



Background for Identifying

WYOMING'S

GRAND CHALLENGES

Preliminary White Paper



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INTRODUCTION

The University of Wyoming Provost, Vice President for Academic Affairs and the Vice President for Research and Economic Development convened a Research Planning Council (RPC) to identify a short list of issues or opportunities a transdisciplinary research team could tackle. This report and associated executive summary provide an overview of Wyoming's strengths and challenges according to public priorities and our state's ranking in key sectors. Their purpose is to inform discussions at the University of Wyoming (UW) and beyond about what grand challenges UW should invest in tackling over the next five years. Specifically, we cover issues identified by public opinion, state government, and state rank. This report does not aim to identify or recommend any one particular grand challenge. This white paper is preliminary and does not provide an exhaustive review of all the problems the state faces. It merely serves as one starting point to inform the selection of grand challenges that UW should tackle with publicly engaged, trans-disciplinary research.

This report has three main sections. First, we present survey data related to Wyomingites' opinions about problems in the State. Second, we present data on executive and legislative priorities in state government. Third, we present indicators where Wyoming ranks nationally among the top 10 and bottom 10 within nine broad topic areas: agriculture, economics, education, environment, health, infrastructure, natural resources, politics, and society.

Topic Areas



Economics



Society



Politics



Environment



Health



Education



Natural
Resources



Infrastructure



Agriculture



PUBLIC OPINION

Economic Well-Being and School Quality

In October 2018, the UW School of Politics, Public Affairs, and International Studies worked with WYSAC to conduct a statewide poll of voters about problems facing the state and the upcoming elections (University of Wyoming, 2019). Potential voters were asked what they thought were the most pressing issues facing Wyoming and their communities. Respondents

volunteered economic issues as the number one concern facing Wyoming and their communities.

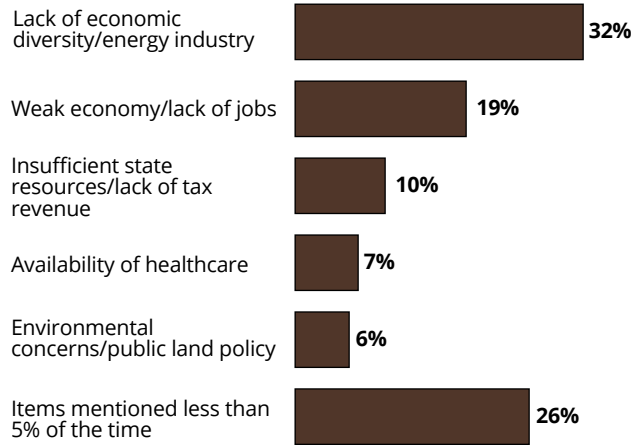
The survey also revealed that 50% of respondents thought the economy had gotten better over the past year and a plurality (38%) thought the economy of Wyoming would improve within the next couple of years; 56% agreed the state's economy needs a diversification of offered goods and services (Election Survey, 2018).

The survey asked respondents to grade their local public schools, the state's community colleges,

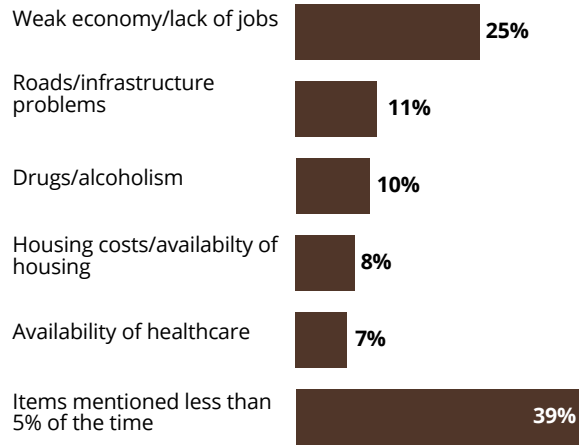
Economic Issues Number One Concern for Wyoming Communities

Percent of respondents who said ... is the most pressing issue

...facing **Wyoming**



...in their **community**



and the University's quality of work with an A, B, C, D, or F. Of all respondents, 56% gave their local public schools an A or a B, 70% gave the state's community colleges an A or B, and 71% gave UW's quality of work an A or a B.

Natural Resources

A statewide poll of likely voters in 2018, organized by the Ruckelshaus Institute of Environment and Natural Resources at the University of Wyoming, focused on public opinion data on conservation issues (Freedman, 2019). The survey found likely voters in Wyoming identified the following as serious concerns in the state:

- Lack of good-paying jobs (82%)
- Loss of family farms and ranches (82%)
- Quality of public education (80%)
- Low levels of water in rivers (78%)
- Pollution of rivers, lakes, and streams (77%)
- Lack of health insurance coverage (77%)
- Availability of water for farming and ranching (76%)

- Decline in numbers of big game animals (75%)
- Loss of habitat for fish and wildlife (73%)

The survey also found Wyoming voters hunt, fish, and participate in outdoor recreational activities at higher rates than voters nationally, and the majority of voters support setting aside more funding for conservation.

A 2019 survey conducted by Colorado College polled eight western states (Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming) to identify voters' opinions about climate, energy, outdoor recreation, water, wildlife, the role of government, trade-offs with economies, and citizen priorities. Key findings from Wyoming respondents include the following:

- 91% believe the outdoor recreation economy is important for the future of Wyoming and the Western U.S.
- 77% consider themselves an outdoor recreation enthusiast
- 76% consider themselves a conservationist

- 74% believe it is important for states to use funds to protect and restore the health of rivers, lakes, and streams
- 70% say the ability to live near, recreate on, and enjoy public lands like national forests, parks, or trails was a significant reason they live in the West
- 64% believe it is important for states to use funds to conserve wildlife corridors used by wildlife for migration
- 61% think wildfires in the West are more of a problem than ten years ago

Of the eight states surveyed, Wyoming respondents were least likely to identify climate change as a serious problem (52%, compared to the combined rate of 69%). Wyoming respondents also differed when it came to their opinions on how to use public lands—41% of Wyoming respondents preferred responsible oil and gas drilling and mining on public lands (this percentage was higher than any other state, with Montana coming in second at 30%). Fewer Wyoming respondents (65%) thought the low level of water in rivers was a serious problem, compared to the eight-state combined rate of 84%.

Conclusion

This is far from an exhaustive study of what Wyomingites believe are the grand challenges faced by the state. The challenge of most polls is they are topic-specific, making it difficult to cast a broad net to assess the hundreds of problems Wyomingites may identify. From this small sample of data, it appears Wyomingites are concerned about the state's economy above all other problems.



EXECUTIVE AND LEGISLATIVE PRIORITIES

ENDOW

Just as Wyomingites are concerned about Wyoming's economy, economic development is the focus of a major government project. The Economically Needed Diversity Options for Wyoming (ENDOW) initiative, announced by Governor Matt Mead in November 2016, provides

a comprehensive approach to diversifying the state's economy (ENDOW, 2017). The purpose of the ENDOW initiative is to evolve beyond the boom and bust cycle of Wyoming's economy and to create an environment that will keep future generations living and working in Wyoming. Goals of the ENDOW initiative include adding new jobs, increasing personal income, growing the GDP, increasing the number of Wyoming

residents, and decreasing youth outmigration. To meet these broad goals, the ENDOW initiative has identified four objectives with corresponding action items:

1. Identify and capitalize on new services and technologies
2. Strengthen existing industries such as education, healthcare, infrastructure, entrepreneurial ecosystems, and state capabilities
3. Invest in emerging opportunities in the areas of natural resources, tourism and recreation, agriculture, advanced manufacturing, and knowledge and creativity
4. Enhance alignment of functions, strategies, and resources among agencies responsible for enhancing economic prosperity in Wyoming

2. Find reasonable solutions for healthcare and education
3. Build a stable workforce that can endure into the future

Conclusion

Wyoming's public and governmental entities agree—**Wyoming's economy is the most pressing issue facing the state today.** Education, healthcare, and investing in local communities are also top priorities for the executive and legislative bodies of Wyoming.

More information about the ENDOW initiative can be found on its website: <https://www.endowyo.biz/>

Governor's Priorities

In Governor Mark Gordon's State of the State address in January 2019 (Gordon, 2019), he identified three priorities for his administration:

1. Set Wyoming on a sustainable fiscal path and continue Wyoming's efforts to diversify its economy
2. Ensure citizens have access to quality education
3. Provide local communities with the tools and resources needed to thrive

Legislative Priorities

During the 2019 Wyoming legislative session, legislators identified three primary goals for the session (Reynolds, 2019):

1. Address the state's volatile revenue picture



WHERE WYOMING RANKS NATIONALLY

In this section, we provide indicators where Wyoming ranks among the bottom 10 and top 10 in the country within nine broad topics: agriculture, economics, education, environment, health, infrastructure, natural resources, politics, and society. We classify these rankings as *strengths* or *opportunities* for Wyoming. If an indicator was not an obvious strength or opportunity, we identify the indicator as *unclassified*. WYSAC researchers only included data from reputable sources that were already ranked. We did not calculate any ranks; we did sort and count the data, where necessary. The number of ranked entities changed by source. Some sources included the 50 states (or less if states had missing data or were not eligible), while other sources included the District of Columbia and U.S. territories, making the number of ranked entities greater than 50.

Using these rankings may help identify the unique problems Wyoming faces. Rankings also provide a standardized and objective method for identifying remarkable indicators and issues. However, rankings are an imperfect data source,

and we wish to emphasize two major caveats about using rankings to guide decisions.

First, the range between top and bottom-ranked states is often narrow. Many indicators have very little variability and at times, multiple states have the same value creating multiple ties. Wyoming may rank poorly on a particular indicator, but this does not mean Wyoming is doing much worse than the rest of the country. To highlight this phenomenon, we provide a minimum and maximum value for each indicator.

Second, for the majority of indicators, Wyoming ranked somewhere in the middle, not the top or bottom 10. These indicators are not included in this report (although an exhaustive list of all the indicators we explored can be found in the Appendix). This does not mean these indicators fail to address grand challenges or important problems. With that said, the rankings provide a starting point to identify challenges and strengths impacting Wyoming today.



AGRICULTURE

Agriculture is one of the top industries in Wyoming. The 2017 Census of Agriculture shows Wyoming producers operated the largest farms and ranches in the U.S. with an average of 2,430 acres per farm, over five times the national average (USDA, 2019). This Census also shows that Wyoming agriculture has grown since 2012, as measured by both the number of farms (11,938) and the number of young producers age 35 or less (2,185). Wyoming ranked first amongst all states in wool production and sixth in agribusiness and recreational income (the latter more than doubled from 2012). Cattle and calves account for 65% of all agricultural products sold in Wyoming.

Wyoming's agricultural production also contributes significantly to Wyoming's economy (Taylor, Foulke, & Coupal, 2017). Wyoming's farms and ranches account for approximately 30.4 million acres of land and \$22 billion in investments in land, buildings, machinery, and equipment. Families, individuals, partnerships, and family-held corporations account for 96% of the farms and ranches in the State. In addition, Wyoming agricultural production generated a gross income of \$2.1 billion in 2014. Taylor, Foulke, and Coupal (2017) estimate that the total economic impact of the agricultural industry contributes \$4.2 billion to the Wyoming economy and supports an estimated 33,000 jobs directly and in support industries. Wyoming agriculture generates an estimated \$77.5 million in tax revenue for state and local governments. It costs 54 cents in local government services for every \$1 of revenue generated.

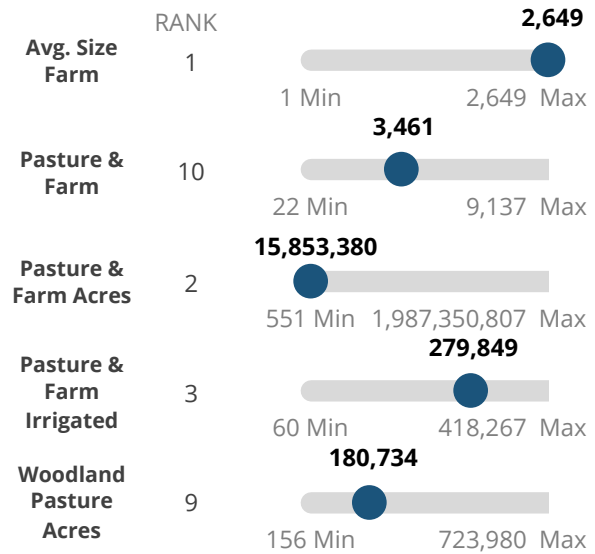
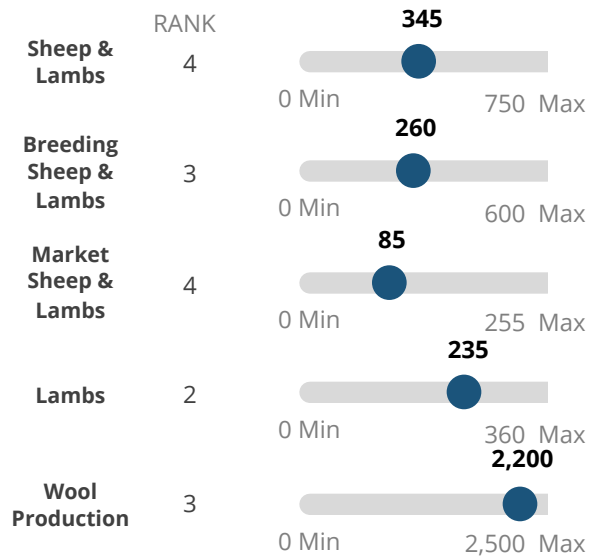
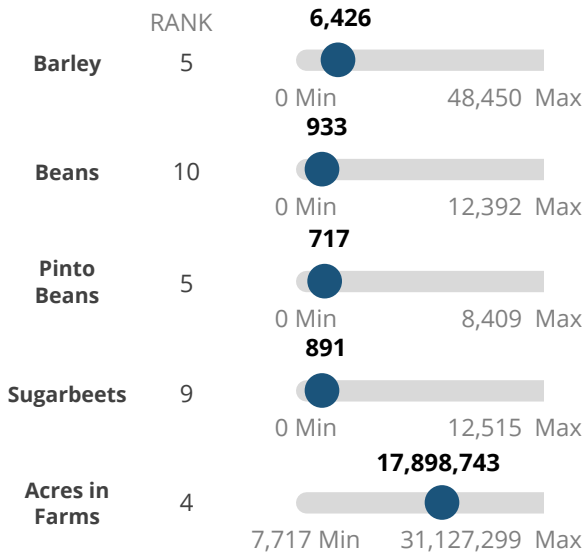
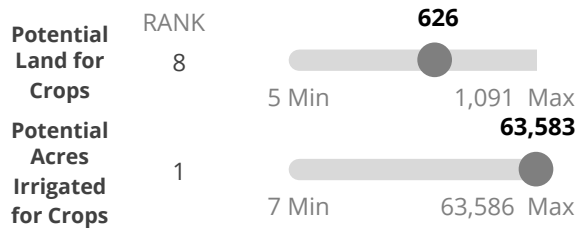
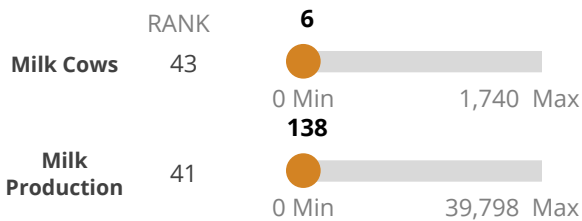
Challenges of the agricultural sector include political and legal decisions about land and

wildlife management; tariffs, subsidies, and quotas; sustainability (Wyoming Farm Bureau Federation, 2019); commodity price cycles and volatility in the market (Funk, 2018); weather phenomenon from floods to droughts; and urban growth (Fearneyhough, 2014).

When it comes to state rankings, overall, Wyoming's agricultural sector performs well. Sheep, sugar beets, barley, beans, and farm space are Wyoming's specialties. Wyoming ranks poorly on two specific commodities, milk cows and milk production. The Union of Concerned Scientists (2018) have a 50-state food system scorecard, ranking states on farm and food health. Wyoming ranks second for food production and fifth for reduced ecosystem impacts. However, Wyoming ranks near the bottom for farm investments (43rd) and food investments (50th).

Key Indicators

● Opportunity ● Strength ● Unclassified *indicates a tie in ranking





ECONOMICS

Healthcare is the number one industry in Wyoming, employing 11.8% of Wyomingites aged 16 and older. Healthcare is followed by retail (11.1%), education (11.0%), oil/gas/mining (9.0%), hospitality (8.4%), construction (7.6%), and government (6.4%; Statistical Atlas, 2018). Compared to the rest of the U.S., Wyoming has more people employed in oil/gas/mining, agriculture, and utilities and fewer people employed in management, manufacturing, and finance/insurance (Statistical Atlas, 2018).

The Economic Summary from the Wyoming Department of Administration & Information (2019) showed that Wyoming added 2,800 jobs, improved personal income, saw an increase in housing prices, and had a total taxable sales growth of 9.1% in the fourth quarter of 2018, compared to the fourth quarter of 2017. Increases in sales occurred in most economic industries, with the fastest growth in the construction sector which experienced a year-over-year expansion of 32.5%. Despite this growth, Wyoming has a reputation for having a relatively poor business environment (measured by the private sector business birth rate and the number of patents granted per million people in a state) and lower levels of net migration, growth of the young population, and GDP growth rate (U.S. News & World Report, 2019).

The travel industry is an important sector of the Wyoming economy. The 2018 report on Wyoming travel impacts (Dean Runyan Associates, 2019) shows that spending by visitors to Wyoming was \$3.8 billion in 2018, an increase of 6.8% from 2017. This equates to \$10.4 million per day. In 2018, Wyoming had 8.9 million visitors, an increase of 2.2% from

2017. During 2018, travel spending in Wyoming directly supported 32,290 jobs. Local and state revenue generated by travel spending were \$196 million (excluding property taxes). Without these tax revenues, each household in Wyoming would have had to pay an additional \$840 in taxes to maintain current tax revenue levels (Dean Runyan Associates, 2019). Opportunities within tourism include increasing the number of visitors who come to Wyoming year-round, visit all parts of the state, and come from diverse locations representing international and minority populations (Western, 2016).

In national rankings, Wyoming ranked among the best in the country for measures related to Gross Domestic Product (GDP), employment, and poverty. On the other hand, Wyoming is ranked among the worst in the country for measures related to economic growth, the gender pay gap, TANF benefits received among families in poverty (Temporary Assistance for Needy Families), SNAP utilization (percent of total eligible population who participated in the Supplemental Nutrition Assistance Program), children living in households that were food insecure at some point during the year, and population change.

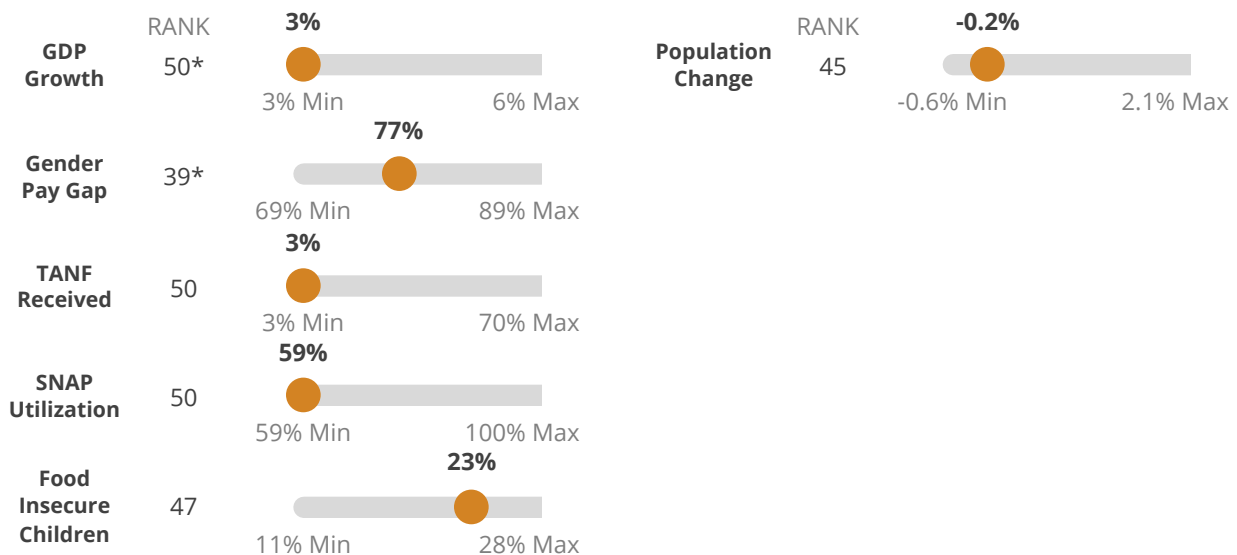
These data suggest that Wyoming's economic growth is moderate. Wyoming has a relatively low poverty rate, but the State is not reaching many of those who are in poverty. Wyoming's population is decreasing and Wyoming is tied for 39th for the worst gender pay gap. The Bureau of Labor Statistics (2018) reports Wyoming is last for the gender pay gap with women earning 71.6% of what men earn.

Finally, a discussion on Wyoming's economy would not be complete without mention of the boom-and-bust cycle that has become synonymous with Wyoming's economy (American Heritage Center, 2010). Wyoming is rich in minerals, including oil, coal, uranium, natural gas, and soda ash. By depending heavily on these natural resources, Wyoming has been deeply affected by the national energy market. The boom-and-bust cycle of Wyoming's economy has had a significant impact on Wyoming's economy for generations and it continues today (American Heritage Center, 2010).

In 2013, Wenlin Liu, Principal Economist for the Wyoming Economic Analysis Division postulated, "Wyoming is probably the least diversified state in the nation when measuring employment and GDP distribution across industries in comparison with the U.S." (slide 5).

Key Indicators

● Opportunity ● Strength ● Unclassified *indicates a tie in ranking

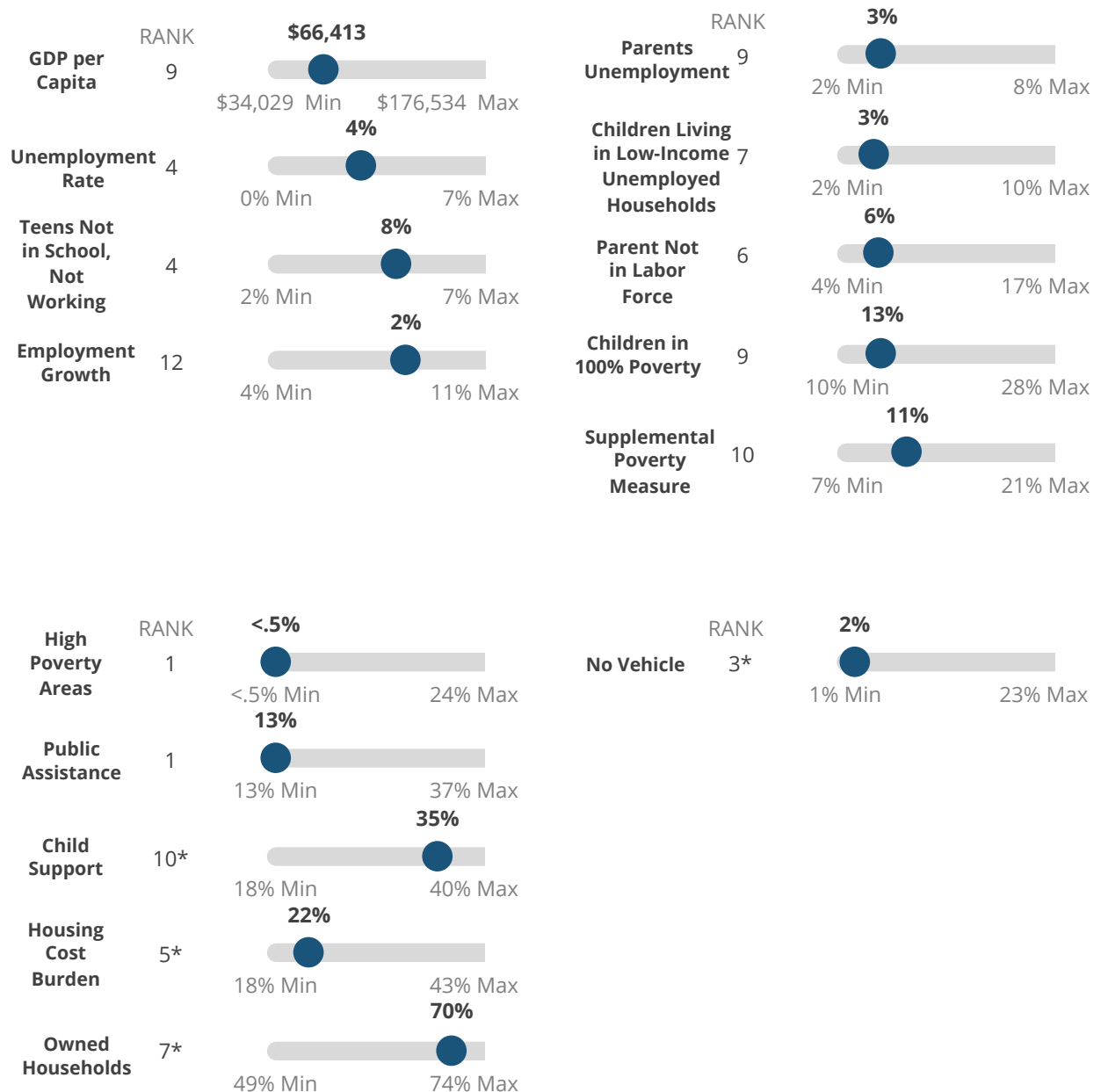




ECONOMICS

Key Indicators

● Opportunity ● Strength ● Unclassified *indicates a tie in ranking





EDUCATION

Overall, Wyoming ranks well in education. The 2018 Quality Counts report card ranked Wyoming 7th nationally in education quality (Eakins, 2018). The charts below illustrate that Wyoming is among the best in the nation for pupil to teacher ratios; percent of people who have completed high school; associate's degree graduation rates; public school revenue and expenditures; pass rates for GEDs and high school equivalency tests; low debt at graduation; and percent of children under age 6 whose family members read to them less than 4 days per week.

Still, Wyoming has some opportunities within education. In one study, economists analyzed expected vs. actual 6-year graduation rates in 368 U.S. colleges (Leonhardt & Chinoy, 2019). Expected rates are based on incoming student ages, race, gender, income, and test scores. The study found the University of Wyoming was among the worst 15 in terms of the gap between expected (approximately 74%) and actual (approximately 61%) graduation rates.

Wyoming is ranked among the worst in the nation for high school dropout rates, high school graduation rates among students of color, and young adults ages 18 to 24 who are enrolled in or have completed college.

Wyoming ranks 4th for percentage of the population who graduate high school (93%), but falls to 41st for the percentage of the population with a bachelor's degree or higher (American Community Survey, 2013–2017). Wyoming excels at 4th grade test scores, but drops in rank for 8th grade test scores. The vast majority of Wyomingites graduate high school (93%), but paradoxically the State has a high dropout rate

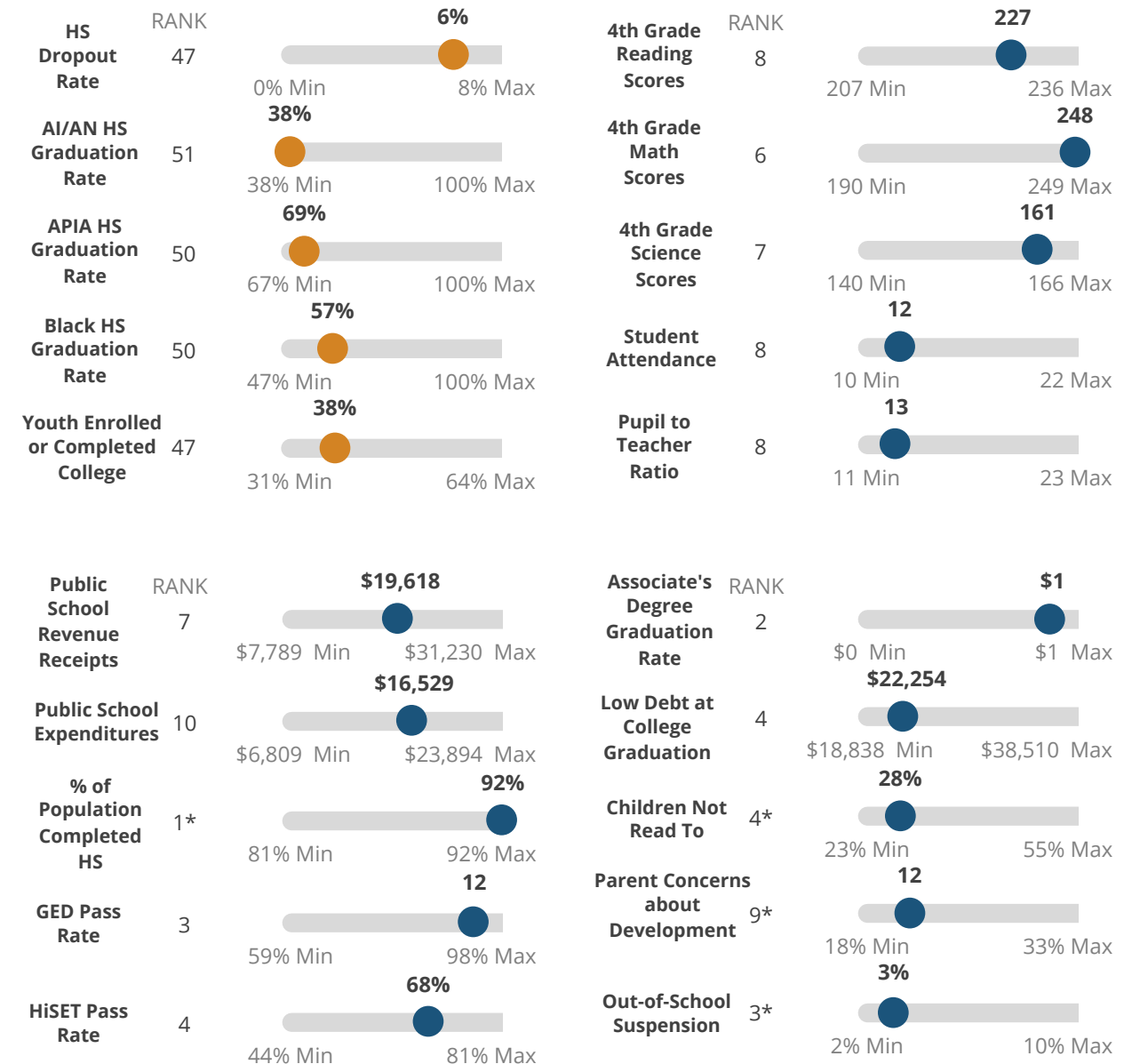
for high school students (6%). Wyoming has opportunities to maintain quality education in K-12 public schools, increase the percentage of Wyoming adults who have at least a bachelor's degree, and improve graduation rates for Wyoming's American Indian, Asian, and Black students.

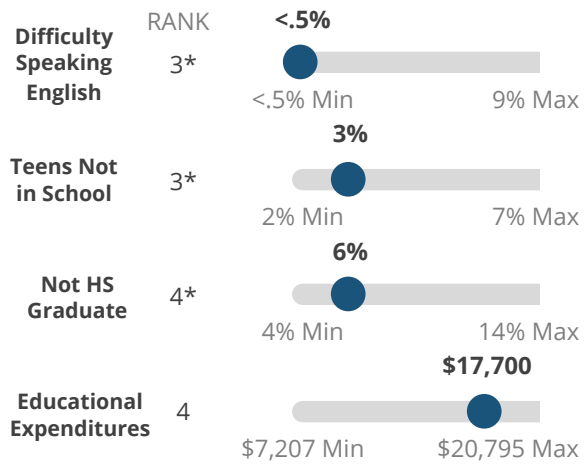


EDUCATION

Key Indicators

● Opportunity ● Strength ● Unclassified *indicates a tie in ranking







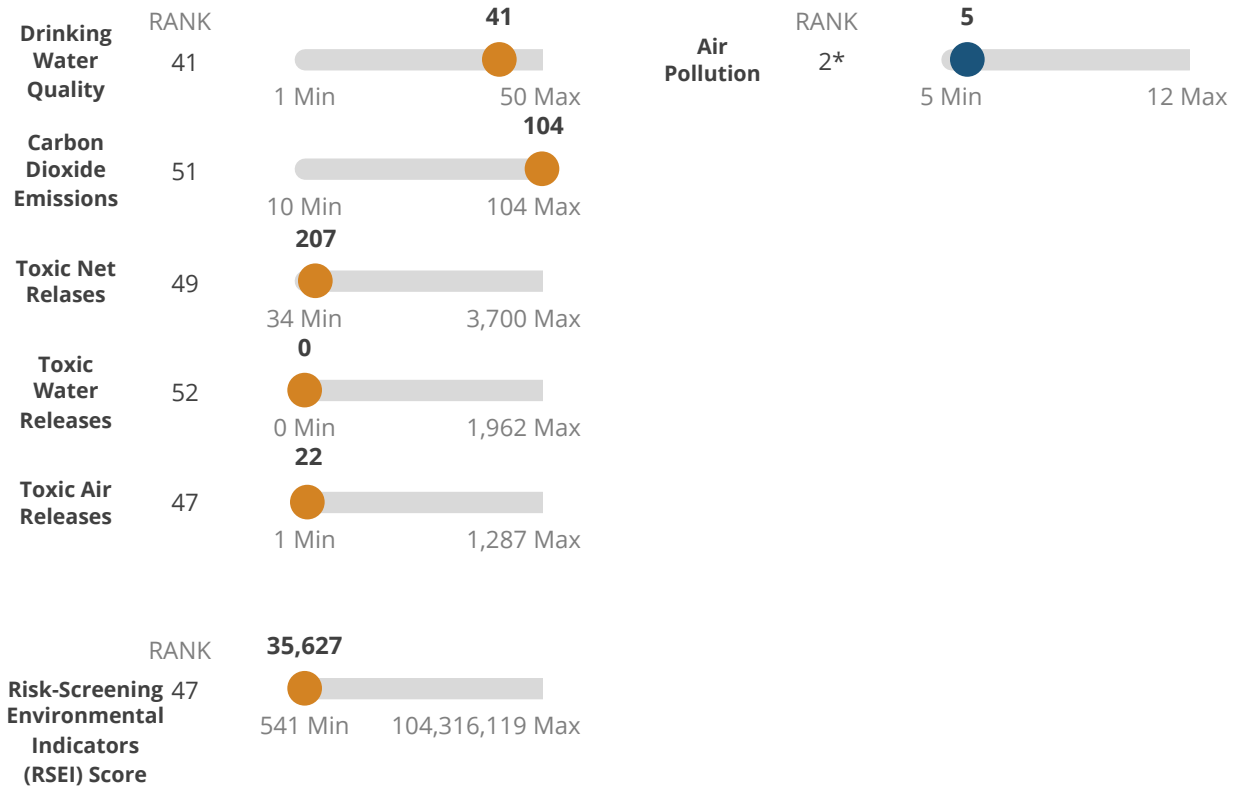
ENVIRONMENT

Wyoming has low air pollution, but has the highest CO2 emissions in the United States (McKim, 2017). Wyoming's carbon dioxide emissions per person decreased 10% from 2005 to 2015, but remain seven times the national average. Wyoming's water quality is also among the worst in the nation. The Environmental

Protection Agency ranks Wyoming among the worst 10 states for toxic water, air, and overall net releases.

Key Indicators

● Opportunity ● Strength ● Unclassified *indicates a tie in ranking





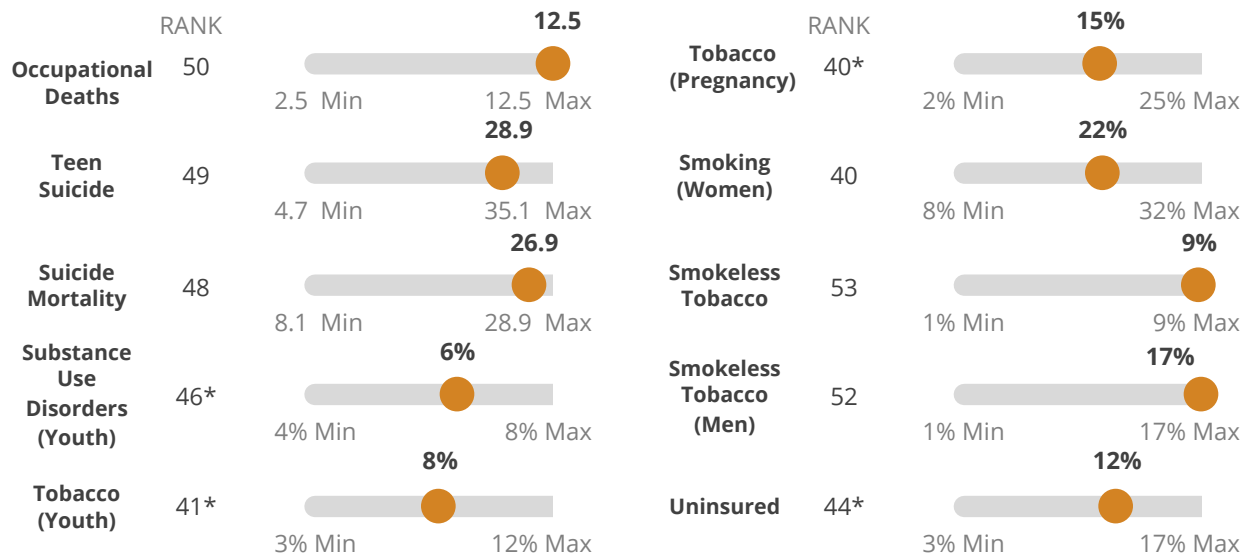
HEALTH

The United Health Foundation (2019) ranks Wyoming 24th in the nation for overall health outcomes, including behaviors, policy, clinical care, and community and environment. Wyoming's strengths include low cancer death rate, low percentage of children in poverty, infant care, and rates of disease.

Wyoming ranks poorly among the states for having a high percentage of uninsured, a high occupational fatality rate, a low rate of primary care physicians, and a very high suicide rate. Wyoming has opportunities for growth related to screenings and immunizations, substance use, and diabetes management.

Key Indicators

● Opportunity ● Strength ● Unclassified *indicates a tie in ranking

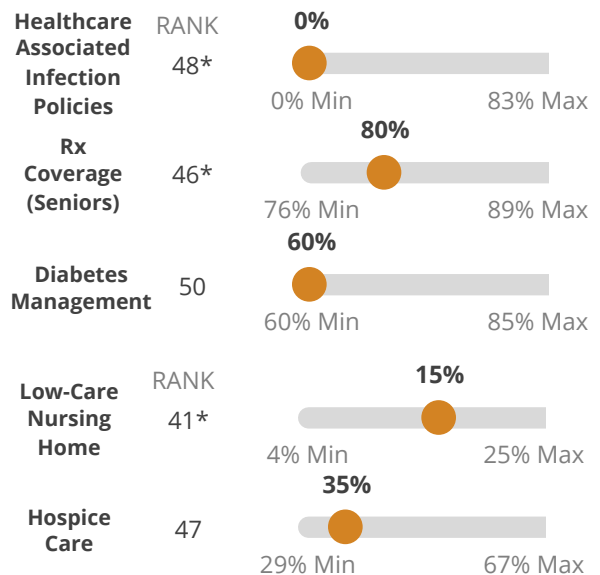
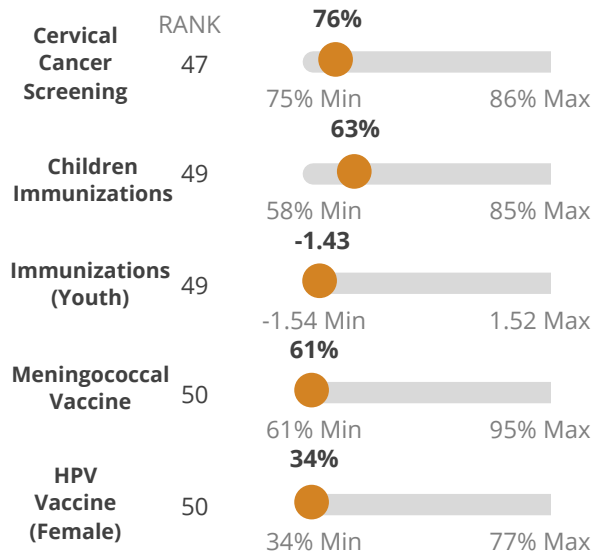
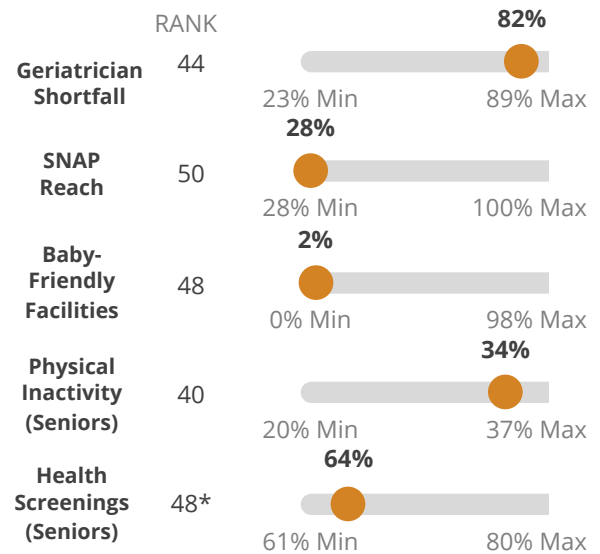
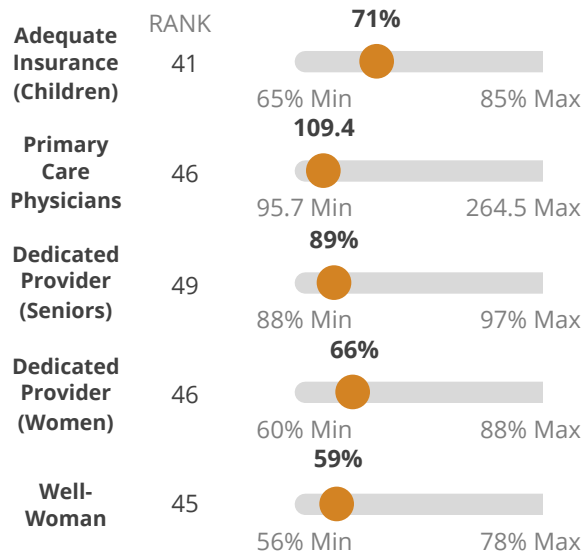




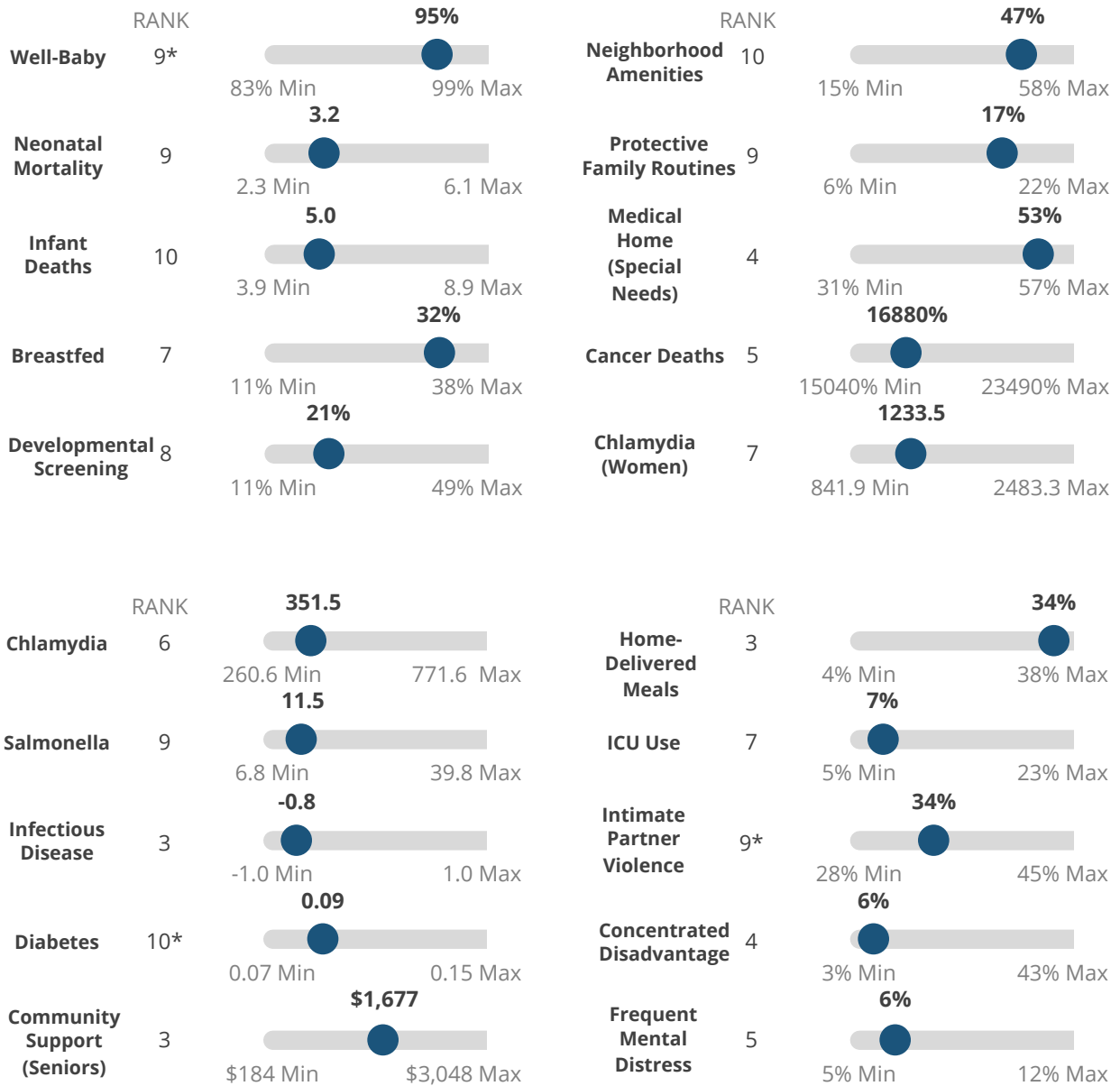
HEALTH

Key Indicators

● Opportunity ● Strength ● Unclassified *indicates a tie in ranking



WYOMING'S GRAND CHALLENGES: PRELIMINARY WHITE PAPER





INFRASTRUCTURE

The American Society of Civic Engineers (ASCE; 2019) analyzed the nation's infrastructure and gave the nation a D+ on the 2017 Infrastructure Report Card. While the organization did not provide individual state grades, Wyoming faces significant infrastructure challenges. Some key facts about Wyoming's infrastructure include the following:

- 3,127 bridges (10%) are structurally deficient
- 99 high-hazard dams
- \$458 million in drinking water infrastructure needs over the next 20 years
- \$500,000 of unmet needs for Wyoming's park system
- \$356 per motorist per year in costs from driving on roads in need of repair
- 8% of Wyoming's 30,430 miles of public roads are in poor condition
- \$149 million gap in estimated school capital expenditures
- \$91 million in wastewater infrastructure needs over the next 20 years

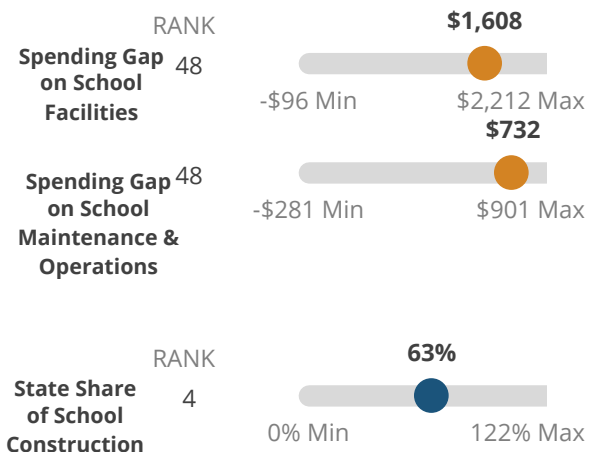
The ASCE suggests states invest in critical infrastructure systems; obtain strong leadership, planning, and a clear vision for infrastructure development; and utilize new approaches, materials, and technologies to ensure infrastructure is more resilient.

Broadband coverage and speeds are an important part of infrastructure. According to BroadbandNow (2014–2019), 76% of Wyoming has broadband coverage and 27% of the population is underserved. This makes Wyoming one of the least connected states in the country, ranking 49th.

Wyoming ranks 4th for the state's share of costs for public school construction, land, building, facilities improvement, and equipment. However, Wyoming ranks 48th for per-student spending on school facilities maintenance. Specifically, this indicator is measuring the gap between 1) the standard cost to regularly upgrade existing school facilities' systems, components, fixtures, equipment, and finishes; systematically reduce the backlog of deferred maintenance; and alter existing facilities and 2) actual capital construction expenditures in millions. The indicator labeled "spending gap on school maintenance & operations" is measuring the per-student gap between 1) the standard cost to maintain, operate, and renew facilities so they are clean and in good working order and 2) actual maintenance and operations expenditures in millions.

Key Indicators

● Opportunity ● Strength ● Unclassified
*indicates a tie in ranking





NATURAL RESOURCES

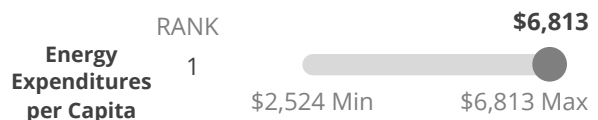
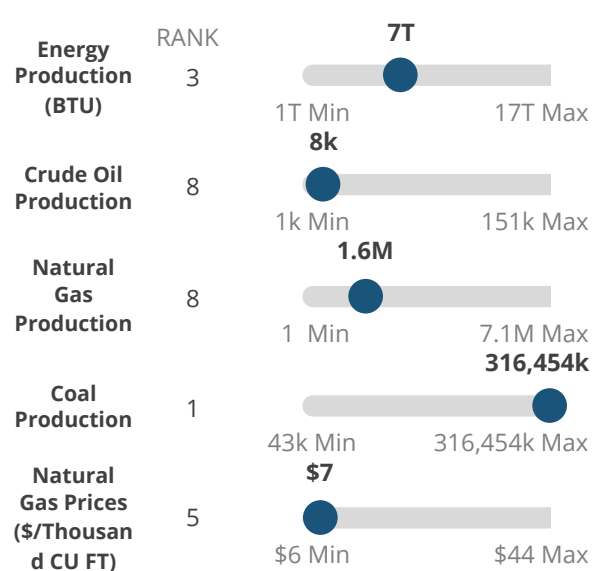
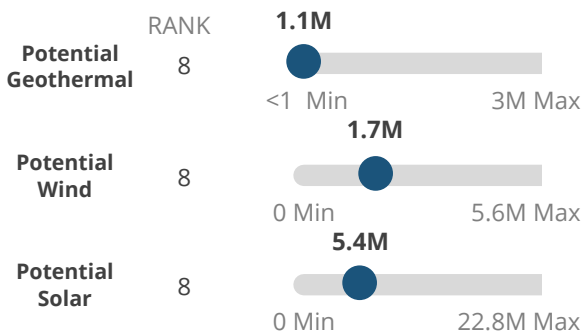
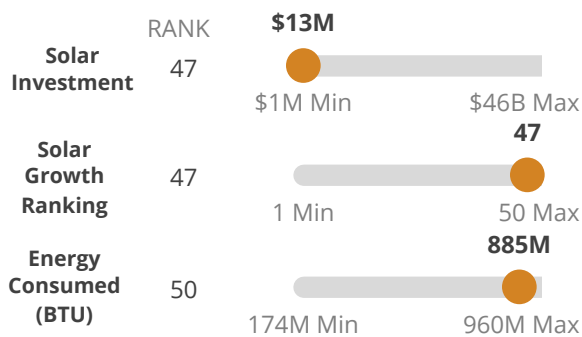
Wyoming extractive industries accounted for 20% of the State's GDP in 2016, and jobs in the extractive industries made up 7% of statewide employment (Department of the Interior, n.d.). Wyoming leads the nation in the production of coal, with the State producing 41% of total U.S. production. Wyoming also produces large quantities of gas, oil, soda ash, and sodium bi-carbonate. In 2016, Wyoming collected \$2,126,209,645 in state revenue from natural resource extraction (including both tax and non-

tax revenue), much of which goes to state and local funds (Department of the Interior, n.d.).

When it comes to state rankings, Wyoming ranks well with energy production, crude oil production, natural gas production, coal production, natural gas prices, and potential for geothermal, wind, and solar energy. Wyoming has opportunities to invest in solar growth and to reduce the amount of energy consumed.

Key Indicators

● Opportunity ● Strength ● Unclassified *indicates a tie in ranking



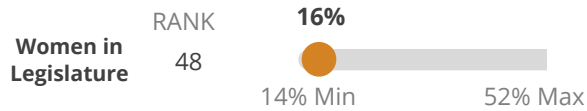


POLITICS

Wyoming is the most Republican-leaning state in the nation and it can run 367 days on its rainy day fund, as of fiscal year 2018. Unfortunately, Wyoming ranks last in the nation for the proportion of women in the state legislature.

Key Indicators

● Opportunity ● Strength ● Unclassified *indicates a tie in ranking





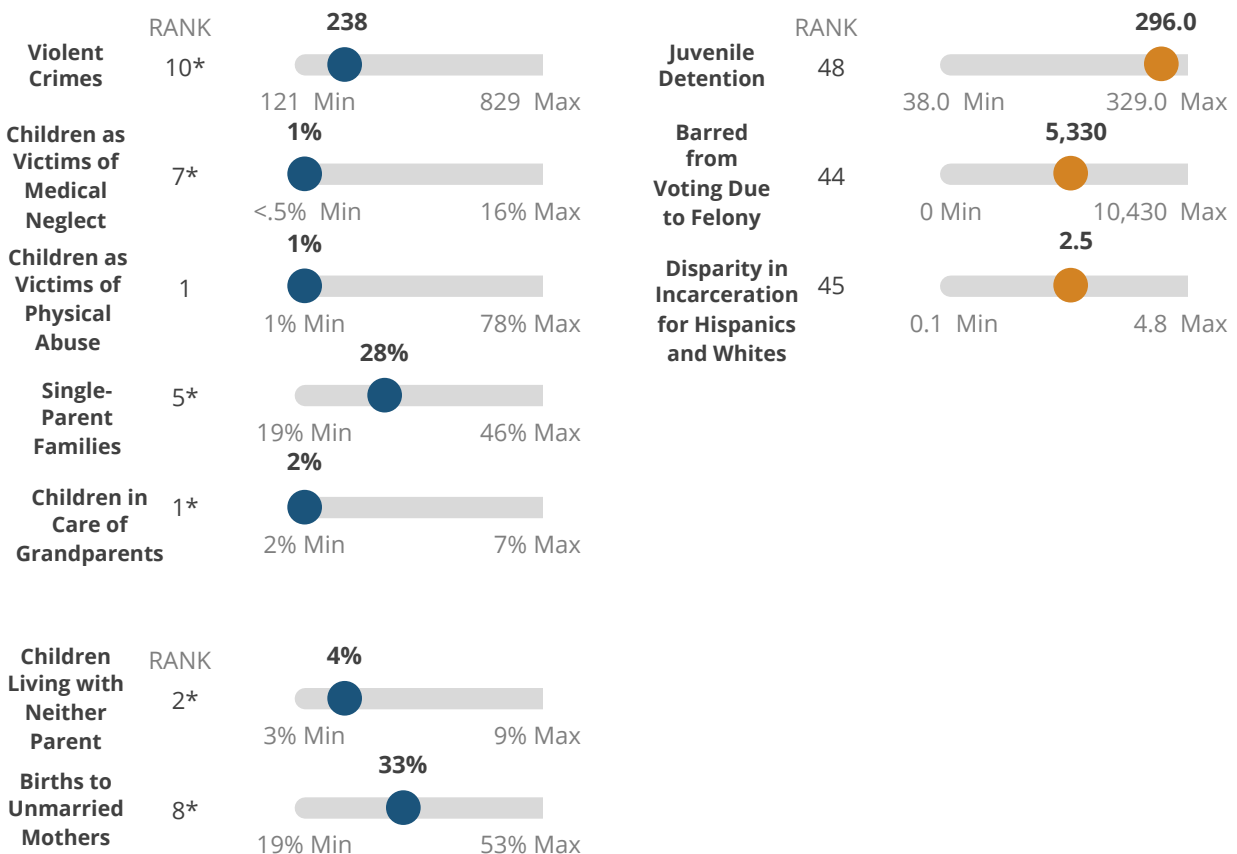
SOCIETY

Wyoming is the least populated state, but ranked 10th in terms of total area (Encyclopedia Britannica, 2019). Wyoming's rural nature provides grounds for both strengths and opportunities. Wyoming has low rates of violent crime, child abuse, and familial risk factors (such as single-parent families, children in care of grandparents, children living with neither parent, and births to unmarried mothers). On the other hand, Wyoming ranks poorly for juvenile custody

rates; the rate of youth residing in juvenile detention, correctional, and/or residential facilities; the felony disenfranchisement rate (the number of people barred from voting due to a felony conviction, per 100,000 residents); and the disparity in incarceration rates for Hispanic and White residents. Wyoming has an opportunity to work toward more equity within the criminal justice system.

Key Indicators

● Opportunity ● Strength ● Unclassified *indicates a tie in ranking





CONCLUSION

While the aim of this report is not to identify a particular grand challenge, we can draw broad conclusions based on the gathered data. The following are five major conclusions based on our research.

1. To fully live up to Wyoming's state nickname—The Equality State—Wyoming could address opportunities for equity. Specifically, equity could be addressed for students of color in the education system, race disparities in the criminal justice system, women in politics, ensuring benefits reach those in poverty, closing the gender pay gap, and addressing health disparities.
2. Wyoming's economy is a major focus for Wyomingites and the State government. Diversifying the economy (moving away from the boom-and-bust cycle), encouraging young people to stay and work in the State, and economic growth are of particular importance.
3. Wyoming's natural resources, outdoor space, and farm/ranch land are very important to the State's identity and economy. Decisions about the use of Wyoming's public space certainly have implications for Wyoming's environment and economy.
4. Consistent with the rest of the nation, Wyoming faces some significant infrastructure challenges including structurally deficient bridges, high-hazard dams, drinking and waste water infrastructure needs, road repairs, and school infrastructure needs.
5. Wyoming has an opportunity to address the State's health challenges: occupational facilities, suicides, and substance use severely impact the health of Wyomingites. Improving access to care, insurance coverage, disease management, and increasing the utilization of screenings and immunizations would also have a significant impact on Wyomingites' health.

ABOUT THE DATA

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Definitions

% of Population Completed HS:

Percent of people 25 years and over who have completed high school (includes equivalency) (2011). The Council of State Governments: States Perform. <http://bit.ly/2ZJtc6>

100% Poverty: Children in poverty (100 percent poverty) (2017). The share of children under age 18 who live in families with incomes below the federal poverty level. Annie E. Casey Foundation: Kids Count Data Center. <http://bit.ly/2YNHt0p>

4th Grade Math Scores: 4th grade averaged scaled math scores (2017). The Nation's Report Card: National Assessment of Educational Progress. <http://bit.ly/2GVptqD>

4th Grade Reading Scores: 4th grade average scaled reading scores (2017). The Nation's Report Card: National Assessment of Educational Progress. <http://bit.ly/2GVpsTB>

4th Grade Science Scores: 4th grade average scaled science scores (2017). The Nation's Report Card: National Assessment of Educational Progress. <http://bit.ly/2YOTQt2>

Acres in Farms: (2013). US Department of Agriculture, National Agricultural Statistics Service. <http://bit.ly/2M4UuNd>

Adequate Insurance (Children): Adequate health insurance (children) (2016). Percentage of insured children aged 0 to 17 whose health plan has either no or reasonable out-of-pocket costs; offers benefits or covered services that meet their child's needs; and allows them to see needed health care providers.

America's Health Rankings. <http://bit.ly/2MdaaOz>

AI/AN HS Graduation Rate:

American Indian/Alaska Native Averaged High School Freshman Graduation Rate (2009-2010). The average freshmen graduation rate (ACGR) is the percentage of public high school freshmen who graduate with a regular diploma within 4 years of starting 9th grade. National Center for Education Statistics. <http://bit.ly/2GWssiK>

Air Pollution: (2015-2017). Average exposure of the general public to particulate matter of 2.5 microns (PM2.5) or less in size (3-year average). America's Health Rankings. <http://bit.ly/2Mdamxh>

APIA HS Graduation Rate: Asian/Pacific Islander Averaged High School Freshman Graduation Rate (2009-2010). The average freshmen graduation rate (ACGR) is the percentage of public high school freshmen who graduate with a regular diploma within 4 years of starting 9th grade. National Center for Education Statistics. <http://bit.ly/2GWssiK>

Associate's Degree Graduation Rate: percentage of students in higher education who obtain an associate's degree within three years (2009). The Council of State Governments: States Perform. <http://bit.ly/2YOTQt2>

Avg. Size Farm: (2017). In acres. US Department of Agriculture, National Agricultural Statistics Service. <http://bit.ly/2GTCP6F>

Baby-Friendly Facilities: (2016). Percentage of live births occurring at facilities that adhere to 10 Steps to Successful Breastfeeding and are designated baby-friendly by Baby-Friendly USA. America's Health Rankings. <http://bit.ly/2GQ7sKb>

Barley: (2017). 1000 Bushels. US Department of Agriculture, National Agricultural Statistics Service. <http://bit.ly/2GTCP6F>

Barred from Voting Due to Felony: Felony Disenfranchisement Rate

(2016). The number of people barred from voting due to a felony conviction per 100,000 residents. The Sentencing Project. <http://bit.ly/2YJl5UR>

Beans: Dry Edible, All (2017). 1000 Cwt. US Department of Agriculture, National Agricultural Statistics Service. <http://bit.ly/2GTCP6F>

Births to Unmarried Mothers: (2016). Births occurring to women who were unmarried at the time of the birth. Annie E. Casey Foundation: Kids Count Data Center. <http://bit.ly/2YRnOg6>

Black HS Graduation Rate: Black Averaged High School Freshman Graduation Rate (2009-2010). The average freshmen graduation rate (ACGR) is the percentage of public high school freshmen who graduate with a regular diploma within 4 years of starting 9th grade. National Center for Education Statistics. <http://bit.ly/2GWssiK>

Breastfed: (2014). Percentage of infants exclusively breastfed for six months. America's Health Rankings. <http://bit.ly/2GTKgkL>

Breeding Sheep & Lambs: (2018). 1000 Lambs. US Department of Agriculture, National Agricultural Statistics Service. <http://bit.ly/2GTCP6F>

Cancer Deaths: Cancer Deaths per 100,000 population, 3-year average (2014-2016). Age-adjusted number of deaths due to all causes of cancer per 100,000 population (3-year average). America's Health Rankings. <http://bit.ly/2GOlhZR>

Carbon Dioxide Emissions: Carbon Dioxide Emissions per capita (2016). Many factors contribute to variation in the amount of emissions per capita, including climate, the structure of the state economy, population density, energy sources, building standards, and explicit state policies to reduce emissions. US Energy Information Administration. <http://bit.ly/2GTrrYx>

Cervical Cancer Screening: (2016). Percentage of women aged 21 to 44 who received a Pap smear within the

past three years. America's Health Rankings. <http://bit.ly/2GTTrtj7>

Child Support: Female headed households receiving child support (2017). Families headed by an unmarried women (living with one or more of her own children under age 18) receiving child support payments during the previous calendar year. Annie E. Casey Foundation: Kids Count Data Center. <http://bit.ly/2YOR2w0>

Children as Victims of Medical Neglect: Children who are confirmed by child protective services as victims of maltreatment (medical neglect) (2017). Child victims are children who are subject to at least one substantiated or indicated maltreatment report for medical neglect. Rates of maltreated children are per 1,000 children under 18 years old. Annie E. Casey Foundation: Kids Count Data Center. <http://bit.ly/2YNLHF5>

Children as Victims of Physical Abuse: Children who are confirmed by child protective services as victims of maltreatment (physical abuse) (2017). Child victims are children who are subject to at least one substantiated or indicated maltreatment report for physical abuse. Rates of maltreated children are per 1,000 children under 18 years old. Annie E. Casey Foundation: Kids Count Data Center. <http://bit.ly/2YNLHF5>

Children Immunizations: (2014). Percentage of children aged 19 to 35 months who received recommended doses of diphtheria, tetanus, and acellular pertussis (DTaP), polio, measles, mumps, rubella (MMR), Hib, hepatitis B, varicella, and pneumococcal conjugate vaccines. America's Health Rankings. <http://bit.ly/2GTTAi7>

Children in Care of Grandparents: (2017). The share of children under age 18 living in households where a grandparent provides that child's primary care. Annie E. Casey Foundation: Kids Count Data Center. <http://bit.ly/2YOnGhq>

Children Living in Low-Income Unemployed Households: (2017). Children under age 18 who live in low-income households where no

adult worked (full- or part-time) in the 12 months prior to the survey. Annie E. Casey Foundation: Kids Count Data Center. <http://bit.ly/2ZHWrSG>

Children Living with Neither Parent: (2017). The share of children under age 18 living in households where neither parent resides. Annie E. Casey Foundation: Kids Count Data Center. <http://bit.ly/2YONDmc>

Children Not Read To: Percent of children under age 6 whose family members read to them less than 4 days per week (2016-2017). Annie E. Casey Foundation: Kids Count Data Center. <http://bit.ly/2GVpuuH>

Chlamydia (Women): (2015). Number of new cases of chlamydia per 100,000 females aged 15 to 44. America's Health Rankings. <http://bit.ly/2M9cCVV>

Chlamydia: (2016). Number of new cases of chlamydia per 100,000 population. America's Health Rankings. <http://bit.ly/2M7bU5i>

Coal Production: (2017). Coal production (thousand short tons). U.S. Energy Information Administration. <http://bit.ly/2YNL9ij>

Community Support (Seniors): Community Support, per adult aged 60 and older living in poverty (2017). Expenditures captured by the Administration on Aging per adult aged 60 and older living in poverty. America's Health Rankings. <http://bit.ly/2M8rIR8>

Concentrated Disadvantage: (2018). Percentage of households located in census tracts with a high level of concentrated disadvantage, calculated using five census variables (percentage below poverty line, receiving public assistance, female-headed households, unemployed, younger than age 18). America's Health Rankings. <http://bit.ly/2GVsWWd>

Crude Oil Production: (2019). Crude oil production (thousand barrels). Excludes federal offshore production. U.S. Energy Information Administration. <http://bit.ly/2YNKSwd>

Deaths: Occupational Fatalities, fatal occupational injuries per 100,000 workers (2018). Number of fatal occupational injuries in construction, manufacturing,

trade, transportation, utilities and professional and business services per 100,000 workers (3-year average). America's Health Rankings. <http://bit.ly/2GT1k45>

Dedicated Provider (Seniors): (2017). Percentage of adults aged 65 and older who reported having one or more people they think of as their personal doctor or health care provider. America's Health Rankings. <http://bit.ly/2M6GOKS>

Dedicated Provider (Women): (2018). Percentage of women aged 18 to 44 who reported having one or more people they think of as their personal doctor or health care provider. America's Health Rankings. <http://bit.ly/2M6wARb>

Developmental Screening: (2016). Percentage of children aged 10 months to 5 years with a visit in the past 12 months whose parent completed a standardized developmental screening tool. America's Health Rankings. <http://bit.ly/2GSVeRo>

Diabetes Management: (2015). Percentage of Medicare enrollees aged 65 to 75 with diabetes receiving a blood lipids test. America's Health Rankings. <http://bit.ly/2M70k0u>

Diabetes: (2017). Percentage of adults who reported being told by a health professional that they have diabetes (excludes prediabetes and gestational diabetes). America's Health Rankings. <http://bit.ly/2M574fj>

Difficulty Speaking English: (2017). The share of children ages 5 to 17 that speak English less than "very well". Annie E. Casey Foundation: Kids Count Data Center. <http://bit.ly/2M6JBKS>

Disparity in Incarceration for Hispanics and Whites: Disparity in Incarceration Rates for Hispanic and White Residents per 100,000 (2016). The Sentencing Project. <http://bit.ly/2YYfhlp>

Drinking Water Quality: (2017). The Environmental Protection Agency uses a weighted point system to track violations of the law, including contaminants and treatment. This metric measures the number of violation points against public water

systems per 1,000 residents served in each state. US News. <http://bit.ly/2M6GN0i>

Educational Expenditures: (2015). Per-pupil educational expenditures adjusted for regional cost differences using the National Center for Education Statistics (NCES) Geographic Cost of Education Index. Annie E. Casey Foundation: Kids Count Data Center. <http://bit.ly/2GWssiK>

Employment Growth: Over-the-year, seasonally adjusted change in total nonfarm employment (2019). Data are counts of jobs by place of work. Data have been revised to reflect 2018 benchmarks and updated seasonal adjustment factors. Seasonally adjusted data from January 2014 are subject to revision. Some seasonally adjusted series may have been revised. U.S. Department of Labor Bureau of Labor Statistics. <http://bit.ly/2GT0Qeh>

Energy Consumed (BTU): Total Energy Consumed per Capita (Million BTU) (2017). U.S. Energy Information Administration. <http://bit.ly/2YNKrC5>

Energy Expenditures per Capita: (2016). Total energy expenditures per capita (\$). U.S. Energy Information Administration. <http://bit.ly/2YJl1EB>

Energy Production (BTU): Total Energy Production (Trillion BTU) (2016). U.S. Energy Information Administration. <http://bit.ly/2YNKDBj>

Food Insecure Children: Children Living in Households that were Food Insecure at Some Point During the Year (2016). Children under age 18 living in households, where in the previous 12 months, there was an uncertainty of having, or an inability to acquire, enough food for all household members because of insufficient money or other resources. Annie E. Casey Foundation: Kids Count Data Center. <http://bit.ly/2ZGerwT>

Frequent Mental Distress: (2017). Percentage of adults aged 65 and older who reported their mental

health was not good 14 or more days in the past 30 days. America's Health Rankings. <http://bit.ly/2GRAHN2>

GDP Growth: (2017-2018). U.S. Department of Commerce Bureau of Economic Analysis. <http://bit.ly/2GT0QuN>

GDP per Capita: (2018). U.S. Department of Commerce Bureau of Economic Analysis. <http://bit.ly/2GSkDKX>

GED Pass Rate: (2013). National Center for Education Statistics. <http://bit.ly/2GVptqD>

Gender Pay Gap: (2017). Median annual earnings ratio for full-time, year-round workers, by gender. American Association of University Women. <http://bit.ly/2Mda7ST>

Geriatrician Shortfall: (2016). Percentage of geriatricians required to meet estimated need. America's Health Rankings. <http://bit.ly/2M6iclj>

Health Screenings (Seniors): (2016). Percentage of women aged 65 to 74 who reported receiving a mammogram in the past two years and the percentage of adults aged 65 to 75 who reported receiving colorectal cancer screening within the recommended time period. America's Health Rankings. <http://bit.ly/2GT1kB7>

Healthcare Associated Infection Policies: (2014). Percentage of 24 reporting and validation policies implemented in the state to monitor health care associated infections (HAI) in hospitals. America's Health Rankings. <http://bit.ly/2GTCReN>

High Poverty Areas: Children living in high poverty areas (2017). Children living in census tracts with poverty rates of 30 percent or more. Annie E. Casey Foundation: Kids Count Data Center. <http://bit.ly/2YNXEuC>

HiSET Pass Rate: Pass rate for high school equivalency test (HiSET) (2015). National Center for Education Statistics. <http://bit.ly/2GVpsTB>

Home-Delivered Meals: (2017). Number of persons aged 60 and older served a home-delivered meal as a percentage of adults aged 60 and older with independent-living difficulty. America's Health Rankings. <http://bit.ly/2M6qxvU>

Hospice Care: (2016). Percentage of Medicare decedents aged 65 and older who were enrolled in hospice during the last six months of life after diagnosis of a condition with a high probability of death. America's Health Rankings. <http://bit.ly/2M6QIs3>

Housing Cost Burden: Children living in households with a high housing cost burden (2017). The share of children living in households where more than 30 percent of the monthly income was spent on rent, mortgage payments, taxes, insurance, and/or related expenses. Annie E. Casey Foundation: Kids Count Data Center. <http://bit.ly/2YJEEENX>

HPV Vaccine (Female): (2017). Percentage of females aged 13 to 17 who are up to date on all the recommended doses of human papillomavirus (HPV) vaccine. America's Health Rankings. <http://bit.ly/2GSlawr>

HS Dropout Rate: Grades 9-12 dropout rate (2008). The event dropout rate is defined as the count of dropouts from a given school year divided by the count of student enrollments within the same grade span at the beginning of the same school year. National Center for Education Statistics. <http://bit.ly/2GWssik>

ICU Use: (2016). Percentage of Medicare decedents aged 65 and older spending seven or more days in the intensive care unit (ICU)/critical care unit during the last six months of life. America's Health Rankings. <http://bit.ly/2M573rL>

Immunizations (Youth): (2018). Mean z score of the percentage of adolescents aged 13 to 17 who received the recommended doses of Tdap, meningococcal and HPV vaccines. America's Health Rankings. <http://bit.ly/2GVsVBD>

Infant Deaths: (2015-2016). Number of infant deaths (before age 1) per 1,000 live births (2-year average). America's Health Rankings. <http://bit.ly/2GSIBAv>

Infectious Disease: (2018). Mean z score of the incidence of chlamydia, pertussis and Salmonella per 100,000 population. America's Health Rankings. <http://bit.ly/2GSIco3>

Intimate Partner Violence: (2010-2012). Percentage of women aged 18 and older who experienced contact sexual violence, physical violence and/or stalking by an intimate partner in their lifetime. America's Health Rankings. <http://bit.ly/2GTCSPT>

Juvenile Custody Rate: (2017). The number of youth placed in the juvenile justice system per 100,000 youth. The Sentencing Project. <http://bit.ly/2YQD2lp>

Juvenile Detention: Youth Residing in Juvenile Detention, Correctional, and/or Residential Facilities per 100,000 (2015). Persons under age 21 detained, incarcerated, or placed in residential facilities. Values include persons under age 21 who had been (1) charged with or adjudicated for an offense; (2) assigned a bed in a facility that can hold accused or convicted juvenile. Annie E. Casey Foundation: Kids Count Data Center. <http://bit.ly/2YPqQBk>

Lambs: (2018). 1000 Head. US Department of Agriculture, National Agricultural Statistics Service. <http://bit.ly/2GTCP6F>

Land Releases: Toxic Land Releases per square mile (2017). State's 2017 land releases rank based on land releases per sq mile, compared to all states. United States Environmental Protection Agency. <http://bit.ly/2M4Titd>

Low Debt at College Graduation: (2017). The Institute for College Access & Success. <http://bit.ly/2M6JBKS>

Low-Care Nursing Home: (2016). Percentage of nursing home residents who do not require physical assistance for late-loss activities of daily living. America's Health Rankings. <http://bit.ly/2GUfsdl>

Market Sheep & Lambs: (2018). 1000 Head. US Department of Agriculture, National Agricultural Statistics Service. <http://bit.ly/2GTCP6F>

Medical Home (Special Needs): medical home for child with special health care needs (2016). Percentage of children aged 0 to 17 with special health care needs who received coordinated, ongoing, comprehensive care within a medical home,

including having a personal doctor or nurse, a usual source for sick care, family-centered care, and referrals. America's Health Rankings. <http://bit.ly/2GSouHS>

Meningococcal Vaccine: (2017). Percentage of adolescents aged 13 to 17 who received ≥ 1 dose of meningococcal conjugate (MenACWY) vaccine. America's Health Rankings. <http://bit.ly/2GUfrWP>

Milk Cows: (2018). 1000 Head. US Department of Agriculture, National Agricultural Statistics Service. <http://bit.ly/2GTCP6F>

Milk Production: (2018). Mil Lbs. US Department of Agriculture, National Agricultural Statistics Service. <http://bit.ly/2GTCP6F>

Natural Gas Prices (\$/Thousand CU FT): Natural Gas Residential Prices (\$/thousand cu ft) (2019). U.S. Energy Information Administration. <http://bit.ly/2YJuHA3>

Natural Gas Production: Natural Gas Marketed Production (Million CU FT) (2017). U.S. Energy Information Administration. <http://bit.ly/2YMmPxv>

Neighborhood Amenities: (2016). Percentage of children aged 0 to 17 with access to parks or playgrounds, recreation or community centers, libraries or bookmobiles, and sidewalks or walking paths. America's Health Rankings. <http://bit.ly/2M5by5x>

Neonatal Mortality: (2015-2016). Number of deaths during first 28 days of life (0 to 27 days) per 1,000 live births. America's Health Rankings. <http://bit.ly/2ZFgjGj>

No Vehicle: Children without a vehicle at home (2017). The share of children under age 18 living in households without a vehicle at the time of the interview. Vehicles include passenger cars, vans, and trucks that are kept at home and are available for use by household members. Annie E. Casey Foundation: Kids Count Data Center. <http://bit.ly/2YSm5qK>

Not HS Graduate: Educational attainment of population ages 24-34 (not a high school graduate) (2017). Annie E. Casey Foundation:

Kids Count Data Center. <http://bit.ly/2GVpuuH>

Out-of-School Suspension: Children who have been suspended from school (out-of-school) (2013-2014). Percentages are based on school enrollment. Enrollment refers to the unduplicated count of students on the rolls of the school. The unduplicated count includes students both present and absent and excludes duplicate counts of students within a specific school or students whose membership is reported by another school. An out-of-school suspension is an instance in which a child is temporarily removed from his/her regular school for at least half a day (but less than the remainder of the school year) for disciplinary purposes to another setting (e.g. home, behavior center). Annie E. Casey Foundation: Kids Count Data Center. <http://bit.ly/2M6JBKS>

Owned Households: (2017). The share of children under age 18 living in households that are owned with a mortgage or loan or are owned free and clear. Annie E. Casey Foundation: Kids Count Data Center. <http://bit.ly/2YPt6bV>

Parent Concerns about Development: (2011-2012). Parents of children ages 4 months to 5 years are concerned about their child's development. Annie E. Casey Foundation: Kids Count Data Center. <http://bit.ly/2M5QBYm>

Parent Not in Labor Force: Children Under Age 6 with no Parent in the Labor Force (2017). The share of children under age 6 whose resident parents are not in the civilian labor force. Annie E. Casey Foundation: Kids Count Data Center. <http://bit.ly/2YNXy6e>

Parents Unemployment: (2017). The unemployment rate of parents is the total number of parents unemployed divided by the total number of parents in the labor force. Parents who are not working and are not looking for work are not considered to be in the labor force, and so are not included in the unemployment rate. Annie E. Casey Foundation: Kids Count Data Center. <http://bit.ly/2ZFeTLZ>

Party Affiliation (Net Republican Lean): (2017). Percentage of Democrats minus percentage of republicans. Gallup. <http://bit.ly/2GWsszg>

Pasture & Farm Acres: Permanent pasture and rangeland acres (2013). US Department of Agriculture, National Agricultural Statistics Service. <http://bit.ly/2M4UuNd>

Pasture & Farm Irrigated: permanent pasture and rangeland acres irrigated (2013). US Department of Agriculture, National Agricultural Statistics Service. <http://bit.ly/2M4UuNd>

Pasture & Farm: Permanent Pasture and rangeland farms (2013). US Department of Agriculture, National Agricultural Statistics Service. <http://bit.ly/2M4UuNd>

Physical Inactivity (Seniors): (2017). Percentage of adults aged 65 and older in fair or better health who reported doing no physical activity or exercise other than their regular job in the past 30 days. America's Health Rankings. <http://bit.ly/2H7cC51>

Pinto Beans: (2017). 1000 Cwt. US Department of Agriculture, National Agricultural Statistics Service. <http://bit.ly/2GTCP6F>

Population Change: (2018). Estimates of resident population change for the United States, Regions, States, and Puerto Rico and region and state rankings: July 1, 2017 to July 1, 2018. U.S. Census Bureau. <http://bit.ly/2GSkDur>

Potential Acres Irrigated for Crops: Acres irrigated for pasture/ grazing that could have been used for crops (2013). Excludes institutional, research, and experimental farms. US Department of Agriculture, National Agricultural Statistics Service. <http://bit.ly/2M4UuNd>

Potential Geothermal: Total Estimated Technical Potential for Enhanced Geothermal Systems (Thousands of GWh) (2012). Technology specific estimates of energy potential based on renewable resource availability and quality, technical system performance,

topographical limitations, environmental, and land-use constraints only. These estimates do not consider (in most cases) economic or market constraints, and therefore do not represent a level of renewable generation that might actually be depolyed. National Renewable Energy Laboratory. <http://bit.ly/2M5PXdi>

Potential Land for Crops: Farms pasture/grazing land that could have been used for crops (2013). Excludes institutional, research, and experimental farms. US Department of Agriculture, National Agricultural Statistics Service. <http://bit.ly/2M4UuNd>

Potential Solar: Total Estimated Technical Potential for Concentrating Solar Power (Thousands of GWh) (2012). Technology specific estimates of energy potential based on renewable resource availability and quality, technical system performance, topographical limitations, environmental, and land-use constraints only. These estimates do not consider (in most cases) economic or market constraints, and therefore do not represent a level of renewable generation that might actually be depolyed. National Renewable Energy Laboratory. <http://bit.ly/2M5PXdi>

Potential Wind: Total Estimated Technical Potential for Onshore Wind Power (Thousands of GWh) (2012). Technology specific estimates of energy potential based on renewable resource availability and quality, technical system performance, topographical limitations, environmental, and land-use constraints only. These estimates do not consider (in most cases) economic or market constraints, and therefore do not represent a level of renewable generation that might actually be depolyed. National Renewable Energy Laboratory. <http://bit.ly/2M5PXdi>

Primary Care Physicians: (2017). Number of active primary care physicians (including general practice, family practice, obstetrics and gynecology, pediatrics, geriatrics, and internal medicine) per 100,000 population. America's Health Rankings. <http://bit.ly/2GSlds7>

Protective Family Routines: (2016). Percentage of children aged 0 to 17 who meet age-specific criteria for protective family routines and habits. America's Health Rankings. <http://bit.ly/2M5UkVP>

Public Assistance: Children in Families that Receive Public Assistance (2017). Population of children under age 18 in families that receive Supplemental Security Income (SSI), cash public assistance income, or Food Stamps/SNAP in the previous 12 months. Annie E. Casey Foundation: Kids Count Data Center. <http://bit.ly/2YLYTuh>

Public School Expenditures: Public school current expenditures per student in fall enrollment (2017-2018). National Education Association. <http://bit.ly/2M5QBm>

Public School Revenue Receipts: Public school revenue receipts per student in fall enrollment (2017-2018). National Education Association. <http://bit.ly/2ZFgaTh>

Pupil to Teacher Ratio: Pupil/Teacher Ratio (2016-2017). National Center for Education Statistics. <http://bit.ly/2M5QBm>

Quarterly GDP Growth: Quarterly GDP Growth 2018:Q3-2018:Q4 (2019). The 3-year compound annual growth rate of real gross domestic product by state in millions of chained 2012 dollars, or dollars that have been adjusted for inflation to allow for year-to-year comparison. It captures trends from 2014 to 2017, according to data from the Bureau of Economic Analysis. U.S. Department of Commerce Bureau of Economic Analysis. <http://bit.ly/2GT0QuN>

Rainy Day Fund: Days each state could run on its rainy day fund (2018). Days each state could run on only rainy day funds in FY 2018. Pew Charitable Trusts. <http://bit.ly/2M6ib7D>

Risk-Screening Environmental Indicators (RSEI) Score: (2017). A unitless result that accounts for the size of the release, the chemical's toxicity, the fate and transport of the chemical through the environment, and the size and location of the

exposed population. United States Environmental Protection Agency. <http://bit.ly/2M4Titd>

Rx Coverage (Seniors): Prescription Drug Coverage for Seniors (2014). Percentage of Medicare enrollees aged 65 and older who have a creditable prescription drug plan. America's Health Rankings. <http://bit.ly/2M5UkoN>

Salmonella: (2016). Number of new cases of Salmonella per 100,000 population. America's Health Rankings. <http://bit.ly/2GTUlrT>

Sheep & Lambs: (2018). 1000 Head. US Department of Agriculture, National Agricultural Statistics Service. <http://bit.ly/2GTCP6F>

Single-Parent Families: (2017). Children under age 18 who live with their own single parent either in a family or subfamily. Annie E. Casey Foundation: Kids Count Data Center. <http://bit.ly/2YQDf8b>

Smokeless Tobacco (Men): (2017). Percentage of male adults who currently use chewing tobacco, snuff, or snus. Behavioral Risk Factor Surveillance System. <http://bit.ly/2M5YFbl>

Smokeless Tobacco: Adult smokeless tobacco use (2017). Percentage of adults who currently use chewing tobacco, snuff, or snus. Behavioral Risk Factor Surveillance System. <http://bit.ly/2GVv2Fs>

Smoking (Women): (2015-2016). Percentage of women aged 18 to 44 who are smokers (reported smoking at least 100 cigarettes in their lifetime and currently smoke every or some days). America's Health Rankings. <http://bit.ly/2GVcZPX>

SNAP Reach: (2017). Number of adults aged 60 and older who participate in the Supplemental Nutrition Assistance Program (SNAP) per 100 adults aged 60 and older living in poverty. America's Health Rankings. <http://bit.ly/2H7cClx>

SNAP Utilization: (2015). Percent of total eligible population who

participated in the Supplemental Nutrition Assistance Program (SNAP). Annie E. Casey Foundation: Kids Count Data Center. <http://bit.ly/2YU1WAu>

Solar Growth Ranking: (2017). SEIA Ranking for solar industry growth. Solar Energy Industries Association. <http://bit.ly/2GSI9IT>

Solar Investment: (2017). Total solar investment (millions). Solar Energy Industries Association. <http://bit.ly/2GSI9IT>

Spending Gap on School Facilities: Capital Construction Gap per Student (2016). 4% of CRV = standard capital constructions cost. Gap between actual capital construction expenditures in millions and actual capital construction expenditures (FY 2011-2013) divided by student population 2013. Cost to regularly upgrade existing facilities' systems, components, fixtures, equipment, and finishes as they reach the end of their anticipated live expectancy; systematically reduce the backlog of deferred maintenance that has accumulated; and alter existing facilities to respond to changing educational requirements. 21st Century School Fund, Center for Green Schools, National Council on School Facilities. <http://bit.ly/2M6ib7D>

Spending Gap on School Maintenance & Operations: (2016). 3% of current replacement value (CRV) = standard M&O (maintenance and operations) cost. Gap between actual M&O Expenditures (FY 2011-2013) in millions and standard M&O divided by student population 2013. Maintain and operate the 2014 inventory of public school facilities so they are clean and in good working order. 21st Century School Fund, Center for Green Schools, National Council on School Facilities. <http://bit.ly/2GWsszg>

State Share of School Construction: (2016). Includes all capital costs for school construction, land, buildings, facilities improvement, and equipment. 21st Century School Fund, Center for Green Schools, National Council on School Facilities. <http://bit.ly/2M6ib7D>

Student Attendance: Students in

average daily attendance per teacher in public K-12 schools (2017-2018). National Education Association. <http://bit.ly/2YSmU2O>

Substance Use Disorders (Youth): (2018). Percentage of children aged 12 to 17 who were dependent on or abused illicit drugs or alcohol in the past year. America's Health Rankings. <http://bit.ly/2M70l4y>

Sugarbeets: (2017). 1000 Tons. US Department of Agriculture, National Agricultural Statistics Service. <http://bit.ly/2GTCP6F>

Suicide Mortality: Suicide mortality death rate deaths per 100,000 total population (2017). Centers for Disease Control and Prevention. <http://bit.ly/2GSlc7x>

Supplemental Poverty Measure: (2017). The percent of children under age 18 who are in poverty according to the supplemental poverty measure. Annie E. Casey Foundation: Kids Count Data Center. <http://bit.ly/2YOjHBu>

TANF Received: TANF Benefits Receipt among Families in Poverty (2016). Annie E. Casey Foundation: Kids Count Data Center. <http://bit.ly/2M5QBYm>

Teen Suicide: Deaths by suicide per 100,000 adolescents 15-19 years old (2014-2016). America's Health Rankings. <http://bit.ly/2GT7cu6>

Teens Not in School, Not Working: (2017). Teenagers between age 16 and 19 who are not enrolled in school (full- or part-time) and not employed (full- or part-time). Annie E. Casey Foundation: Kids Count Data Center. <http://bit.ly/2ZGDZdg>

Teens Not in School: (2017). Teenagers between the ages of 16 and 19 who are not enrolled in high school and are not high school graduates. Annie E. Casey Foundation: Kids Count Data Center. <http://bit.ly/2M5QBYm>

Tobacco (Pregnancy): (2015). Percentage of mothers who used tobacco during pregnancy. America's Health Rankings. <http://bit.ly/2M4V1ib>

Tobacco (Youth): (2018). Percentage of children aged 12 to 17 who used a tobacco product in the past month. America's Health Rankings. <http://bit.ly/2M5ijLa>

Toxic Net Releases: (2017). State's 2017 total net releases rank based on net releases per sq mile, compared to all states. United States Environmental Protection Agency. <http://bit.ly/2M4Titd>

Toxic Water Releases: (2017). State's 2017 water releases rank based on water releases per sq mile, compared to all states. United States Environmental Protection Agency. <http://bit.ly/2M4Titd>

Unemployment Rate: (2018). Percentage of the labor force that was unemployed. U.S. Department of Labor Bureau of Labor Statistics. <http://bit.ly/2GT0PXL>

Uninsured: (2016-2017). Percentage of the population that does not have health insurance privately, through their employer or through the government (2-year average). America's Health Rankings. <http://bit.ly/2M5VsZq>

Violent Crimes: (2017). Number of offenses of murder, rape, robbery and aggravated assault per 100,000 population. America's Health Rankings. <http://bit.ly/2GUvxzC>

Well-Baby: (2016). Percentage of babies aged 0 to 2 years who had a well-baby checkup in the past 12 months. America's Health Rankings. <http://bit.ly/2GSlf3d>

Well-Woman: (2018). Percentage of women aged 18 to 44 with a preventive medical visit in the past year. America's Health Rankings. <http://bit.ly/2GSlewB>

Women in Legislature: Proportion of women in the state legislature (2019). Center for American Women and Politics. <http://bit.ly/2GT7st4>

Woodland Pasture Acres: (2013). US Department of Agriculture, National Agricultural Statistics Service. <http://bit.ly/2M4UuNd>

Wool Production: (2018). 1000 Lbs. US Department of Agriculture, National Agricultural Statistics Service. <http://bit.ly/2GTCP6F>

Youth Enrolled or Completed College: (2017). The share of young adults ages 18 to 24 who are enrolled in college or who have completed college. Annie E. Casey Foundation: Kids Count Data Center. <http://bit.ly/2YLZ3Sp>

Credits

Photos from Unsplash.com and University of Wyoming Marketing and Communications Photo Database.

Icons from the Noun Project.

Special thanks to Melanie Rottweiler for her assistance.

APPENDIX

This appendix provides an exhaustive list of all the indicators identified by WYSAC where Wyoming was not ranked in the top or bottom 10 among all states. To make this list, indicators came from reputable sources that were already ranked.

ACT

Percent of high school graduates tested, average composite score, and percent meeting benchmarks for English, reading, math, and science

American Bankruptcy Institute

Bankruptcy filings per capita
Greatest annual per capita increase in bankruptcy filings

America's Health Rankings

Adolescent well-visit
Adverse childhood experiences
Alcohol consumption during pregnancy--women
All determinants (composite of four composites) (overall)
All determinants (composite of four composites) (seniors)
All determinants—children (composite)
All determinants—HWC (composite)
All Outcomes
All outcomes composite (seniors)
Arthritis management (seniors)
Behaviors--children
Behaviors—HWC (composite)
Behaviors—infants (composite score)
Behaviors—women composite
Cardiovascular deaths (overall)
Child mortality
Children in poverty (overall)
Children with health insurance

Clinical care--women
Clinical Care
Clinical care children
Clinical care composite. (Overall)
Clinical care HWC (Health of women and children?)
Clinical-care infants
Community & Environment
Community & environment Macro (seniors)
Community & Environment Total
Community & environment—children (composite)
Community & environment—HWC (composite)
Community & environment—infants (composite score)
Community & Environment-Micro
Community & environment--women and children
Dental visit (seniors)
Dental visit—women
Dentists (overall)
Diabetes—women
Disparity in health status (overall)
Drug deaths (overall)
Drug deaths--women
Early death (seniors)
Excessive drinking (overall)
Excessive drinking (seniors)
Excessive drinking—women
Falls (seniors)
Flu vaccine (seniors)
Flu vaccine—women
Food insecurity (seniors)
Food insecurity—household
Frequent mental distress (overall)
Frequent physical distress (overall)
Health behaviors composite (overall)
Health behaviors composite (seniors)
Health composite (overall)
High health status (seniors)
High school graduation (overall)
High school graduation no data in

my source
Hip fractures (seniors)
Home health care workers (seniors)
Homeless family households
Hospital deaths (seniors)
Hospital readmissions (seniors)
Household smoke
HPV immunization females—no data
n my source
HPV immunization males—no data in my source
Immunizations—children (overall)
Infant child care cost
Infant mortality
Intended pregnancy
Intimate partner violence—pregnancy
Low birth weight
Low birth weight (overall)
Maternal mortality
Meningococcal immunizations
Mental health providers (overall)
Missed school days
mPINC
Nursing home quality (seniors)
Obesity (overall)
Obesity (seniors)
Obesity—women
Outcomes-Children
Outcomes—HWC (composite) (women and children)
Outcomes—infants (composite)
Outcomes—women (composite)
Overall health composite (seniors)
Overall-children
Overall—HWC (composite)
Overall—infants (composite)
Overall—women (composite)
Overweight or obese youth
Pertussis (whooping cough) (overall)
Physical inactivity (overall)
Physical inactivity—women
Policy-Children
Postpartum depression
Postpartum visit

Poverty (seniors)	Children in extreme poverty (50 percent poverty)	year
Premature death (overall)	Children in kinship care	Children who live in unsafe communities
Prenatal care before 3rd trimester	Children in low-income households with a high housing cost burden	Children who missed 11 or more days of school per year due to illness or injury
Preterm birth	Children living in crowded housing	Children who missed 11 or more days of school per year due to illness or injury
Preventable hospitalizations (overall)	Children living with cohabiting domestic partners	Children who speak a language other than English at home
Preventable hospitalizations (seniors)	Children not in school by poverty status	Children whose parents lack secure employment
Public health funding (overall)	Children under age 6 who received a developmental screening	Children whose teeth are in excellent or very good condition
Publicly-funded women's health services	Children under age 6 with all available parents in the labor force	Children with at least one unemployed parent
Sleep position	Children who are confirmed by child protective services as victims of maltreatment	Educational attainment of population ages 24-34 (Bachelor's Degree)
Smoking (overall)	Children who are confirmed by child protective services as victims of maltreatment (emotional abuse)	Families with related children that are below poverty by family type
Smoking (seniors)	Children who are confirmed by child protective services as victims of maltreatment (neglect)	Families with related children that are below poverty by family type
Supportive neighborhoods	Children who are confirmed by child protective services as victims of maltreatment (other/missing maltreatment type)	Families with related children that are below poverty by family type
Tdap immunizations (overall)	Children who are confirmed by child protective services as victims of maltreatment (sexual abuse)	Families with related children that are below poverty by family type
Tdap immunizations—no data in my source	Children who are confirmed by child protective services as victims of maltreatment who receive services	Fourth graders who are chronically absent from school (NR)
Teen births	Children who had a parent who has ever been incarcerated	High school students not graduating on time
Teeth extractions (seniors)	Children who have been expelled from school	High school students not graduating on time
Uninsured women	Children who have been expelled from school	Infant mortality
Volunteerism (seniors)	Children who have been suspended from school	Low birth-weight babies
Water fluoridation—no data in my source	Children who have been suspended from school (in school)	Low-income working families with children
Annie E. Casey Foundation, Kids Count Data Center	Children who have experienced two or more adverse experiences	Median family income among households with children
Child and teen death rate	Children who have one or more emotional, behavioral, or developmental conditions	Persons age 18 to 24 not attending school, not working, and no degree beyond high school
Child deaths (NR)	Children who have received preventive dental care in the past	Persons age 18 to 24 not attending school, not working, and no degree beyond high school
Children 6 to 17 who repeated one or more grades since starting kindergarten		Pre-K children not in school
Children age 6 to 12 with all available parents in the labor force		Teen deaths by accident, homicide, and suicide (NR)
Children ages 6 to 17 who repeated one or more grades since starting kindergarten		Teens ages 16 to 19 not attending school and not working
Children ages 9 months to 35 months who receive a developmental screening		
Children below 150 percent poverty		
Children below 200 percent poverty		
Children below 250 percent poverty		
Children by household head's educational attainment (Associate Degree)		
Children by household head's educational attainment (Bachelor's Degree)		
Children by household head's educational attainment (Graduate Degree)		

Unemployed teens age 16 to 19
Very low birth-weight babies
Young children not in school

Bureau of Labor Statistics

Entrepreneurship

Cato Institute

"Freedom"

Centers for Disease Control and Prevention, BRFSS

Adult current smoking cigarettes
Adult current vaping (recommend against using)

Council of State Governments

Alcohol impaired fatalities per 100 million annual vehicle miles traveled
Graduation rate: percentage of students in higher education who obtain a bachelor's degree within six years
Percent of 4-year-olds enrolled in state funded pre-K
Percent of 4-year-olds in state funded pre-K, preschool special education, and Head Start
Percent of all bridges considered structurally deficient
Percent of all bridges functionally obsolete
Percent of people 25 years and over who have completed a bachelor's degree
Percent of people 25 years and over who have completed an advanced degree
Percent of state owned bridges functionally obsolete
Percent of traffic fatalities involving high blood alcohol concentration
Retention rate: percentage of first year students in higher education who enroll for second year

Gallup

Religiosity

National Center for Education Statistics

8th grade mathematics average scale scores

8th grade reading average scale scores
8th grade science average scale scores
Comparable wage index for teachers
Hispanic averaged high school freshman graduation rate
Overall averaged high school freshman graduation rate
White averaged high school freshman graduation rate

National Education Association

Average salaries of instructional staff in public schools
Average salaries of public school teachers
Federal revenue as a percentage of total revenue receipts
Local revenue as a percentage of total revenue receipts
State revenue as a percentage of total revenue receipts

The American Society of Civil Engineers, 2017 Infrastructure Report Card

Bridge Funding – the number and percentage of structurally deficient bridges and state spending on bridge capital projects.
Bridges – the number and percentage of structurally deficient bridges and state spending on bridge capital projects.
Dams – the number of high-hazard potential dams.
Dams with EAPS – the number of regulated dams with emergency action plans.
Drinking Water – drinking water infrastructure needs over 20 years.
Energy – the amount of renewable energy produced.
Hazardous Waste – the number of hazardous waste sites on the National Priorities List.
Inland Waterways – the miles of inland waterways and ranking nationally.
Levees – the miles of levees in the

National Levees Database
Ports – the amount of short tons of cargo and ranking nationally.
Public Parks – the unmet needs for park systems.
Public Use Airports – the number of public use airports
Rail – the miles of freight railroads.
Road Costs – the cost per motorist of driving on roads in need of repair.
Roads – the miles of public roads and percentage in poor condition.
Transit – the number of annual unlinked passenger trips via transit
Wastewater – wastewater infrastructure needs over 20 years

U.S. Bureau of Economic Analysis

Venture capital dollars invested per \$1,000 of nominal state gross domestic product

U.S. Census Bureau

Growth of Young Population
Tax Burden
Top Company Headquarters per capita

U.S. Patent and Trademark Office

Patent Creation
Per capita federal spending

FiveThirtyEight

Popularity above "replacement senator" from FiveThirtyEight.com



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UNIVERSITY OF WYOMING

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