



Investing in Water Infrastructure in America's Heartland

Matthew Holmes, CEO



NRWA®

NATIONAL
RURAL WATER
ASSOCIATION

America's Largest Utility Membership

National Rural Water Association

- Federation of 50 State Associations serving public water and wastewater systems in all 50 states, tribes, and U.S. territories
- NRWA was chartered in 1976 by 8 State Associations
- Rural Water has grown to represent >30,000 member utilities
- State Associations have 750+ water experts in the field

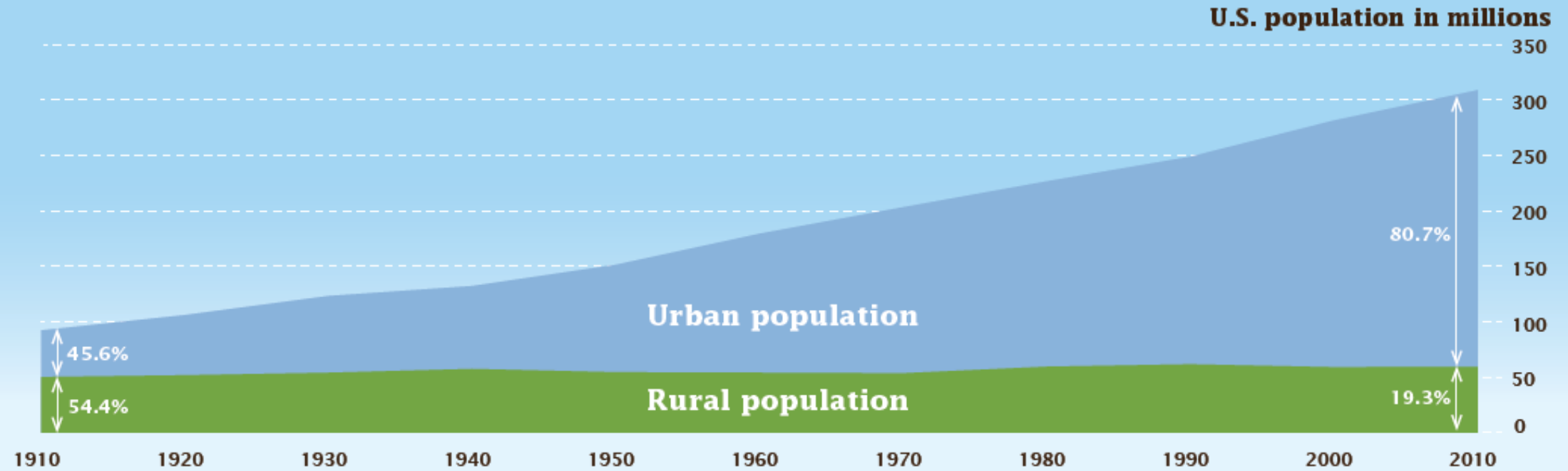
Community Drinking Water Systems

- America has 49,396 community water systems
- Most US drinking water systems are small:
 - 91% serve less than 10,000 persons
 - 81% serve less than 3,300
 - 54% serve less than 500

Sustainability

- What does sustainability look like for America's small communities?
- What are the differences between urban and rural water infrastructure investment?

Change in Rural and Urban Population Size: 1910-2010



Source: U.S. Census Bureau, 1910 to 1990 Censuses, <www.census.gov/population/censusdata/urpop0090.txt>; 2000 Census, Table P002; 2010 Census, Table P2.



RURAL

51 _____
61.9% _____
11.6% _____
65.4% _____
19.5% _____
67.6% _____
11.7% _____
13.6% _____

ADULTS (18 years and older)
Median age (years)
Now married
Lives alone
Lives in state of birth
Bachelor's degree or higher
Civilian employed (18-64 years old)
Poverty rate
Uninsured rate

URBAN

45 _____
50.8% _____
14.3% _____
48.3% _____
29.0% _____
70.0% _____
14.0% _____
15.3% _____



U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU
[census.gov](https://www.census.gov)





RURAL

22.3% _____
 76.3% _____
 8.9% _____
 18.9% _____
 7.3% _____

\$52,386 _____
 \$151,300 _____
 81.1% _____
 78.3% _____
 23.8% _____

CHILDREN (Under 18 years)

Percent of total population
 Lives in married-couple household¹
 Grandchild of householder
 Poverty rate
 Uninsured rate

HOUSING AND HOUSEHOLDS

Median household income
 Median home value
 Homeownership rate
 Single-family houses
 No Internet access⁶

URBAN

_____ 23.5%
 _____ 67.4%
 _____ 7.4%
 _____ 22.3%
 _____ 6.3%

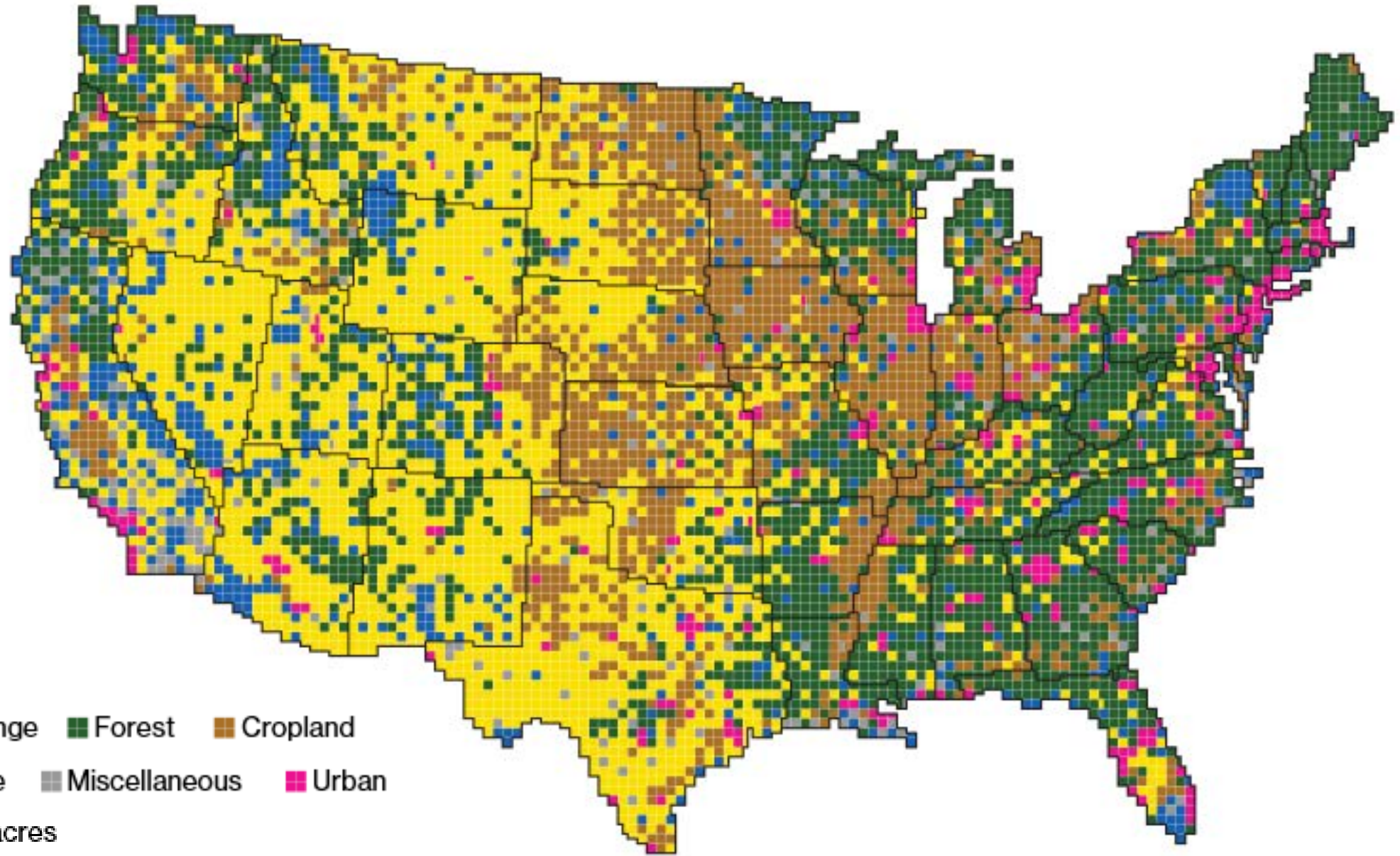
_____ \$54,296
 _____ \$190,900
 _____ 59.8%
 _____ 64.6%
 _____ 17.3%

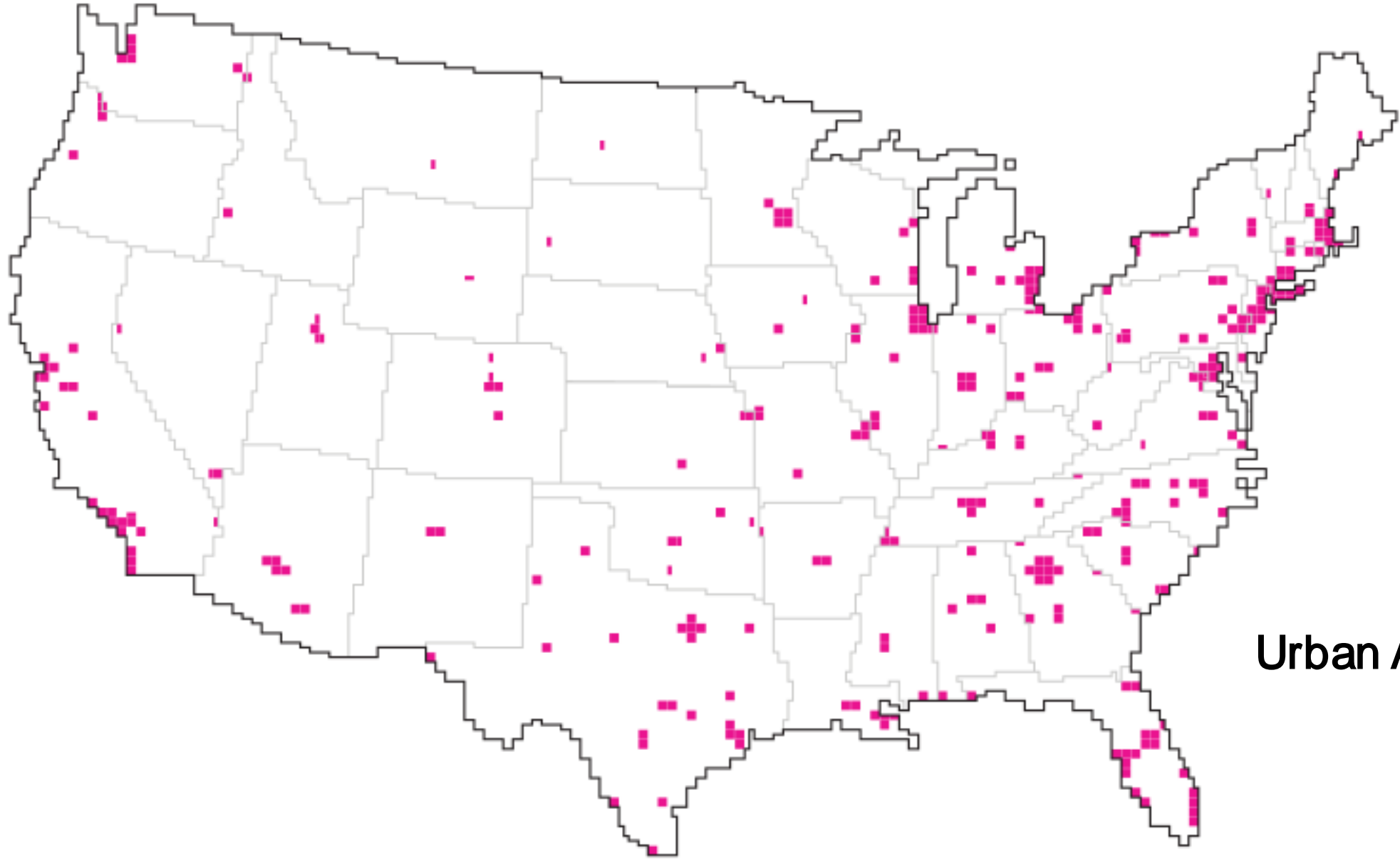
Here's How America Uses Its Land

Dave Merrill and Lauren Leatherby

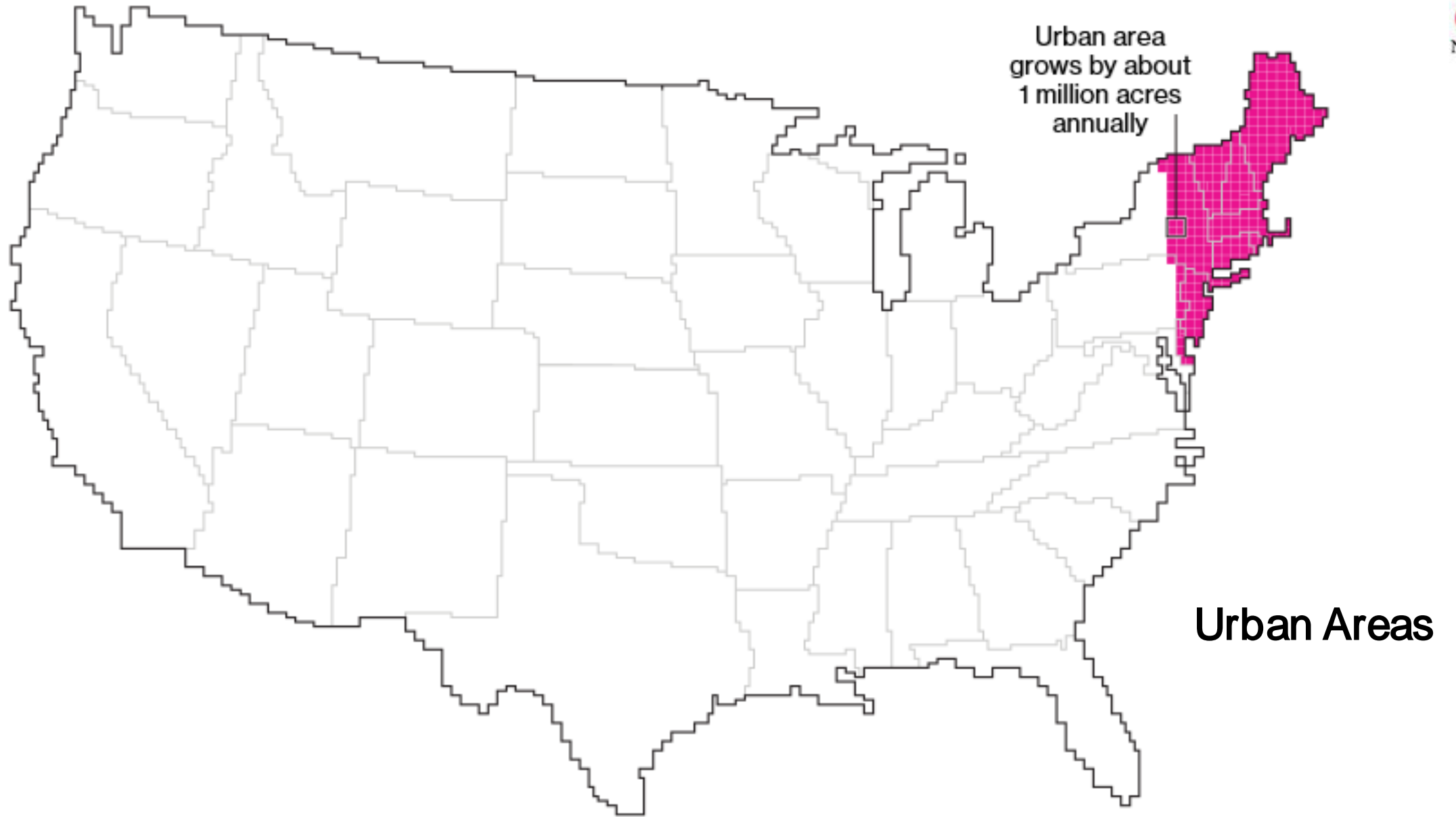
Bloomberg - July 31, 2018

www.bloomberg.com/graphics/2018-us-land-use





Urban Areas



Rural vs. Urban Characteristics

Rural Characteristics in America

Areas with less than 50,000 people

Low density: < 1,000 people PSM

No dense clusters of people

19.27% of the population

96.99% of the total land area

Urban Characteristics in America

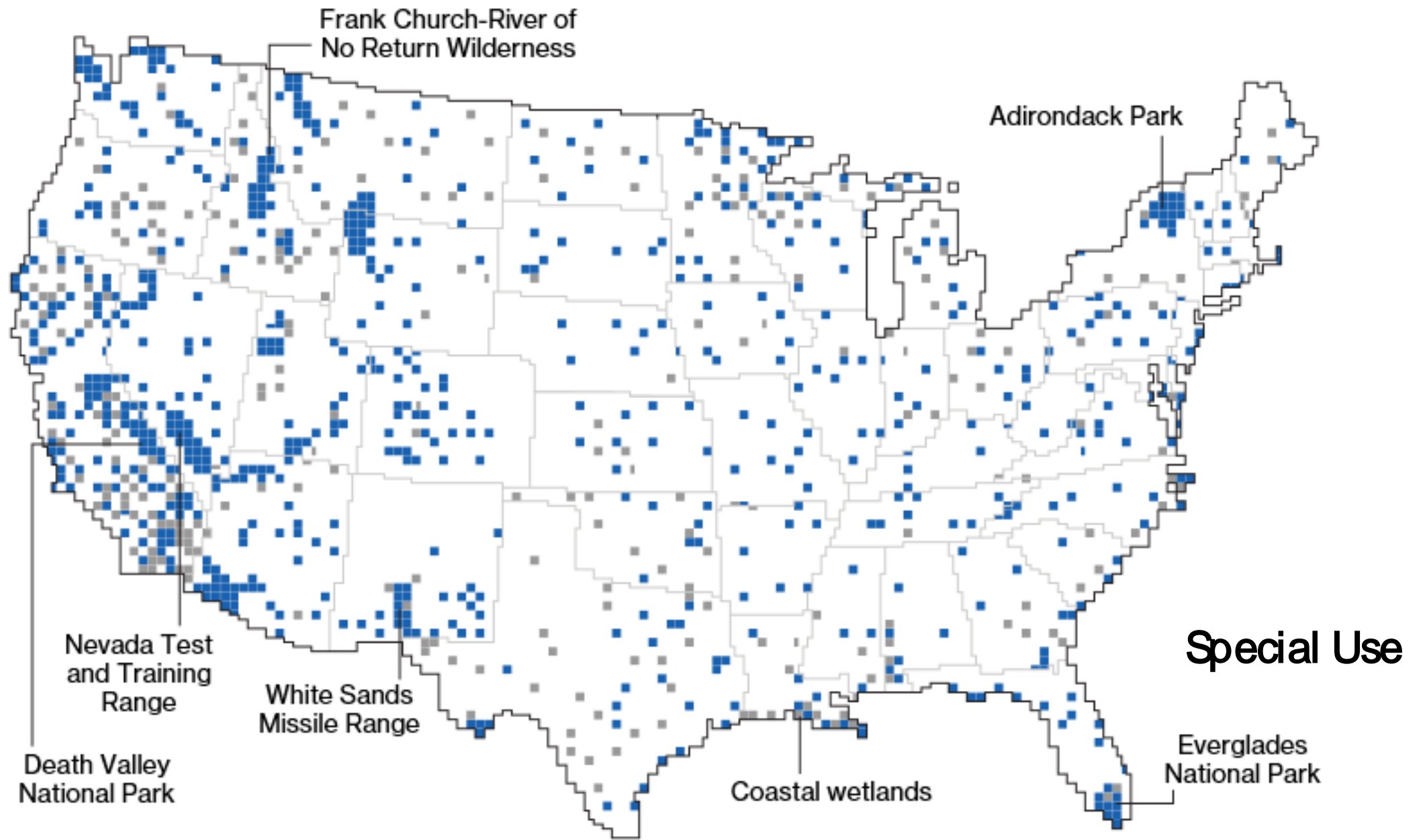
Areas with 50,000 or more people

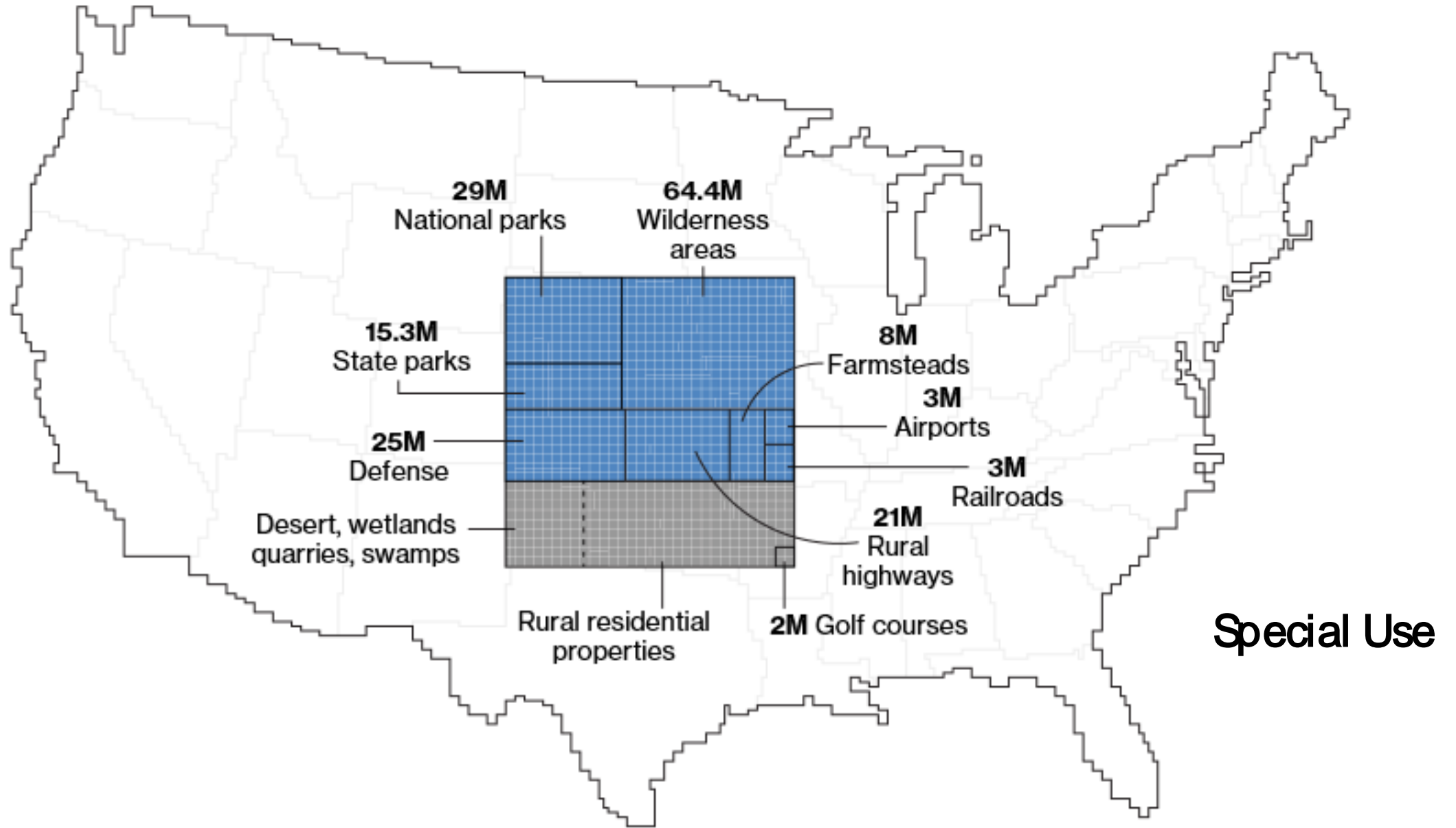
High density: >1,000+ people PSM

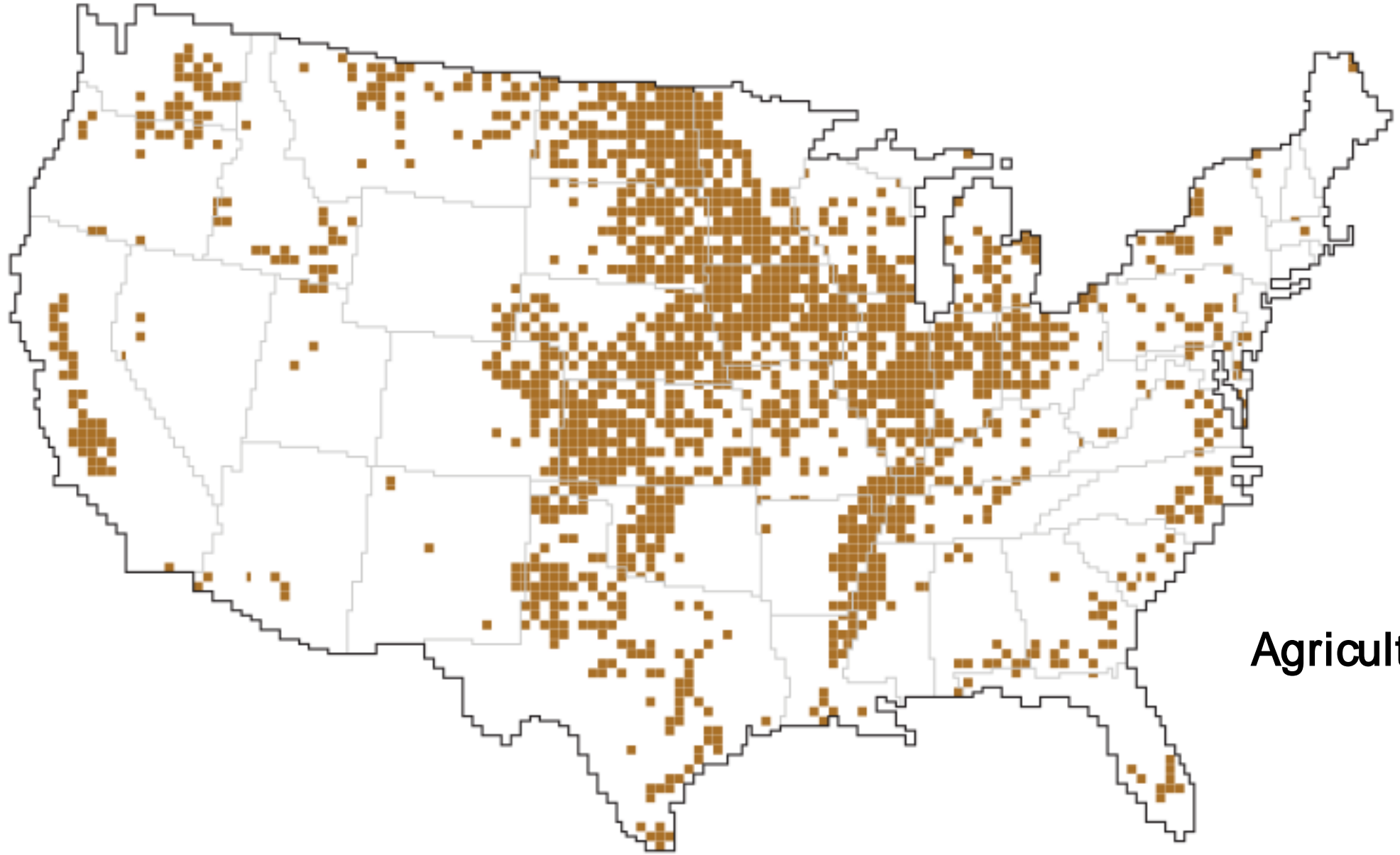
Dense clusters of 2,500+ people

80.73% of the population

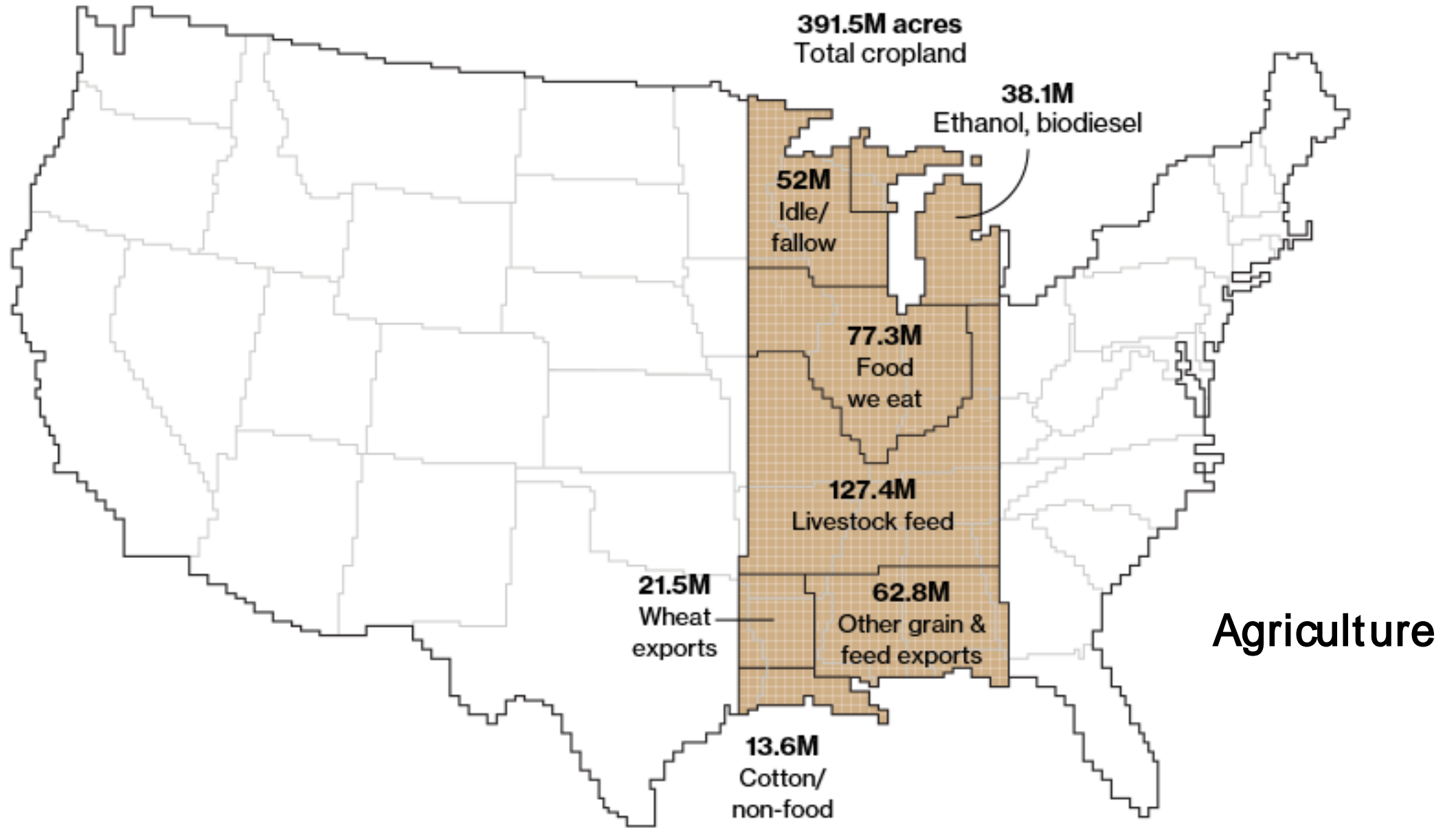
3.01% of the total land area

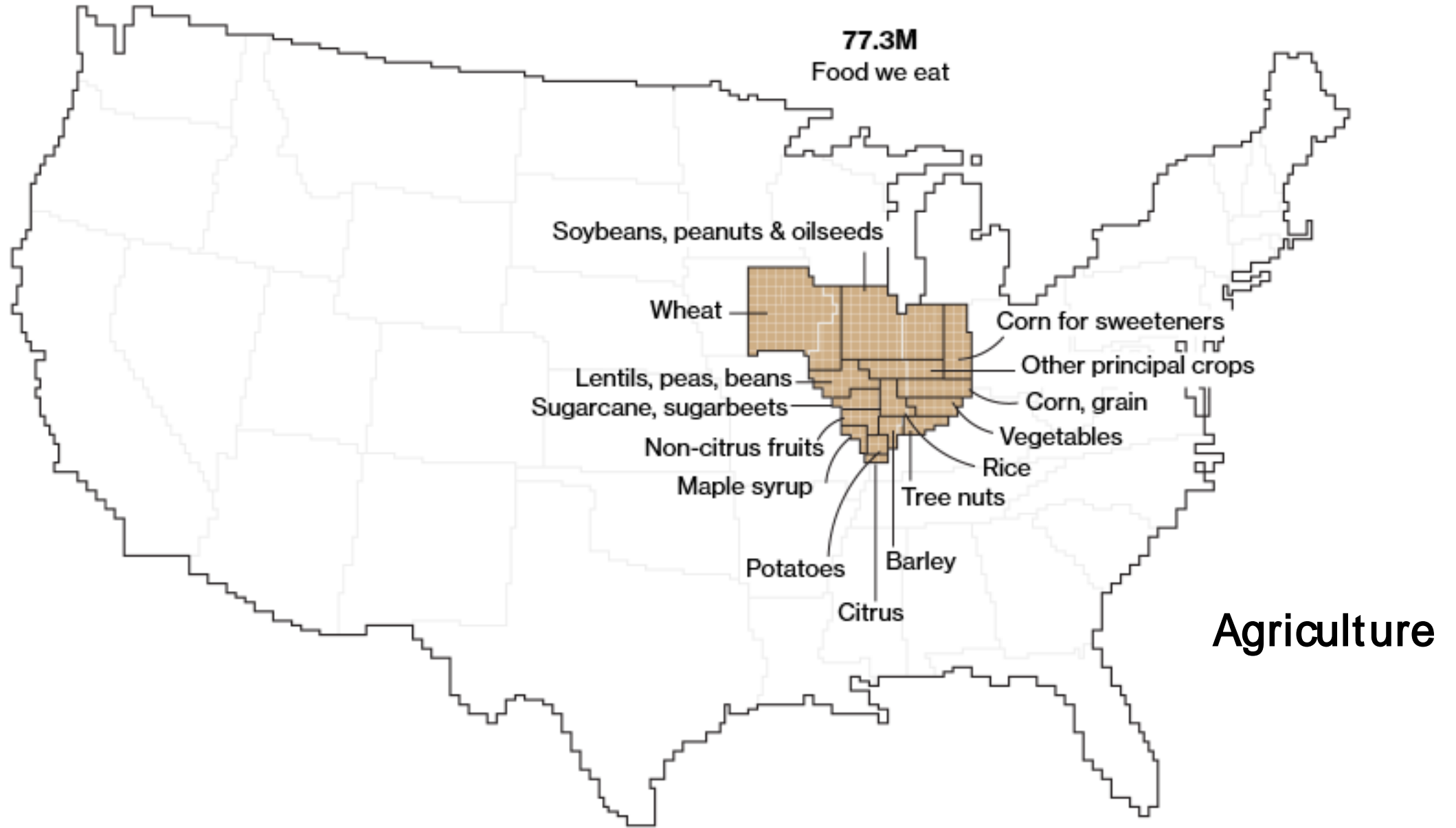


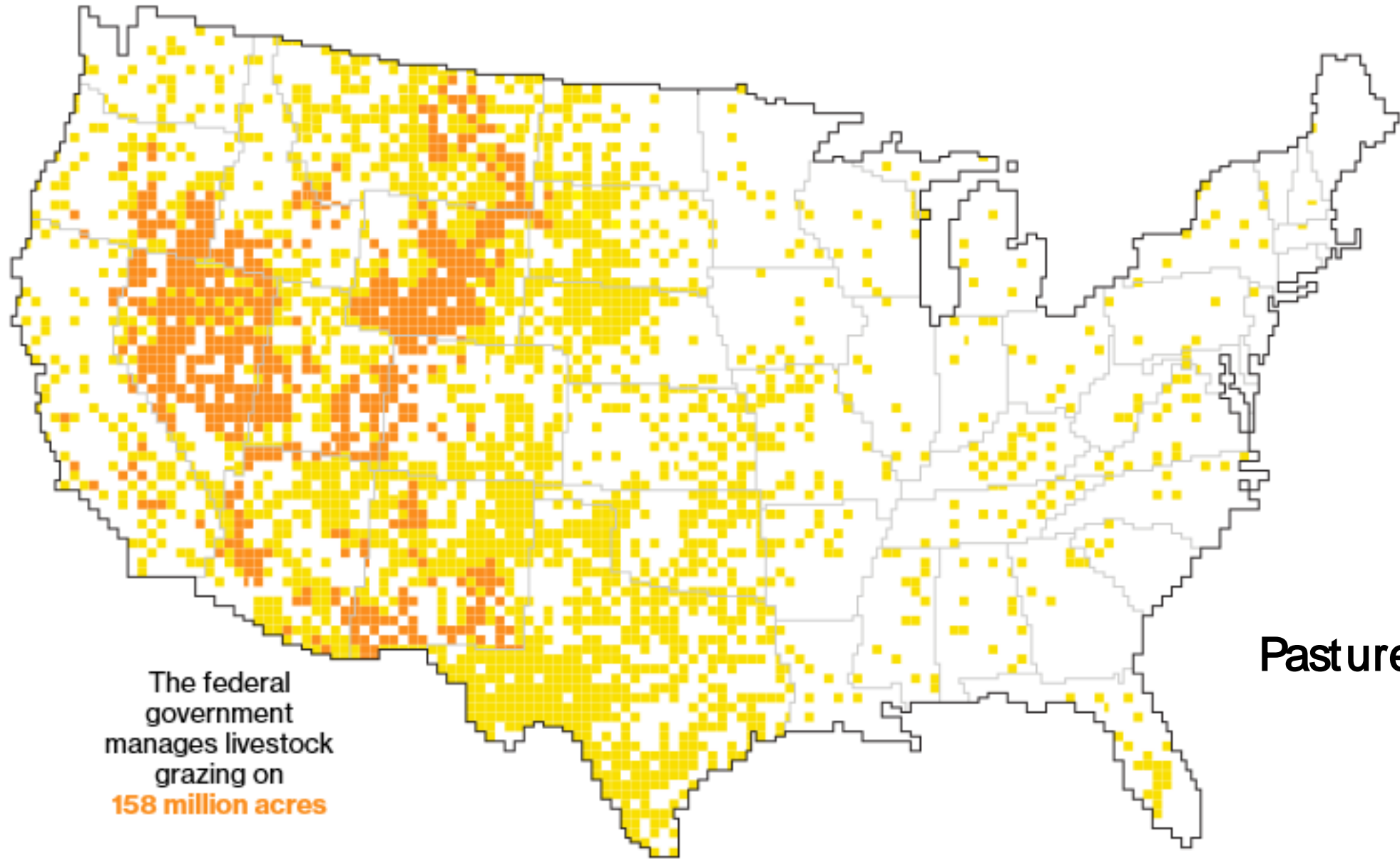




Agriculture

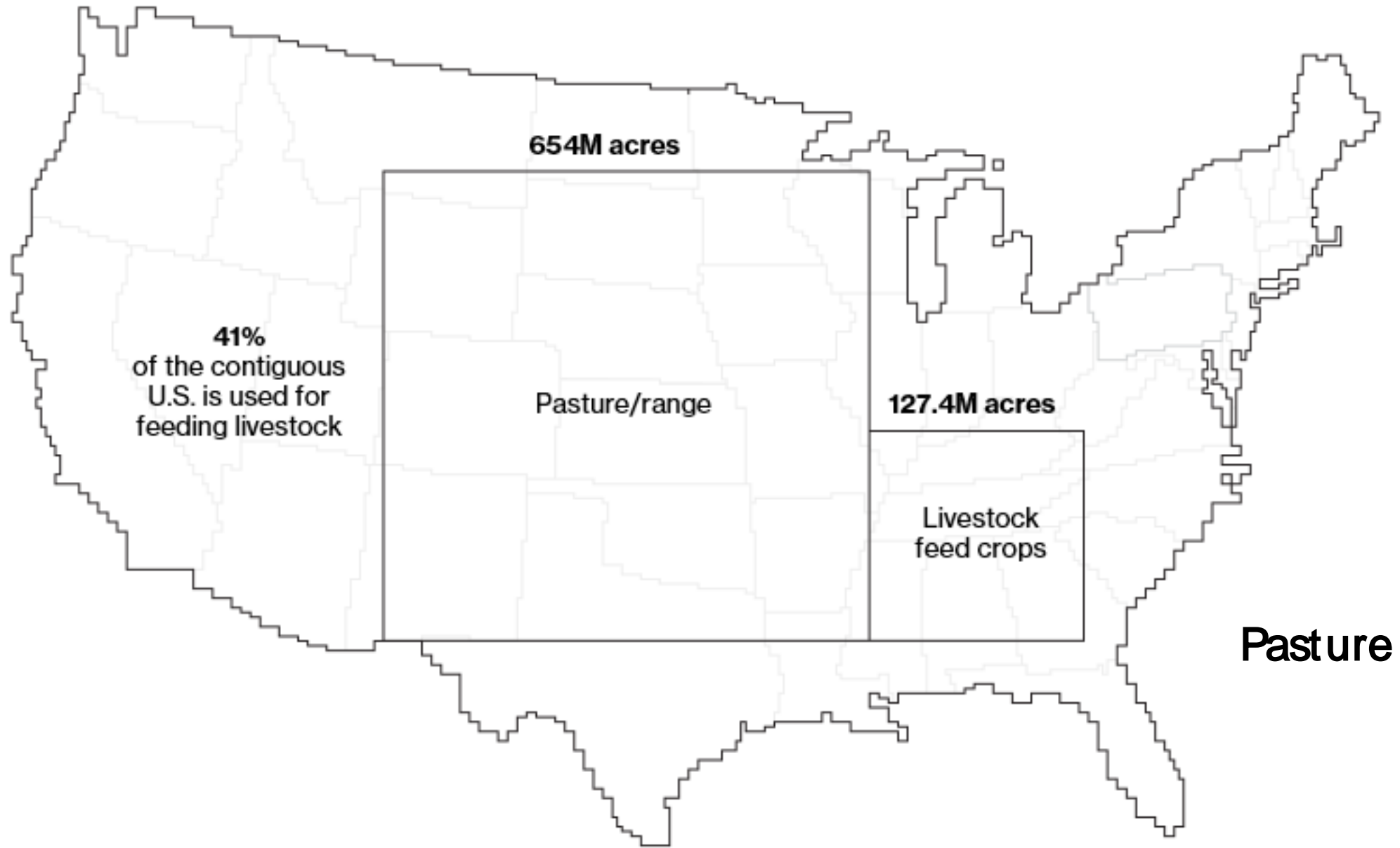


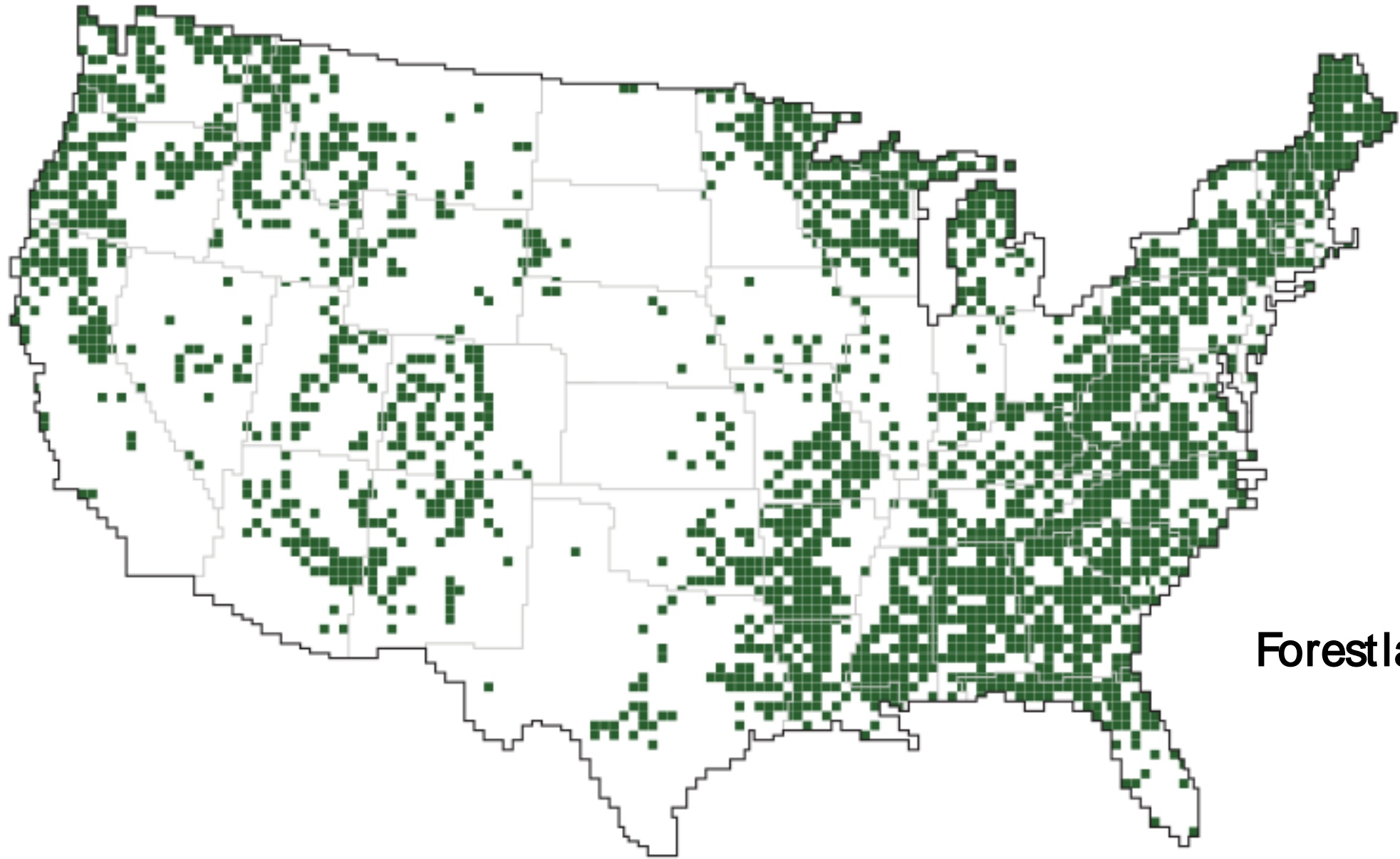




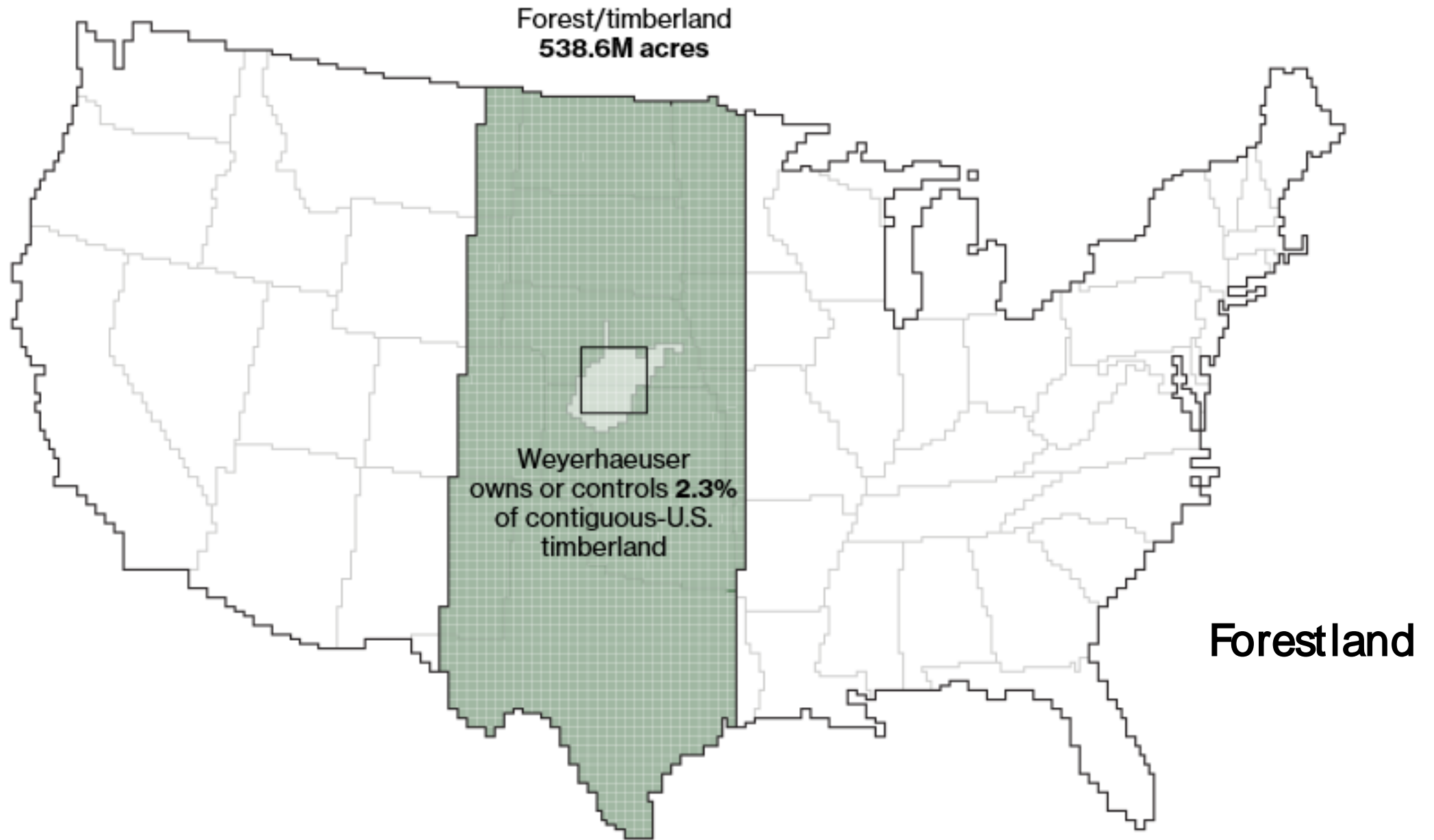
The federal government manages livestock grazing on **158 million acres**

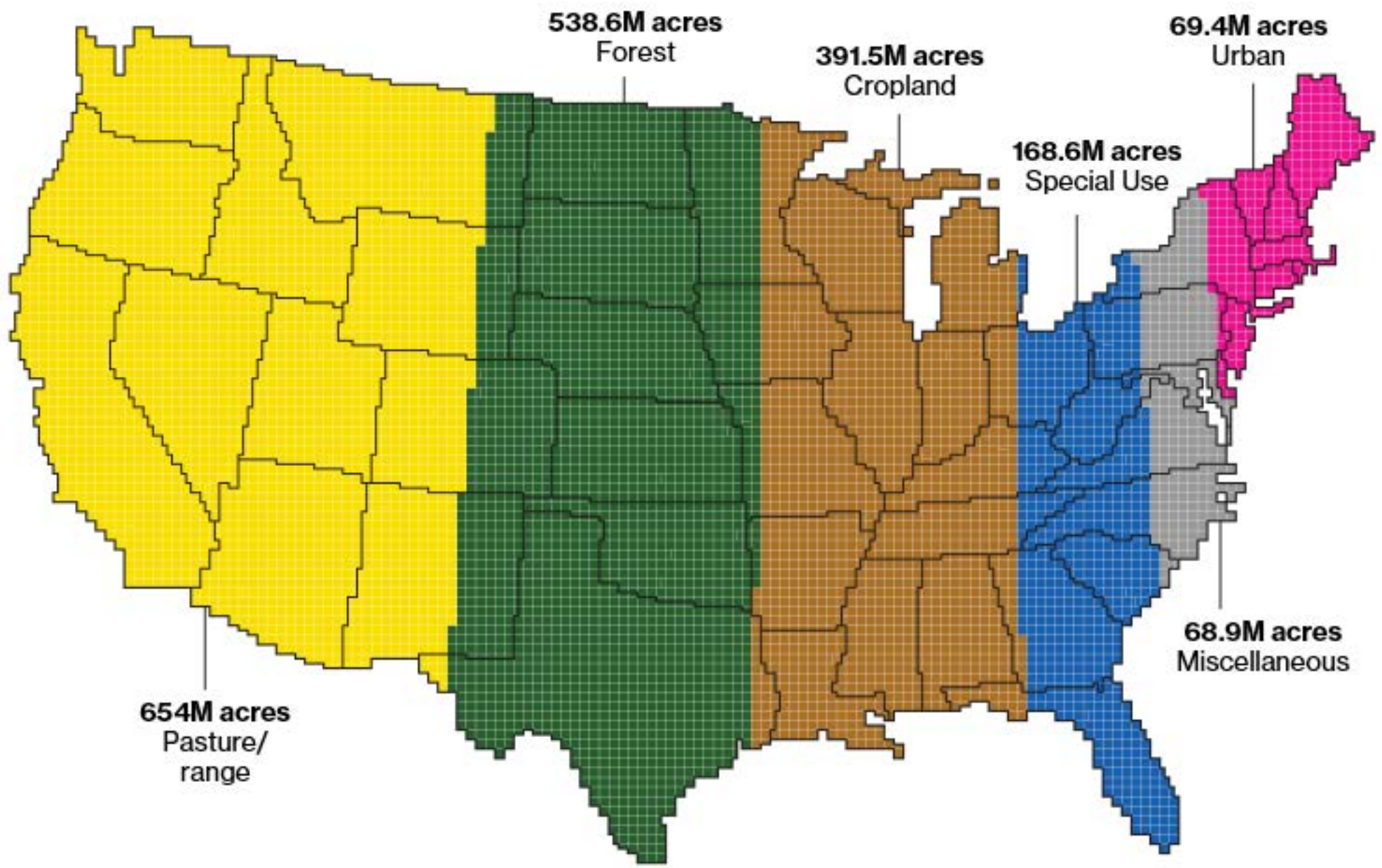
Pasture

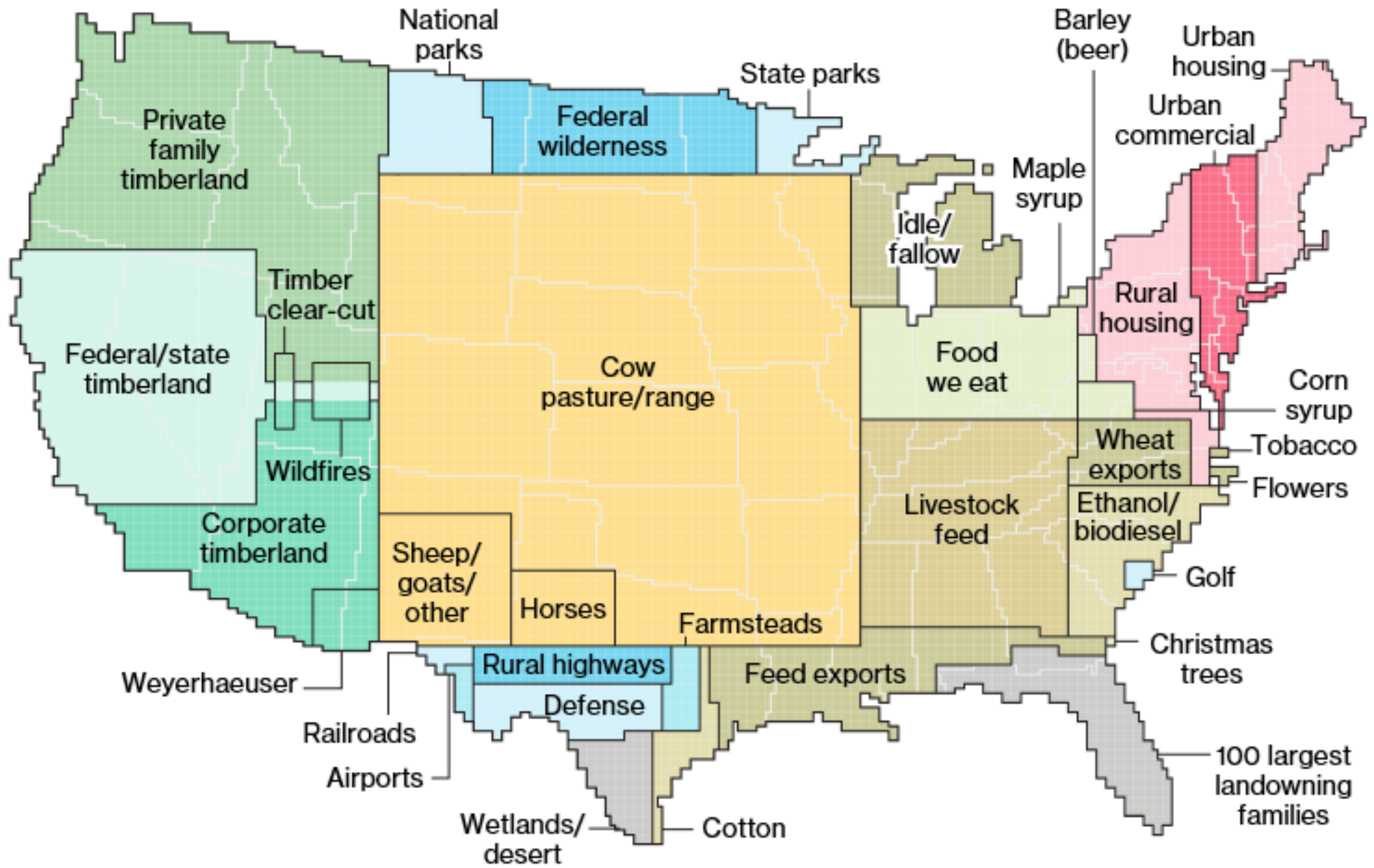




Forestland

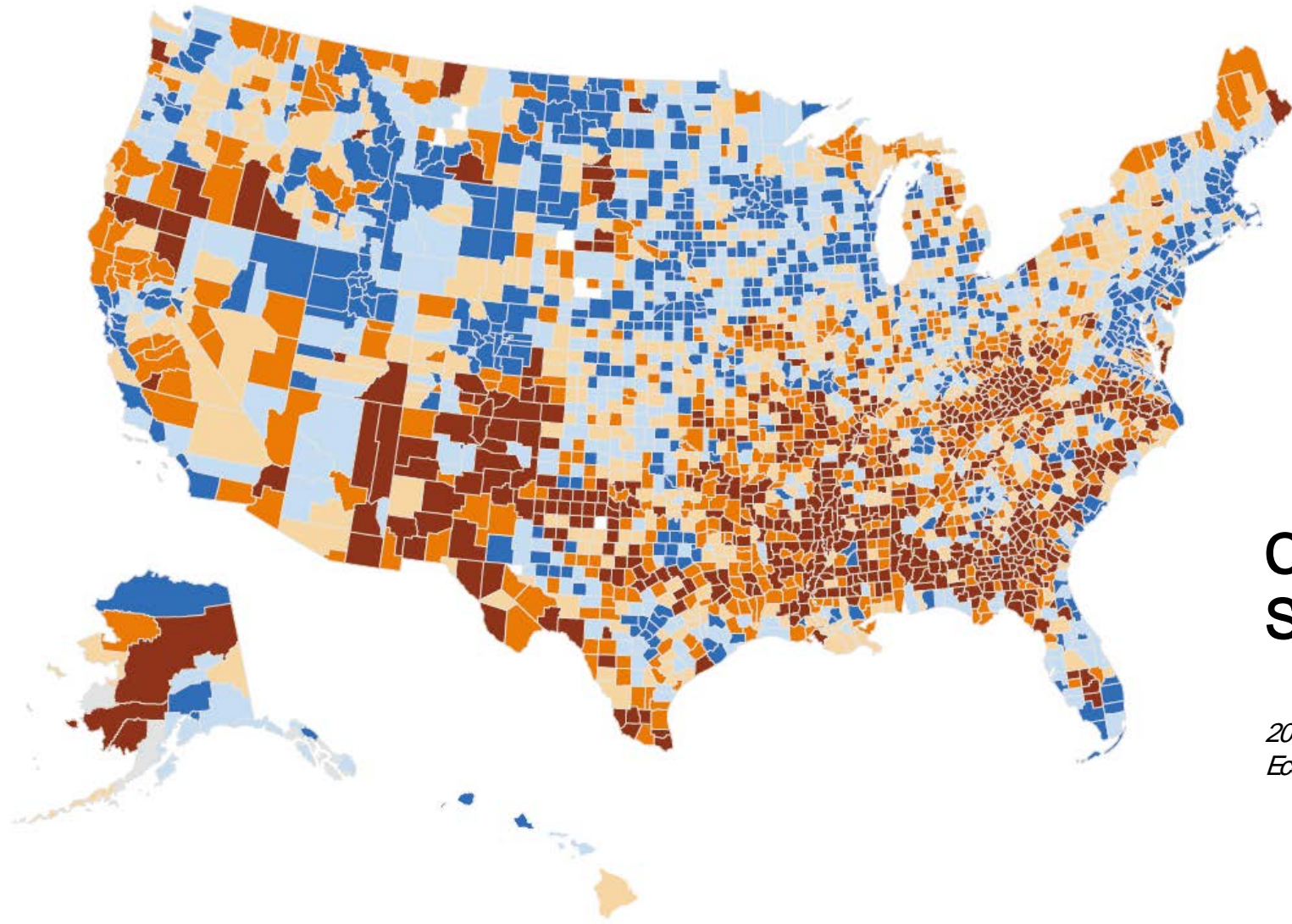






Building Sustainable Systems

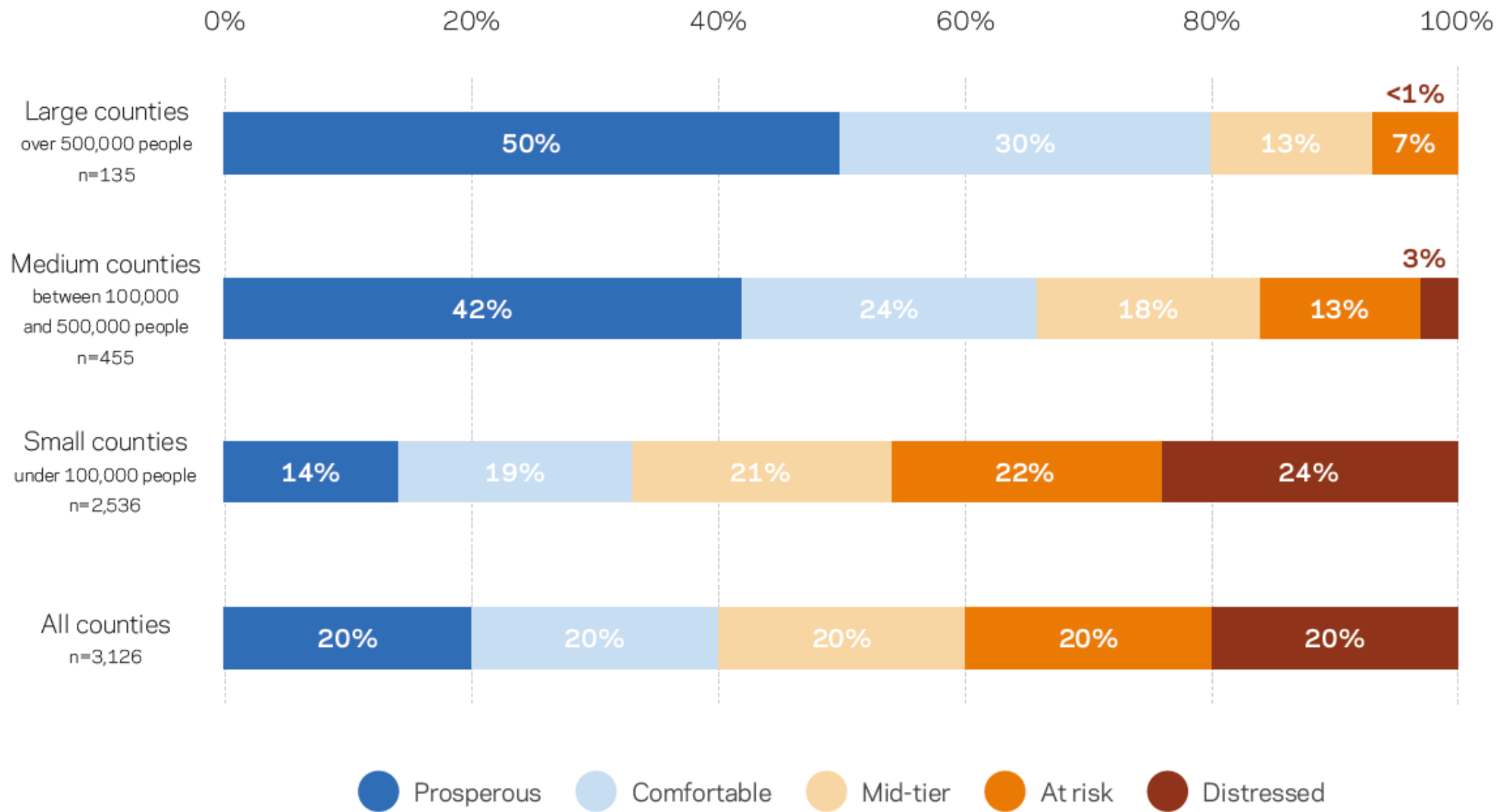
- Rural water infrastructure must be able to support different uses and economic activity than urban infrastructure
- Small communities, by definition, have less economies of scale
- Consolidation & regionalization of systems will continue to play an important role, but are not silver bullets



County Distress Scores

*2017 Distressed Communities Index
Economic Innovation Group*

● Prosperous ● Comfortable ● Mid-tier ● At risk ● Distressed



Conclusions

- Small communities are far more likely to be disadvantaged and distressed overall
- Affordability is a key factor in providing equitable utility services – but looks different in small communities
- Government subsidies and technical assistance should prioritize underserved small communities

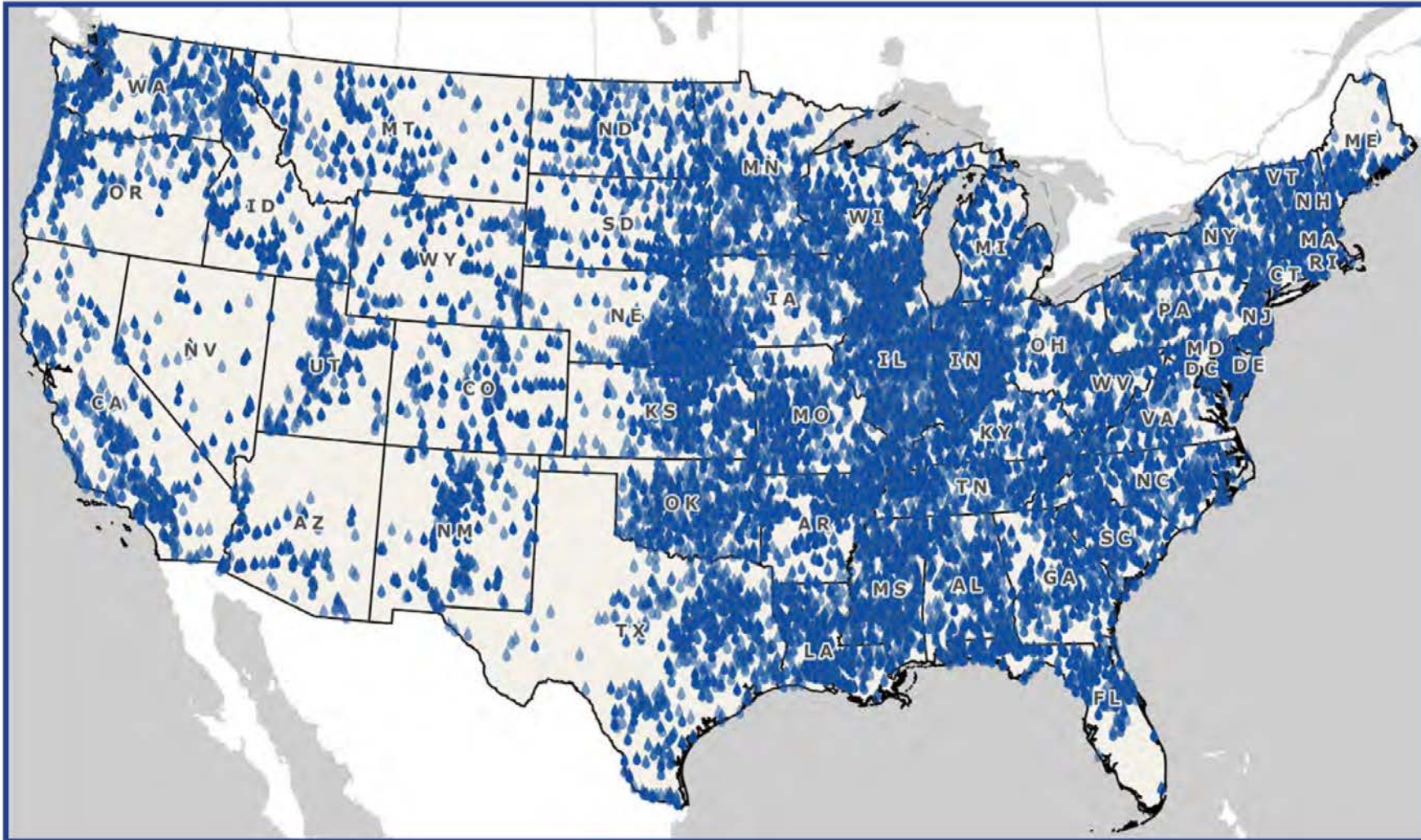
Innovation in Small Communities

- Circuit Rider Program – Model for the Future
- Workforce Development – NRWA Apprenticeship Program
- Dealing with Emerging Contaminants – PFAS
- Preparing for Natural Disasters & Emergencies
- Promoting Regional Solutions

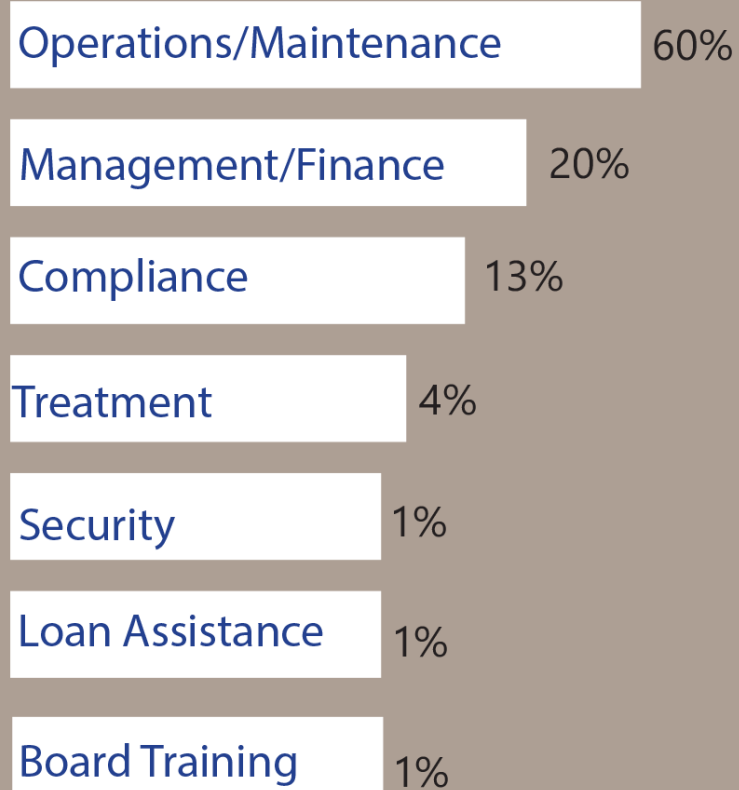


Drinking Water Circuit Rider Program

2022 Performance Review
147 Full-Time Techs
50 States + Puerto Rico



Type of Assistance Provided



Key Impacts

30,721,691 People Assisted

85,741 On-Site Hours

13,255 Water Systems Helped

964 Disaster Relief Hours

42%

Of all Rural Americans benefited from the Circuit Rider Program





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www.nrwa.org