.¹ More than any other program in the federal drought relief portfolio, LFP eligibility is directly tied to the US Drought Monitor (USDM), a weekly drought assessment coordinated by the National Drought Mitigation Center at the University of Nebraska–Lincoln.

Each week, LFP eligibility is determined for every county in the United States. Federal law and FSA guidance describe a process by which county-level eligibility is determined by the intersection of county boundaries, the USDM weekly drought assessment, and the normal grazing period for each type of grazing land in each county.^{2, 3} Eligibility is triggered when “any area of the county” falls within certain drought classes during a crop type's normal grazing period — so county boundary definitions are essential to the administration of the program.

County boundaries change: substantially, as counties and county equivalents are created and removed, and in small ways, as legal boundaries between counties are refined. The US Census has recorded 472 county boundary corrections or changes from 2008 through 2024.⁴ Agencies whose regulatory actions implicate county boundaries — such as LFP eligibility determination — must therefore maintain records of which boundaries were used for each determination.

Authoritative legal county boundary definitions used in federal regulatory actions are governed by the Geospatial Data Act of 2018 and are maintained by the US Census Bureau. Given their ubiquity in the administration of federal programs, county and other governmental boundaries represent a strategic US data asset, and federal agencies should use standardized, authoritative data sources when possible.⁵ The US Census is the *de facto* authoritative source of county boundary data in the United States.

What the Geospatial Data Act requires

Codified in Title 43 U.S. Code Chapter 46, the Geospatial Data Act (GDA) establishes clear responsibilities for federal agencies regarding the geospatial data they collect and use for regulatory purposes.⁶

§ 2805 — National Geospatial Data Asset data themes. Establishes National Geospatial Data Asset (NGDA) themes as standardized categories of geospatial data used across federal agencies; designates lead covered agencies responsible for each theme's datasets, resources, and services; requires lead agencies to develop standards, coordinate data population, and ensure quality and accessibility; and mandates annual reporting on each theme.^{6, § 2805}

§ 2808 — Covered agency responsibilities. Agencies must use geospatial data standards, including metadata standards, and make metadata available through the GeoPlatform; must search existing sources, including the GeoPlatform, before spending federal funds on new data collection; and must report annually on their geospatial data activities and compliance.^{6, § 2808} In its FY2024 Covered Agency Report, USDA acknowledges that it receives geospatial data from non-federal sources and asserts that it employs methods to ensure the quality of that data.^{7, pp. 20–21, responses 12.1–12.2}

§ 2809 — Limitation on use of federal funds. Federal funds may not be used to collect, produce, acquire, maintain, or disseminate geospatial data that does not comply with FGDC standards.^{6, § 2809}

In response to the GDA, the Office of Management and Budget issued Circular A-16, a binding federal policy that directs agencies to coordinate geospatial data activities, establishes the Federal Geographic Data Committee (FGDC), and defines the National Spatial Data Infrastructure and its NGDA themes.⁸ “Governmental Units and Administrative and Statistical Boundaries” is one of the 18 NGDA themes established under Circular A-16 (Appendix E) and § 2805(b)(3)(A) of the GDA:

Governmental Units: *These data describe, by a consistent set of rules and semantic definitions, the official boundary of federal, state, local, and tribal governments as reported/certified to the U.S. Census Bureau by responsible officials of each government for purposes of reporting the Nation's official statistics.*

The theme includes core datasets such as county and state boundaries, tribal lands, congressional districts, school districts, and census tracts and blocks.

The Census Bureau is the designated boundary steward

The U.S. Department of Commerce is the Lead Covered Agency for the Governmental Units theme, and the U.S. Census Bureau is the Theme Lead. The current County and Equivalent Entities National TIGER/Line Shapefiles are among the Governmental Units NGDAs listed in the theme's data portal. To maintain and improve these assets, the Census Bureau operates the Boundary and Annexation Survey (BAS), authorized by 13 U.S.C. § 6, which gives tribal, state, and local governments an annual opportunity to review and correct the Census Bureau's legal boundary data.^{9, 10} As the Census Bureau notes, the federal government allocates more than \$2.8 trillion annually using these boundaries, and BAS fulfills the agency's National Spatial Data Infrastructure stewardship responsibilities under OMB Circular A-16, the GDA, and the Evidence Act.⁹

Most recently, February 2025 guidance from the National Geospatial Advisory Committee recommended that priority national datasets, including the NGDA themes, be treated as authoritative and shared in ready-to-use formats, and urged the FGDC to define “authoritative geospatial data” and monitor its use across agencies.^{11, p. 6}

Implications for LFP administration

LFP eligibility is currently adjudicated using a county boundary dataset maintained outside USDA that has remained essentially unchanged since 2012, even as the Census has recorded hundreds of boundary corrections and changes over the same period.¹² Adopting the Census Bureau's authoritative TIGER/Line county boundaries for eligibility determinations – and documenting the boundary vintage used in each determination – would align LFP administration with the Geospatial Data Act and OMB policy, improve the fiscal integrity of payments made along changed boundaries, and give producers, county staff, and oversight bodies a single auditable reference. The project's FOIA-obtained archive of the boundaries FSA has actually used¹³ provides the baseline for assessing where determinations and authoritative boundaries diverge; a full report is in preparation.

References

1. USDA Farm Service Agency. (2026). Farm Payment Files, 2004-2024. Curated and archived by R. Kyle Bocinsky, Montana Climate Office, University of Montana. Sustainable FSA project. URL: <https://sustainable-fsa.com/fsa-payment-files/>
2. 7 U.S.C. § 1531 (Supplemental agricultural disaster assistance). URL: <https://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title7-section1531&num=0&edition=prelim>
3. USDA Farm Service Agency. (2025). 1-LFP: Livestock Forage Disaster Program, Amendment 7. Original: https://www.fsa.usda.gov/Internet/FSA_File/1-lfp_r00_a07.pdf. URL: <https://sustainable-fsa.com/docs/1lfp-a7.pdf>
4. U.S. Census Bureau. County Boundary Change Notes. URL: <https://www.census.gov/programs-surveys/geography/technical-documentation/boundary-change-notes.html>
5. Office of Management and Budget. (2025). M-25-05: Phase 2 Implementation of the Foundations for Evidence-Based Policymaking Act of 2018: Open Government Data Access and Management Guidance. URL: <https://bidewhitehouse.archives.gov/wp-content/uploads/2025/01/M-25-05-Phase-2-Implementation-of-the-Foundations-for-Evidence-Based-Policymaking-Act-of-2018-Open-Government-Data-Access-and-Management-Guidance.pdf>
6. Geospatial Data Act of 2018, 43 U.S.C. ch. 46. (2018). URL: <https://uscode.house.gov/view.xhtml?path=/prelim@title43/chapter46&edition=prelim>
7. U.S. Department of Agriculture. (2024). FY2024 Geospatial Data Act Covered Agency Report. URL: <https://www.fgdc.gov/gda/gda-ca-reports/fy2024/fy2024-usda-gda-covered-agency-report.pdf>
8. Office of Management and Budget. (2002). Circular A-16 (Revised): Coordination of Geographic Information and Related Spatial Data Activities. URL: <https://www.whitehouse.gov/wp-content/uploads/2017/11/Circular-016.pdf>
9. U.S. Census Bureau. Boundary and Annexation Survey (BAS). URL: <https://www.census.gov/programs-surveys/bas.html>
10. 13 U.S.C. § 6 (Information from other Federal departments and agencies). URL: <https://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title13-section6&num=0&edition=prelim>
11. National Geospatial Advisory Committee. (2025). Advancing the Nation's Geospatial Capabilities: NGAC Guidance Paper. URL: <https://www.fgdc.gov/ngac/meetings/feb-2025/ngac-paper-advancing-the-nations-geospatial.pdf>
12. Montana Climate Office, University of Montana. (2026). Sustainable FSA project. URL: <https://sustainable-fsa.com/>
13. USDA Farm Service Agency. (2026). Livestock Forage Disaster Program Eligibility, 2008-2025. FOIA requests 2025-FSA-04690-F et al. Curated and archived by R. Kyle Bocinsky, Montana Climate Office, University of Montana. DOI: 10.5281/zenodo.18435404. URL: <https://sustainable-fsa.com/fsa-lfp-eligibility/>