



UTAH INFORMED

V I S U A L I N T E L L E C T I O N F O R 2 0 1 9

Kem C. Gardner Policy Institute

DAVID ECCLES SCHOOL OF BUSINESS | UNIVERSITY OF UTAH

In Partnership with the Salt Lake Chamber

KEM C. GARDNER POLICY INSTITUTE

We are an honest broker of
INFORMED
RESEARCH

that guides
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DISCUSSIONS

and leads to
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DECISIONS™

January 2019

Utah spent most of the past 12 months at the top of the U.S. economic leaderboard. Strong job growth, low unemployment, rising wages, and net in-migration fuel an economy that just keeps on going. Informed observers will recognize Utah's prosperity, but also see the nuance, intrigue, challenge, and even wonder in Utah's economic script.

Utah Informed takes readers behind the curtains and shares fascinating details about Utah and the nation. For example...

- How did South Dakota surpass Utah's fertility rate?
A precipitous rise in teen pregnancies.
- Why aren't Utah sales tax revenues keeping pace with economic growth? An aging population that spends a greater share of their income on health care.
- Why is Utah's per capita water consumption so high?
We are the second driest state with low water rates.
- Who has the most engaged NBA fans? Utah, of course.

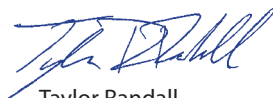
In addition to sharing compelling trends and ideas, in this fourth edition of *Utah Informed* we give a nod on the cover to our Institute's home, the Thomas S. Monson Center. The beautiful neoclassical mansion on South Temple Street was home to Enos A. Wall, the first entrepreneur to mine copper in Utah's Bingham Canyon (today mined by Rio Tinto). Copper, which is known for its conductivity, provides a useful metaphor for the way *Utah Informed* transmits light to those who study it.

The Kem C. Gardner Policy Institute serves as an honest broker of informed research, that guides informed discussions, and leads to INFORMED DECISIONS™. We hope this edition of *Utah Informed* will help you make wise decisions in 2019.

Thanks for your interest,



Natalie Gochnour
Director, Kem C. Gardner Policy Institute



Taylor Randall
Dean, David Eccles School of Business



Derek Miller
President & CEO, Salt Lake Chamber

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Words and phrases to know in 2019

- **2.12** – Utah’s current total fertility rate (TFR), the number of children who would be born per woman based on the current schedule of age-specific fertility rates: At 2.12, Utah’s TFR is at an all-time low and approaching the replacement rate.
- **CA-VU** – ceiling and visibility unlimited, a military term indicating an obstruction-free sky, coined by President George H. Bush to mean a clear and visible future where people can “easily identify the objectives and threats” in their paths: Seeking CAVU.
- **con-sum-able ser-vice** – service for which the identification of the place of consumption is straightforward: The State of Utah does not currently tax many consumable services.
- **em-pa-ty** – the ability to identify, understand, and share the feelings and perspectives of others: Microsoft CEO Satya Nadella believes that empathy is essential for innovation.
- **fourth in-dus-tri-al rev-o-lu-tion** – mobile internet, Internet of Things, additive manufacturing, and other innovations that will change our lives: The 4th Industrial Revolution will require policy innovations.
- **in-land port** – crossroads of the west fulfilled: Utah’s inland port will provide custom clearance for Chinese goods.
- **juu-ling** – a slang term for the recreational use of a leading brand of electronic cigarettes in the U.S., JUUL: The American Academy of Pediatrics warns that juuling is on the rise, with devastating consequences.
- **mis-in-for-ma-tion** – incorrect or misleading information: The distribution of misinformation—and its close cousin, deliberate disinformation—jeopardizes our ability to make informed decisions. Russian troll farms and others propagate falsehoods on Facebook, Twitter, other social media, and by other means. These untruths imperil our ability to prosper.
- **strike team** – a mission-driven, multi-disciplinary, and well-resourced enterprise: The the Utah Coal Country Strike Team will raise incomes in Carbon and Emery counties.
- **YIM-BY** – yes in my backyard, a movement that lays the groundwork for more housing construction for people of all income levels: Can YIMBY overcome NIMBY?

Discoveries in 2018

- **Plague** – The sample of the oldest-known strain of the pneumonic plague, perhaps the world's first major pandemic, was found in remains in a 5,000-year-old tomb in Sweden.
- **Christmas Salamander** – A newly-discovered aquatic salamander has Christmas-tree-shaped growths from its head, which it uses to breathe underwater.
- **Saw Wasp** – A species of wasp with a saw along its back was discovered. Scientists speculate it uses it to cut its way out of whatever other creature its parents laid its egg in.
- **Hunchback Shrimp** – A round-back and shell-less shrimp discovered in the Antarctic was named *Epimeria quasimodo* after the title character of "The Hunchback of Notre Dame."
- **Extraterrestrial Communications** – Repeating radio burst deep in space flashes sporadically, making some researchers wonder if it's a black hole or an advanced civilization.
- **Ancient Wealth** – An excavation in where Tenea, Greece once thrived revealed pottery, coins, and marble-clad homes, showing ancient Teneans were far wealthier than previously thought.
- **The Thunderclap** – A fossil of the world's largest-known animal were uncovered. The "Ledumahadi mafube" or "giant thunderclap at dawn" weighed about 26,000 pounds and lived in Argentina 200 million years ago.
- **Ancient Art** – A 73,000-year-old drawing was found in a stone in South Africa. The unintelligible but deliberate lines are now called the earliest drawing ever found.
- **Shellless Turtle** – A 228 million-year-old fossil revealed turtles once lived without a shell; scientists are now studying how they evolved.
- **Alzheimers** – San Francisco scientists discovered a gene that causes people with it to be far more susceptible to Alzheimer's.
- **Blindness Cure** – Using a patch of stem cells over the eye, scientists returned the sight of two blind patients.
- **Martian Photos** – NASA's InSight, a newly landed Mars explorer, sent back clear images of Mars' landscape, perhaps the next step in unlocking the Red Planet's past.
- **Exomoon** – Astronomers discovered what may be the first known exomoon (moon outside the solar system).
- **Gene Editing** – A Chinese scientist claimed to have produced "gene-edited babies," which would be the world's first.
- **Uterus Donor Success** – A successful birth resulted from a uterus donated by a deceased woman for the first time.

Signs of our times

Top Google searches in the United States in 2018



All Searches

- 1) World Cup
- 2) Hurricane Florence
- 3) Mac Miller
- 4) Kate Spade
- 5) Anthony Bourdain
- 6) Black Panther
- 7) Mega Millions Results
- 8) Stan Lee
- 9) Demi Lovato
- 10) Election Results



News

- 1) World Cup
- 2) Hurricane Florence
- 3) Mega Millions
- 4) Election Results
- 5) Hurricane Michael
- 6) Kavanaugh Confirmation
- 7) Florida Shooting
- 8) Royal Wedding
- 9) Olympic Medal Count
- 10) Government Shutdown



People

- 1) Demi Lovato
- 2) Meghan Markle
- 3) Brett Kavanaugh
- 4) Logan Paul
- 5) Khloé Kardashian
- 6) Eminem
- 7) Urban Meyer
- 8) Ariana Grande
- 9) Rick Ross
- 10) Cardi B



What is...?

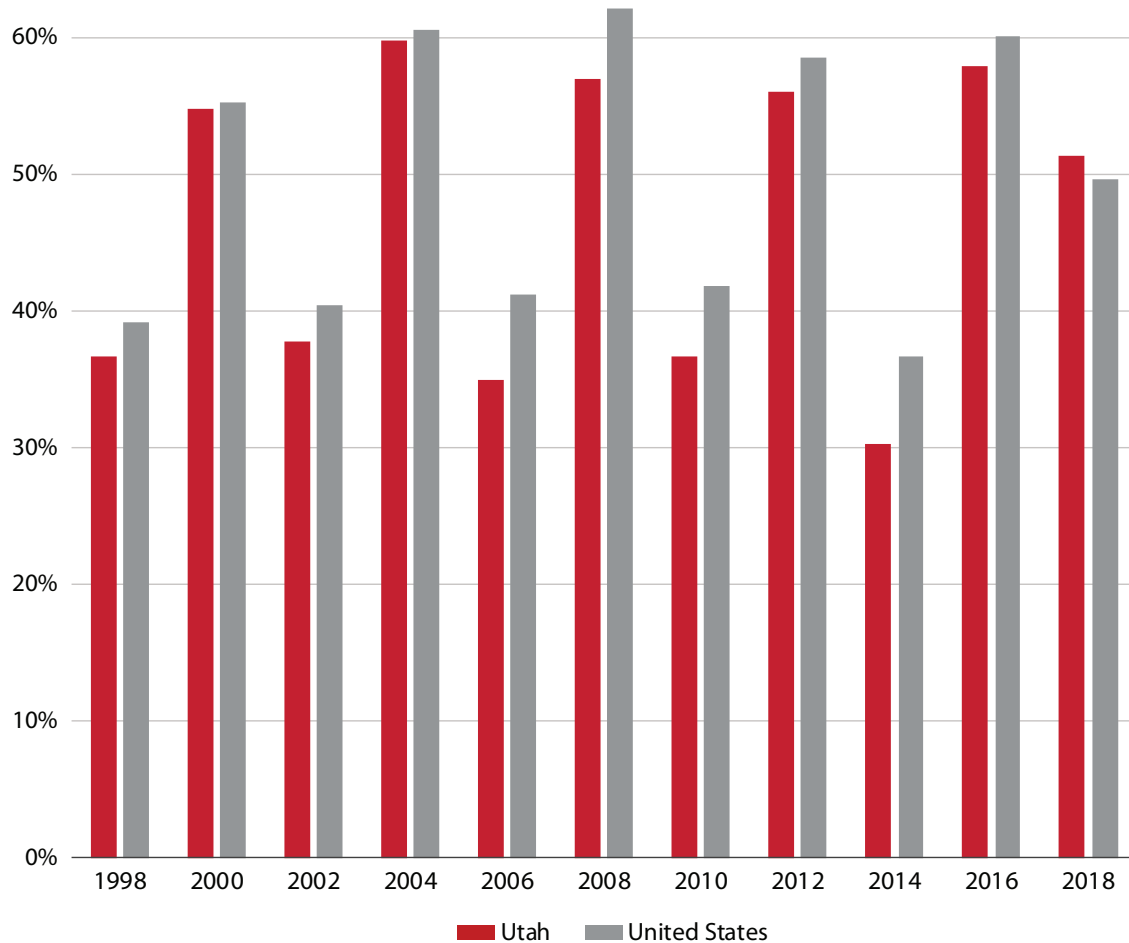
- 1) What is Bitcoin?
- 2) What is racketeering?
- 3) What is DACA?
- 4) What is a government shutdown?
- 5) What is Good Friday?
- 6) What is Prince Harry's last name?
- 7) What is Fortnite?
- 8) What is a duck boat?
- 9) What is a Yanny Laurel?
- 10) What is a nationalist?

Source: Google

A new high! Utah voter turnout exceeds US in 2018 midterm elections

Voter turnout rates

Counted ballots as a percent of total voting-eligible population

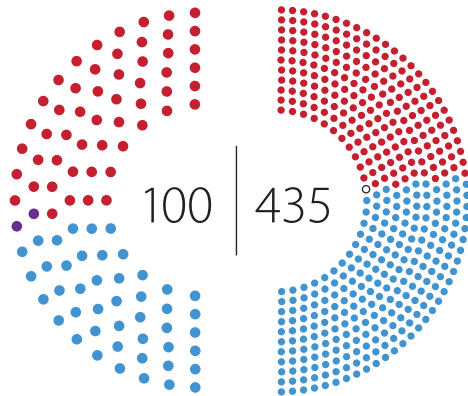


Source: United States Elections Project

Midterm outcomes

Political affiliations of incoming U.S. Congress and Utah Legislature

116th United States Congress



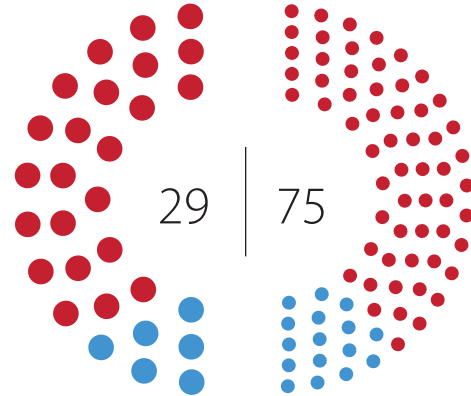
Senate

- **53 Republicans**
Up from 51 in 115th Congress
- **45 Democrats**
Down from 47 in 115th Congress
- **2 Independents**

House

- **199 Republicans**
Down from 241 in 115th Congress
- **235 Democrats**
Up from 194 in 115th Congress
- **1 Disputed**
North Carolina 9th district

63rd Utah Legislature



Senate

- **23 Republicans**
Down from 24 in 62nd Legislature
- **6 Democrats**
Up from 5 in 62nd Legislature

House

- **59 Republicans**
Down from 62 in 62nd Legislature
- **16 Democrats**
Up from 13 in 62nd Legislature

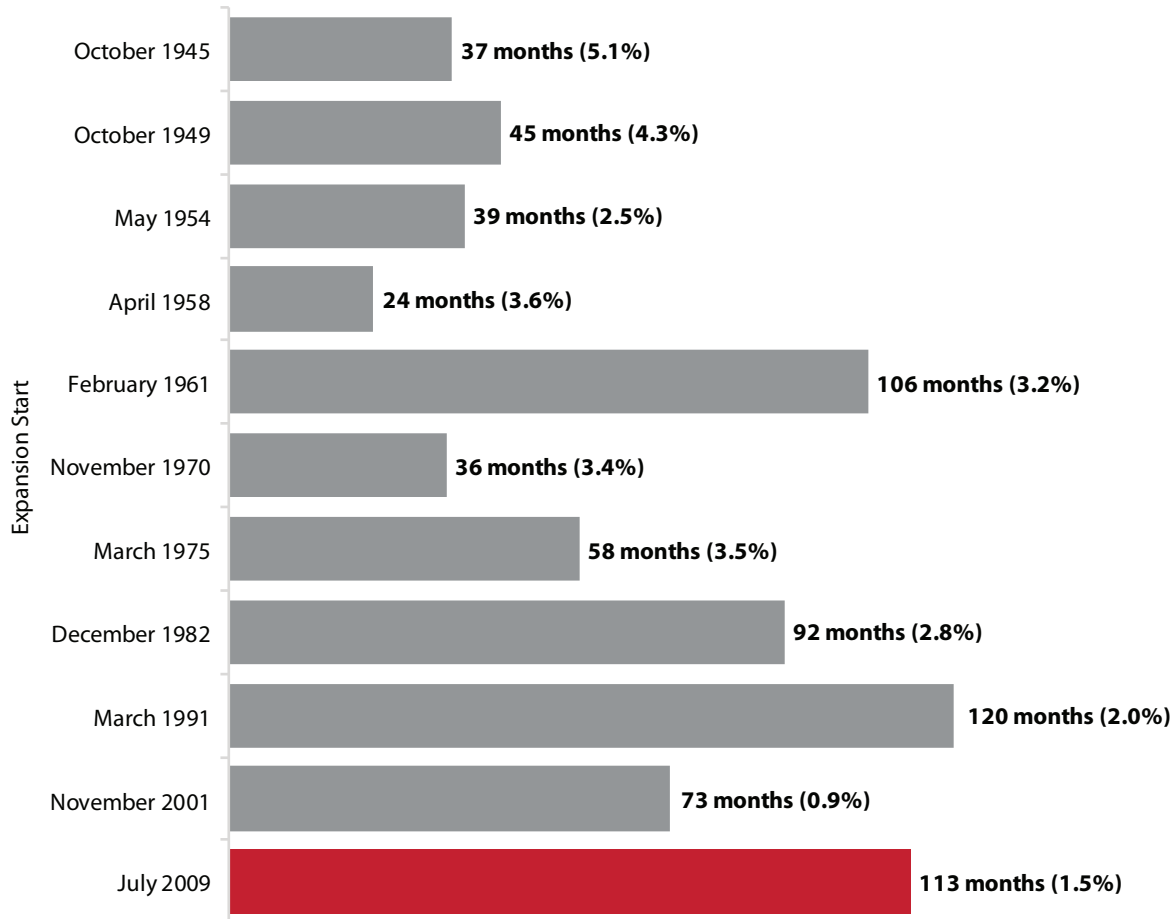
*Party division totals are based on November Election Day results. The actual party division of a particular Congress often changes due to the death or resignation of a Member, contested elections, or changes in Member party affiliations.
Sources: House.gov; Senate.gov

Source: le.utah.gov

Slated for the longest expansion on record

Duration of United States economic expansions

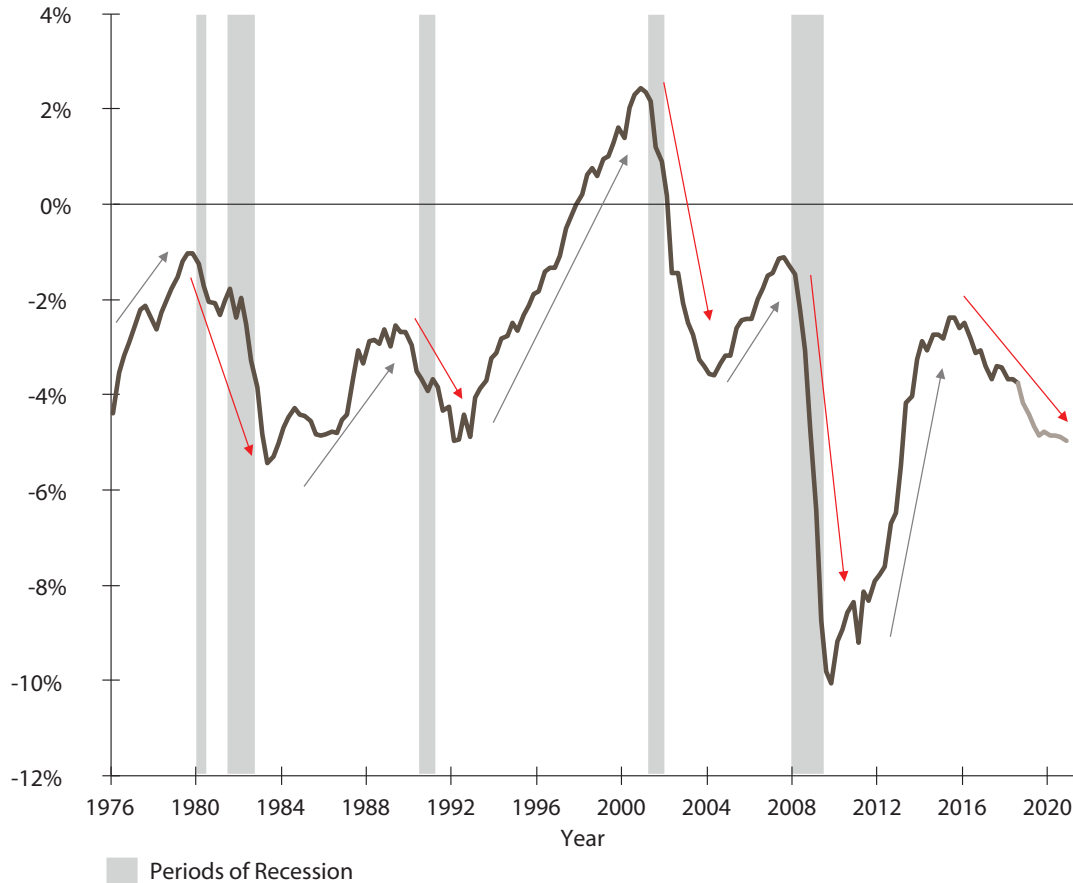
Length of expansion and average annual job growth



Source: Kem C. Gardner Policy Institute analysis of National Bureau of Economic Research and U.S. Bureau of Labor Statistics data

Economy expands, federal budget deteriorates

Federal budget balance as a percent of GDP












Note: Balance is the 4-quarter moving sum; Q4 2018 and beyond are forecast.
Source: Wells Fargo Securities

Yielding the yield

A history of yield curve inversion as a recession warning

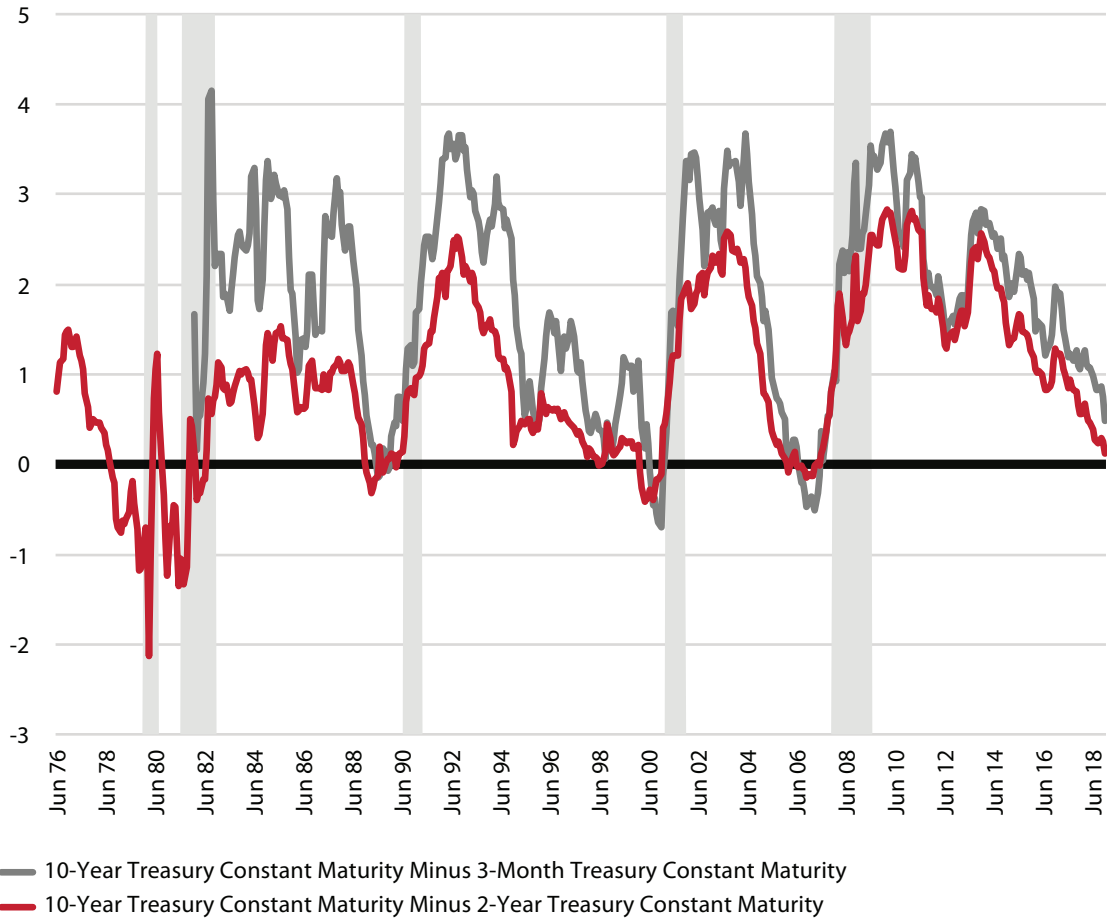
Since pre-recession peak in 2005

Date of inversion	S&P 500 performance over next 12 months	Months to recession
February 20, 2006	 13.2%	22
September 10, 1998	 37.1%	30
May 29, 1989	 12.2%	14
September 1, 1980	 0.9%	11
July 4, 1978	 7.7%	18
February 12, 1973	 - 21.6%	9
December 19, 1968	 - 15.3%	12
September 8, 1966	 24.3%	False Alarm
January 12, 1966	 - 9.3%	False Alarm

Note: Inversion date is when the 3-month Treasury yield rises above the 10-year yield.
Source: Refinitiv, as published in the Wall Street Journal, December 6, 2018

Inversion season

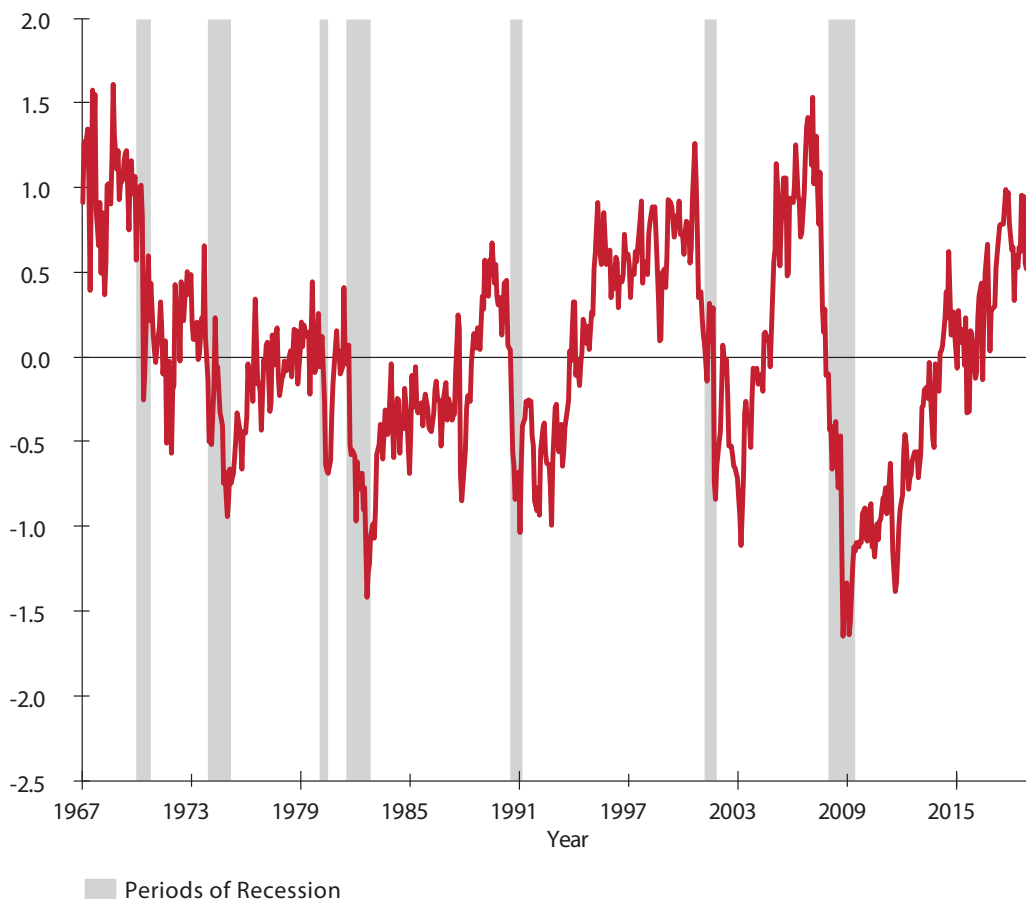
Extra yield on long over short-dated treasuries



Source: Federal Reserve Bank of St. Louis

Do you believe in spirits?

Animal Spirits Index

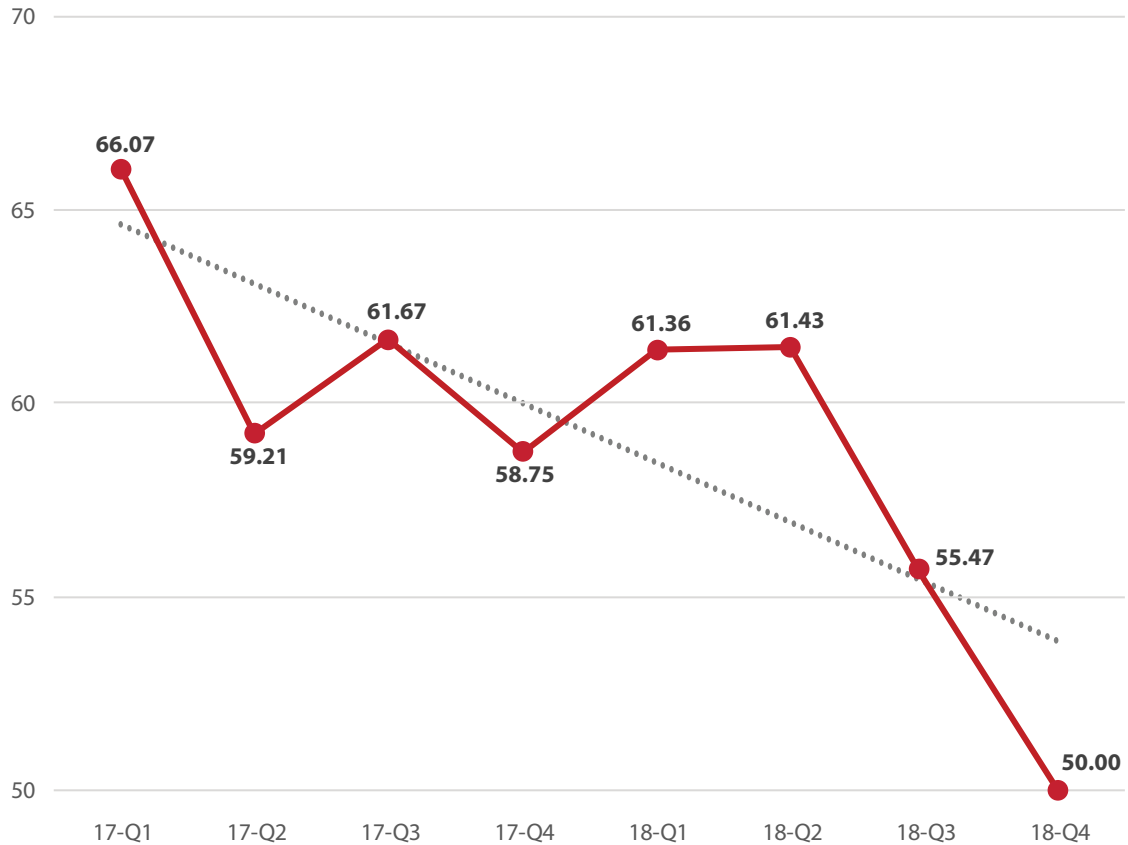


Note: Index includes S&P 500 index, Conference Board consumer confidence index, yield spread, VIX index, and economic policy uncertainty index; the Animal Spirits Index seeks to "shed light on economic agents' expectations about the near-term economic outlook."
Source: Wells Fargo Securities

Utah CEOs less optimistic

Utah CEO Outlook Confidence Index

What is your expectation for the economy six months from now?

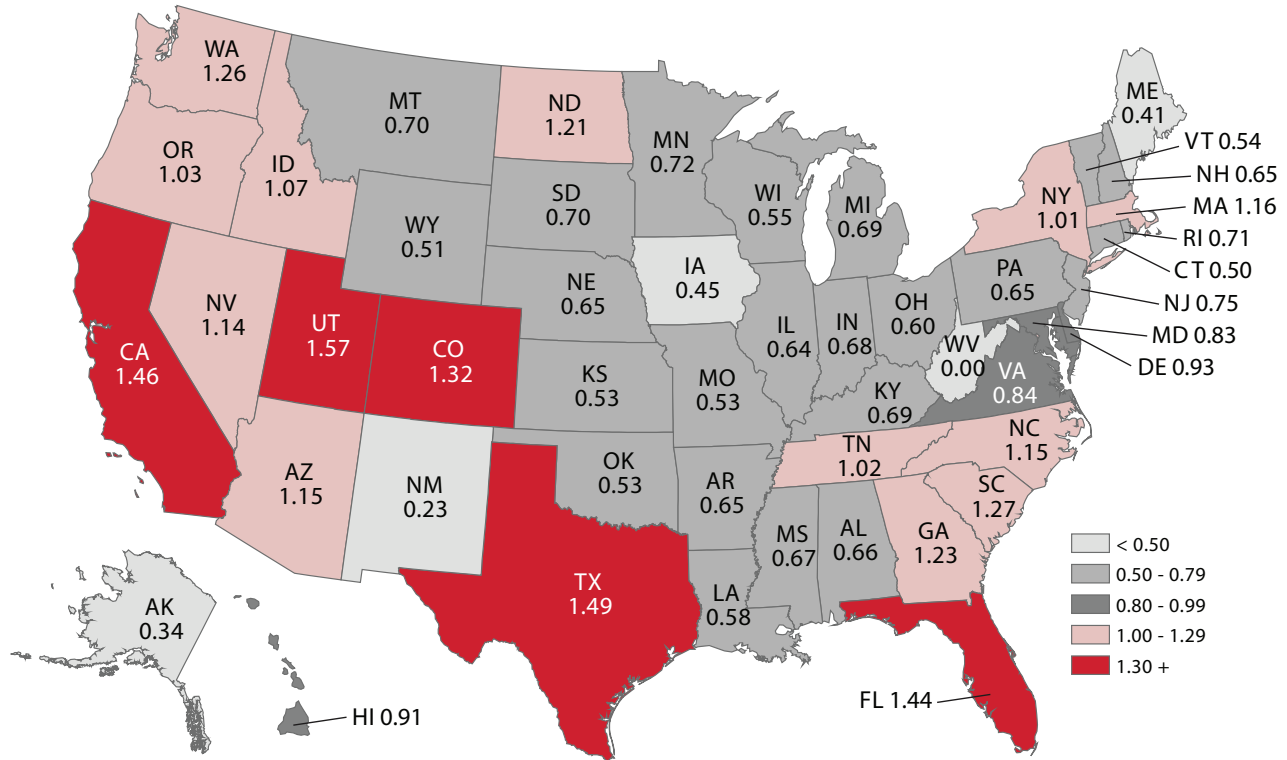


Source: Salt Lake Chamber CEO Outlook composite score

Holding on to #1 for job growth in current expansion

Industry-adjusted state-to-U.S. employment growth ratios

Growth since end of recession, 2009-2017



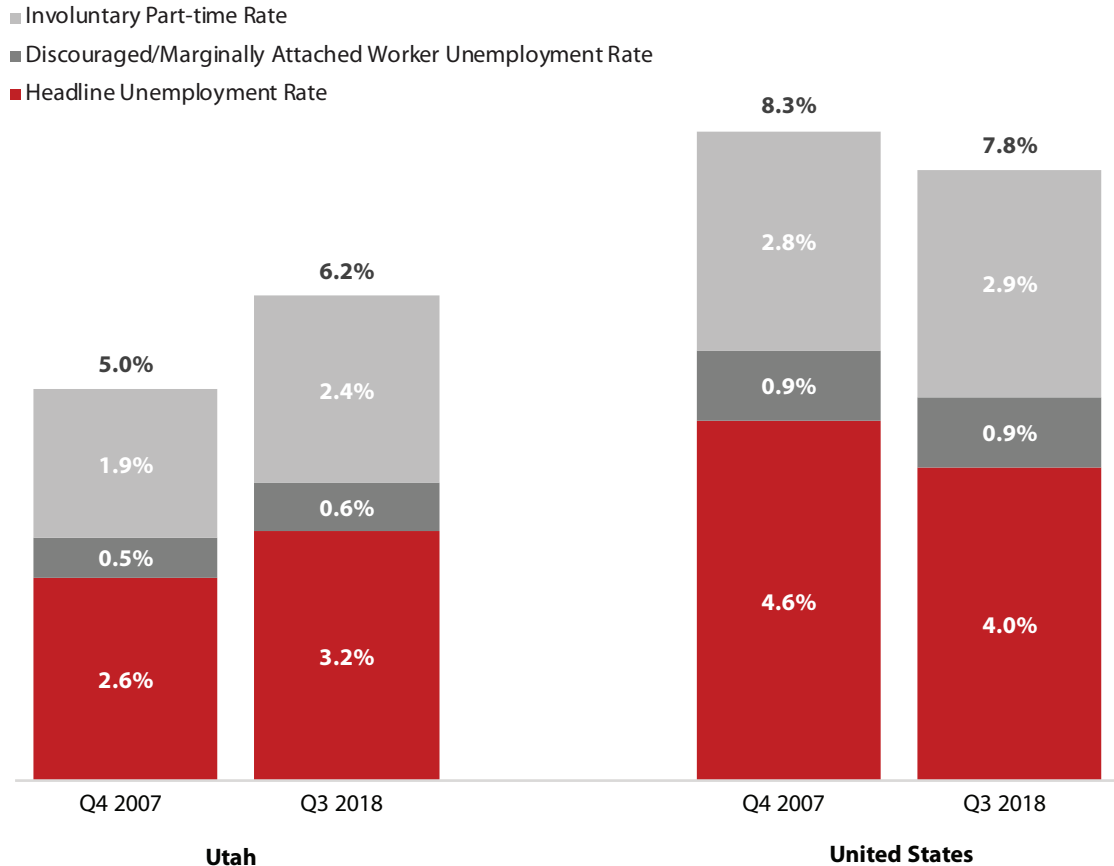
Note: Ratio of actual employment growth to the employment growth the state would have experienced if its industries grew at the same rate as those of the rest of the nation. Numbers above 1 indicate outperforming the nation.

Source: U.S. Bureau of Economic Analysis and the Kem C. Gardner Policy Institute

Unemployment limbo

Unemployment and other measures of labor underutilization

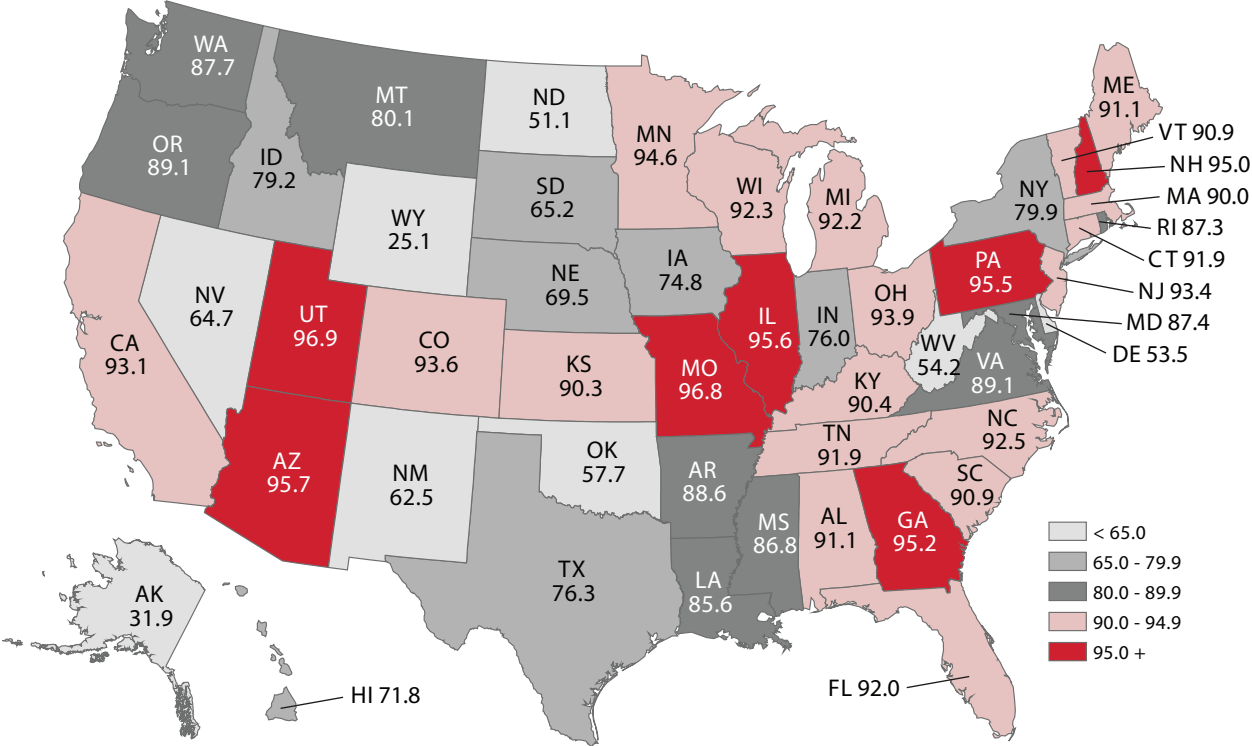
Current and previous economic peak



Source: Kem C. Gardner Policy Institute analysis of U.S. Bureau of Labor Statistics Local Area Unemployment Statistics data

Strength in diversity

Hachman Index of Economic Diversity, 2017

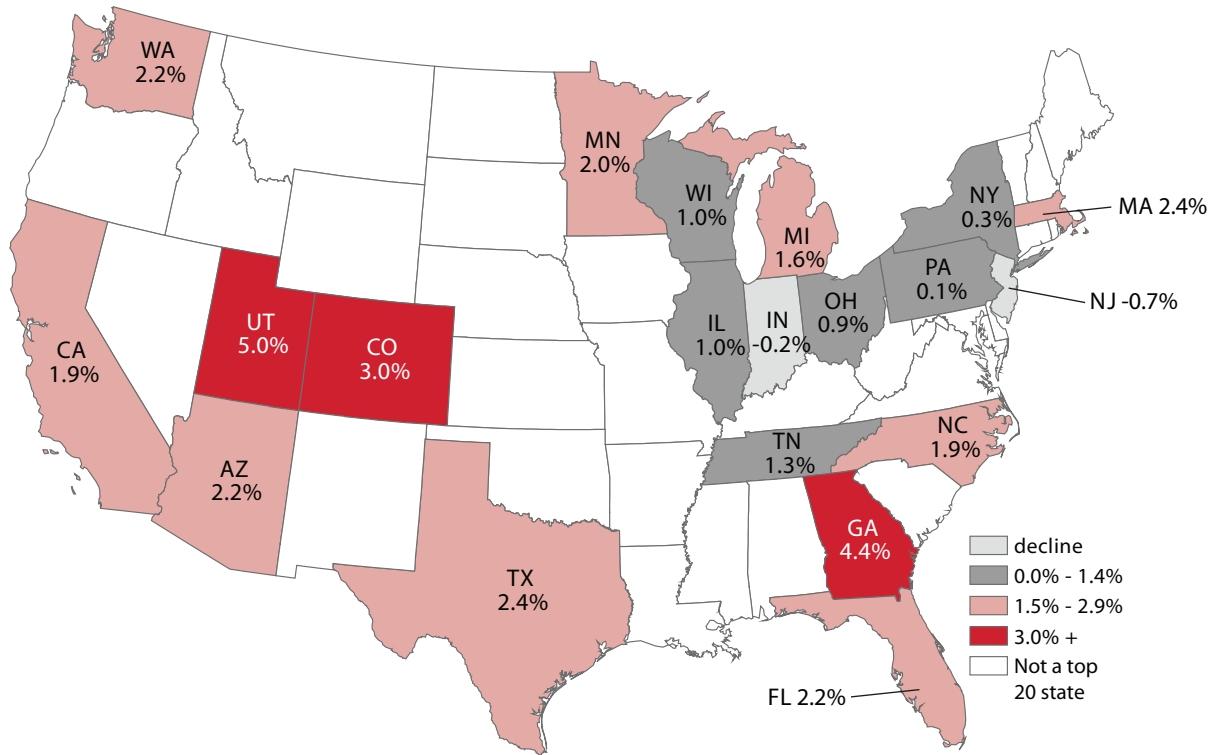


Note: Value of 100 would mean that state's economic activity is distributed exactly like the nation's; more diverse economies have a higher index score.
 Source: Kem C. Gardner Policy Institute analysis of U.S. Bureau of Economic Analysis GDP data

Life sciences boom (bloom?) in Utah

Average annual employment change in the life sciences industry, 2012 to 2017

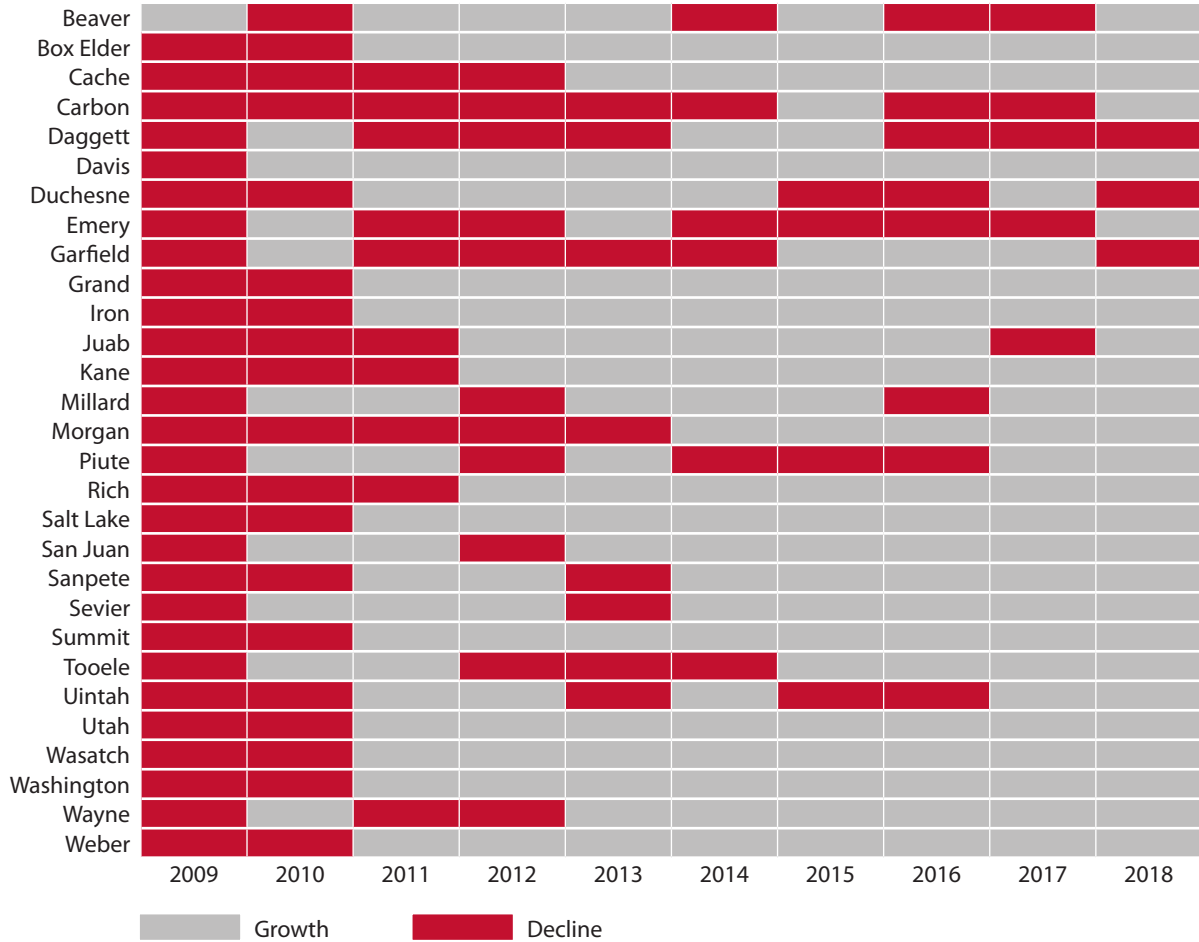
20 states with most life sciences jobs



Source: Kem C. Gardner Policy Institute analysis of U.S. Bureau of Labor Statistics data

Job Tetris, growth and decline in Utah's counties

Annual employment growth and decline in Utah's counties

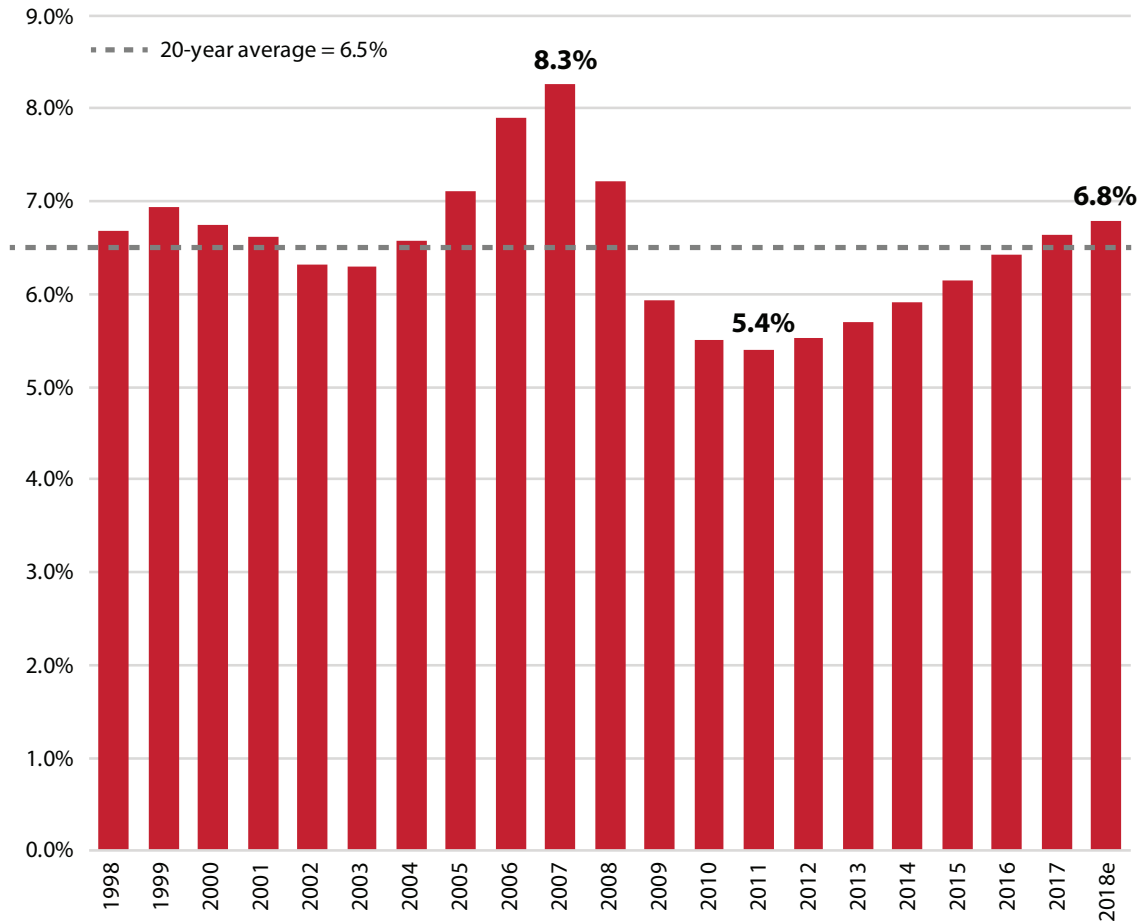


Note: 2018 through second quarter.

Source: Kem C. Gardner Policy Institute analysis of U.S. Bureau of Labor Statistics Quarterly Census of Employment and Wages data

Construction employment back to pre-bubble levels

Construction jobs as a percent of all Utah jobs

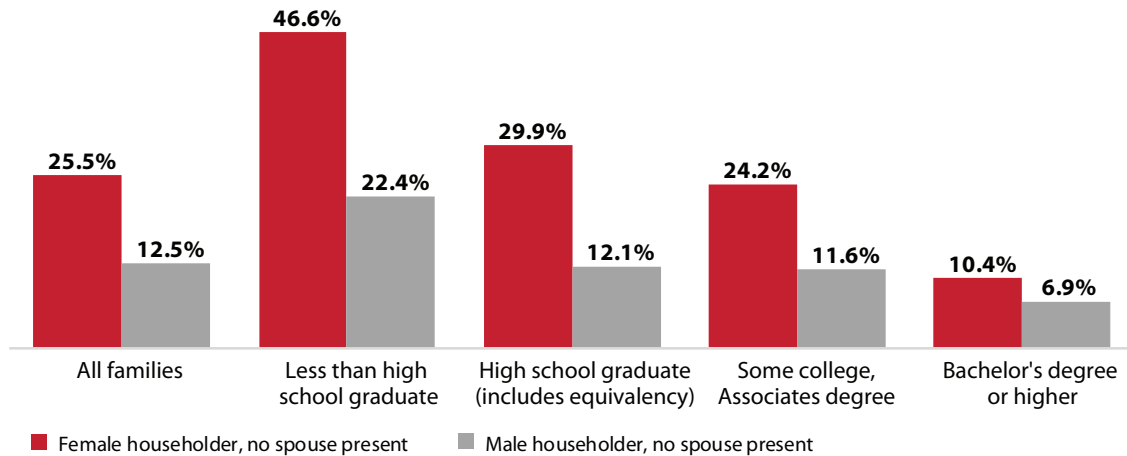
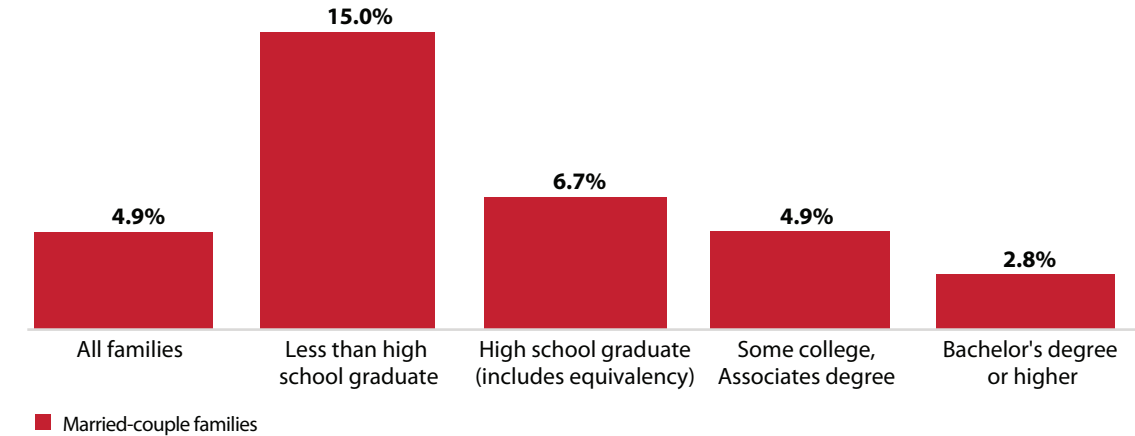


Note: e = estimate

Source: Kem C. Gardner Policy Institute analysis of U.S. Bureau of Labor Statistics Current Employment Survey data

The importance of educational attainment, a family perspective

Percent of Utah families with income below poverty status by educational attainment of householder

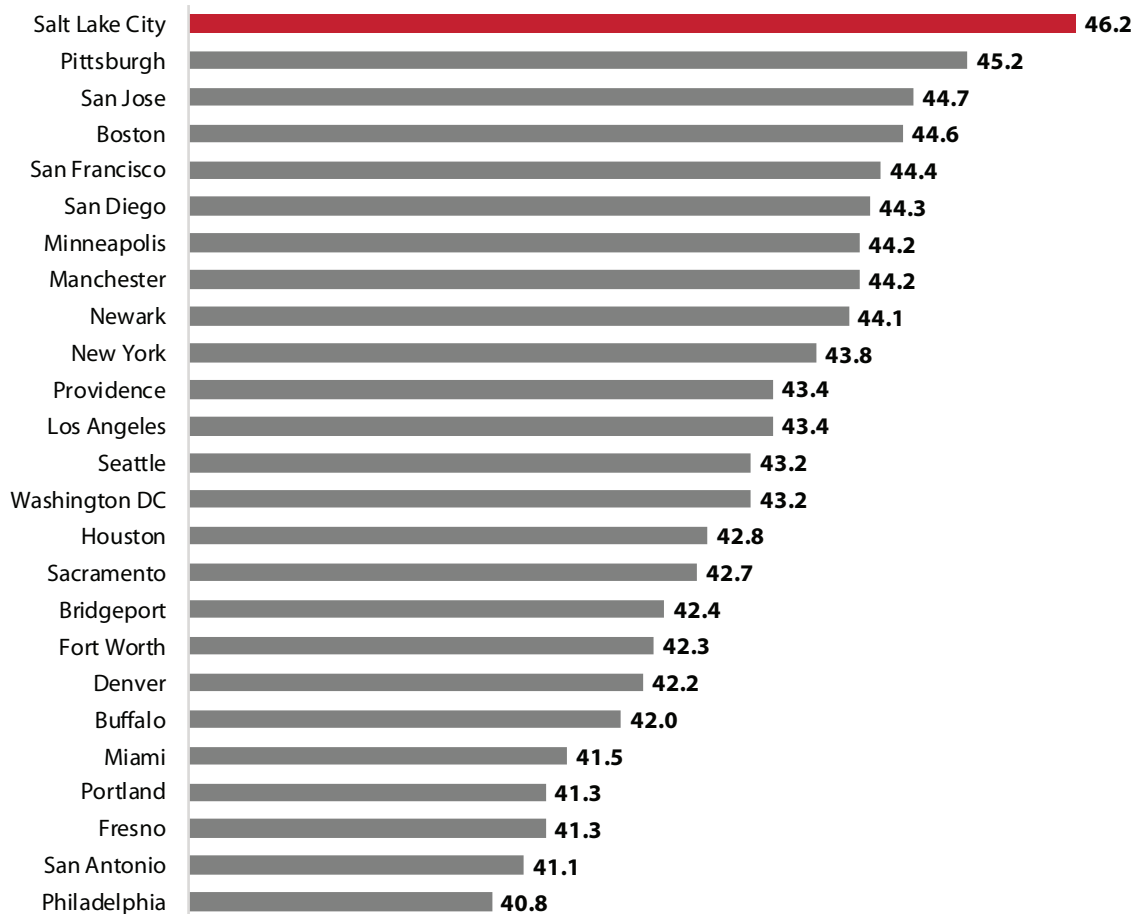


Source: Kem C. Gardner Policy Institute analysis of U.S. Census Bureau 5-year 2013-2017 American Community Survey data

Families rising

The nation's largest commuting zones with most intergenerational mobility

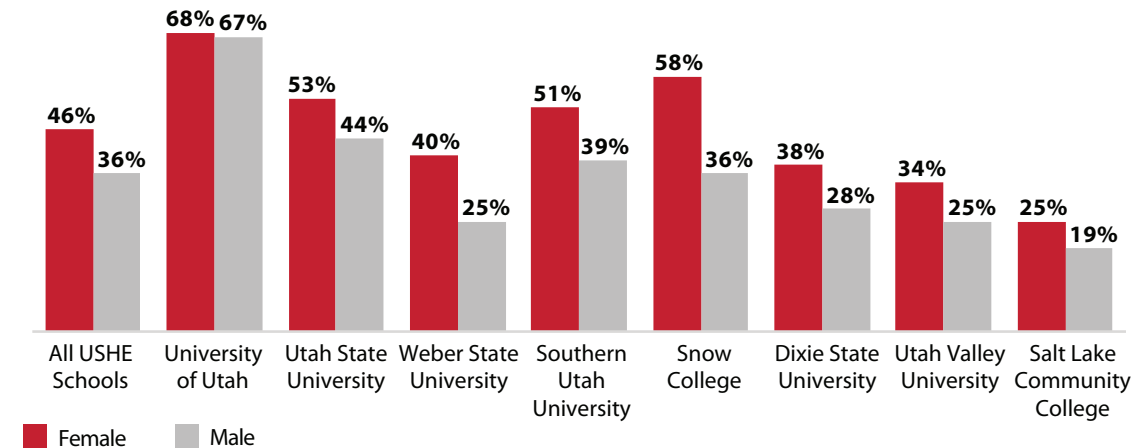
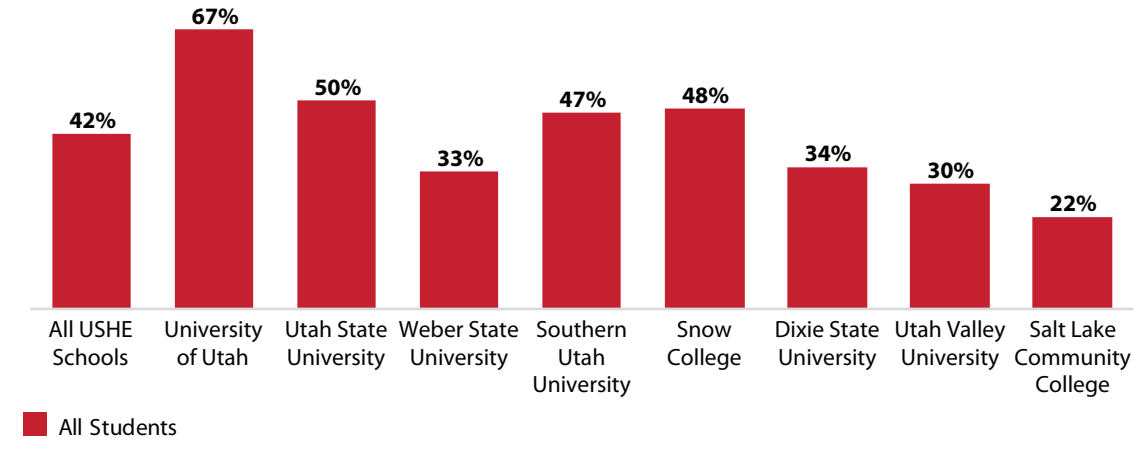
Average income percentile at age 30 of those whose parent's income was in the 25th percentile



Source: Raj Chetty, Nathaniel Hendren, Patrick Kline, and Emmanuel Saez "Where is the Land of Opportunity? The Geography of Intergenerational Mobility in the United States"

Women finish what they start (and improve higher education graduation rates)

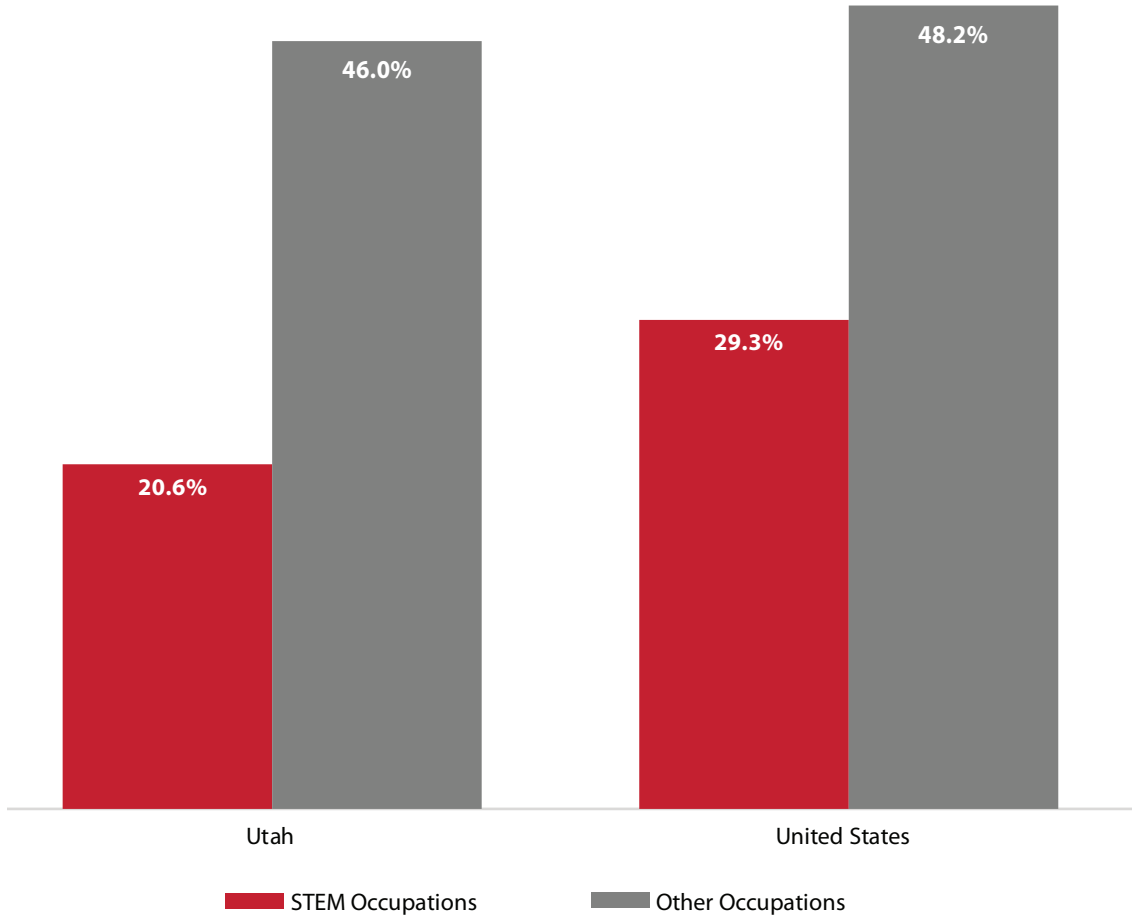
Utah System of Higher Education (USHE) graduation rates, 2017



Note: Graduation rates are measured by the percentage of first-time, full-time students who graduate within 150% of the published time for the program (six years for a four-year baccalaureate degree and three years for an associate degree).
Source: Utah System of Higher Education

The STEM gap

Female share of the workforce in STEM and other occupations, 2017



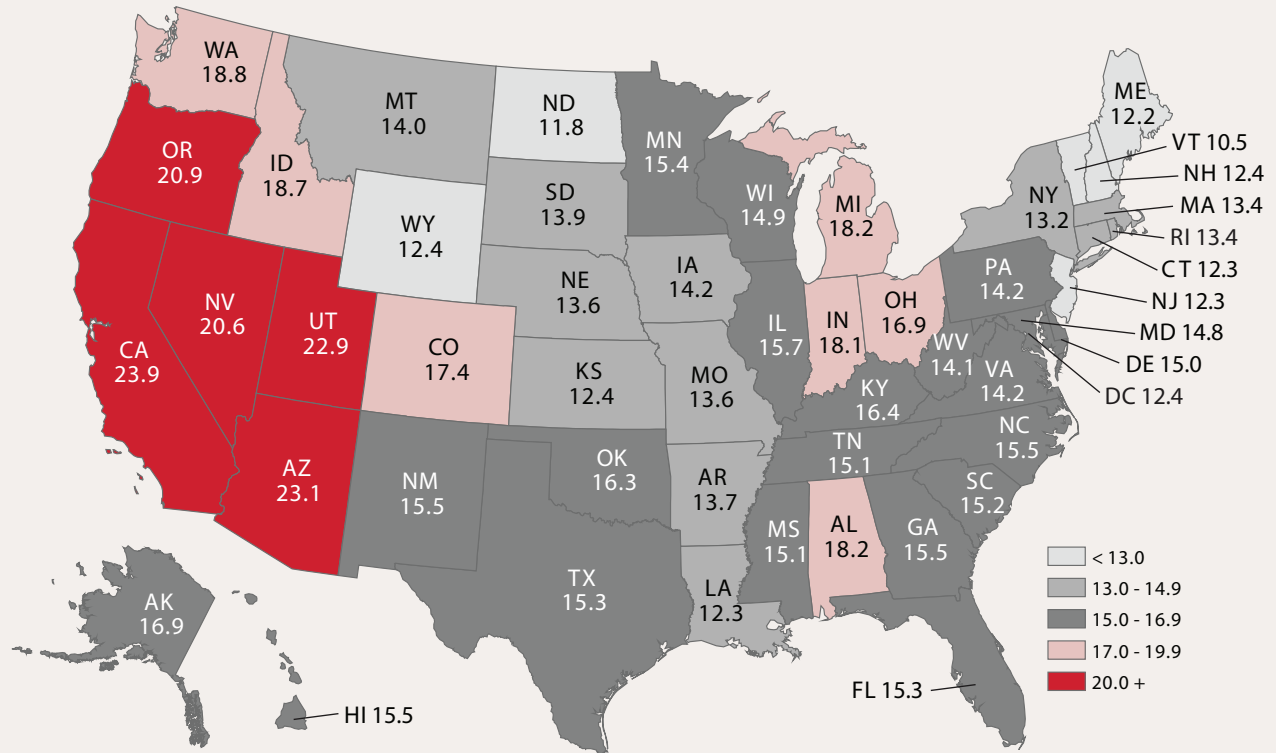
Note: STEM = science, technology, engineering, and mathematics

Source: Kem C. Gardner Policy Institute analysis of U.S. Census Bureau American Community Survey data

Larger classroom sizes in the West

Utah public elementary and secondary school pupil-teacher ratios, Fall 2015

United States = 16.0



Note: The pupil-teacher ratio includes teachers for students with disabilities and other special teachers, while these teachers are generally excluded from class size calculations; ratios reflect totals reported by states and differ from totals reported for schools or school districts; data are most recent available for national comparisons.

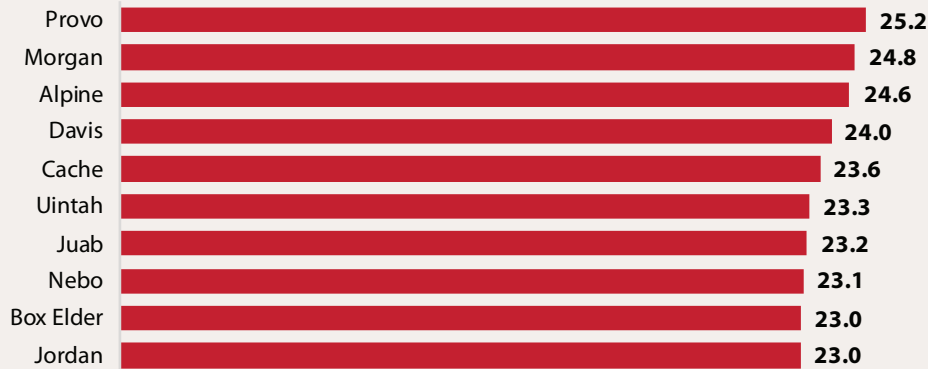
Source: U.S. Department of Education National Center for Education Statistics Common Core of Data

Provo has the highest student to teacher ratio in the state

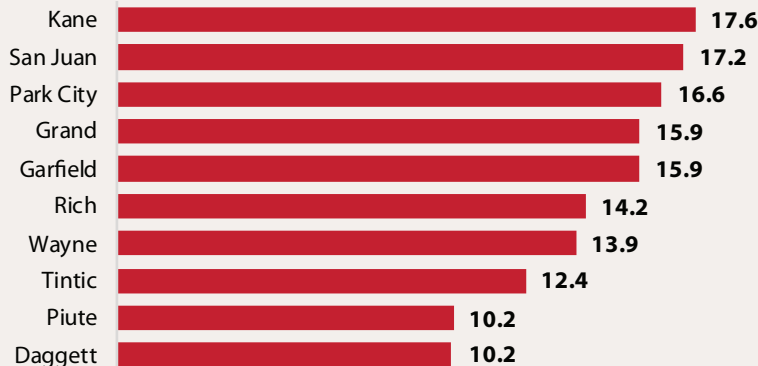
Utah public elementary and secondary school pupil-teacher ratios, FY 2017

Utah average = 21.8

Districts with highest ratios



Districts with lowest ratios



Note: District average = 19.8; Charter school average = 22.1
Source: Utah State Board of Education

QAMO

AWARD WINNER

Why student-teacher ratios matter

Higher amounts of engagement and retention

More individualized attention

Accommodation of different learning styles

Submitted by David Eccles
School of Business QAMO
(Quantitative Analysis of Markets & Organizations)
students Jessie Rabe and
Jonathan White.



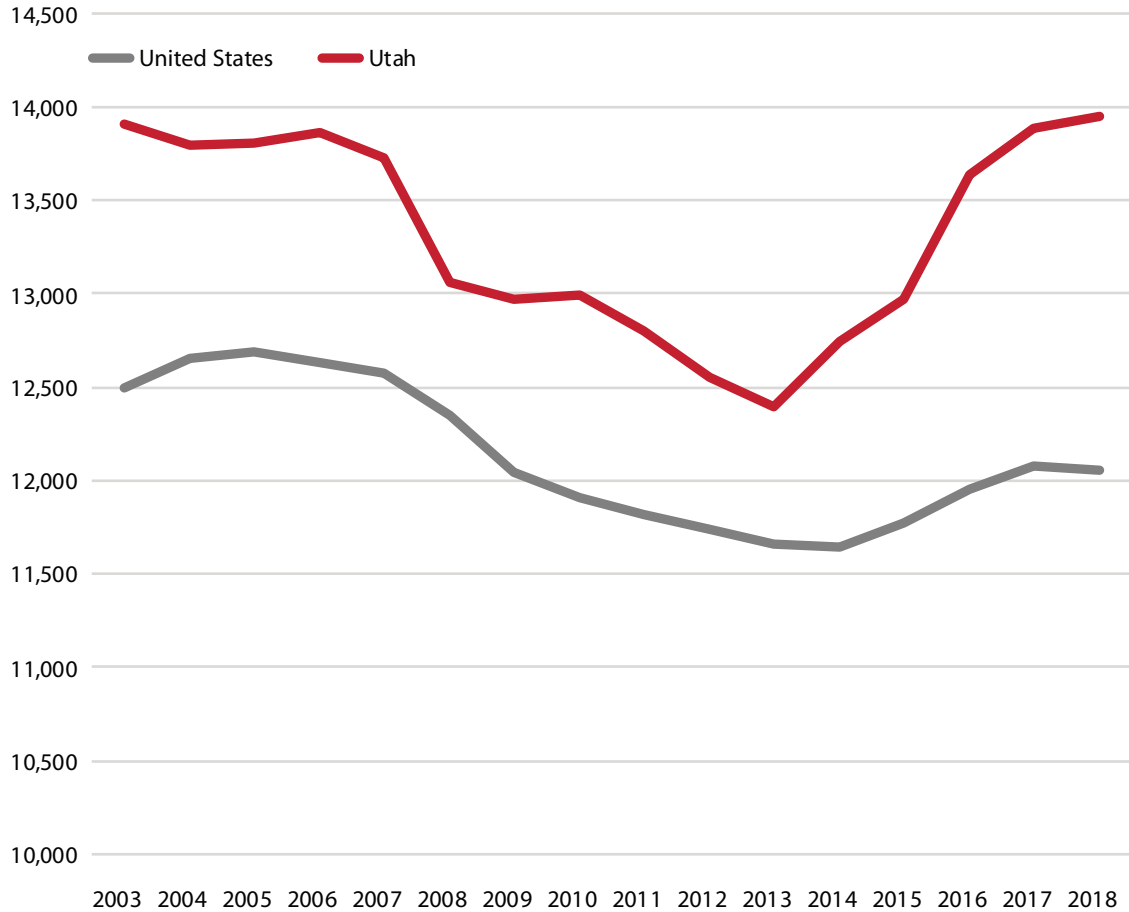
Jessie Rabe



Jonathan White

Utahns behind the wheel

Total miles driven per driving-age population



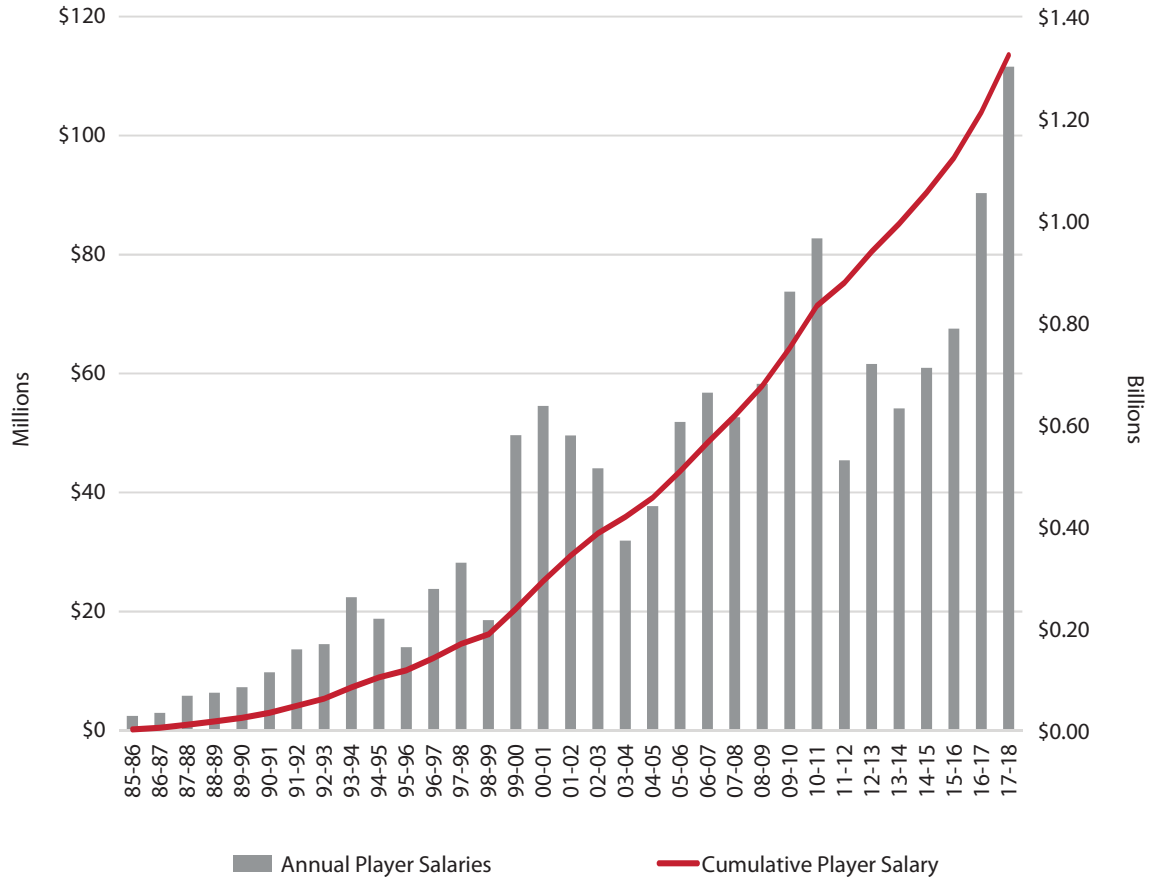
Note: Driving age population aged 15 and above.

Source: Kem C. Gardner Policy Institute analysis of U.S. Federal Highway Administration and U.S. Census Bureau data

Jazzonomics

Utah Jazz player salaries

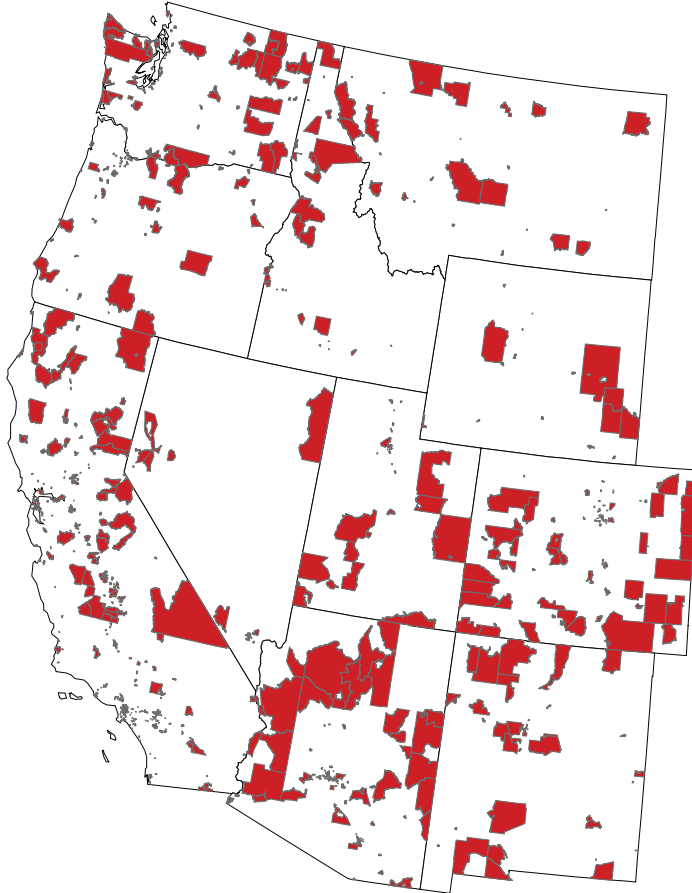
Annual and cumulative since 1985



Source: Utah Jazz

Land of opportunity

Qualified opportunity zones in the West



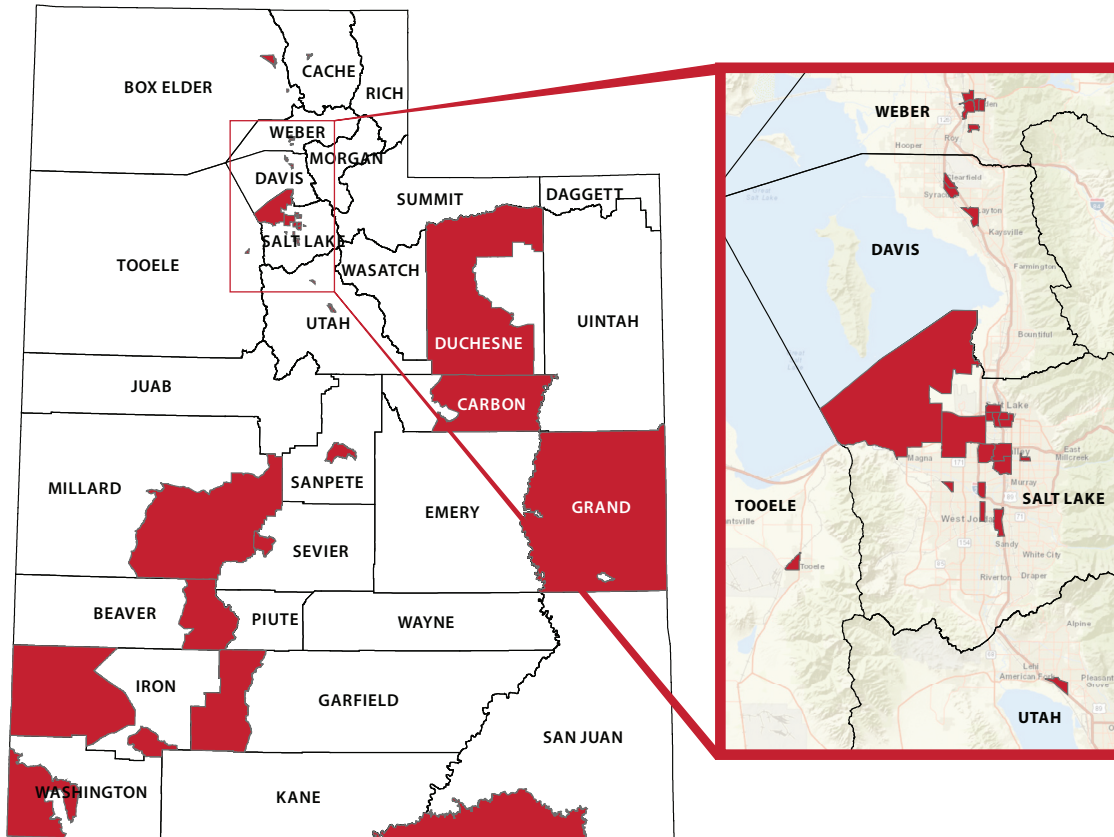
Opportunity Zones

- ✓ Part of the Tax Cuts and Jobs Act of 2017
- ✓ Economically-distressed communities designated by the governor of each state for preferential tax treatment to spur new investment. Investors can defer capital gains until sale or exchange, through 2026
- ✓ 10% exclusion of deferred gains for investments held longer than 5 years
- ✓ 15% exclusion of deferred gains for investments held longer than 7 years
- ✓ 100% exclusion of deferred gains for investments held longer than 10 years

Source: U.S. Department of Treasury Community Development Financial Institutions Fund Opportunity Zones Resources and Internal Revenue Service Opportunity Zones Frequently Asked Questions

How will Utah leverage opportunity zones?

Qualified opportunity zones in Utah

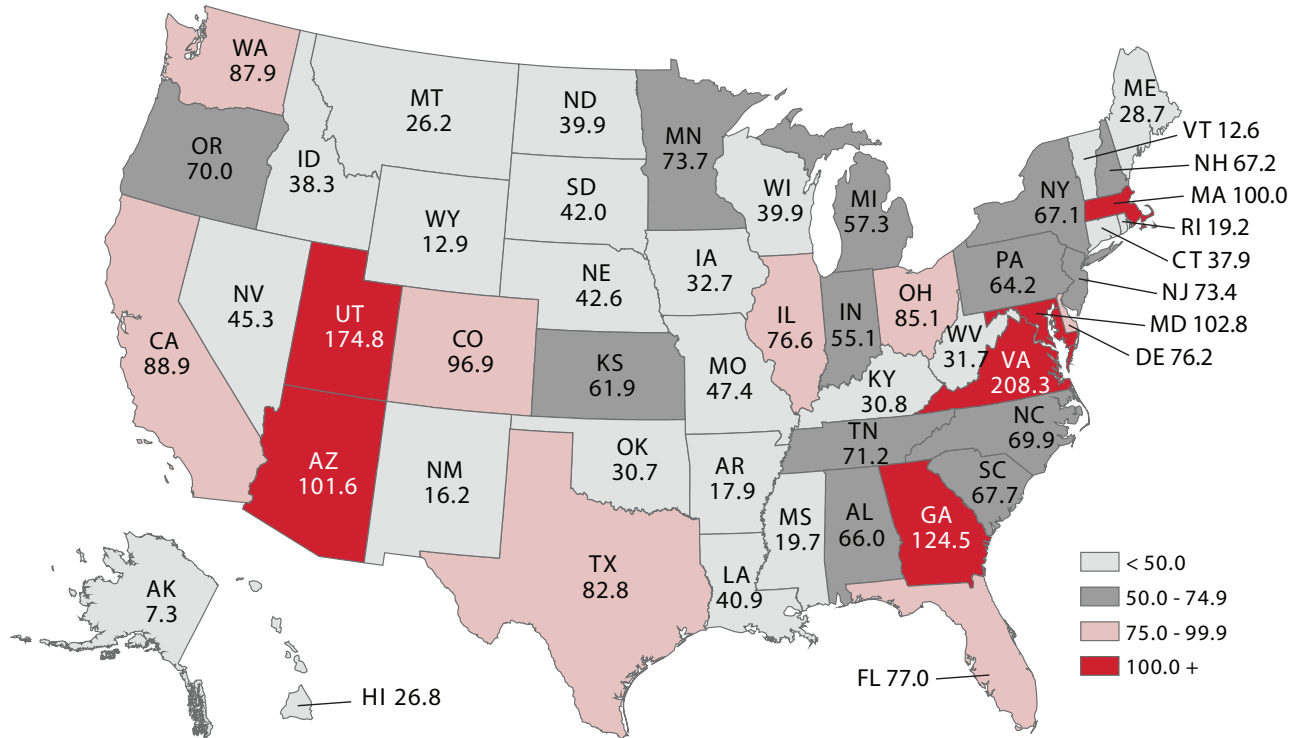


Source: Kem C. Gardner Policy Institute analysis of U.S. Bureau of Labor Statistics Local Area Unemployment Statistics data

Look at us grow!

High-growth company density

Number of private businesses with at least \$2 million in annual revenue reaching three years of 20 percent annual revenue growth, normalized by total business population

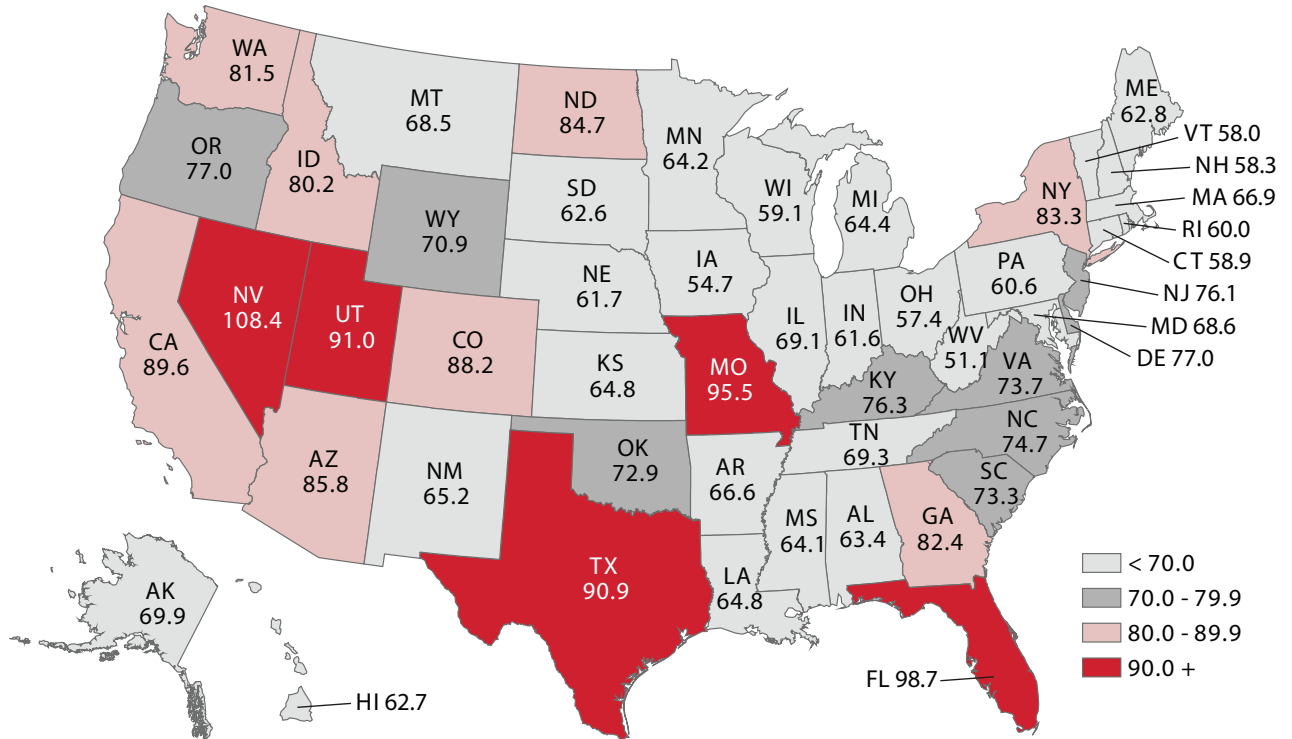


Source: Kauffman Foundation 2017 Kauffman Index of Growth Entrepreneurship State Trends

Start me up

Startup density

Startups per 1,000 firm population

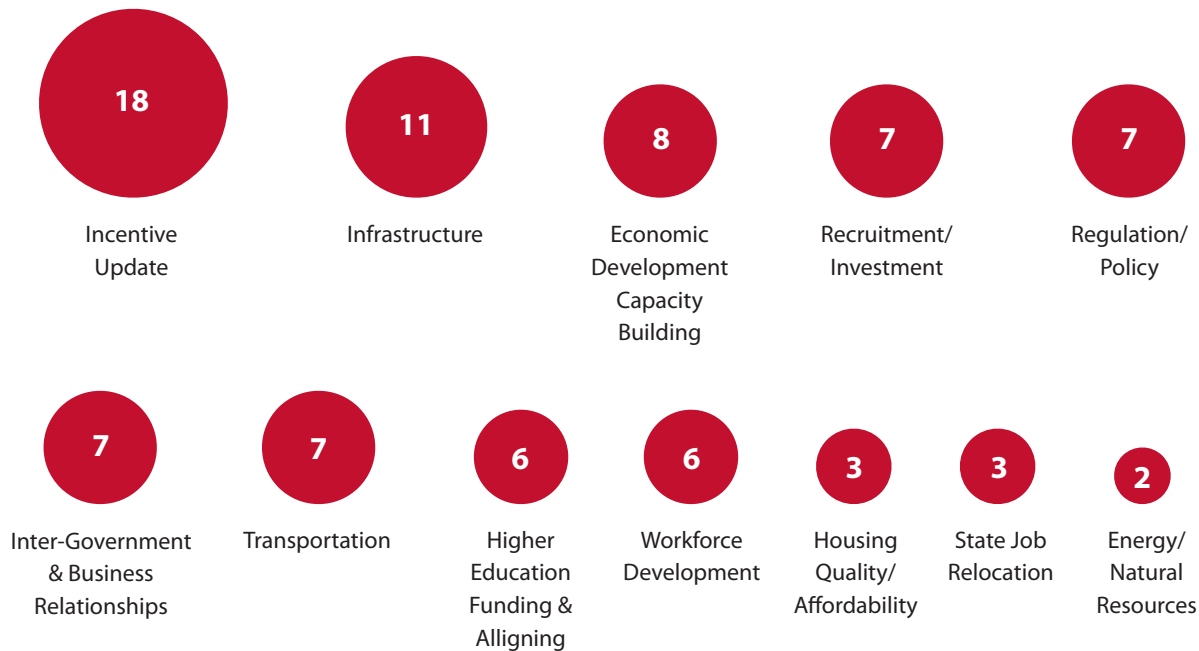


Note: Startup businesses here are defined as firms less than one-year-old employing at least one person besides the owner.
Source: Kauffman Foundation 2017 Kauffman Index of Startup Activity State Trends

Rural economic development incentives - time for an update?

Where the state can help rural Utah

Items identified in rural county economic development plans

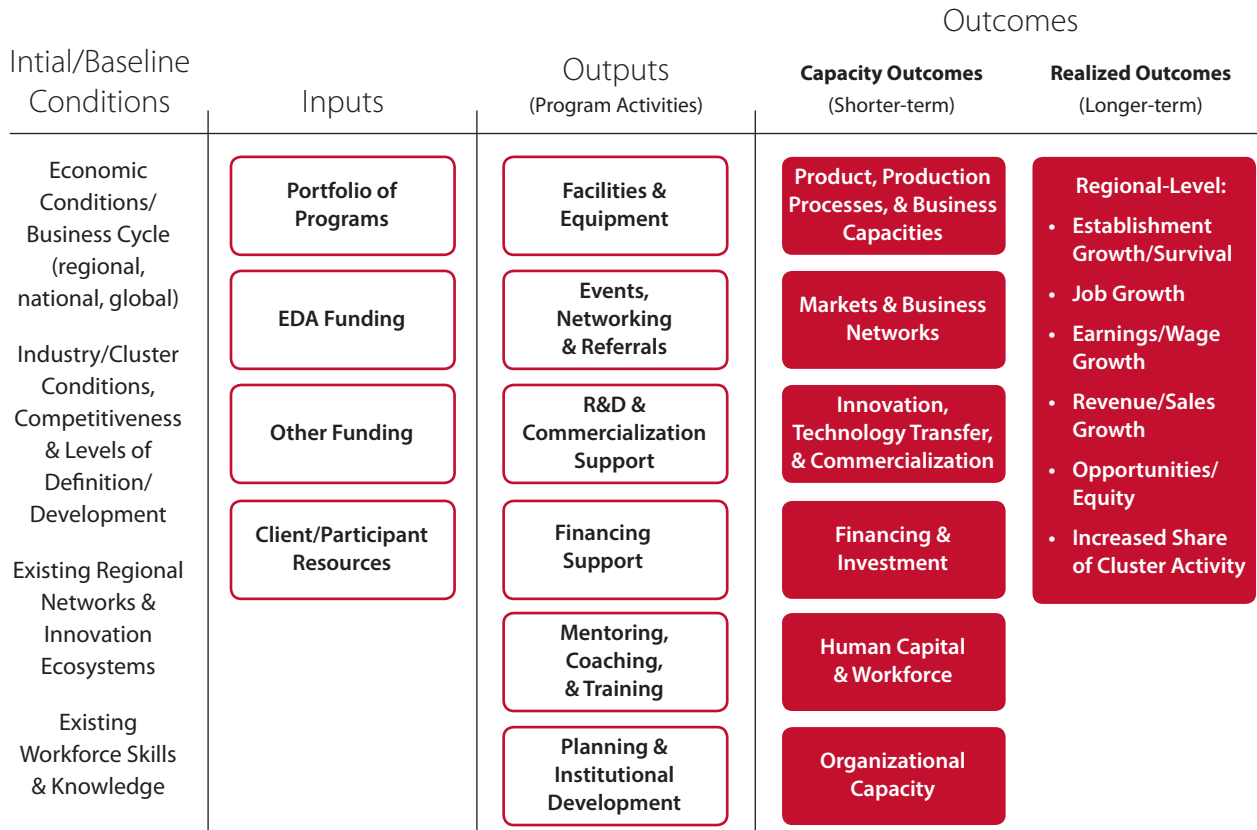


Note: Circle size and number identify count of plans mentioning each item.

Source: Kem C. Gardner Policy Institute analysis of rural county economic development plans submitted to the Utah Governor's Office of Economic Development

Some considerations...

Economic Development Logic Model

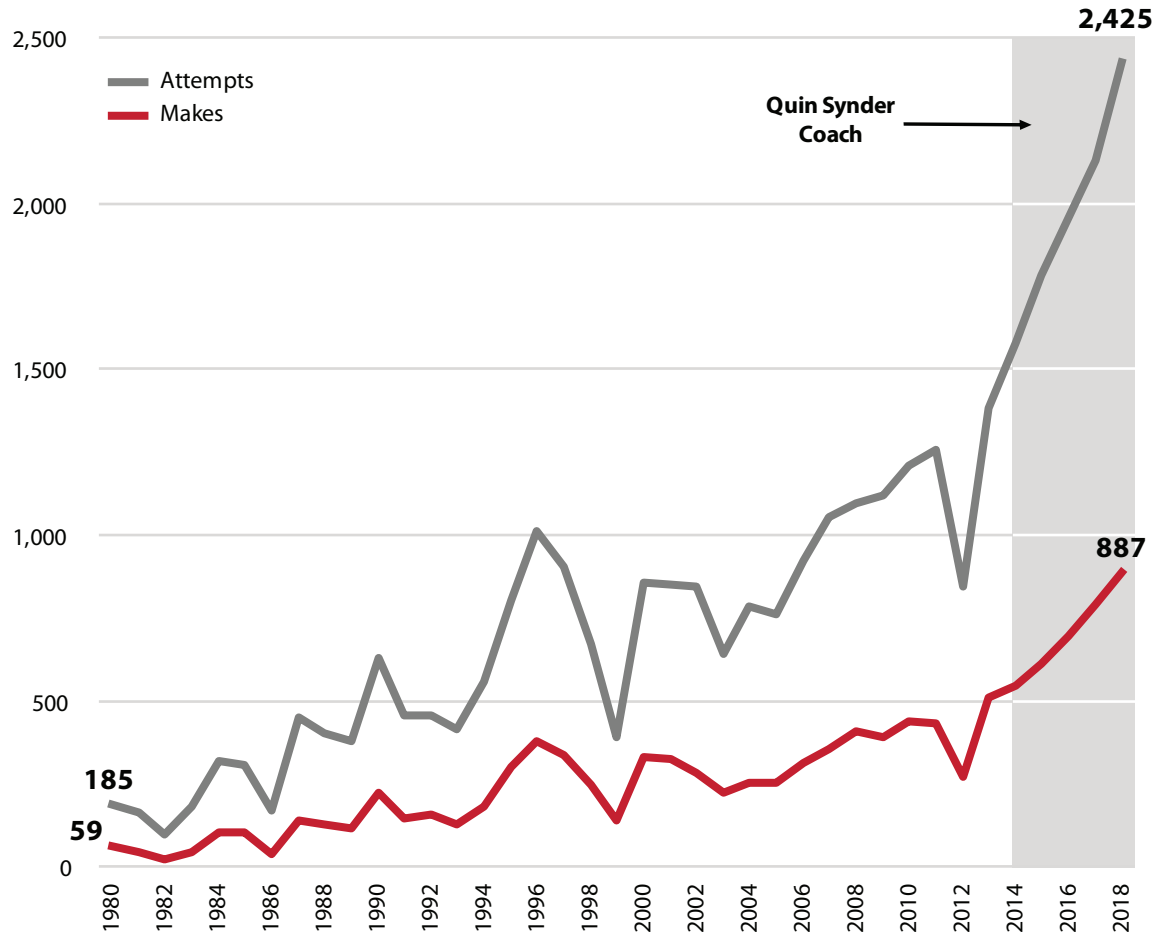


Source: U.S. Economic Development Administration

You miss 100% of the shots you don't take

Utah Jazz 3-point shots

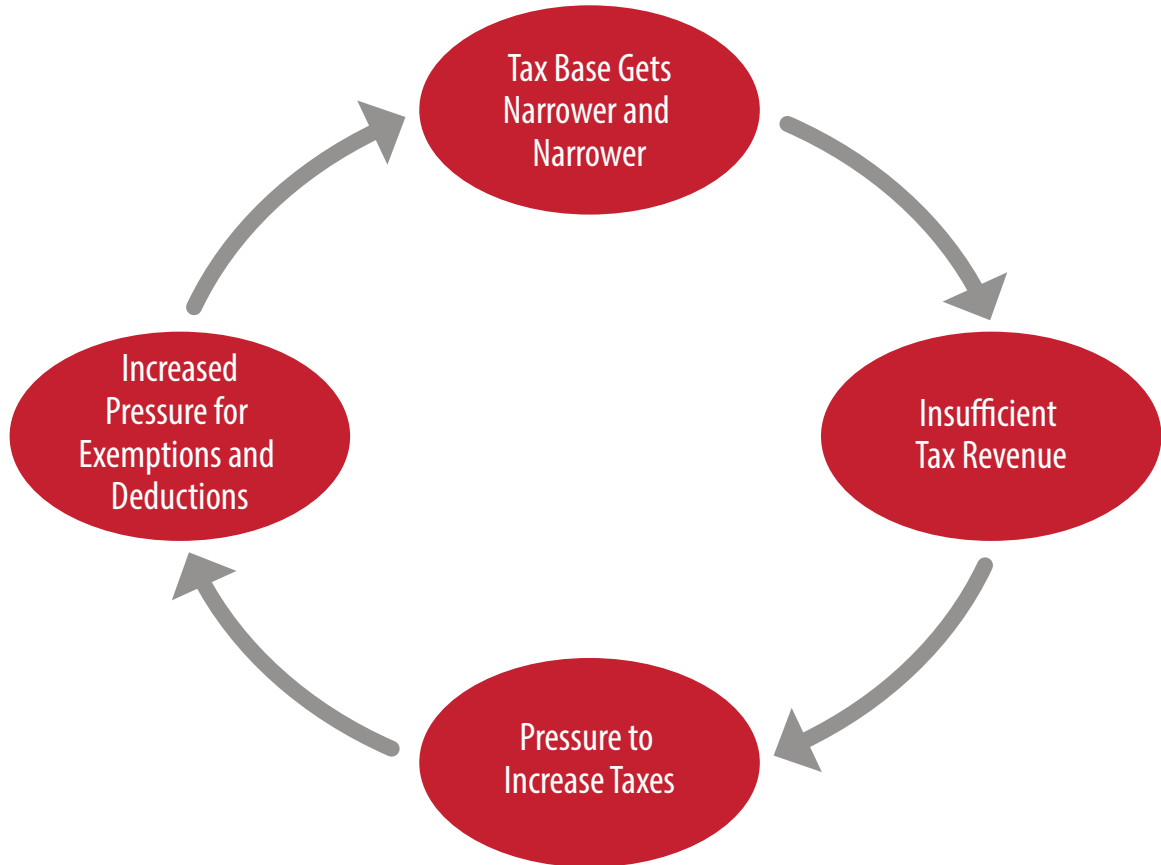
Attempts and makes



Source: Basketballreference.com

Can the cycle be broken?

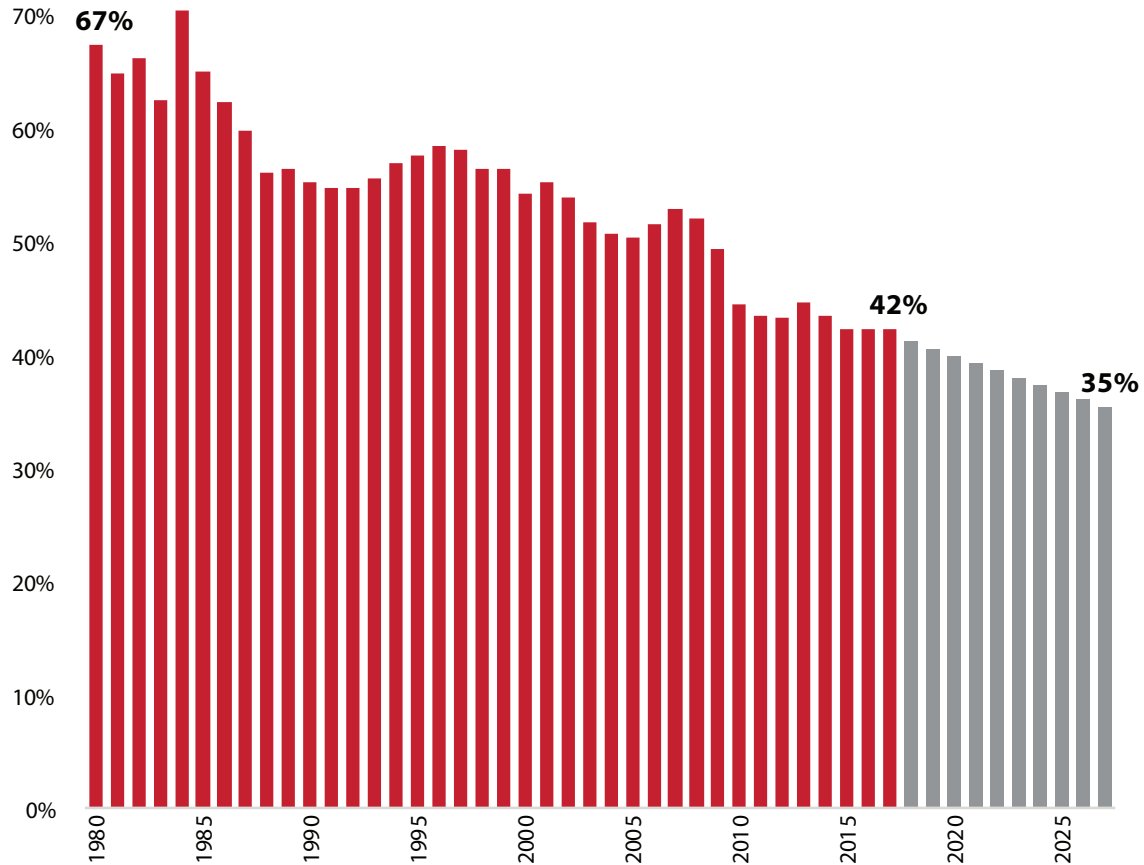
Vicious tax cycle



Source: Utah Governor's Office of Management and Budget

Utah's narrowing sales tax base

Utah sales tax base as a percent of personal income



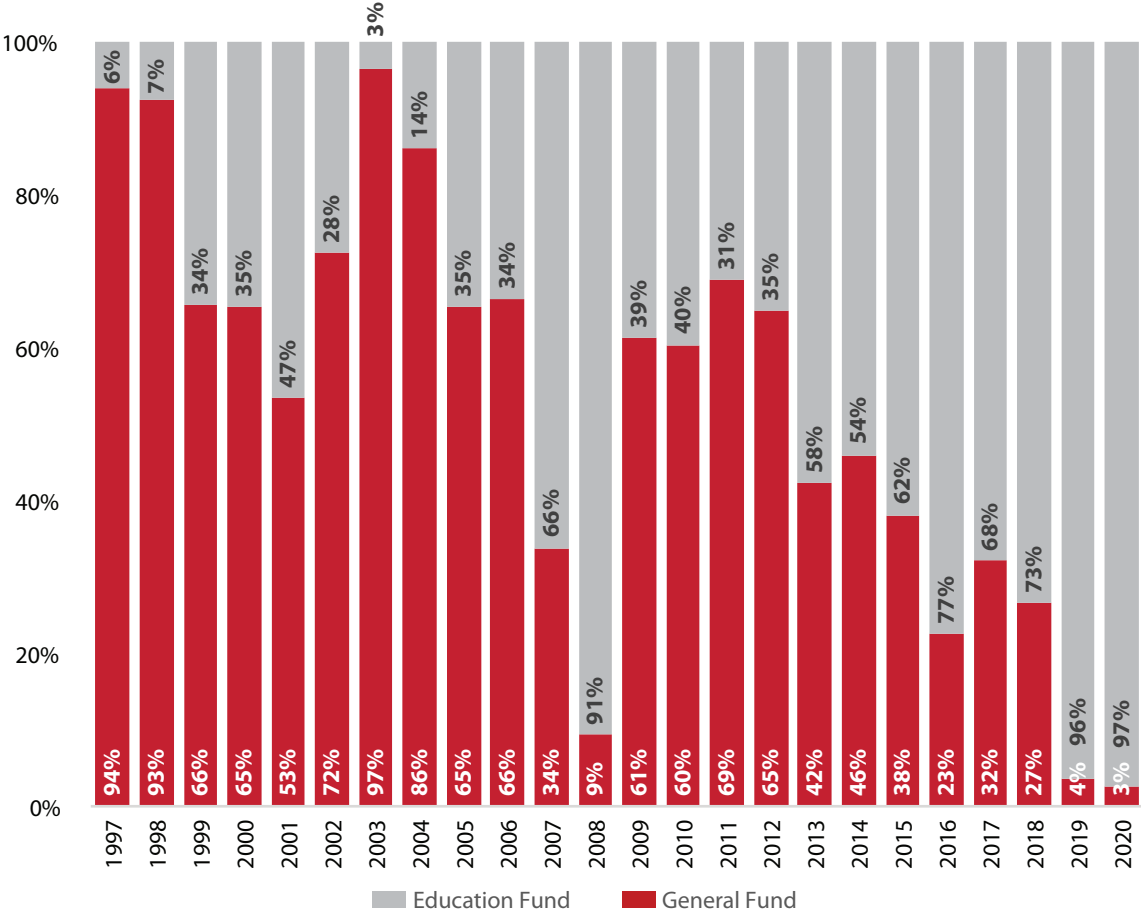
Note: 2018 and beyond are forecasted.

Source: Utah Governor's Office of Management and Budget and Kem C. Gardner Policy Institute

No more fiscal wiggle room...

Composition of state funds for higher education in Utah

Education Fund and General Fund contributions

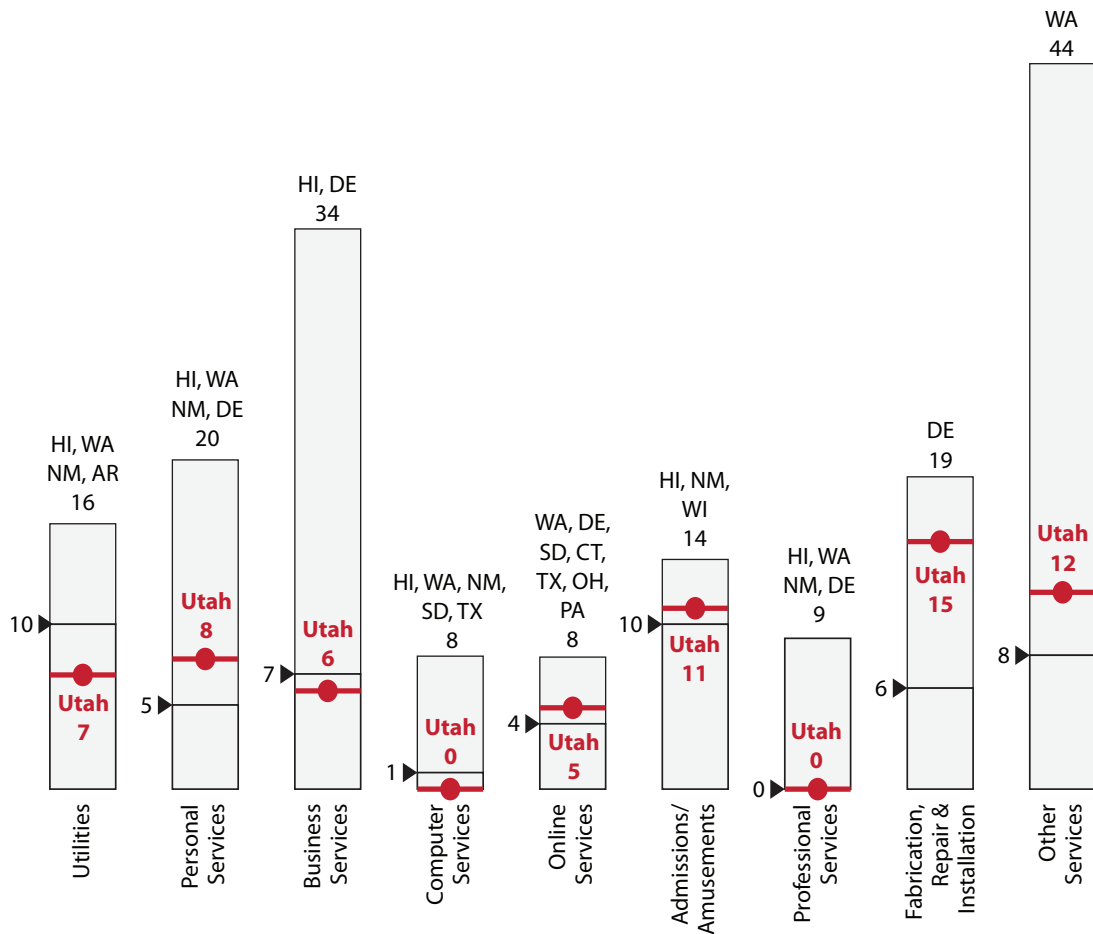


Note: Fiscal years; 2019 and 2020 figures are based on Governor Herbert's budget recommendations.
 Source: Utah Governor's Office of Management and Budget

Considerations for broadening the base

Number of services, by category, subject to state sales and use taxes

Maximum, median, and Utah counts



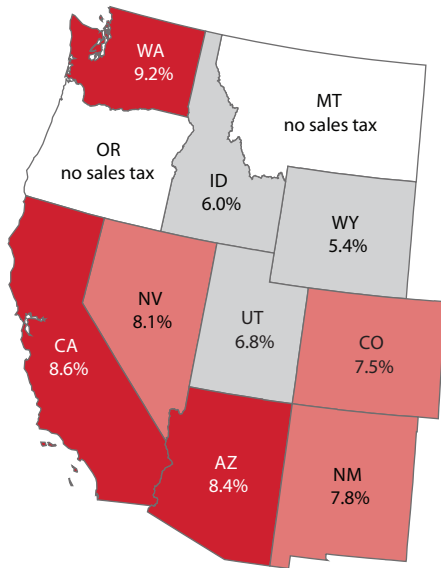
Note: Total services equal to maximum taxed in all categories but Admissions/Amusements (15 services) and Other Services (47 services); the most recent counts for AZ, LA, MD, MA, NM, and OK are from 2007; all other counts are from 2017.

Source: Federation of Tax Administrators Sales Taxation of Services Survey; Medians calculated by Kem C. Gardner Policy Institute

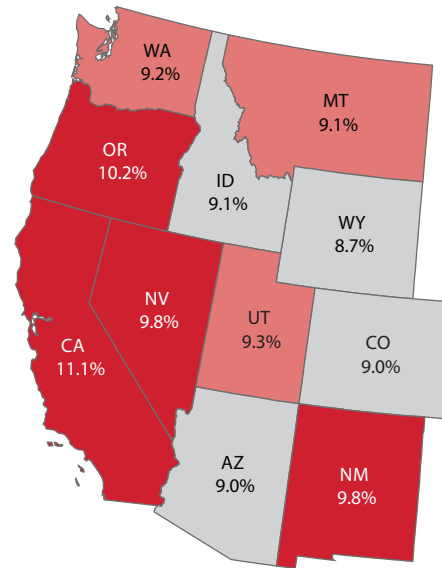
It's all relative

Sales tax rates and total tax burden

Combined State and Local Sales Tax Rates



All State and Local Taxes as a Percent of Personal Income

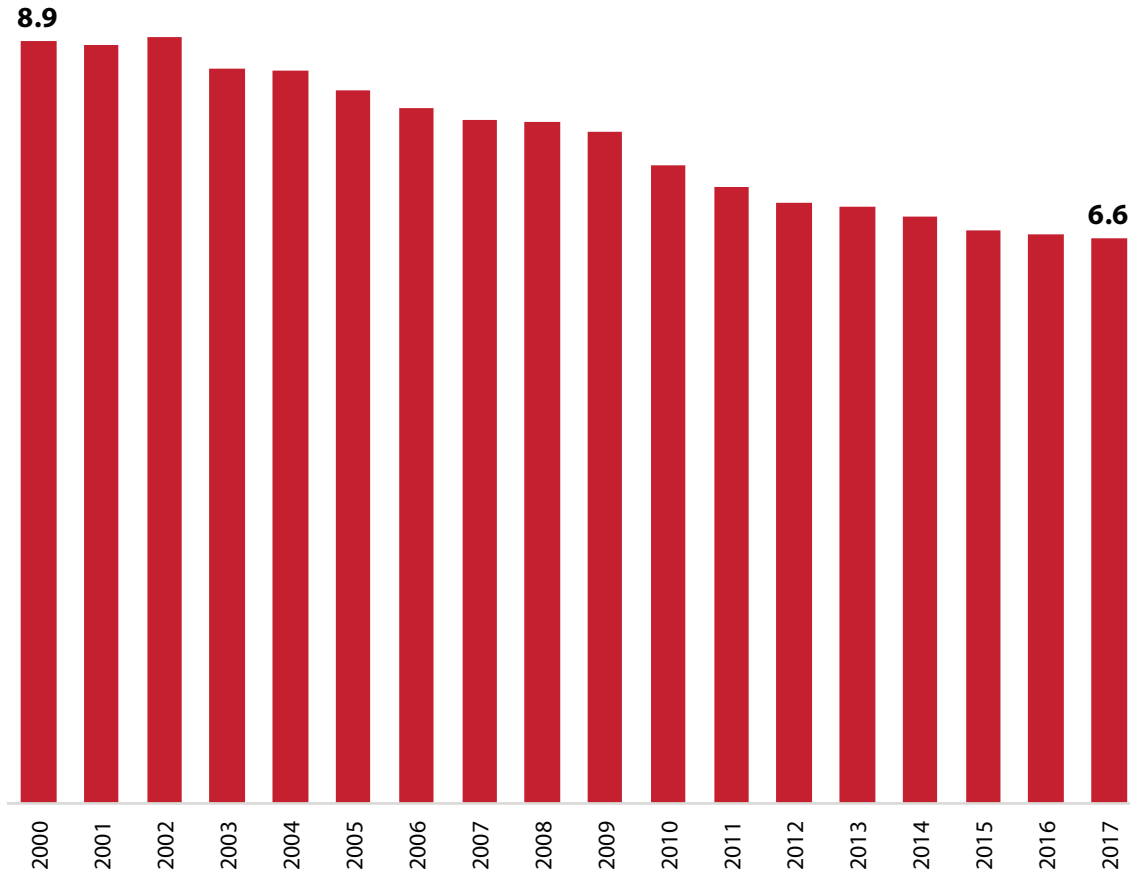


Note: Tax rates are as of 2018 and tax burden estimates as of 2015, the most recent comparable data available; severance tax collections are excluded from tax burden analysis.

Source: Tax Foundation and Kem C. Gardner Policy Institute analysis of U.S. Census Bureau Survey of State and Local Finances data and U.S. Bureau of Economic Analysis data

Gaining efficiencies in state government

State government employment per 1,000 population



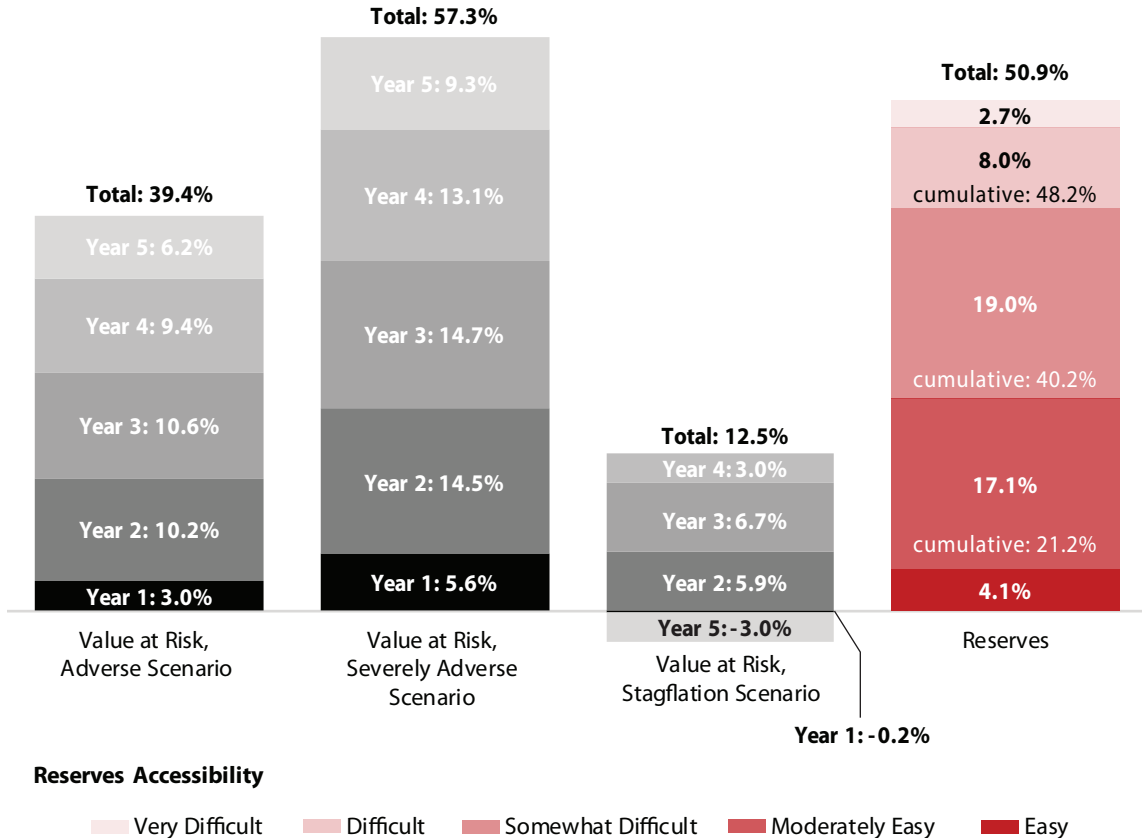
Note: Excludes higher education.

Source: Utah Governor's Office of Management and Budget

State of Utah budget stress test

State budget could withstand stagflation and moderate recessions; another Great Recession would be more challenging

Hypothetical budget gaps vs. reserve availability as a percent of state fund appropriations

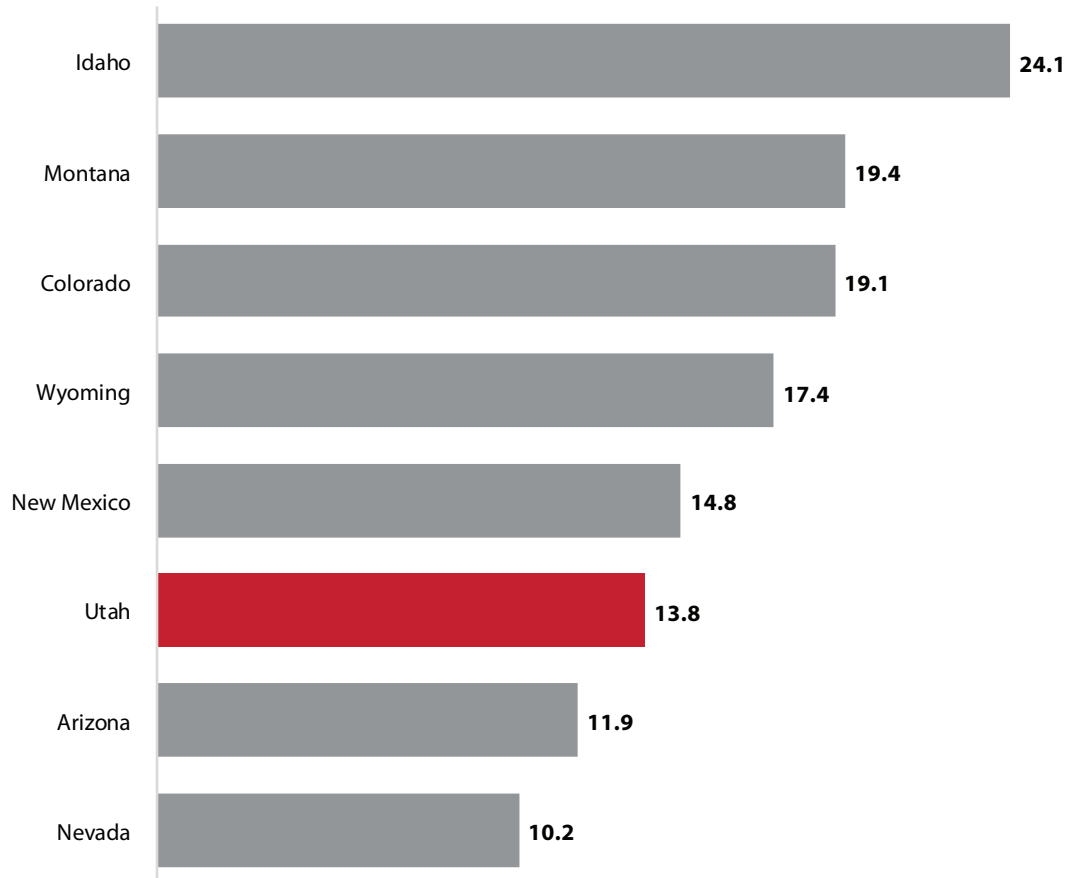


Source: Kem C. Gardner Policy Institute analysis of Utah Office of the Legislative Fiscal Analyst data

Pray for rain...

Mountain states' average annual precipitation, 2013–2017

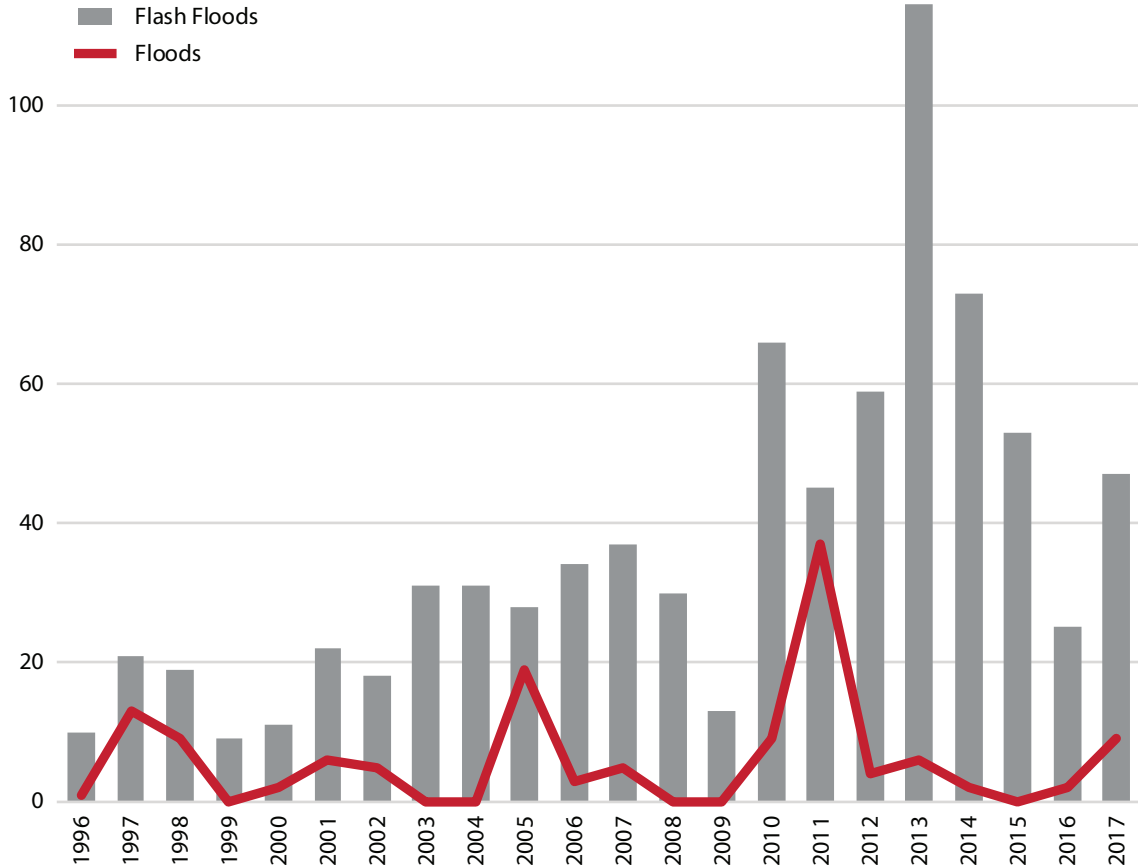
Inches per year



Source: National Oceanic and Atmospheric Administration

...but not all at once

Frequency of floods and flash floods in Utah



Source: National Oceanic and Atmospheric Administration National Climatic Data Center

Variation in water pricing

Residential water bill for 30,000 gallons of water across the state

Rank	City/District	\$
1	Park City	\$347.68
2	Cedar Hills	\$172.76
3	Washington Terrace	\$151.30
4	Pleasant Grove	\$143.46
5	American Fork	\$139.80
6	Coalville	\$130.00
7	Kane County	\$121.25
8	Draper	\$119.50
9	Riverton	\$119.05
10	Morgan	\$119.00
11	Toquerville	\$116.21
12	North Ogden	\$115.85
13	Saratoga Springs	\$115.60
14	Wellington	\$110.33
15	Pleasant View	\$108.25
16	Fruit Heights	\$105.10
17	Kaysville	\$100.05
18	Salem	\$98.50
19	Alpine	\$97.00
20	Kearns ID	\$96.55
21	Ogden	\$94.55
22	Bluffdale	\$93.00
23	Farmington	\$89.55
24	South Jordan	\$88.50
25	Elk Ridge	\$88.25
26	South Weber	\$87.10
27	Syracuse	\$87.00
28	Vernal	\$85.90
29	Mapleton	\$85.50
30	Price	\$84.42

Rank	City/District	\$
31	Wendover	\$84.32
32	Gunnison	\$82.40
33	Sandy	\$80.94
34	West Bountiful	\$80.16
35	West Jordan	\$79.37
36	Midvale Area 3	\$78.91
37	Roosevelt	\$78.00
38	Lindon	\$77.47
39	South Salt Lake	\$77.25
40	Elwood	\$77.00
41	Magna	\$76.87
42	Ivins	\$76.55
43	Herriman	\$76.19
44	Monticello	\$76.10
45	Manila	\$75.25
46	Richmond	\$75.00
47	South Ogden	\$74.87
48	Aurora	\$72.80
49	Midvale Area 2	\$72.55
50	Fairview	\$72.50
51	Hurricane	\$70.00
52	Bountiful	\$68.60
53	Mount Pleasant	\$67.50
54	Centerville	\$67.00
55	Santaquin	\$66.38
56	Granger-Hunter ID	\$66.01
57	North Salt Lake	\$64.70
58	Woods Cross	\$63.60
59	Washington	\$63.17
60	Midvale Area 1	\$63.13

Rank	City/District	\$
61	Clinton	\$63.00
62	West Point	\$62.35
63	St. George	\$61.52
64	Logan	\$61.50
65	Taylorsville-Bennion ID	\$61.41
66	La Verkin	\$61.30
67	Vineyard	\$60.84
68	Spanish Fork	\$59.20
69	Sunset	\$58.50
70	Provo - Summer	\$58.49
71	Salt Lake City	\$58.11
72	Mona	\$58.00
73	Cedar City	\$56.20
74	Blanding	\$56.10
75	Payson	\$55.14
76	Kanab	\$55.00
77	Heber City	\$54.61
78	North Logan	\$54.21
79	Bona Vista Water	\$54.17
80	Smithfield	\$53.40
81	Orangeville	\$51.35
82	Tremonton	\$51.25
83	Highland	\$49.86
84	Lehi	\$48.95
85	Fillmore	\$48.50
86	Francis	\$47.50
87	Roy	\$47.05
88	Milford	\$47.00
89	Ephraim	\$46.62
90	Ferron	\$46.25

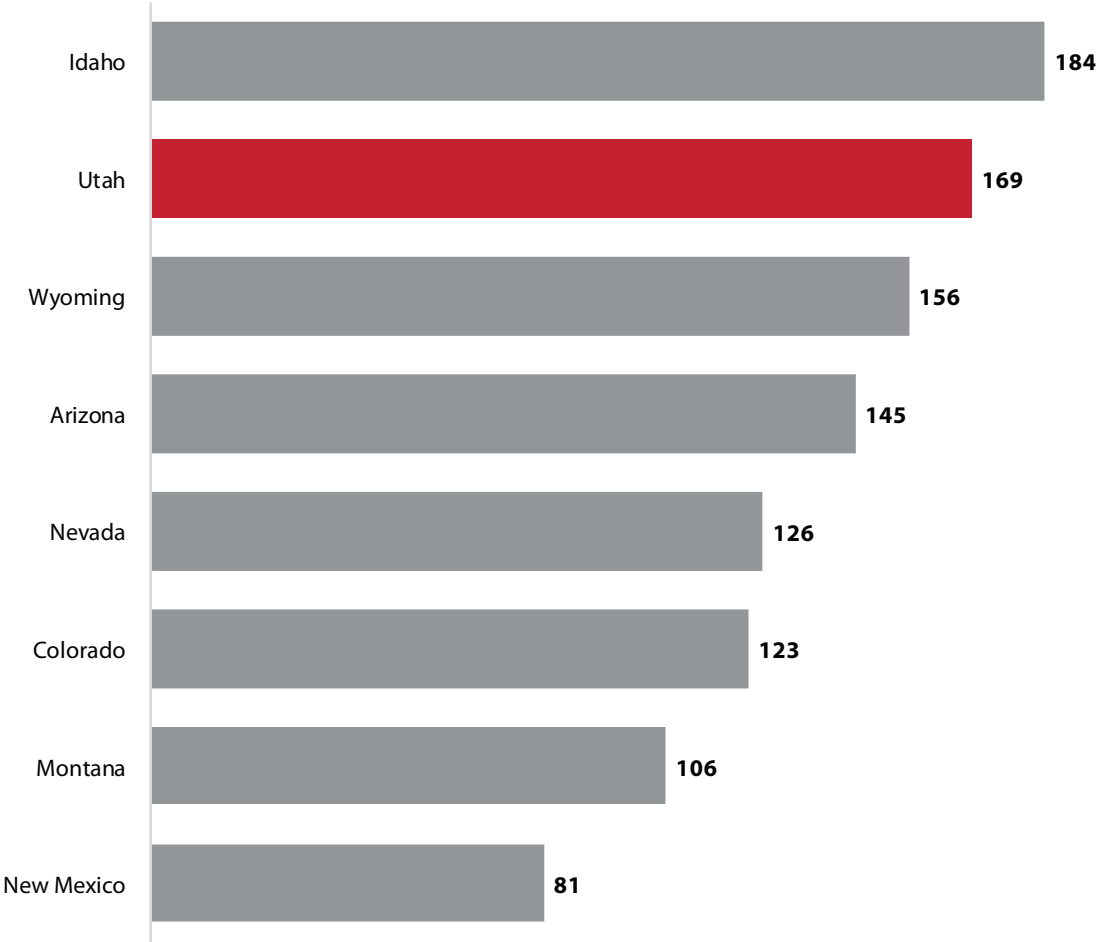
Rank	City/District	\$
91	Panguitch	\$46.09
92	Murray	\$46.05
93	Perry	\$44.50
94	Eagle Mountain	\$44.00
95	Clearfield	\$43.29
96	Delta	\$42.10
97	Provo - Winter	\$41.39
98	Springville	\$41.25
99	Brigham City	\$40.96
100	Huntington	\$40.80
101	Orem	\$40.46
102	Beaver	\$40.20
103	Castle Dale	\$40.00
104	Layton	\$39.07
105	Nibley	\$39.00
106	Tooele	\$37.50
107	Wellsville	\$36.50
108	Hyde Park	\$36.00
109	Moab	\$36.00
110	Riverdale	\$33.85
111	Richfield	\$33.50
112	Nephi	\$33.00
113	Grantsville	\$31.10
114	Lewiston	\$30.94
115	Randolph	\$30.00
116	Enoch	\$29.00
117	Oakley	\$29.00
118	Manti	\$28.50
119	Hyrum	\$25.60

Note: Base rates plus the incremental costs for each 1,000 gallons.
Source: Utah Governor's Office of Management and Budget

Dry but thirsty

Mountain states' domestic water consumption

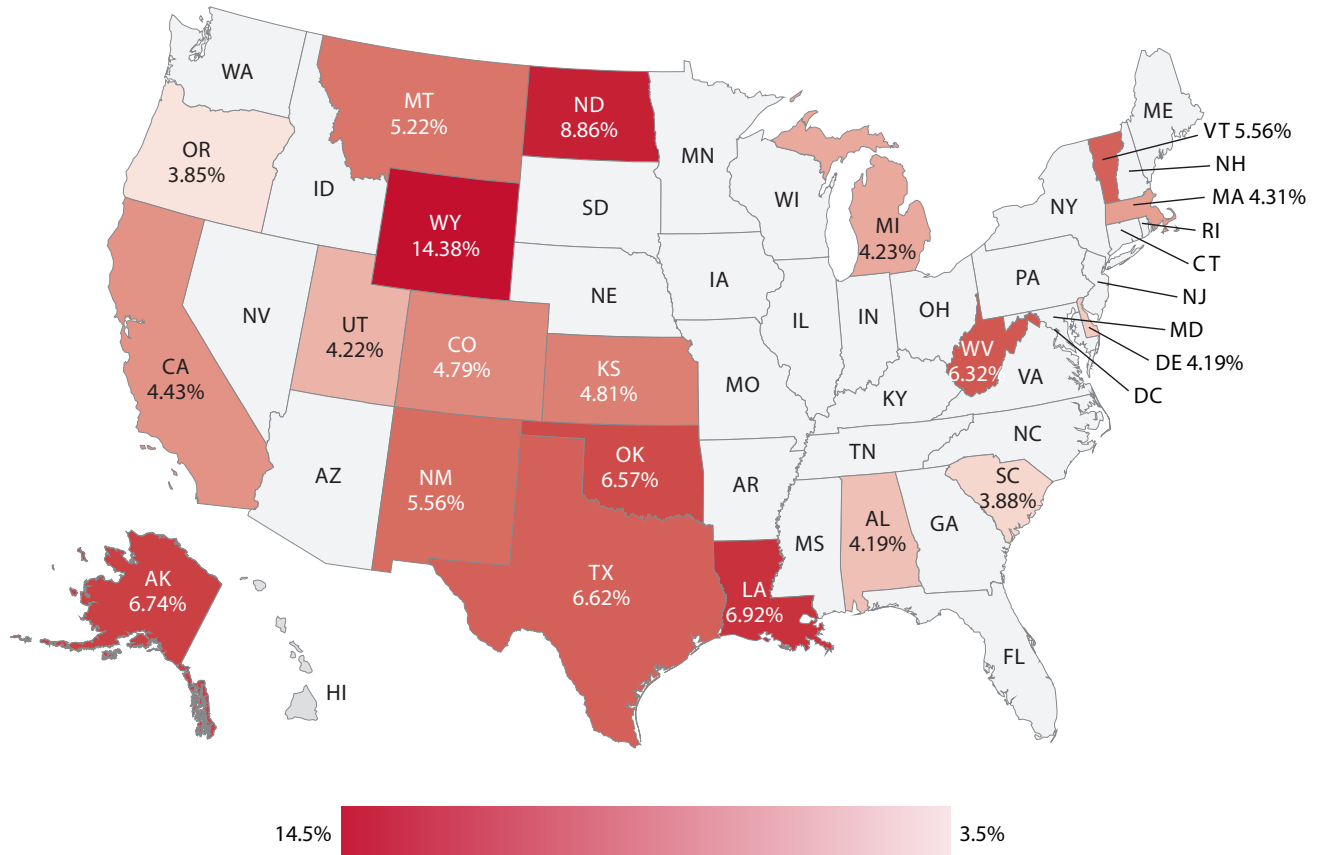
Gallons per capita per day



Source: USGS Estimated Use of Water in the United States in 2015

Top 20 for energy industry jobs

Energy industry employment as a percent of total employment, 2017

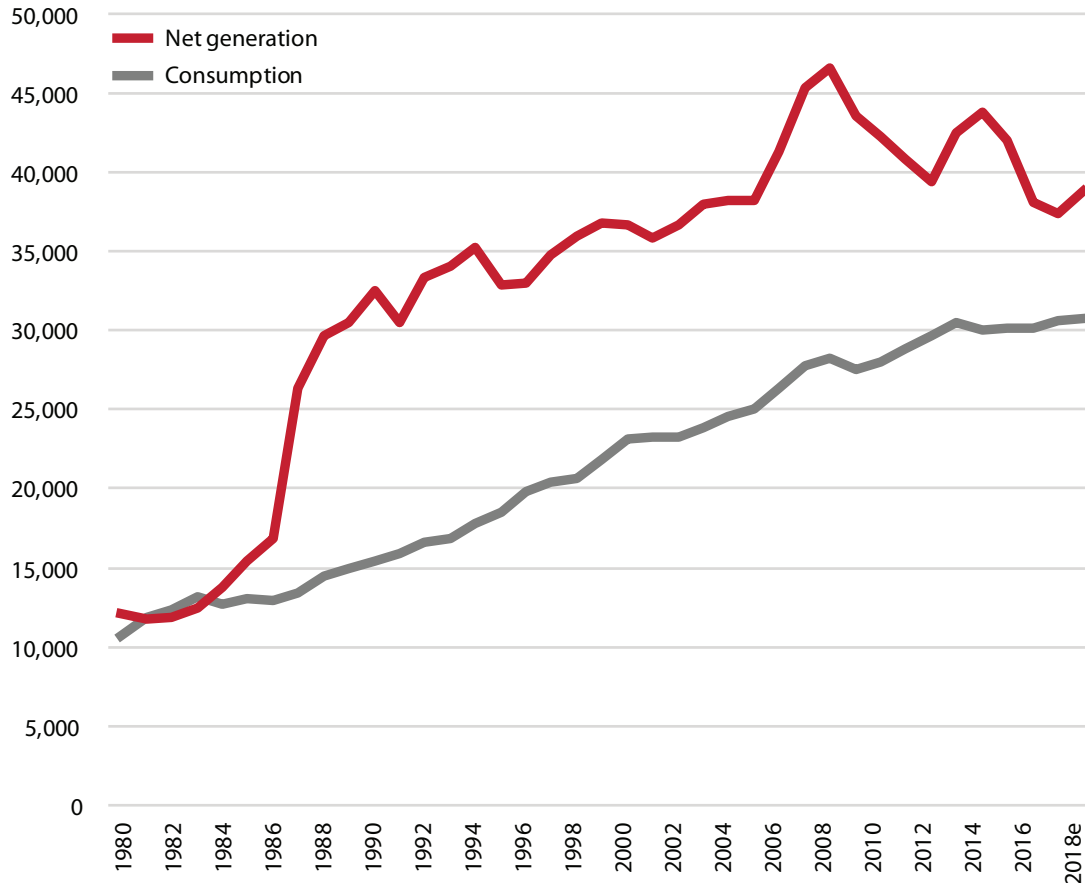


Source: U.S. Department of Energy

Energy is one of our state's many exports

Utah energy production and consumption

Gigawatt hours



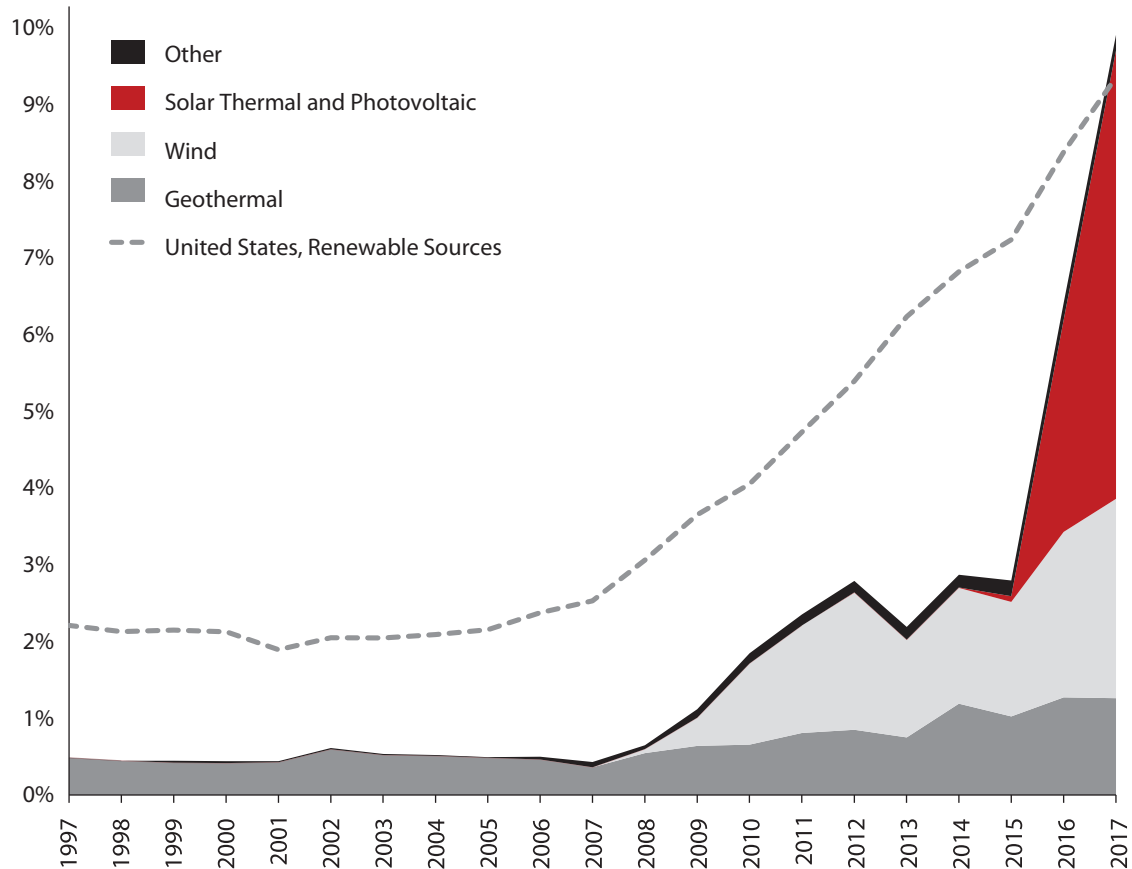
Note: e = estimate

Source: Utah Geological Survey

Solar gains momentum

Renewable energy electricity generation in Utah, 2017

Percent of total electricity generation

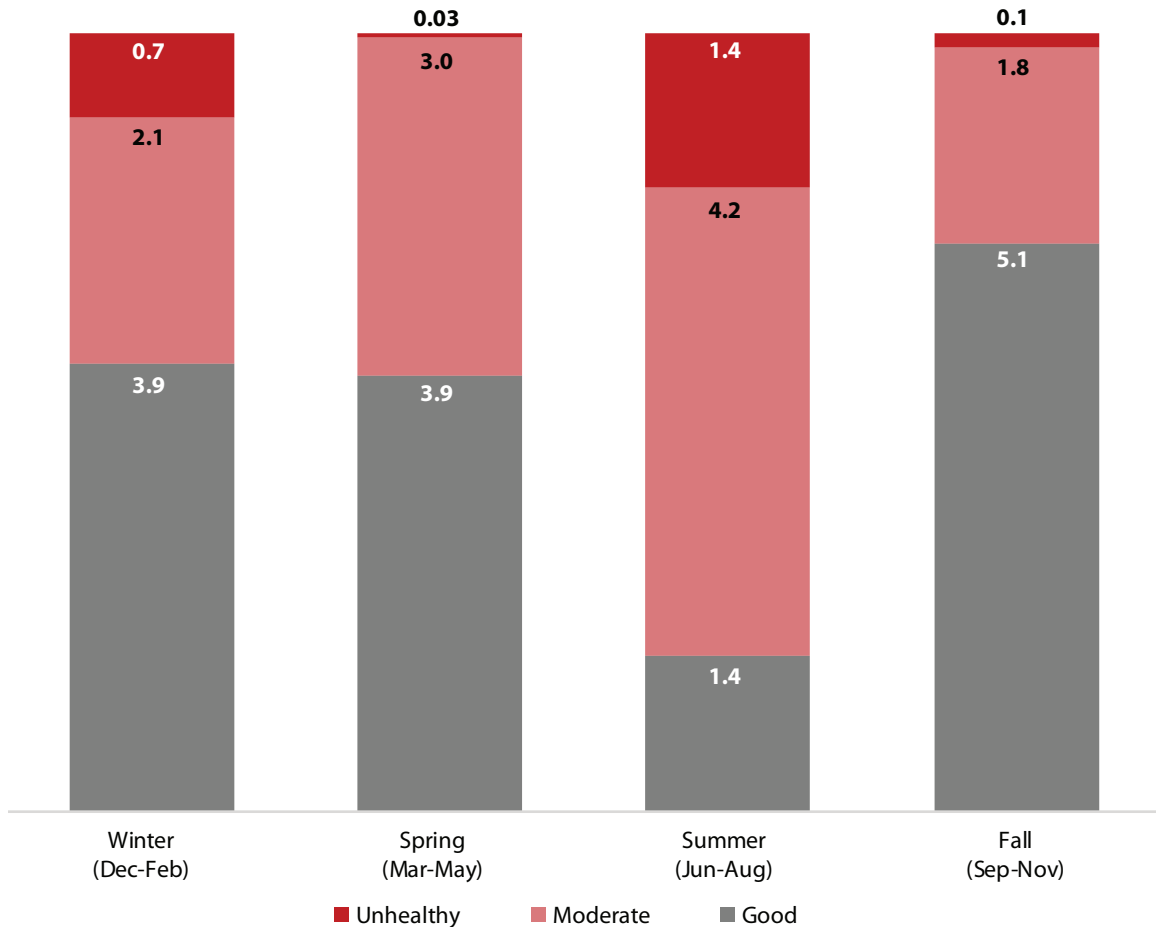


Source: U.S. Energy Information Administration

Best air quality is in the fall

Salt Lake County average days per week in each air quality category

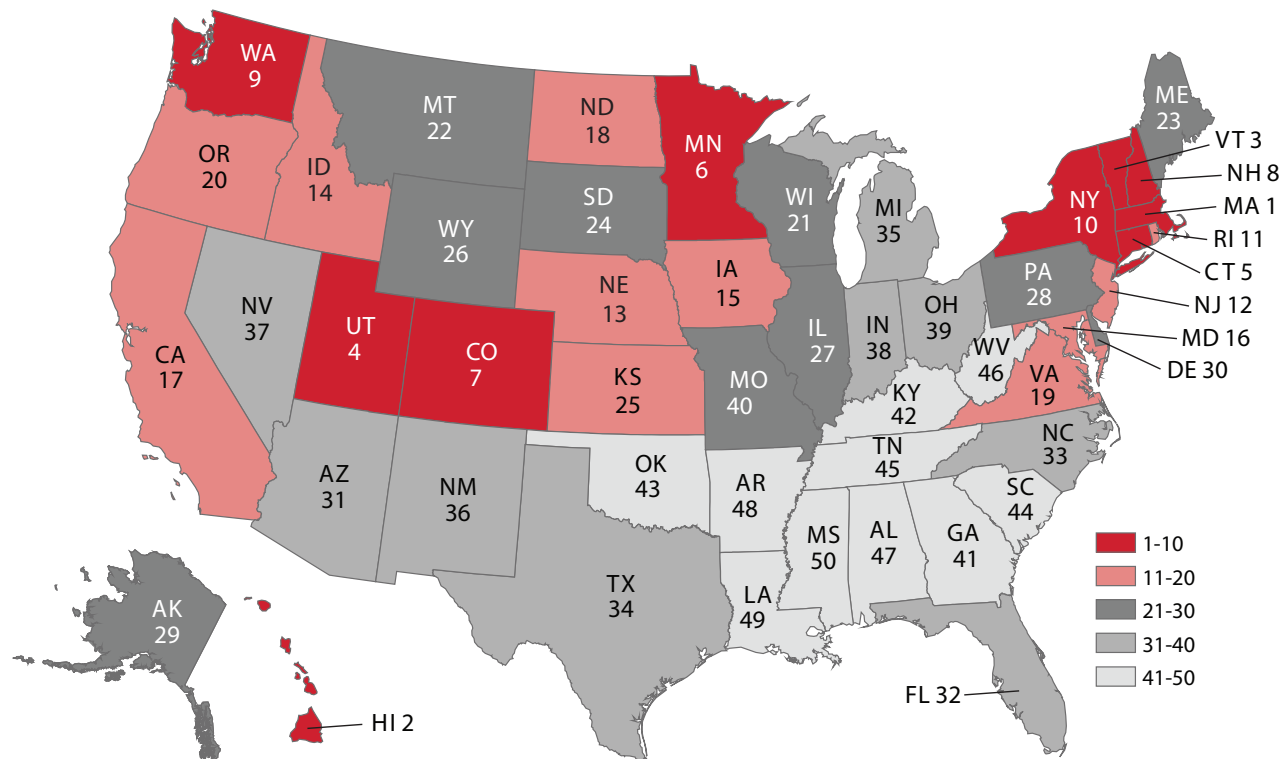
November 2013 to October 2018



Note: Unhealthy air days are characterized by high ozone levels in the summer and high levels of particulate matter in the winter. "Unhealthy" category includes the less severe "unhealthy for sensitive groups" category. Index is based on ozone, particulate matter, carbon monoxide, sulfur dioxide, and nitrogen dioxide content. Source: Kem C. Gardner Policy Institute analysis of U.S. Environmental Protection Agency data

Utah 4th healthiest in the nation

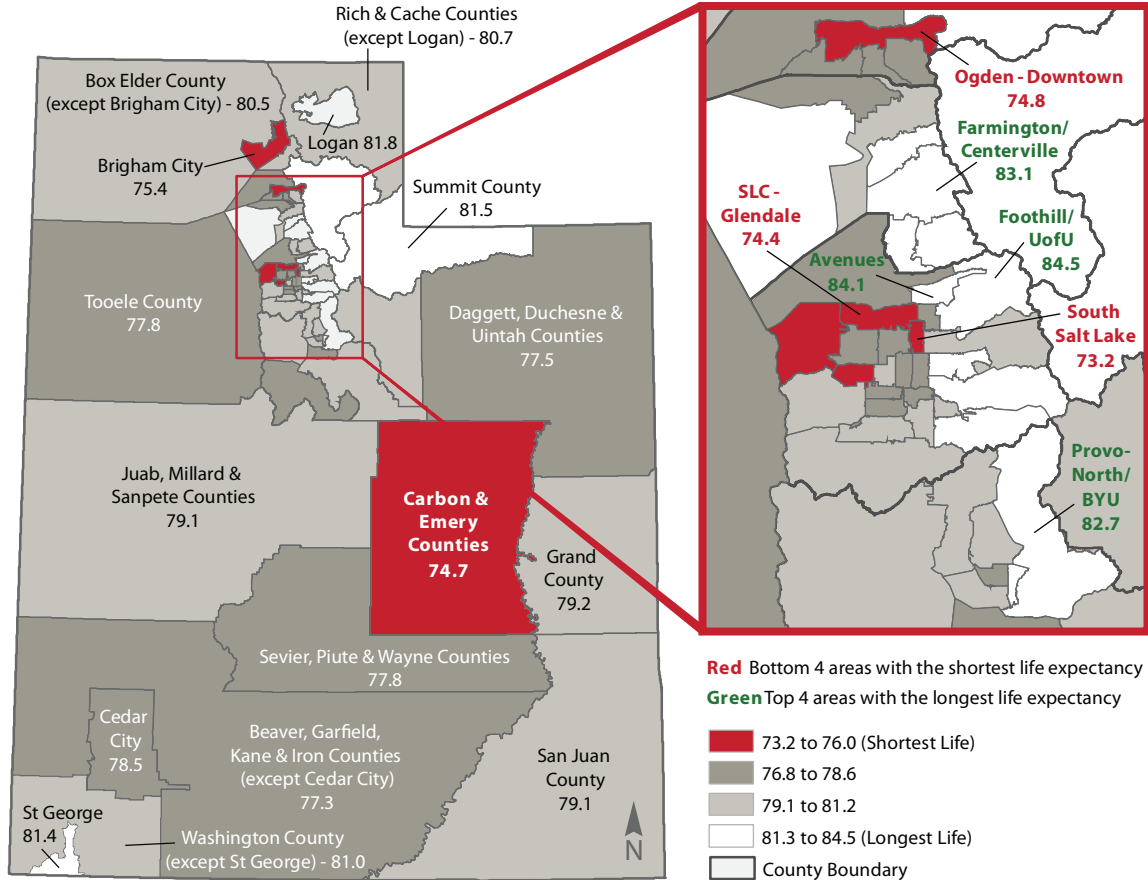
Health ranking



Source: United Health Foundation 2017 America's Health Rankings Annual Report

Another way to look at quality of life

Life expectancy at birth by Utah small area, 2012–2016

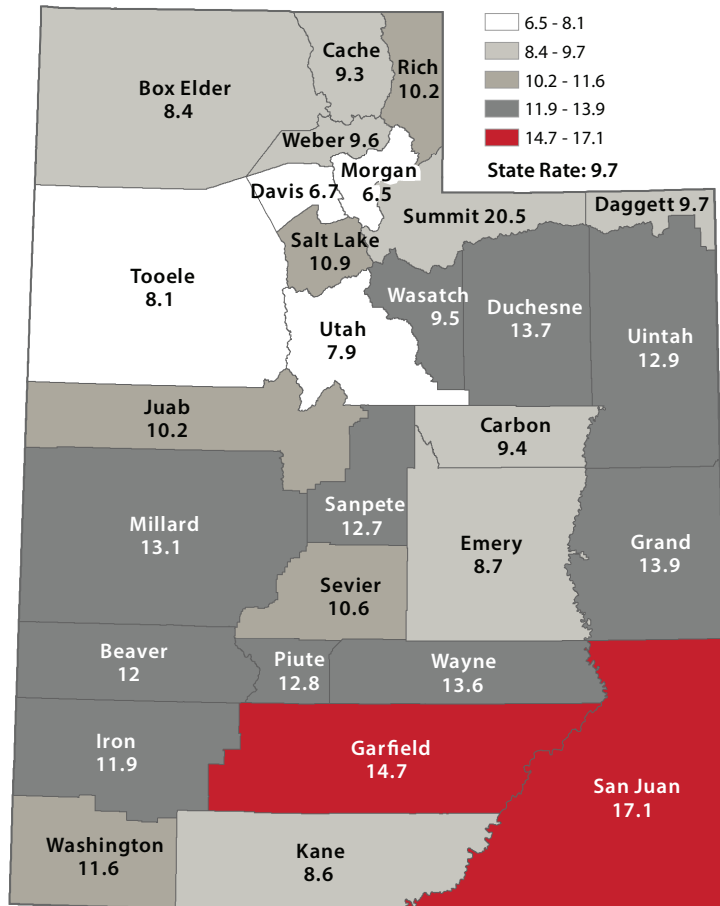


Note: Life expectancy can be used to gauge the overall health of a community.
 Source: Utah Department of Health, Center for Health Data and Informatics

Variation in Utah's uninsured rates pre-Medicaid expansion

County uninsured rates, 2016

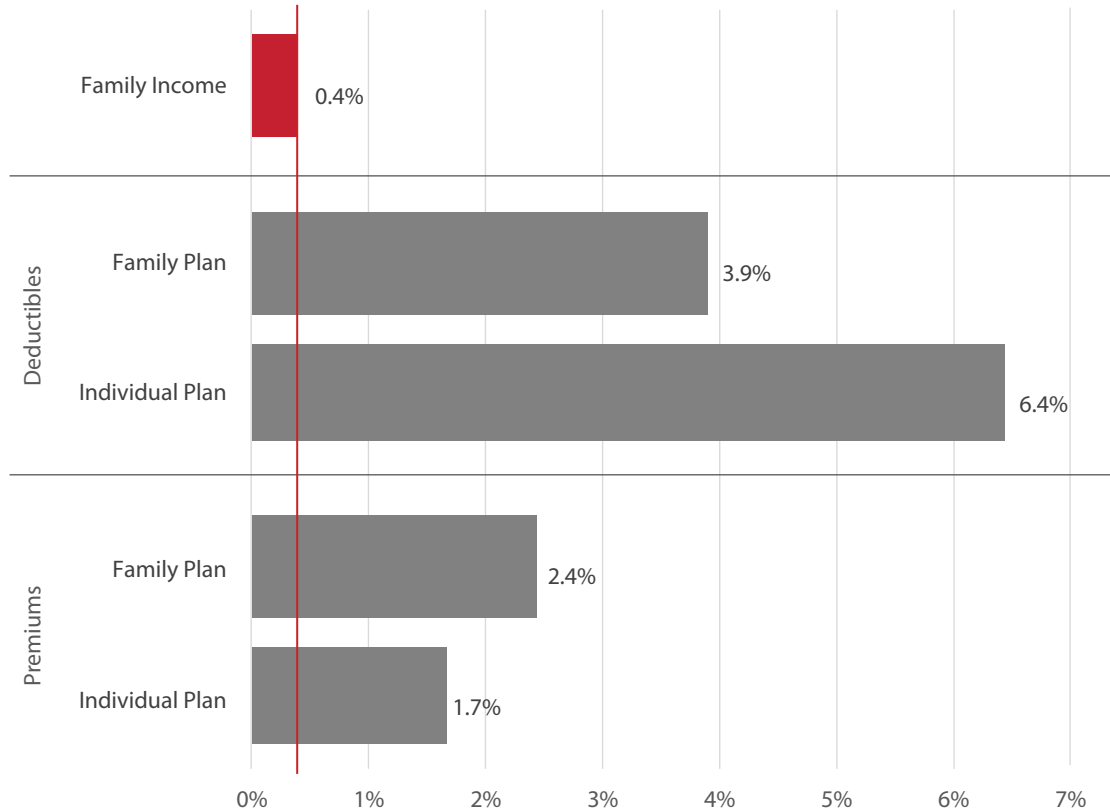
Percent of population aged 65 and younger without health insurance



Source: Kem C. Gardner Policy Institute analysis of U.S. Census Bureau Small Area Health Insurance Estimates

Harder to keep up

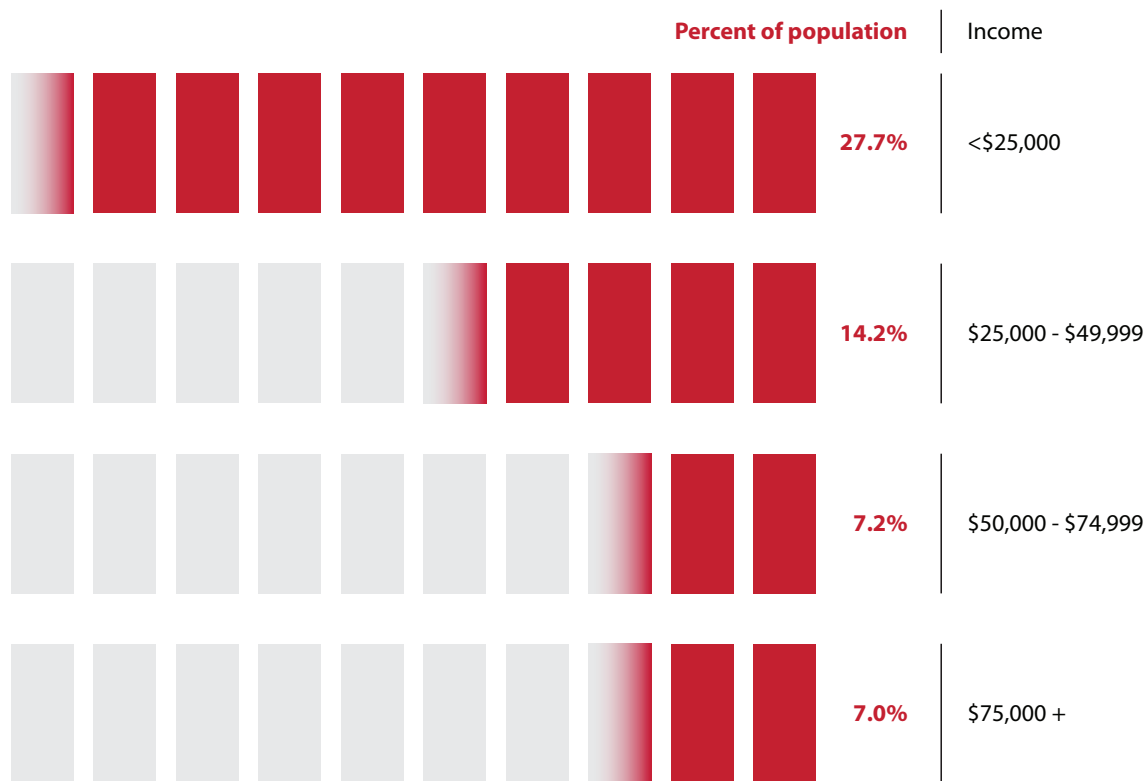
Average annual growth in Utah's family income and health insurance costs, 2006-2016



Note: Income is median family income; premiums and deductibles represent average employee contributions and deductibles for private-sector employees enrolled in single and family coverage; data are inflation-adjusted (2016).
Source: Kem C. Gardner Policy Institute analysis of Medical Expenditure Panel Survey and U.S. Census Bureau Current Population Survey data

Income and health, a strong correlation

Percent of adult Utahns in fair or poor health by income, 2016

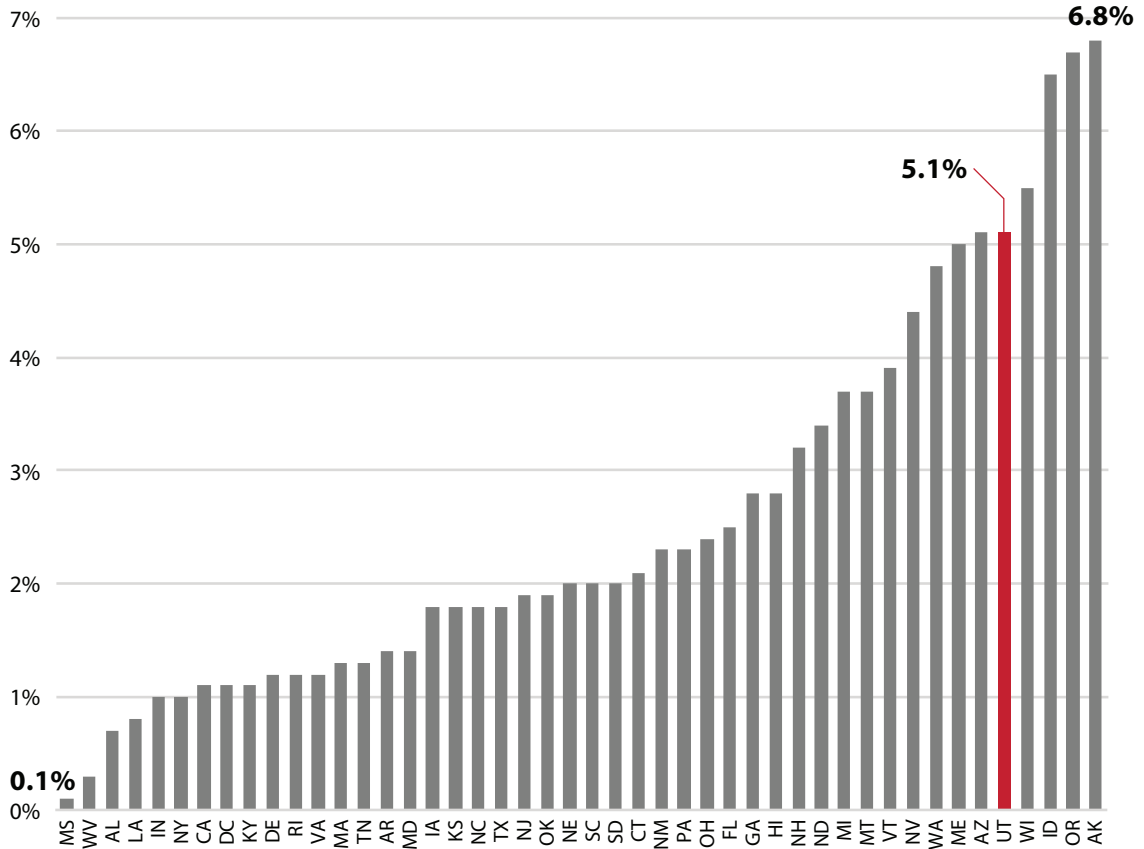


Note: Each square represents three percent of the adult population (age 18+) with fair or poor general health; data is age-adjusted.
Source: Utah Department of Health Office of Public Health Assessment Behavioral Risk Factor Surveillance System

Vaccination worries

Percent of kindergarteners with an exemption from one or more vaccines

2016–17 school year

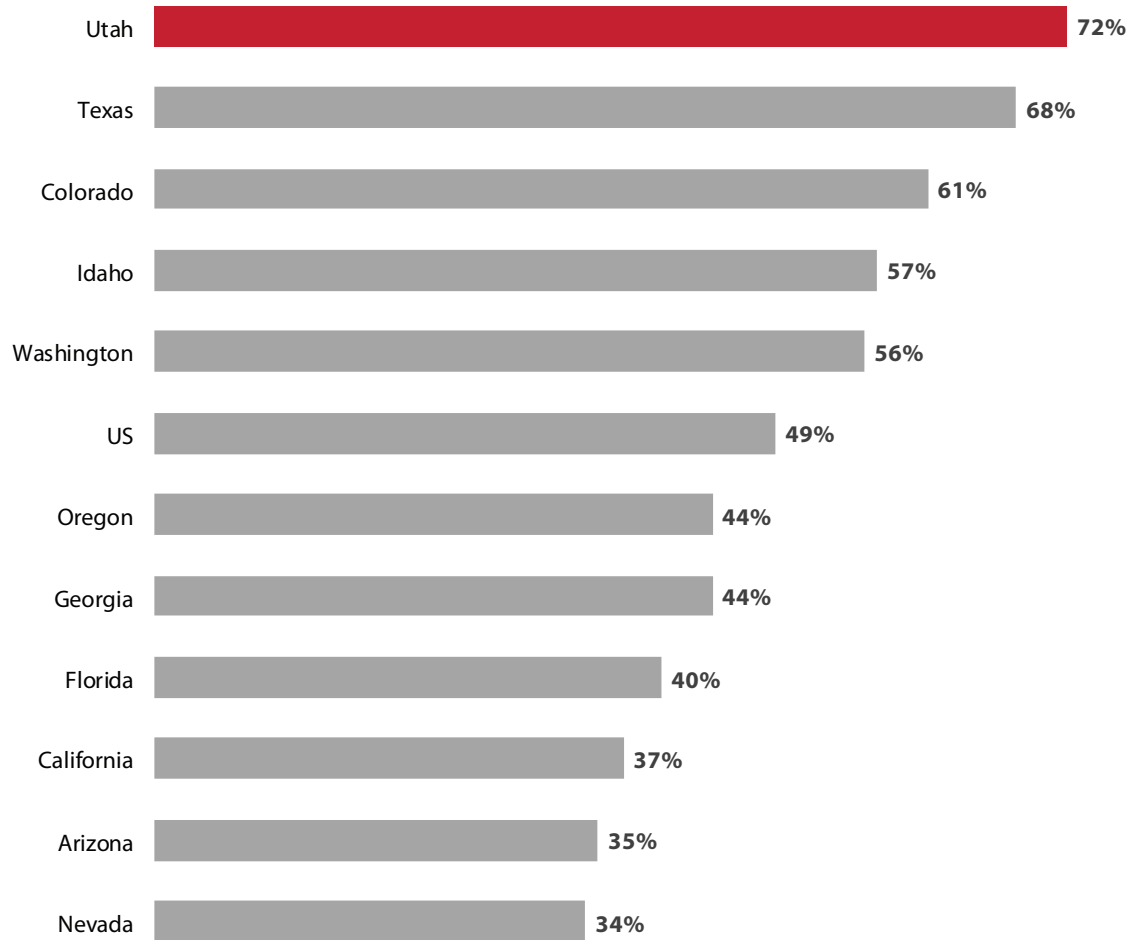


Note: Non-medical exemptions in Utah rose from 3.6 percent in 2009–2010 to 4.9 percent in 2016–2017. Medical exemptions have remained stable at 0.2 percent. Sample designs vary by state. Medical and non-medical exemptions may not be mutually exclusive, and some children may have both exemptions. Source: Centers for Disease Control and Prevention, National Center for Immunization and Respiratory Diseases

Utah leads single-family housing recovery

States with most growth in detached single-family home permits

Since pre-recession peak in 2005

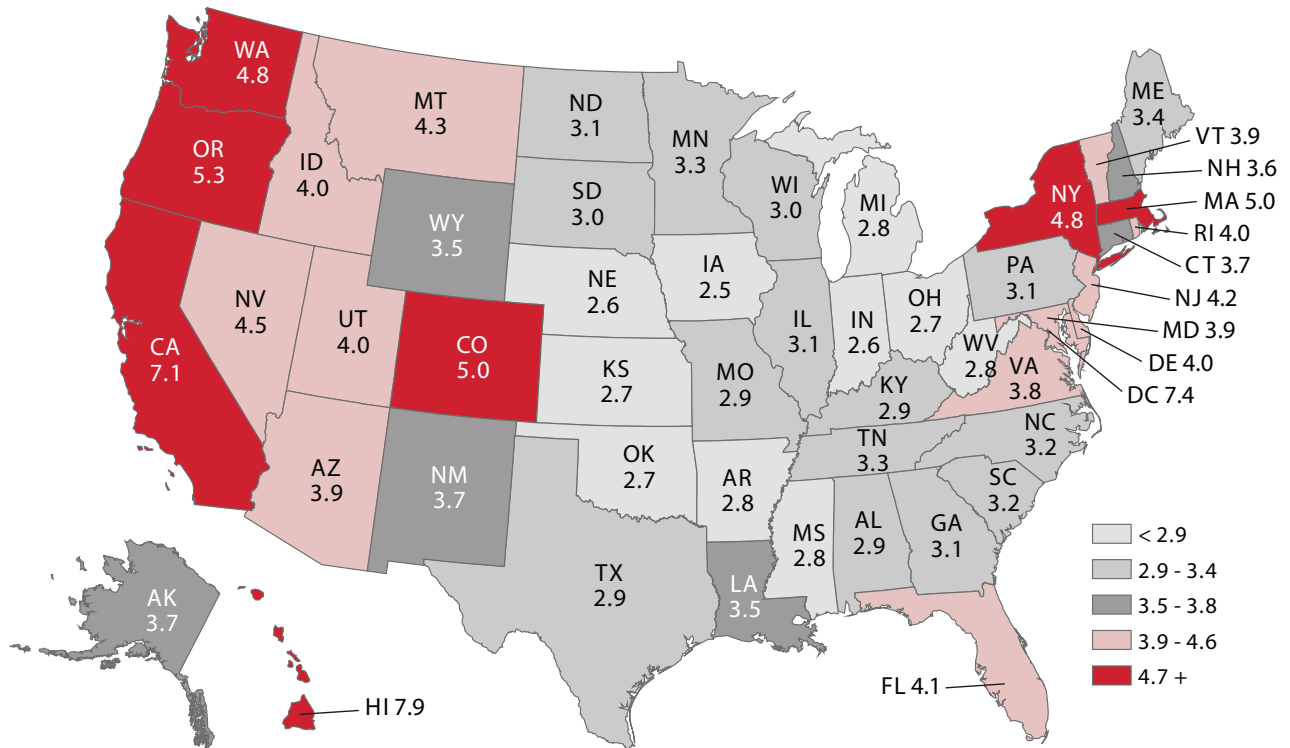


Note: Most recent data is for 2017.
Source: U.S. Census Bureau

Growth in Utah home values far outpacing income growth

Ratio of the median value of owner-occupied housing units to median household income, 2017

United States = 3.5

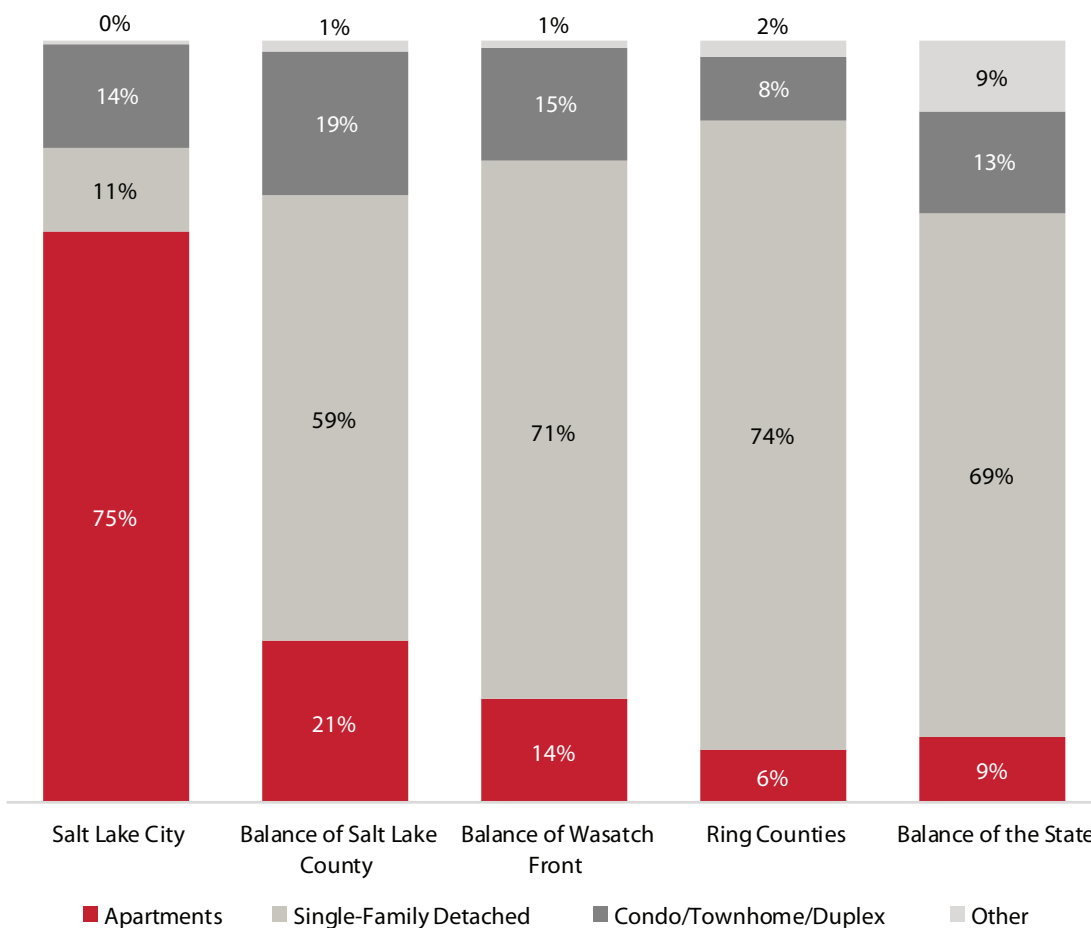


Source: Kem C. Gardner Policy Institute analysis of U.S. Census Bureau 1-year American Community Survey data

Apartment boom in Salt Lake City

Composition of building permits for residential units by housing type, 2000–2017

Share of residential building permits



Balance of Wasatch Front = Davis, Utah, and Weber counties; Ring counties = Juab, Morgan, Tooele, and Summit counties

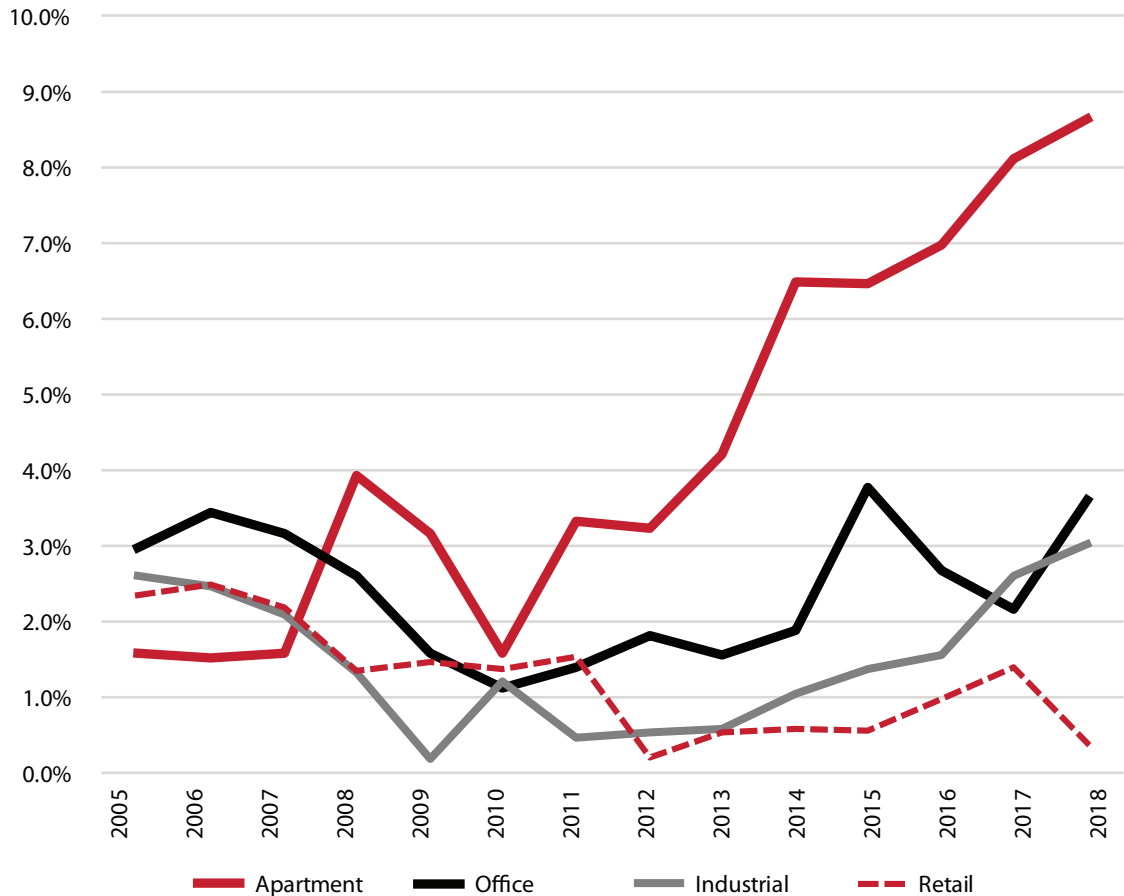
Note: Other includes group quarters, mobile homes, manufactured homes, cabins, accessory dwelling units, and any other dwelling unit type not covered by apartments, condominiums, townhomes, duplexes, or detached single-family homes; regions are mutually exclusive.

Source: Kem C. Gardner Policy Institute analysis of Ivory-Boyer Construction Database data

Retail dives, apartments soar

Wasatch Front commercial real estate under construction by property type

Percent of total stock

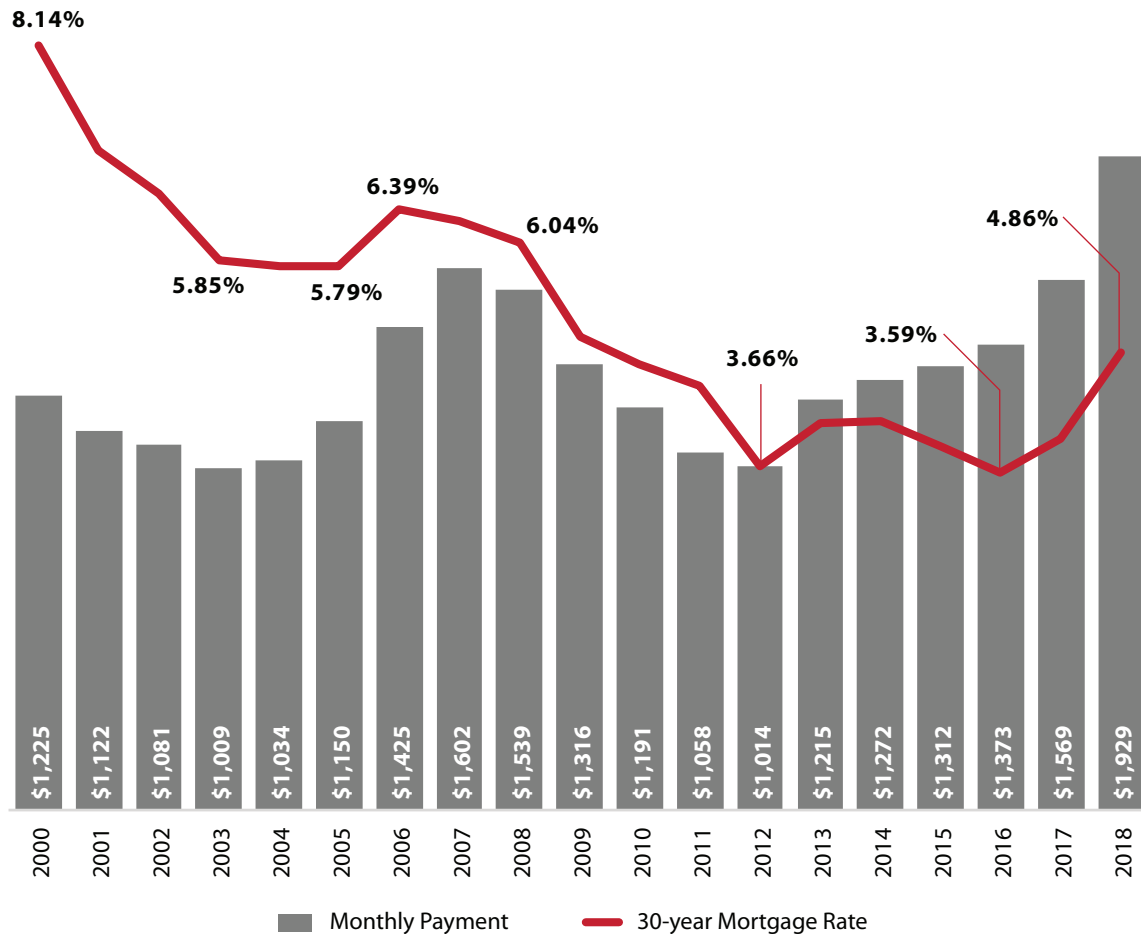


Note: 2018 as of the third quarter.

Source: Kem C. Gardner Policy Institute analysis of CoStar Group Inc. data

Double whammy of rising interest rates and home prices

Utah median monthly mortgage payment and 30-year mortgage rates



Note: Median monthly payment is based on median sales price for single-family homes.

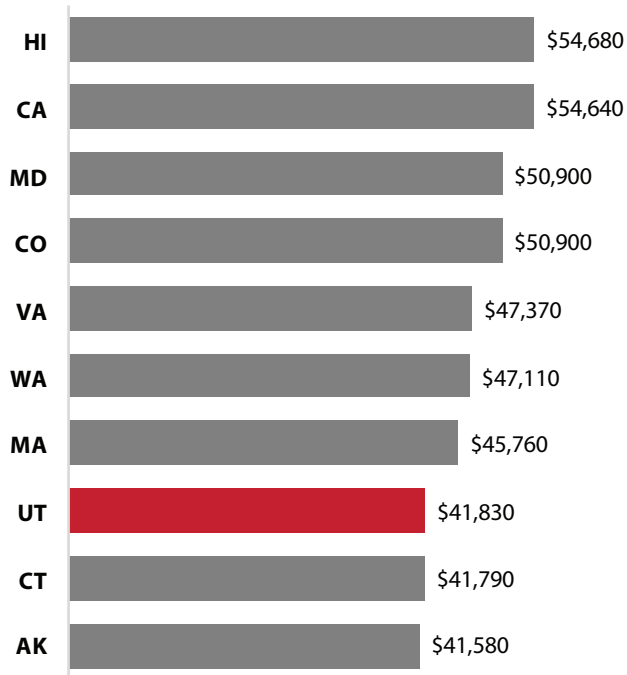
Source: Kem C. Gardner Policy Institute analysis of UtahRealEstate.com, Freddie Mac, and Mortgage Bankers Association data

Utah mortgage debt among highest in nation

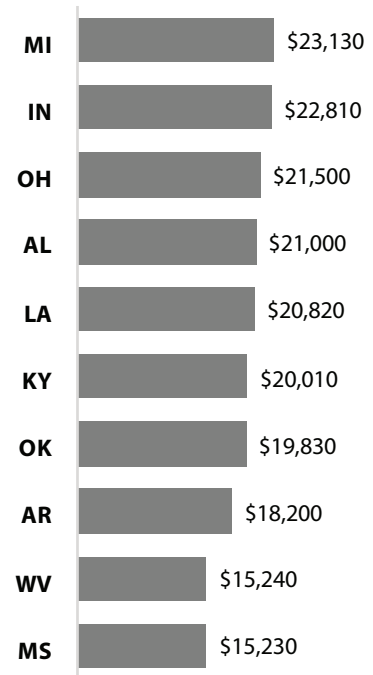
Mortgage debt balance per capita, 2017

States with highest and lowest rankings

Top Ten



Bottom Ten

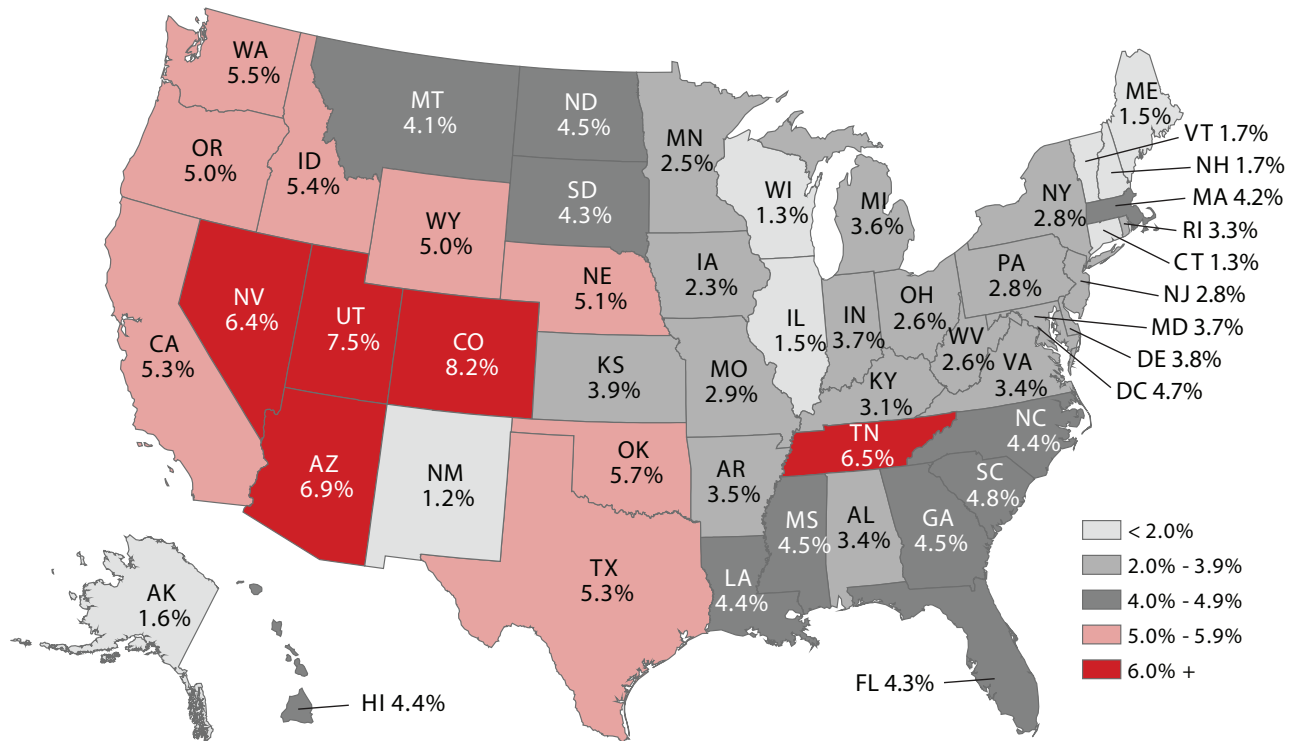


Note: Population is ages 18 years and older with an Equifax credit file; District of Columbia mortgage debt per capita = \$62,080.
Source: Federal Reserve Bank of New York State Level Household Debt Statistics 2003-2017

Utah's growth in mortgage debt burden second in nation

Growth in mortgage debt balance per capita, 2016-2017

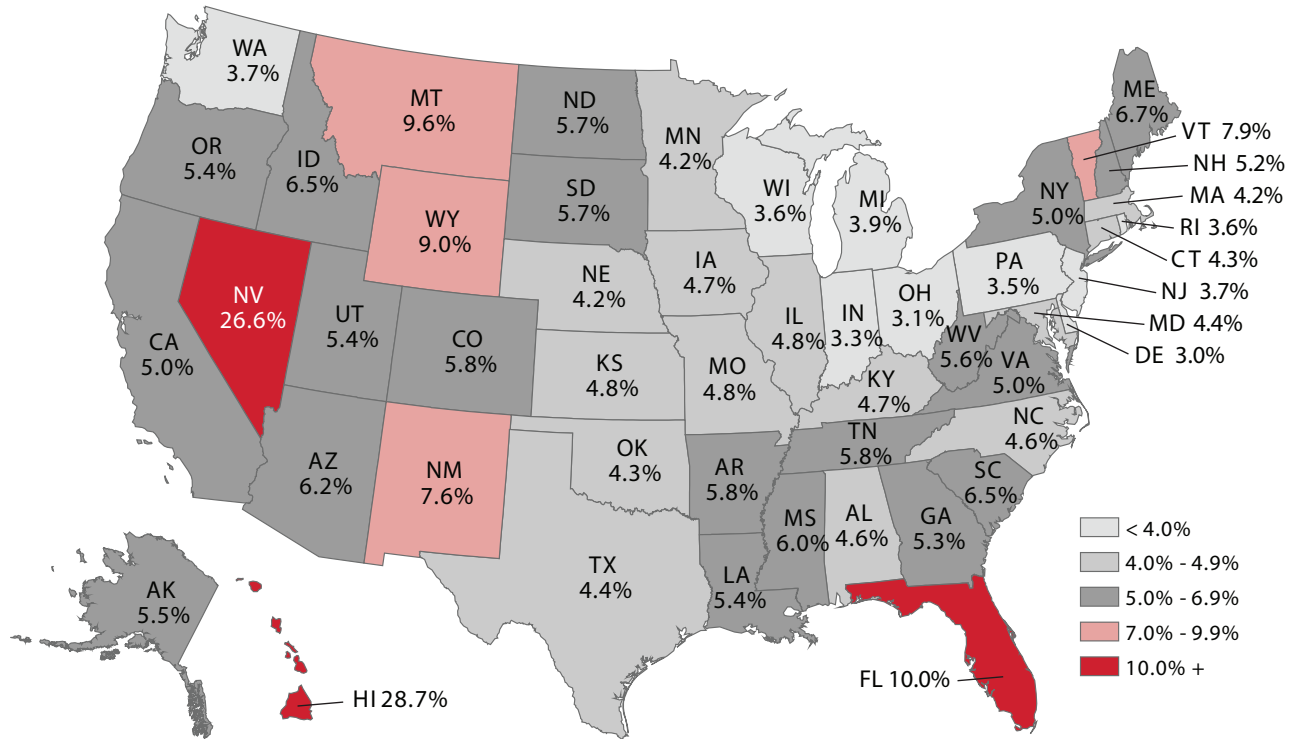
United States = 4.3%



Note: Population is ages 18 years and older with an Equifax credit file; District of Columbia mortgage debt per capita = \$62,080.
 Source: Federal Reserve Bank of New York State Level Household Debt Statistics 2003-2017

What happens in Vegas happens elsewhere too

Visitor spending as a percent of state GDP, 2017

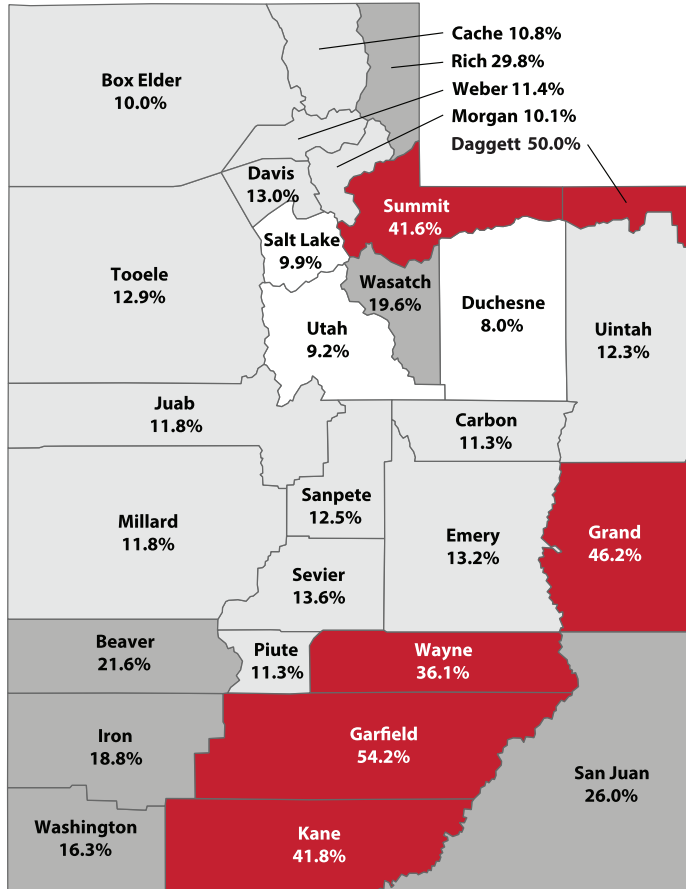


Source: Kem C. Gardner Policy Institute analysis of U.S. Travel Association and U.S. Bureau of Economic Analysis data

Travel and tourism drives over a third of all jobs in six counties

Private leisure and hospitality sector jobs in Utah's counties, 2017

Percent of total private employment and top ten for job growth



Growth in Private Leisure and Hospitality Employment, Top Ten Counties, 2013-2017

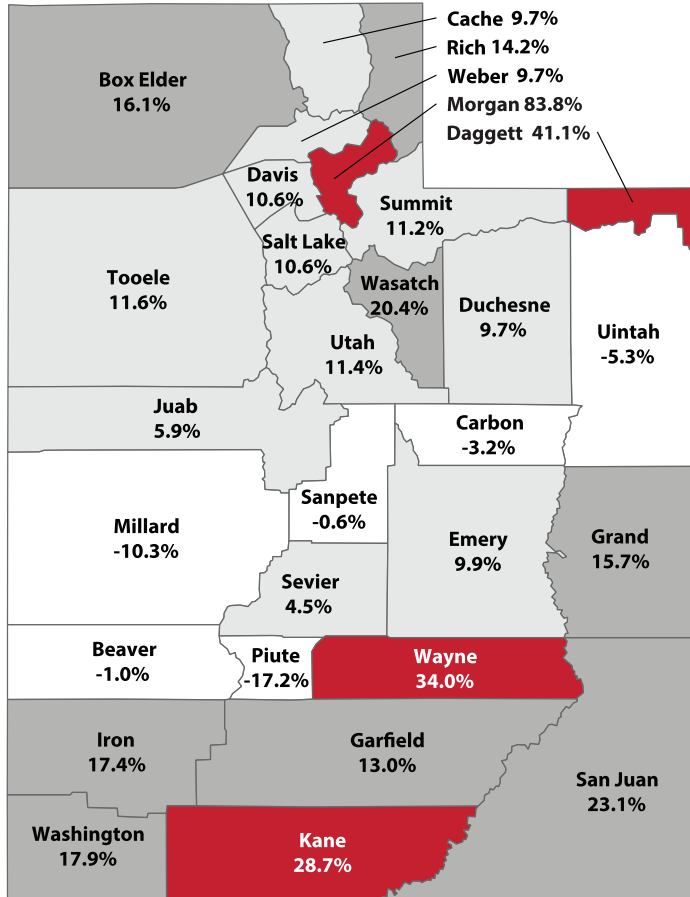
San Juan	30.7%
Utah	26.6%
Iron	23.0%
Grand	22.1%
Wasatch	21.7%
Box Elder	21.4%
Sanpete	21.3%
Millard	21.1%
Juab	20.7%
Davis	18.8%

Source: Kem C. Gardner Policy Institute analysis of Utah Department of Workforce Services data

Tax exporting

County Transient Room Tax revenue

Annual change and top ten collectors



County Transient Room Tax Revenue, Top Ten Counties, FY 2017

(*\$ millions*)

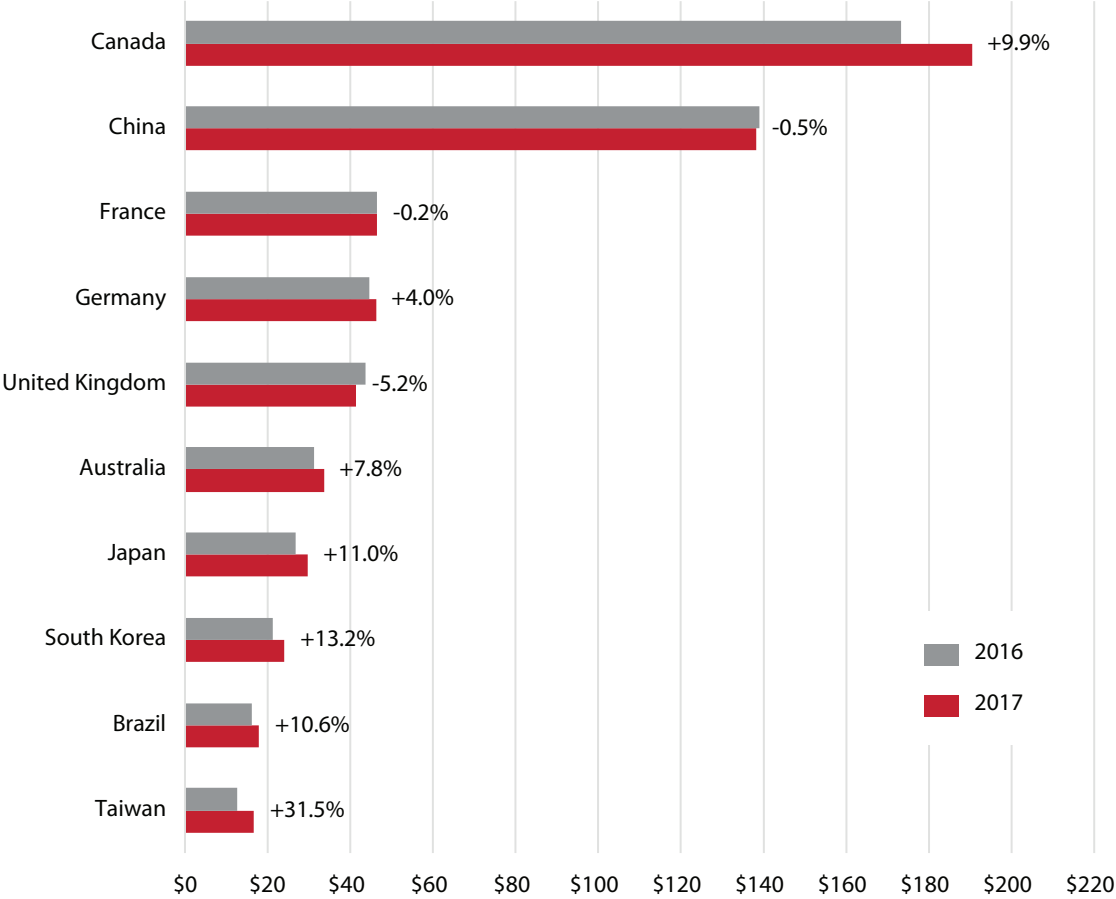
Salt Lake	\$18.3
Summit	\$9.5
Washington	\$7.1
Grand	\$4.7
Utah	\$3.4
Kane	\$2.5
Garfield	\$1.9
Wasatch	\$1.9
Davis	\$1.6
Weber	\$1.6

Source: Kem C. Gardner Policy Institute analysis of Utah State Tax Commission data

O Canada

International visitor spending by country, 2016-2017

\$ millions and year-over-year change

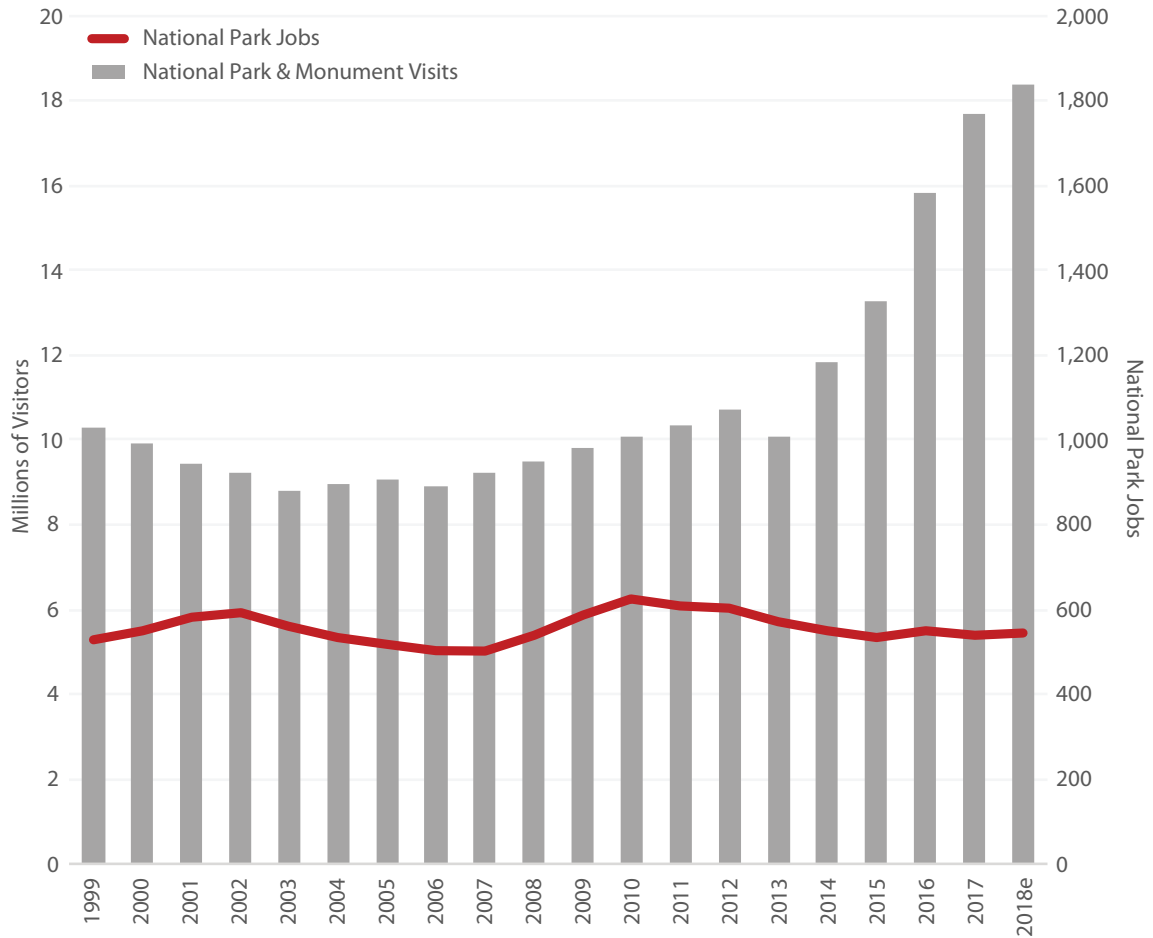


Source: Tourism Economics

Utah's national parks: efficiency, understaffing, or both?

Utah national park and monument indicators

Jobs and visits

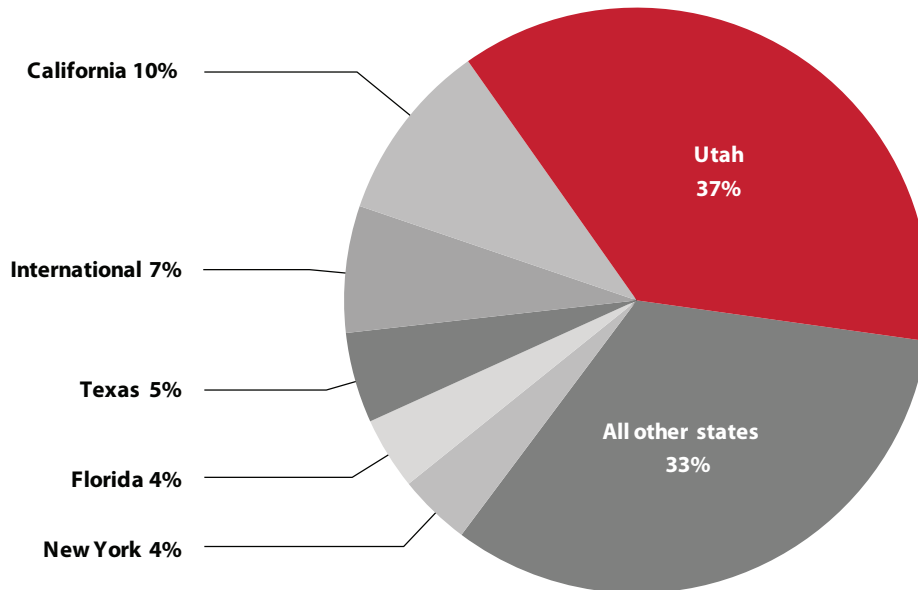


Note: e = estimate

Source: National Park Services and U.S. Bureau of Labor Statistics

Taking advantage of the greatest snow on earth

Utah skier/snowboarder place of origin and stats



Average age:
40.3 years



Length
of stay:
5.8 nights



Stay in
commercial
lodging: 67%



Average
lodging rate:
\$431/night

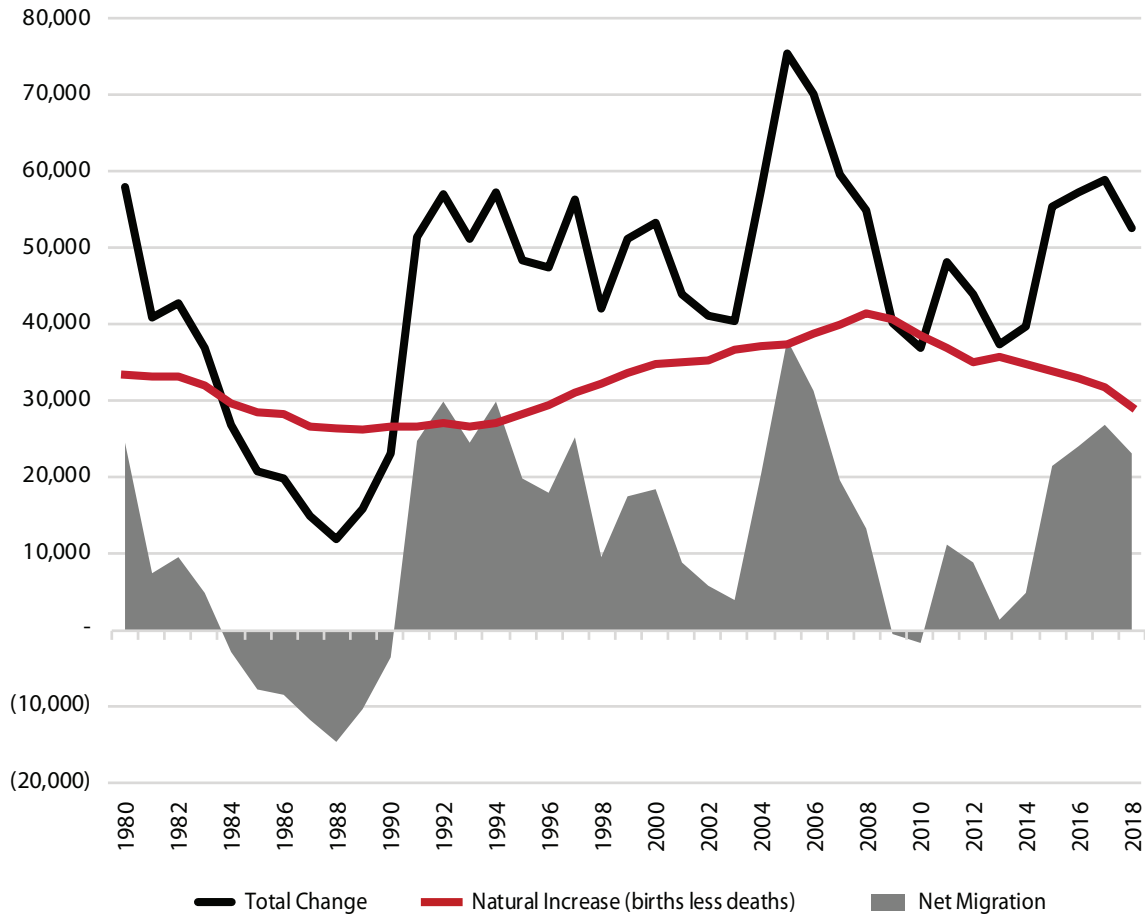


First time
visit to
Utah: 33%

Source: RRC Associates

Utah natural increase continues descent

Utah population components of change

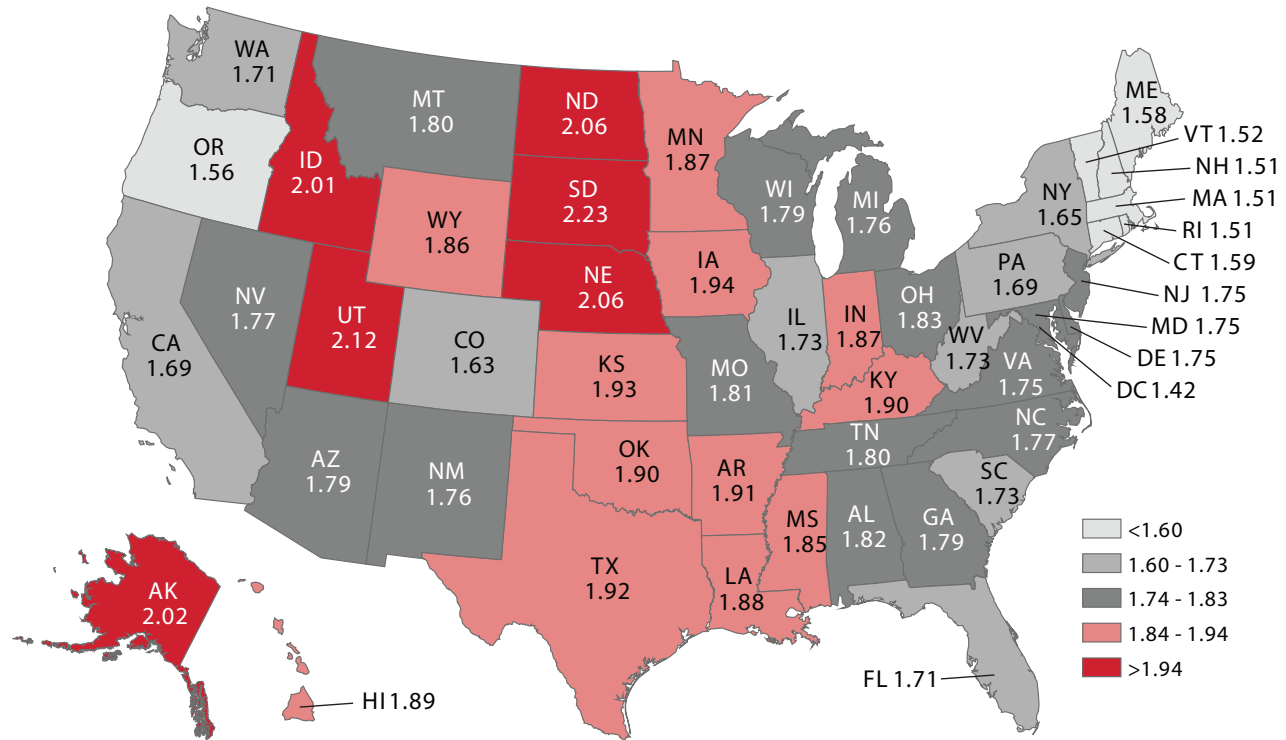


Source: Utah Population Committee (2010-2018) and Utah Population Estimates Committee (2000-2009)

Oh mother, where art thou?

Total fertility rate, 2017

Births per woman

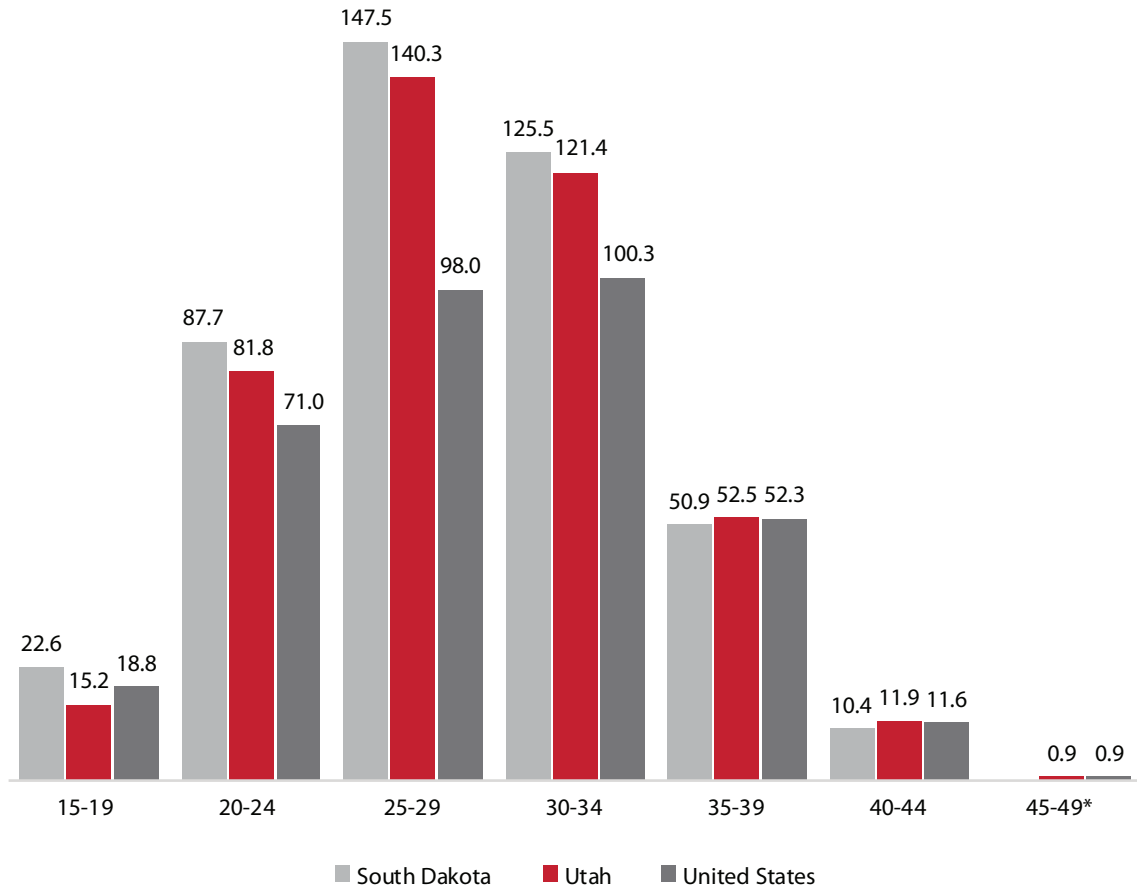


Note: The total fertility rate is the expected number of births per woman based on the current schedule of age-specific birth rates.
Source: National Center for Health Statistics National Vital Statistics System Births: Final Data for 2017

South Dakota's fertility rate driven, in part, by teen births

Birth rates by age of mother, 2017

Births per 1,000 women



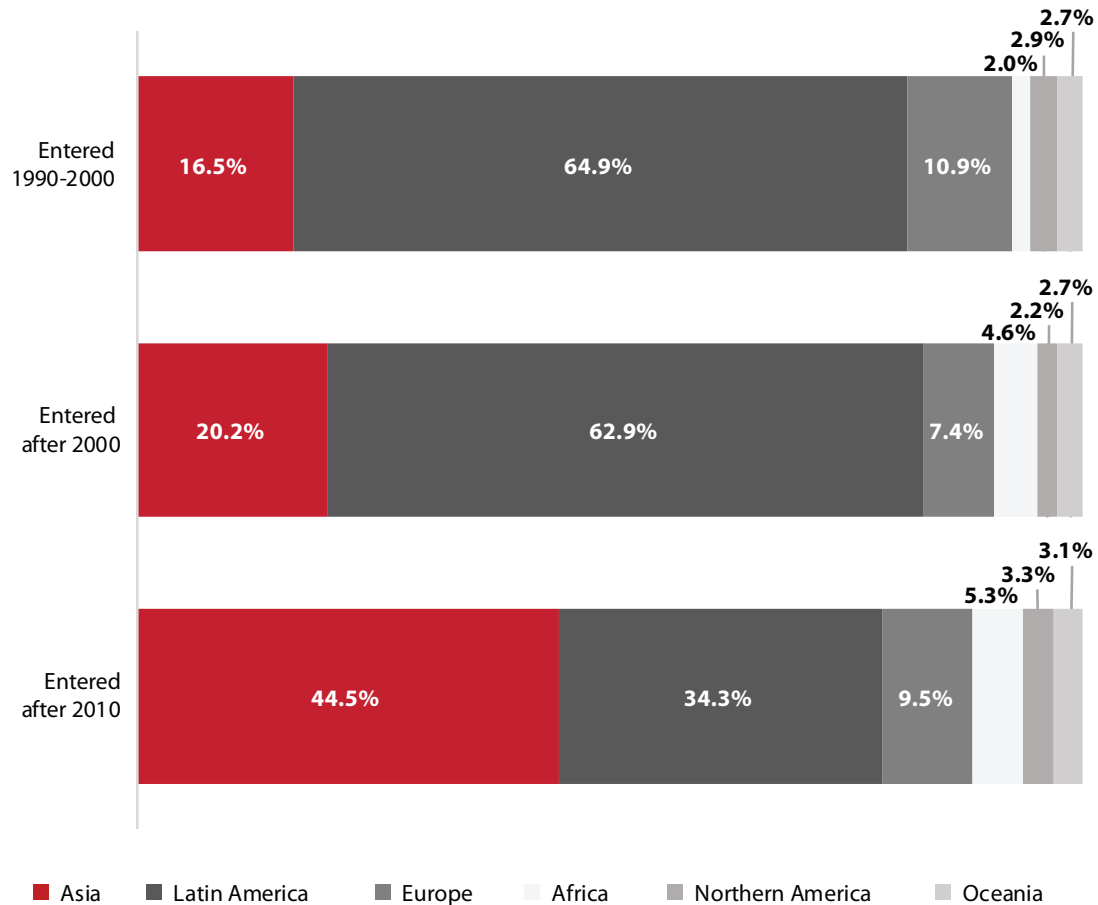
*South Dakota does not meet standards of reliability; fewer than 20 births.

Source: National Center for Health Statistics National Vital Statistics System Births: Final Data for 2017

More new Utahns arriving from Asia than any other region

Utah's foreign born population

Recent arrivals by region of birth

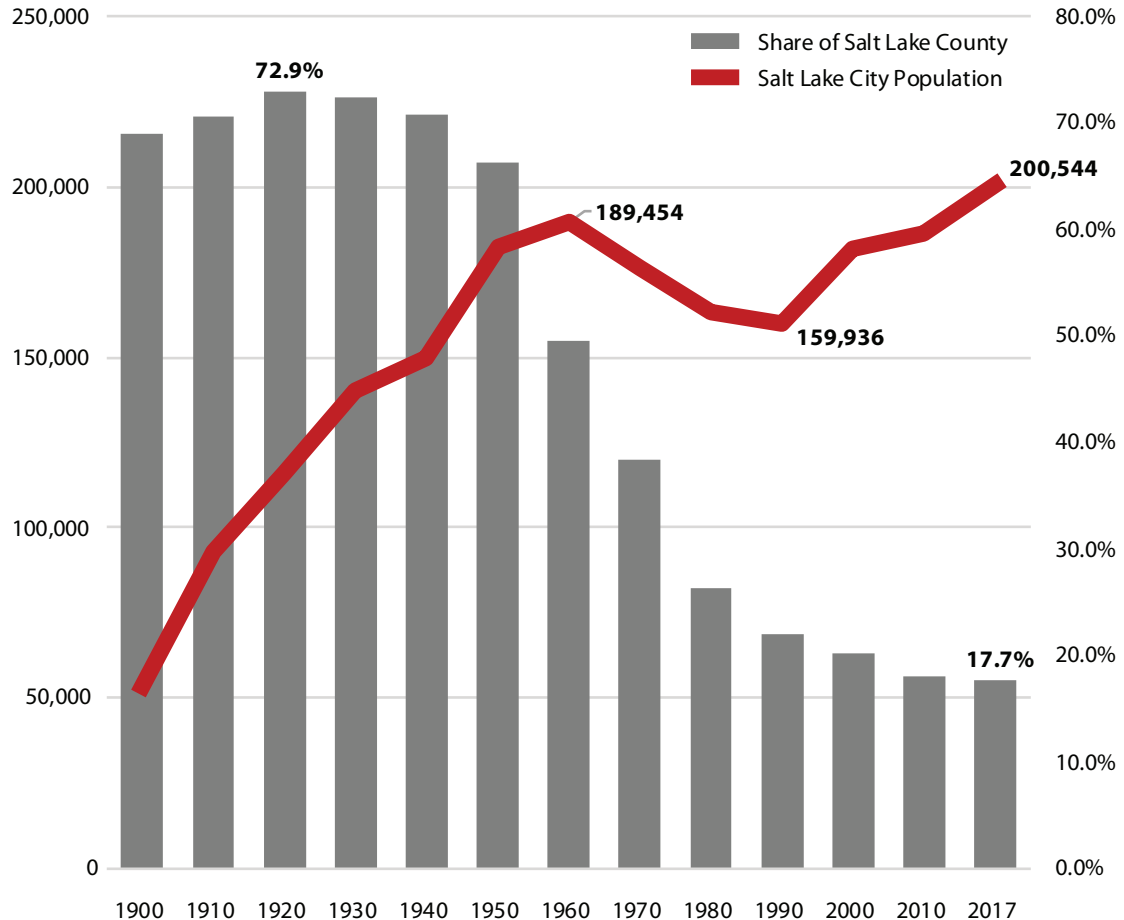


Note: 1990-2000 entrance from 2000 Census, through March 2000; 2000 and later entrance from 2007-2011 5-Year American Community Survey Estimates; 2010 and later entrance from 2012-2016 5-Year American Community Survey Estimates.

Source: Kem C. Gardner Policy Institute analysis of U.S. Census Bureau 2000 Decennial Census and American Community Survey 2011 and 2016 5-Year Estimates

Utah's capital city population reaches a milestone; still shrinking in proportion to county

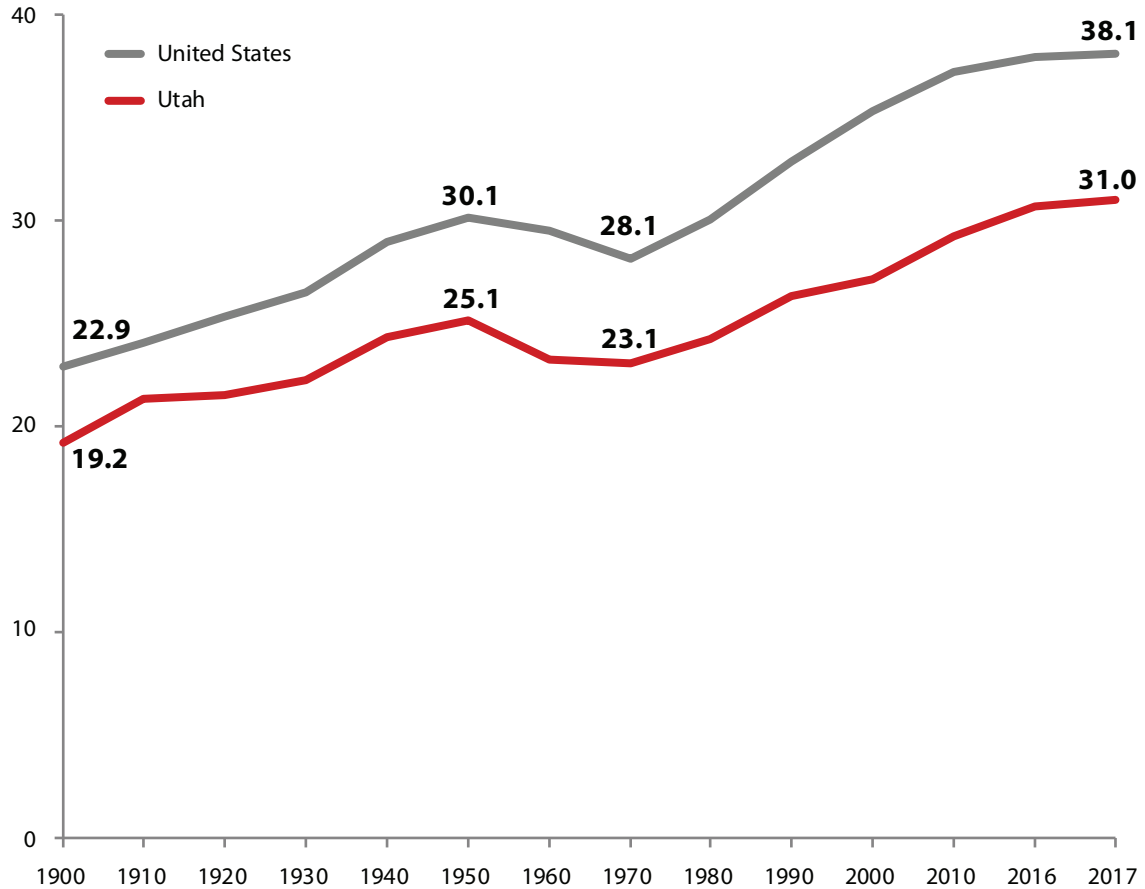
Salt Lake City population



Source: U.S. Census Bureau Population Division Estimates

Median-aged Utahns still can't run for president, getting closer

Median age in Utah and the United States

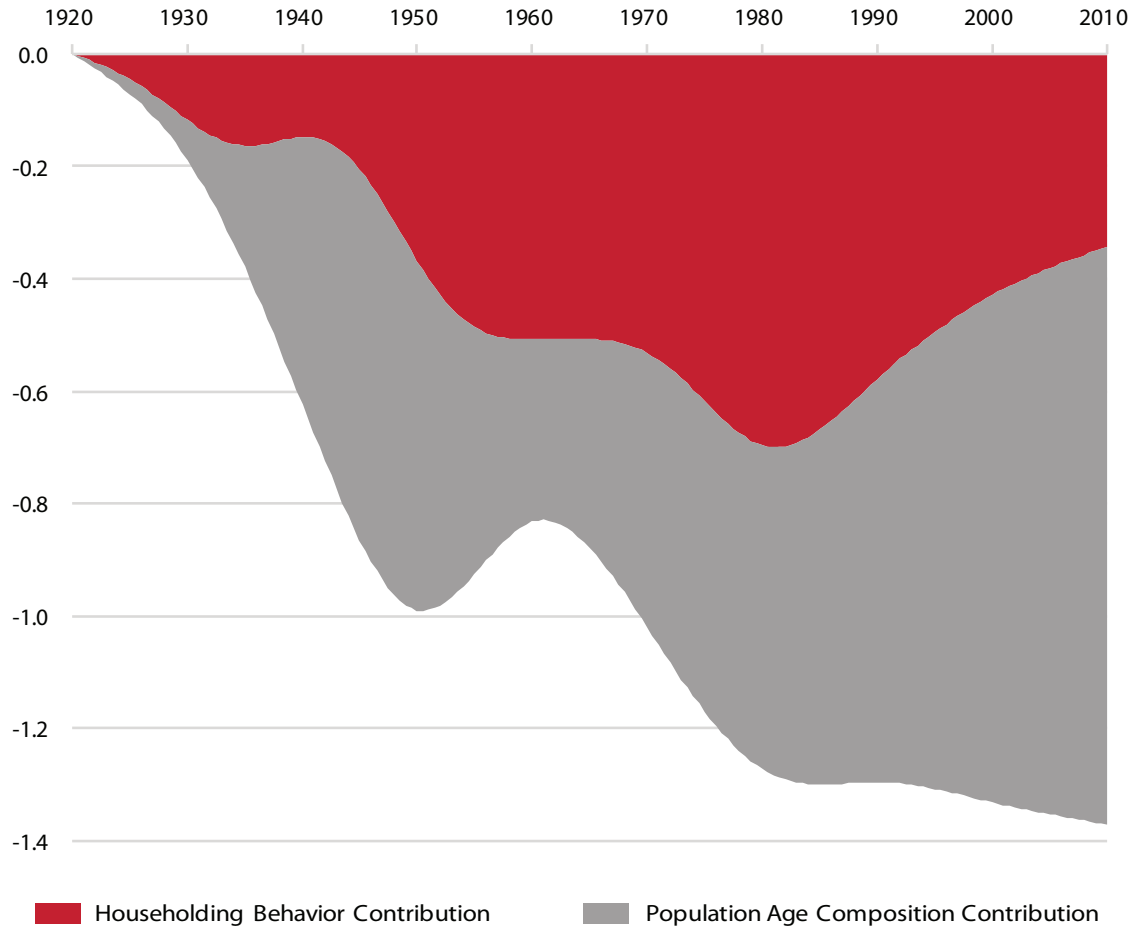


Source: U.S. Census Bureau

From *Leave it to Beaver* to Modern Family

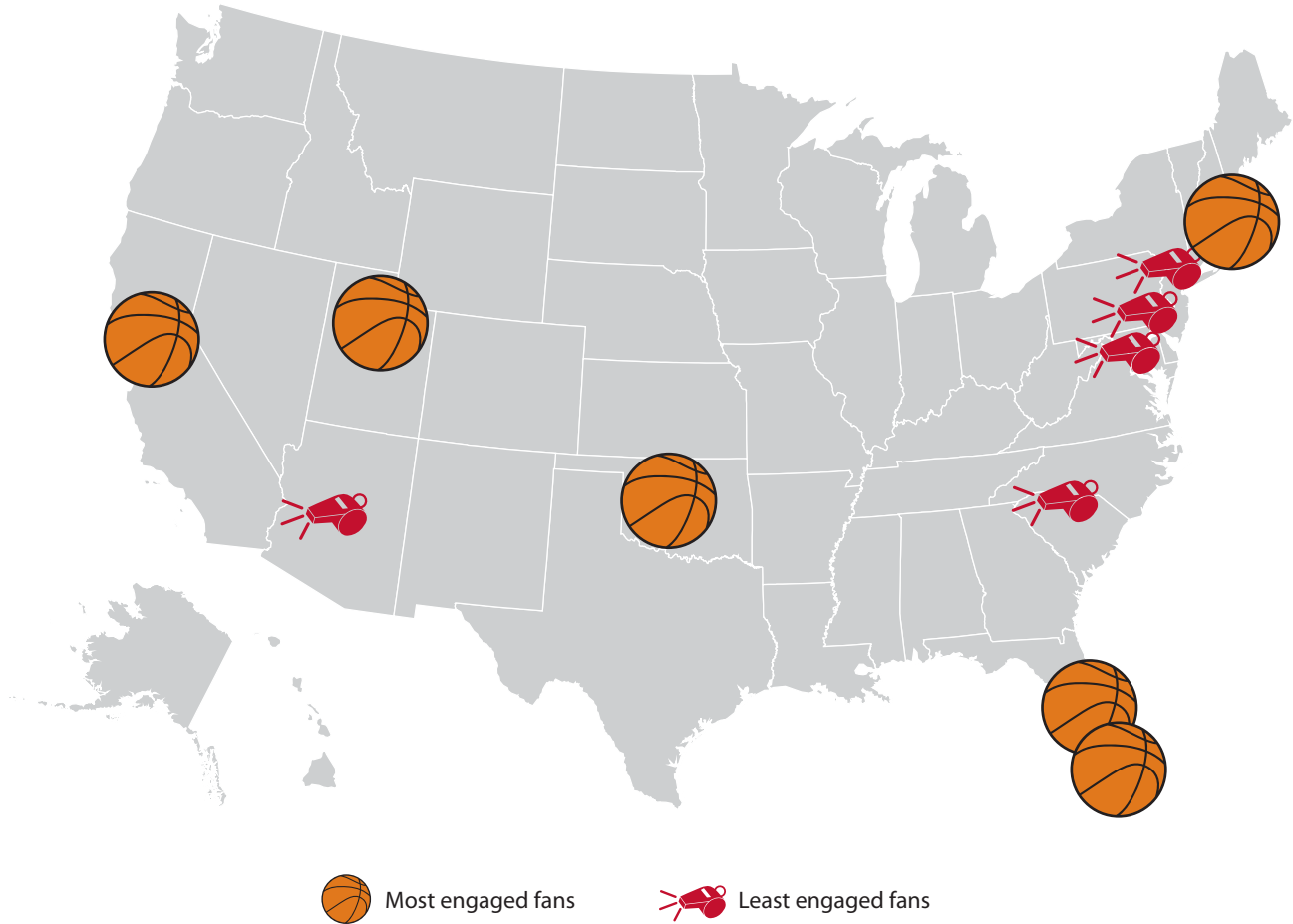
Cumulative change in Utah persons per household since 1920

Persons per household was 4.5 in 1920, 3.1 at last census



Source: Kem C. Gardner Policy Institute analysis of IPUMS USA: Version 8.0 data

Cities with the most- and least-engaged NBA fans.



Source: WalletHub ranking based on ticket prices, stadium accessibility, fan engagement, and NBA and NCAA team performance.

It's a small world

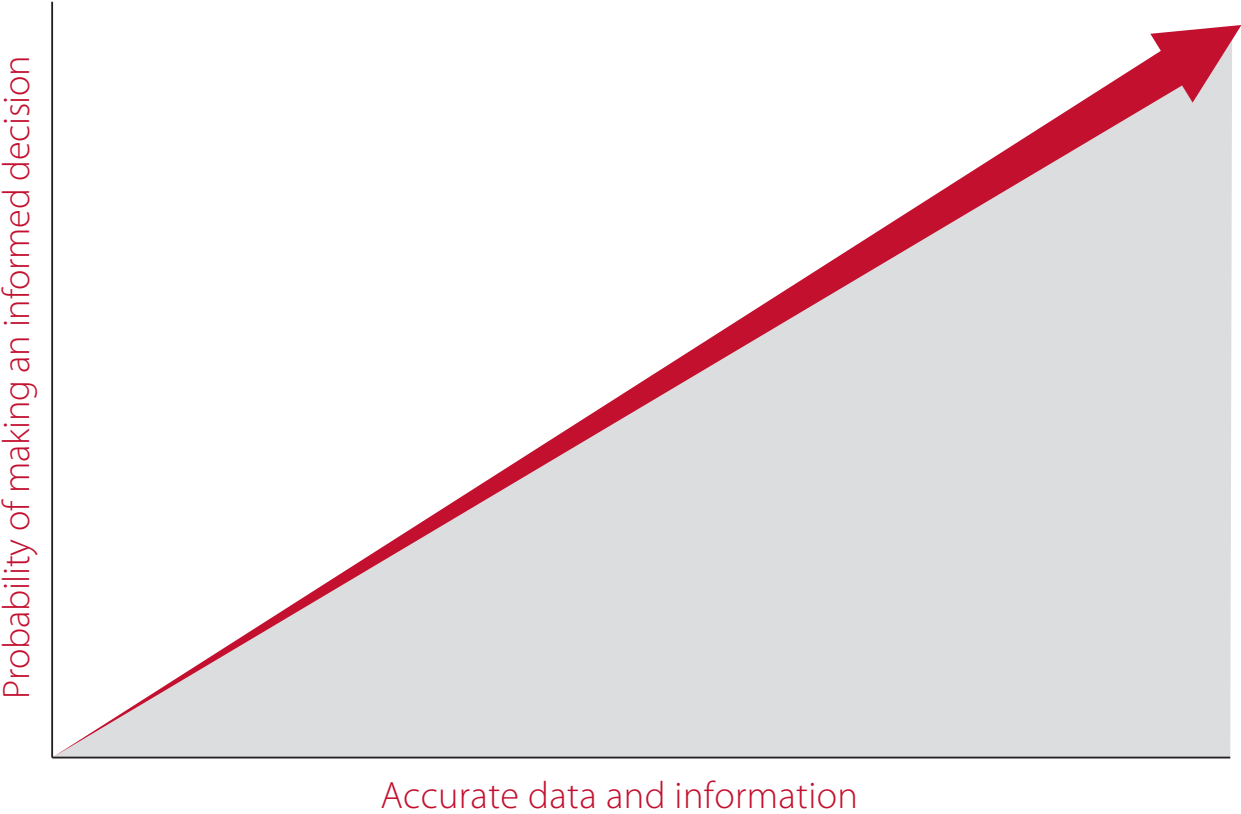
Utah Jazz Facebook followers by country

Rank	Country	Followers
1	USA	475,791
2	Philippines	475,570
3	India	193,418
4	Nigeria	57,780
5	Brazil	56,186
6	Mexico	51,362
7	Indonesia	40,491
8	Australia	30,855
9	Taiwan	30,836
10	France	30,405
11	Turkey	22,642
12	Kenya	19,133
13	Italy	17,703
14	Canada	14,944
15	Dominican Republic	14,229
16	Mongolia	12,872

Rank	Country	Followers
17	Spain	11,582
18	Argentina	11,271
19	Greece	10,582
20	Venezuela	10,128
21	Thailand	9,208
22	Poland	8,213
23	UK	8,152
24	Colombia	8,077
25	Malaysia	8,032
26	Germany	7,437
27	Serbia	6,660
28	Chile	5,945
29	Portugal	5,872
30	Puerto Rico	5,775
31	Peru	5,713
32	New Zealand	5,209

Source: Facebook

The whole point



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