

# U.S. Demographic Change, Ratings, and Interstate Tax Migration

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**S&P Global**  
Ratings

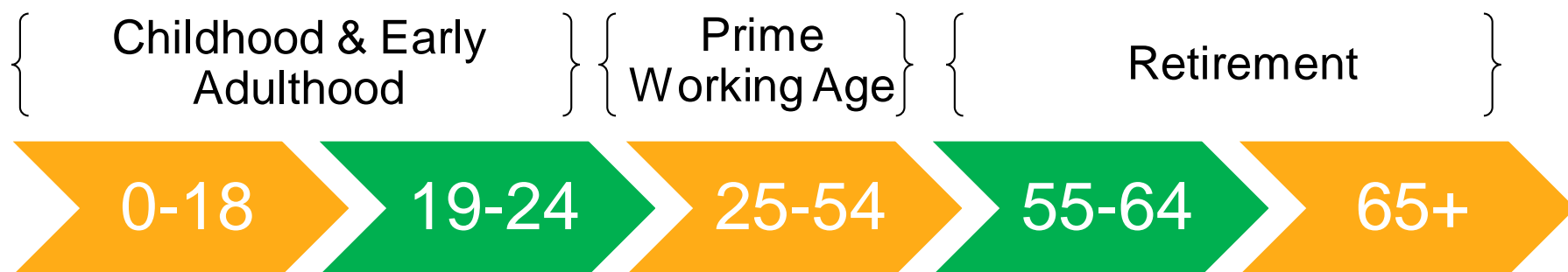
# S&P Global: U.S. State Ratings Methodology

## Demographic Rating Factors and Score Metrics

- Demographic factors
  - Age dependency ratio
  - Population growth compared to U.S.
- Economic diversity
  - Employment concentration compared to U.S.
  - GSP growth compared to U.S.
- Pension analysis affected by demographics
  - Active/inactive retirement system employees ratio
  - Assumptions of growth in the state work force
- Structurally budget balance
  - Ability to generate revenues
  - Public education, transportation, and healthcare costs

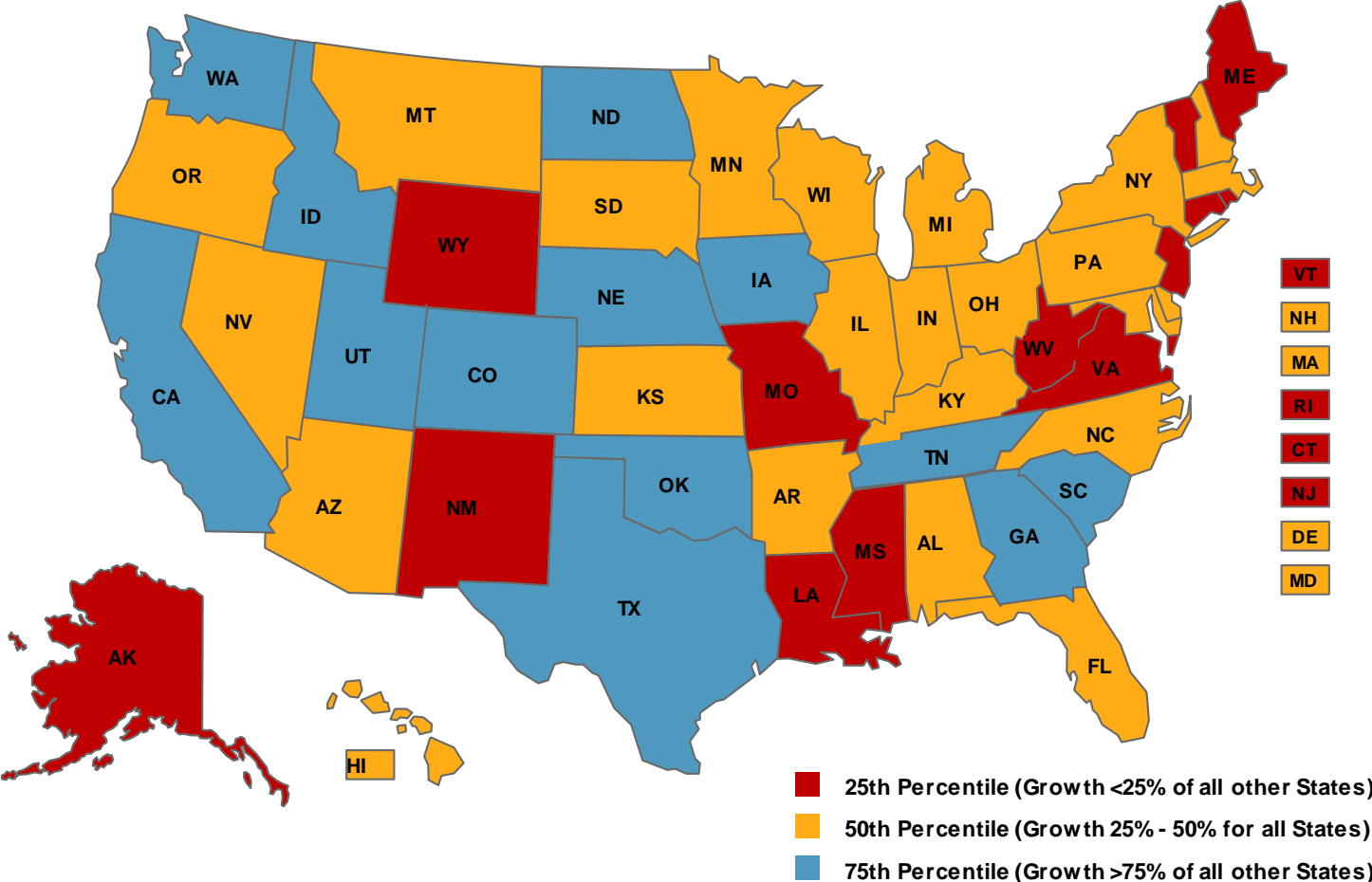
# For U.S. State Credit Quality, Age Matters

## Life Cycle Decision Points



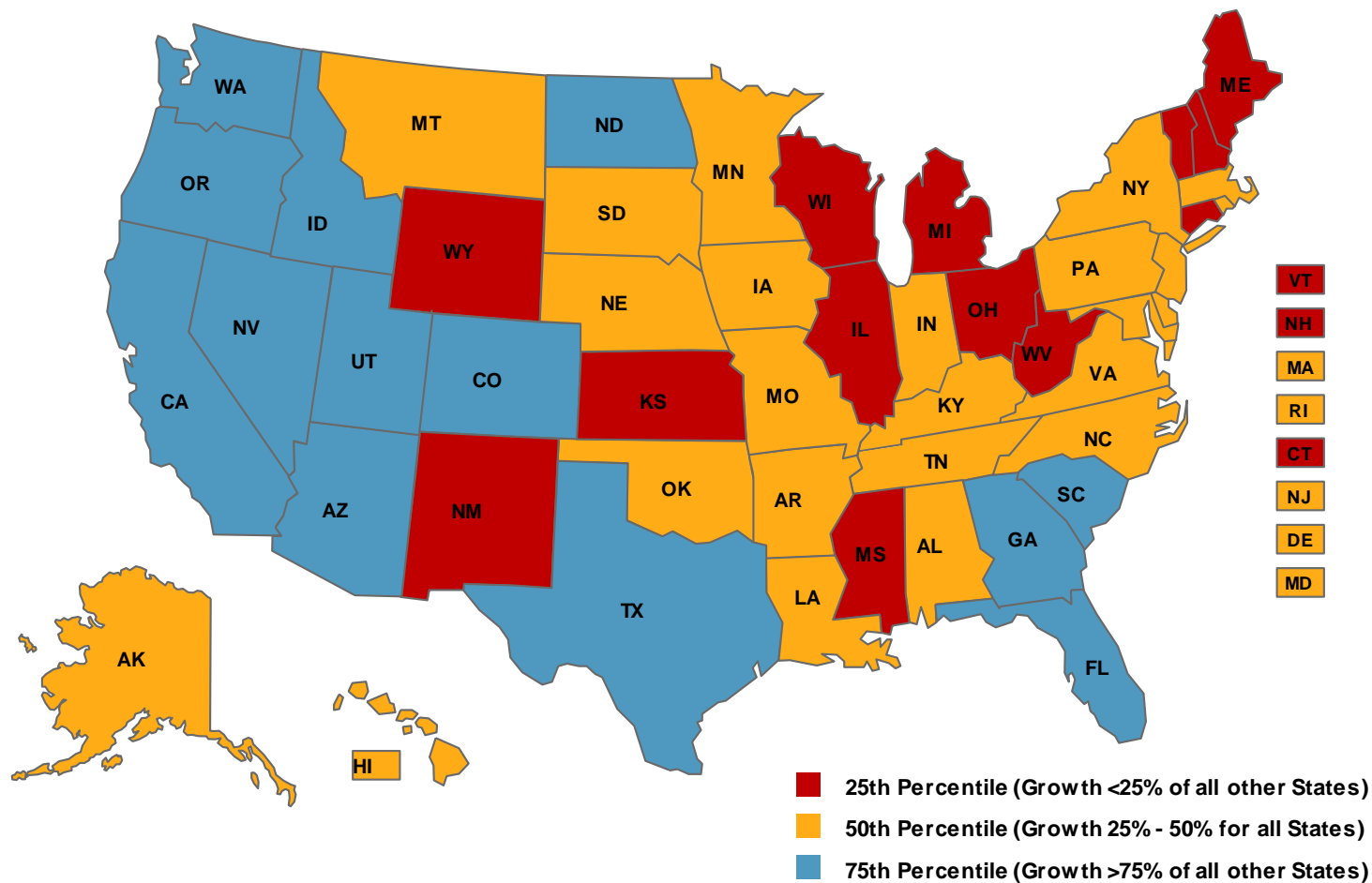
- Age cohorts affect state revenue and expenditure policy
- Childhood and Early Adulthood
- Prime Working Age
- Retirement

# Economic Output Gains Most Visible in West and Sunbelt States



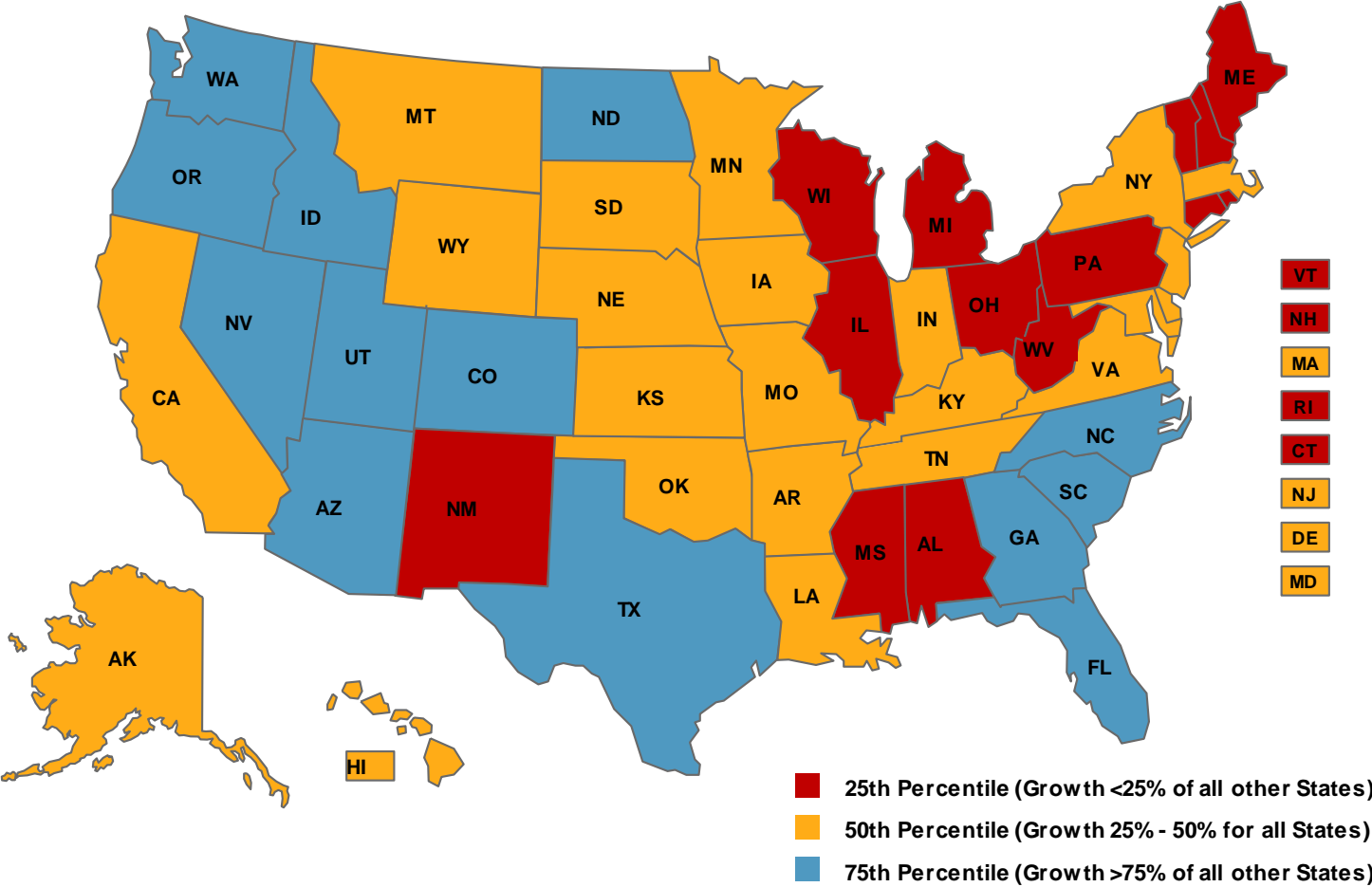
Source: U.S. Census Bureau, Population Division; IHS Markit; S&P Global Ratings; 2010-2017  
GSP US\$ 2009, SAAR

# Prime Working Age Adults are Growing Along with State Economies



Source: U.S. Census Bureau, Population Division; IHS Markit; S&P Global Ratings; 2010-2017

# U.S. Population Growth is Concentrated among West and Sunbelt States



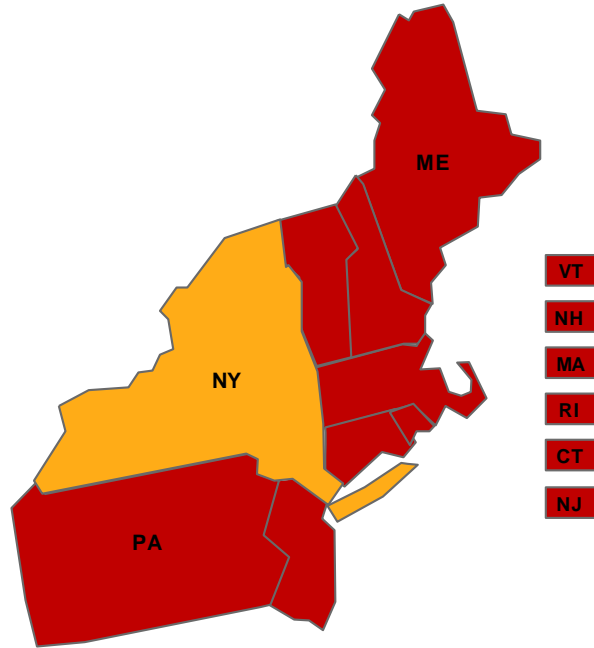
Source: U.S. Census Bureau, Population Division; IHS Markit; S&P Global Ratings; 2010-2017

**Notably, the same demographic headwinds primarily the aging population—that pressure state pension systems and Medicaid budgets are also integral to our outlook for slower economic growth rates ahead.**

*S&P Global Ratings: “U.S. State Sector 2019 Outlook: Caution - Slower Speeds Ahead”*

# An Aging Population is Affecting Northeast Credit Quality

Regional Focus: Northeast States



- 25th Percentile for Median Age (2017)
- 25-75th Percentile for Median Age (2017)
- 75th Percentile for Median Age (2017)

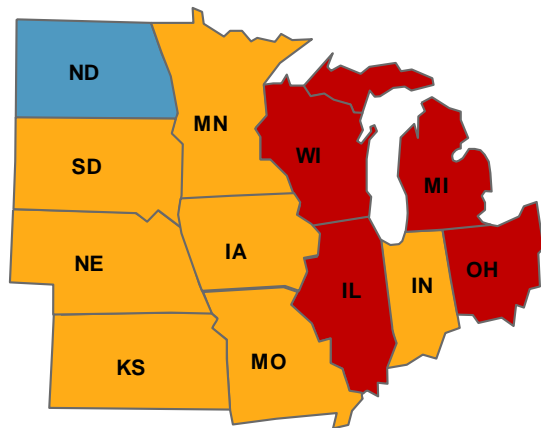
State	Current S&P Global Rating	Median Age
Connecticut	A	40.9
Maine	AA	44.7
Massachusetts	AA	39.5
New Hampshire	AA	43.1
New Jersey	A-	39.8
New York	AA+	38.7
Pennsylvania	A+	40.7
Rhode Island	AA	39.9
Vermont	AA+	42.9

Source: U.S. Census Bureau, Population Division; S&P Global Ratings



# Midwest State Credit Quality Likely To Muddle Through Demographic Changes

Regional Focus Map: Midwest States



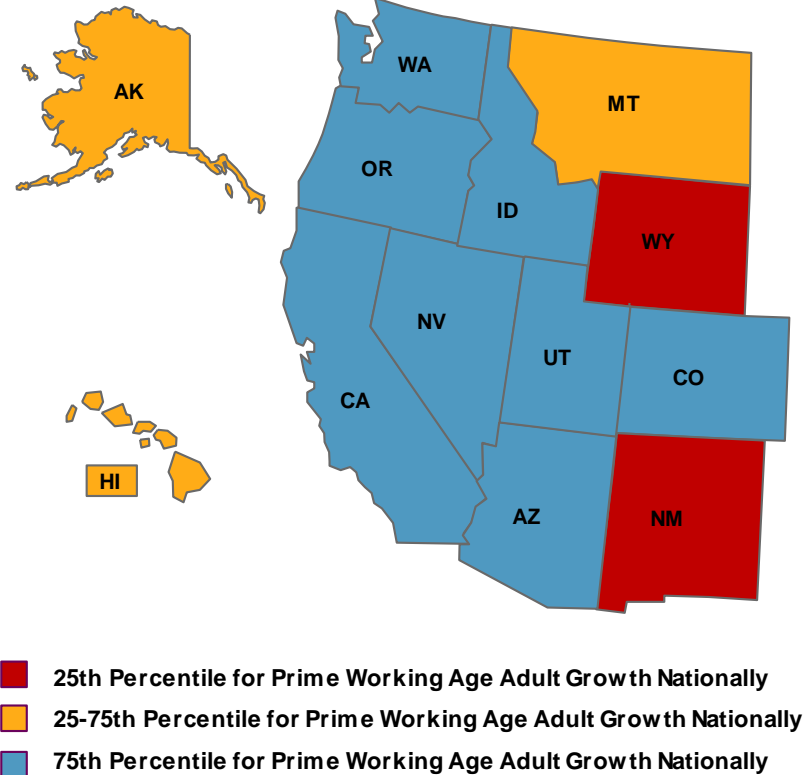
- 25th Percentile for Population Growth Nationally
- 25-75th Percentile for Population Growth Nationally
- 75th Percentile for Population Growth Nationally

Source: U.S. Census Bureau, Population Division; IHS Markit; S&P Global Ratings  
 Data Note: Reflects 2010 to 2017 State Population Growth

State	Current S&P Global Rating
Illinois	BBB-
Indiana	AAA
Iowa	AAA
Kansas	AA-
Michigan	AA
Minnesota	AAA
Missouri	AAA
Nebraska	AAA
North Dakota	AA+
Ohio	AA+
South Dakota	AAA
Wisconsin	AA

# Prime Working Age Adults are Moving West, Improving Economic Conditions

## Regional Focus: Western States



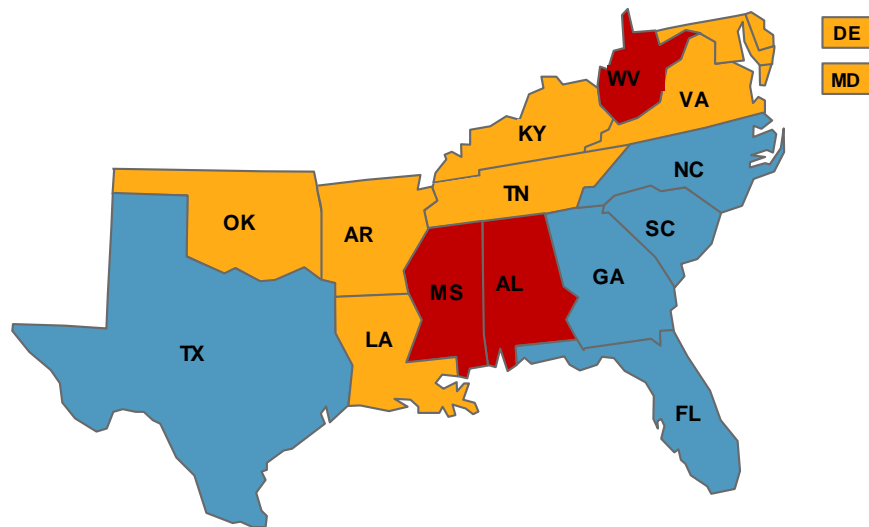
State	Current S&P Global Rating
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Alaska	AA
Arizona	AA
California	AA-
Colorado	AA
Hawaii	AA+
Idaho	AA+
Montana	AA
Nevada	AA
New Mexico	AA
Oregon	AA+
Utah	AAA
Washington	AA+
Wyoming	AA+

Source: U.S. Census Bureau, Population Division; S&P Global Ratings  
 Data Note: Reflects 2010 to 2017 Prime Working Age Adult Growth

# Southeast Atlantic States Have Very Strong Credit Quality and Growing Populations

Regional Focus Map: Western States



State	Current S&P Global Rating
Alabama	AA
Arkansas	AA
Delaware	AAA
Florida	AAA
Georgia	AAA
Kentucky	A
Louisiana	AA-
Maryland	AAA
Mississippi	AA
North Carolina	AAA
Oklahoma	AA
South Carolina	AA+
Tennessee	AAA
Texas	AAA
Virginia	AAA
West Virginia	AA-

Source: U.S. Census Bureau, Population Division; IHS Markit; S&P Global Ratings  
 Data Note: Reflects 2010 to 2017 State Population Growth

# Case Studies: West Virginia and Kentucky

## 2010-2017 Demographic Changes

	Total Population Change	Real Gross State Product	Prime Working Age Pop.	Median Age (2017)	Age Dependency Ratio (2017)
Kentucky A/Stable	2.6%	7.1%	-3.7%	38.8	63.1
West Virginia AA-/Stable	-2.0%	3.4%	-8.2%	42.5	66.3
United States	5.5%	14.3%	1.1%	38.0	61.8

Source: U.S. Census Bureau, Population Division; IHS Markit; S&P Global Ratings; 2010-2017  
GSP US\$ 2009, SAAR

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# Thank you

## Related commentaries

- **U.S. State Ratings Methodology, published Oct. 17, 2016**
- **U.S. States are Showing their Age, published Sept. 25, 2018**

## Contact for additional information

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