

# Planning on Tap: Exploring the 2020 Decennial Census

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## Meet Your Local Data Dissemination Specialist

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Kira O'Bradovich is a Data Dissemination Specialist for the Chicago Region serving the state of Iowa. Formerly she served as a Senior Partnership Specialist during the 2020 Decennial Census. She grew up in Omaha, the child of Iowans, and currently resides in Chicago.

Kira holds an LLM in Public International Law from the University of Kent, M.S. in International Public Service from DePaul University, and B.A. from Gustavus Adolphus College in Saint Peter, MN.



# Overview

1. Overview of the Census
2. The 2020 Decennial Census
3. Decennial Data Trends & Changes
4. Data Tools & Resources



The U.S. Census Bureau is the federal government's largest statistical agency.

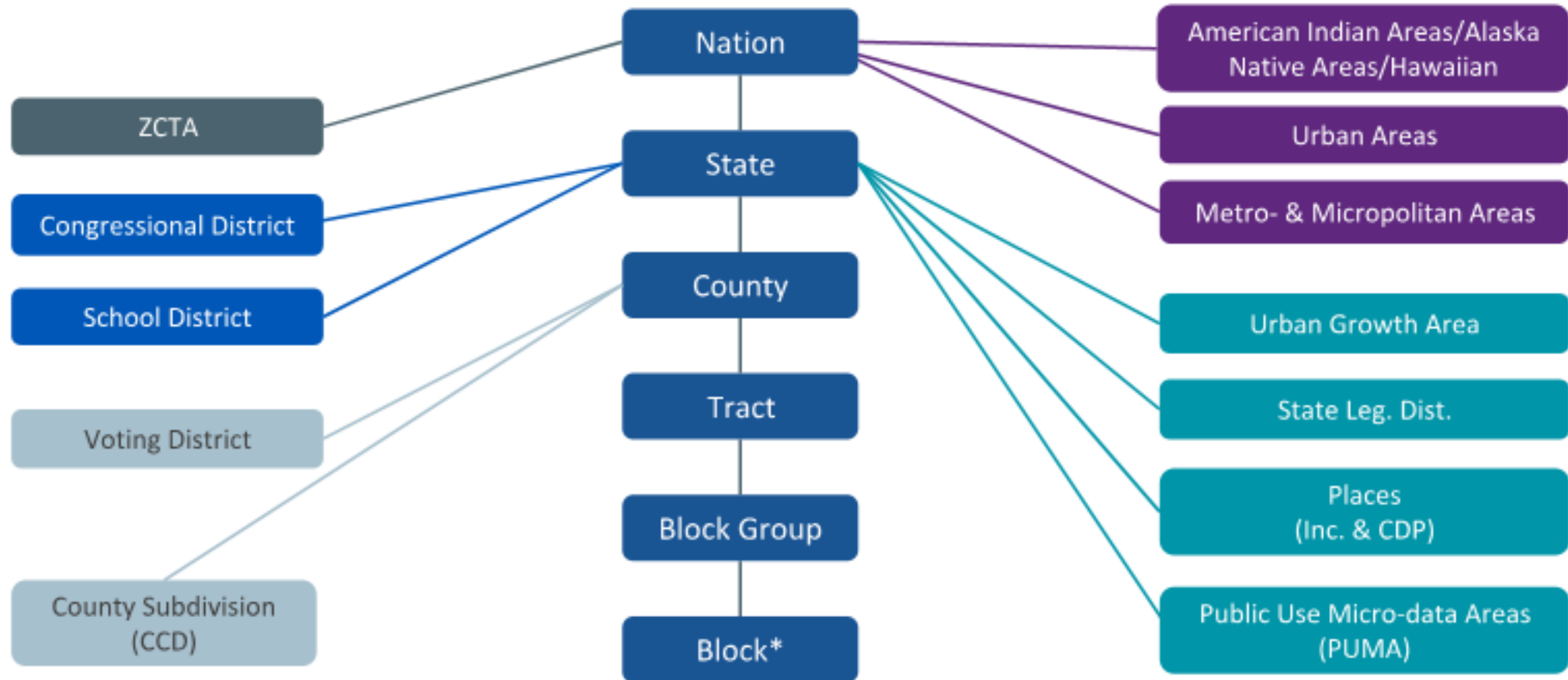
Our mission is to serve as the nation's leading provider of quality data about its people and economy.



We conduct **more than 130** censuses and surveys each year, including:

- **The Decennial Census** – the once-a-decade population and housing count of all 50 states and U.S. territories
- **The American Community Survey** – the ongoing, annual survey of the social, economic, housing, and demographic characteristics of the nation's population
- **Economic Surveys & Programs** – produces reports & data on everything from government finances to construction. This includes the **Economic Census**, the official five-year measure of American businesses.

# Census Geographies



\*Not available for ACS data

# Hierarchy of Census Geography, From Nation to Block



2.

Plans & Challenges during the  
2020 Decennial Census



Article I, Section 2 of the United States Constitution mandates that every ten years, every person dwelling in the United States be counted.

Results are used to reapportion seats in the House of Representatives, realign congressional districts, and play a role in determining the distribution of federal funds each year.

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### Highlights of the 2020 Decennial Census

- Largest Peacetime Operation in the US
- Internet Self-Response Option
- Community Partnership & Engagement Program
- Mobile Questionnaire Assistance Program



# 2020 Decennial Census Response Timeline & Adjustments



# Decennial Census Data Releases

## Demographic Profile Released on May 25, 2023 Demographic and Housing Characteristics File (DHC)

- Age & Sex
- Hispanic & Latino Origin (not detailed groups)
- Race (not detailed groups)
- Household Type, Family Type, Relationship to Householder
- Group Quarters Population
- Housing Occupancy, Housing Tenure





## What is the American Community Survey?

- Designed to provide communities with reliable and timely social, economic, demographic and housing data **every year**
- Conducted since the 2000s when it replaced the long-form decennial
- Surveys 3.5 million addresses
- Covers 40+ topics, supports over 300 evidence-based Federal government uses
- Informs the distribution of \$675 billion in federal funds

# What information is collected?

## Social (DP02)

- Educational Attainment
- Marital Status
- Fertility
- Grandparents
- Veterans
- Disability
- Place of Birth
- Citizenship Status
- Language
- Ancestry/Tribal
- School Enrollment
- Degree

## Economic (DP03)

- Income & Earnings
- Class of Worker
- Employment Status
- Occupation
- Industry
- Commute
- Place of Work
- Health Insurance
- Food stamps/SNAP

## Housing (DP04)

- Tenure
- Occupancy & Structure
- Housing Value
- Taxes & Insurance
- Utilities
- Mortgage/Monthly Rent
- Year Structure Built
- Year Householder moved
- Vehicles
- Monthly costs

## Demographic (DP05)

- Total Population
- Sex & Age
- Race
- Hispanic Origin
- Citizen/Voting Age

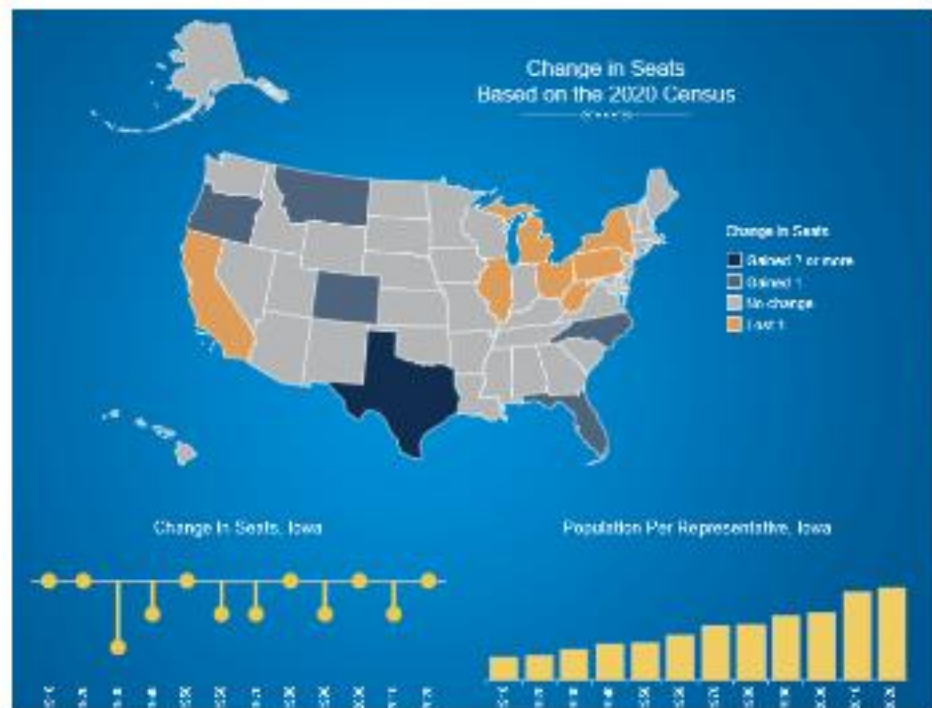
# American Community Survey Estimates

	1-year Estimates	1-year Supplemental Estimates	5-year Estimates
Populations of area for which data is available	65,000+	20,000+	Any
Sample size	Smallest		Largest
Reliability of data	Least Reliable		Most Reliable
How current is the data?	Most Current		Least Current
Available	September	October	December
Best used when	Analyzing Large Populations		Analyzing Small Populations, Examining Tracts & Other Smaller Geographies

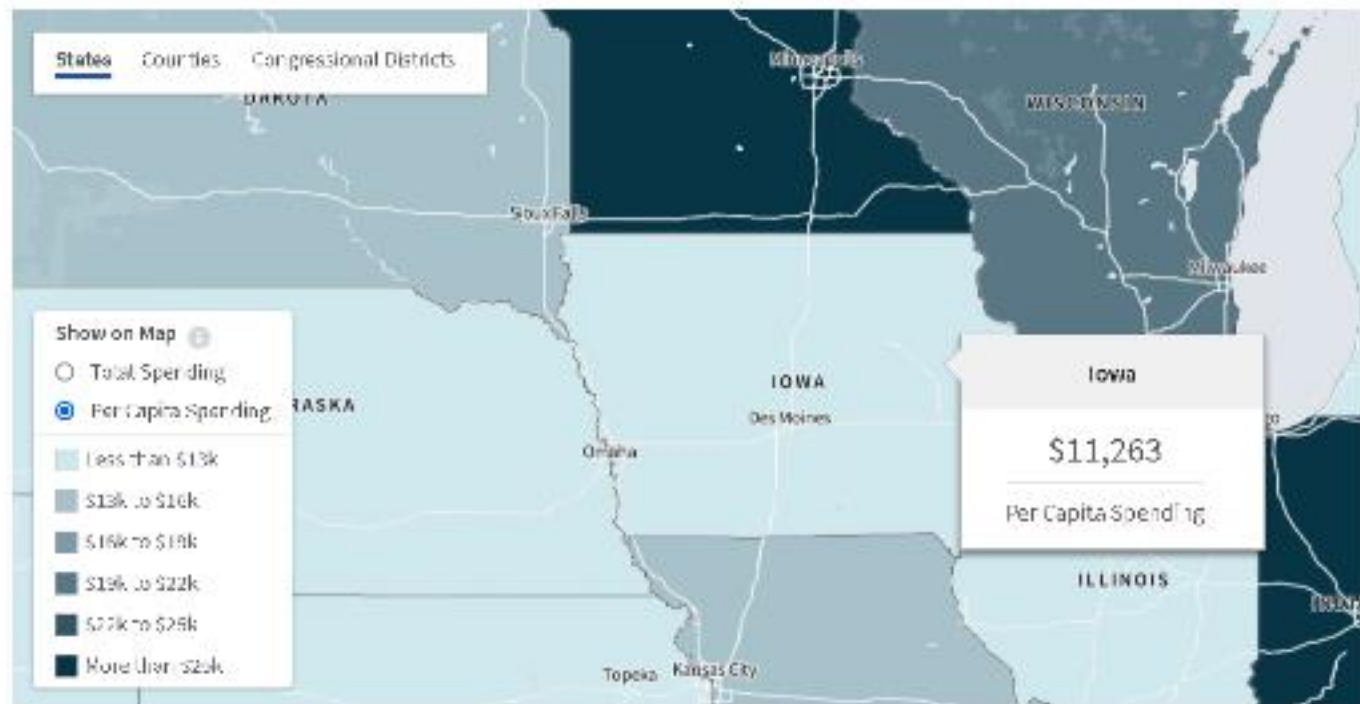
3.

## 2020 Decennial Data Results & Trends

## V Congressional Apportionment



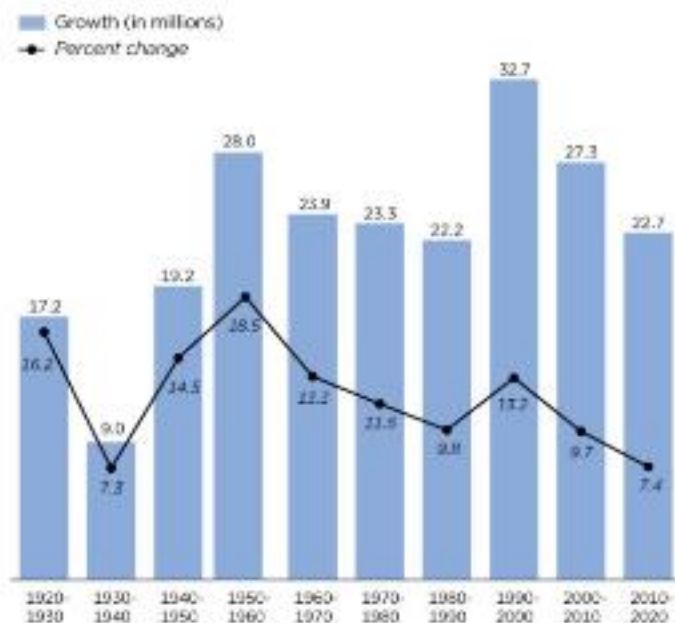
## V FY 2020 Government Spending



usaspending.gov

# V 2020 Population Trends

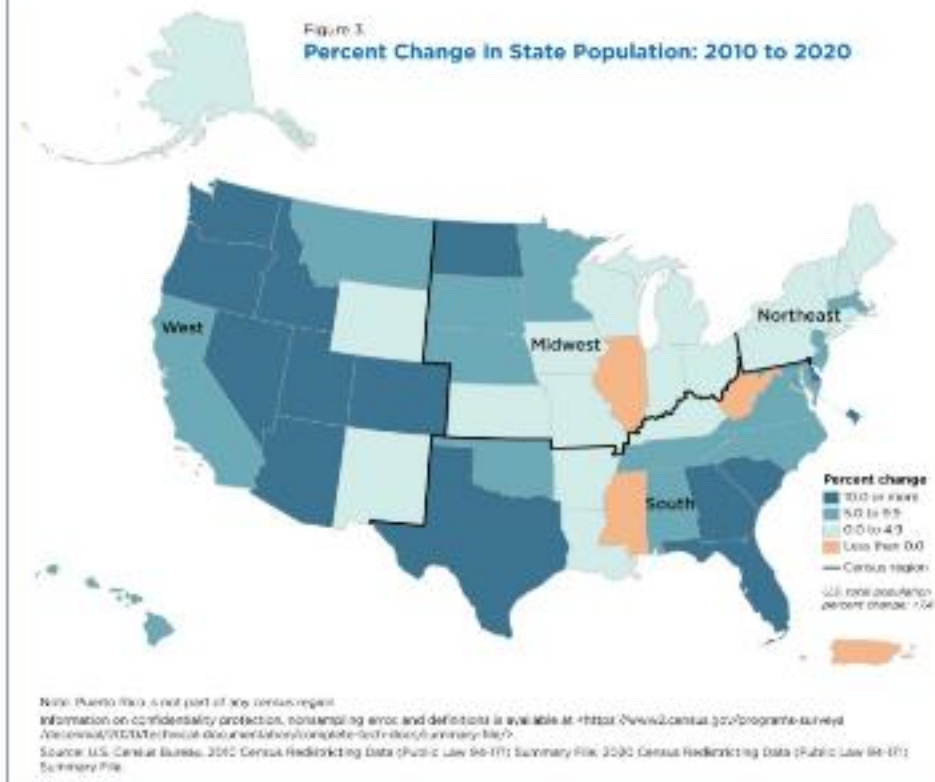
Figure 4.  
U.S. Population Growth and Change: 1920-1930 to 2010-2020



For information on confidentiality protection, nonsampling error, and definitions, see <https://www2.census.gov/programs-surveys/denial/2020/technical-documentation/complete-tech-doc/summary-file/>.  
Source: U.S. Census Bureau, 2010 Census Redistricting Data (Public Law 111-17) Summary File; 2020 Census Redistricting Data (Public Law 114-17) Summary File; Frank Haber and Nicole Stoppel, Demographic Trends in the 20th Century, Census 2000 Special Reports, C2K0R-4, U.S. Census Bureau, Washington, DC, 2001; and Richard L. Porsari, Population of States and Counties of the United States: 1790 to 1990, U.S. Census Bureau, Washington, DC, 1996.

V Over the last decade, the nation grew at its slowest rate since the 1930s

Figure 3.  
Percent Change in State Population: 2010 to 2020



V Less than half of the nation's 3,143 counties or equivalents gained population from 2010 to 2020

V The populations of around 80% of metro areas grew during the same time period



3.

## Changing Definitions in Decennial Data: Urban & Rural Areas

## Minimum Population Threshold or Housing Unit Qualification

- Urban Areas must now encompass at least 5,000 people OR at least 2,000 housing units
- Minimum number of people is an increase from the former threshold of 2,500 people, which had been used since 1910
- 2,000 housing units was chosen as the alternative threshold because it's consistent with the 5,000 people threshold (2.5 is the nationwide average of people per housing unit)

Table 2. Population in Urban and Rural Areas, 2010 Census and 2016-2020 ACS, Applying 2020 Thresholds.

	2010 Census Population	2010 Percent	2016-2020 ACS 5-year Estimates Population*	2020 Percent
Total	308,745,538	100.0	326,569,308	100.00
Urban	245,658,565	79.6	259,850,930	79.6
Rural	63,086,973	20.4	66,718,378	20.4

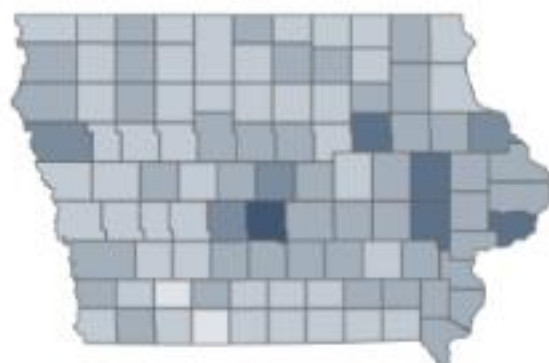
Source: 2010 Census; 2016-2020 ACS 5-year data.

This “either/or” approach has two benefits:

- Areas, such as seasonal communities or second-home communities, that are densely developed but have a lower population on Census Day (April 1) can qualify as urban based on the number of housing units.
- Areas that have higher than average people per housing unit ratios can qualify based on population.

Total Population (2020): <b>3,190,369</b>	Housing Units (2020): <b>1,412,789</b>
Numeric Change in Population (2010–2020): <b>144,014</b>	Housing Unit Vacancy Rate (2020): <b>8.8%</b>
Percent Change in Population (2010–2020): <b>4.7%</b>	Percent Change in Housing Units (2010–2020): <b>5.7%</b>

Population Density in Iowa Counties: 2020



People per square mile



## Housing Unit Density Instead of Population Density

- New urban area definition is based on housing unit density measured at the census block level – 425 units per square mile
- Provides a more direct measure of the densely developed landscape
- More accurately accounts for areas with substantial concentrations of housing that are considered part of the urban landscape but have less than average people per housing unit or seasonal populations or both
- Provides the ability to update urban areas between censuses

4.

## Exploring Census Data

# How to Access Decennial Data

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## Data.Census.Gov

- Primary Census Data Tool perfect for exploring Census Data
- Provides Profiles, Maps, & Detailed Tables
- Sources from Multiple Surveys including the Decennial
- Easy to Download Data

## QuickFacts

- Handy, mobile-friendly data tool
- Quickly pulls data based on geographies of 5,000+
- Creates interactive and downloadable reports & charts

## Census API

- Allows users to create custom queries and developers create custom apps
- Makes key demographic, socio-economic and housing statistics more accessible than before while protecting privacy

## Additional Data Tools for Planners

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### Microdata Access Tool (MDAT)

- Create your own customized tables using one of our newest data tools
- Compare & Contrast additional variables & combinations not found in aggregated data
- Easily download, share, or view data in API

### Census Business Builder

- Easy to Use search & mapping tool to visualize economic & business data across the nation.
- Customizable dashboard to easily compare & view data
- Creates interactive and downloadable reports & charts

### TIGERWeb

- Access the Bureau's Topologically Integrated Geographic Encoding and Referencing database
- View legal and statistical geographic boundaries and physical features
- Allows users to integrate Census data into other GIS and/or custom web-based applications

## Connect With Kira for Data Questions & Trainings!

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# Population Changes in Iowa

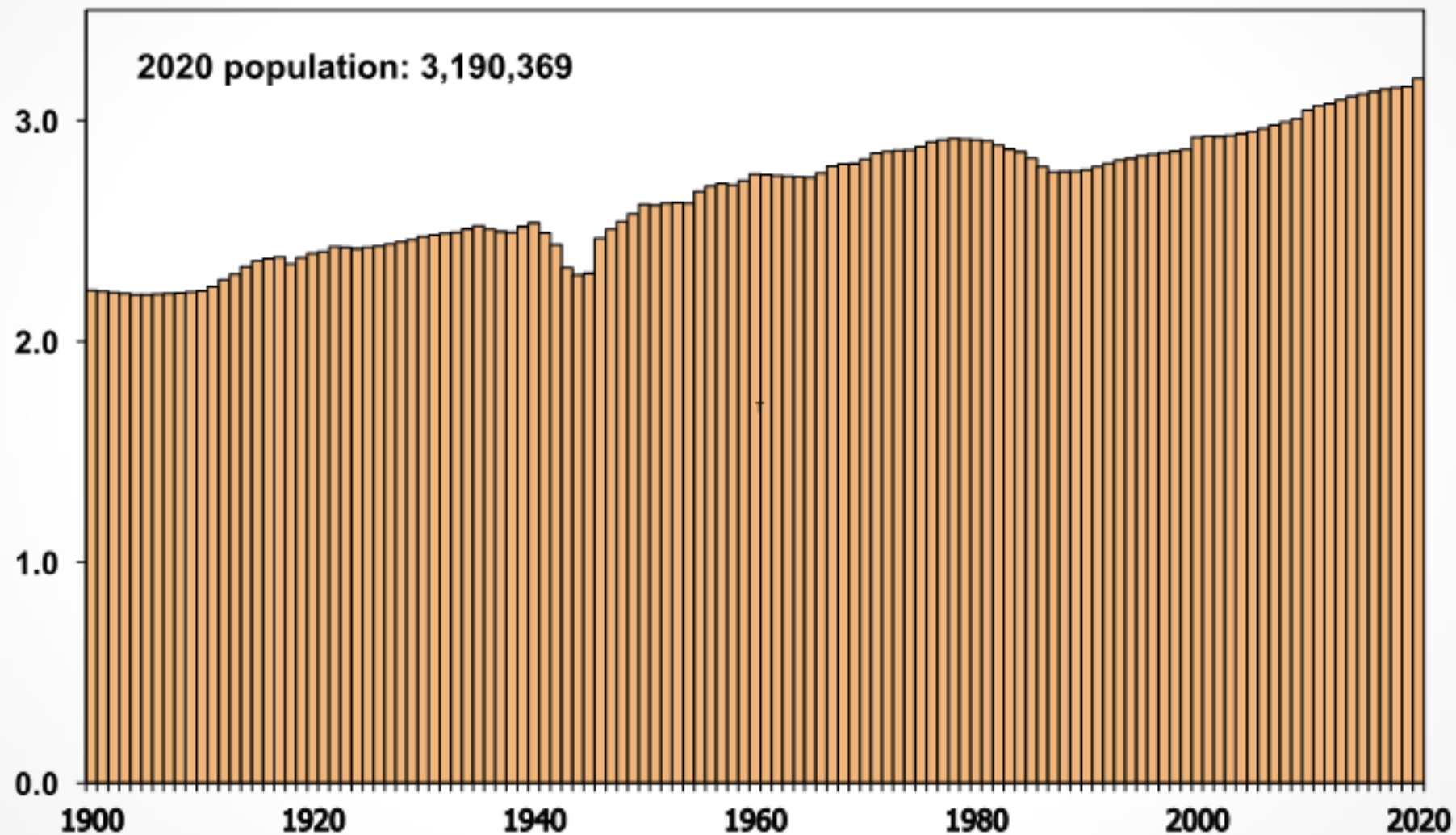
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Gary Krob  
State Data Center  
State Library of Iowa  
[www.iowadatacenter.org](http://www.iowadatacenter.org)



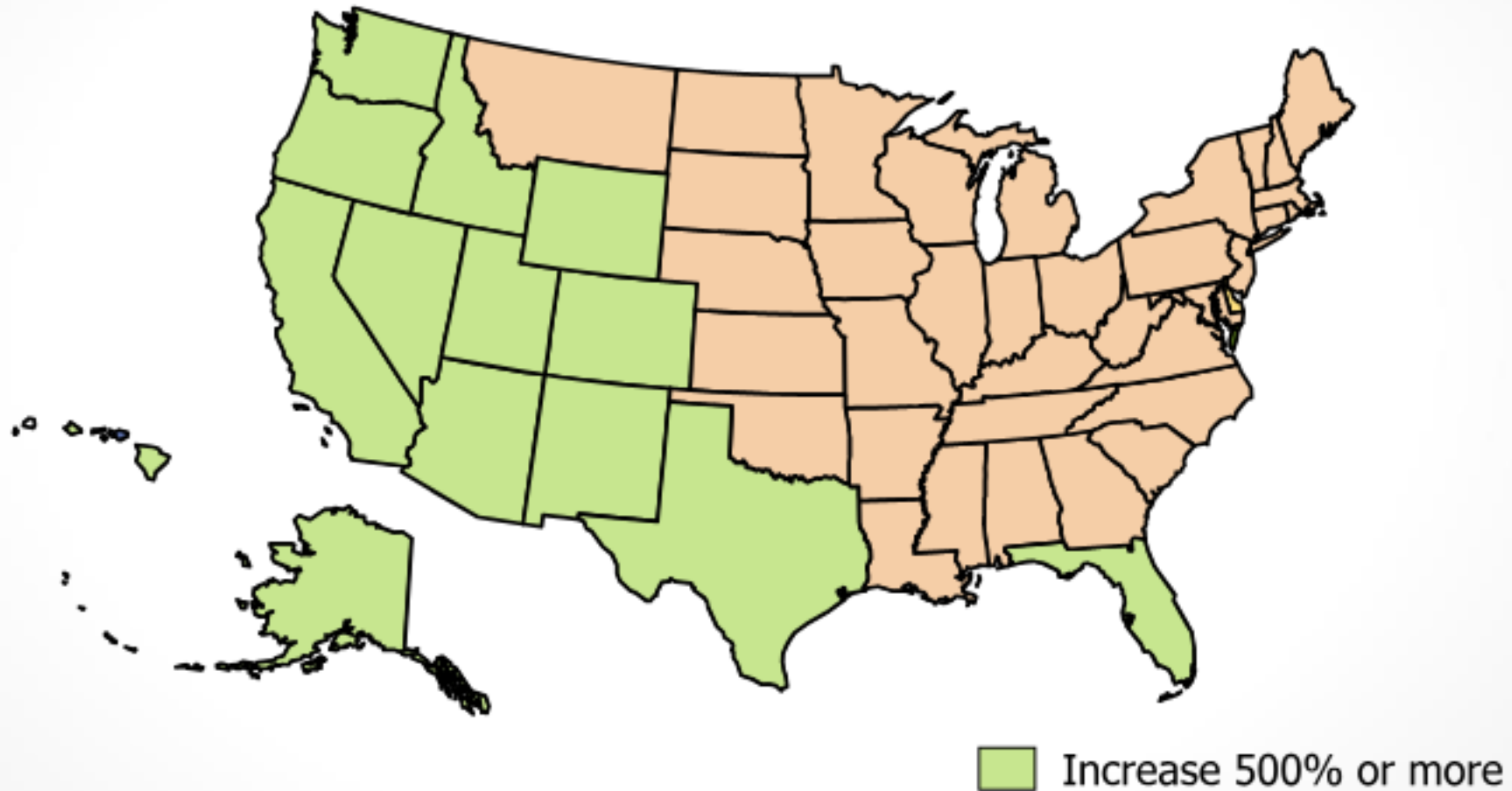
# State population trends

# Iowa Population: 1900-2020

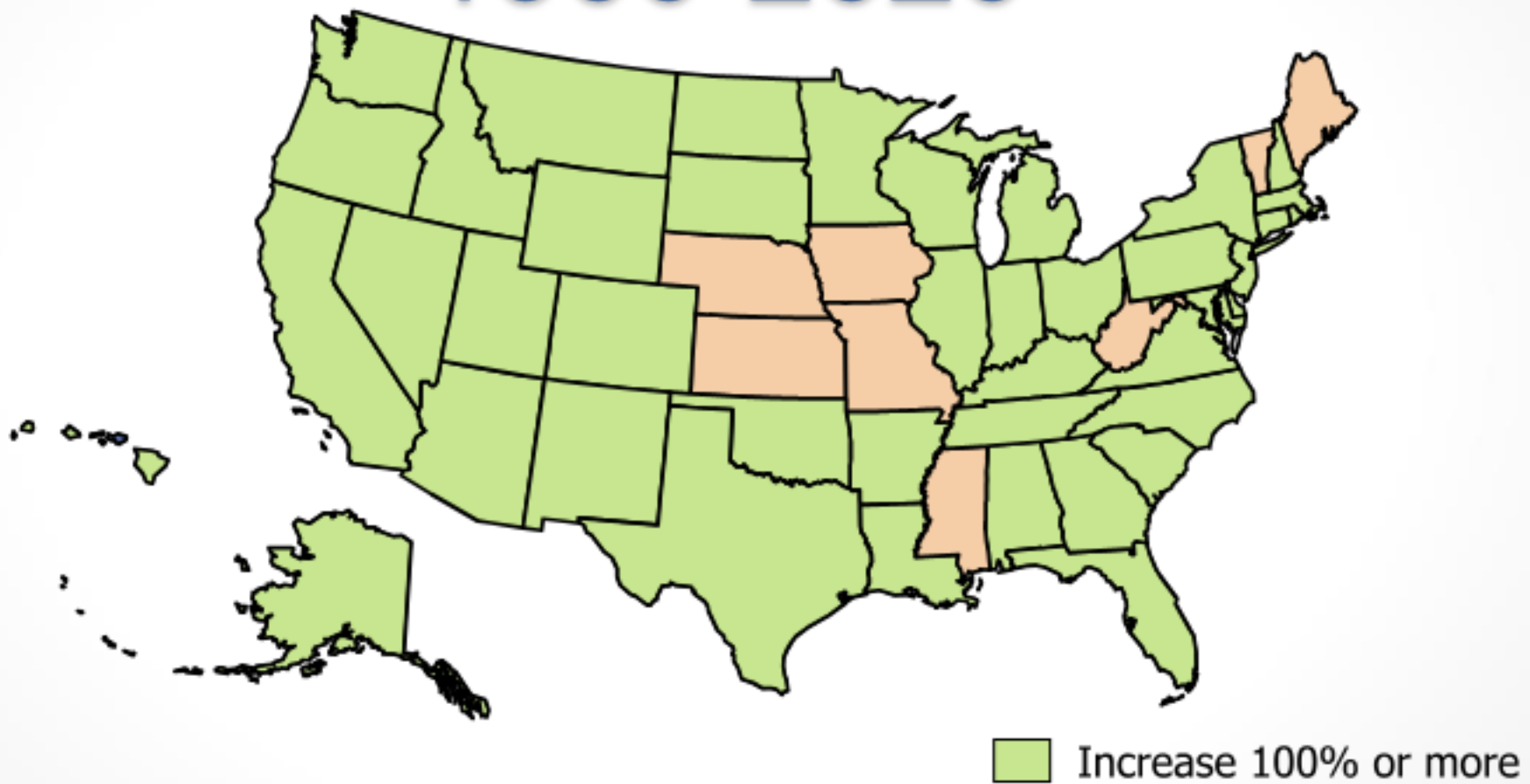


Data Source: U.S. Census Bureau, Decennial Censuses and Population Estimates

# Population Change: 1900-2020



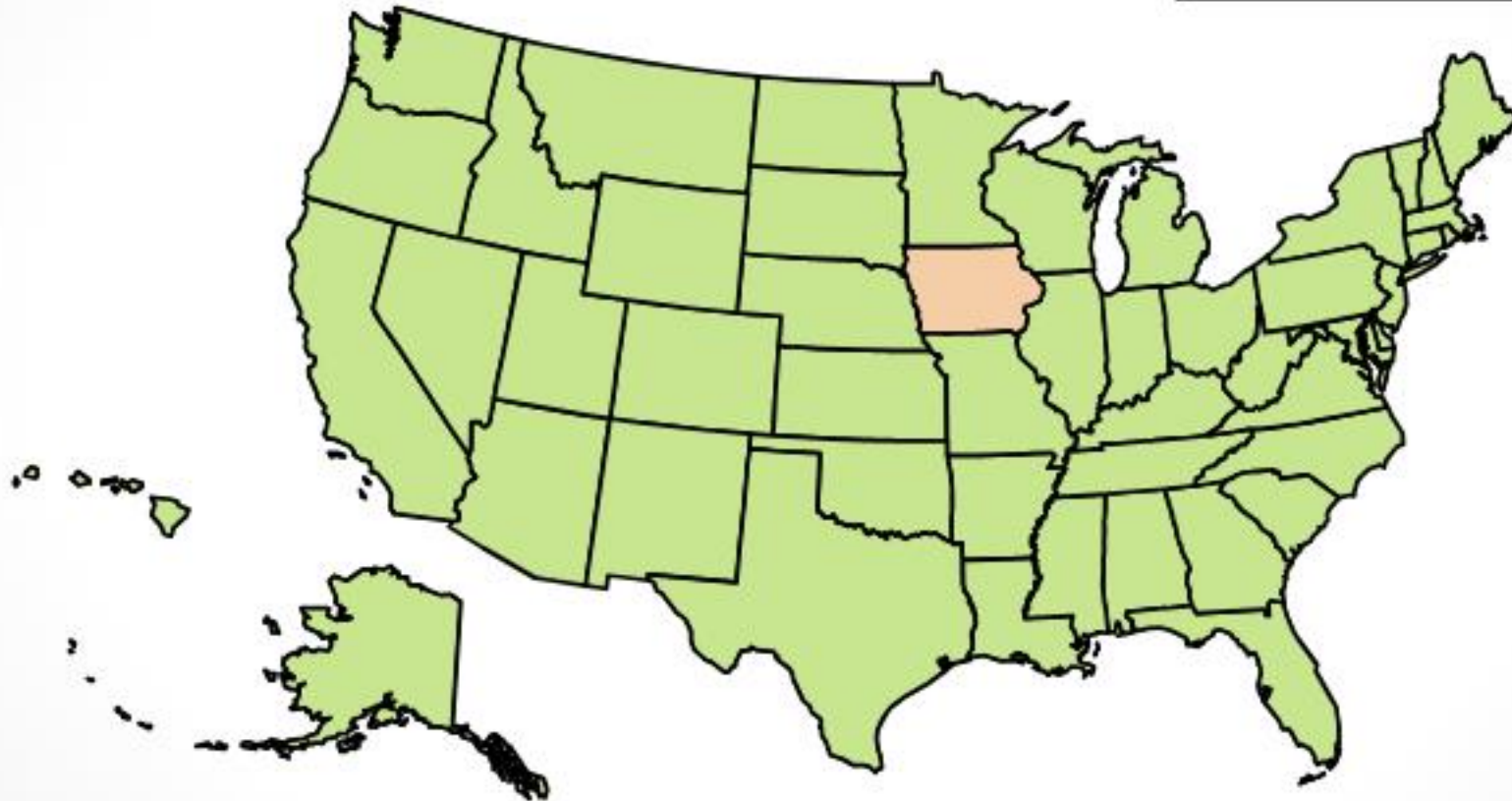
# Population Change: 1900-2020



Data Source: U.S. Census Bureau, 2010  
and 2020 Decennial Censuses

# Population Change: 1900-2020

Iowa's growth: 42.9%  
\*Nebraska 2<sup>nd</sup> slowest at 84.0%

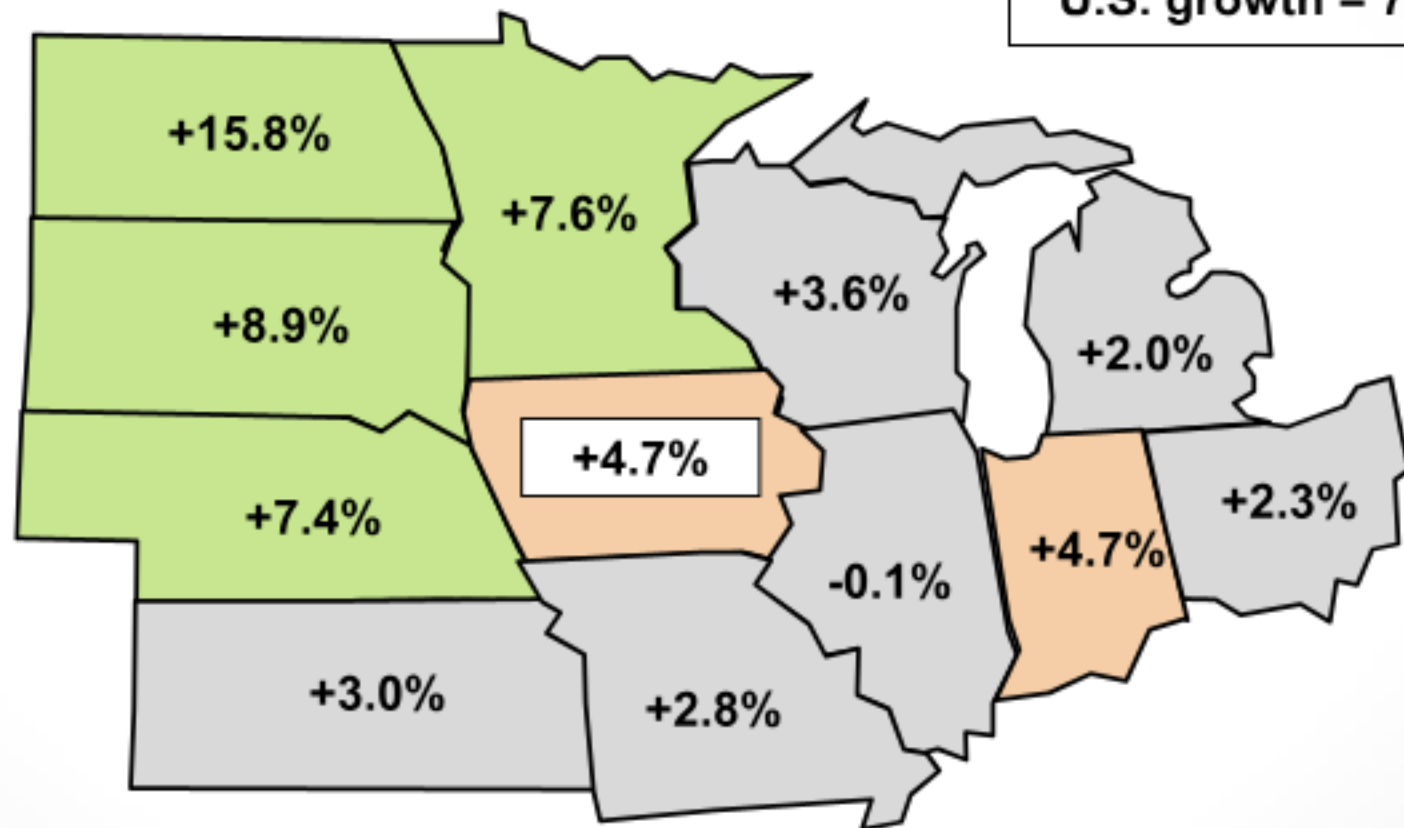


■ Increase 50% or more

Data Source: U.S. Census Bureau, 2010  
and 2020 Decennial Censuses

# Population Change: 2010-2020

U.S. growth = 7.4%

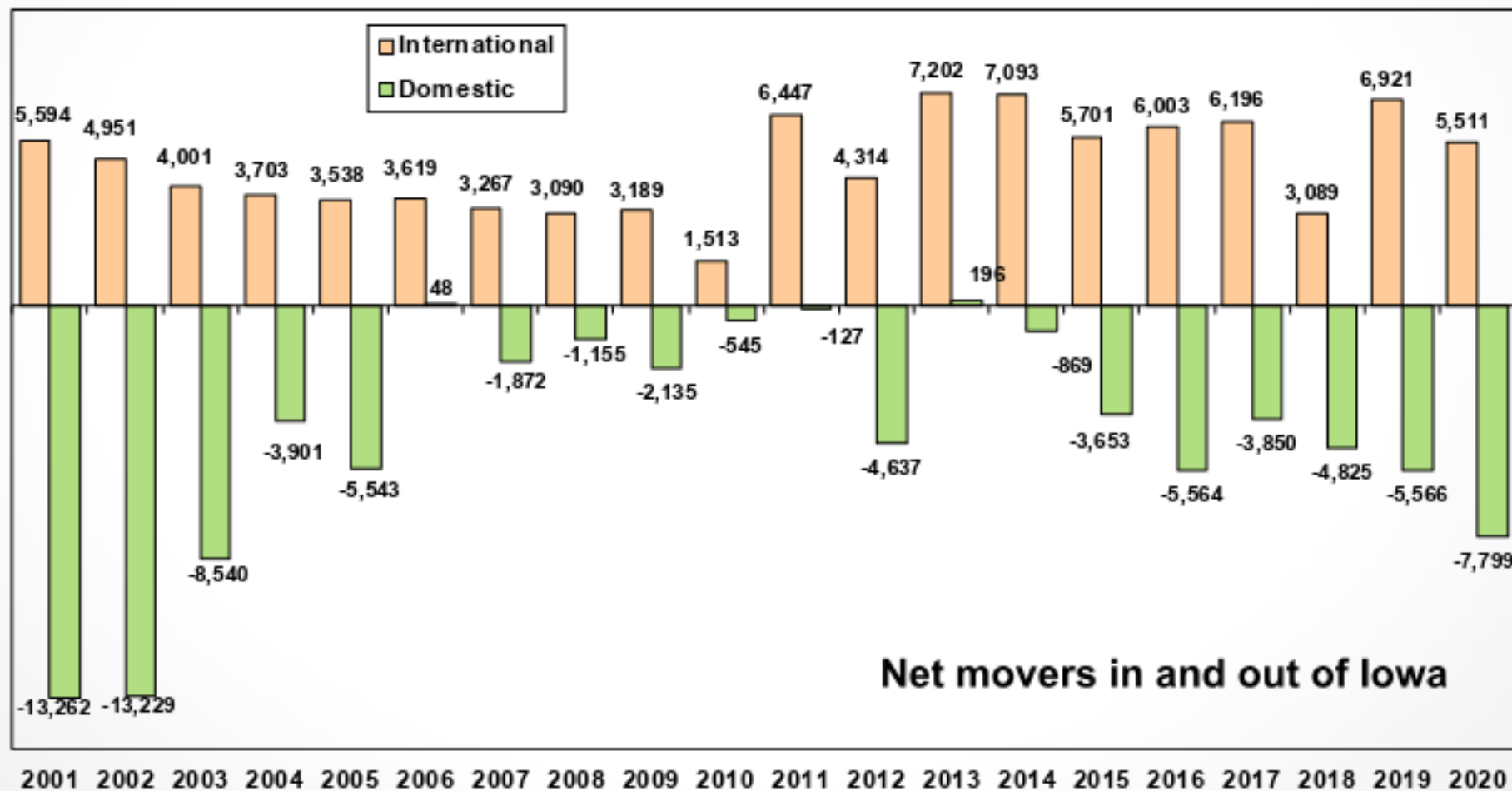


Data Source: U.S. Census Bureau, 2010  
and 2020 Decennial Censuses

# How Iowa's Population Changed

Starting Year	2000	2010
Population	2,926,324	3,046,355
Natural change	+ 106,396	+ 89,895
Net international migration	+ 36,329	+ 47,837
Net state-to-state migration	- 52,205	- 29,125
Ending Year	2009	2019
Population	3,007,856	3,159,596

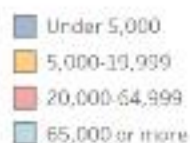
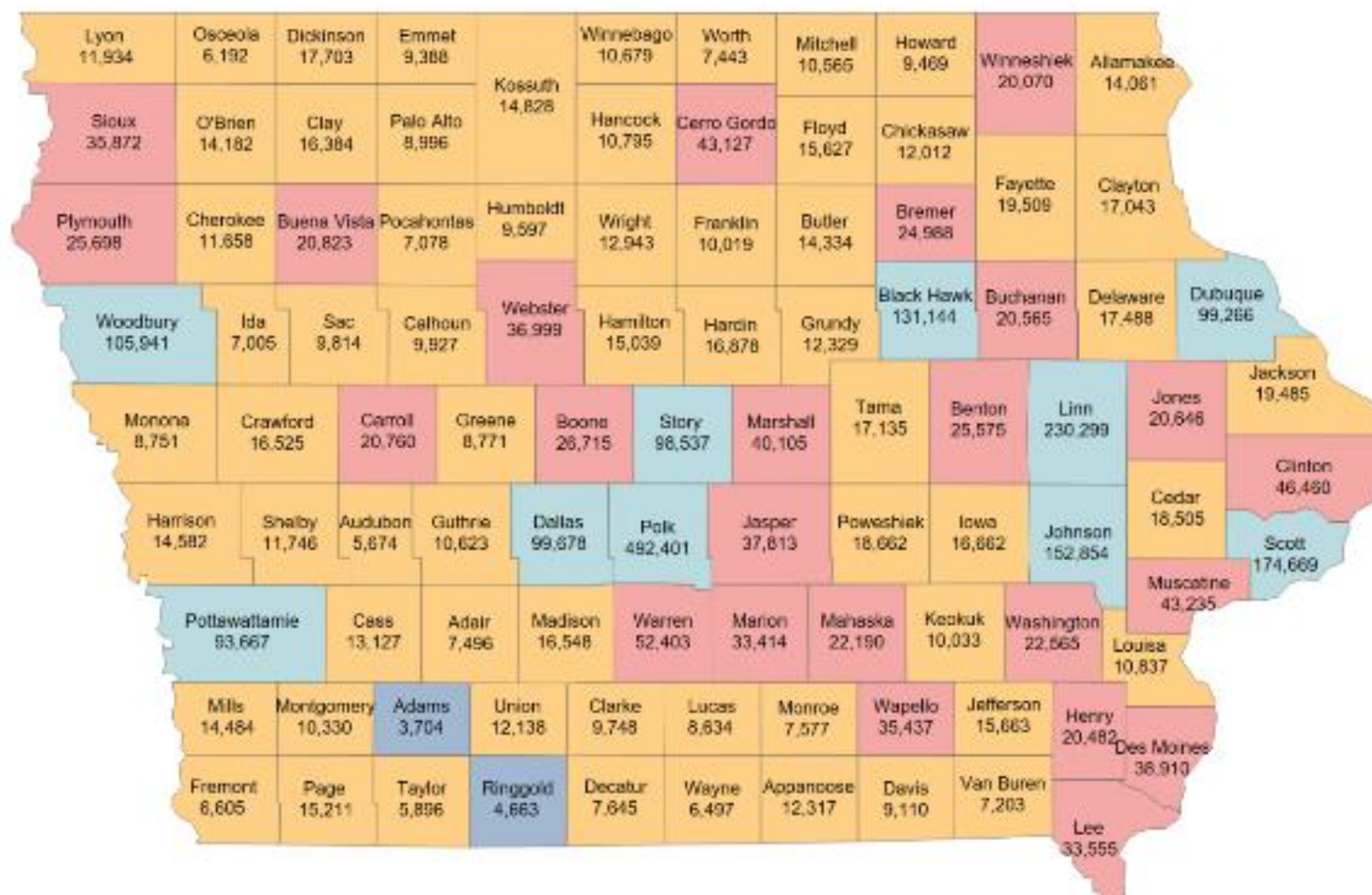
# Iowa Migration Components: 2000-2020





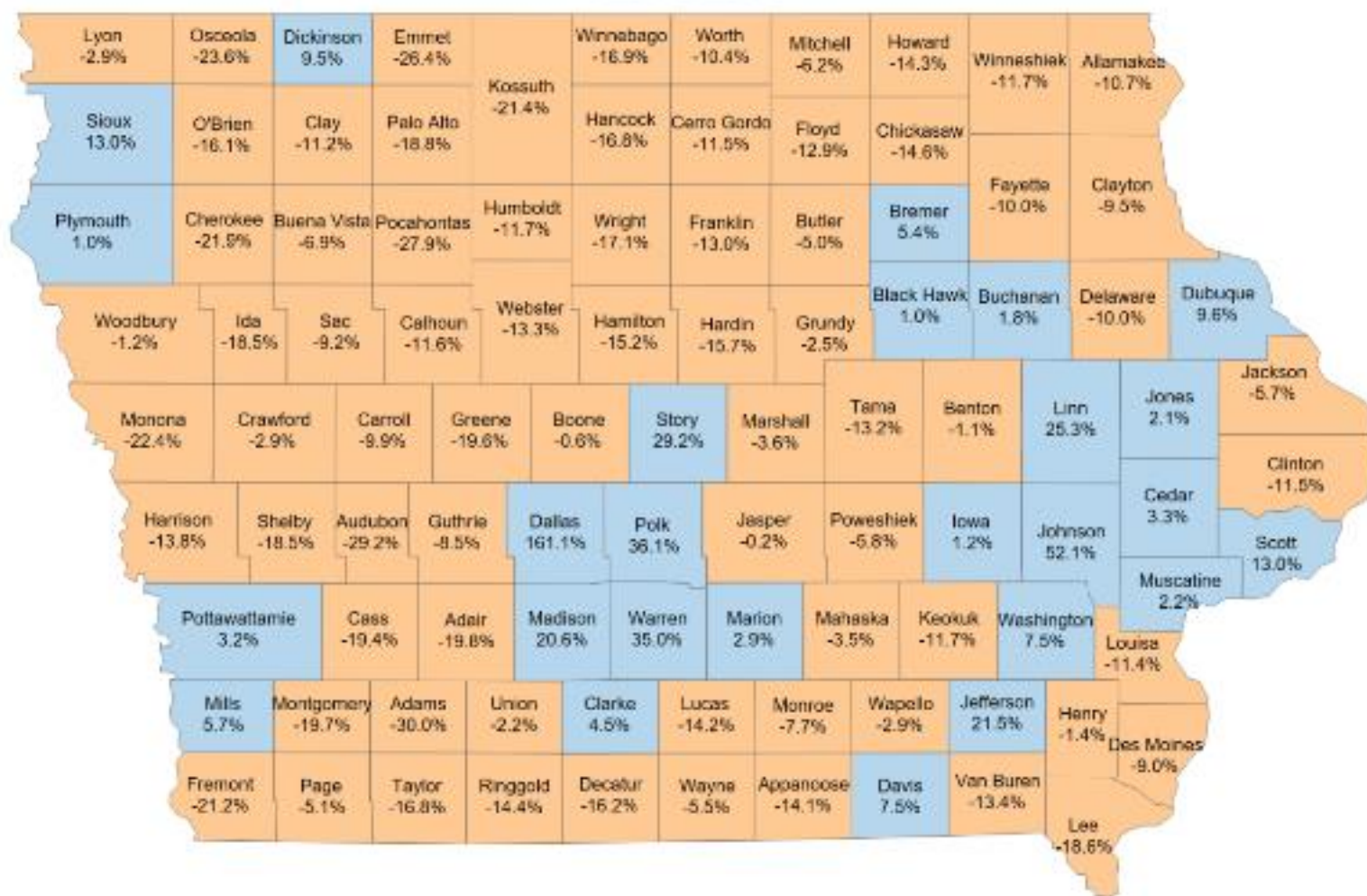
# County population trends

# County Population: 2020



Data Source: U.S. Census Bureau,  
2020 Decennial Census

# County Population Change: 2010-2020



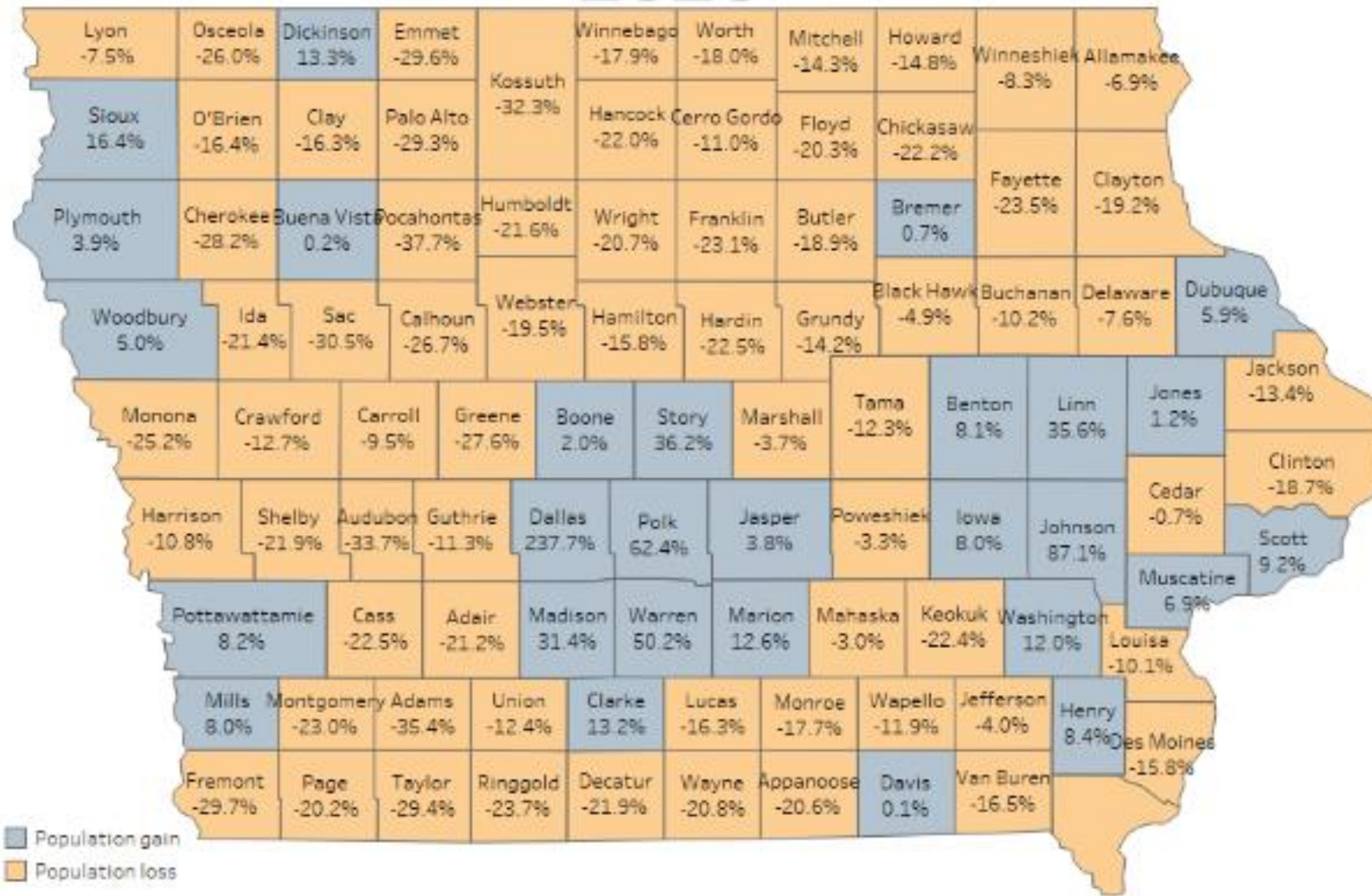
Population gain:  
26 counties

Population loss:  
73 counties

Population loss  
Population gain

Data Source: U.S. Census Bureau  
Decennial Census

# County Population Change: 1980-2020

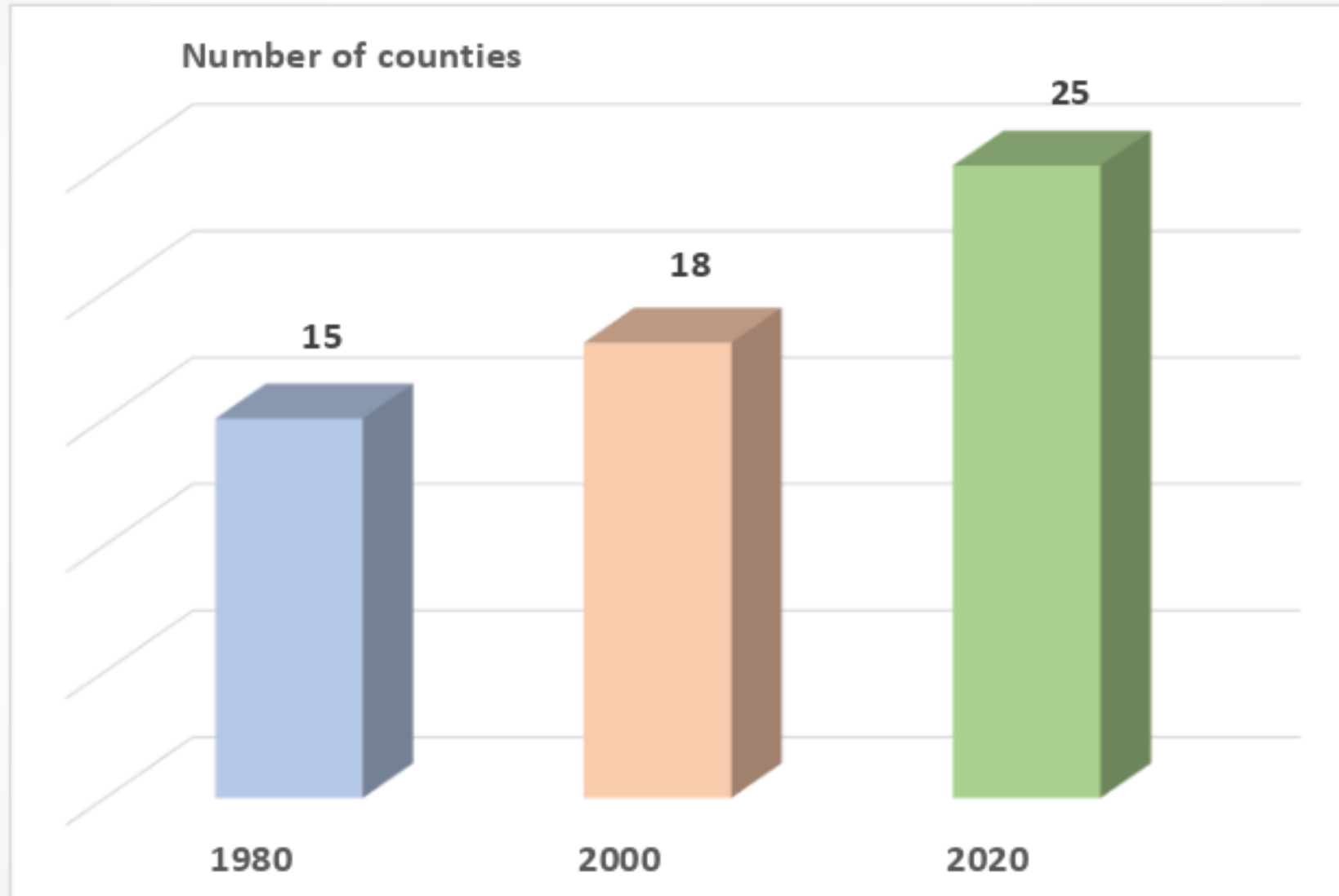


Population gain:  
28 counties

Population loss:  
71 counties

Data Source: U.S. Census Bureau  
Decennial Census

# Iowa county population under 10,000



# County Population Change: 1980-2020

- Fastest growing counties

- Dallas County: 237.7%
- Johnson County: 87.7%
- Polk County : 62.4%
- Warren County: 50.2%
- Story County: 36.2%

- Fastest declining counties

- Pocahontas County: -37.7%
- Adams County: -35.4%
- Audubon County : -33.7%
- Kossuth County: -32.3%
- Sac County: -30.5%

# State Data Center Services

- Data dashboards at [iowadatacenter.org](http://iowadatacenter.org)
- Answers to data requests
- Statistical profiles of Iowa communities and Iowa population groups
- Consultations on appropriate uses of data
- Referrals to quality data sources

# Contact Information

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Coordinator-State Data Center  
State Library of Iowa

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gary.krob@iowa.gov  
1007 E. Grand Avenue  
Des Moines, IA 50319  
[www.iowadatacenter.org](http://www.iowadatacenter.org)





# Iowa's Population in 2020: Age & Diversity Highlights

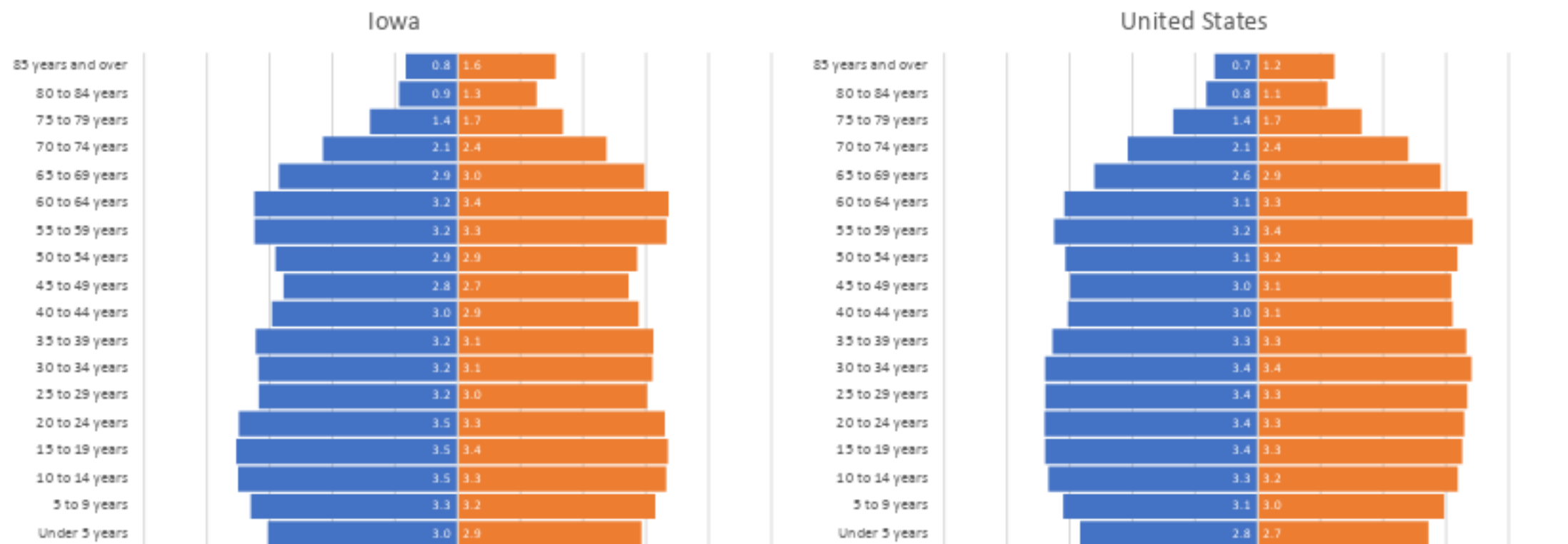
Liesl Eathington, Research Scientist  
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July 19, 2023

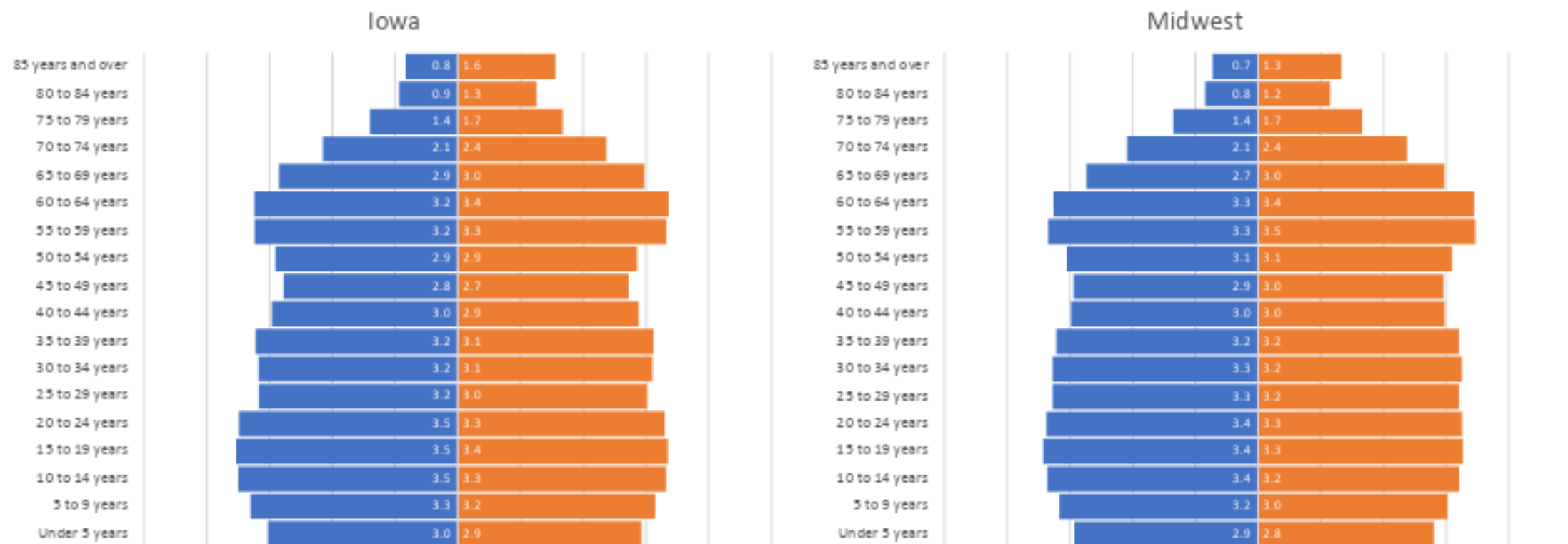
# Iowa's Age Distribution

- Regional comparisons
  - U.S.
  - Midwest region (IA, IL, IN, KS, MI, MN, MO, ND, NE, OH, SD, WI)
  - Iowa statewide and by urbanization level
- By age group
  - Population “pyramids” with 5-year age groups and sex
  - “Prime working age” (25-54 years), under 25, and 55+ age groups

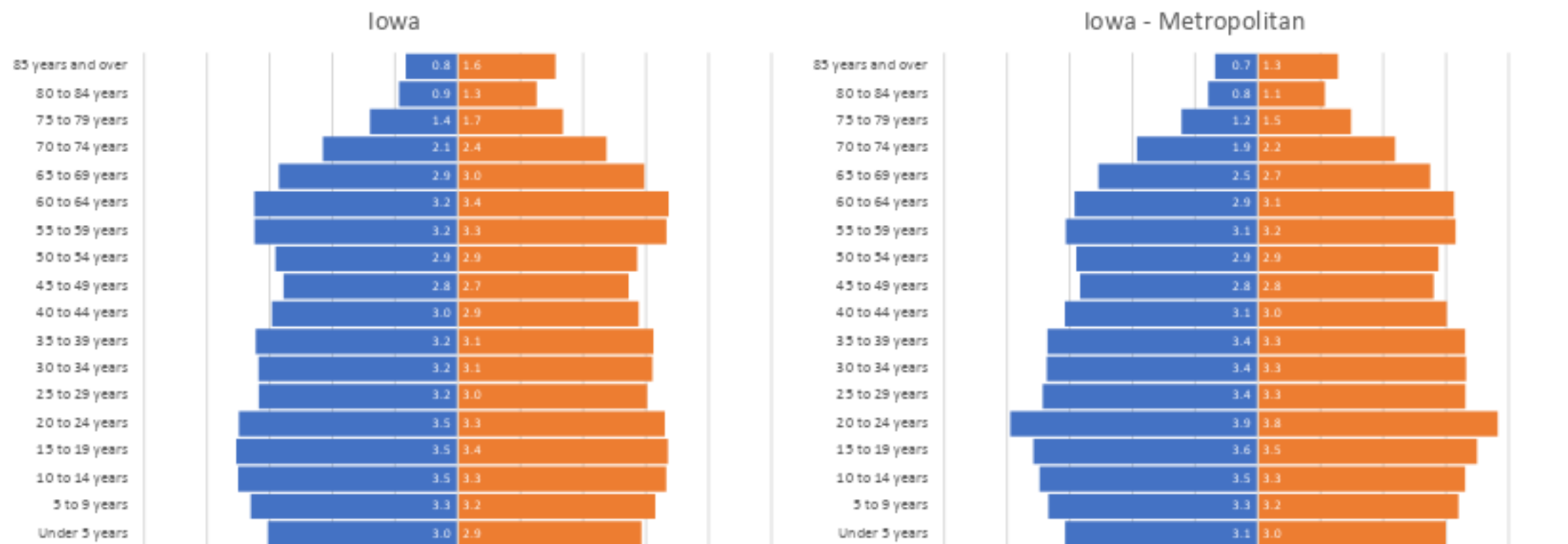
# Iowa vs. U.S.



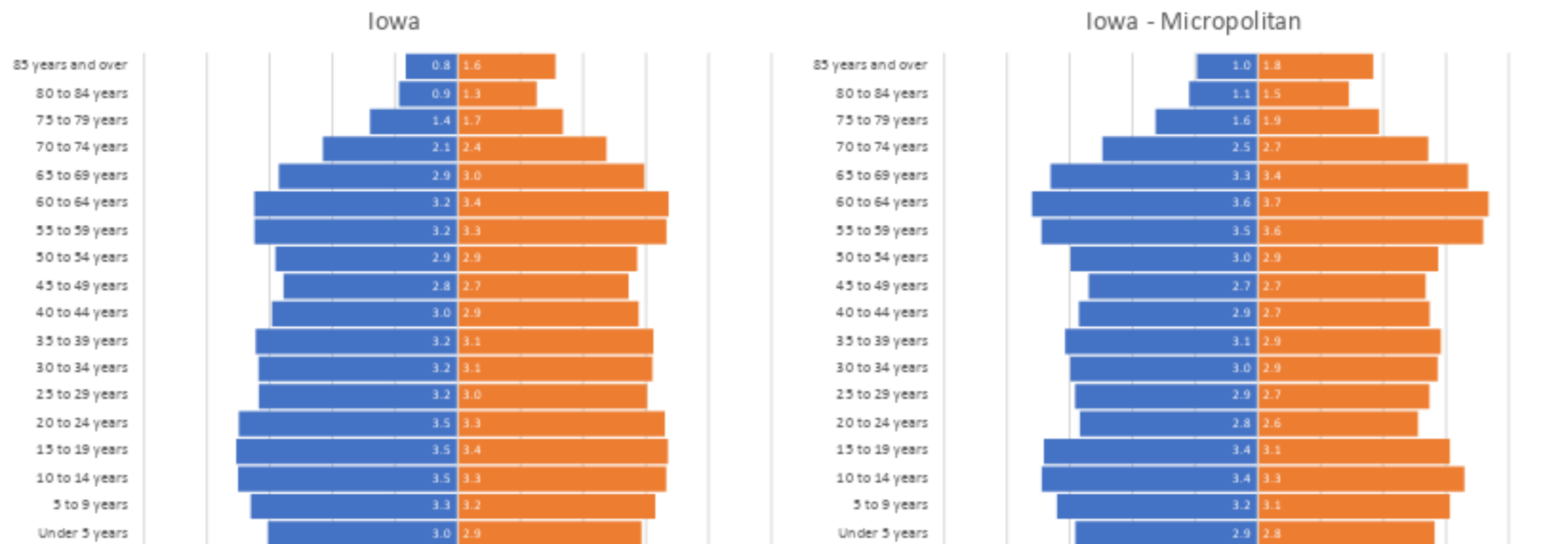
# Iowa vs. Midwest



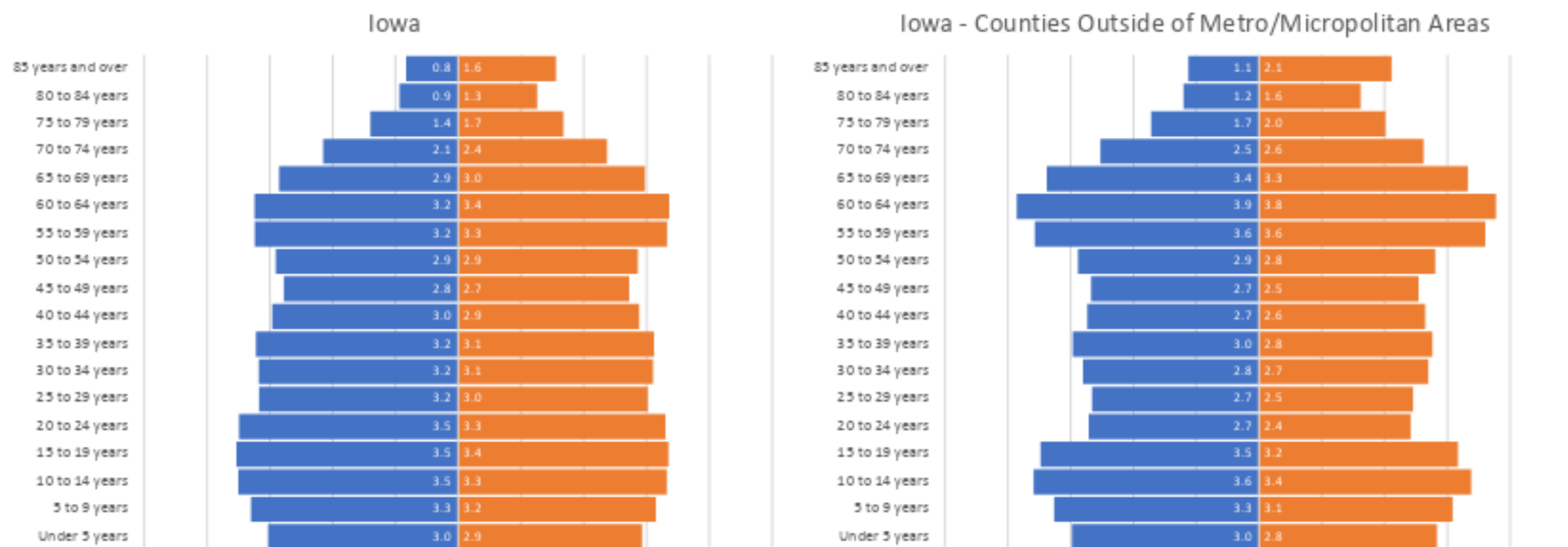
# Iowa - Statewide vs. Metropolitan Areas



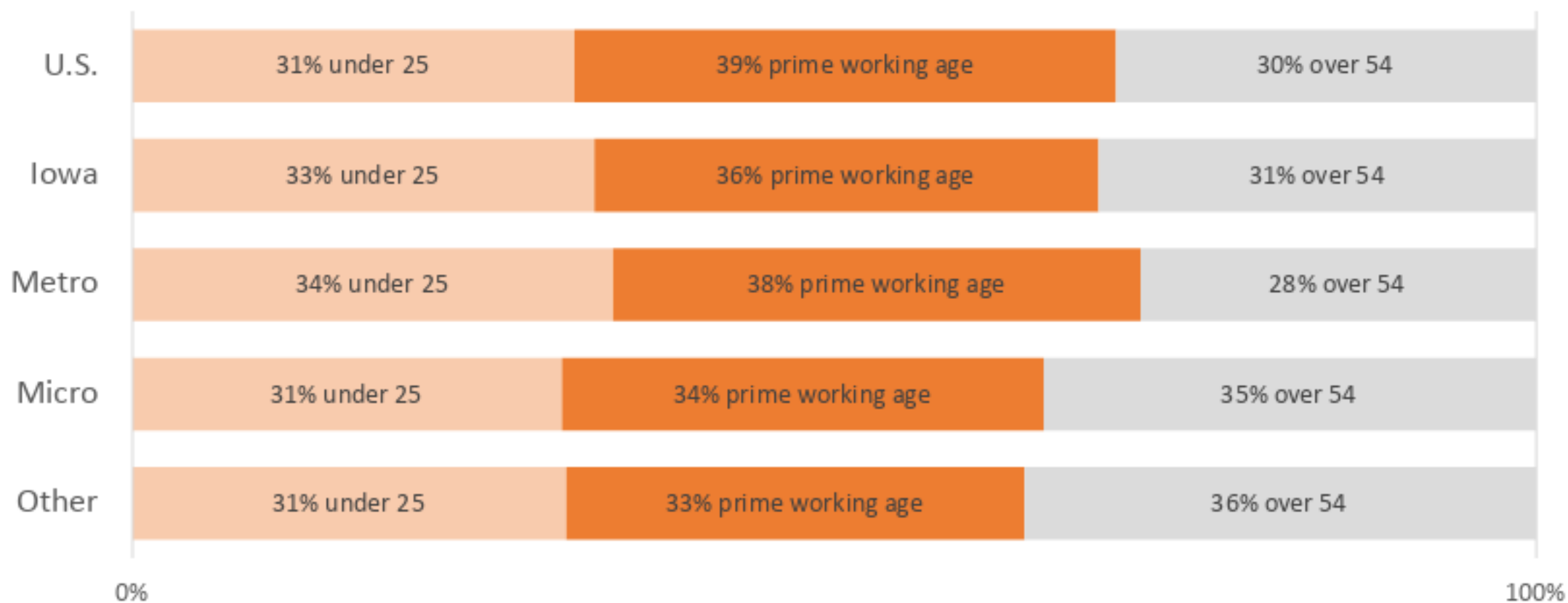
# Iowa - Statewide vs. Micropolitan Areas



# Iowa - Statewide vs. "Rural" Areas



# Population of “Prime Working Age” (25-54yrs)





# Iowa's Racial & Ethnic Diversity

- Big questions
  - Classifying race and ethnicity
    - Administratively defined – complicated & troubling
    - Self-perceived – evolving & fuzzy
  - Defining diversity
    - A matter of perspective
    - Alternative measures
- Regional comparisons

# Classifying Race/Ethnicity Administratively

- Issues
  - Definitions not consistent over time, but also don't change fast enough
  - Groupings always subjective, frequently political & troubling
- Current and proposed standards
  - Statistical Policy Directive (SPD 15) issued in 1977 and revised in 1997
  - Federal Interagency Technical Working Group on Race and Ethnicity Standards recommendations issued in 2023

# Some Census History

- Racial categories included in every Census since 1790
- Race determined by enumerators prior to 1960, now self-reported
- Categories added, removed, and redefined over time
  - White and Black – since 1790
  - American Indian – beginning in 1860
  - Asian – first category (Chinese) in 1870
  - Multiple race – only since 2000
  - Hispanic - as a race (Mexican) in 1930 only, as an origin/ethnicity since 1970

# A Troubling Example – What is “White?”

- “Until the middle of the 20th century, the general rule [for enumerators] was that if someone was both white and any other non-white race ..., that person could not be classified as white.”\*
- Still not uncommon today to see the label “non-white” applied to the population other than One Race – White Alone.

\* “Chapter 1: Race and Multiracial Americans in the U.S. Census.” Pew Research Center, Washington, D.C. (June 11, 2015) <https://www.pewresearch.org/social-trends/2015/06/11/chapter-1-race-and-multiracial-americans-in-the-u-s-census/>

## Standards for the Classification of Federal Data on Race and Ethnicity - OMB Statistical Policy Directive No. 15

- For more than 20 years, the current standards in OMB's Statistical Policy Directive No. 15 have provided a common language to promote **uniformity and comparability** for data on race and ethnicity for the population groups specified in the Directive.
- They were developed in cooperation with Federal agencies to provide consistent data on race and ethnicity throughout the Federal Government.
- Development of the data standards **stemmed in large measure from new responsibilities to enforce civil rights laws.**
  - Data were needed to monitor equal access in housing, education, employment, and other areas,
  - for populations that historically had experienced discrimination and differential treatment because of their race or ethnicity.
- The categories represent **a social-political construct** designed for collecting data on the race and ethnicity of broad population groups in this country, and are **not anthropologically or scientifically based.**

Federal Register/Vol. 62, No. 210/Thursday, October 30, 1997/Notices

Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity

# Working Group Recommendations

- Collect race and ethnicity using one combined question
- Add “Middle Eastern or North African” (MENA) as a new, distinct category, removing it from the “White” category
- Discontinue use of terms “majority” and “minority”
- Edit language by removing:
  - “Negro” from the Black or African American definition
  - “Far East” from the Asian definition, replacing with “East Asian”
  - “Other” from “Native Hawaiian and Other Pacific Islander”
  - The phrase “who maintain tribal affiliation or community attachment” in the American Indian or Alaska Native definition

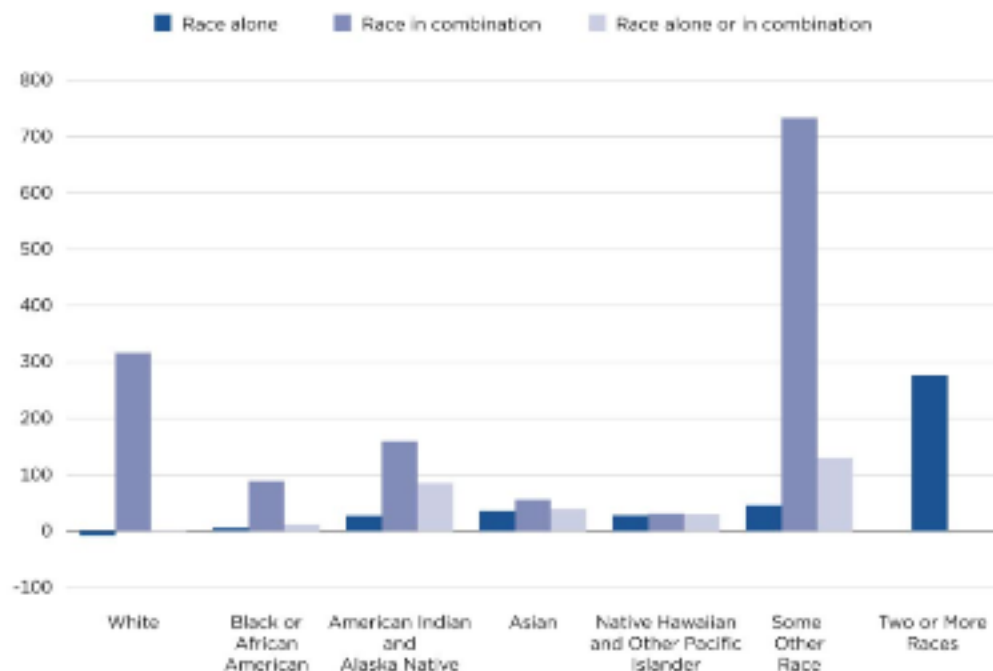
# Self-Reporting Race/Ethnicity

Rapid growth in the “Some Other Race” and “Two or More Races” groups likely capturing more than raw population change

Similar pattern in Iowa from 2010-2020

<https://www.census.gov/content/dam/Census/library/stories/2021/08/improved-race-ethnicity-measures-reveal-united-states-population-much-more-multiracial-figure-3.jpg>

Figure 3.  
Percentage Change in Race Groups: 2010 and 2020



Note: Data users should use caution when comparing 2010 Census and 2020 Census race data because of improvements to the question design, data processing, and coding procedures for the 2020 Census. Information on confidentiality protection, nonsampling error, and definitions is available at <https://www2.census.gov/programs-surveys/decennial/2020/technical-documentation/complete-tech-docs/summary-file/>.

Source: U.S. Census Bureau, 2010 Census Redistricting Data (Public Law 94-171) Summary File; 2020 Census Redistricting Data (Public Law 94-171) Summary File.

# Population Change by Race Alone or in Combination, 2010-2020

Race alone or in combination	2010	2020	% Change
American Indian or Alaska Native	24,511	55,958	128.3%
Asian	64,512	96,861	50.1%
Black or African American	113,225	172,988	52.8%
Native Hawaiian or Pacific Islander	3,847	10,073	161.8%
White	2,830,454	2,865,585	1.2%
Some other race	66,742	177,619	166.1%



## Iowa - Composition by Ethnicity by Race Alone or in Combination, 2020

Race alone or in combination	Hispanic or Latino		Other ethnic origin		Grand Total	
American Indian or Alaska Native	11,365	20%	44,593	80%	55,958	100%
Asian	2,225	2%	94,636	98%	96,861	100%
Black or African American	7,244	4%	165,744	96%	172,988	100%
Native Hawaiian or Pacific Islander	600	6%	9,473	94%	10,073	100%
White	124,143	4%	2,741,442	96%	2,865,585	100%
Some other race	144,996	82%	32,623	18%	177,619	100%

# Defining Diversity

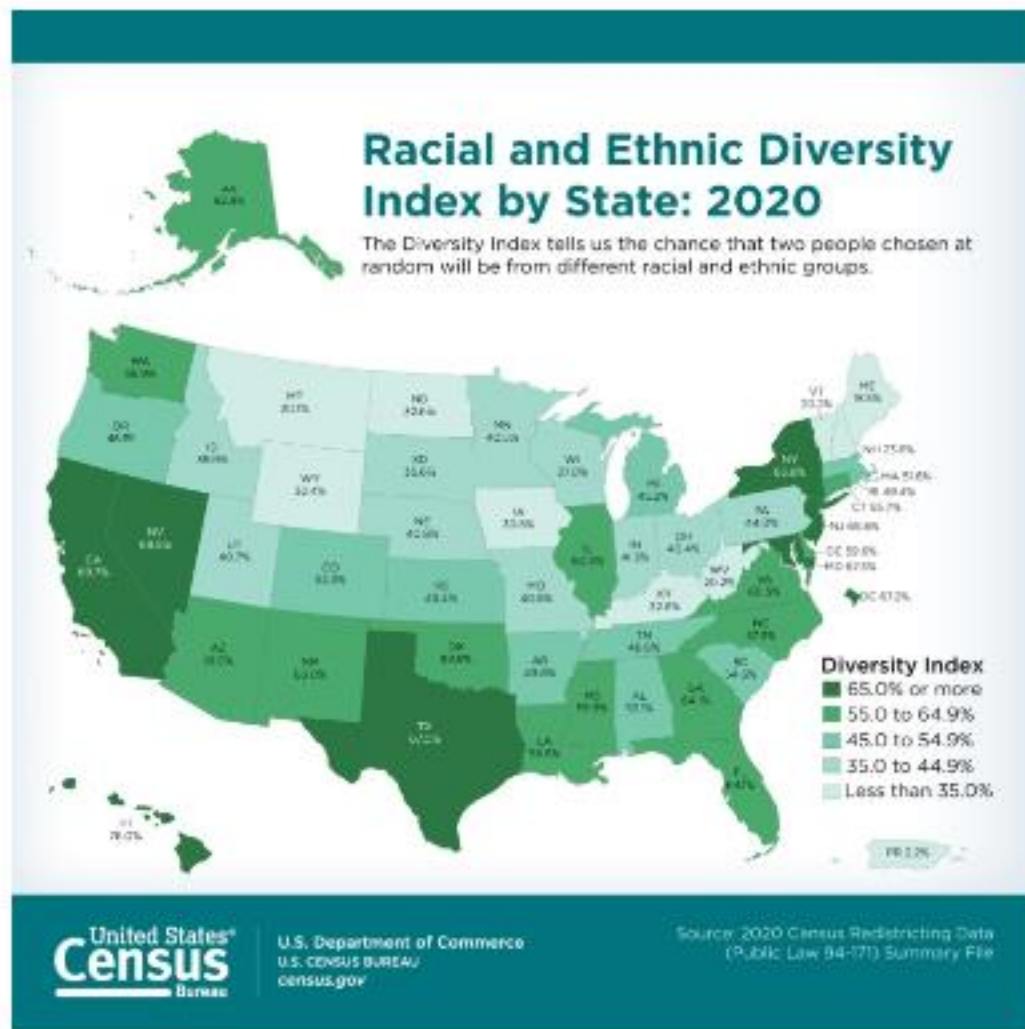
- Commonly-used measures
  - Based on White Alone Not Hispanic/Latino as reference “majority”
- Some alternatives
  - Diversity index – probability that two randomly-chosen people will be from different groups
  - Prevalence ranking – most common group(s) in the area
  - Diffusion score – percentage NOT in the largest three groups
- Recommended reading

<https://www.census.gov/newsroom/blogs/random-samplings/2021/08/measuring-racial-ethnic-diversity-2020-census.html>

# Diversity Index

Probability that two randomly-chosen people will be from different racial and ethnic groups

<https://www.census.gov/library/visualizations/2021/dec/racial-and-ethnic-diversity-index.html>



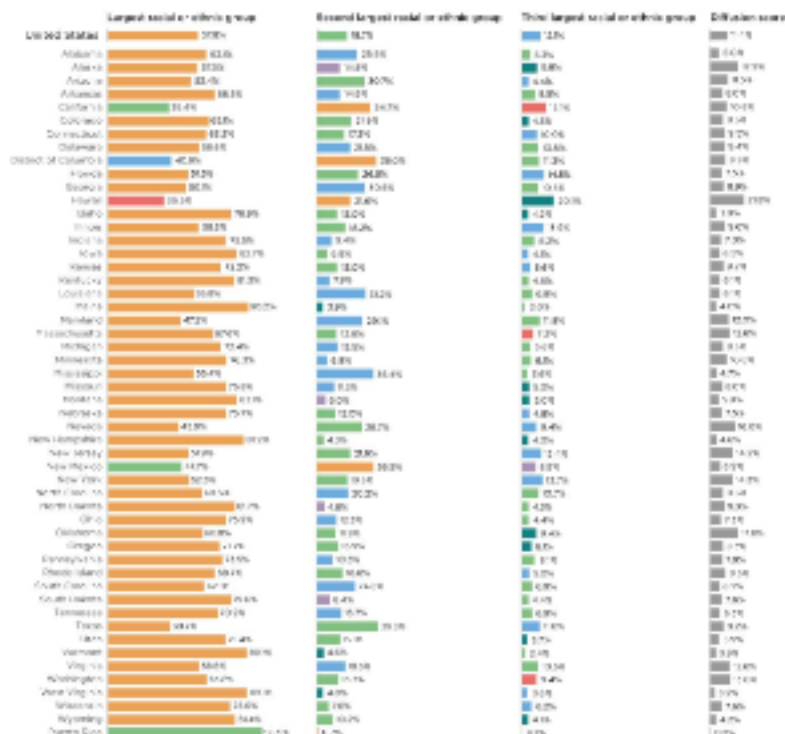
# Prevalence & Diffusion

Based on most common group(s) in the area, measured by population size

<https://www.census.gov/library/stories/2021/08/2020-united-states-population-more-racially-ethnically-diverse-than-2010.html>

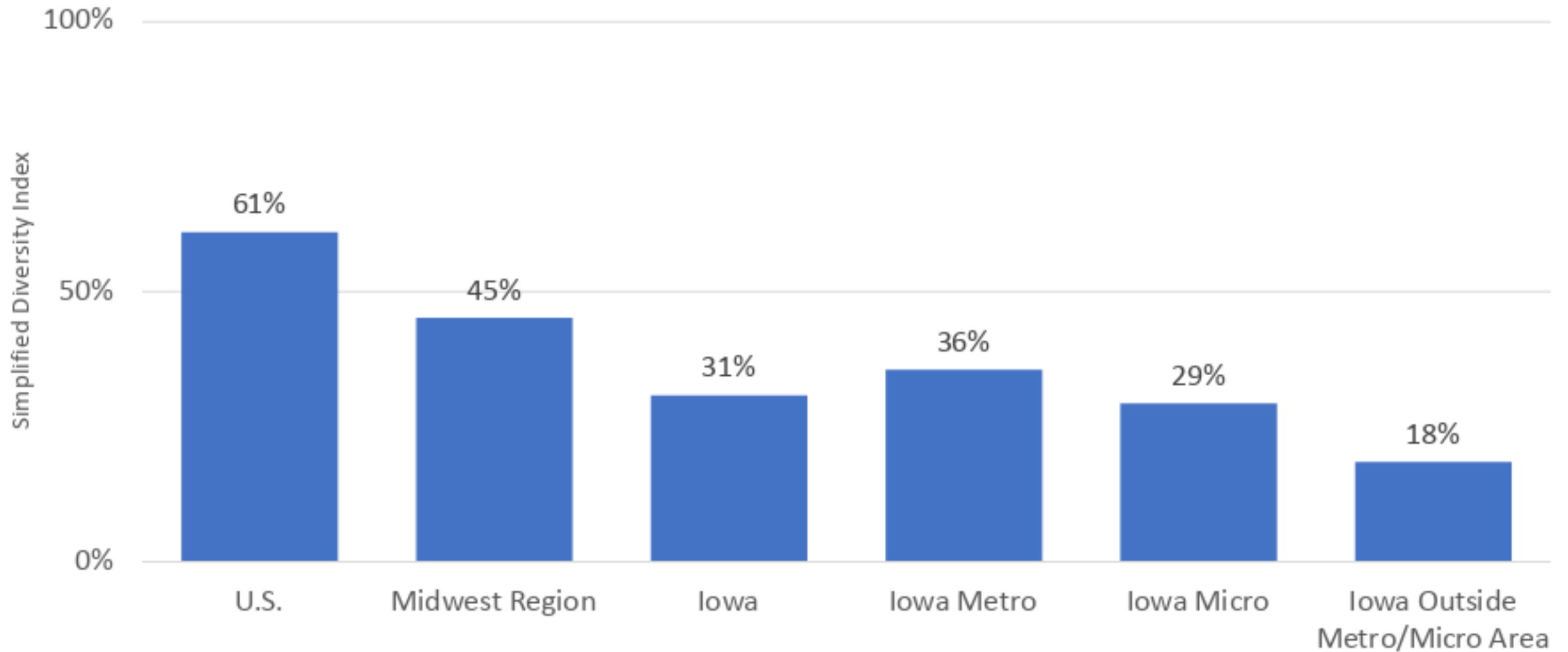
Figure 1.

## Race and Ethnicity Prevalence by State: 2020



Source: U.S. Census Bureau, 2020 Census. Table B-001. By State (Total). For 50-STATE. See map file.

# Iowa Diversity Index Comparison, 2020



# Diversity Index by County, 2020

