ECONOMIC REPORT *to the* GOVERNOR

PREPARED BY THE
UTAH ECONOMIC COUNCIL

2023

A collaborative endeavor of
David Eccles School of Business
Governor's Office of Planning and Budget

Preface

The 2023 Economic Report to the Governor is the 35th publication in this series. Through the last three and a half decades, the Economic Report to the Governor has served as the preeminent source for data, research, and analysis about the Utah economy. It includes a national and state economic overview, a summary of state government economic development activities, an analysis of economic activity based on the standard indicators, and a detailed review of industries and issues of particular interest. The primary goal of the report is to improve the reader's understanding of the Utah economy. With improved economic literacy, decision makers in the public and private sector will be able to plan, budget, and make policy decisions with an awareness of how their actions are both influenced by and impact economic activity.

Utah Economic Council and Collaborators

The 2023 Economic Report to the Governor is published by the Utah Economic Council, a joint venture between the David Eccles School of Business and the Governor's Office of Planning and Budget. The Council aims to guide data development, inform research activities, share economic commentary, provide peer review, and support an improved understanding of the Utah economy. The Economic Council and Kem C. Gardner Policy Institute, and authors from both the private and public sectors, devote a significant amount of time to the creation of this report, ensuring the latest economic and demographic information is included. More detailed information about the findings in each chapter can be obtained by contacting the authoring entity.

Data Used in This Report

The contents of this report come from a multitude of sources which are listed at the bottom of each table and figure. Data are generally for the most recent year or period available. There may be a quarter or more of lag time before economic data become final; therefore, some statistics in this report are estimates based on data available as of mid-November 2022. Readers should refer to noted sources later in 2022 for final data. Forecasts are also included in some of the tables and figures. All of the data in this report are subject to error arising from a variety of factors, including sampling variability, reporting errors, incomplete coverage, non-response, imputations, and processing error. If there are questions about the sources, limitations, and appropriate use of the data included in this report, the relevant entity should be contacted.

Data for States and Counties

This report focuses on the state, multi-county, and county geographies. Additional data at the metropolitan, city, and other sub-county level may be available. For information about data for a different level of geography than shown in this report, the contributing entity should be contacted.

Suggestions and Comments

Users of the Economic Report to the Governor are encouraged to write with suggestions that will improve future editions. Suggestions and comments for improving the coverage and presentation of data and quality of research and analysis should be sent to the Kem C. Gardner Policy Institute, 411 East South Temple Street, Salt Lake City, Utah 84111 or by email at gardnerinstitute@eccles.utah.edu.

Electronic Access

This report is available on the Kem C. Gardner Policy Institute's website at gardner.utah.edu.

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The 2023 Economic Report to the Governor is published by the Utah Economic Council, a joint venture between the David Eccles School of Business and the Governor's Office of Planning and Budget. Under the guidance of the Utah Economic Council, economists, researchers, and analysts from a variety of entities prepare the Economic Report to the Governor.

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This report was edited and reviewed by Kem C. Gardner Policy Institute staff.

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Utah Economic Council Economic and Business Indicators

Utah and the United States, December 2022

DEMOGRAPHICS	2020 Actual	2021 Actual	2022 Estimate	Percent Change 20-21	Percent Change 21-22	Utah Economic Council Forecast 2023	2024	Percent Change 22-23	Percent Change 23-24
Utah July 1st Population (Thousands)	3,285	3,344	3,405	1.8	1.8	3,456	3,514	1.5	1.7
Utah Net Migration (Thousands)	26.1	34.9	38.1	–	–	26.2	32.9	–	–
U.S. July 1st Population (Millions)	331.8	332.2	333.1	0.1	0.3	334.5	336.1	0.4	0.5
EMPLOYMENT, WAGES, AND INCOME									
Utah Nonagricultural Employment (DWS) (Thousands)	1,539	1,616	1,676	5.0	3.7	1,709	1,739	2.0	1.7
Utah Total Nonagriculture Wages (DWS) (Millions)	$83,223	$92,010	$101,958	10.6	10.8	$108,075	$112,615	6.0	4.2
Utah Average Annual Pay (DWS) (Dollars)	$54,079	$56,944	$60,849	5.3	6.9	$63,223	$64,740	3.9	2.4
Utah Unemployment Rate (DWS) (Percent)	4.7	2.7	2.0	–	–	2.6	2.7	–	–
Utah Personal Income (BEA) (Millions)	$171,385	$186,991	$195,707	9.1	4.7	$207,449	$217,822	6.0	5.0
U.S. Establishment Employment (BLS) (Millions)	142	146	152	2.8	4.1	153	152	0.6	-0.3
U.S. Total Wages & Salaries (BEA) (Billions)	$9,457	$10,290	$11,164	8.8	8.5	$11,701	$12,191	4.8	4.2
U.S. Average Annual Pay (BEA)	$66,533	$70,431	$73,423	5.9	4.2	$76,502	$79,987	4.2	4.6
U.S. Unemployment Rate (BLS) (Percent)	8.1	5.4	3.7	–	–	4.5	4.2	–	–
U.S. Personal Income (BEA) (Billions)	$19,832	$21,295	$21,752	7.4	2.1	$22,736	$23,786	4.5	4.6
PRODUCTION AND SALES									
Utah Real GDP (2012 Chained, Millions)	$174,955	$186,910	$191,186	6.8	2.3	$194,863	$200,364	1.9	2.8
Utah Taxable Sales (Millions)	$74,731	$90,105	$100,407	20.6	11.4	$106,432	$111,327	6.0	4.6
Utah Exports (Millions)	$17,713	$18,060	$15,738	2.0	-12.9	$16,907	$17,956	7.4	6.2
U.S. Real GDP (2012 Chained, Billions)	$18,509	$19,610	$19,983	5.9	1.9	$20,183	$20,587	1.0	2.0
U.S. Total Retail Sales (Billions)	$6,210	$7,435	$8,149	19.7	9.6	$8,308	$8,476	2.0	2.0
U.S. Real Exports (2012 Chained, Billions)	$2,232	$2,367	$2,538	6.1	7.2	$2,623	$2,745	3.4	4.6
REAL ESTATE AND CONSTRUCTION									
Utah Dwelling Unit Permits (Units)	31,797	40,144	29,500	26.3	-26.5	22,750	23,500	-22.9	3.3
Utah Home Price Index (FHFA) (1991Q1 = 100)	540	661	792	22.4	19.8	783	798	-1.2	2.0
Utah Residential Permit Value (Millions)	$6,785	$8,850	$7,097	30.4	-19.8	$5,300	$6,000	-25.3	13.2
Utah Nonresidential Permit Value (Millions)	$2,567	$2,930	$3,256	14.1	11.1	$2,600	$2,200	-20.2	-15.4
U.S. Private Residential Investment (Billions)	900.8	1,107.6	1,131.1	23.0	2.1	1,009.8	1,090.1	-10.7	7.9
U.S. Home Price Index (FHFA) (1991Q1 = 100)	290	339	386	16.8	13.8	365	362	-5.5	-0.8
ENERGY & NATURAL RESOURCE PRODUCTION AND PRICES									
West Texas Intermediate Crude Oil Price (Per Barrel)	$39	$68	$96	73.2	40.7	$82	$82.5	-13.8	0.1
Utah Oil Price (Per Barrel)	$35	$61	$84	74.0	38.3	$75	$64.0	-10.7	-14.7
Utah Coal Price (Per Short Ton)	$37	$34	$37	-8.7	8.8	$39	$35.0	5.4	-10.3
Utah Natural Gas Price (Per MCF)	$2.0	$4.1	$6.4	109.2	56.1	$5.4	$4.5	-15.6	-16.7
Utah Copper Price (Per Pound)	$2.8	$4.3	$3.7	51.8	-12.9	$4.0	$4.1	8.1	2.5
Utah Crude Oil Production (Million Barrels)	31	36	43	14.6	21.9	46	48	6.2	4.3
Utah Coal Production (Million Tons)	13.3	12.3	11.0	-7.4	-10.9	12.5	13.0	13.6	4.0
Utah Natural Gas Production Sales (Billion Cubic Feet)	243	240	260	-1.1	8.4	275	290	5.8	5.5
Utah Copper Mined Production (Million Pounds)	309	351	353	13.6	0.6	450	451	27.5	0.2
INFLATION AND INTEREST RATES									
U.S. CPI Urban Consumers (BLS) (1982-84 = 100)	258.8	271.0	292.8	4.7	8.1	305.4	314.0	4.3	2.8
U.S. Federal Funds Rate (FRB) (Effective Rate)	0.4	0.1	1.7	–	–	4.8	4.3	–	–
U.S. 3-Month Treasury Bills (FRB) (Discount Rate)	0.4	0.0	2.0	–	–	4.7	4.0	–	–
U.S. 10-Year Treasury Notes (FRB) (Yield (Percent))	0.9	1.4	3.0	–	–	3.6	3.3	–	–
30 Year Mortgage Rate (FHLMC) (Percent)	3.2	3.0	5.4	–	–	6.3	5.6	–	–

Sources: Utah Economic Council, GOPB, Moody's, Economy.com, and IHS Markit

Utah Economic Council Range of Member Projections for Selected Major Economic Indicators, 2023 and 2024

Economic Council Member Survey

Percent indicating Utah currently in recession

0%

Percent indicating U.S. currently in recession

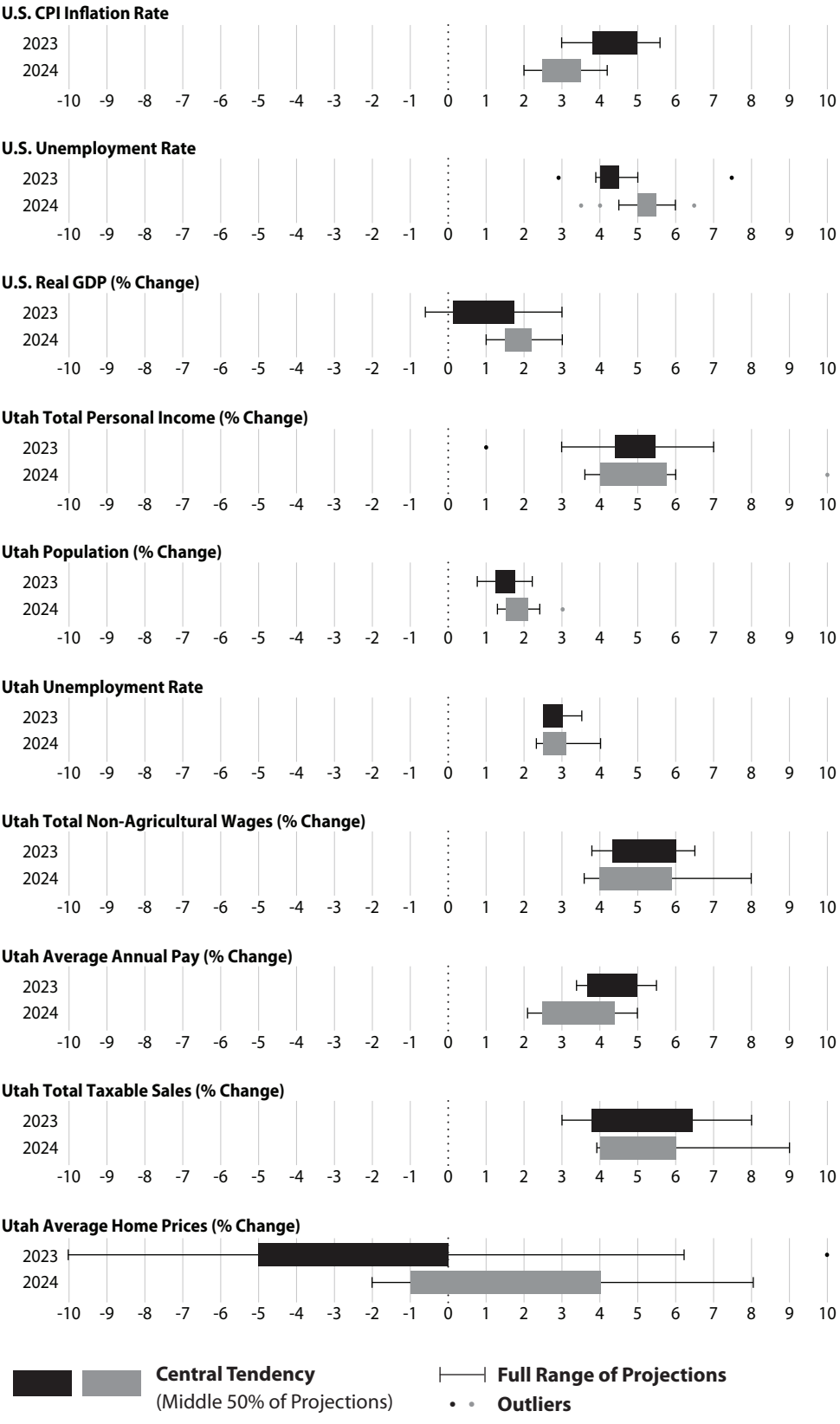
5%

Median probability of Utah recession in 2023

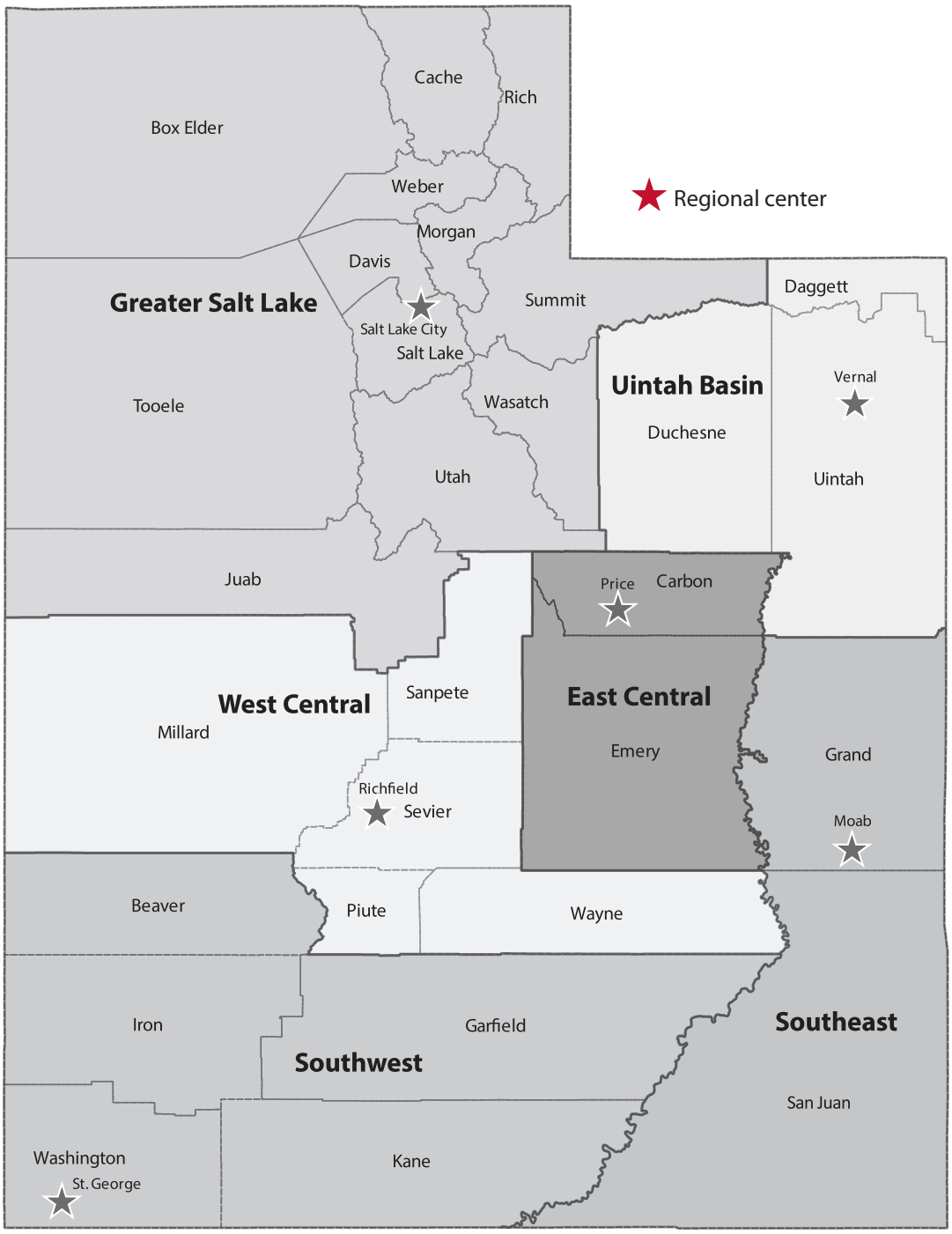
30%

Median probability of U.S. recession in 2023

60%



Utah's Economic Regions



Source: Kem C. Gardner Policy Institute

Economic Overview–Utah and U.S.

1

Phil Dean, Co-Chair, Utah Economic Council
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OVERVIEW

Utah enters 2023 facing significant economic uncertainty as decision-makers continue to grapple with ever-changing pockets of economic strength and weakness. The post-pandemic economy has altered many traditional economic relationships. These economic transformations make accurate predictions challenging because it's unclear if or when old patterns will return, or if new arrangements will chart a different economic course.

Current economic challenges amid an overheated economy include stubbornly high inflation, rapidly rising interest rates, low consumer sentiment, and unmistakable construction and real estate slowdowns. At the same time, many often-underappreciated economic buffers exist. Extremely low unemployment coupled with improving supply chains and very strong overall household, firm, and state and local government financial reserves combine to provide a hedge against economic challenges that could spiral into a recession. Economic performance in 2023 will depend on economic decisions made in this complex new environment.

Policy Responses to High Inflation

Beginning in Spring 2021 amid a continuing pandemic and supply-chain-challenge backdrop, overall consumer prices steadily increased at rates not seen in four decades. Stubbornly high inflation and the related policy responses remained the predominant economic story in 2022, even as most direct pandemic-related disruptions ended.

In 2022, year-over U.S. inflation as measured by the consumer price index (CPI) began the year at 7.5% and peaked in June at 9.0%. Mountain Region inflation peaked several months earlier, at an even-higher 10.4% year-over increase (see Figure 1.2). However, much lower monthly CPI readings since July 2022 moderated year-over inflation to 7.1% in November (the latest data available) and provide hope for future relief from high inflation levels. In fact, annualizing the monthly CPI readings since July provides year-over inflation rates in the mid-2's, consistent with norms in recent decades, if these recent trends were to continue through 2023 (see Figure 1.3). However, it's unclear if this price moderation will continue at the current pace.

Interest Rate Increases Slow Housing and Construction Markets, While Housing Affordability Concerns Remain

In response to high (and non-transitory) inflation, in early 2022 the Federal Reserve began shifting away from highly expansionary monetary policy, rapidly increasing interest rates from historically-low levels. Interest rate increases impact the economy by reducing purchases of financed goods and services and affecting the psyche of consumers. With higher rates, households that finance major purchases such as homes or cars buy less. Similarly, businesses that finance equipment or buildings purchase less because higher interest costs make more capital purchases uneconomical. The cumulative effect is to moderate economic activity.

The Federal Reserve began increasing the very short-term (overnight loan) federal funds rate in March 2022, from slightly above zero early in 2022 to about 4.3% by year-end. Given the continuing overheated economy, future rate increases seem likely in 2023, although the pace of increases may moderate.

Beginning in January 2022, 30-year conventional mortgage interest rates increased from a little over 3% to nearly 6% by June, a remarkable near-doubling of rates over six months (see Figure 1.4). While market participants anticipated rate increases given the abnormally low mortgage rates during the pandemic, the rapid pace of increase surprised many. Spiking above 7% in late October 2022, 30-year conventional mortgage rates have since dropped to about 6.4% as of year-end.

Interest rate increases led to slowdowns in overheated housing and construction markets. Although Utah year-over price changes remain positive, year-over home price growth rates rapidly decelerated in 2022. Home prices could decline somewhat in 2023 as high interest rates continue to drive many would-be buyers out of the market. However, Utah's overall housing under-supply issues have not evaporated and will likely offset price declines that may otherwise occur.

Major housing affordability challenges remain, particularly among the 30% of Utah households on the outside looking in on homeownership. Those missing out on homeownership's benefits generally include Utahns who are younger, have lower incomes, and are more racially and ethnically diverse than current homeowners. During the pandemic, Utah homeowner wealth collectively increased by about $50 billion, improving the financial fortunes of homeowners. Moreover, with very low interest rates, many refinanced into lower monthly payments, freeing up monthly funds for other consumption increases. Conversely, most renters generally saw nothing but downside from the pandemic in the form of increased rents that grew faster than wages, heavily constraining other consumption. If not fully addressed, Utah's continuing home affordability challenges will exacerbate Utah employers' existing challenges to retain and attract labor. Housing affordability remains a leading risk to Utah's long-term economic performance.

Tighter Labor Markets Likely Permanent

Another major theme emerging from the post-pandemic economy is tight labor markets. In 2022, Utah's economy hit an all-time low unemployment rate at 1.9%, and hovered in the low 2s the entire year. While this sounds good on the surface, labor constraints limited Utah's economic growth as open jobs went unfilled and some firms struggled to meet high consumer demand.

Baby Boomer retirements created a sizable share of this strain, both in Utah and the U.S. overall. Given its large cohort size, the ripple effects of this long-term structural change throughout the economy may reverberate for decades. While various viable paths to dealing with this labor challenge exist, employers need to reconcile themselves to the new normal of constrained labor availability and plan accordingly. Higher real wages over time for scarce labor is a likely outcome. As one of the youngest states with an age structure that differs from that of the U.S. overall, Utah may experience different impacts than other states, but is subject to the same pressures.

Nominal wages increased sizably in 2022, particularly for job switchers. However, after adjusting for high inflation's impacts, real wages declined, contributing to low consumer sentiment.

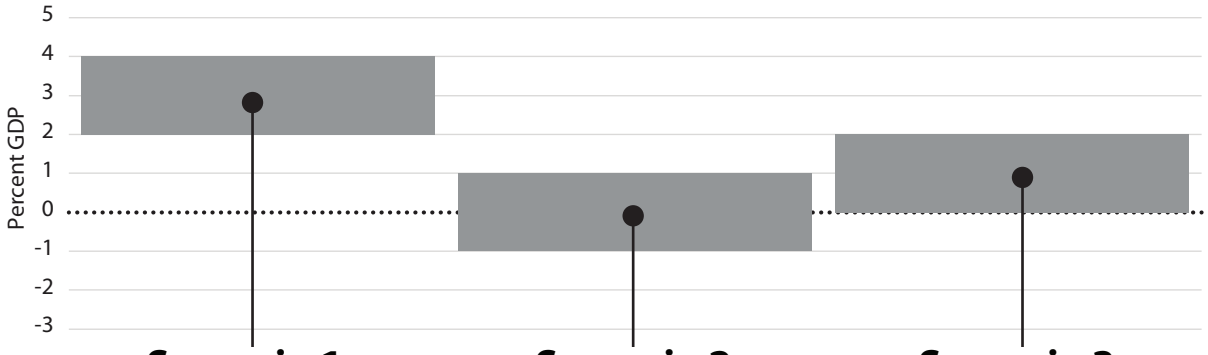
Strong Overall Household Balance Sheets Support Continued Spending

Although softening somewhat toward the end of 2022, U.S. households overall emerged in a far stronger financial position than from the Great Recession of 2007-2009. This strength has supported strong consumer spending in the midst of economic disruption. During the pandemic, personal saving rates spiked to unprecedented levels. Households saved as much as a third of disposable income (juiced by fiscal stimulus) during the early pandemic - in part due to forced saving amidst constrained economic activity. This created a massive stock of liquid household savings that continued increasing through the third quarter of 2022 and that created a massive amount of unused spending capacity capable of supporting continued consumption for some time (see Figures 1.6 and 1.7). Moreover, household monthly debt service levels dropped to multi-decade lows and even with recent upticks remain below pre-pandemic levels, further facilitating continued consumption (see Figure 1.8).

However, this household financial strength is not universal. Many low-income households in particular are heavily pinched financially by inflation, leading to recent loan payment delinquency upticks – although still well below pre-pandemic levels.

Figure 1.1 shows three potential economic scenarios for 2023: continuing growth, shallow recession, and declerating growth. Wise decisionmakers will prepare to respond to any of the three scenarios, allowing them to capture market share and prosper under any scenario. Given its fundamental economic strengths, Utah appears well positioned to respond to economic shifts, but is not an island and will be impacted by national economic trends.

Figure 1.1: Preparing for Three Plausible Scenarios for 2023
Given recent trends, three core economic scenarios seem viable for 2023.



Scenario 1
2% to 4%
Continuing Growth

- Inflation recedes at pace
- Interest rate hikes stabilize
- Consumer spending remains strong
- Employers retain workforce
- Geopolitical and supply chain challenges stabilize

Scenario 2
-1% to 1%
Shallow Recession

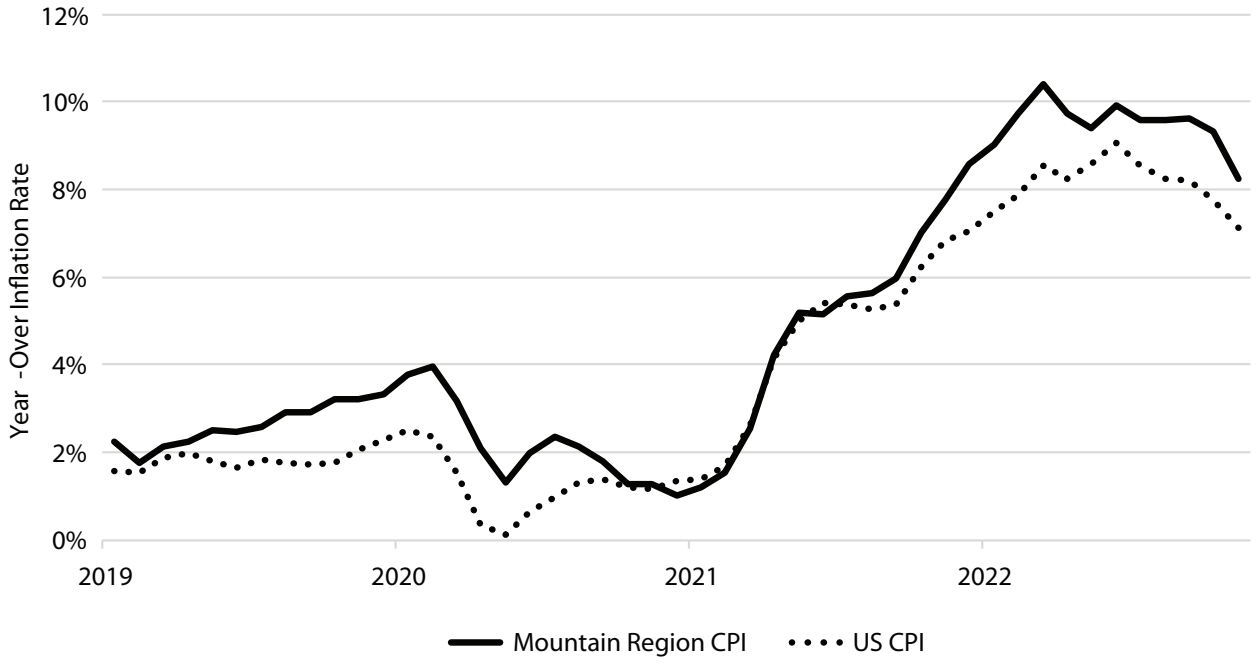
- Inflation recedes slowly
- Interest rate hikes take toll on firm and consumer spending
- Sizable construction slowdown/ layoffs impact other industries
- Layoffs take hold
- International challenges continue at 2022 levels

Scenario 3
0% to 2%
Decelerating Growth

- Inflation moderates
- Interest rate hikes continue but slow
- Household financial buffers only partially offset economic challenges
- Layoffs occur in interest-rate-sensitive sectors

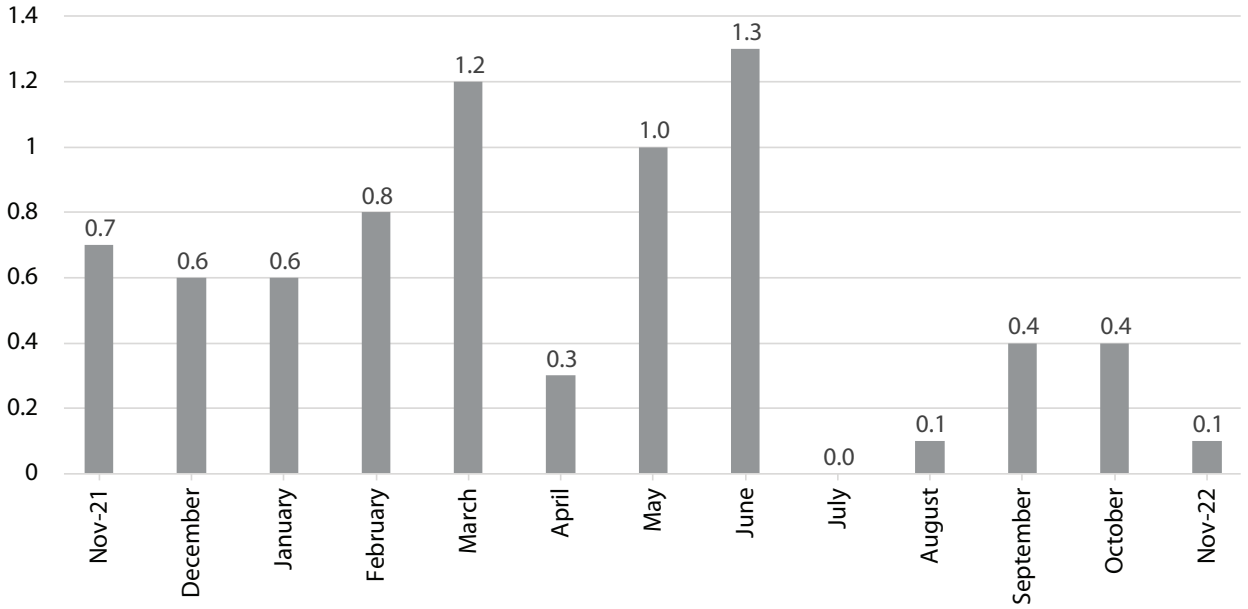
Source: Kem C. Gardner Policy Institute

Figure 1.2: Mountain Region and U.S. Year-over Consumer Price Index Change, 2019–2022



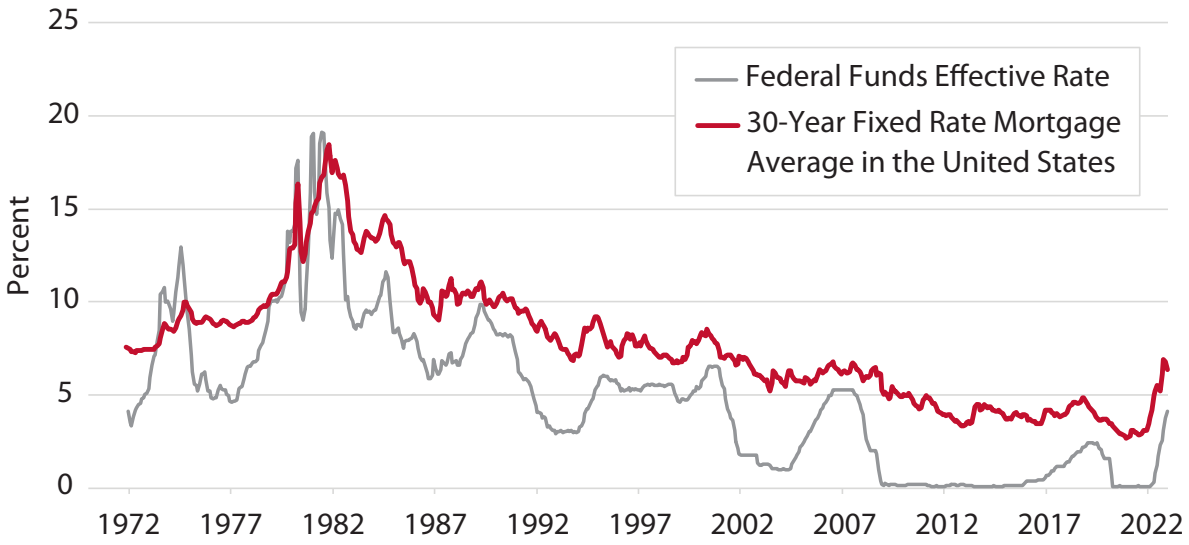
Source: U.S. Bureau of Labor Statistics

Figure 1.3: One-month Percent Change in CPI for All Urban Consumers (CPI-U), Seasonally Adjusted, November 2021 – November 2022



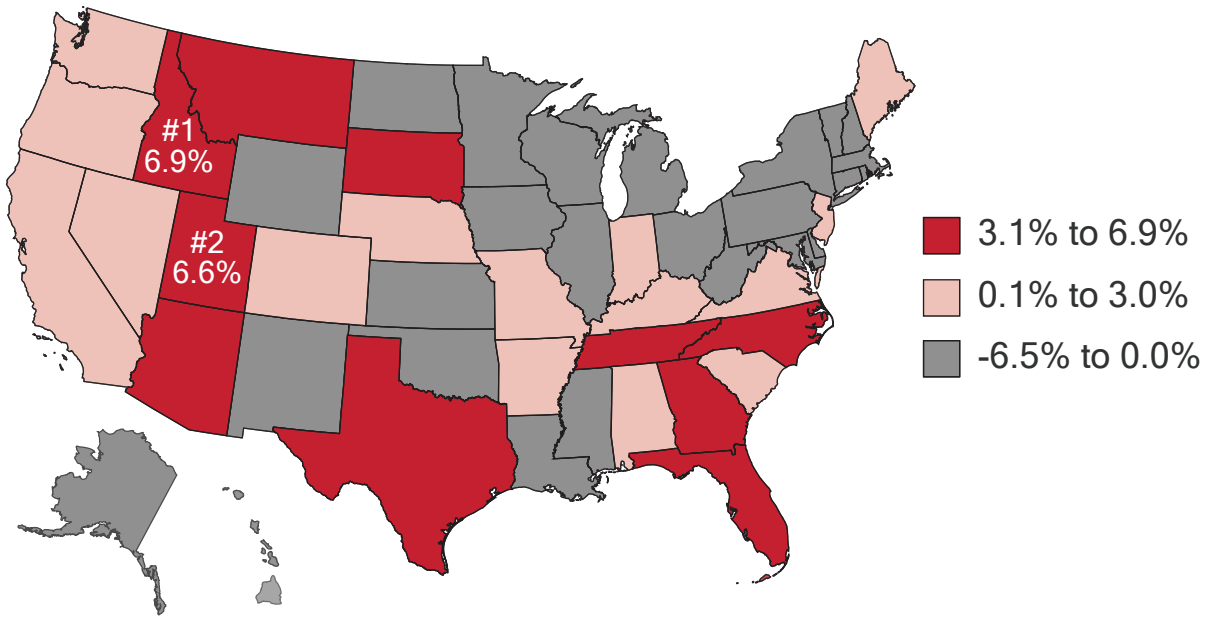
Source: Bureau of Labor Statistics

Figure 1.4: 30-Year Conventional Fixed Rate Mortgage and Effective Federal Funds Interest Rates, 1972–2022



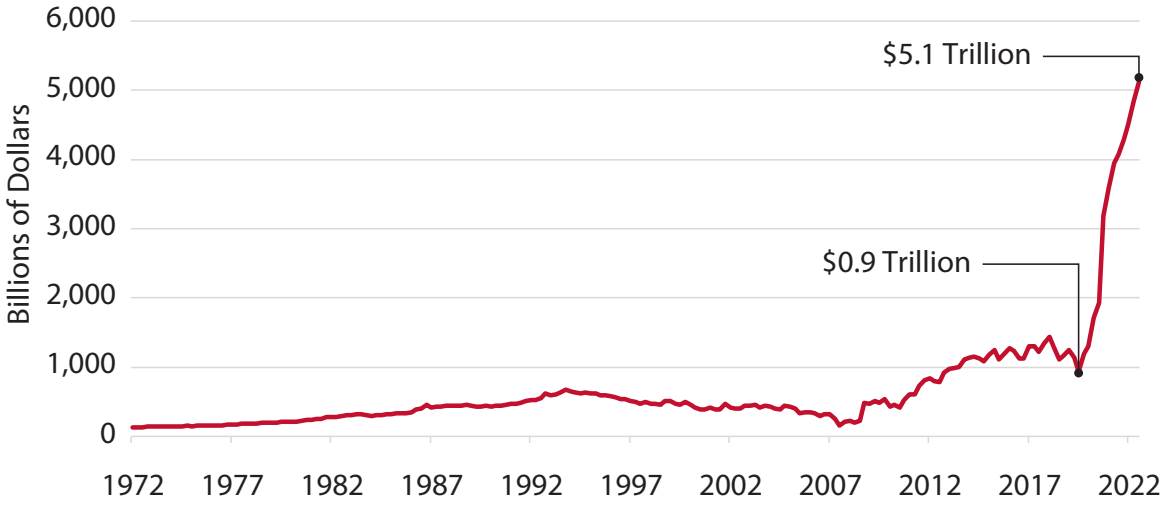
Source: Freddie Mac (FHLMC), Federal Reserve Bank of New York

Figure 1.5: State Pandemic Jobs Recovery, February 2020 – November 2022



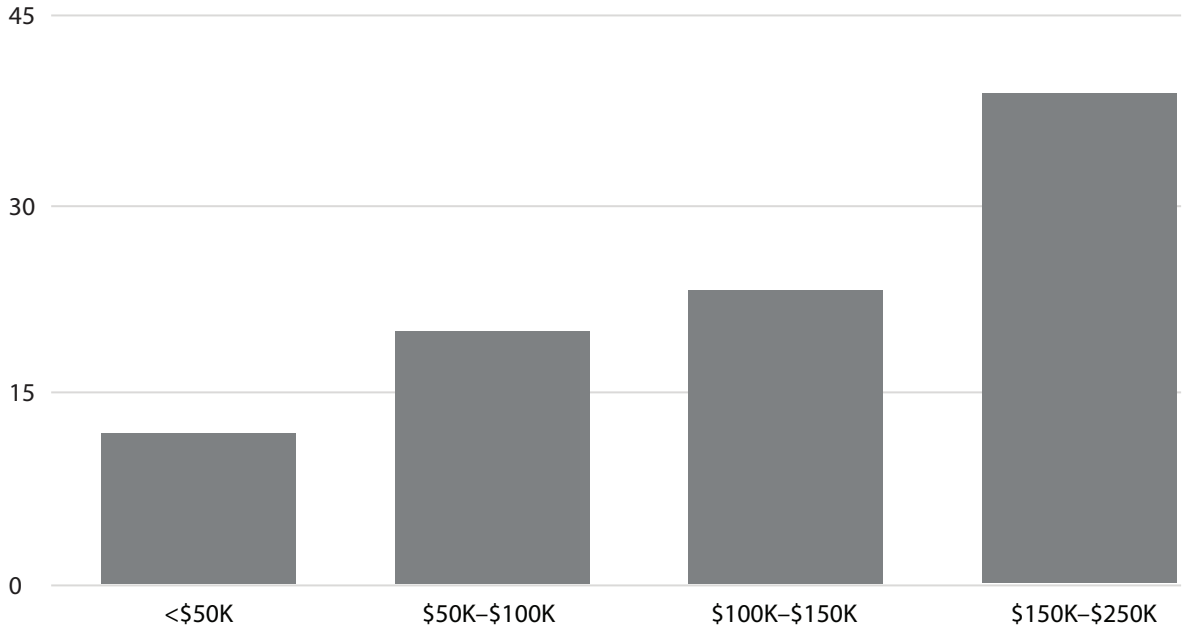
Source: U.S. Bureau of Labor Statistics

Figure 1.6 Household and Nonprofit Checkable Deposits and Currency Levels, 1972–2022



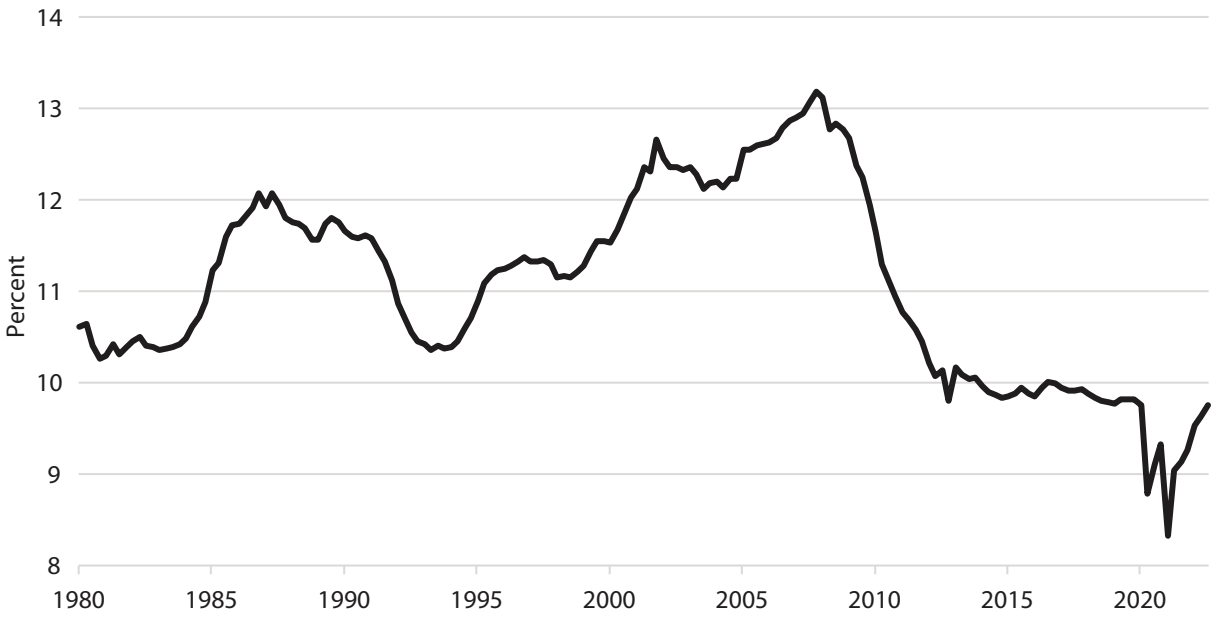
Source: Board of Governors of the U.S. Federal Reserve System

Figure 1.7: Months for Median Deposit to Return to Average 2019 Level Given Rate of Decline in Last Three Months



Source: Bank of America

Figure 1.8: U.S. Household Debt Service Payments as Percent of Disposable Personal Income, 1980–2022



Source: Board of Governors of the U.S. Federal Reserve System

Demographics

2

Mallory Bateman, Kem C. Gardner Policy Institute

OVERVIEW

Migration continued to drive Utah's population growth in 2022. The Utah Population Committee (UPC) estimates net migration contributed more than 60% of the growth between July 1, 2021 and July 1, 2022, an increase from 59% between 2020 and 2021. The state continues to age and become more diverse. This is the second consecutive year with a 1.8% overall increase.

State Population Estimates

Utah's population grew by 61,242 and reached 3,404,760 by July 1, 2022, according to estimates prepared by the UPC.

After a significant decrease in natural increase (births minus deaths) in 2021 due to increased deaths from COVID-19, levels remained similar in 2022 due to a slight increase in births and a less dramatic increase in deaths. However, like in 2021, net migration (in-migration minus out-migration) contributed the majority of population growth at 62% or over 38,000 new residents.

Increase in Births

The most recent available data indicates Utah's total fertility rate of 1.92 births per woman is the fourth highest in the nation, behind South Dakota (1.98), Nebraska (1.94), and North Dakota (1.93). Even so, the fertility rate is in long-term decline. The decline in Utah's total fertility rate since 2010 mirrors a decadal decline in fertility in every state and Washington, D.C.

However, for the first time since 2008, births increased slightly from 45,639 in 2021 to 46,207 in 2022.

Age Structure Changes

The national median age has been increasing since 2000, estimated to be 38.8 years in 2021. Utah remained the youngest state in the nation in 2021, with a median age of 31.8, despite an increase of 0.3 years between 2020 and 2021. Of the 29 counties, only Emery County experienced a decrease in median age between 2020 and 2021.

Utah's total dependency ratio (the number of people under age 18 and 65 years and older divided by the number of people ages 18-64) was 66.8 in 2021. The school-age (5- to 17-year-old) population creates the largest impact on the total dependency ratio in Utah, at 35.5 in 2021 (ranked highest among states, see Table 2.7).
The retirement-age (65 years and older dependency ratio was lowest in the nation at 19.4 in 2021 (see Table 2.7). Those under age 5 make up the remainder at 11.9 in 2021 (ranked highest among states, see Table 2.7).

Households and Housing Units

Utah's estimated average household size was 2.99 in 2021 — the highest in the nation. This continues the gradual decrease seen throughout the last decade, dropping from 3.10 in 2010. Nationally, the average is 2.54 persons per household.

Between 2020 and 2021, Utah had the fastest growth in housing units in the nation, with an increase of 2.7%. This growth equates to 31,699 additional housing units. Eight Utah counties, Washington, Tooele, Utah, Kane, Iron, Wasatch, Cache, and Box Elder, were included in the 100-fastest growing counties (with over 5,000 housing units).

Race and Hispanic Origin

The fastest growing populations between 2020 and 2021 were the populations identifying as Two or More Races (5.1% increase), Native Hawaiian or Other Pacific Islander (3.4%), Black or African American (3.1%) and Hispanic or Latino (3.1%) in the July 1, 2021 Census Bureau estimates. The increases in these populations accounted for nearly half of the statewide growth between 2020 and 2021 (22,975 residents). The non-Hispanic White population increased by 1.3% or 33,316 residents.

The Hispanic or Latino population was the second largest in the state at 493,636 residents (14.8%), following the non-Hispanic White population (77.2%). The third largest racial or ethnic population were those identifying as non-Hispanic Asian alone, at 84,651 residents (2.5%).

Racial and ethnic diversity was higher in San Juan County, Salt Lake County, and Weber County than the state. In San Juan County, this is predominantly the Native American population, while in Salt Lake and Weber counties, the dominant group is the Hispanic or Latino population.

County Population Estimates

Between 2021 and 2022, Iron County grew the fastest (4.3%) and Utah County added the most new residents (23,980). Estimates indicate only Daggett County experienced a population decline.

Of the nine counties with over 50,000 residents, three grew at a slower pace than the state (Davis, Weber, and Salt Lake County). All nine counties added 1,500 or more new residents, with Utah (23,980), Salt Lake (9,998), Davis (5,608), and Washington (4,276) adding the most.

All seven counties with populations between 20,000 and 50,000 residents grew between 2021 and 2022, with growth ranging from 175 new residents in Sevier County to 1,362 in Wasatch County. Three counties grew faster than the statewide growth rate (Wasatch, Sanpete, and Duchesne).

Of the thirteen smallest population counties, six grew faster than the state, with three increasing by over 3.0% (Kane, Rich, and Juab). Six counties added over 100 new residents, with Juab (384) and Morgan (355) adding the most. The population estimate for Daggett County declined by 6 residents, for a total population of 956 in 2022.

Subcounty Populations

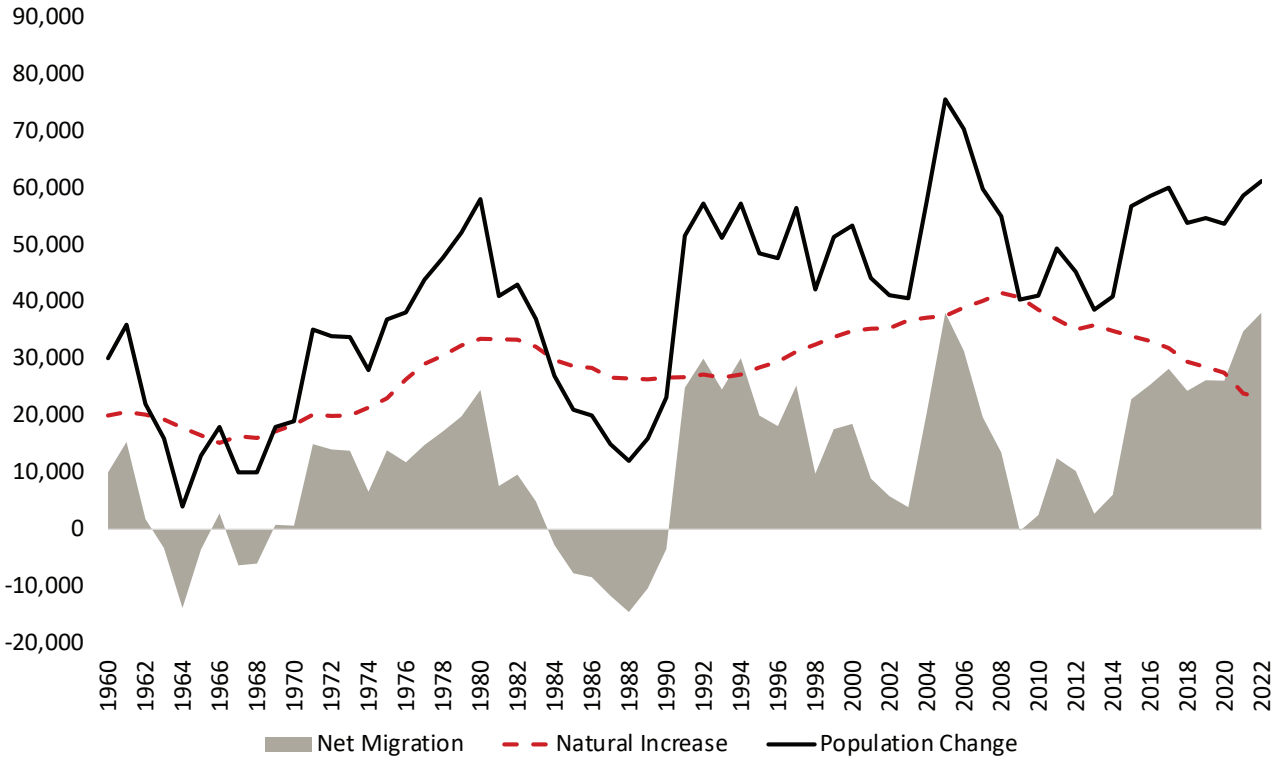
Saratoga Springs, Eagle Mountain, and St. George added the most new residents between 2020 and 2021, according to the July 1, 2021 Census Bureau Population Estimates. These estimates also indicated West Haven, Saratoga Springs, and Eagle Mountain as the fastest growing communities with 15,000 or more residents. Hideout, with a 2021 estimate of 1,152 residents, grew fastest at 18.9%.

Salt Lake City, West Valley City, and West Jordan are the three largest cities in the state. However, the estimates indicated declines between 2020 and 2021 for all three communities.

2023 OUTLOOK

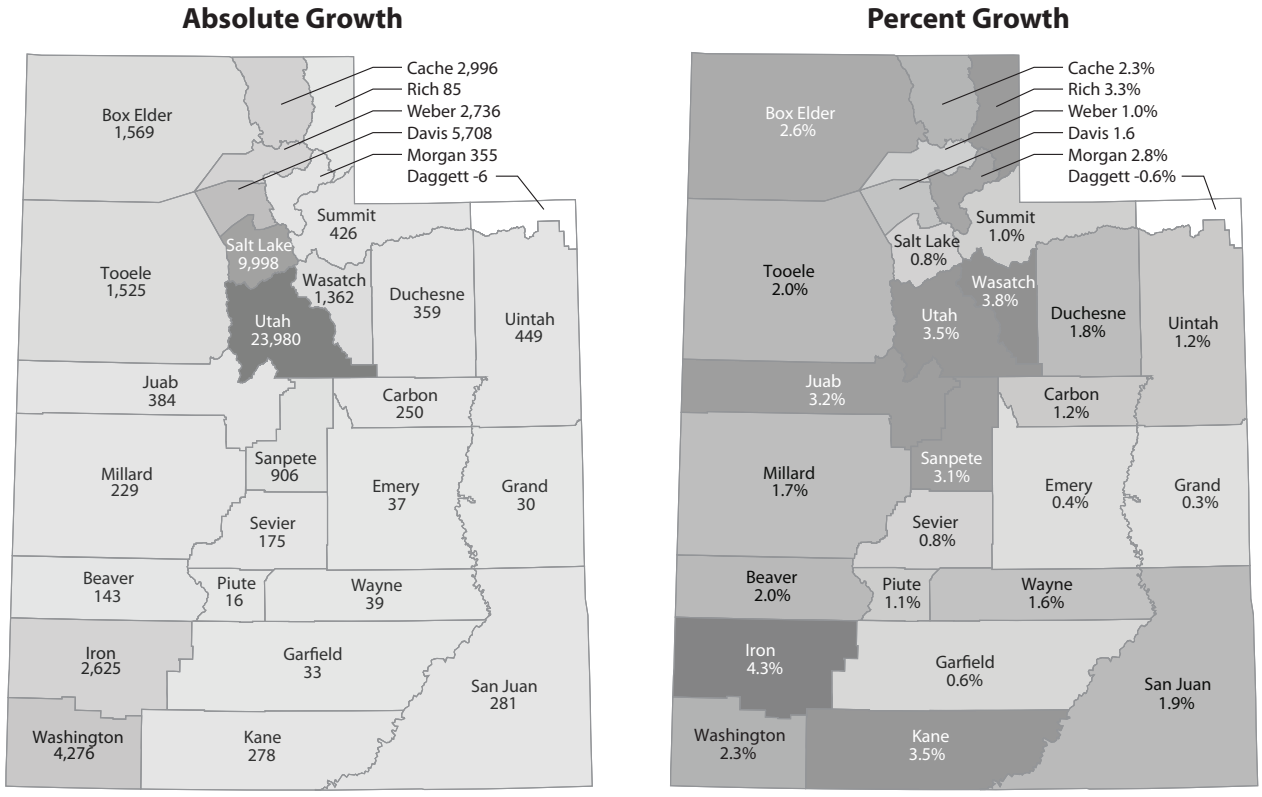
The population is forecasted to continue to grow in 2023, but at a moderated rate from 2020 through 2022. A population of 3.46 million is projected for July 1, 2023. Considering recent vital statistics and the economic shifts in the latter half of 2022, forecasted components of change vary slightly from the 2022 Long-Term Planning Projections. Short-term forecasting indicates natural increase driving an increase of 22,000 residents, while migration remains a more dominant component of change that brings 35,000 new residents to the state.

Figure 2.1: Utah Components of Population Change, 1960–2022



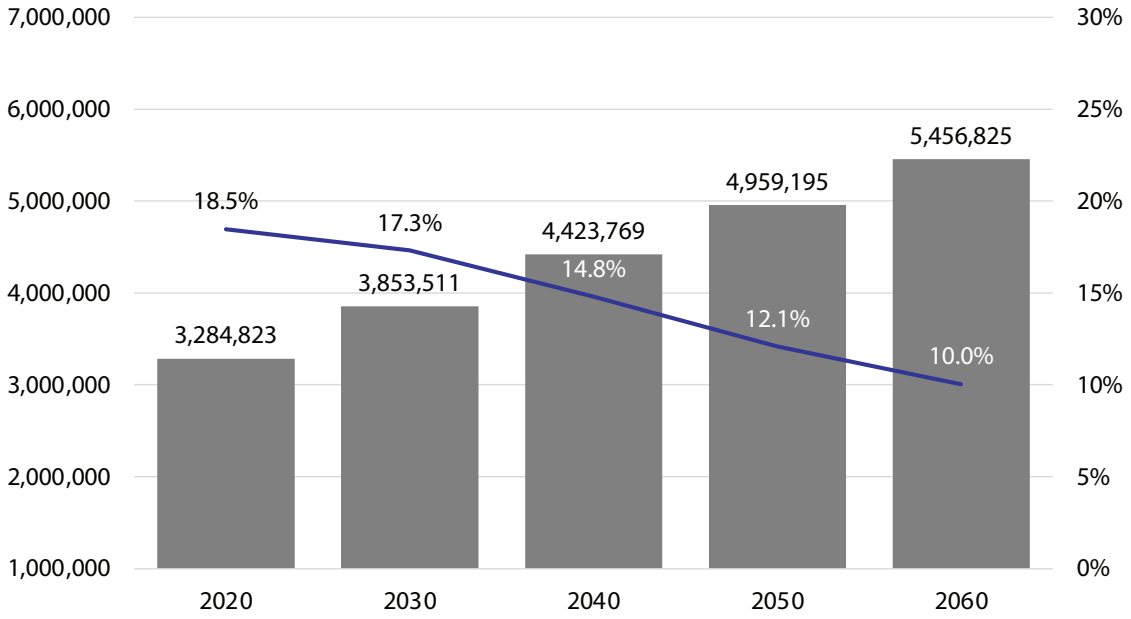
Source: Utah Population Estimates Committee and Utah Population Committee

Figure 2.2: Absolute and Percentage Changes in County Population, 2021–2022



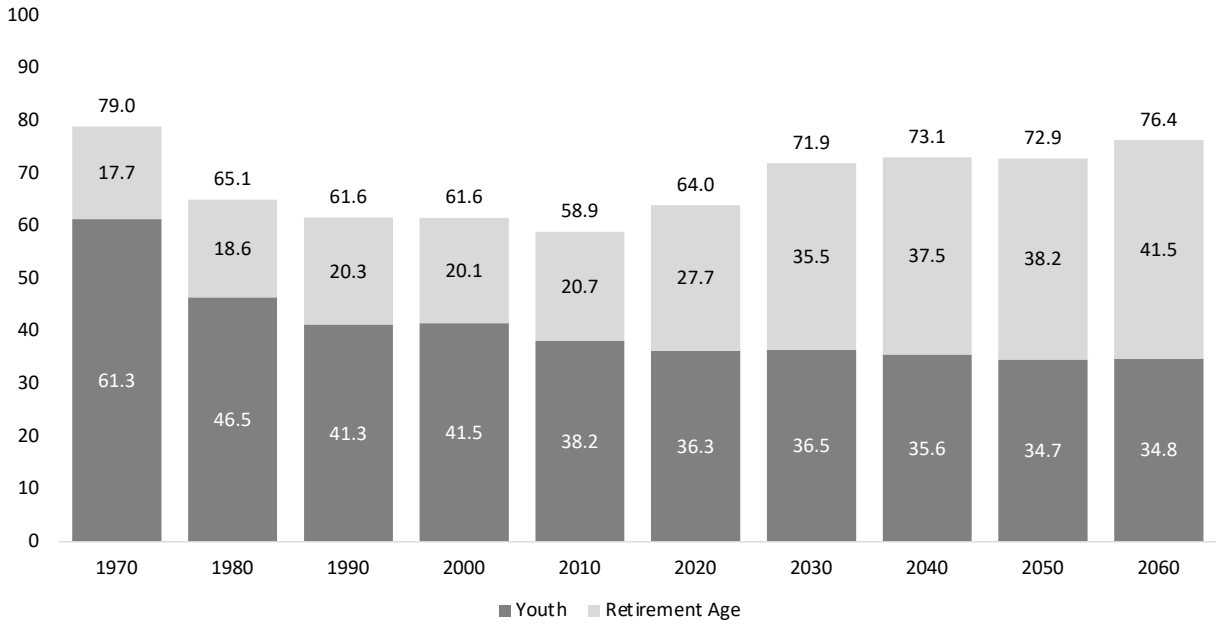
Source: Utah Population Estimates Committee and Utah Population Committee

Figure 2.3: Utah Population and Growth Projections by Decade, 2020–2060



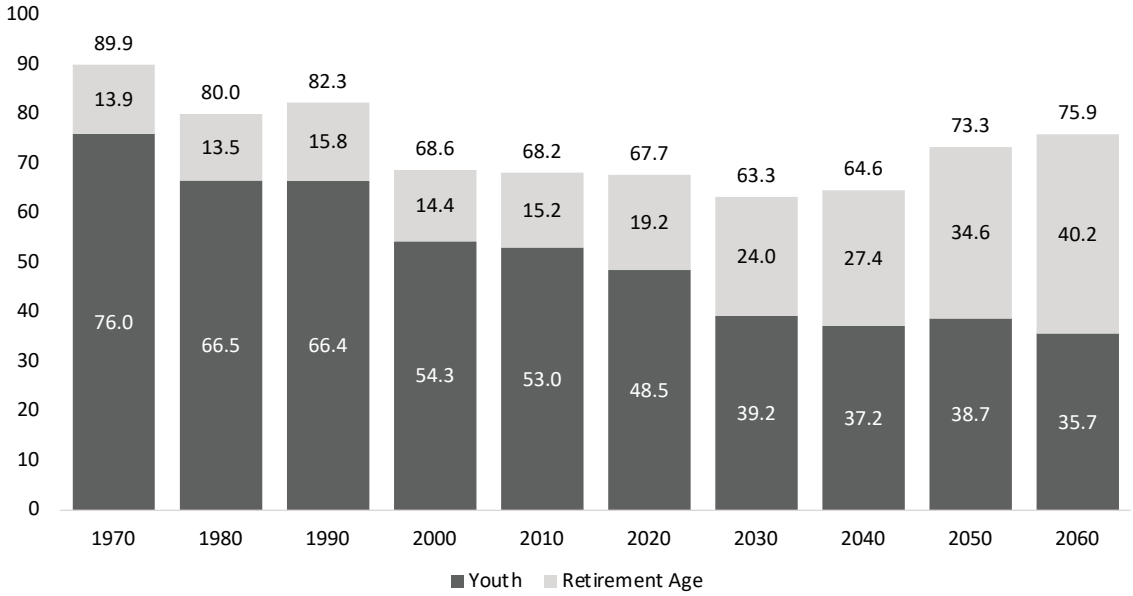
Source: Kem C. Gardner Policy Institute 2020-2060 State and County Projections

Figure 2.4: U.S. Dependency Ratios, 1970–2060



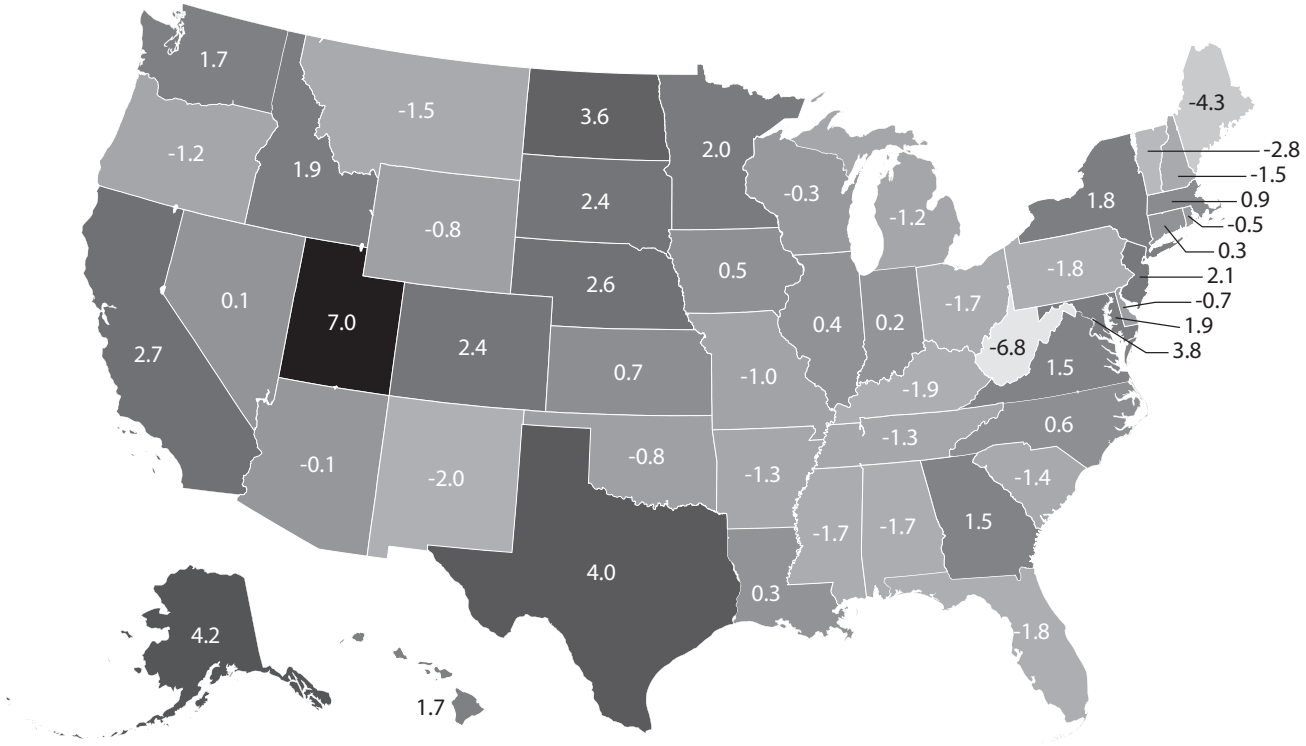
Note: Dependency Ratios are computed as the number of nonworking age persons per 100 working age (18-64 year old) persons in the population. Youth are less than 18 years old and retirement age is 65 years and older.
Source: Kem C. Gardner Policy Institute analysis of U.S. Census Bureau Decennial Census and Population Division data

Figure 2.5: Utah Dependency Ratios, 1970–2060



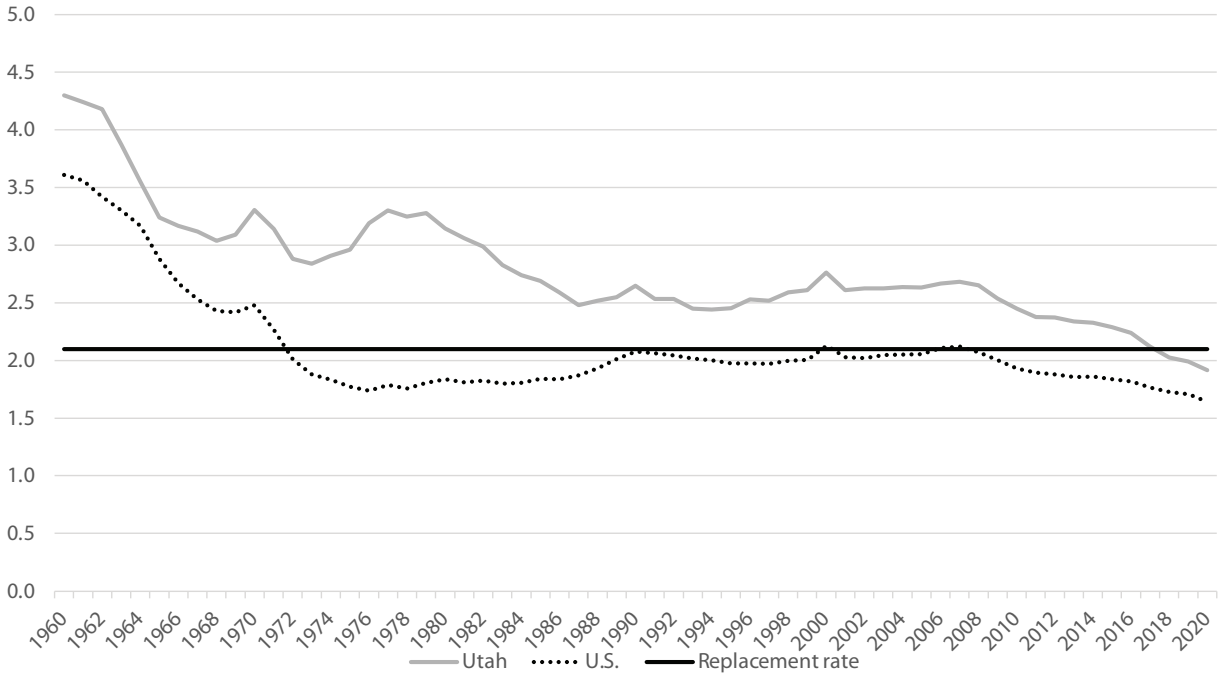
Note: Dependency Ratios are computed as the number of nonworking age persons per 100 working age (18-64 year old) persons in the population. Youth are less than 18 years old and retirement age is 65 years and older.
Source: Kem C. Gardner Policy Institute analysis of U.S. Census Bureau Decennial Census data and Kem C. Gardner Policy Institute 2020-2060 State and County Projections

Figure 2.6: Natural Increase Annual Rate of Change, July 1, 2021 – July 1, 2022



Note: Natural increase = births minus deaths
Source: U.S. Census Bureau, Population Division

Figure 2.7: Total Fertility for Utah and the U.S., 1960–2020



Note: The Replacement rate is the fertility level at which the current population is replaced
Source: National Center for Health Statistics

Table 2.1: Utah Population Estimates by Components of Change, 1950–2022

Year	July 1st Population	Annual Percent Change	Annual Change	Net Migration	Natural Increase	Fiscal Year Births	Fiscal Year Deaths
1950	695,900	3.7%	25,100	8,966	16,134	21,027	4,893
1951	706,100	1.5%	10,200	-6,842	17,042	21,801	4,759
1952	724,000	2.5%	17,900	-160	18,060	23,116	5,056
1953	739,100	2.1%	15,100	-3,789	18,889	23,573	4,684
1954	750,500	1.5%	11,400	-7,069	18,469	23,439	4,970
1955	782,800	4.3%	32,300	12,784	19,516	24,584	5,068
1956	808,800	3.3%	26,000	6,348	19,652	24,975	5,323
1957	826,300	2.2%	17,500	-2,639	20,139	25,443	5,304
1958	845,200	2.3%	18,900	-955	19,855	25,760	5,905
1959	869,900	2.9%	24,700	4,959	19,741	25,610	5,869
1960	900,000	3.5%	30,100	10,047	20,053	26,011	5,958
1961	936,000	4.0%	36,000	15,371	20,629	26,560	5,931
1962	958,000	2.4%	22,000	1,817	20,183	26,431	6,248
1963	974,000	1.7%	16,000	-3,317	19,317	25,648	6,331
1964	978,000	0.4%	4,000	-13,863	17,863	24,461	6,598
1965	991,000	1.3%	13,000	-3,553	16,553	23,082	6,529
1966	1,009,000	1.8%	18,000	2,810	15,190	21,953	6,763
1967	1,019,000	1.0%	10,000	-6,350	16,350	23,030	6,680
1968	1,029,000	1.0%	10,000	-6,029	16,029	22,743	6,714
1969	1,047,000	1.7%	18,000	798	17,202	24,033	6,831
1970	1,066,000	1.8%	19,000	612	18,388	25,281	6,893
1971	1,101,150	3.3%	35,150	14,966	20,184	27,400	7,216
1972	1,135,100	3.1%	33,950	14,046	19,904	27,146	7,242
1973	1,168,950	3.0%	33,850	13,810	20,040	27,562	7,522
1974	1,196,950	2.4%	28,000	6,621	21,379	28,876	7,497
1975	1,233,900	3.1%	36,950	13,897	23,053	30,566	7,513
1976	1,272,050	3.1%	38,150	11,761	26,389	33,773	7,384
1977	1,315,950	3.5%	43,900	14,824	29,076	36,707	7,631
1978	1,363,750	3.6%	47,800	17,220	30,580	38,289	7,709
1979	1,415,950	3.8%	52,200	19,868	32,332	40,216	7,884
1980	1,474,000	4.1%	58,050	24,536	33,514	41,645	8,131
1981	1,515,000	2.8%	41,000	7,612	33,388	41,509	8,121
1982	1,558,000	2.8%	43,000	9,662	33,338	41,773	8,435
1983	1,595,000	2.4%	37,000	4,914	32,086	40,555	8,469
1984	1,622,000	1.7%	27,000	-2,793	29,793	38,643	8,850
1985	1,643,000	1.3%	21,000	-7,714	28,714	37,664	8,950
1986	1,663,000	1.2%	20,000	-8,408	28,408	37,309	8,901
1987	1,678,000	0.9%	15,000	-11,713	26,713	35,631	8,918
1988	1,690,000	0.7%	12,000	-14,557	26,557	35,809	9,252
1989	1,706,000	0.9%	16,000	-10,355	26,355	35,439	9,084
1990	1,729,227	1.4%	23,227	-3,480	26,707	35,830	9,123
1991	1,780,870	3.0%	51,643	24,878	26,765	36,194	9,429

Table 2.1: Utah Population Estimates by Components of Change, 1950–2022 (continued)

Year	July 1st Population	Annual Percent Change	Annual Change	Net Migration	Natural Increase	Fiscal Year Births	Fiscal Year Deaths
1992	1,838,149	3.2%	57,279	30,042	27,237	36,796	9,559
1993	1,889,393	2.8%	51,244	24,561	26,700	36,755	10,055
1994	1,946,721	3.0%	57,328	30,116	27,209	37,619	10,410
1995	1,995,228	2.5%	48,507	20,024	28,496	39,077	10,581
1996	2,042,893	2.4%	47,665	18,171	29,500	40,501	11,001
1997	2,099,409	2.8%	56,516	25,253	31,303	42,548	11,245
1998	2,141,632	2.0%	42,223	9,745	32,423	44,268	11,845
1999	2,193,014	2.4%	51,382	17,584	33,867	45,648	11,781
2000	2,246,468	2.4%	53,454	18,527	34,927	46,880	11,953
2001	2,290,634	2.0%	44,166	8,915	35,251	47,688	12,437
2002	2,331,826	1.8%	41,192	5,813	35,379	48,041	12,662
2003	2,372,458	1.7%	40,632	3,912	36,720	49,518	12,798
2004	2,430,223	2.4%	57,765	20,520	37,245	50,527	13,282
2005	2,505,843	3.1%	75,620	38,108	37,512	50,431	12,919
2006	2,576,229	2.8%	70,386	31,376	39,010	52,368	13,358
2007	2,636,075	2.3%	59,846	19,673	40,173	53,953	13,780
2008	2,691,122	2.1%	55,047	13,470	41,577	55,357	13,780
2009	2,731,560	1.5%	40,438	-325	40,763	54,548	13,785
2010	2,772,667	1.5%	41,107	2,510	38,597	52,899	14,302
2011	2,822,091	1.8%	49,424	12,485	36,939	51,836	14,897
2012	2,867,404	1.6%	45,313	10,214	35,099	50,388	15,289
2013	2,906,022	1.3%	38,617	2,732	35,885	51,801	15,916
2014	2,946,989	1.4%	40,967	6,101	34,866	50,807	15,941
2015	3,003,792	1.9%	56,802	22,852	33,950	51,024	17,074
2016	3,062,384	2.0%	58,592	25,443	33,149	50,704	17,555
2017	3,122,477	2.0%	60,093	28,195	31,898	49,494	17,596
2018	3,176,342	1.7%	53,864	24,381	29,483	47,628	18,145
2019	3,231,108	1.7%	54,766	26,191	28,575	47,115	18,540
2020	3,284,823	1.7%	53,715	26,142	27,573	46,510	18,937
2021	3,343,518	1.8%	58,695	34,931	23,764	45,731	21,967
2022	3,404,760	1.8%	61,242	38,141	23,101	46,207	23,106

Note: In 1996, the Utah Population Estimates Committee changed the convention on rounded estimates so it published unrounded estimates. Accordingly, the revised estimates for 1990 and thereafter are not rounded; The Utah Population Estimates Committee revised the population estimates for the years from 2000 to 2009 following the results of the 2010 Census. The 2010-2019 estimates reflect an intercensal update by the Utah Population Committee; Data in this table may differ from other tables due to different sources of data or rounding.
Source: 1980-2010: Utah Population Estimates Committee. 2010-2022: Utah Population Committee, Kem C. Gardner Policy Institute.

Table 2.2: Long-Term Projected Utah Population Estimates by Components of Change, 2025–2060

Year	July 1st Population	Percent Change	Absolute Change	Net Migration	Natural Increase	Births	Deaths
2025	3,588,325	1.7%	61,333	36,324	25,009	46,333	21,324
2026	3,647,847	1.7%	59,522	34,227	25,295	47,157	21,862
2027	3,707,365	1.6%	59,518	33,797	25,721	48,160	22,438
2028	3,765,808	1.6%	58,443	32,172	26,271	49,300	23,029
2029	3,823,047	1.5%	57,239	30,369	26,870	50,489	23,618
2030	3,879,161	1.5%	56,114	28,596	27,519	51,782	24,263
2031	3,934,602	1.4%	55,441	27,295	28,145	53,062	24,917
2032	3,989,928	1.4%	55,326	26,624	28,702	54,291	25,588
2033	4,045,806	1.4%	55,878	26,699	29,179	55,484	26,304
2034	4,101,768	1.4%	55,962	26,437	29,525	56,581	27,056
2035	4,158,181	1.4%	56,413	26,631	29,781	57,583	27,801
2036	4,214,821	1.4%	56,640	26,872	29,769	58,409	28,641
2037	4,271,482	1.3%	56,661	27,034	29,626	59,123	29,496
2038	4,327,969	1.3%	56,487	27,297	29,191	59,691	30,500
2039	4,384,194	1.3%	56,225	27,522	28,703	60,060	31,357
2040	4,440,560	1.3%	56,366	28,139	28,227	60,433	32,206
2041	4,496,514	1.3%	55,954	28,390	27,563	60,605	33,042
2042	4,551,744	1.2%	55,230	28,641	26,589	60,600	34,012
2043	4,606,307	1.2%	54,563	28,910	25,653	60,452	34,799
2044	4,659,824	1.2%	53,517	29,052	24,465	60,197	35,732
2045	4,712,762	1.1%	52,938	29,705	23,233	59,883	36,649
2046	4,765,572	1.1%	52,810	30,478	22,331	59,521	37,190
2047	4,817,728	1.1%	52,156	31,088	21,068	59,137	38,068
2048	4,869,323	1.1%	51,595	31,590	20,005	58,758	38,753
2049	4,920,070	1.0%	50,747	31,941	18,807	58,393	39,585
2050	4,969,929	1.0%	49,859	32,158	17,701	58,105	40,404
2051	5,019,857	1.0%	49,928	33,061	16,867	57,877	41,011
2052	5,069,569	1.0%	49,712	33,790	15,922	57,700	41,778
2053	5,119,019	1.0%	49,450	34,179	15,272	57,593	42,321
2054	5,167,718	1.0%	48,699	34,006	14,693	57,566	42,873
2055	5,215,630	0.9%	47,912	33,919	13,992	57,606	43,613
2056	5,263,304	0.9%	47,674	34,279	13,395	57,788	44,393
2057	5,310,621	0.9%	47,317	34,451	12,866	58,020	45,154
2058	5,357,795	0.9%	47,174	34,577	12,597	58,263	45,667
2059	5,404,637	0.9%	46,842	34,694	12,149	58,534	46,385
2060	5,450,598	0.9%	45,961	34,225	11,736	58,842	47,106

Note: Data in this table may differ from other tables due to different sources of data or rounding.
Source: Kem C. Gardner Policy Institute 2020-2060 Long-Term Planning Projections

Table 2.3 : Long-Term Utah Demographic Projections by Selected Age Groups, 2025–2060

	Total Population				School Age Population (5-17)			Working Age Population (18-64)			Retirement Age Population (65+)		
Year	Total	Absolute Growth	Growth Rate	Median Age	Total	Absolute Growth	Growth Rate	Total	Absolute Growth	Growth Rate	Total	Absolute Growth	Growth Rate
2025	3,588,325	61,333	1.7%	34.0	711,428	-3,760	-0.5%	2,167,522	43,718	2.1%	475,767	21,026	4.6%
2026	3,647,847	59,522	1.7%	34.3	706,181	-5,247	-0.7%	2,210,161	42,639	2.0%	496,574	20,807	4.4%
2027	3,707,365	59,518	1.6%	34.6	699,955	-6,226	-0.9%	2,253,174	43,013	1.9%	516,791	20,217	4.1%
2028	3,765,808	58,443	1.6%	34.9	692,969	-6,986	-1.0%	2,295,487	42,313	1.9%	536,231	19,440	3.8%
2029	3,823,047	57,239	1.5%	35.1	686,577	-6,392	-0.9%	2,336,564	41,077	1.8%	554,397	18,166	3.4%
2030	3,879,161	56,114	1.5%	35.2	681,572	-5,005	-0.7%	2,375,964	39,400	1.7%	571,092	16,695	3.0%
2031	3,934,602	55,441	1.4%	35.3	676,240	-5,332	-0.8%	2,415,932	39,968	1.7%	586,382	15,290	2.7%
2032	3,989,928	55,326	1.4%	35.5	671,647	-4,593	-0.7%	2,455,031	39,099	1.6%	601,374	14,992	2.6%
2033	4,045,806	55,878	1.4%	35.6	667,883	-3,764	-0.6%	2,493,559	38,528	1.6%	616,498	15,124	2.5%
2034	4,101,768	55,962	1.4%	35.7	665,561	-2,322	-0.3%	2,530,069	36,510	1.5%	632,322	15,824	2.6%
2035	4,158,181	56,413	1.4%	35.8	665,512	-49	-0.0%	2,563,357	33,288	1.3%	649,780	17,458	2.8%
2036	4,214,821	56,640	1.4%	35.9	668,850	3,338	0.5%	2,593,134	29,777	1.2%	668,017	18,237	2.8%
2037	4,271,482	56,661	1.3%	36.0	674,546	5,696	0.9%	2,621,584	28,450	1.1%	685,753	17,736	2.7%
2038	4,327,969	56,487	1.3%	36.1	682,242	7,696	1.1%	2,649,048	27,464	1.0%	702,901	17,148	2.5%
2039	4,384,194	56,225	1.3%	36.3	691,631	9,389	1.4%	2,674,829	25,781	1.0%	720,482	17,581	2.5%
2040	4,440,560	56,366	1.3%	36.6	702,706	11,075	1.6%	2,698,103	23,274	0.9%	739,617	19,135	2.7%
2041	4,496,514	55,954	1.3%	36.8	715,056	12,350	1.8%	2,718,643	20,540	0.8%	760,453	20,836	2.8%
2042	4,551,744	55,230	1.2%	37.1	728,040	12,984	1.8%	2,736,645	18,002	0.7%	783,188	22,735	3.0%
2043	4,606,307	54,563	1.2%	37.4	741,271	13,231	1.8%	2,752,755	16,110	0.6%	807,616	24,428	3.1%
2044	4,659,824	53,517	1.2%	37.7	754,297	13,026	1.8%	2,768,059	15,304	0.6%	832,645	25,029	3.1%
2045	4,712,762	52,938	1.1%	38.0	766,978	12,681	1.7%	2,782,633	14,574	0.5%	858,834	26,189	3.1%
2046	4,765,572	52,810	1.1%	38.3	778,942	11,964	1.6%	2,797,676	15,043	0.5%	885,644	26,810	3.1%
2047	4,817,728	52,156	1.1%	38.7	789,884	10,942	1.4%	2,813,616	15,940	0.6%	912,302	26,658	3.0%
2048	4,869,323	51,595	1.1%	39.0	799,488	9,604	1.2%	2,830,658	17,042	0.6%	938,867	26,565	2.9%
2049	4,920,070	50,747	1.0%	39.3	807,575	8,087	1.0%	2,849,074	18,416	0.7%	964,855	25,988	2.8%
2050	4,969,929	49,859	1.0%	39.6	814,074	6,499	0.8%	2,867,656	18,582	0.7%	991,380	26,525	2.7%
2051	5,019,857	49,928	1.0%	39.9	819,056	4,982	0.6%	2,886,736	19,080	0.7%	1,018,840	27,460	2.8%
2052	5,069,569	49,712	1.0%	40.1	822,540	3,484	0.4%	2,906,878	20,142	0.7%	1,046,305	27,465	2.7%
2053	5,119,019	49,450	1.0%	40.4	824,546	2,006	0.2%	2,928,096	21,218	0.7%	1,073,653	27,348	2.6%
2054	5,167,718	48,699	1.0%	40.7	825,157	611	0.1%	2,949,367	21,271	0.7%	1,101,294	27,641	2.6%
2055	5,215,630	47,912	0.9%	41.0	824,578	-579	-0.1%	2,969,745	20,378	0.7%	1,129,938	28,644	2.6%
2056	5,263,304	47,674	0.9%	41.2	823,082	-1,496	-0.2%	2,988,809	19,064	0.6%	1,160,165	30,227	2.7%
2057	5,310,621	47,317	0.9%	41.5	820,890	-2,192	-0.3%	3,010,341	21,532	0.7%	1,187,861	27,696	2.4%
2058	5,357,795	47,174	0.9%	41.7	818,072	-2,818	-0.3%	3,036,194	25,853	0.9%	1,211,363	23,502	2.0%
2059	5,404,637	46,842	0.9%	41.9	814,909	-3,163	-0.4%	3,067,051	30,857	1.0%	1,229,577	18,214	1.5%
2060	5,450,598	45,961	0.9%	42.1	811,572	-3,337	-0.4%	3,099,467	32,416	1.1%	1,245,288	15,711	1.3%

Source: Kem C. Gardner Policy Institute 2020-2060 Long-Term Planning Projections

Table 2.4: Utah Population Estimates by County, 2020-2022

	Census	UPC Estimates			2021 - 2022		2022
	April 1, 2020	July 1, 2020	July 1, 2021	July 1, 2022	Absolute Change	Percent Change	% of Total Population
Beaver	7,072	7,076	7,156	7,299	143	2.0%	0.2%
Box Elder	57,666	57,886	59,219	60,788	1,569	2.6%	1.8%
Cache	133,154	133,743	137,253	140,249	2,996	2.2%	4.1%
Carbon	20,412	20,449	20,488	20,737	250	1.2%	0.6%
Daggett	935	943	962	956	-6	-0.6%	0.0%
Davis	362,679	363,419	367,944	373,651	5,708	1.6%	11.0%
Duchesne	19,596	19,608	19,737	20,097	359	1.8%	0.6%
Emery	9,825	9,824	9,884	9,921	37	0.4%	0.3%
Garfield	5,083	5,084	5,079	5,111	33	0.6%	0.2%
Grand	9,669	9,664	9,704	9,734	30	0.3%	0.3%
Iron	57,289	57,658	61,230	63,855	2,625	4.3%	1.9%
Juab	11,786	11,831	12,049	12,432	384	3.2%	0.4%
Kane	7,667	7,692	7,924	8,202	278	3.5%	0.2%
Millard	12,975	13,010	13,214	13,442	229	1.7%	0.4%
Morgan	12,295	12,353	12,679	13,033	355	2.8%	0.4%
Piute	1,438	1,442	1,479	1,495	16	1.1%	0.0%
Rich	2,510	2,517	2,560	2,644	85	3.3%	0.1%
Salt Lake	1,185,238	1,188,213	1,197,540	1,207,538	9,998	0.8%	35.5%
San Juan	14,518	14,541	14,643	14,924	281	1.9%	0.4%
Sanpete	28,437	28,560	28,948	29,854	906	3.1%	0.9%
Sevier	21,522	21,571	21,798	21,973	175	0.8%	0.6%
Summit	42,357	42,394	42,842	43,268	426	1.0%	1.3%
Tooele	72,698	73,149	76,155	77,681	1,525	2.0%	2.3%
Uintah	35,620	35,679	35,975	36,424	449	1.2%	1.1%
Utah	659,399	664,258	683,622	707,602	23,980	3.5%	20.8%
Wasatch	34,788	34,933	35,873	37,235	1,362	3.8%	1.1%
Washington	180,279	182,111	189,428	193,703	4,276	2.3%	5.7%
Wayne	2,486	2,490	2,504	2,543	39	1.6%	0.1%
Weber	262,223	262,727	265,633	268,369	2,736	1.0%	7.9%
Utah Economic Regions							
East Central	30,237	30,273	30,372	30,658	286	0.9%	0.9%
Greater Salt Lake	2,836,793	2,847,422	2,893,366	2,944,489	51,123	1.8%	86.5%
Southeast	24,187	24,205	24,347	24,658	311	1.3%	0.7%
Southwest	257,390	259,621	270,817	278,171	7,355	2.7%	8.2%
Uintah Basin	56,151	56,230	56,674	57,476	802	1.4%	1.7%
West Central	66,858	67,073	67,942	69,307	1,365	2.0%	2.0%
State of Utah	3,271,616	3,284,823	3,343,518	3,404,760	61,242	1.8%	100.0%

Note: The economic regions are combinations of counties that capture local commuting patterns and other measures of economic connection and are divided as follows: East Central - Carbon and Emery counties; Greater Salt Lake - Box Elder, Cache, Davis, Morgan, Rich, Salt Lake, Summit, Tooele, Utah, Wasatch, and Weber counties; Southeast - Grand, and San Juan counties; Southwest - Beaver, Garfield, Iron, Kane and Washington counties; Uintah Basin - Daggett, Duchesne, and Uintah counties; West Central - Juab, Millard, Piute, Sanpete, Sevier, and Wayne counties.
Source: U.S. Census Bureau (April 1, 2020). Utah Population Committee, Kem C. Gardner Policy Institute (2020-2022).

Table 2.5: U.S. Census Bureau National and State Population Estimates, 2020-2022

	April 1, 2020 Estimate Base		July 1, 2021		July 1, 2022		2020-2022			2021-2022		
	Population	Rank	Population	Rank	Population	Rank	Absolute Change	Percent Change	% Change Rank	Absolute Change	Percent Change	% Change Rank
United States	331,449,520		332,031,554		333,287,557		1,838,037	0.6%		1,256,003	0.4%	
Region												
Northeast	57,609,156	4	57,259,257	4	57,040,406	4	-568,750	-1.0%	4	-218,851	-0.4%	4
Midwest	68,985,537	3	68,836,505	3	68,787,595	3	-197,942	-0.3%	3	-48,910	-0.1%	3
South	126,266,262	1	127,346,029	1	128,716,192	1	2,449,930	1.9%	1	1,370,163	1.1%	1
West	78,588,565	2	78,589,763	2	78,743,364	2	154,799	0.2%	2	153,601	0.2%	2
State												
Alabama	5,024,356	24	5,049,846	24	5,074,296	24	49,940	1.0%	20	24,450	0.5%	20
Alaska	733,378	48	734,182	48	733,583	48	205	0.0%	32	-599	-0.1%	38
Arizona	7,151,507	14	7,264,877	14	7,359,197	14	207,690	2.9%	7	94,320	1.3%	8
Arkansas	3,011,555	33	3,028,122	33	3,045,637	33	34,082	1.1%	18	17,515	0.6%	17
California	39,538,245	1	39,142,991	1	39,029,342	1	-508,903	-1.3%	47	-113,649	-0.3%	42
Colorado	5,773,733	21	5,811,297	21	5,839,926	21	66,193	1.1%	17	28,629	0.5%	19
Connecticut	3,605,942	29	3,623,355	29	3,626,205	29	20,263	0.6%	25	2,850	0.1%	32
Delaware	989,957	45	1,004,807	45	1,018,396	45	28,439	2.9%	8	13,589	1.4%	7
District of Columbia	689,546	49	668,791	49	671,803	49	-17,743	-2.6%	50	3,012	0.5%	21
Florida	21,538,226	3	21,828,069	3	22,244,823	3	706,597	3.3%	4	416,754	1.9%	1
Georgia	10,711,937	8	10,788,029	8	10,912,876	8	200,939	1.9%	13	124,847	1.2%	12
Hawaii	1,455,273	40	1,447,154	40	1,440,196	40	-15,077	-1.0%	45	-6,958	-0.5%	47
Idaho	1,839,092	38	1,904,314	38	1,939,033	38	99,941	5.4%	1	34,719	1.8%	2
Illinios	12,812,545	6	12,686,469	6	12,582,032	6	-230,513	-1.8%	49	-104,437	-0.8%	50
Indiana	6,785,668	17	6,813,532	17	6,833,037	17	47,369	0.7%	22	19,505	0.3%	24
Iowa	3,190,372	31	3,197,689	31	3,200,517	31	10,145	0.3%	28	2,828	0.1%	31
Kansas	2,937,847	35	2,937,922	35	2,937,150	35	-697	-0.0%	35	-772	-0.0%	34
Kentucky	4,505,893	26	4,506,589	26	4,512,310	26	6,417	0.1%	30	5,721	0.1%	29
Louisiana	4,657,749	25	4,627,098	25	4,590,241	25	-67,508	-1.4%	48	-36,857	-0.8%	49
Maine	1,362,341	42	1,377,238	42	1,385,340	42	22,999	1.7%	14	8,102	0.6%	15
Maryland	6,177,213	18	6,174,610	18	6,164,660	19	-12,553	-0.2%	37	-9,950	-0.2%	41
Massachusetts	7,029,949	15	6,989,690	15	6,981,974	16	-47,975	-0.7%	43	-7,716	-0.1%	39
Michigan	10,077,325	10	10,037,504	10	10,034,113	10	-43,212	-0.4%	42	-3,391	-0.0%	35
Minnesota	5,706,504	22	5,711,471	22	5,717,184	22	10,680	0.2%	29	5,713	0.1%	30
Mississippi	2,961,288	34	2,949,586	34	2,940,057	34	-21,231	-0.7%	44	-9,529	-0.3%	45
Missouri	6,154,920	19	6,169,823	19	6,177,957	18	23,037	0.4%	26	8,134	0.1%	28
Montana	1,084,197	44	1,106,227	43	1,122,867	43	38,670	3.6%	2	16,640	1.5%	6
Nebraska	1,961,489	37	1,963,554	37	1,967,923	37	6,434	0.3%	27	4,369	0.2%	25
Nevada	3,104,624	32	3,146,402	32	3,177,772	32	73,148	2.4%	11	31,370	1.0%	13
New Hampshire	1,377,518	41	1,387,505	41	1,395,231	41	17,713	1.3%	16	7,726	0.6%	18
New Jersey	9,289,031	11	9,267,961	11	9,261,699	11	-27,332	-0.3%	39	-6,262	-0.1%	36
New Mexico	2,117,527	36	2,116,677	36	2,113,344	36	-4,183	-0.2%	36	-3,333	-0.2%	40
New York	20,201,230	4	19,857,492	4	19,677,151	4	-524,079	-2.6%	51	-180,341	-0.9%	51
North Carolina	10,439,414	9	10,565,885	9	10,698,973	9	259,559	2.5%	10	133,088	1.3%	9
North Dakota	779,091	47	777,934	47	779,261	47	170	0.0%	33	1,327	0.2%	27
Ohio	11,799,374	7	11,764,342	7	11,756,058	7	-43,316	-0.4%	41	-8,284	-0.1%	37
Oklahoma	3,959,346	28	3,991,225	28	4,019,800	28	60,454	1.5%	15	28,575	0.7%	14
Oregon	4,237,291	27	4,256,301	27	4,240,137	27	2,846	0.1%	31	-16,164	-0.4%	46
Pennsylvania	13,002,689	5	13,012,059	5	12,972,008	5	-30,681	-0.2%	38	-40,051	-0.3%	44
Rhode Island	1,097,371	43	1,096,985	44	1,093,734	44	-3,637	-0.3%	40	-3,251	-0.3%	43
South Carolina	5,118,429	23	5,193,266	23	5,282,634	23	164,205	3.2%	5	89,368	1.7%	3
South Dakota	886,677	46	896,164	46	909,824	46	23,147	2.6%	9	13,660	1.5%	5
Tennessee	6,910,786	16	6,968,351	16	7,051,339	15	140,553	2.0%	12	82,988	1.2%	11
Texas	29,145,428	2	29,558,864	2	30,029,572	2	884,144	3.0%	6	470,708	1.6%	4
Utah	**3,271,614**	**30**	**3,339,113**	**30**	**3,380,800**	**30**	**109,186**	**3.3%**	**3**	**41,687**	**1.2%**	**10**
Vermont	643,085	50	646,972	50	647,064	50	3,979	0.6%	23	92	0.0%	33
Virginia	8,631,384	12	8,657,365	12	8,683,619	12	52,235	0.6%	24	26,254	0.3%	23
Washington	7,705,247	13	7,740,745	13	7,785,786	13	80,539	1.0%	19	45,041	0.6%	16
West Virginia	1,793,755	39	1,785,526	39	1,775,156	39	-18,599	-1.0%	46	-10,370	-0.6%	48
Wisconsin	5,893,725	20	5,880,101	20	5,892,539	20	-1,186	-0.0%	34	12,438	0.2%	26
Wyoming	576,837	51	579,483	51	581,381	51	4,544	0.8%	21	1,898	0.3%	22

Note: The estimates are developed from a base that incorporates the 2020 Census, Vintage 2020 estimates, and 2020 Demographic Analysis estimates and may vary from 2020 Census values.

Source: U.S. Census Bureau, Population Division, Vintage 2022 Estimates

Table 2.6A: Rankings of States by Selected Age Groups as a Percent of Total Population, July 1, 2021

	All Ages		Under Age 5			Ages 5 to 17		
Rank	**State**	**Population**	**State**	**Population**	**Percent of Total**	**State**	**Population**	**Percent of Total**
	United States	331,893,745	United States	18,827,338	5.7%	United States	54,739,095	16.5%
1	California	39,237,836	**Utah**	**237,234**	**7.1%**	**Utah**	**710,009**	**21.3%**
2	Texas	29,527,941	North Dakota	51,390	6.6%	Texas	5,569,991	18.9%
3	Florida	21,781,128	Alaska	48,111	6.6%	Idaho	354,702	18.7%
4	New York	19,835,913	South Dakota	58,668	6.6%	Nebraska	357,094	18.2%
5	Pennsylvania	12,964,056	Texas	1,905,442	6.5%	South Dakota	161,761	18.1%
6	Illinois	12,671,469	Nebraska	125,790	6.4%	Oklahoma	715,161	17.9%
7	Ohio	11,780,017	Oklahoma	246,369	6.2%	Alaska	131,245	17.9%
8	Georgia	10,799,566	Louisiana	285,149	6.2%	Kansas	524,917	17.9%
9	North Carolina	10,551,162	District of Columbia	40,759	6.1%	Georgia	1,890,987	17.5%
10	Michigan	10,050,811	Kansas	178,147	6.1%	Mississippi	515,944	17.5%
11	New Jersey	9,267,130	Idaho	114,324	6.0%	North Dakota	134,311	17.3%
12	Virginia	8,642,274	Arkansas	181,560	6.0%	Indiana	1,178,697	17.3%
13	Washington	7,738,692	Indiana	408,309	6.0%	Wyoming	100,133	17.3%
14	Arizona	7,276,316	Mississippi	176,891	6.0%	Louisiana	797,794	17.3%
15	Massachusetts	6,984,723	Iowa	189,056	5.9%	Arkansas	521,829	17.2%
16	Tennessee	6,975,218	Minnesota	337,504	5.9%	Minnesota	980,063	17.2%
17	Indiana	6,805,985	Kentucky	265,121	5.9%	Iowa	547,320	17.1%
18	Missouri	6,168,187	Georgia	633,315	5.9%	New Mexico	358,213	16.9%
19	Maryland	6,165,129	Missouri	360,045	5.8%	California	6,555,486	16.7%
20	Wisconsin	5,895,908	Alabama	291,802	5.8%	Arizona	1,212,132	16.7%
21	Colorado	5,812,069	Tennessee	402,350	5.8%	Kentucky	750,791	16.6%
22	Minnesota	5,707,390	Maryland	354,588	5.8%	Missouri	1,024,512	16.6%
23	South Carolina	5,190,705	Hawaii	82,785	5.7%	Nevada	520,671	16.6%
24	Alabama	5,039,877	Ohio	673,707	5.7%	Illinois	2,096,603	16.5%
25	Louisiana	4,624,047	Virginia	490,808	5.7%	Alabama	830,450	16.5%
26	Kentucky	4,509,394	Nevada	178,077	5.7%	Ohio	1,931,922	16.4%
27	Oregon	4,246,155	California	2,217,145	5.7%	Maryland	1,008,716	16.4%
28	Oklahoma	3,986,639	Washington	434,017	5.6%	Tennessee	1,138,324	16.3%
29	Connecticut	3,605,597	New Jersey	519,195	5.6%	New Jersey	1,503,933	16.2%
30	**Utah**	**3,337,975**	North Carolina	589,463	5.6%	North Carolina	1,712,040	16.2%
31	Iowa	3,193,079	Wyoming	32,291	5.6%	Wisconsin	954,511	16.2%
32	Nevada	3,143,991	Illinois	706,621	5.6%	Virginia	1,394,018	16.1%
33	Arkansas	3,025,891	New York	1,099,062	5.5%	South Carolina	834,128	16.1%
34	Mississippi	2,949,965	Arizona	401,856	5.5%	Washington	1,242,105	16.1%
35	Kansas	2,934,582	Michigan	548,355	5.5%	Montana	176,819	16.0%
36	New Mexico	2,115,877	South Carolina	282,964	5.5%	Colorado	930,296	16.0%
37	Nebraska	1,963,692	New Mexico	115,008	5.4%	Michigan	1,605,024	16.0%
38	Idaho	1,900,923	Wisconsin	320,245	5.4%	Delaware	154,793	15.4%
39	West Virginia	1,782,959	Colorado	313,160	5.4%	Hawaii	221,614	15.4%
40	Hawaii	1,441,553	Delaware	53,501	5.3%	Pennsylvania	1,992,655	15.4%
41	New Hampshire	1,388,992	Montana	58,251	5.3%	Connecticut	551,499	15.3%
42	Maine	1,372,247	Pennsylvania	681,354	5.3%	Oregon	648,567	15.3%
43	Montana	1,104,271	Florida	1,103,794	5.1%	New York	3,014,261	15.2%
44	Rhode Island	1,095,610	West Virginia	89,407	5.0%	West Virginia	269,624	15.1%
45	Delaware	1,003,384	Oregon	212,784	5.0%	Florida	3,185,486	14.6%
46	South Dakota	895,376	Massachusetts	346,922	5.0%	Massachusetts	1,015,211	14.5%
47	North Dakota	774,948	Connecticut	178,211	4.9%	Rhode Island	155,277	14.2%
48	Alaska	732,673	Rhode Island	53,550	4.9%	New Hampshire	194,084	14.0%
49	District of Columbia	670,050	Maine	62,340	4.5%	Maine	189,569	13.8%
50	Vermont	645,570	New Hampshire	62,292	4.5%	Vermont	88,727	13.7%
51	Wyoming	578,803	Vermont	28,249	4.4%	District of Columbia	85,076	12.7%

Note: The estimates are developed from a base that incorporates the 2020 Census, Vintage 2020 estimates, and 2020 Demographic Analysis estimates and may vary from 2020 Census values. Totals may differ in this table from other tables in this report due to different release dates or data sources.
Source: U.S. Census Bureau, Population Division, Vintage 2021 Estimates

Table 2.6B: Rankings of States by Selected Age Groups as a Percent of Total Population: July 1, 2021

Ages 18 to 64			Ages 65+			State	Median Age
State	Population	Percent of Total	State	Population	Percent of Total		
United States	202,479,359	61.0%	United States	55,847,953	16.8%	United States	38.8
District of Columbia	458,377	68.4%	Maine	297,165	21.7%	Maine	44.7
Colorado	3,688,960	63.5%	Florida	4,598,386	21.1%	New Hampshire	43.0
Massachusetts	4,407,897	63.1%	West Virginia	369,420	20.7%	Vermont	42.9
Rhode Island	687,992	62.8%	Vermont	133,258	20.6%	West Virginia	42.8
California	24,508,113	62.5%	Delaware	201,646	20.1%	Florida	42.7
New Hampshire	865,095	62.3%	Montana	216,423	19.6%	Delaware	41.6
Alaska	455,654	62.2%	Hawaii	282,304	19.6%	Connecticut	41.1
Washington	4,807,392	62.1%	New Hampshire	267,521	19.3%	Pennsylvania	40.9
Georgia	6,691,193	62.0%	Pennsylvania	2,464,454	19.0%	New Jersey	40.3
Virginia	5,350,796	61.9%	South Carolina	966,399	18.6%	Rhode Island	40.3
Connecticut	2,226,652	61.8%	Oregon	788,379	18.6%	Hawaii	40.2
New York	12,244,869	61.7%	New Mexico	391,946	18.5%	South Carolina	40.2
Maryland	3,798,668	61.6%	Arizona	1,333,046	18.3%	Michigan	40.1
Texas	18,176,524	61.6%	Rhode Island	198,791	18.1%	Montana	40.1
Illinois	7,766,783	61.3%	Michigan	1,822,782	18.1%	Wisconsin	40.1
Nevada	1,926,776	61.3%	Connecticut	649,235	18.0%	Oregon	40.0
New Jersey	5,678,085	61.3%	Wyoming	103,877	17.9%	Massachusetts	39.9
Vermont	395,336	61.2%	Wisconsin	1,057,243	17.9%	New York	39.7
North Carolina	6,456,345	61.2%	Ohio	2,098,999	17.8%	Alabama	39.6
Oregon	2,596,425	61.1%	Iowa	565,273	17.7%	Ohio	39.6
Tennessee	4,249,272	60.9%	Alabama	888,817	17.6%	Maryland	39.3
Wisconsin	3,563,909	60.4%	Missouri	1,083,767	17.6%	North Carolina	39.3
Michigan	6,074,650	60.4%	New York	3,477,721	17.5%	Kentucky	39.2
Kentucky	2,723,222	60.4%	South Dakota	156,418	17.5%	Missouri	39.1
Pennsylvania	7,825,593	60.4%	Arkansas	528,101	17.5%	Tennessee	39.1
Indiana	4,104,291	60.3%	Massachusetts	1,214,693	17.4%	Illinios	39.0
Minnesota	3,434,140	60.2%	Kentucky	770,260	17.1%	Wyoming	38.9
Louisiana	2,779,294	60.1%	North Carolina	1,793,314	17.0%	New Mexico	38.8
Alabama	3,028,808	60.1%	Tennessee	1,185,272	17.0%	Virginia	38.8
Ohio	7,075,389	60.1%	New Jersey	1,565,917	16.9%	Minnesota	38.7
Maine	823,173	60.0%	Mississippi	494,244	16.8%	Nevada	38.7
Missouri	3,699,863	60.0%	Minnesota	955,683	16.7%	Arizona	38.6
Utah	**2,001,584**	**60.0%**	Kansas	489,638	16.7%	Arkansas	38.6
North Dakota	464,606	60.0%	Idaho	315,456	16.6%	Iowa	38.6
South Carolina	3,107,214	59.9%	Illinois	2,101,462	16.6%	Mississippi	38.4
Mississippi	1,762,886	59.8%	Nevada	518,467	16.5%	Washington	38.2
Oklahoma	2,380,398	59.7%	Louisiana	761,810	16.5%	Indiana	38.1
Arizona	4,329,282	59.5%	Nebraska	321,890	16.4%	Louisiana	38.0
Kansas	1,741,880	59.4%	Indiana	1,114,688	16.4%	South Dakota	37.7
Arkansas	1,794,401	59.3%	Virginia	1,406,652	16.3%	California	37.6
Hawaii	854,850	59.3%	Maryland	1,003,157	16.3%	Colorado	37.5
Iowa	1,891,430	59.2%	Washington	1,255,178	16.2%	Georgia	37.5
Florida	12,893,462	59.2%	Oklahoma	644,711	16.2%	Idaho	37.4
Wyoming	342,502	59.2%	North Dakota	124,641	16.1%	Kansas	37.4
Delaware	593,444	59.1%	California	5,957,092	15.2%	Nebraska	37.1
West Virginia	1,054,508	59.1%	Colorado	879,653	15.1%	Oklahoma	37.1
Montana	652,778	59.1%	Georgia	1,584,071	14.7%	North Dakota	35.7
New Mexico	1,250,710	59.1%	Alaska	97,663	13.3%	Alaska	35.6
Nebraska	1,158,918	59.0%	Texas	3,875,984	13.1%	Texas	35.4
Idaho	1,116,441	58.7%	District of Columbia	85,838	12.8%	District of Columbia	34.9
South Dakota	518,529	57.9%	**Utah**	**389,148**	**11.7%**	**Utah**	**31.8**

Note: The estimates are developed from a base that incorporates the 2020 Census, Vintage 2020 estimates, and 2020 Demographic Analysis estimates and may vary from 2020 Census values. Totals may differ in this table from other tables in this report due to different release dates or data sources.
Source: U.S. Census Bureau, Population Division, Vintage 2021 Estimates

Table 2.7: Dependency Ratios by State, July 1, 2021

Rank	Preschool-Age (Under Age 5) per 100 of Working Age		School-Age (5-17) per 100 of Working Age		Retirement-Age (65 & Over) per 100 of Working Age		Total Non-Working Age per 100 of Working Age	
	United States	9.3	United States	27.0	United States	27.6	United States	63.9
1	**Utah**	**11.9**	**Utah**	**35.5**	Maine	36.1	South Dakota	72.7
2	South Dakota	11.3	Idaho	31.8	Florida	35.7	Idaho	70.3
3	North Dakota	11.1	South Dakota	31.2	West Virginia	35.0	Nebraska	69.4
4	Nebraska	10.9	Nebraska	30.8	Delaware	34.0	New Mexico	69.2
5	Alaska	10.6	Texas	30.6	Vermont	33.7	Montana	69.2
6	Texas	10.5	Kansas	30.1	Montana	33.2	West Virginia	69.1
7	Oklahoma	10.3	Oklahoma	30.0	Hawaii	33.0	Delaware	69.1
8	Louisiana	10.3	Mississippi	29.3	Pennsylvania	31.5	Wyoming	69.0
9	Idaho	10.2	Wyoming	29.2	New Mexico	31.3	Florida	68.9
10	Kansas	10.2	Arkansas	29.1	South Carolina	31.1	Iowa	68.8
11	Arkansas	10.1	Iowa	28.9	New Hampshire	30.9	Hawaii	68.6
12	Mississippi	10.0	North Dakota	28.9	Arizona	30.8	Arkansas	68.6
13	Iowa	10.0	Alaska	28.8	Oregon	30.4	Kansas	68.5
14	Indiana	9.9	Indiana	28.7	Wyoming	30.3	Arizona	68.1
15	Minnesota	9.8	Louisiana	28.7	South Dakota	30.2	Oklahoma	67.5
16	Kentucky	9.7	New Mexico	28.6	Michigan	30.0	Mississippi	67.3
17	Missouri	9.7	Minnesota	28.5	Iowa	29.9	South Carolina	67.1
18	Hawaii	9.7	Georgia	28.3	Ohio	29.7	North Dakota	66.8
19	Alabama	9.6	Arizona	28.0	Wisconsin	29.7	**Utah**	**66.8**
20	Ohio	9.5	Missouri	27.7	Arkansas	29.4	Missouri	66.7
21	Tennessee	9.5	Kentucky	27.6	Alabama	29.3	Maine	66.7
22	Georgia	9.5	Alabama	27.4	Missouri	29.3	Ohio	66.5
23	Wyoming	9.4	Ohio	27.3	Connecticut	29.2	Alabama	66.4
24	Maryland	9.3	Montana	27.1	Rhode Island	28.9	Louisiana	66.4
25	Arizona	9.3	Nevada	27.0	New York	28.4	Minnesota	66.2
26	Nevada	9.2	Illinois	27.0	Kentucky	28.3	Indiana	65.8
27	New Mexico	9.2	South Carolina	26.8	Idaho	28.3	Pennsylvania	65.7
28	Virginia	9.2	Tennessee	26.8	Kansas	28.1	Kentucky	65.6
29	New Jersey	9.1	Wisconsin	26.8	Mississippi	28.0	Michigan	65.5
30	North Carolina	9.1	California	26.7	Tennessee	27.9	Wisconsin	65.4
31	South Carolina	9.1	Maryland	26.6	Minnesota	27.8	Tennessee	64.2
32	Illinois	9.1	North Carolina	26.5	North Carolina	27.8	Oregon	63.5
33	California	9.0	New Jersey	26.5	Nebraska	27.8	North Carolina	63.4
34	Washington	9.0	Michigan	26.4	New Jersey	27.6	Vermont	63.3
35	Michigan	9.0	Delaware	26.1	Massachusetts	27.6	New Jersey	63.2
36	Delaware	9.0	Virginia	26.1	Louisiana	27.4	Nevada	63.2
37	Wisconsin	9.0	Hawaii	25.9	Indiana	27.2	Illinois	63.1
38	New York	9.0	Washington	25.8	Oklahoma	27.1	Texas	62.5
39	Montana	8.9	West Virginia	25.6	Illinois	27.1	Maryland	62.3
40	District of Columbia	8.9	Pennsylvania	25.5	Nevada	26.9	New York	62.0
41	Pennsylvania	8.7	Colorado	25.2	North Dakota	26.8	Connecticut	61.9
42	Florida	8.6	Oregon	25.0	Maryland	26.4	Virginia	61.5
43	Colorado	8.5	Connecticut	24.8	Virginia	26.3	Georgia	61.4
44	West Virginia	8.5	Florida	24.7	Washington	26.1	Washington	61.0
45	Oregon	8.2	New York	24.6	California	24.3	Alaska	60.8
46	Connecticut	8.0	Massachusetts	23.0	Colorado	23.8	New Hampshire	60.6
47	Massachusetts	7.9	Maine	23.0	Georgia	23.7	California	60.1
48	Rhode Island	7.8	Rhode Island	22.6	Alaska	21.4	Rhode Island	59.2
49	Maine	7.6	Vermont	22.4	Texas	21.3	Massachusetts	58.5
50	New Hampshire	7.2	New Hampshire	22.4	**Utah**	**19.4**	Colorado	57.6
51	Vermont	7.1	District of Columbia	18.6	District of Columbia	18.7	District of Columbia	46.2

Note: The estimates are developed from a base that incorporates the 2020 Census, Vintage 2020 estimates, and 2020 Demographic Analysis estimates and may vary from 2020 Census values.
Source: U.S. Census Bureau, Population Division, Vintage 2021 Estimates; rate calculated by the Kem C. Gardner Policy Institute

Table 2.8: Total Fertility Rates for Utah and the United States, 1960–2020

Year	Utah	U.S.
1960	4.30	3.61
1961	4.24	3.56
1962	4.18	3.42
1963	3.87	3.30
1964	3.55	3.17
1965	3.24	2.88
1966	3.17	2.67
1967	3.12	2.53
1968	3.04	2.43
1969	3.09	2.42
1970	3.30	2.48
1971	3.14	2.27
1972	2.88	2.01
1973	2.84	1.88
1974	2.91	1.84
1975	2.96	1.77
1976	3.19	1.74
1977	3.30	1.79
1978	3.25	1.76
1979	3.28	1.81
1980	3.14	1.84

Year	Utah	U.S.
1981	3.06	1.81
1982	2.99	1.83
1983	2.83	1.80
1984	2.74	1.81
1985	2.69	1.84
1986	2.59	1.84
1987	2.48	1.87
1988	2.52	1.93
1989	2.55	2.01
1990	2.65	2.08
1991	2.53	2.06
1992	2.53	2.05
1993	2.45	2.02
1994	2.44	2.00
1995	2.45	1.98
1996	2.53	1.98
1997	2.52	1.97
1998	2.59	2.00
1999	2.61	2.01
2000	2.76	2.13
2001	2.61	2.03

Year	Utah	U.S.
2002	2.63	2.02
2003	2.63	2.05
2004	2.64	2.05
2005	2.63	2.06
2006	2.67	2.11
2007	2.68	2.12
2008	2.65	2.07
2009	2.54	2.00
2010	2.45	1.93
2011	2.38	1.89
2012	2.37	1.88
2013	2.34	1.86
2014	2.33	1.86
2015	2.29	1.84
2016	2.24	1.82
2017	2.12	1.77
2018	2.03	1.73
2019	1.99	1.71
2020	1.92	1.64

Source: National Center for Health Statistics

Table 2.9: Components of Population Change Annual Rates, July 1, 2021 – July 1, 2022

Rank	Births		Deaths		Naural Increase		Net Migration	
	State	Rate	State	Rate	State	Rate	State	Rate
	United States	11.1	United States	10.4	United States	0.7	United States	3.0
1	**Utah**	**14.0**	West Virginia	16.6	**Utah**	**7.0**	Florida	20.2
2	North Dakota	13.1	Mississippi	13.6	Alaska	4.2	South Carolina	18.1
3	Alaska	12.9	Kentucky	13.5	Texas	4.0	Montana	16.0
4	Texas	12.7	Arkansas	13.2	District of Columbia	3.8	Idaho	15.9
5	South Dakota	12.6	Alabama	13.2	North Dakota	3.6	Delaware	14.1
6	Louisiana	12.4	Maine	13.0	California	2.7	Tennessee	12.8
7	Nebraska	12.4	Tennessee	13.0	Nebraska	2.6	Arizona	12.7
8	District of Columbia	12.1	Oklahoma	12.8	South Dakota	2.4	South Dakota	12.4
9	Oklahoma	12.0	Ohio	12.7	Colorado	2.4	North Carolina	11.9
10	Arkansas	11.9	South Carolina	12.3	New Jersey	2.1	Texas	11.7
11	Mississippi	11.9	Missouri	12.2	Minnesota	2.0	Maine	10.2
12	Kansas	11.9	Louisiana	12.1	Idaho	1.9	Georgia	10.0
13	Indiana	11.8	Pennsylvania	11.9	Maryland	1.9	Nevada	9.8
14	Idaho	11.7	New Mexico	11.9	New York	1.8	Oklahoma	8.1
15	Tennessee	11.7	Florida	11.8	Washington	1.7	New Hampshire	7.3
16	Kentucky	11.6	Michigan	11.7	Hawaii	1.7	Arkansas	7.1
17	Georgia	11.6	Indiana	11.6	Georgia	1.5	Alabama	6.6
18	Iowa	11.5	Montana	11.5	Virginia	1.5	**Utah**	**5.5**
19	Alabama	11.5	Wyoming	11.5	Massachusetts	0.9	Washington	4.4
20	North Carolina	11.5	Delaware	11.3	Kansas	0.7	Wyoming	4.3
21	Minnesota	11.3	Kansas	11.2	North Carolina	0.6	Vermont	3.3
22	Missouri	11.2	Iowa	11.1	Iowa	0.5	Kentucky	3.3
23	Maryland	11.2	Vermont	11.0	Illinois	0.4	Indiana	3.0
24	Virginia	11.2	North Carolina	10.9	Connecticut	0.3	Colorado	2.7
25	New Jersey	11.1	Oregon	10.9	Louisiana	0.3	Wisconsin	2.7
26	Ohio	11.0	Arizona	10.8	Indiana	0.2	Missouri	2.4
27	Hawaii	10.9	Wisconsin	10.8	Nevada	0.1	Virginia	1.6
28	South Carolina	10.9	New Hampshire	10.6	Arizona	-0.1	District of Columbia	1.4
29	California	10.9	Nevada	10.6	Wisconsin	-0.3	Ohio	1.3
30	Washington	10.9	South Dakota	10.2	Rhode Island	-0.5	West Virginia	1.3
31	Colorado	10.8	Rhode Island	10.1	Delaware	-0.7	Michigan	1.0
32	Arizona	10.8	Georgia	10.1	Oklahoma	-0.8	Connecticut	0.8
33	New York	10.7	Illinois	10.0	Wyoming	-0.8	New Mexico	0.7
34	Nevada	10.7	Nebraska	9.8	Missouri	-1.0	Iowa	0.6
35	Wyoming	10.7	Idaho	9.8	Oregon	-1.2	Nebraska	-0.1
36	Delaware	10.6	Virginia	9.7	Michigan	-1.2	Kansas	-0.7
37	Michigan	10.5	Connecticut	9.6	Arkansas	-1.3	Minnesota	-0.9
38	Wisconsin	10.5	North Dakota	9.5	Tennessee	-1.3	Pennsylvania	-1.0
39	Illinois	10.4	Maryland	9.3	South Carolina	-1.4	Mississippi	-1.4
40	Pennsylvania	10.2	Minnesota	9.3	New Hampshire	-1.5	North Dakota	-1.9
41	Montana	10.0	Hawaii	9.2	Montana	-1.5	Massachusetts	-1.9
42	Massachusetts	10.0	Massachusetts	9.1	Ohio	-1.7	Rhode Island	-2.2
43	Florida	10.0	Washington	9.1	Mississippi	-1.7	Oregon	-2.4
44	New Mexico	9.9	New Jersey	8.9	Alabama	-1.7	New Jersey	-2.7
45	Connecticut	9.9	New York	8.9	Pennsylvania	-1.8	Maryland	-3.5
46	West Virginia	9.8	Texas	8.8	Florida	-1.8	Alaska	-5.1
47	Oregon	9.7	Alaska	8.7	Kentucky	-1.9	California	-5.6
48	Rhode Island	9.6	Colorado	8.5	New Mexico	-2.0	Hawaii	-6.5
49	New Hampshire	9.1	District of Columbia	8.3	Vermont	-2.8	Louisiana	-8.4
50	Maine	8.7	California	8.1	Maine	-4.3	Illinois	-8.7
51	Vermont	8.3	**Utah**	**7.0**	West Virginia	-6.8	New York	-11.2

Note : Rank is high to low. When states share the same rank, the next lower rank is omitted. Total population change includes a residual. This residual represents the change in population that cannot be attributed to any specific demographic component. Data in this table may differ from other tables due to different sources of data.
Source: U.S. Census Bureau, Population Division, Vintage 2018 Estimates

Table 2.10: Housing Units, Households, and Persons Per Household by State, 2020-2022

	2020 Total Housing Units	2021 Total Housing Units	2021 Total Households	2021 Persons Per Household	2021 Rank of HH size	2020 to 2021Percent Change in Total Housing Units
United States	140,805,345	142,153,010	127,544,730	2.54	-	1.0%
Alabama	2,292,732	2,313,642	1,967,559	2.50	18	0.9%
Alaska	326,598	327,890	271,311	2.61	7	0.4%
Arizona	3,092,669	3,138,871	2,817,723	2.53	12	1.5%
Arkansas	1,368,241	1,380,728	1,183,675	2.49	19	0.9%
California	14,415,759	14,512,281	13,429,063	2.86	2	0.7%
Colorado	2,500,838	2,540,822	2,313,042	2.46	27	1.6%
Connecticut	1,531,475	1,536,344	1,428,313	2.45	32	0.3%
Delaware	450,146	457,954	395,656	2.47	23	1.7%
District of Columbia	351,442	357,489	319,565	1.98	51	1.7%
Florida	9,900,732	10,054,457	8,565,329	2.49	19	1.6%
Georgia	4,423,197	4,475,274	4,001,109	2.64	6	1.2%
Hawaii	562,012	564,908	490,080	2.86	2	0.5%
Idaho	756,210	775,267	693,882	2.70	4	2.5%
Illinois	5,429,365	5,440,401	4,991,641	2.48	22	0.2%
Indiana	2,927,822	2,950,185	2,680,694	2.47	23	0.8%
Iowa	1,415,181	1,426,108	1,300,467	2.38	44	0.8%
Kansas	1,277,247	1,284,344	1,159,026	2.47	23	0.6%
Kentucky	1,996,995	2,008,239	1,785,682	2.46	27	0.6%
Louisiana	2,076,584	2,093,393	1,783,924	2.52	13	0.8%
Maine	740,129	745,334	593,626	2.25	50	0.7%
Maryland	2,533,870	2,546,344	2,355,652	2.56	10	0.5%
Massachusetts	3,002,436	3,017,901	2,759,018	2.44	34	0.5%
Michigan	4,573,974	4,590,528	4,051,798	2.43	37	0.4%
Minnesota	2,491,821	2,517,248	2,281,033	2.45	32	1.0%
Mississippi	1,321,949	1,332,050	1,129,611	2.54	11	0.8%
Missouri	2,790,172	2,807,604	2,468,726	2.43	37	0.6%
Montana	515,947	521,892	448,949	2.40	41	1.2%
Nebraska	845,939	854,328	785,982	2.44	34	1.0%
Nevada	1,285,935	1,305,509	1,191,380	2.61	7	1.5%
New Hampshire	639,895	643,981	548,026	2.46	27	0.6%
New Jersey	3,764,914	3,780,004	3,497,945	2.60	9	0.4%
New Mexico	942,273	948,110	834,007	2.49	19	0.6%
New York	8,497,884	8,531,063	7,652,666	2.52	13	0.4%
North Carolina	4,725,048	4,801,712	4,179,632	2.46	27	1.6%
North Dakota	371,172	374,447	322,511	2.33	47	0.9%
Ohio	5,246,294	5,269,638	4,832,922	2.38	44	0.4%
Oklahoma	1,749,349	1,762,129	1,547,967	2.51	16	0.7%
Oregon	1,819,247	1,837,079	1,702,599	2.44	34	1.0%
Pennsylvania	5,747,700	5,770,601	5,228,956	2.40	41	0.4%
Rhode Island	483,752	484,902	440,170	2.39	43	0.2%
South Carolina	2,353,655	2,395,943	2,049,972	2.47	23	1.8%
South Dakota	394,357	400,780	356,887	2.42	39	1.6%
Tennessee	3,041,029	3,087,963	2,770,395	2.46	27	1.5%
Texas	11,640,214	11,869,072	10,796,247	2.68	5	2.0%
Utah	**1,158,408**	**1,190,107**	**1,101,499**	**2.99**	**1**	**2.7%**
Vermont	334,750	336,779	270,163	2.29	49	0.6%
Virginia	3,624,574	3,652,388	3,331,461	2.52	13	0.8%
Washington	3,213,997	3,257,185	3,022,255	2.51	16	1.3%
West Virginia	856,092	858,481	722,201	2.41	40	0.3%
Wisconsin	2,731,042	2,748,940	2,449,970	2.35	46	0.7%
Wyoming	272,282	274,371	242,763	2.33	47	0.8%

Note: Numbers may not sum due to rounding. The estimates are developed from a base that incorporates the 2020 Census, Vintage 2020 estimates, and 2020 Demographic Analysis estimates and may vary from 2020 Census values.

Source: U.S. Census Bureau, Vintage 2021 Population Estimates, 2021 American Community Survey 1-Year Estimates.

Table 2.11: County Population by Race and Ethnicity in Utah, July 1, 2021

Geographic Area	Total Population	Race Alone (Not Hispanic or Latino)					Two or More Races (Not Hispanic or Latino)	Hispanic or Latino Origin (of any race)	Total Minority
		White	Black/ African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander			
State	3,337,975	2,577,888	39,687	31,014	84,651	35,066	76,033	493,636	760,087
Share of Total Population	100.0%	77.2%	1.2%	0.9%	2.5%	1.1%	2.3%	14.8%	22.8%
Beaver	7,249	83.5%	0.3%	0.9%	0.9%	0.3%	1.4%	12.7%	16.5%
Box Elder	59,688	86.5%	0.4%	0.7%	0.7%	0.2%	1.7%	9.8%	13.5%
Cache	137,417	83.2%	0.9%	0.5%	2.2%	0.5%	1.6%	11.2%	16.8%
Carbon	20,372	82.2%	0.6%	1.0%	0.7%	0.2%	1.6%	13.8%	17.8%
Daggett	976	89.8%	0.3%	0.5%	0.3%	0.1%	2.6%	6.5%	10.2%
Davis	367,285	82.3%	1.2%	0.5%	2.0%	0.8%	2.4%	10.7%	17.7%
Duchesne	19,790	84.4%	0.3%	3.5%	0.4%	0.3%	2.4%	8.6%	15.6%
Emery	9,967	90.0%	0.3%	1.0%	0.5%	0.1%	1.3%	6.8%	10.0%
Garfield	5,129	88.2%	0.5%	2.1%	1.0%	0.3%	1.6%	6.4%	11.8%
Grand	9,663	80.5%	0.8%	3.8%	2.2%	0.1%	1.8%	10.8%	19.5%
Iron	60,519	84.8%	0.6%	1.8%	0.9%	0.4%	1.8%	9.7%	15.2%
Juab	12,155	90.8%	0.4%	0.8%	0.5%	0.3%	1.5%	5.7%	9.2%
Kane	7,992	89.6%	0.7%	1.6%	0.8%	0.1%	2.0%	5.2%	10.4%
Millard	13,164	83.0%	0.3%	1.1%	1.4%	0.2%	1.5%	12.5%	17.0%
Morgan	12,657	94.6%	0.3%	0.3%	0.6%	0.2%	1.0%	3.0%	5.4%
Piute	1,487	89.2%	0.3%	0.5%	0.5%	0.3%	1.4%	7.9%	10.8%
Rich	2,597	91.3%	0.4%	0.6%	0.1%	0.1%	1.0%	6.5%	8.7%
Salt Lake	1,186,421	69.6%	1.8%	0.7%	4.4%	1.8%	2.5%	19.3%	30.4%
San Juan	14,489	44.5%	0.4%	46.3%	0.6%	0.1%	2.1%	6.1%	55.5%
Sanpete	29,106	85.9%	0.9%	0.9%	0.7%	0.5%	1.6%	9.4%	14.1%
Sevier	21,906	91.3%	0.4%	1.1%	0.3%	0.2%	1.3%	5.3%	8.7%
Summit	43,093	84.4%	0.8%	0.3%	2.0%	0.1%	1.6%	10.9%	15.6%
Tooele	76,640	80.6%	0.8%	0.8%	0.7%	0.9%	2.0%	14.2%	19.4%
Uintah	36,204	81.2%	0.5%	6.7%	0.6%	0.3%	2.0%	8.7%	18.8%
Utah	684,986	80.9%	0.6%	0.5%	1.8%	0.9%	2.6%	12.7%	19.1%
Wasatch	36,173	82.8%	0.6%	0.3%	1.1%	0.2%	1.2%	13.9%	17.2%
Washington	191,226	83.2%	0.6%	1.0%	1.0%	0.8%	2.0%	11.3%	16.8%
Wayne	2,558	89.5%	0.5%	0.5%	0.9%	0.2%	2.0%	6.4%	10.5%
Weber	267,066	75.4%	1.3%	0.5%	1.4%	0.3%	2.2%	18.8%	24.6%

Note: As a result of the revised standards for collecting data on race and ethnicity issued by the Office of Management and Budget in 1997, the federal government treats Hispanic origin and race as separate and distinct concepts. Therefore people identifying as Hispanic or Latino may be of any race. Respondents were allowed to select more than one race. Respondents who selected more than one race are included in the "Two or More Races" category. For postcensal population estimates, the "Some Other Race" category was omitted. The estimates are developed from a base that incorporates the 2020 Census, Vintage 2020 estimates, and 2020 Demographic Analysis estimates and may vary from 2020 Census values.
Source: U.S. Census Bureau, Population Division, Vintage 2021 Estimates

Table 2.12: Total Population by City, 2020-2021

	2020 Estimate Base (April 1)	Population Estimate (July 1)		Change from July 1, 2020-2021	
		2020	2021	Percent	Number
Utah	**3,271,616**	**3,281,684**	**3,337,975**	**1.7%**	**56,291**
Beaver County	**7,072**	**7,076**	**7,249**	**2.4%**	**173**
Beaver	3,426	3,429	3,498	2.0%	69
Milford	1,490	1,489	1,507	1.2%	18
Minersville	851	853	886	3.9%	33
Balance of Beaver County	1,305	1,305	1,358	4.1%	53
Box Elder County	**57,666**	**57,908**	**59,688**	**3.1%**	**1,780**
Bear River City	879	879	891	1.4%	12
Brigham City	19,619	19,647	19,998	1.8%	351
Corinne	810	821	861	4.9%	40
Deweyville	418	421	435	3.3%	14
Elwood	1,171	1,171	1,214	3.7%	43
Fielding	556	556	561	0.9%	5
Garland	2,590	2,591	2,615	0.9%	24
Honeyville	1,604	1,617	1,684	4.1%	67
Howell	236	236	237	0.4%	1
Mantua	1,093	1,109	1,217	9.7%	108
Perry	5,555	5,588	5,752	2.9%	164
Plymouth	424	424	432	1.9%	8
Portage	274	277	289	4.3%	12
Snowville	162	162	163	0.6%	1
Tremonton	9,903	9,970	10,493	5.2%	523
Willard	1,983	1,995	2,119	6.2%	124
Balance of Box Elder County	10,389	10,444	10,727	2.7%	283
Cache County	**133,154**	**133,527**	**137,417**	**2.9%**	**3,890**
Amalga	484	487	495	1.6%	8
Clarkston	754	755	760	0.7%	5
Cornish	275	277	275	-0.7%	-2
Hyde Park	5,241	5,251	5,420	3.2%	169
Hyrum	9,371	9,439	10,036	6.3%	597
Lewiston	1,944	1,938	1,951	0.7%	13
Logan	52,673	52,665	54,436	3.4%	1,771
Mendon	1,341	1,336	1,336	0.0%	0
Millville	2,338	2,356	2,416	2.5%	60
Newton	793	791	794	0.4%	3
Nibley	7,342	7,341	7,529	2.6%	188
North Logan	10,995	11,002	11,155	1.4%	153
Paradise	971	978	1,006	2.9%	28
Providence	8,227	8,286	8,693	4.9%	407
Richmond	2,919	2,939	2,967	1.0%	28
River Heights	2,146	2,161	2,161	0.0%	0
Smithfield	13,589	13,689	14,067	2.8%	378
Trenton	511	513	516	0.6%	3
Wellsville	4,068	4,099	4,113	0.3%	14
Balance of Cache County	7,172	7,224	7,291	0.9%	67
Carbon County	**20,412**	**20,465**	**20,372**	**-0.5%**	**-93**

Table 2.12: Total Population by City, 2020-2021 (continued)

	2020 Estimate Base (April 1)	Population Estimate (July 1)		Change from July 1, 2020-2021	
		2020	2021	Percent	Number
East Carbon	1,543	1,547	1,539	-0.5%	-8
Helper	2,098	2,104	2,093	-0.5%	-11
Price	8,288	8,304	8,267	-0.4%	-37
Scofield	27	27	27	0.0%	0
Wellington	1,595	1,601	1,594	-0.4%	-7
Balance of Carbon County	6,861	6,882	6,852	-0.4%	-30
Daggett County	**935**	**952**	**976**	**2.5%**	**24**
Dutch John	139	141	144	2.1%	3
Manila	309	315	324	2.9%	9
Balance of Daggett County	487	496	508	2.4%	12
Davis County	**362,679**	**363,492**	**367,285**	**1.0%**	**3,793**
Bountiful	45,811	45,781	45,438	-0.7%	-343
Centerville	16,868	16,851	16,785	-0.4%	-66
Clearfield	31,908	31,894	32,238	1.1%	344
Clinton	23,360	23,411	23,597	0.8%	186
Farmington	24,591	24,616	24,775	0.6%	159
Fruit Heights	6,090	6,088	6,091	0.0%	3
Kaysville	32,902	32,948	32,976	0.1%	28
Layton	81,759	81,967	83,291	1.6%	1,324
North Salt Lake	21,873	21,927	22,300	1.7%	373
South Weber	7,860	7,952	8,125	2.2%	173
Sunset	5,481	5,473	5,515	0.8%	42
Syracuse	32,110	32,338	33,331	3.1%	993
West Bountiful	5,903	5,933	5,957	0.4%	24
West Point	10,949	11,042	11,430	3.5%	388
Woods Cross	11,419	11,475	11,659	1.6%	184
Balance of Davis County	3,795	3,796	3,777	-0.5%	-19
Duchesne County	**19,596**	**19,581**	**19,790**	**1.1%**	**209**
Altamont	238	238	239	0.4%	1
Duchesne	1,610	1,608	1,618	0.6%	10
Myton	559	559	557	-0.4%	-2
Roosevelt	6,754	6,760	6,881	1.8%	121
Tabiona	148	147	149	1.4%	2
Balance of Duchesne County	10,287	10,269	10,346	0.7%	77
Emery County	**9,825**	**9,837**	**9,967**	**1.3%**	**130**
Castle Dale	1,497	1,499	1,518	1.3%	19
Clawson	163	164	165	0.6%	1
Cleveland	499	500	508	1.6%	8
Elmo	397	397	401	1.0%	4
Emery	310	310	313	1.0%	3
Ferron	1,461	1,461	1,480	1.3%	19
Green River	850	852	865	1.5%	13
Huntington	1,918	1,920	1,946	1.4%	26
Orangeville	1,224	1,224	1,240	1.3%	16
Balance of Emery County	1,506	1,510	1,531	1.4%	21

Table 2.12: Total Population by City, 2020-2021 (continued)

	2020 Estimate Base (April 1)	Population Estimate (July 1)		Change from July 1, 2020-2021	
		2020	2021	Percent	Number
Garfield County	**5,083**	**5,090**	**5,129**	**0.8%**	**39**
Antimony	121	122	122	0.0%	0
Boulder	229	230	236	2.6%	6
Bryce Canyon City	288	288	291	1.0%	3
Cannonville	188	188	189	0.5%	1
Escalante	807	808	813	0.6%	5
Hatch	135	135	136	0.7%	1
Henrieville	225	225	228	1.3%	3
Panguitch	1,722	1,724	1,734	0.6%	10
Tropic	498	499	503	0.8%	4
Balance of Garfield County	870	871	877	0.7%	6
Grand County	**9,669**	**9,681**	**9,663**	**-0.2%**	**-18**
Castle Valley	351	352	354	0.6%	2
Moab	5,363	5,372	5,317	-1.0%	-55
Balance of Grand County	3,955	3,957	3,992	0.9%	35
Iron County	**57,289**	**57,640**	**60,519**	**5.0%**	**2,879**
Brian Head	149	149	154	3.4%	5
Cedar City	35,078	35,254	37,206	5.5%	1,952
Enoch	7,446	7,544	8,016	6.3%	472
Kanarraville	446	449	461	2.7%	12
Paragonah	541	544	561	3.1%	17
Parowan	3,022	3,037	3,132	3.1%	95
Balance of Iron County	10,607	10,663	10,989	3.1%	326
Juab County	**11,786**	**11,824**	**12,155**	**2.8%**	**331**
Eureka	661	660	658	-0.3%	-2
Levan	862	864	872	0.9%	8
Mona	1,756	1,758	1,815	3.2%	57
Nephi	6,435	6,464	6,600	2.1%	136
Rocky Ridge	848	847	938	10.7%	91
Santaquin (pt.)	18	18	18	0.0%	0
Balance of Juab County	1,206	1,213	1,254	3.4%	41
Kane County	**7,667**	**7,673**	**7,992**	**4.2%**	**319**
Alton	119	118	118	0.0%	0
Big Water	445	443	443	0.0%	0
Glendale	312	311	311	0.0%	0
Kanab	4,678	4,692	4,998	6.5%	306
Orderville	595	593	588	-0.8%	-5
Balance of Kane County	1,518	1,516	1,534	1.2%	18
Millard County	**12,975**	**13,015**	**13,164**	**1.1%**	**149**
Delta	3,609	3,621	3,678	1.6%	57
Fillmore	2,592	2,602	2,624	0.8%	22
Hinckley	615	616	617	0.2%	1
Holden	440	443	445	0.5%	2
Kanosh	506	506	508	0.4%	2
Leamington	257	257	260	1.2%	3

Table 2.12: Total Population by City, 2020-2021 (continued)

	2020 Estimate Base (April 1)	Population Estimate (July 1)		Change from July 1, 2020-2021	
		2020	2021	Percent	Number
Lynndyl	115	115	125	8.7%	10
Meadow	324	324	329	1.5%	5
Oak City	594	594	599	0.8%	5
Scipio	355	355	359	1.1%	4
Balance of Millard County	3,568	3,582	3,620	1.1%	38
Morgan County	**12,295**	**12,392**	**12,657**	**2.1%**	**265**
Morgan	4,081	4,118	4,223	2.5%	105
Balance of Morgan County	8,214	8,274	8,434	1.9%	160
Piute County	**1,438**	**1,437**	**1,487**	**3.5%**	**50**
Circleville	544	543	550	1.3%	7
Junction	217	215	219	1.9%	4
Kingston	140	139	142	2.2%	3
Marysvale	354	358	390	8.9%	32
Balance of Piute County	183	182	186	2.2%	4
Rich County	**2,510**	**2,504**	**2,597**	**3.7%**	**93**
Garden City	616	615	636	3.4%	21
Lake	308	308	318	3.2%	10
Randolph	476	475	493	3.8%	18
Woodruff	171	170	178	4.7%	8
Balance of Rich County	939	936	972	3.8%	36
Salt Lake County	**1,185,238**	**1,186,236**	**1,186,421**	**0.0%**	**185**
Alta	215	215	216	0.5%	1
Bluffdale (pt.)	17,061	17,402	18,835	8.2%	1,433
Brighton	436	436	436	0.0%	0
Copperton	829	828	828	0.0%	0
Cottonwood Heights	33,681	33,551	32,864	-2.0%	-687
Draper (pt.)	47,213	47,182	48,339	2.5%	1,157
Emigration Canyon	1,469	1,469	1,467	-0.1%	-2
Herriman	55,312	56,321	58,198	3.3%	1,877
Holladay	32,024	31,903	31,390	-1.6%	-513
Kearns	36,825	36,813	36,747	-0.2%	-66
Magna	29,327	29,318	29,268	-0.2%	-50
Midvale	36,057	36,125	35,938	-0.5%	-187
Millcreek	63,899	63,637	64,110	0.7%	473
Murray	50,743	50,589	49,729	-1.7%	-860
Riverton	45,402	45,377	45,148	-0.5%	-229
Salt Lake City	198,746	199,587	200,478	0.4%	891
Sandy	97,430	97,039	95,050	-2.0%	-1,989
South Jordan	77,661	78,082	80,139	2.6%	2,057
South Salt Lake	26,382	26,312	26,166	-0.6%	-146
Taylorsville	60,552	60,449	59,242	-2.0%	-1,207
West Jordan	117,190	117,186	116,541	-0.6%	-645
West Valley City	140,571	140,209	139,110	-0.8%	-1,099
White City	5,538	5,535	5,526	-0.2%	-9
Balance of Salt Lake County	10,675	10,671	10,656	-0.1%	-15

Table 2.12: Total Population by City, 2020-2021 (continued)

	2020 Estimate Base (April 1)	Population Estimate (July 1)		Change from July 1, 2020-2021	
		2020	2021	Percent	Number
San Juan County	**14,518**	**14,525**	**14,489**	**-0.2%**	**-36**
Blanding	3,344	3,343	3,319	-0.7%	-24
Bluff	246	247	246	-0.4%	-1
Monticello	1,815	1,813	1,802	-0.6%	-11
Balance of San Juan County	9,113	9,122	9,122	0.0%	0
Sanpete County	**28,437**	**28,508**	**29,106**	**2.1%**	**598**
Centerfield	1,345	1,350	1,380	2.2%	30
Ephraim	5,593	5,606	5,719	2.0%	113
Fairview	1,218	1,223	1,250	2.2%	27
Fayette	249	250	257	2.8%	7
Fountain Green	1,212	1,214	1,243	2.4%	29
Gunnison	3,379	3,384	3,426	1.2%	42
Manti	3,452	3,460	3,539	2.3%	79
Mayfield	563	564	577	2.3%	13
Moroni	1,560	1,565	1,600	2.2%	35
Mount Pleasant	3,665	3,674	3,754	2.2%	80
Spring City	955	958	978	2.1%	20
Sterling	278	278	285	2.5%	7
Wales	340	341	349	2.3%	8
Balance of Sanpete County	4,628	4,641	4,749	2.3%	108
Sevier County	**21,522**	**21,546**	**21,906**	**1.7%**	**360**
Annabella	842	844	859	1.8%	15
Aurora	994	995	1,013	1.8%	18
Central Valley	640	642	651	1.4%	9
Elsinore	808	810	824	1.7%	14
Glenwood	475	474	484	2.1%	10
Joseph	290	290	296	2.1%	6
Koosharem	243	243	248	2.1%	5
Monroe	2,519	2,525	2,569	1.7%	44
Redmond	770	772	786	1.8%	14
Richfield	8,147	8,147	8,262	1.4%	115
Salina	2,465	2,470	2,514	1.8%	44
Sigurd	409	409	418	2.2%	9
Balance of Sevier County	2,920	2,925	2,982	1.9%	57
Summit County	**42,357**	**42,452**	**43,093**	**1.5%**	**641**
Coalville	1,487	1,488	1,526	2.6%	38
Francis	1,568	1,577	1,658	5.1%	81
Henefer	844	846	853	0.8%	7
Hideout (pt.)	0	0	0	NA	NA
Kamas	2,094	2,110	2,179	3.3%	69
Oakley	1,578	1,583	1,590	0.4%	7
Park City (pt.)	8,365	8,382	8,441	0.7%	59
Balance of Summit County	26,421	26,466	26,846	1.4%	380
Tooele County	**72,698**	**73,281**	**76,640**	**4.6%**	**3,359**
Grantsville	12,674	12,768	13,574	6.3%	806
Rush Valley	432	431	467	8.4%	36
Stockton	621	621	624	0.5%	3

Table 2.12: Total Population by City, 2020-2021 (continued)

	2020 Estimate Base (April 1)	Population Estimate (July 1)		Change from July 1, 2020-2021	
		2020	2021	Percent	Number
Tooele	35,670	35,928	37,104	3.3%	1,176
Vernon	260	262	280	6.9%	18
Wendover	1,124	1,123	1,131	0.7%	8
Balance of Tooele County	21,917	22,148	23,460	5.9%	1,312
Uintah County	**35,620**	**35,618**	**36,204**	**1.6%**	**586**
Ballard	1,130	1,131	1,161	2.7%	30
Naples	2,282	2,286	2,334	2.1%	48
Vernal	10,120	10,116	10,241	1.2%	125
Balance of Uintah County	22,088	22,085	22,468	1.7%	383
Utah County	**659,399**	**663,143**	**684,986**	**3.3%**	**21,843**
Alpine	10,290	10,288	10,359	0.7%	71
American Fork	33,422	33,580	34,422	2.5%	842
Bluffdale (pt.)	0	0	0	NA	NA
Cedar Fort	427	426	430	0.9%	4
Cedar Hills	10,049	10,023	10,024	0.0%	1
Draper (pt.)	3,297	3,299	3,410	3.4%	111
Eagle Mountain	43,760	44,733	49,738	11.2%	5,005
Elk Ridge	4,721	4,741	4,874	2.8%	133
Fairfield	160	163	161	-1.2%	-2
Genola	1,547	1,553	1,593	2.6%	40
Goshen	982	978	982	0.4%	4
Highland	19,389	19,396	19,611	1.1%	215
Lehi	76,107	77,000	79,978	3.9%	2,978
Lindon	11,425	11,500	11,709	1.8%	209
Mapleton	11,389	11,488	12,414	8.1%	926
Orem	98,070	98,294	97,861	-0.4%	-433
Payson	21,149	21,326	22,142	3.8%	816
Pleasant Grove	37,817	37,804	37,949	0.4%	145
Provo	114,189	114,048	114,084	0.0%	36
Salem	9,314	9,376	9,831	4.9%	455
Santaquin (pt.)	13,751	13,909	15,361	10.4%	1,452
Saratoga Springs	37,783	38,357	44,164	15.1%	5,807
Spanish Fork	42,663	42,764	43,870	2.6%	1,106
Springville	35,335	35,379	36,135	2.1%	756
Vineyard	12,574	12,934	14,025	8.4%	1,091
Woodland Hills	1,524	1,530	1,558	1.8%	28
Balance of Utah County	8,265	8,254	8,301	0.6%	47
Wasatch County	**34,788**	**35,032**	**36,173**	**3.3%**	**1,141**
Charleston	436	437	437	0.0%	0
Daniel	918	919	933	1.5%	14
Heber	16,831	16,929	17,290	2.1%	361
Hideout	928	969	1,152	18.9%	183
Independence	123	123	123	0.0%	0
Interlaken	178	178	178	0.0%	0
Midway	6,013	6,059	6,339	4.6%	280
Park City (pt.)	16	16	16	0.0%	0
Wallsburg	290	292	301	3.1%	9
Balance of Wasatch County	9,055	9,110	9,404	3.2%	294

Table 2.12: Total Population by City, 2020-2021 (continued)

	2020 Estimate Base (April 1)	Population Estimate (July 1)		Change from July 1, 2020-2021	
		2020	2021	Percent	Number
Washington County	**180,279**	**181,924**	**191,226**	**5.1%**	**9,302**
Apple Valley	861	868	894	3.0%	26
Enterprise	2,038	2,056	2,150	4.6%	94
Hildale	1,131	1,137	1,167	2.6%	30
Hurricane	19,981	20,146	21,808	8.2%	1,662
Ivins	8,958	9,058	9,532	5.2%	474
La Verkin	4,359	4,359	4,469	2.5%	110
Leeds	867	868	877	1.0%	9
New Harmony	239	238	244	2.5%	6
Rockville	226	225	229	1.8%	4
St. George	95,284	95,927	99,958	4.2%	4,031
Santa Clara	7,575	7,616	7,924	4.0%	308
Springdale	513	519	553	6.6%	34
Toquerville	1,871	1,887	1,931	2.3%	44
Virgin	647	650	668	2.8%	18
Washington	28,087	28,721	31,035	8.1%	2,314
Balance of Washington County	7,642	7,649	7,787	1.8%	138
Wayne County	**2,486**	**2,497**	**2,558**	**2.4%**	**61**
Bicknell	327	328	333	1.5%	5
Hanksville	157	157	162	3.2%	5
Loa	515	516	520	0.8%	4
Lyman	199	201	206	2.5%	5
Torrey	233	234	242	3.4%	8
Balance of Wayne County	1,055	1,061	1,095	3.2%	34
Weber County	**262,223**	**262,828**	**267,066**	**1.6%**	**4,238**
Farr West	7,719	7,786	7,979	2.5%	193
Harrisville	7,064	7,060	7,004	-0.8%	-56
Hooper	9,126	9,140	9,367	2.5%	227
Huntsville	576	575	585	1.7%	10
Marriott-Slaterville	2,140	2,141	2,195	2.5%	54
North Ogden	20,980	21,088	21,528	2.1%	440
Ogden	86,830	86,726	86,798	0.1%	72
Plain City	7,866	7,914	8,147	2.9%	233
Pleasant View	11,129	11,120	11,177	0.5%	57
Riverdale	9,372	9,410	9,409	-0.0%	-1
Roy	39,420	39,411	39,358	-0.1%	-53
South Ogden	17,508	17,497	17,541	0.3%	44
Uintah	1,461	1,460	1,450	-0.7%	-10
Washington Terrace	9,266	9,252	9,276	0.3%	24
West Haven	16,802	17,233	19,880	15.4%	2,647
Balance of Weber County	14,964	15,015	15,372	2.4%	357

Note: The estimates are developed from a base that incorporates the 2020 Census, Vintage 2020 estimates, and 2020 Demographic Analysis estimates and may vary from 2020 Census values.
Source: U.S. Census Bureau, Population Division, Vintage 2021 Estimates

Table 2.13A: Long-Term Utah Demographic Projections by Race and Ethnicity, 2025–2065

Year	Total	Race Alone (Not Hispanic or Latino)					
		White		Black/ African American		American Indian and Alaska Native	
		Estimate	Share	Estimate	Share	Estimate	Share
2025	3,615,036	2,755,075	76.2%	45,943	1.3%	34,198	0.9%
2026	3,669,342	2,785,324	75.9%	47,445	1.3%	34,671	0.9%
2027	3,723,441	2,815,007	75.6%	48,972	1.3%	35,141	0.9%
2028	3,778,152	2,844,736	75.3%	50,535	1.3%	35,614	0.9%
2029	3,833,308	2,874,374	75.0%	52,134	1.4%	36,090	0.9%
2030	3,889,310	2,904,211	74.7%	53,773	1.4%	36,572	0.9%
2031	3,946,122	2,934,210	74.4%	55,454	1.4%	37,059	0.9%
2032	4,004,069	2,964,602	74.0%	57,181	1.4%	37,554	0.9%
2033	4,062,343	2,994,778	73.7%	58,946	1.5%	38,050	0.9%
2034	4,120,490	3,024,402	73.4%	60,742	1.5%	38,543	0.9%
2035	4,178,317	3,053,334	73.1%	62,566	1.5%	39,029	0.9%
2036	4,235,865	3,081,616	72.8%	64,422	1.5%	39,511	0.9%
2037	4,293,208	3,109,308	72.4%	66,310	1.5%	39,988	0.9%
2038	4,350,268	3,136,365	72.1%	68,230	1.6%	40,459	0.9%
2039	4,407,155	3,162,882	71.8%	70,185	1.6%	40,926	0.9%
2040	4,463,950	3,188,934	71.4%	72,176	1.6%	41,390	0.9%
2041	4,520,678	3,214,551	71.1%	74,204	1.6%	41,850	0.9%
2042	4,577,247	3,239,686	70.8%	76,267	1.7%	42,305	0.9%
2043	4,633,568	3,264,294	70.4%	78,365	1.7%	42,755	0.9%
2044	4,689,532	3,288,321	70.1%	80,493	1.7%	43,197	0.9%
2045	4,745,057	3,311,731	69.8%	82,652	1.7%	43,631	0.9%
2046	4,800,120	3,334,533	69.5%	84,840	1.8%	44,057	0.9%
2047	4,854,748	3,356,761	69.1%	87,057	1.8%	44,474	0.9%
2048	4,909,089	3,378,535	68.8%	89,306	1.8%	44,884	0.9%
2049	4,963,211	3,399,922	68.5%	91,586	1.8%	45,286	0.9%
2050	5,017,232	3,421,016	68.2%	93,900	1.9%	45,683	0.9%
2051	5,071,236	3,441,888	67.9%	96,249	1.9%	46,074	0.9%
2052	5,125,126	3,462,482	67.6%	98,630	1.9%	46,459	0.9%
2053	5,178,833	3,482,762	67.2%	101,043	2.0%	46,836	0.9%
2054	5,232,327	3,502,715	66.9%	103,485	2.0%	47,206	0.9%
2055	5,285,767	3,522,454	66.6%	105,961	2.0%	47,570	0.9%
2056	5,339,307	3,542,085	66.3%	108,472	2.0%	47,928	0.9%
2057	5,393,004	3,561,647	66.0%	111,020	2.1%	48,283	0.9%
2058	5,446,925	3,581,183	65.7%	113,608	2.1%	48,633	0.9%
2059	5,501,088	3,600,706	65.5%	116,234	2.1%	48,980	0.9%
2060	5,555,423	3,620,164	65.2%	118,900	2.1%	49,321	0.9%
2061	5,609,943	3,655,691	65.2%	120,067	2.1%	49,805	0.9%
2062	5,664,555	3,691,280	65.2%	121,236	2.1%	50,290	0.9%
2063	5,719,145	3,726,853	65.2%	122,404	2.1%	50,775	0.9%
2064	5,773,599	3,762,338	65.2%	123,569	2.1%	51,258	0.9%
2065	5,827,810	3,797,664	65.2%	124,730	2.1%	51,740	0.9%

Source: Kem C. Gardner Policy Institute 2015-2065 State and County Projections

Table 2.13B: Long-Term Utah Demographic Projections by Race and Ethnicity, 2025–2065

Year	Race Alone (Not Hispanic or Latino)						Hispanic or Latino Origin (of any race)	
	Asian		Native Hawaiian and Other Pacific Islander		Two or More Races (Not Hispanic or Latino)			
	Estimate	Share	Estimate	Share	Estimate	Share	Estimate	Share
2025	97,450	2.7%	37,020	1.0%	88,242	2.4%	557,107	15.4%
2026	100,267	2.7%	37,857	1.0%	91,610	2.5%	572,169	15.6%
2027	103,115	2.8%	38,694	1.0%	95,065	2.6%	587,448	15.8%
2028	106,016	2.8%	39,542	1.0%	98,630	2.6%	603,079	16.0%
2029	108,966	2.8%	40,399	1.1%	102,304	2.7%	619,041	16.1%
2030	111,977	2.9%	41,272	1.1%	106,101	2.7%	635,405	16.3%
2031	115,049	2.9%	42,157	1.1%	110,021	2.8%	652,172	16.5%
2032	118,192	3.0%	43,061	1.1%	114,079	2.8%	669,399	16.7%
2033	121,384	3.0%	43,974	1.1%	118,255	2.9%	686,955	16.9%
2034	124,611	3.0%	44,894	1.1%	122,539	3.0%	704,761	17.1%
2035	127,866	3.1%	45,817	1.1%	126,929	3.0%	722,775	17.3%
2036	131,152	3.1%	46,743	1.1%	131,430	3.1%	740,991	17.5%
2037	134,469	3.1%	47,676	1.1%	136,047	3.2%	759,410	17.7%
2038	137,814	3.2%	48,612	1.1%	140,781	3.2%	778,006	17.9%
2039	141,190	3.2%	49,553	1.1%	145,637	3.3%	796,781	18.1%
2040	144,598	3.2%	50,496	1.1%	150,620	3.4%	815,736	18.3%
2041	148,038	3.3%	51,445	1.1%	155,732	3.4%	834,858	18.5%
2042	151,505	3.3%	52,396	1.1%	160,972	3.5%	854,116	18.7%
2043	154,995	3.3%	53,349	1.2%	166,338	3.6%	873,473	18.9%
2044	158,503	3.4%	54,300	1.2%	171,829	3.7%	892,889	19.0%
2045	162,023	3.4%	55,250	1.2%	177,441	3.7%	912,330	19.2%
2046	165,552	3.4%	56,192	1.2%	183,174	3.8%	931,771	19.4%
2047	169,089	3.5%	57,131	1.2%	189,030	3.9%	951,206	19.6%
2048	172,637	3.5%	58,066	1.2%	195,013	4.0%	970,648	19.8%
2049	176,196	3.6%	58,994	1.2%	201,126	4.1%	990,100	19.9%
2050	179,769	3.6%	59,920	1.2%	207,372	4.1%	1,009,572	20.1%
2051	183,354	3.6%	60,843	1.2%	213,753	4.2%	1,029,075	20.3%
2052	186,948	3.6%	61,761	1.2%	220,262	4.3%	1,048,584	20.5%
2053	190,545	3.7%	62,672	1.2%	226,895	4.4%	1,068,081	20.6%
2054	194,141	3.7%	63,578	1.2%	233,646	4.5%	1,087,556	20.8%
2055	197,742	3.7%	64,476	1.2%	240,523	4.6%	1,107,042	20.9%
2056	201,351	3.8%	65,373	1.2%	247,527	4.6%	1,126,571	21.1%
2057	204,970	3.8%	66,266	1.2%	254,662	4.7%	1,146,155	21.3%
2058	208,601	3.8%	67,160	1.2%	261,930	4.8%	1,165,810	21.4%
2059	212,243	3.9%	68,052	1.2%	269,331	4.9%	1,185,543	21.6%
2060	215,894	3.9%	68,941	1.2%	276,862	5.0%	1,205,341	21.7%
2061	218,012	3.9%	69,617	1.2%	279,579	5.0%	1,217,170	21.7%
2062	220,135	3.9%	70,295	1.2%	282,301	5.0%	1,229,019	21.7%
2063	222,256	3.9%	70,972	1.2%	285,021	5.0%	1,240,863	21.7%
2064	224,372	3.9%	71,648	1.2%	287,735	5.0%	1,252,678	21.7%
2065	226,479	3.9%	72,321	1.2%	290,437	5.0%	1,264,440	21.7%

Source: Kem C. Gardner Policy Institute 2015-2065 State and County Projections

Table 2.14: Long-Term Population Projection Scenarios, 2025–2060

Year	Low Scenario	Baseline Scenario	High Scenario
2025	3,536,756	3,588,325	3,639,588
2026	3,584,123	3,647,847	3,714,097
2027	3,631,751	3,707,365	3,789,609
2028	3,678,340	3,765,808	3,864,951
2029	3,723,499	3,823,047	3,939,806
2030	3,766,911	3,879,161	4,013,963
2031	3,808,514	3,934,602	4,087,487
2032	3,848,224	3,989,928	4,160,449
2033	3,886,628	4,045,806	4,233,615
2034	3,923,528	4,101,768	4,306,995
2035	3,959,314	4,158,181	4,381,211
2036	3,994,218	4,214,821	4,456,751
2037	4,028,066	4,271,482	4,533,394
2038	4,060,716	4,327,969	4,610,959
2039	4,092,027	4,384,194	4,689,232
2040	4,122,543	4,440,560	4,768,485
2041	4,151,691	4,496,514	4,848,113
2042	4,179,229	4,551,744	4,927,850
2043	4,205,229	4,606,307	5,007,723
2044	4,229,313	4,659,824	5,087,331
2045	4,252,133	4,712,762	5,166,812
2046	4,274,080	4,765,572	5,246,523
2047	4,294,580	4,817,728	5,325,869
2048	4,313,689	4,869,323	5,404,860
2049	4,331,068	4,920,070	5,483,126
2050	4,346,649	4,969,929	5,560,522
2051	4,361,380	5,019,857	5,637,938
2052	4,374,995	5,069,569	5,715,037
2053	4,387,439	5,119,019	5,791,727
2054	4,398,292	5,167,718	5,867,518
2055	4,407,472	5,215,630	5,942,259
2056	4,415,551	5,263,304	6,016,473
2057	4,422,722	5,310,621	6,090,283
2058	4,429,259	5,357,795	6,163,927
2059	4,435,171	5,404,637	6,237,339
2060	4,439,863	5,450,598	6,309,871

Note: Data in this table may differ from other tables due to different sources of data or rounding.
Source: Kem C. Gardner Policy Institute 2020-2060 Long-Term Planning Projections

Economic Diversity/Hachman Index

3

Nate Lloyd, Kem C. Gardner Policy Institute

OVERVIEW

The Hachman Index measures economic diversity. Using indicators such as gross domestic product (GDP) or employment, the index measures the mix of industries present in a particular region relative to a (well-diversified) reference region. The Hachman Index normalizes scores from 0 to 100. A higher score indicates more similarity with the reference region, while a lower score indicates less similarity. The Hachman Index is often applied at the national level using GDP, allowing for comparison between individual states. Since the well-diversified U.S. economy serves as the reference region, states with higher scores not only have economies similar to the national economy but are also economically diverse states. With reliable data, the index may be applied to measure industrial distribution across counties as well. This chapter examines the results of a Hachman Index analysis at the state and county levels using 2021 data.

Utah in Top 5 for Economic Diversity

Utah increased from the sixth to the fifth most economically diverse state in the U.S. between 2020 and 2021. Missouri (97.0) and Georgia (96.6) remain the most economically diverse states in the nation. Arizona (96.4) and Illinois (95.9) swapped places in the rankings while Utah (95.6) rounds out the top 5, edging out North Carolina (95.5) and Pennsylvania (95.4), which ranked 7th and 5th last year, respectively (see Figure 3.1). All seven of these states have index scores above 95 (see Table 3.1). As the Hachman Index is a relative measure, it is not definitive that any one of these states is significantly more diverse than another.[1]

Utah ranks second in the West for economic diversity. California, Washington, Colorado, Arizona, and Oregon all have larger economies than Utah, but only Arizona has a higher Hachman Index score.[2] States with similar-sized economies include Alabama, Kentucky, Oklahoma, and Iowa.[3] Of these, only Alabama has an index score above 90, indicating a very diverse economy. Alabama scores 91.1, Kentucky 88.6, Iowa 70.7, and Oklahoma 58.4. Despite Utah's midsized economy (29th largest), its industrial composition is more diverse than that of the largest state economies.

Urban Counties More Diverse, Rural Counties More Specialized

Salt Lake, Weber, Davis, Utah, and Washington counties remain the most economically diverse counties within Utah as of 2021. Because adequate GDP data are not available at the county level, we analyze employment data. A Hachman Index analysis of Utah Department of Workforce Services and Bureau of Labor Statistics data using two-digit NAICS codes shows the economic disparity of Utah's counties. As with the state-level analysis, the index uses the entire U.S. economy as the (well-diversified) reference region to analyze economic diversity among counties in Utah. Urban counties tend to have more diverse economies with a larger variety of employment opportunities and a wider range of industry sectors available to the population (see Figure 3.2). Washington County is the largest county outside of the Wasatch Front and the fifth most diverse county in Utah. By absolute change, the top 5 counties for population growth are also the most economically diverse. Other fast-growing counties (by rate of population growth) include Wasatch County, Morgan County, and Tooele County.[4] As more people move to these counties and the employment opportunities increase in them, the industrial composition will continue to diversify.

1 The variation among the top five state scores is 1.4 points. The Hachman Index is not an exact measure and small differences are not definitive. When comparing state scores, the exact score is less important than the rank and size of the variation in scores relative to other states.

2 When ranking state economies by size using total nominal GDP, California is the largest in the nation, Washington ranks 11th, Colorado ranks 15th, Arizona ranks 18th, and Oregon ranks 24th. Utah ranks as the 29th largest state economy. See the BEA's seasonally adjusted annual rates ending 2022 Q3, found at: https://www.bea.gov/data/gdp/gdp-state.

3 When ranking state economies by size using total nominal GDP, Alabama (27th) and Kentucky (28th) rank just larger than Utah, and Oklahoma (30th) and Iowa (31st) rank just smaller. See the BEA's seasonally adjusted annual rates ending 2022 Q3, found at: https://www.bea.gov/data/gdp/gdp-state.

4 Kem C. Gardner Policy Institute, 2021,"First Insights – 2020 Census Utah Counties and Communities," Fact Sheet, August 2021, available from https://gardner.utah.edu/wp-content/uploads/C2020-Counties-FS-Aug2021.pdf.

Most of the counties bordering Salt Lake County have relatively diverse economies. Davis, Utah, and Tooele all have index scores above 75, ranking in the top 10 for most diverse Utah counties (see Table 3.2). A notable exception is Summit County, which has high employment in arts, entertainment and recreation and accommodations and food services, the result of a tourism-based economy centered on Park City.[5] Another exception is Morgan County, which has the state's highest concentration of construction employment. In counties with small populations, just a few large employers can have an outsized effect on the counties' overall employment mix.

Duchesne, Emery, and Beaver remain the least economically diverse counties. In Emery and Duchesne, the low index scores are a result of a heavy concentration in mining (and utilities, in the case of Emery).[6] These counties have a competitive advantage in the extractive industries due to their natural resources, which are geographically dependent and not found everywhere in Utah. Beaver's highest industrial concentration in 2021 is in agriculture. Like Morgan and Summit counties, all three have relatively small populations, so just a few large employers can have a significant effect on their industrial composition.

With a few exceptions, Utah's metropolitan counties have the most diverse economies in the state, followed by the adjacent ring counties. The rural counties with smaller populations and fewer industries have the least diverse economies. This highlights a clear urban-rural divide in the economic opportunities available to Utahns. Urban counties offer a more diverse array of economic opportunities across a larger set of industries, while rural counties have fewer industries and economic opportunities to choose from. While economic diversification is not a measure of economic prosperity, it is an indicator of greater economic choice and opportunity.

Calculating the Hachman index

The Hachman Index is the reciprocal sum, or mean location quotient, of the study area across all industries where the mean is generated by weighting the respective sectors' location quotients[7] by the sector shares in the region.[8] The Hachman Index for a given time period is calculated as follows:

$$HI = \frac{1}{\left(\sum_i \left(\frac{E_{Si}}{E_{Ri}} \right) x \left(E_{Si} \right) \right)}$$

E_{Si} is the share of the subject area's economic indicator in industry *i*.

E_{Ri} is the share of the reference region's economic indicator in industry *i*.

Here, the state-level analysis utilizes GDP while the county-level analysis uses employment as the economic indicator. A Hachman Index score ranges from 0 to 100. A higher score indicates that the subject area's industrial distribution more closely resembles that of the reference geography and is therefore diverse. A lower score indicates a region is less diverse than the reference area and more concentrated in fewer industries. Diversity in economic opportunities, as represented by a diverse set of industries, is generally considered a positive contributor to a region's economic stability.

The Hachman Index is not without its shortcomings. For one, the subject area is contained within the reference region, i.e. Utah is included in the U.S., and so, to some degree, the subject area is being compared to itself. Another limitation of the Hachman Index is that it does not account for the competitive advantages of a region. A region may have an advantage specializing in a specific industry, making a concentration in that industry economically justifiable over a more diversified economy.

Although diversification is usually considered a positive attribute for an economy, an increase in diversity may not be good for the labor market. As discussed in the 1995 *Economic Report to the*

5 This concentration is measured by the comparison of the location quotients of each employment sector in Summit County. Arts, entertainment, and recreation ranks first, with a location quotient of 9.8, followed by real estate and rental and leasing (3.2), and accommodation and food services (2.4).

6 Duchesne has the highest mining location quotient of all counties in the state at 43.8, followed by Uintah at 28.3. The next highest are Emery at 25.4, Carbon at 24.6, and Sevier at 18.2. all well above other counties in the state.

7 A location quotient measures the relative concentration of an industry in one area compared with another. The Bureau of Labor Statistics defines it as a "ratio that compares the concentration of a resource or activity, such as employment, in a defined area to that of a larger area or base. For example, location quotients can be used to compare state employment by industry to that of the nation."It is calculated by dividing an industry's share of the total (employment, GDP, etc.) in the study region by its share in the reference region.

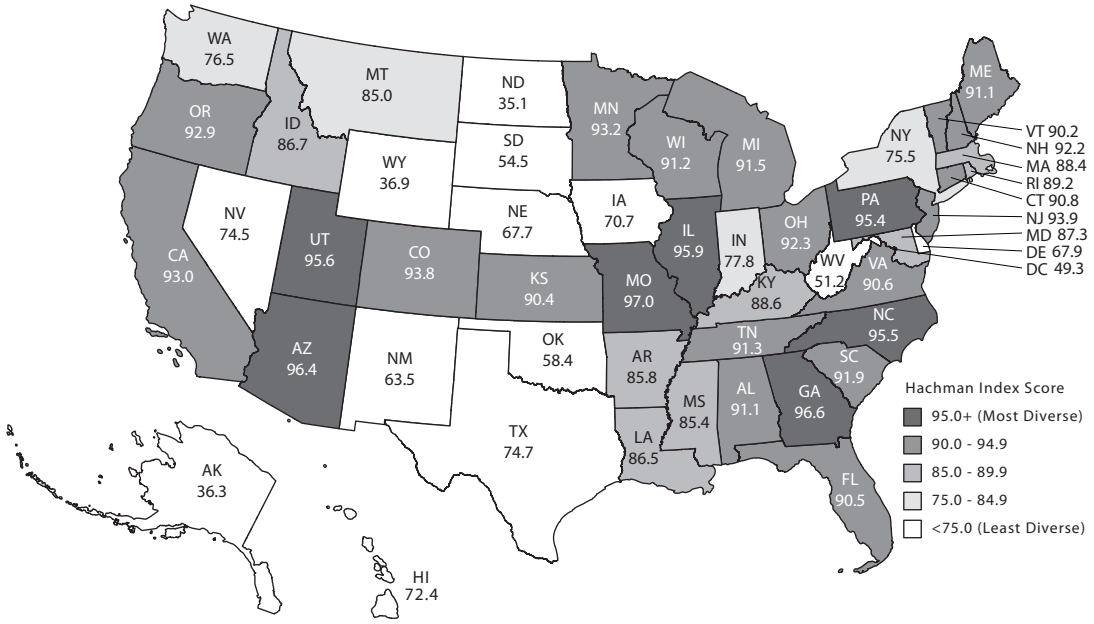
8 Frank Hachman, 2002, "The Degree of Similarity Index: A Measure of Diversification Superior to the Hachman Index," unpublished manuscript.

9 1995 *Economic Report to the Governor*, pages 207–214.

Governor, Utah had specialized in metal mining industries. In the mid-1980s Kennecott experienced major layoffs, which decreased its share of the overall Utah economy and therefore raised the measure of diversity in Utah. However, the effect on the labor market was negative, with lower employment levels. The transition to increased industrial diversity may not immediately result in improvements for residents of a region or imply economic growth.[9]

The Hachman Index is also affected by the measures used. The value of the Hachman Index will be affected if broader measures are used. For example, an index calculated from employment by industry will behave differently over time from one calculated from GDP, due to changes in labor productivity that lead to increased production using fewer employees.

Figure 3.1: Hachman Index Scores for the States, 2021



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

Table 3.1: Hachman Index Scores for the States, 2021

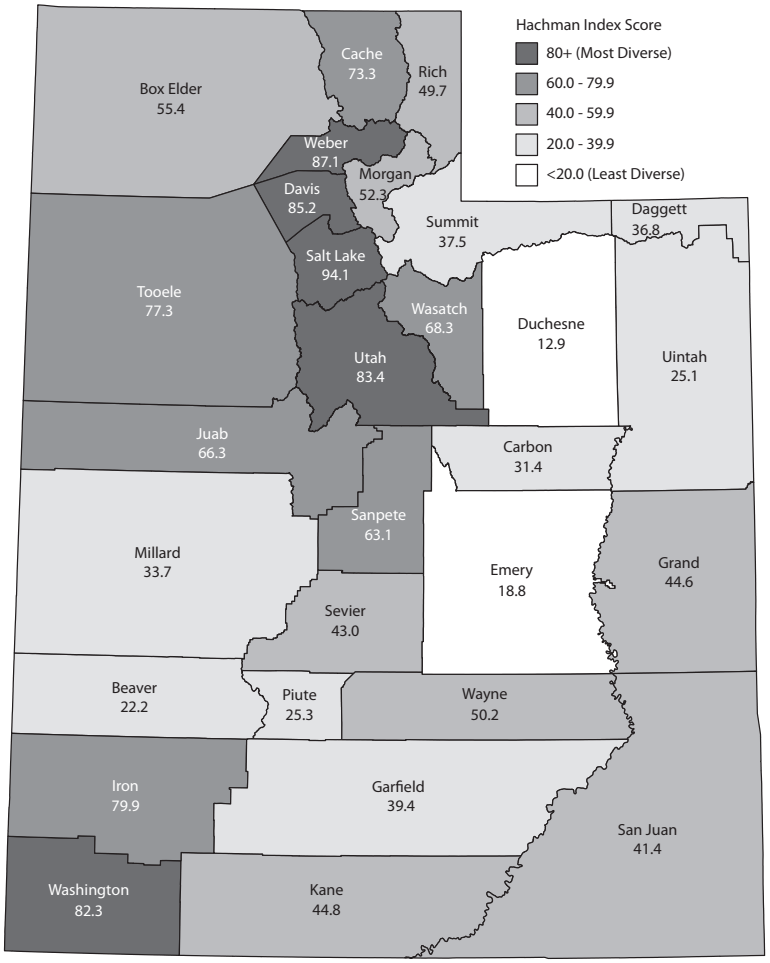
State	Hachman Index
Missouri	97.0
Georgia	96.6
Arizona	96.4
Illinois	95.9
Utah	**95.6**
North Carolina	95.5
Pennsylvania	95.4
New Jersey	93.9
Colorado	93.8
Minnesota	93.2
California	93.0
Oregon	92.9
Ohio	92.3
New Hampshire	92.2
South Carolina	91.9
Michigan	91.5
Tennessee	91.3

State	Hachman Index
Wisconsin	91.2
Alabama	91.1
Maine	91.1
Connecticut	90.8
Virginia	90.6
Florida	90.5
Kansas	90.4
Vermont	90.2
Rhode Island	89.2
Kentucky	88.6
Massachusetts	88.4
Maryland	87.3
Idaho	86.7
Louisiana	86.5
Arkansas	85.8
Mississippi	85.4
Montana	85.0

State	Hachman Index
Indiana	77.8
Washington	76.5
New York	75.5
Texas	74.7
Nevada	74.5
Hawaii	72.4
Iowa	70.7
Delaware	67.9
Nebraska	67.7
New Mexico	63.5
Oklahoma	58.4
South Dakota	54.5
West Virginia	51.2
District of Columbia	49.3
Wyoming	36.9
Alaska	36.3
North Dakota	35.1

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

Figure 3.2: Hachman Index Scores for Utah Counties, 2021



Source: Kem C. Gardner Policy Institute analysis of Bureau of Labor Statistics (United States) and Utah Department of Workforce Services (Utah counties) employment data

Table 3.2: Hachman Index Scores for Utah Counties, 2021

County	Hachman Index
Salt Lake	94.1
Weber	87.1
Davis	85.2
Utah	83.4
Washington	82.3
Iron	79.9
Tooele	77.3
Cache	73.3
Wasatch	68.3
Juab	66.3

County	Hachman Index
Sanpete	63.1
Box Elder	55.4
Morgan	52.3
Wayne	50.2
Rich	49.7
Kane	44.8
Grand	44.6
Sevier	43.0
San Juan	41.4
Garfield	39.4

County	Hachman Index
Summit	37.5
Daggett	36.8
Millard	33.7
Carbon	31.4
Piute	25.3
Uintah	25.1
Beaver	22.2
Emery	18.8
Duchesne	12.9

Source: Kem C. Gardner Policy Institute analysis of Bureau of Labor Statistics (United States) and Utah Department of Workforce Services (Utah counties) employment data

Employment, Wages, and Labor Force

4

Mark Knold, Utah Department of Workforce Services

OVERVIEW

Utah experienced robust job growth (estimated at 3.7%) and extraordinarily low unemployment (estimated annual average of 2.1%) in 2022. This aligns with the state's general historic trend of above national average economic performance. While Utah's economy continues to be among the best performing in the nation, the state has experienced noteworthy shifts in its labor market.

Utah's labor force has two growth components: 1) internal expansion from youths aging into the workforce less older workers aging out, and 2) external expansion from in-migration. Historically, Utah ranks among the states with the highest fertility rates. Given so, internal expansion has generally been the primary driver of the state's labor force growth. However, in-migration appears to have overtaken internal growth as the major source of Utah labor force expansion in the last few years.

This represents a marked change from Utah's long-held labor-supply routine and is a lead feature for labeling 2022 as a continued pandemic-influenced year. Utah finished 2022 with above-average job growth alongside a historically low unemployment rate. Such a combination may seem incompatible since an exceptionally low unemployment rate implies no excess labor for additional job growth, let alone above-average job growth. However, high labor in-migration may explain the phenomenon.

It is generally expected that available labor flows from relatively weak to relatively strong economies as workers seek better employment opportunities. In addition, the pandemic accelerated a shift toward teleworking that allows workers to incorporate non-economic factors into their living decision. Utah appears to be a net recipient of both traditional labor migration and teleworking migration. This labor dynamic combination emerged in 2020 and remained through 2022.

Despite fueling Utah's high growth in the post-pandemic environment, the labor supply growth-component shift from internal to external expansion may be temporary. In the short term, labor migration responds to economic conditions whereas internal labor force expansion is largely established 20 years prior through the birth dynamic, and therefore experiences less variability than in-migration.

Labor markets remain tight in both Utah and the nation. The nation hasn't experienced such low unemployment since the 1960s, just before the Baby Boom generation aged in as new workers.

While labor shortages form a new element within the nation's economic landscape, national demographics have morphed to where labor tightness could become the economic norm, not the exception. International in-migration has become the only major avenue for additional labor force growth, unless higher wages draw a larger share of younger workers and adults not currently in the labor force into the labor force.

Tight labor markets demand wage increases. Utah's average payroll wage increase for 2022 should register at 6.9% if not higher. Significant wage gains often trigger inflation.

Yet wage pressures alone did not create 2022's high inflation. The Russia/Ukraine conflict, federal fiscal stimulus, and the lingering COVID-influenced world supply chain restrictions have added additional pressure on prices.

2023 OUTLOOK

Utah's 2023 economy is expected to moderate from 2022's vigorous pace. While Utah's economy generally outperforms the national average, it tends to follow national business cycle trends. Addressing inflation will be 2023's dominant national economic story.

The nation's fight against inflation began in 2022 when the Federal Reserve increased interest rates. This immediately jolted the housing market. Housing dynamics play a lead role in labor-migration decisions that have benefitted Utah's labor supply. Therefore, further economic fallout is expected in 2023.

The Federal Reserve relies on conventional monetary policy tools (e.g., influencing interest rates) to carry out its dual mandate of price stability and full employment. It cannot open restricted supply chains or stop energy-impacting wars. Therefore, forecasters project the Federal Reserve will continue to move aggressively in 2023 to influence interest rates to reduce inflation.

Federal Reserve Chair Jerome Powell stated that an increase in unemployment—which is unsustainably low by historical standards—will likely be required to mitigate persistent inflation pressures originating in tight labor markets. With such an announcement, the Federal Reserve is effectively baking an economic deceleration into the 2023 economy.

As the economy responds to the Federal Reserve's actions to increase interest rates, it is anticipated that unfilled job advertisements will diminish first. But unfilled jobs are unoccupied space, not real jobs. How large that space is will influence how long it takes before real job reductions start. The Federal Reserve will likely keep pushing with additional interest rate increases until the economy eats through the unfilled job-advertisement space and begins to reduce actual jobs. Only then will the Federal Reserve's actions increase unemployment, reduce consumption, and lead to economic slowing. The pace and amount of reaction are the wildcards.

Recessions are often defined, in part, by a substantially high degree of job layoffs. Even if the Federal Reserve were to achieve its goal of economic moderation in 2023, which many forecast will result in a national recession, the labor-market response may not translate into the typical job-layoff mentality. The excess job cushion is large, and employers may be reticent to let valuable labor depart during a perceived short-term recession where it can then be difficult to lure that labor back.

Utah is not immune from such aggressive Federal Reserve actions. Therefore, a 2023 Utah economic deceleration is highly probable. However, an actual job-loss recession may have a strong chance of not materializing.

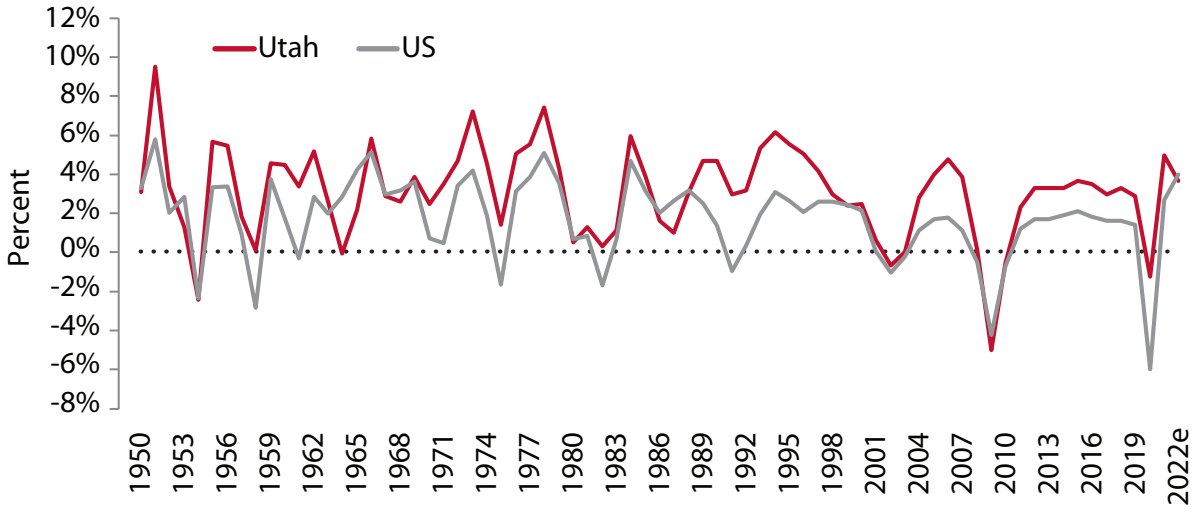
Utah would enter such a national recession from a platform of high-powered economic growth. Utah, unlike the nation, has a larger supply of young workers. Yet Utah also has a labor shortage. Utah's economy is absorbing every one of its abundant workers and is still asking for more workers. Utah is a much faster-moving economic machine to slow down than the nation's economy.

Utah's 2023 economic forecast plays from its economic momentum and these labor variables. Even anticipating the Federal Reserve's actions, Utah job growth is expected to continue in 2023 although at a reduced pace. Some unemployment increases might develop. These increases would likely be driven by insufficient absorption of new labor-force entrants rather than job losses.

Due to higher mortgage rates that influence housing decisions, strong labor in-migration may also diminish. Labor attached to the nation's rental market may remain mobile, but the homeowner market faces a more challenging migration decision.

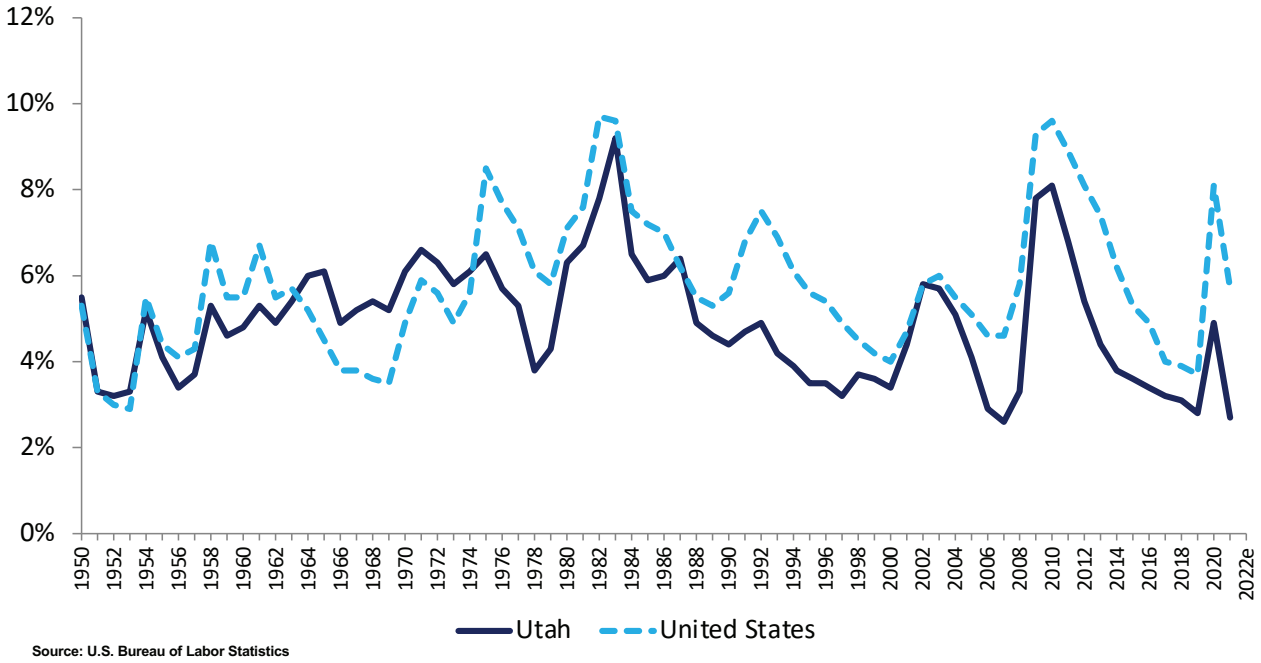
In 2023, forecasts project Utah's job growth slowing to 2.0%, with unemployment rising upward to 2.6% or marginally higher.

Figure 4.1: Annual Average Job Growth Rate for Utah and the U.S., 1950-2022e



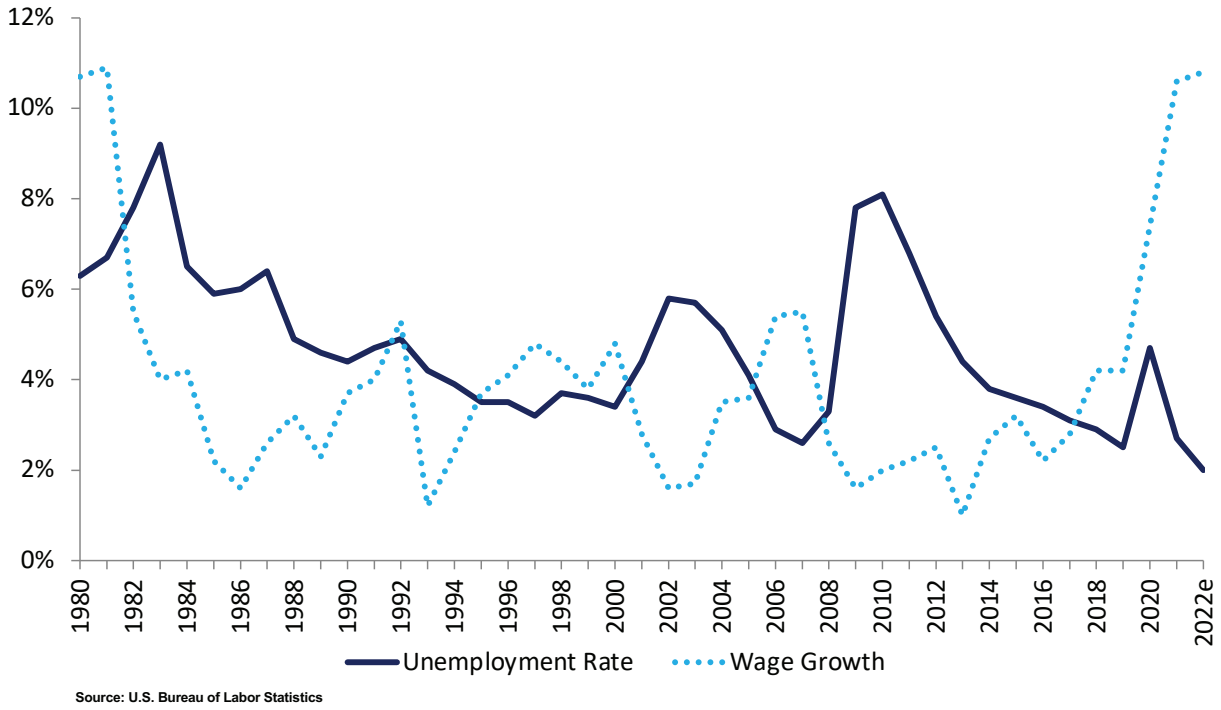
Source: U.S. Bureau of Labor Statistics e=estimate

Figure 4.2: Annual Unemployment Rate for Utah and the U.S., 1950-2022e



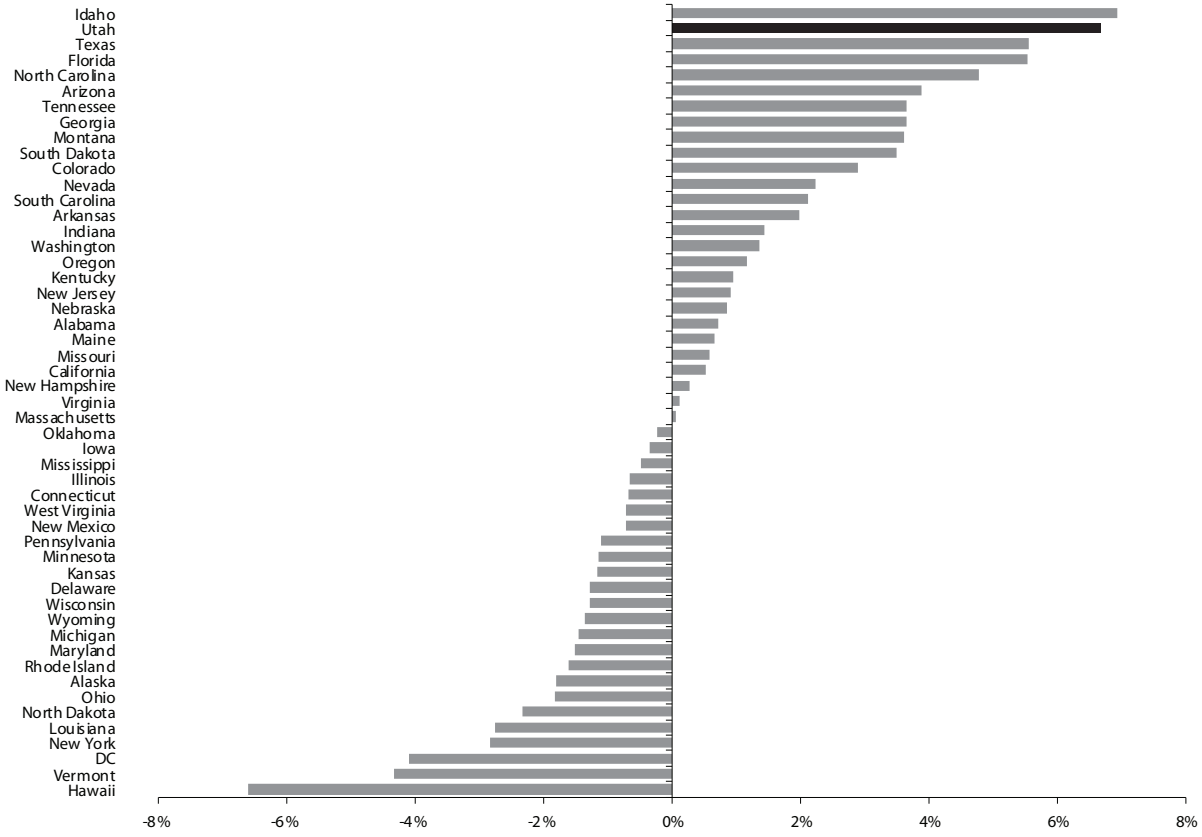
Source: U.S. Bureau of Labor Statistics

Figure 4.3: Utah Annual Average Unemployment Rate and Wage Growth, 1980-2022e



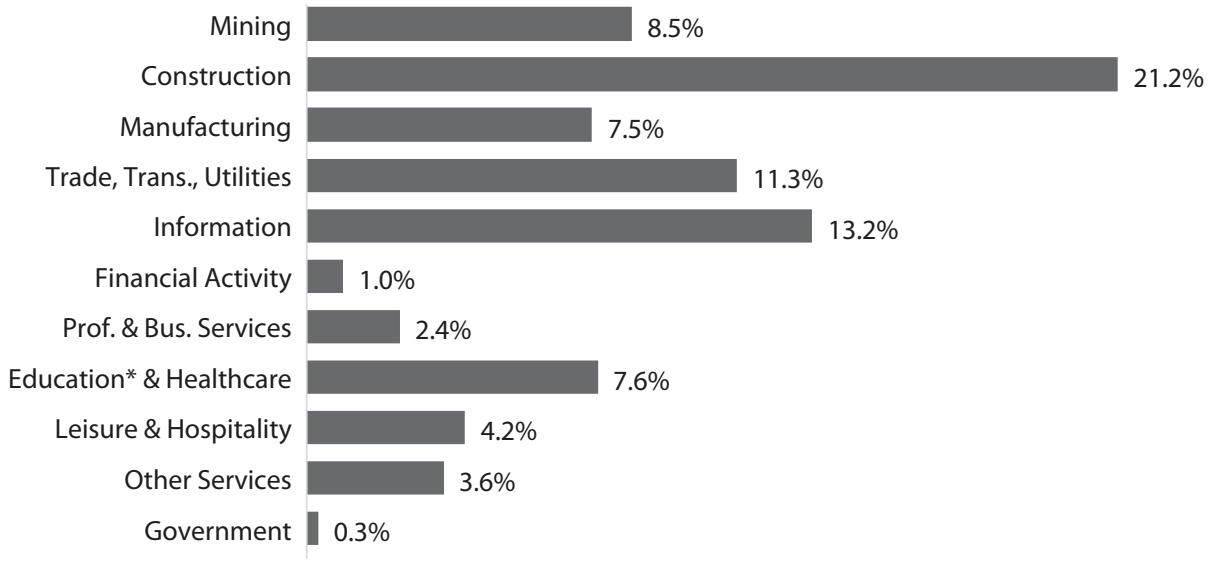
Source: U.S. Bureau of Labor Statistics

Figure 4.4: State by State Employment Change, January 2020 – November 2022



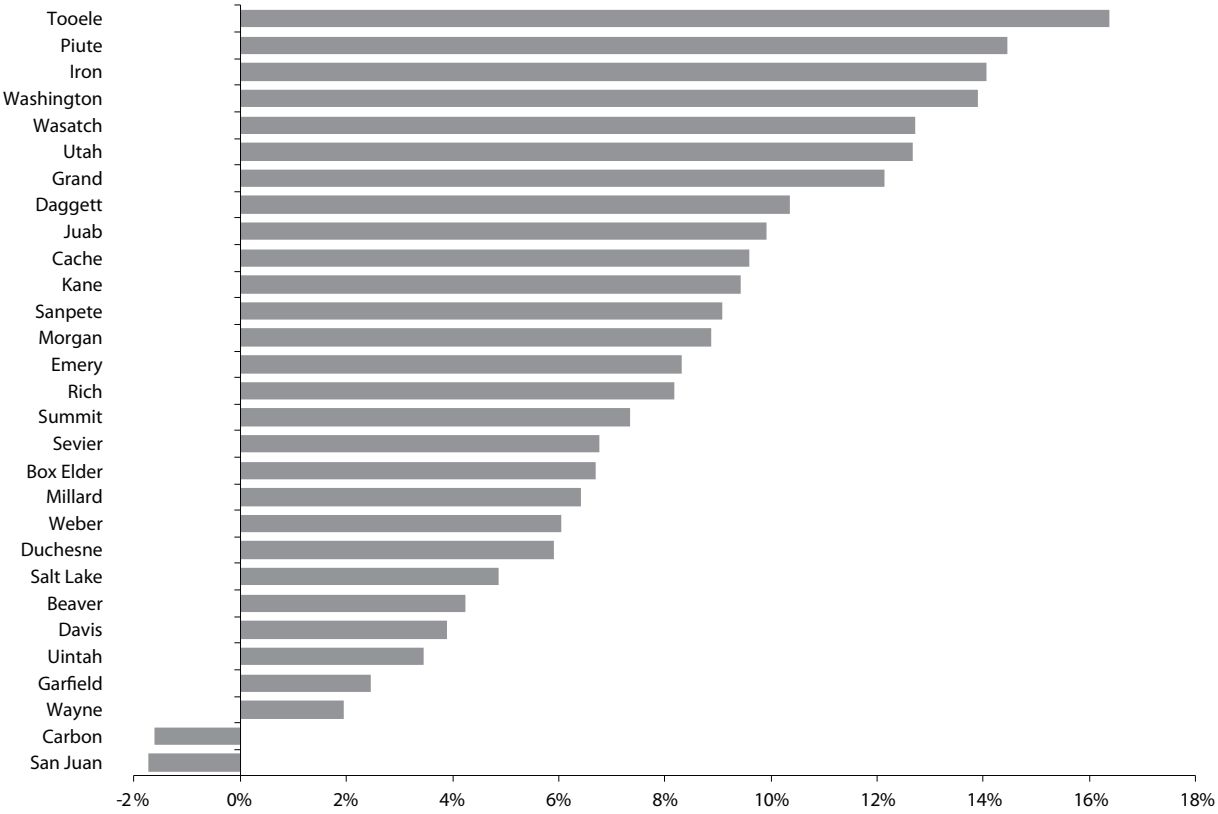
Source: U.S. Bureau of Labor Statistics; Utah Department of Workforce Services

Figure 4.5: Utah's Employment Change by Industry, January 2020 – November 2022



* Private sector
Source: : U.S. Bureau of Labor Statistics, Seasonally adjusted

Figure 4.6: County Employment Change, November 2019 – November 2022



Source: U.S. Bureau of Labor Statistics; Utah Department of Workforce Services

Table 4.1: Utah Nonfarm Employment and Unemployment Rate, 1950-2023f

Year	Payroll Employment	Percent Change	Absolute Change	Unemployment Rate	Utah Labor Force Participation Rate	U.S. Labor Force Participation Rate
1950	189,153	3.1	5,653	5.5	—	—
1951	207,386	9.6	18,233	3.3	—	—
1952	214,409	3.4	7,023	3.2	—	—
1953	217,194	1.3	2,785	3.3	—	—
1954	211,864	-2.5	-5,330	5.2	—	—
1955	224,007	5.7	12,143	4.1	—	—
1956	236,225	5.5	12,218	3.4	—	—
1957	240,577	1.8	4,352	3.7	—	—
1958	240,816	0.1	239	5.3	—	—
1959	251,940	4.6	11,124	4.6	—	—
1960	263,307	4.5	11,367	4.8	—	—
1961	272,355	3.4	9,048	5.3	—	—
1962	286,382	5.2	14,027	4.9	—	—
1963	293,758	2.6	7,376	5.4	—	—
1964	293,576	-0.1	-182	6.0	—	—
1965	300,164	2.2	6,588	6.1	—	—
1966	317,771	5.9	17,607	4.9	—	—
1967	326,953	2.9	9,182	5.2	—	—
1968	335,527	2.6	8,574	5.4	—	—
1969	348,612	3.9	13,085	5.2	—	—
1970	357,435	2.5	8,823	6.1	—	—
1971	369,836	3.5	12,401	6.6	—	—
1972	387,271	4.7	17,435	6.3	—	—
1973	415,641	7.3	28,370	5.8	—	—
1974	434,793	4.6	19,152	6.1	—	—
1975	441,082	1.4	6,289	6.5	—	—
1976	463,658	5.1	22,576	5.7	63.0	61.6
1977	489,580	5.6	25,922	5.3	63.0	62.3
1978	526,400	7.5	36,820	3.8	63.2	63.2
1979	549,242	4.3	22,842	4.3	65.1	63.7
1980	551,889	0.5	2,647	6.3	65.5	63.8
1981	559,184	1.3	7,295	6.7	65.4	63.9
1982	560,981	0.3	1,797	7.8	66.2	64.0
1983	566,991	1.1	6,010	9.2	65.8	64.0
1984	601,068	6.0	34,077	6.5	67.1	64.4
1985	624,387	3.9	23,319	5.9	68.8	64.8

Note: e = estimate
f = forecast
Source: Utah Department of Workforce Services, Workforce Research and Analysis

Table 4.1: Utah Nonfarm Employment and Unemployment Rate, 1950-2023f (continued)

Year	Payroll Employment	Percent Change	Absolute Change	Unemployment Rate	Utah Labor Force Participation Rate	U.S. Labor Force Participation Rate
1986	634,138	1.6	9,751	6.0	69.7	65.3
1987	640,298	1.0	6,160	6.4	69.5	65.6
1988	660,075	3.1	19,777	4.9	69.4	65.9
1989	691,244	4.7	31,169	4.6	71.1	66.5
1990	723,629	4.7	32,385	4.4	70.9	66.5
1991	745,202	3.0	21,573	4.7	70.9	66.2
1992	768,602	3.2	23,488	4.9	71.1	66.5
1993	809,731	5.4	41,129	4.2	72.2	66.3
1994	859,626	6.2	49,895	3.9	73.0	66.6
1995	907,886	5.6	48,260	3.5	72.0	66.6
1996	954,183	5.1	46,297	3.5	71.5	66.8
1997	993,999	4.2	39,816	3.2	71.8	67.1
1998	1,023,480	3.0	29,461	3.7	72.2	67.1
1999	1,048,498	2.4	25,018	3.6	72.1	67.1
2000	1,074,879	2.5	26,381	3.4	72.1	67.1
2001	1,081,685	0.6	6,806	4.4	71.9	66.8
2002	1,073,746	-0.7	-7,939	5.8	71.6	66.6
2003	1,074,131	0.0	385	5.7	71.1	66.2
2004	1,104,328	2.8	30,197	5.1	71.1	66.0
2005	1,148,320	4.0	43,992	4.1	71.6	66.0
2006	1,203,914	4.8	55,594	2.9	71.8	66.2
2007	1,251,282	3.9	47,368	2.6	71.9	66.1
2008	1,252,470	0.1	1,188	3.3	70.9	66.0
2009	1,188,736	-5.1	-63,734	7.8	69.2	65.4
2010	1,181,519	-0.6	-7,217	8.1	68.8	64.7
2011	1,208,650	2.3	27,131	6.8	67.8	64.1
2012	1,248,935	3.3	40,285	5.4	67.8	63.7
2013	1,290,523	3.3	41,588	4.4	68.2	63.3
2014	1,328,143	2.9	37,620	3.8	68.0	62.9
2015	1,377,744	3.7	49,601	3.6	68.2	62.7
2016	1,426,450	3.5	48,706	3.4	68.7	62.8
2017	1,469,134	3.0	42,707	3.3	68.9	62.9
2018	1,517,602	3.3	48,468	3.1	68.3	62.9
2019	1,559,859	2.8	42,257	2.6	68.5	63.1
2020	1,538,929	-1.3	-20,930	4.7	67.9	61.8
2021	1,615,906	5.0	76,977	2.7	67.9	61.7
2022e	1,675,931	3.7	60,025	2.0	68.0	62.3
2023f	1710249	2.0	34,318	2.7	67.9	

Note: e = estimate
f = forecast
Source: Utah Department of Workforce Services, Workforce Research and Analysis

Table 4.2: Utah Labor Force, Nonfarm Jobs, and Wages, 2019-2023f

Indicator	2019	2020	2021	2022e	2023f	Annual Percent Change			
						2020	2021	2022e	2023f
Civilian Labor Force	1,618,055	1,640,425	1,681,494	1,715,150	1,749,115	1.4%	2.5%	2.0%	2.0%
Employed Persons	1,576,421	1,562,799	1,636,150	1,680,300	1,701,015	-0.9%	4.7%	2.7%	1.2%
Unemployed Persons	41,634	77,626	45,344	34,850	48,100	86.4%	-41.6%	-23.1%	38.0%
Unemployment Rate	2.6%	4.7%	2.7%	2.0%	2.7%				
U.S. Rate	3.7%	8.1%	5.4%	3.7%	5.1%				
Total Nonfarm Jobs	1,559,767	1,538,912	1,615,795	1,675,931	1,710,249	-1.3%	5.0%	3.7%	2.0%
Mining	9,359	8,658	8,820	9,625	9,500	-7.5%	1.9%	9.1%	-1.3%
Construction	109,491	115,430	122,404	127,681	131,600	5.4%	6.0%	4.3%	3.1%
Manufacturing	136,921	136,421	145,738	153,400	153,820	-0.4%	6.8%	5.3%	0.3%
Trade, Trans., Utilities	290,941	290,372	306,829	312,660	317,520	-0.2%	5.7%	1.9%	1.6%
Information	39,579	38,474	41,053	44,021	44,929	-2.8%	6.7%	7.2%	2.1%
Financial Activity	90,019	93,399	97,698	97,814	97,650	3.8%	4.6%	0.1%	-0.2%
Professional & Business Services	223,900	225,232	234,317	245,800	253,345	0.6%	4.0%	4.9%	3.1%
Education & Health Services	210,018	208,847	216,477	224,402	229,850	-0.6%	3.7%	3.7%	2.4%
Leisure & Hospitality	153,458	133,439	148,321	159,207	164,065	-13.0%	11.2%	7.3%	3.1%
Other Services	42,266	40,025	42,454	44,680	46,000	-5.3%	6.1%	5.2%	3.0%
Government	253,815	248,615	251,684	256,641	261,970	-2.0%	1.2%	2.0%	2.1%
Goods-producing	255,771	260,509	276,962	290,706	294,920	1.9%	6.3%	5.0%	1.4%
Service-producing	1,303,996	1,278,403	1,338,833	1,385,225	1,415,329	-2.0%	4.7%	3.5%	2.2%
Percent Service-producing	83.6%	83.1%	82.9%	82.7%	82.8%				
U.S. Nonfarm Job Growth %	1.4%	-5.6%	2.7%	4.0%	-0.5%				
Total Nonfarm Wages (thousands)	$77,520	$83,220	$92,010	$101,960	$107,600	7.4%	10.6%	10.8%	5.5%
Average Annual Wage	$49,698	$54,079	$56,944	$60,837	$62,915	8.8%	5.3%	6.8%	3.4%
Average Monthly Wage	$4,142	$4,507	$4,745	$5,070	$5,243				
Establishments (first quarter)	106,740	111,937	119,800	126,030	132,079				

Note: Numbers in this table may differ from other tables as not all industrial sectors are listed here.
e = estimate
f = forecast
Source: Utah Department of Workforce Services, Workforce Research and Analysis

Table 4.3: Utah's Largest Employers Annual Average Employment, 2021

Rank	Company Name	Industry	Employment Range
1	Intermountain Healthcare	Health Care	20,000 +
2	University of Utah (Including the hospital and ARUP)	Higher Education	20,000 +
3	Wal-Mart Associates	Warehouse Clubs/Supercenters	20,000 +
4	State of Utah	State Government	20,000 +
5	Brigham Young University	Higher Education	15,000-19,999
6	Hill Air Force Base (civilian employment)	Federal Government	10,000-14,999
7	Davis County School District	Public Education	7,000-9,999
8	Smith's Food and Drug Centers	Grocery Stores	7,000-9,999
9	Utah State University	Higher Education	7,000-9,999
10	Alpine School District	Public Education	7,000-9,999
11	Granite School District	Public Education	7,000-9,999
12	Northrop Grumman	Aerospace	7,000-9,999
13	U.S. Department of Treasury	Federal Government	7,000-9,999
14	Jordan School District	Public Education	5,000-6,999
15	Amazon.com Services	Courier/Express Delivery Service	5,000-6,999
16	Utah Valley University	Higher Education	5,000-6,999
17	Salt Lake County	Local Government	5,000-6,999
18	U.S. Postal Service	Federal Government	5,000-6,999
19	The Home Depot	Home Centers	5,000-6,999
20	United Parcel Service	Courier/Express Delivery Service	4,000-4,999
21	The Canyons School District	Public Education	4,000-4,999
22	Weber County School District	Public Education	4,000-4,999
23	Delta Airlines	Air Transportation	4,000-4,999
24	Costco	Warehouse Clubs/Supercenters	3,000-3,999
25	Zions Bancorporation	Banking	3,000-3,999
26	VA Hospital	Health Care	3,000-3,999
27	Nebo School District	Public Education	3,000-3,999
28	Washington County School District	Public Education	3,000-3,999
29	Harmons	Grocery Stores	3,000-3,999
30	Autoliv	Motor Vehicle Equipment Manufacturing	3,000-3,999
31	Salt Lake City Corporation	Local Government	3,000-3,999
32	Associated Retail Operations	Department Stores	3,000-3,999
33	Discover Products, Inc.	Consumer Loans	3,000-3,999
34	Maverick Country Stores	Convenience Stores	3,000-3,999
35	Wells Fargo Bank	Banking	3,000-3,999
36	SkyWest Airlines	Air Transportation	3,000-3,999
37	Salt Lake City School District	Public Education	3,000-3,999
38	Vivint	Electrical Contractors	2,000-2,999
39	America First Credit Union	Banking	2,000-2,999
40	DoTERRA International	Direct Selling	2,000-2,999
41	Goldman Sachs	Banking/Investments	2,000-2,999
42	Target Corporation	Supercenters	2,000-2,999
43	L3 Technologies	Electronics Manufacturing	2,000-2,999
44	Lowe's Home Center	Home Centers	2,000-2,999
45	Salt Lake Community College	Higher Education	2,000-2,999
46	BioFire Diagnostics	Medical Technology Research	2,000-2,999
47	Utah Transit Authority	Public Transportation	2,000-2,999
48	Cache County School District	Public Education	2,000-2,999
49	Mountain America Credit Union	Banking	2,000-2,999
50	Weber State University	Higher Education	2,000-2,999

Source: Utah Department of Workforce Services, Workforce Research and Analysis

Personal Income

5

Robert Spendlove, Zions Bank
Bart Todd, Zions Bank

OVERVIEW

Utah's total nominal personal income in 2022 was an estimated $195.7 billion, a 4.7% increase from $187 billion in 2021. Utah's estimated 2022 per capita personal income was $57,578, up 2.8% from $56,019 in 2021. U.S. total personal income grew by an estimated 2.1% in 2022 and per capita personal income grew by 1.8%. Utah's 2022 estimated total personal income growth and per capita personal income growth were above the national average.

Utah's total personal income in 2022 is estimated to have grown 4.7%, slowing from 9.1% growth in 2021. The state's estimated 2022 per capita personal income growth of 2.8% was also lower than the 2021 growth of 7.3%. Utah's 2022 per capita personal income growth was higher than the national growth of 1.8%.

The historic level of federal financial support in the last few years, coupled with supply chain disruptions and unexpected changes in aggregate demand, resulted in much higher than expected inflation in 2022. This inflation, coupled with the national labor shortage, has caused higher wage pressure and personal income growth throughout the United States.

Total Personal Income

Total personal income (TPI) is the sum of all individual personal income in a given region. There are three components of TPI: 1) net earnings by place of work, adjusted for place of residence; 2) property income, or income from dividends, interest, and rent; and 3) income from transfer receipts, which are benefits received from the government, including Social Security, Medicare and Medicaid, and veteran's benefits. In 2021, Utah's TPI was $187 billion, and of that, net earnings comprised the largest share (64.4%). This was followed by property income from dividends, interest, and rent (19.3%), and income from transfer receipts (16.3%).

While Utah's component share of net earnings and property income from dividends, interest, and rent was similar to the national average, its income from transfer receipts was the lowest of any state. The three states or territories with the lowest share of transfer receipt income were Utah (16.3%), the District of Columbia (16.5%), and Colorado (16.8%). The states with the highest share were West Virginia (33.9%), Mississippi (31.1%), and New Mexico (30.8%).

In 2021, Utah's TPI rose 9.1% from $171.4 billion to $187 billion. The fastest growing component was transfer receipt income, which grew 18.1% from $25.8 billion to $30.5 billion. Net earnings by place of residence rose 8.3% from $111.1 billion to $120.3 billion, and property income from dividends, interest, and rent rose 4.8% from $34.5 billion to $36.2 billion.

The majority of earnings by place of work, which includes government social insurance, came from wages and salaries (73.1%), followed by supplements to wages and salaries (15.7%), and proprietors' income (11.2%). Utah's earnings by place of work came primarily from nonfarm earnings (99.8%), versus farm earnings (0.2%). This is roughly equivalent to the nonfarm/farm split for the United States (99.6% and 0.4%, respectively).

Of Utah's nonfarm earnings, 83.1% came from the private sector and 16.9% came from the public sector. Within the Utah private sector, the professional, scientific, and technical services sector (10.4%) was the largest source of earnings; followed by manufacturing (10.2%) and health care and social assistance (8.6%). At the national level, health care and social assistance accounted for the largest percentage of private-sector earnings (11.2%); followed by professional, scientific, and technical services (11.1%), and manufacturing (8.8%).

In 2021, all but one of Utah's private-industry classifications experienced positive growth in earnings. The accommodation and food services sector had the highest year-over-year earnings growth of 28.5%; followed by arts, entertainment, and recreation (25.2%), and information (19.4%). The forestry, fishing, and related activities sector had the lowest year-over-year earnings growth (-9.9%); followed by mining, quarrying, and oil and gas extraction (1.1%), and utilities (1.6%).

Earnings in Utah's public sector, which includes federal civilians, military, and state and local employees, expanded by 5.4% in 2021.

Per Capita Personal Income

Per capita personal income is a region's total personal income divided by its total population. Personal income and per capita personal income data are reported quarterly by the U.S. Bureau of Economic Analysis. Utah's estimated 2022 per capita personal income was $57,578, up 2.8% from the 2021 level of $56,019. Utah's estimated 2022 per capita income was 88.2% of the national per capita income of $65,303.

In 2021, Utah's total personal income growth rate was the fourth highest in the nation, while its per capita personal income growth rate tied for the 20th highest. Utah's young population has largely driven this dynamic of higher personal income growth but lower per capita income growth. While total personal income is expanding, per capita personal income is weighed down by many young individuals who are counted in the population but have not yet entered the workforce. As Utah's population continues to age, as is projected, the gap between personal income growth and per capita growth should continue to narrow.

Per Capita Personal Income by County

Utah experienced per capita personal income growth of 7.3% in 2021, which was lower than its 7.5% growth in 2020. All 29 counties experienced per capita personal income gains in 2021. Garfield County experienced the strongest year-over-year growth (16.7%), while Grand (10.6%), Juab (10.5%), Cache (9.3%), and Tooele (9.0%) rounded out the top five counties for growth.

In 2021, Summit County's per capita personal income was the highest in Utah at $183,972, over three times the state average of $56,019. Summit, along with Wasatch ($71,360) and Grand ($69,832), were the only counties with an average per capita personal income that exceeded the national average of $64,143. Morgan ($63,256) and Salt Lake ($62,547) were the only other counties to outpace the statewide per capita income average.

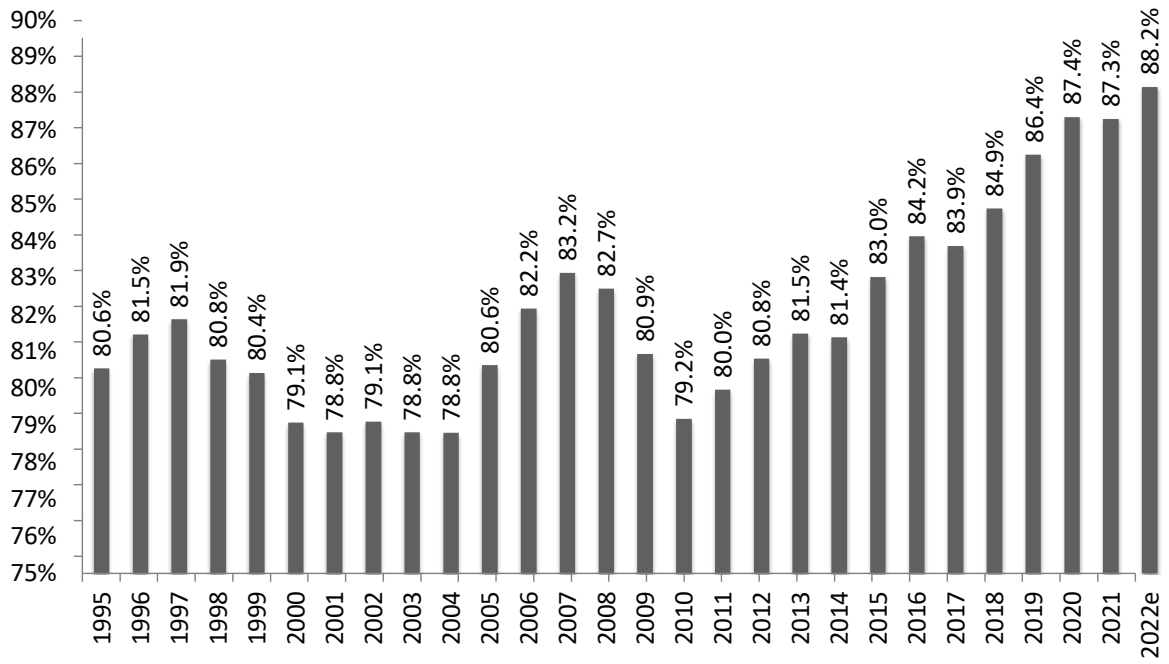
2022/2023 OUTLOOK

In 2023, both Utah and the United States are expected to see higher personal income growth. The tight labor market will continue to keep wage inflation high, which will drive overall growth in personal income. However, monetary policy will continue to tighten in 2023, which should constrain some of this growth. U.S. personal income is expected to increase from 2.1% in 2022 to 4.5% in 2023.

Utah personal income is similarly expected to accelerate in the next year, from 4.7% in 2022 to 6.0% in 2023. Utah continues to benefit from a strong economy, and labor constraints and inflationary pressure will further increase the state's personal income growth.

Personal income growth is likely to continue to grow in most Utah industries. Those that experienced wage pressures in 2022, such as those related to leisure and hospitality, are likely to see similar impacts in 2023 as the limited pool of available labor will drive wage inflation. Industries that are sensitive to interest rate increases, such as real estate and finance and insurance, are likely to experience weaker income growth in 2023.

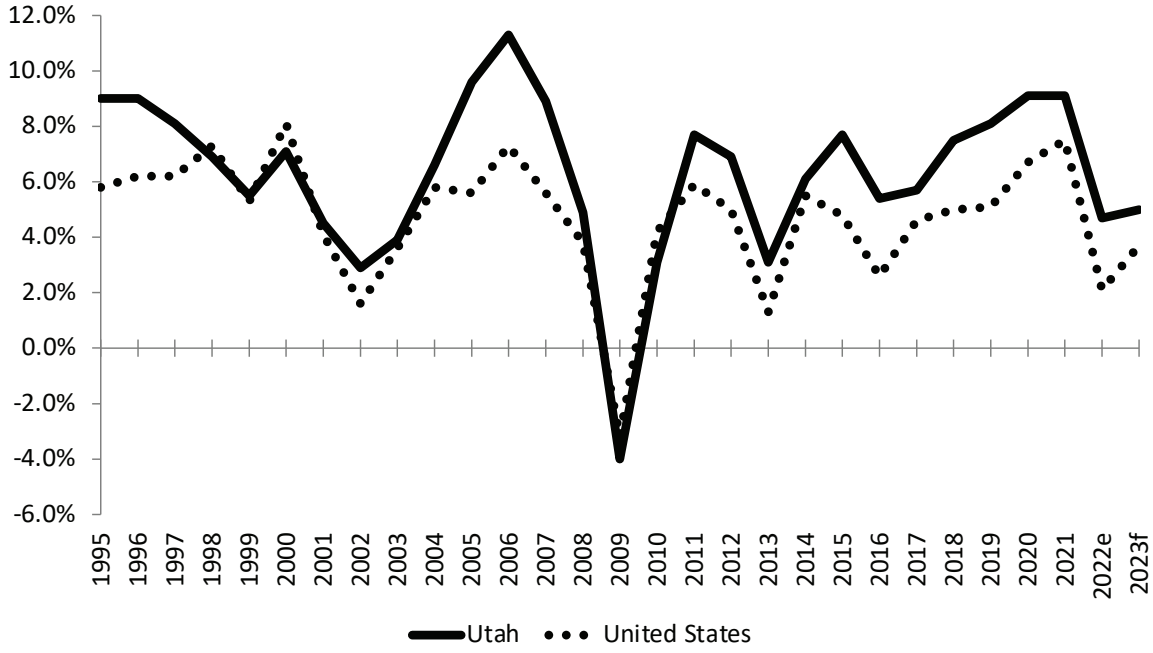
Figure 5.1: Utah Per Capita Income as Percent of U.S. Per Capita Income, 1995-2022e



Note: e = estimate

Source: U.S. Bureau of Economic Analysis and Utah Revenue Assumptions Working Group

Figure 5.2: Utah and U.S. Total Personal Income Growth, 1995-2023f



Note: e = estimate, f = forecast

Source: U.S. Bureau of Economic Analysis and Utah Revenue Assumptions Working Group

Table 5.1: Total and Per Capita Personal Income,1970-2023f

	Total Personal Income (Millions of Dollars)			Annual Growth Rates		Per Capita Personal Income (Dollars)		
Year	Utah	United States	Utah as % of U.S.	Utah	United States	Utah	United States	Utah as % of U.S.
1970	$3,791	$855,525	0.44%	11.3%	8.1%	$3,558	$4,198	84.8%
1971	$4,243	924,613	0.46%	11.9%	8.1%	$3,855	$4,471	86.2%
1972	$4,741	1,016,408	0.47%	11.7%	9.9%	$4,179	$4,857	86.0%
1973	$5,283	1,133,468	0.47%	11.4%	11.5%	$4,520	$5,363	84.3%
1974	$5,910	1,244,912	0.47%	11.9%	9.8%	$4,930	$5,836	84.5%
1975	$6,591	1,362,505	0.48%	11.5%	9.4%	$5,341	$6,324	84.5%
1976	$7,464	1,495,704	0.50%	13.2%	9.8%	$5,866	$6,875	85.3%
1977	$8,441	1,651,632	0.51%	13.1%	10.4%	$6,412	$7,516	85.3%
1978	$9,712	1,855,849	0.52%	15.1%	12.4%	$7,119	$8,356	85.2%
1979	$10,972	2,073,257	0.53%	13.0%	11.7%	$7,748	$9,232	83.9%
1980	$12,319	2,313,160	0.53%	12.3%	11.6%	$8,366	$10,180	82.2%
1981	$13,893	2,592,915	0.54%	12.8%	12.1%	$9,167	$11,300	81.1%
1982	$15,067	2,779,794	0.54%	8.5%	7.2%	$9,669	$11,999	80.6%
1983	$16,135	2,968,676	0.54%	7.1%	6.8%	$10,116	$12,698	79.7%
1984	$17,820	3,279,488	0.54%	10.4%	10.5%	$10,984	$13,906	79.0%
1985	$19,070	3,510,471	0.54%	7.0%	7.0%	$11,607	$14,755	78.7%
1986	$20,042	3,719,647	0.54%	5.1%	6.0%	$12,053	$15,490	77.8%
1987	$20,995	3,946,593	0.53%	4.8%	6.1%	$12,511	$16,289	76.8%
1988	$22,330	4,267,813	0.52%	6.4%	8.1%	$13,218	$17,455	75.7%
1989	$23,967	4,609,667	0.52%	7.3%	8.0%	$14,050	$18,676	75.2%
1990	$25,985	4,897,821	0.53%	8.4%	6.3%	$15,010	$19,621	76.5%
1991	$27,864	5,067,291	0.55%	7.2%	3.5%	$15,656	$20,030	78.2%
1992	$30,126	5,409,920	0.56%	8.1%	6.8%	$16,401	$21,090	77.8%
1993	$32,491	5,648,732	0.58%	7.9%	4.4%	$17,115	$21,733	78.8%
1994	$35,157	5,940,128	0.59%	8.2%	5.2%	$17,933	$22,575	79.4%
1995	$38,308	6,286,143	0.61%	9.0%	5.8%	$19,019	$23,607	80.6%
1996	$41,739	6,673,186	0.63%	9.0%	6.2%	$20,183	$24,771	81.5%
1997	$45,125	7,086,935	0.64%	8.1%	6.2%	$21,288	$25,993	81.9%
1998	$48,228	7,601,594	0.63%	6.9%	7.3%	$22,266	$27,557	80.8%
1999	$50,859	8,006,585	0.64%	5.5%	5.3%	$23,081	$28,693	80.4%
2000	$54,451	8,654,561	0.63%	7.1%	8.1%	$24,260	$30,672	79.1%
2001	$56,923	9,009,842	0.63%	4.5%	4.1%	$24,925	$31,617	78.8%
2002	$58,563	9,157,682	0.64%	2.9%	1.6%	$25,190	$31,839	79.1%
2003	$60,873	9,491,393	0.64%	3.9%	3.6%	$25,792	$32,717	78.8%
2004	$64,887	10,037,313	0.65%	6.6%	5.8%	$27,018	$34,280	78.8%
2005	$71,095	10,599,603	0.67%	9.6%	5.6%	$28,927	$35,868	80.6%
2006	$79,116	11,374,142	0.70%	11.3%	7.3%	$31,327	$38,120	82.2%
2007	$86,153	12,014,107	0.72%	8.9%	5.6%	$33,165	$39,883	83.2%
2008	$90,387	12,475,898	0.72%	4.9%	3.8%	$33,941	$41,026	82.7%
2009	$86,762	12,073,407	0.72%	-4.0%	-3.2%	$31,858	$39,356	80.9%
2010	$89,439	12,586,509	0.71%	3.1%	4.2%	$32,218	$40,683	79.2%
2011	$96,357	13,330,436	0.72%	7.7%	5.9%	$34,190	$42,747	80.0%
2012	$102,991	14,003,346	0.74%	6.9%	5.0%	$36,005	$44,548	80.8%
2013	$106,176	14,189,228	0.75%	3.1%	1.3%	$36,511	$44,798	81.5%
2014	$112,620	14,969,527	0.75%	6.1%	5.5%	$38,168	$46,887	81.4%
2015	$121,339	15,681,233	0.77%	7.7%	4.8%	$40,459	$48,725	83.0%
2016	$127,881	16,092,713	0.79%	5.4%	2.6%	$41,750	$49,613	84.2%
2017	$135,162	16,837,337	0.80%	5.7%	4.6%	$43,241	$51,550	83.9%

Table 5.1: Total and Per Capita Personal Income,1970–2023f (continued)

Year	Total Personal Income (Millions of Dollars)			Annual Growth Rates		Per Capita Personal Income (Dollars)		
	Utah	United States	Utah as % of U.S.	Utah	United States	Utah	United States	Utah as % of U.S.
2018	$145,256	17,671,054	0.82%	7.5%	5.0%	$45,665	$53,786	84.9%
2019	$157,045	18,575,467	0.85%	8.1%	5.1%	$48,580	$56,250	86.4%
2020	$171,385	19,832,000	0.86%	9.1%	6.7%	$52,220	$59,735	87.4%
2021	$186,991	21,295,000	0.88%	9.1%	7.5%	$56,019	$64,142	87.3%
2022e	$195,707	21,752,000	0.90%	4.7%	2.1%	$57,578	$65,321	88.1%
2023f	$207,449	22,736,000	0.91%	6.0%	4.5%	$60,130	$68,072	88.3%

Note: All dollar amounts are in current dollars (not adjusted for inflation).
e = estimate
f = forecast
Sources: U.S. Bureau of Economic Analysis. Last updated: September 30, 2022--revised statistics for 2017-2019. Utah Economic Council Economic and Business Indicators, December 2022 for 2022e, and 2023f.

Table 5.2: Per Capita Personal Income by County, 2016–2021

County	2016	2017	2018	2019	2020	2021	2016-17	2017-18	2018-19	2019-20	2020-21
Utah (State)	**$41,750**	**$43,241**	**$45,665**	**$48,580**	**$52,225**	**$56,019**	**3.6%**	**5.6%**	**6.4%**	**7.5%**	**7.3%**
Beaver	$26,822	$31,369	$33,900	$36,202	$43,658	$46,960	17.0%	8.1%	6.8%	20.6%	7.6%
Box Elder	$33,715	$35,007	$37,253	$38,927	$42,295	$45,456	3.8%	6.4%	4.5%	8.7%	7.5%
Cache	$34,870	$36,521	$38,683	$41,127	$43,253	$47,269	4.7%	5.9%	6.3%	5.2%	9.3%
Carbon	$34,708	$36,015	$38,710	$40,448	$42,848	$45,120	3.8%	7.5%	4.5%	5.9%	5.3%
Daggett	$41,759	$44,132	$45,195	$48,695	$50,894	$51,672	5.7%	2.4%	7.7%	4.5%	1.5%
Davis	$42,306	$43,327	$45,329	$47,468	$50,820	$54,820	2.4%	4.6%	4.7%	7.1%	7.9%
Duchesne	$33,766	$36,321	$36,317	$38,842	$41,279	$42,903	7.6%	0.0%	7.0%	6.3%	3.9%
Emery	$30,467	$31,491	$33,963	$35,160	$39,031	$40,871	3.4%	7.8%	3.5%	11.0%	4.7%
Garfield	$35,099	$36,821	$37,166	$39,440	$43,010	$50,209	4.9%	0.9%	6.1%	9.1%	16.7%
Grand	$47,494	$51,652	$56,030	$58,920	$63,115	$69,832	8.8%	8.5%	5.2%	7.1%	10.6%
Iron	$28,681	$29,910	$31,714	$33,840	$36,533	$38,834	4.3%	6.0%	6.7%	8.0%	6.3%
Juab	$33,060	$34,058	$38,197	$39,419	$43,485	$48,060	3.0%	12.2%	3.2%	10.3%	10.5%
Kane	$38,630	$39,769	$41,231	$42,444	$46,840	$49,842	2.9%	3.7%	2.9%	10.4%	6.4%
Morgan	$47,729	$49,385	$52,975	$54,976	$58,768	$63,256	3.5%	7.3%	3.8%	6.9%	7.6%
Millard	$33,488	$34,007	$35,934	$38,283	$40,959	$44,281	1.5%	5.7%	6.5%	7.0%	8.1%
Piute	$37,547	$43,855	$44,178	$46,797	$48,017	$49,233	16.8%	0.7%	5.9%	2.6%	2.5%
Rich	$34,659	$34,742	$36,447	$39,231	$41,668	$43,280	0.2%	4.9%	7.6%	6.2%	3.9%
Salt Lake	$46,994	$48,504	$50,971	$53,472	$58,028	$62,547	3.2%	5.1%	4.9%	8.5%	7.8%
San Juan	$24,652	$26,226	$27,131	$29,299	$32,289	$34,038	6.4%	3.5%	8.0%	10.2%	5.4%
Sanpete	$28,591	$29,181	$31,323	$32,845	$36,656	$39,139	2.1%	7.3%	4.9%	11.6%	6.8%
Sevier	$30,930	$32,368	$35,079	$36,186	$39,370	$41,983	4.6%	8.4%	3.2%	8.8%	6.6%
Summit	$117,516	$124,029	$141,803	$164,980	$74,010	$183,972	5.5%	14.3%	16.3%	5.5%	5.7%
Tooele	$34,244	$35,121	$37,160	$39,109	$42,321	$46,131	2.6%	5.8%	5.2%	8.2%	9.0%
Uintah	$28,706	$30,217	$31,265	$32,029	$33,201	$35,128	5.3%	3.5%	2.4%	3.7%	5.8%
Utah	$36,767	$37,996	$40,085	$44,079	$47,232	$50,661	3.3%	5.5%	10.0%	7.2%	7.3%
Wasatch	$48,555	$51,018	$56,497	$63,088	$66,591	$71,360	5.1%	10.7%	11.7%	5.6%	7.2%
Washington	$35,446	$37,556	$40,246	$42,732	$45,178	$47,162	6.0%	7.2%	6.2%	5.7%	4.4%
Wayne	$36,300	$39,595	$43,113	$45,183	$50,067	$52,647	9.1%	8.9%	4.8%	10.8%	5.2%
Weber	$37,636	$39,144	$40,813	$43,032	$46,230	$49,857	4.0%	4.3%	5.4%	7.4%	7.8%

Note: All dollar amounts are in current dollars (not adjusted for inflation).
Source: U.S. Bureau of Economic Analysis. Last updated: November 16, 2022--new statistics for2021; revised statistics for 2010-2020.

Gross Domestic Product

6

Andrea Wilko, Utah Legislative Fiscal Analyst Office

OVERVIEW

An economy's gross domestic product (GDP) represents the value added to intermediate inputs through the production of goods and services during a certain period. Conceptually, GDP is gross output less the cost of intermediate inputs, and as such it measures the economic activity within a specified area such as a country or state. Real GDP controls for inflation by using "chained" dollars (a weighted average of data in successive pairs of years), which is a more meaningful measure of GDP over time. The Bureau of Economic Analysis (BEA) releases quarterly GDP data with extensive subsequent revisions.

Nominal GDP

Utah's nominal GDP (measured in current dollars) was estimated to be $225.3 billion in 2021, up from $202.1 billion in 2020. This represents a growth rate of 11.5%, ranked 13th highest in the nation. The Utah GDP growth rate is an acceleration in growth over the previous year, partially the result of pent-up demand during the COVID-19 pandemic. Pent-up demand has been concentrated in durable goods, especially motor vehicles and electronics, both nationally and in Utah. Utah's nominal GDP grew 10.5% for the year ending 2022 Q3. National GDP grew about 10.7% in 2021, an acceleration from the -1.5% change in 2020. The large growth in 2021 is attributable to the economic recovery after the pandemic-induced recession of 2020. National nominal GDP grew an estimated 9.2% for the year ending 2022 Q3.

Real GDP

Utah's real GDP (measured in 2012 chained dollars) was $186.9 billion in 2021, up from $174.9 billion in 2020. This represents a growth rate of 6.8%. Utah's real GDP grew 2.7% for the year ending 2022 Q3. Nationally, real GDP grew 5.9% in 2021 after declining 2.8% in 2020. For the year ending 2022 Q3, national real GDP grew 1.9%.

Overall, GDP in 2021 in all states was on a path to recovery from the pandemic recession. GDP has experienced both supply- and demand-specific challenges, including pandemic-related supply chain disruptions, tight labor markets, and strong demand stemming from federal relief and recovery measures

Industry Growth

Financial activities continues to be the largest sector of GDP in Utah at 19.6 % in 2021, followed by trade, transportation, and utilities at 16.2 % of total GDP.

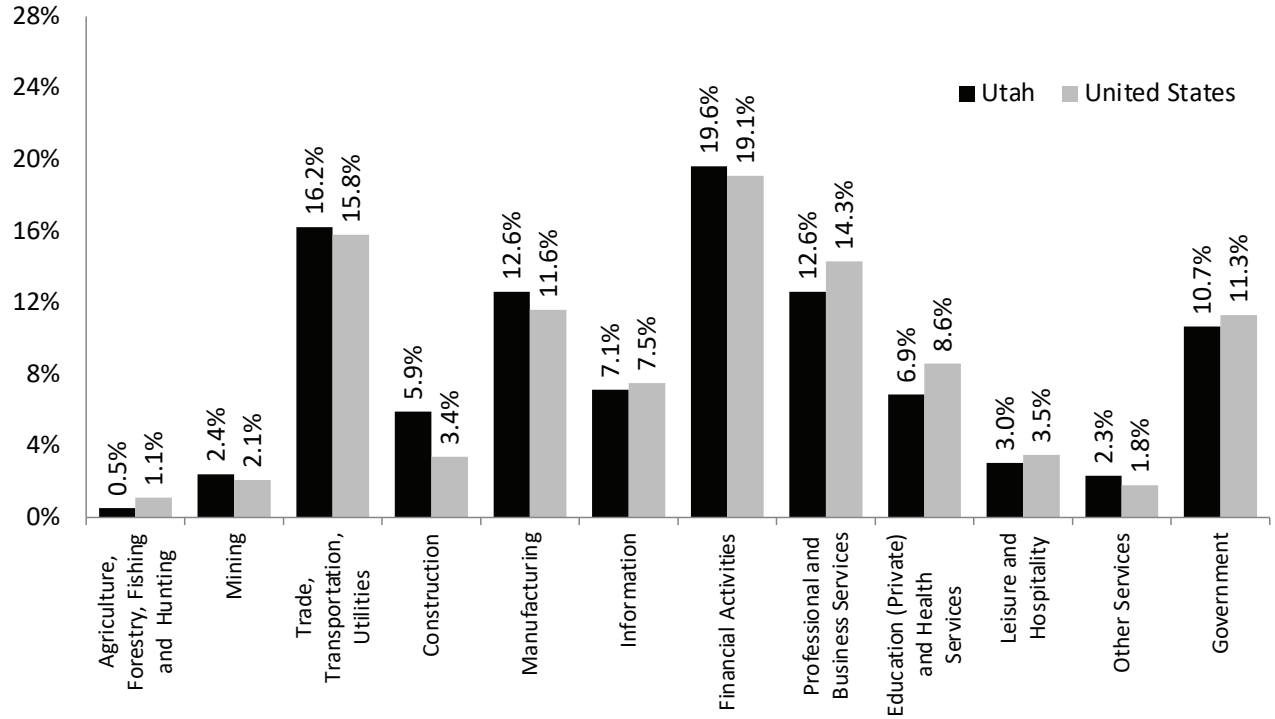
In 2021, trade, manufacturing, information, financial activities, professional and business services, and leisure and hospitality added the most real value to the GDP of Utah. These industries added about 10.9 billion chained 2012 U.S. dollars to the GDP of Utah in 2021.

2022/2023 Outlook

Inflation and supply chain disruptions could drag down both Utah and U.S. GDP in the short term. The pandemic caused plant shutdowns, transportation backlogs, and inventory shortages – which, in turn, contributed to a surge in consumer prices. As these supply constraints continue, final sales to domestic producers could remain sticky and may pull down GDP growth in the outlook period.

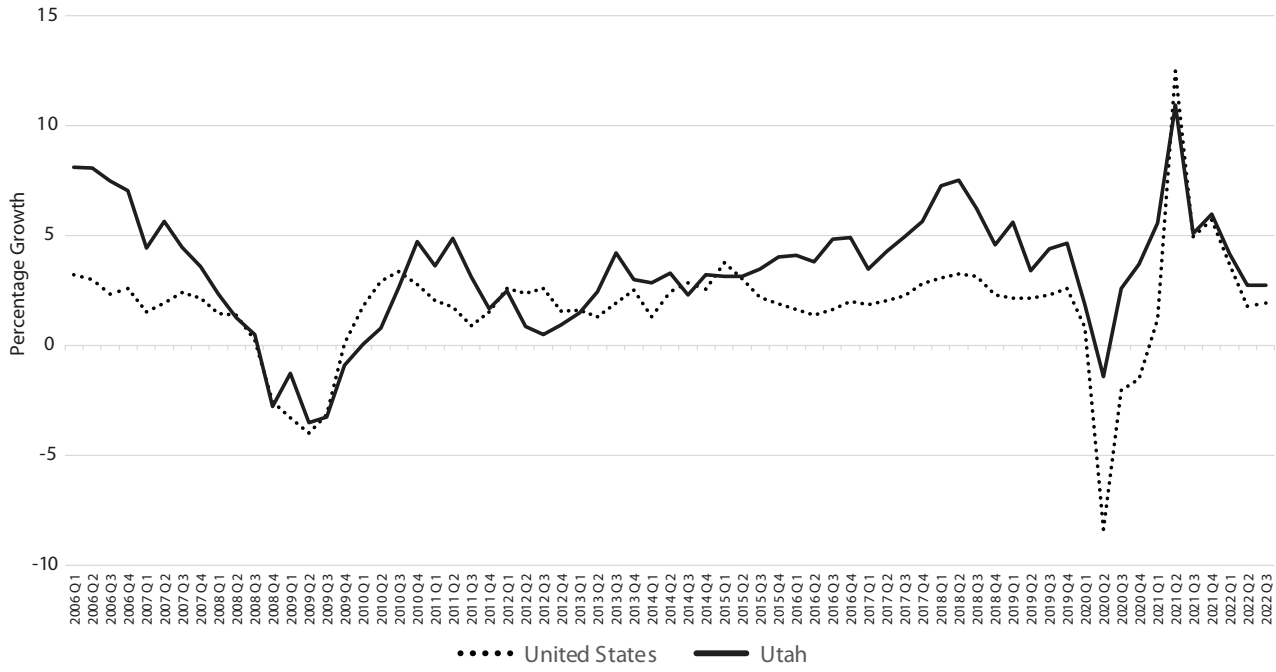
The pace of real GDP growth is anticipated to slow to around 1.9% in Utah and to about 1.0% nationally in 2023 as supply disruptions may take some time to fully ease.

Figure 6.1: Percent of Gross Domestic Product by Industry, 2021



Source: Bureau of Economic Analysis

Figure 6.2: Utah and United States Real Gross Domestic Product, Year-over Growth, 2006Q1–2022Q3



Source: Bureau of Economic Analysis

Table 6.1: Nominal Gross Domestic Product (GDP) by State, 2016–2021

State	Millions of Dollars						2021 Share of Total	2020–21 Change
	2016	2017	2018	2019	2020	2021		
United States	$18,695,106	$19,477,337	$20,533,058	$21,380,976	$21,060,474	$23,315,081	100.0%	10.7%
Alabama	$207,368	$214,606	$223,859	$231,562	$230,892	$254,110	1.1%	10.1%
Alaska	$50,728	$53,302	$54,900	$54,728	$50,475	$57,349	0.2%	13.6%
Arizona	$313,081	$332,002	$351,880	$372,394	$382,072	$420,027	1.8%	9.9%
Arkansas	$119,152	$122,467	$127,536	$131,578	$133,969	$148,676	0.6%	11.0%
California	$2,569,634	$2,728,743	$2,897,201	$3,042,694	$3,020,173	$3,373,241	14.5%	11.7%
Colorado	$329,912	$349,157	$372,212	$394,535	$391,263	$436,360	1.9%	11.5%
Connecticut	$263,670	$271,443	$279,923	$288,536	$276,223	$298,395	1.3%	8.0%
Delaware	$69,355	$68,303	$72,168	$76,924	$75,819	$81,160	0.3%	7.0%
District of Columbia	$129,649	$133,244	$139,723	$143,991	$144,720	$153,671	0.7%	6.2%
Florida	$953,353	$1,003,144	$1,057,255	$1,111,392	$1,116,727	$1,255,558	5.4%	12.4%
Georgia	$547,547	$573,777	$602,366	$637,993	$625,426	$691,627	3.0%	10.6%
Hawaii	$83,914	$87,217	$90,331	$91,913	$82,536	$91,096	0.4%	10.4%
Idaho	$68,837	$71,730	$77,395	$82,847	$85,928	$96,283	0.4%	12.1%
Illinois	$807,043	$824,913	$865,661	$889,540	$856,943	$945,674	4.1%	10.4%
Indiana	$340,501	$352,601	$373,197	$381,132	$373,782	$412,975	1.8%	10.5%
Iowa	$181,011	$184,561	$191,517	$195,709	$196,983	$216,860	0.9%	10.1%
Kansas	$160,451	$165,183	$172,343	$176,564	$177,581	$191,381	0.8%	7.8%
Kentucky	$196,485	$201,872	$208,559	$218,495	$216,866	$237,182	1.0%	9.4%
Louisiana	$227,091	$241,213	$256,678	$255,482	$232,528	$258,571	1.1%	11.2%
Maine	$60,254	$62,254	$65,477	$68,690	$70,740	$77,963	0.3%	10.2%
Maryland	$387,733	$400,157	$410,812	$420,371	$410,931	$443,930	1.9%	8.0%
Massachusetts	$514,638	$531,008	$563,054	$589,904	$585,150	$641,332	2.8%	9.6%
Michigan	$490,264	$502,130	$520,245	$532,217	$520,105	$572,206	2.5%	10.0%
Minnesota	$344,061	$353,665	$372,011	$383,957	$376,814	$412,459	1.8%	9.5%
Mississippi	$107,291	$109,601	$112,202	$114,234	$115,123	$127,308	0.5%	10.6%
Missouri	$300,915	$308,002	$318,154	$332,486	$330,250	$358,572	1.5%	8.6%
Montana	$45,491	$48,534	$50,917	$51,925	$52,356	$58,700	0.3%	12.1%
Nebraska	$118,146	$121,727	$127,016	$131,867	$134,581	$146,285	0.6%	8.7%
Nevada	$151,840	$160,653	$170,258	$182,186	$172,563	$194,487	0.8%	12.7%
New Hampshire	$79,090	$80,598	$83,870	$87,338	$88,338	$99,673	0.4%	12.8%
New Jersey	$575,501	$587,421	$614,107	$637,630	$620,086	$682,946	2.9%	10.1%
New Mexico	$89,769	$92,274	$97,268	$102,028	$98,790	$109,583	0.5%	10.9%
New York	$1,551,354	$1,604,650	$1,697,661	$1,787,666	$1,740,805	$1,901,297	8.2%	9.2%
North Carolina	$526,030	$548,522	$567,836	$594,521	$598,916	$662,121	2.8%	10.6%
North Dakota	$51,989	$55,395	$59,249	$59,199	$54,423	$63,560	0.3%	16.8%
Ohio	$623,265	$645,637	$667,116	$697,167	$684,383	$756,617	3.2%	10.6%
Oklahoma	$181,244	$190,553	$202,713	$204,193	$190,064	$215,336	0.9%	13.3%
Oregon	$211,306	$222,602	$237,114	$247,233	$247,967	$272,191	1.2%	9.8%
Pennsylvania	$726,562	$746,441	$773,977	$799,889	$771,613	$844,497	3.6%	9.4%
Rhode Island	$57,354	$58,085	$59,291	$61,643	$60,771	$66,571	0.3%	9.5%
South Carolina	$215,120	$223,267	$233,251	$245,987	$245,360	$269,803	1.2%	10.0%
South Dakota	$49,151	$50,233	$52,299	$54,001	$55,681	$61,685	0.3%	10.8%
Tennessee	$336,414	$350,839	$363,056	$380,129	$379,007	$427,126	1.8%	12.7%
Texas	$1,579,015	$1,673,234	$1,809,397	$1,858,758	$1,789,933	$2,051,769	8.8%	14.6%
Utah	**$157,827**	**$168,650**	**$184,458**	**$196,539**	**$202,133**	**$225,340**	**1.0%**	**11.5%**
Vermont	$31,661	$32,266	$33,067	$34,231	$34,019	$37,104	0.2%	9.1%
Virginia	$496,021	$511,115	$532,907	$557,764	$556,993	$604,958	2.6%	8.6%
Washington	$487,275	$519,410	$564,314	$595,232	$612,969	$677,490	2.9%	10.5%
West Virginia	$70,924	$74,820	$79,193	$79,326	$76,548	$85,434	0.4%	11.6%
Wisconsin	$314,073	$318,310	$332,499	$345,236	$340,591	$368,611	1.6%	8.2%
Wyoming	$35,879	$36,981	$39,172	$39,428	$36,330	$41,510	0.2%	14.3%

Last updated: September 30, 2022–revised statistics 2017-2021.
Source: Bureau of Economic Analysis

Table 6.2: Real Gross Domestic Product (GDP) by State, 2016–2021

State	Millions of Chained 2012 Dollars						2021 Share of Total	2020–21 Change
	2016	2017	2018	2019	2020	2021		
United States	$17,680,274	$18,076,651	$18,609,078	$19,036,052	$18,509,143	$19,609,812	100.0%	5.9%
Alabama	$194,284	$196,975	$200,373	$203,433	$199,881	$209,979	1.1%	5.1%
Alaska	$54,247	$54,279	$53,327	$53,434	$50,705	$50,869	0.3%	0.3%
Arizona	$291,275	$303,606	$314,828	$325,395	$327,178	$347,656	1.8%	6.3%
Arkansas	$112,798	$113,850	$115,885	$117,126	$117,268	$123,347	0.6%	5.2%
California	$2,427,895	$2,538,204	$2,644,061	$2,729,226	$2,667,221	$2,874,731	14.7%	7.8%
Colorado	$318,953	$329,913	$342,733	$358,439	$353,345	$373,763	1.9%	5.8%
Connecticut	$243,287	$247,036	$249,075	$251,568	$235,235	$246,556	1.3%	4.8%
Delaware	$63,001	$60,358	$61,425	$64,144	$62,282	$64,405	0.3%	3.4%
District of Columbia	$119,644	$120,759	$123,681	$124,597	$122,485	$126,983	0.6%	3.7%
Florida	$881,539	$912,687	$941,627	$965,673	$950,164	$1,029,576	5.3%	8.4%
Georgia	$506,816	$523,805	$538,605	$557,364	$537,616	$575,292	2.9%	7.0%
Hawaii	$77,304	$78,947	$79,845	$79,213	$70,109	$74,547	0.4%	6.3%
Idaho	$65,479	$66,941	$70,857	$74,163	$75,146	$80,094	0.4%	6.6%
Illinois	$749,334	$753,027	$771,696	$775,998	$734,385	$780,061	4.0%	6.2%
Indiana	$319,602	$324,998	$336,327	$337,902	$327,278	$346,241	1.8%	5.8%
Iowa	$170,389	$170,888	$173,548	$173,722	$170,957	$179,753	0.9%	5.1%
Kansas	$153,695	$155,515	$158,734	$159,826	$158,348	$162,291	0.8%	2.5%
Kentucky	$184,115	$185,921	$187,927	$192,972	$188,396	$197,818	1.0%	5.0%
Louisiana	$228,429	$233,352	$237,298	$237,045	$218,422	$221,153	1.1%	1.3%
Maine	$55,565	$56,469	$58,100	$59,553	$59,881	$63,595	0.3%	6.2%
Maryland	$360,082	$366,204	$367,977	$368,056	$352,384	$368,571	1.9%	4.6%
Massachusetts	$475,349	$482,808	$501,542	$514,171	$500,001	$533,102	2.7%	6.6%
Michigan	$452,325	$457,614	$466,559	$467,107	$448,455	$481,778	2.5%	7.4%
Minnesota	$324,030	$327,483	$336,892	$340,557	$328,490	$346,204	1.8%	5.4%
Mississippi	$101,255	$101,245	$100,873	$100,983	$100,527	$104,354	0.5%	3.8%
Missouri	$279,109	$281,253	$284,540	$290,620	$282,754	$295,687	1.5%	4.6%
Montana	$44,437	$45,974	$46,584	$46,886	$46,750	$48,976	0.2%	4.8%
Nebraska	$112,612	$114,144	$116,793	$118,604	$118,142	$122,136	0.6%	3.4%
Nevada	$140,081	$145,486	$150,448	$156,959	$146,493	$159,567	0.8%	8.9%
New Hampshire	$73,572	$73,973	$75,433	$76,819	$75,928	$82,986	0.4%	9.3%
New Jersey	$535,055	$537,579	$550,060	$559,649	$535,324	$566,893	2.9%	5.9%
New Mexico	$89,151	$88,963	$90,934	$94,897	$92,496	$93,625	0.5%	1.2%
New York	$1,403,231	$1,419,112	$1,458,382	$1,500,833	$1,432,507	$1,514,779	7.7%	5.7%
North Carolina	$482,969	$495,221	$501,565	$512,835	$506,658	$541,934	2.8%	7.0%
North Dakota	$52,975	$54,187	$55,914	$56,385	$53,654	$53,804	0.3%	0.3%
Ohio	$583,946	$593,636	$597,926	$613,251	$594,144	$629,287	3.2%	5.9%
Oklahoma	$193,025	$194,017	$197,453	$201,162	$192,486	$193,230	1.0%	0.4%
Oregon	$198,079	$205,524	$214,903	$219,588	$215,744	$227,979	1.2%	5.7%
Pennsylvania	$688,359	$694,867	$704,028	$715,061	$680,957	$710,973	3.6%	4.4%
Rhode Island	$52,903	$52,692	$52,553	$53,411	$51,516	$54,606	0.3%	6.0%
South Carolina	$198,006	$202,512	$207,101	$213,238	$208,234	$221,045	1.1%	6.2%
South Dakota	$46,076	$45,776	$46,300	$46,651	$47,402	$49,558	0.3%	4.5%
Tennessee	$310,143	$318,964	$323,542	$331,177	$323,454	$352,461	1.8%	9.0%
Texas	$1,619,954	$1,659,453	$1,728,304	$1,779,781	$1,747,562	$1,815,064	9.3%	3.9%
Utah	**$147,962**	**$154,758**	**$164,622**	**$172,038**	**$174,955**	**$186,910**	**1.0%**	**6.8%**
Vermont	$29,408	$29,491	$29,602	$29,941	$29,065	$30,547	0.2%	5.1%
Virginia	$459,966	$467,362	$477,915	$489,199	$478,909	$505,351	2.6%	5.5%
Washington	$458,264	$482,007	$515,029	$533,150	$538,856	$575,129	2.9%	6.7%
West Virginia	$70,011	$71,426	$73,170	$72,633	$70,444	$71,343	0.4%	1.3%
Wisconsin	$291,920	$291,923	$299,063	$303,669	$293,105	$306,467	1.6%	4.6%
Wyoming	$38,189	$37,522	$38,080	$38,447	$36,269	$36,400	0.2%	0.4%

Last updated: September 30, 2022– revised statistics 2017-2021.
Source: Bureau of Economic Analysis

Utah Taxable Sales

7

Eric Cropper, Utah State Tax Commission

OVERVIEW

Utah taxable sales, which are comprised of sales and purchases subject to sales tax, were significantly impacted in 2022 by unique economic conditions including high inflation, low unemployment, supply chain challenges, geopolitical conflicts, and trends related to the continuing recovery from the COVID-19 pandemic. Amidst these conditions, total taxable sales increased by an estimated 11.4% to $100.4 billion in 2022. Although significantly lower than the record growth of 20.6% in 2021, growth in 2022 was still well above average historical growth. Of the four major sectors, growth in taxable sales was led by business investment purchases which increased by an estimated 16.5%. Growth in taxable services also remained elevated, increasing by an estimated 15.1% in 2022. Retail sales and the "all other" sales sector also experienced strong growth, expanding by an estimated 8.7% and 5.9%, respectively. Despite economic headwinds that included inflation and the Russia-Ukraine war, a strong labor market and robust business demand led to above-average growth. It is important to recognize that, although nominal growth in 2022 was higher than normal, growth in real terms was much more muted due to high inflation.[1]

Retail Sales

In 2022, retail sales, which accounted for 54% of all taxable sales, increased by an estimated 8.7% to approximately $54.0 billion. This growth, combined with exceptionally high growth in the prior two years, puts retail sales in 2022 approximately 47% higher than in 2019. Many of the factors driving this period of high growth began to subside in 2022 as consumer spending patterns normalized as pandemic disruptions eased. Although consumer spending has remained relatively healthy due to a strong labor market, demand has cooled as the Federal Reserve has aggressively raised interest rates to fight inflation. Additionally, high gas prices have reduced the amount of discretionary income available to consumers to spend on other items, which has also been a drag on retail sales.

Business Investment Purchases

Business investment purchases, which play an important role in the Utah economy, remained strong in 2022, increasing by an estimated 16.5% to $16.6 billion. All industries in this sector experienced strong growth in 2022, but growth was particularly high in the oil and gas, construction, manufacturing, and wholesale trade industries. High oil and gas prices were the primary drivers behind investment increases in Utah's oil and gas industry. Businesses also benefited from a hot construction market in the state, although construction began to cool somewhat in 2022 as interest rates increased.

Taxable Services

In 2022, growth in taxable services remained elevated, increasing by an estimated 15.1% to $26.1 billion. Many of the largest industries in this sector, including accommodations, recreation, entertainment, and food services, were among the hardest-hit industries in 2020 during the pandemic. Growth in these industries was extremely high in 2021 as the recovery from the pandemic took hold. Growth in 2022, although significantly lower than the highs of the prior year, has remained higher than historical norms due to pent up demand. As with retail sales, this sector has also benefited from strong consumer fundamentals largely due to a very robust labor market.

All Other

The category "all other" comprises less than 4% of total taxable sales and consists of transaction types such as private motor vehicle sales and prior-period refunds/payments that do not fit in the first three sectors. Following historically high 35.2%

1. Nationwide inflation averaged 8.3% through October 2022, according to the U.S. Bureau of Labor Statistics consumer price index for all urban consumers

growth in 2021, "all other" sales increased by an estimated 5.9% in 2022. Private motor vehicles sales, which were extremely elevated from the second quarter of 2020 through 2021, returned to a more historically normal growth rate in 2022, which was the primary reason for slowing growth in this sector.

2023 OUTLOOK

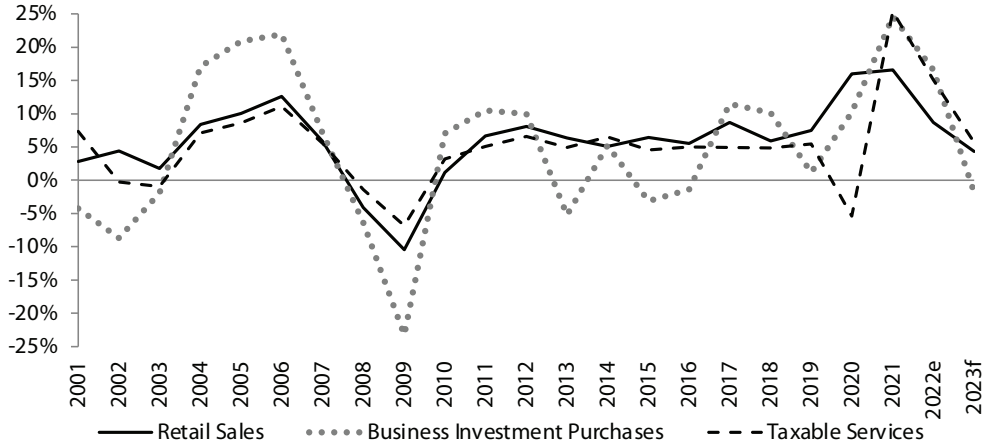
Following a three-year period with the highest growth that Utah has ever seen, growth in taxable sales is expected to significantly moderate in the coming year. Total taxable sales are forecasted to increase by 3.5% to $103.9 billion in 2023. Business investment purchases are forecasted to decline 1.8% as businesses pull back investment due to cooling demand. Modest gains are forecasted in each of the other three sectors in 2023. Retail sales is forecasted to increase by 4.3%, while taxable services and "all other" sales are forecasted to increase by 5.7% and 0.2%, respectively. Slowing economic growth nationally, partially due to rising interest rates as well as a potential recession, are expected to weigh on consumer and business demand. Additionally, reductions in wealth due to declining asset prices from 2022 peaks are also expected to weigh on consumer spending. Despite these headwinds, the momentum in the Utah economy, particularly in the labor market, is forecasted to drive another year of overall nominal growth. Persistently high inflation, although expected to ease somewhat in the coming year, will continue to affect taxable sales and may result in a decline in real growth for taxable sales in 2023.

Although nominal growth is forecasted in 2023, unique economic and political conditions have increased the uncertainty of these forecasts. These conditions include, but are not limited to, shocks to the financial market or a particular sector, persistent inflation, consumer sentiment, global supply-chain disruptions, shipping or transportation problems, continuing labor shortages, the Russia-Ukraine war, COVID-19 variants, fiscal or monetary policy decisions, the national political climate, commodity prices, the international economic situation, and other geopolitical instability. Significant changes in these or other economic or political conditions have the potential to significantly alter taxable sales forecasts for 2023.

Summary

In 2022 Utah experienced another year of elevated growth in total taxable sales, although at a much lower rate than the prior year. Despite significant economic headwinds that materialized during 2022, a strong labor market and healthy consumer and business spending were sufficient to drive another year of above-average nominal growth in each of the major sectors. Momentum in the Utah economy is expected to drive another year of nominal growth in 2023, although at a slower pace as economic headwinds such as higher interest rates take a toll. Absent any changes in external conditions, nominal growth in 2023 is forecasted to moderate but remain positive, while real growth may decline if inflation remains high.

Figure 7.1: Annual Percent Change in Utah Taxable Sales by Component, 2001-2023f



e = estimate
f = forecast
Source: Utah State Tax Commission

Table 7.1 Utah Taxable Sales by Component, 2001-2023f

Year	Millions of Dollars					Percent Change				
	Retail Sales	Business Investment Purchases	Taxable Services	All Other	Total Taxable Sales	Retail Sales	Business Investment Purchases	Taxable Services	All Other	Total Taxable Sales
2001	$15,664.1	$5,661.3	$9,371.8	$1,780.5	$32,477.6					
2002	$16,351.6	$5,168.2	$9,348.6	$1,552.2	$32,420.5	4.4	-8.7	-0.2	-12.8	-0.2
2003	$16,639.1	$5,068.9	$9,258.7	$1,565.3	$32,532.0	1.8	-1.9	-1.0	0.8	0.3
2004	$18,028.2	$5,934.8	$9,918.9	$1,529.1	$35,411.0	8.3	17.1	7.1	-2.3	8.8
2005	$19,833.9	$7,171.7	$10,774.0	$1,632.4	$39,412.0	10.0	20.8	8.6	6.8	11.3
2006	$22,334.1	$8,741.9	$11,972.8	$1,915.5	$44,964.4	12.6	21.9	11.1	17.3	14.1
2007	$23,634.2	$9,359.4	$12,635.3	$2,230.7	$47,859.6	5.8	7.1	5.5	16.5	6.4
2008	$22,656.9	$8,767.7	$12,459.5	$1,944.6	$45,828.6	-4.1	-6.3	-1.4	-12.8	-4.2
2009	$20,292.1	$6,729.3	$11,609.5	$1,936.2	$40,567.1	-10.4	-23.2	-6.8	-0.4	-11.5
2010	$20,535.6	$7,204.1	$11,976.6	$1,689.7	$41,405.9	1.2	7.1	3.2	-12.7	2.1
2011	$21,899.9	$7,958.6	$12,582.1	$1,674.4	$44,115.0	6.6	10.5	5.1	-0.9	6.5
2012	$23,678.0	$8,751.9	$13,411.4	$1,685.4	$47,526.8	8.1	10.0	6.6	0.7	7.7
2013	$25,187.6	$8,292.4	$14,076.6	$1,835.6	$49,392.2	6.4	-5.3	5.0	8.9	3.9
2014	$26,459.1	$8,725.8	$14,993.6	$1,529.9	$51,708.4	5.0	5.2	6.5	-16.7	4.7
2015	$28,168.6	$8,454.4	$15,672.7	$1,686.2	$53,981.9	6.5	-3.1	4.5	10.2	4.4
2016	$29,721.2	$8,337.3	$16,461.2	$1,923.0	$56,442.7	5.5	-1.4	5.0	14.0	4.6
2017	$32,304.5	$9,296.2	$17,274.2	$2,170.5	$61,045.4	8.7	11.5	4.9	12.9	8.2
2018	$34,219.6	$10,236.5	$18,115.3	$2,392.1	$64,963.4	5.9	10.1	4.9	10.2	6.4
2019	$36,785.3	$10,358.5	$19,107.2	$2,672.1	$68,923.1	7.5	1.2	5.5	11.7	6.1
2020	$42,656.2	$11,417.7	$18,083.9	$2,572.8	$74,730.7	16.0	10.2	-5.4	-3.7	8.4
2021	$49,729.0	$14,227.2	$22,669.9	$3,479.2	$90,105.2	16.6	24.6	25.4	35.2	20.6
2022e	$54,047.8	$16,581.4	$26,093.2	$3,684.8	$100,407.1	8.7	16.5	15.1	5.9	11.4
2023f	$56,380.0	$16,280.0	$27,580.0	$3,694.0	$103,934.0	4.3	-1.8	5.7	0.2	3.5

Note: The major components of taxable sales are composed of NAICS categories as follows: Retail Trade Sales—All retail categories in NAICS Codes 44-45; Business Investment Purchases—Agriculture Forestry Fishing & Hunting, Mining Quarrying & Oil & Gas Extraction, Construction, Manufacturing, Wholesale Trade, and Transportation & Warehousing; Taxable Services—Information, Finance & Insurance, Real Estate Rental & Leasing, Professional Scientific & Technical Services, Management of Companies & Enterprises, Administration & Support & Waste Management & Remediation Services, Educational Services, Health Care & Social Assistance, Arts Entertainment & Recreation, Accommodation, Food Services & Drinking Places, Other Services, and Utilities; All Other—composed of all other NAICS categories, as well as Private Motor Vehicle Sales, Special Event Sales, Nonclassifiable Sales, and Prior Period Payments & Refunds
e = estimate
f = forecast
Source: Utah State Tax Commission

Table 7.2: Utah Taxable Sales by County, 2016-2021

County	Millions of Dollars						Percent Change 2020-2021	% of Total 2021
	2016	2017	2018	2019	2020	2021		
Beaver	$119.9	$99.6	$104.5	$114.8	$134.2	$178.7	33.1	0.2
Box Elder	$707.1	$769.9	$791.1	$828.5	$970.9	$1,144.3	17.9	1.3
Cache	$1,721.6	$1,874.9	$1,955.0	$2,090.9	$2,452.4	$2,935.0	19.7	3.3
Carbon	$362.4	$382.7	$411.3	$420.1	$439.1	$510.8	16.3	0.6
Daggett	$16.5	$19.7	$21.2	$21.6	$25.0	$33.4	33.7	0.0
Davis	$5,132.1	$5,483.5	$5,703.9	$6,028.6	$6,665.9	$7,905.4	18.6	8.8
Duchesne	$372.9	$478.9	$531.1	$537.2	$476.8	$680.6	42.7	0.8
Emery	$136.5	$129.1	$153.5	$154.0	$162.4	$174.6	7.6	0.2
Garfield	$139.1	$154.1	$157.4	$168.6	$144.5	$193.3	33.7	0.2
Grand	$389.4	$424.3	$451.0	$485.5	$467.1	$682.0	46.0	0.8
Iron	$783.8	$842.6	$921.9	$995.4	$1,153.9	$1,473.6	27.7	1.6
Juab	$108.5	$117.0	$128.2	$142.1	$164.2	$211.8	29.0	0.2
Kane	$195.3	$216.5	$239.9	$264.3	$271.8	$377.9	39.0	0.4
Millard	$181.5	$190.5	$195.0	$201.9	$235.4	$273.0	16.0	0.3
Morgan	$107.0	$120.1	$122.5	$139.9	$186.4	$202.7	8.8	0.2
Piute	$9.1	$9.6	$11.0	$14.3	$16.1	$17.8	10.6	0.0
Rich	$40.0	$47.1	$54.3	$62.7	$76.4	$103.1	34.9	0.1
Salt Lake	$25,391.5	$27,078.0	$28,846.0	$30,093.2	$31,377.7	$37,173.7	18.5	41.3
San Juan	$156.3	$157.8	$189.3	$198.5	$164.2	$199.8	21.7	0.2
Sanpete	$246.1	$272.9	$285.3	$305.1	$373.8	$457.3	22.3	0.5
Sevier	$364.3	$391.3	$417.4	$435.2	$484.6	$569.8	17.6	0.6
Summit	$1,869.9	$2,002.2	$2,102.3	$2,286.9	$2,256.3	$2,821.0	25.0	3.1
Tooele	$694.2	$766.9	$799.2	$895.3	$1,080.7	$1,293.3	19.7	1.4
Uintah	$728.5	$909.5	$941.1	$895.7	$814.9	$1,049.5	28.8	1.2
Utah	$8,670.9	$9,565.8	$10,164.4	$11,242.7	$12,811.2	$15,630.7	22.0	17.3
Wasatch	$520.8	$594.8	$667.0	$738.4	$889.5	$1,108.7	24.6	1.2
Washington	$3,245.6	$3,611.1	$3,946.5	$4,204.6	$4,886.8	$6,217.2	27.2	6.9
Wayne	$47.8	$55.1	$59.6	$63.1	$66.8	$92.9	39.1	0.1
Weber	$4,117.4	$4,385.9	$4,654.4	$4,923.3	$5,589.8	$6,528.8	16.8	7.2
Indeterminate*	- $133.3	- $106.1	- $61.7	- $29.2	- $108.1	-$135.6	25.4	-0.2
State of Utah	$56,442.7	$61,045.4	$64,963.4	$68,923.1	$74,730.7	$90,105.2	20.6	100.0

* "Indeterminate" includes taxable sales and refunds where a county nexus could not be determined. These refunds exceeded sales each year, resulting in negative values for net taxable sales where no county was identified.

Source: Utah State Tax Commission

State Tax Collections

8

Leslee Katayama, Utah State Tax Commission
Jacoba Larsen, Utah State Tax Commission

OVERVIEW

Tax collections continued to exhibit strong growth in fiscal year (FY) 2022, increasing 14.0% year-over-year. FY 2021 revenues were artificially high, however, due to the extension of the income tax filing deadline from April 15, 2020 to July 15, 2020, which shifted an estimated $795 million from FY 2020 into FY 2021. The comparison to artificially high FY 2021 revenues caused FY 2022 revenue growth to appear lower than would otherwise have been the case. After adjusting for the impact on timing due to the delay in the filing deadline, FY 2022 tax collections are estimated to have increased 23.1% over FY 2021. Revenue growth in FY 2022 was higher than historically normal growth due to a strong underlying economy, pent-up demand, and stimulatory federal policy.

FY 2022 unrestricted revenue collections totaled $12,296.8 million, exceeding the February 2022 forecast (adjusted for legislation) of $10,893.7 million by $1,403.2 million. General Fund unrestricted revenue increased 17.3%. Education Fund revenues rose 13.2% (27.9% after adjusting for the aforementioned income tax timing shift). Revenue in the Transportation Fund grew 4.3%. Substantial growth of 54.2% occurred in FY 2022 mineral lease royalties and bonuses due to strength in Utah's natural resource industries.

General Fund

Unrestricted General Fund tax collections increased 17.3% to $3,719.4 million in FY 2022 following a double digit increase in FY 2021. Unrestricted sales and use tax, which jumped 18.0%, was the largest driver of this increase. Rising prices, a strong labor market, a rebounding service sector, and robust business spending contributed to substantial growth in sales tax revenue. Revenue from non-earmarked insurance premium taxes grew 14.2% in FY 2022. Liquor profits increased 8.9% due to an increase in liquor prices and a rebound in food services and drinking places following the pandemic. FY 2022 beer, cigarette, and tobacco revenues fell 3.5%. Oil and gas severance tax increased nearly 253% due to high oil and gas prices and booming activity in Utah's extractive industries. Investment income, which is subject to large swings, shot up 123.3% as interest rates climbed higher.

Education Fund/Income Tax Fund

Education Fund revenues totaled $7,805.0 million in FY 2022, an increase of 13.2% over FY 2021 (27.9% after adjusting for the aforementioned income tax timing shift). Income tax revenues in FY 2022 were very strong. Corporate income tax revenues increased 26.2% (37.3% after adjusting for the same filing delay), boosted by strong corporate profits and business income. Individual income tax revenues grew by 10.8%. However, if we adjust for the filing delay, individual income taxes actually grew 26%. The high shift-adjusted growth rate was largely driven by a 50.4% increase in shift-adjusted gross final payments. A tight labor market, in addition to a booming housing and stock market, contributed to extraordinary growth in income tax revenue. Mineral production withholding jumped 149% due to a considerable increase in oil and gas activity.

Transportation Fund

Transportation Fund unrestricted revenues showed some signs of moderating, growing 4.3% to $694.6 million in FY 2022. Collections from motor fuel taxes rose 5.2% in FY 2022, while special fuel tax collections edged up 1.1% following a double digit increase the previous year. Other Transportation Fund revenue, which includes motor vehicle registrations, rose 6.0% in FY 2022.

2023 OUTLOOK

Utah tax collections are expected to moderate significantly in the coming year, growing 1.6% in FY 2023. Although the labor market is still strong, the Utah economy is showing signs of slowing as the Federal Reserve continues to raise interest rates to control inflation. General Fund revenues are expected to increase 6.8% in FY 2023, largely due to an estimated increase of 5.5% in unrestricted state sales and use tax revenue. Transportation Fund revenues are forecasted to grow 5.1% in FY 2023. Income Tax Fund revenues are expected to slow in FY 2023, following two years of extraordinary growth. Total revenues in the Education Fund are forecasted to decline 1.7%, with individual income tax revenue increasing 0.1% and corporate franchise and income tax revenue declining 14.4%.

Potential Risks to the Economy

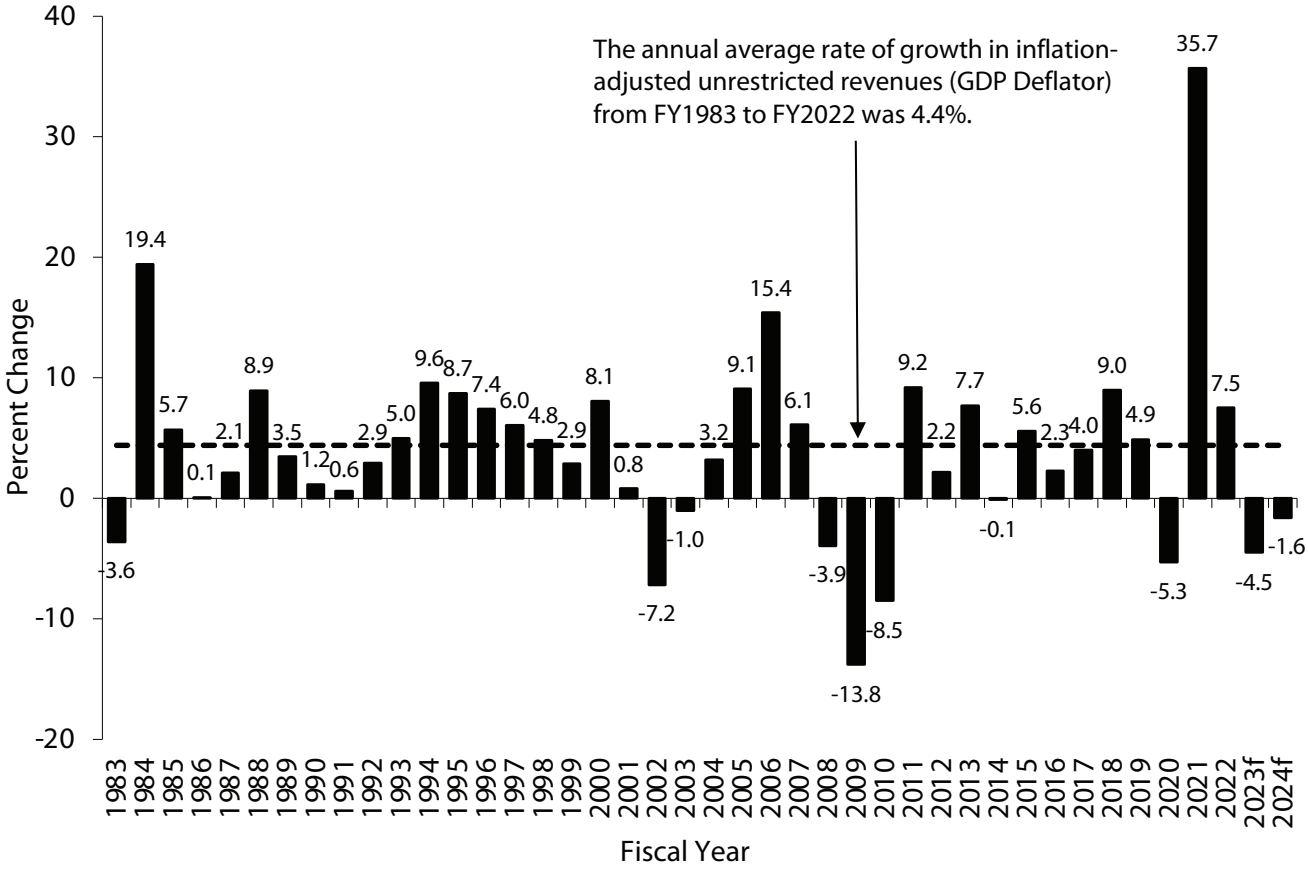
The Utah economy has proven to be quite resilient due to a strong labor market, the impact of stimulatory federal policy on consumer and business balance sheets, increases in asset values, and momentum in the economy from projects already in the pipeline. However, there is a great deal of risk in the forecast due to a variety of national and international factors which have the ability to impact tax revenues, including persistent inflation, consumer sentiment, global supply-chain disruptions, shipping or transportation problems, continuing labor shortages, the Russia-Ukraine war, COVID-19 variants, fiscal or monetary and fiscal policy decisions, the national political climate, commodity prices, the international economic situation, and other geopolitical instability. Significant changes in any of these or other economic or political conditions has the potential to impact economic activity in Utah which may also alter the outlook for tax collections for FY 2023.

Summary

Utah tax collections increased significantly in FY 2022 due to a strong economy and healthy labor market. Overall tax collections rose 14% (23.1% after adjusting for the delay in the income tax filing deadline).

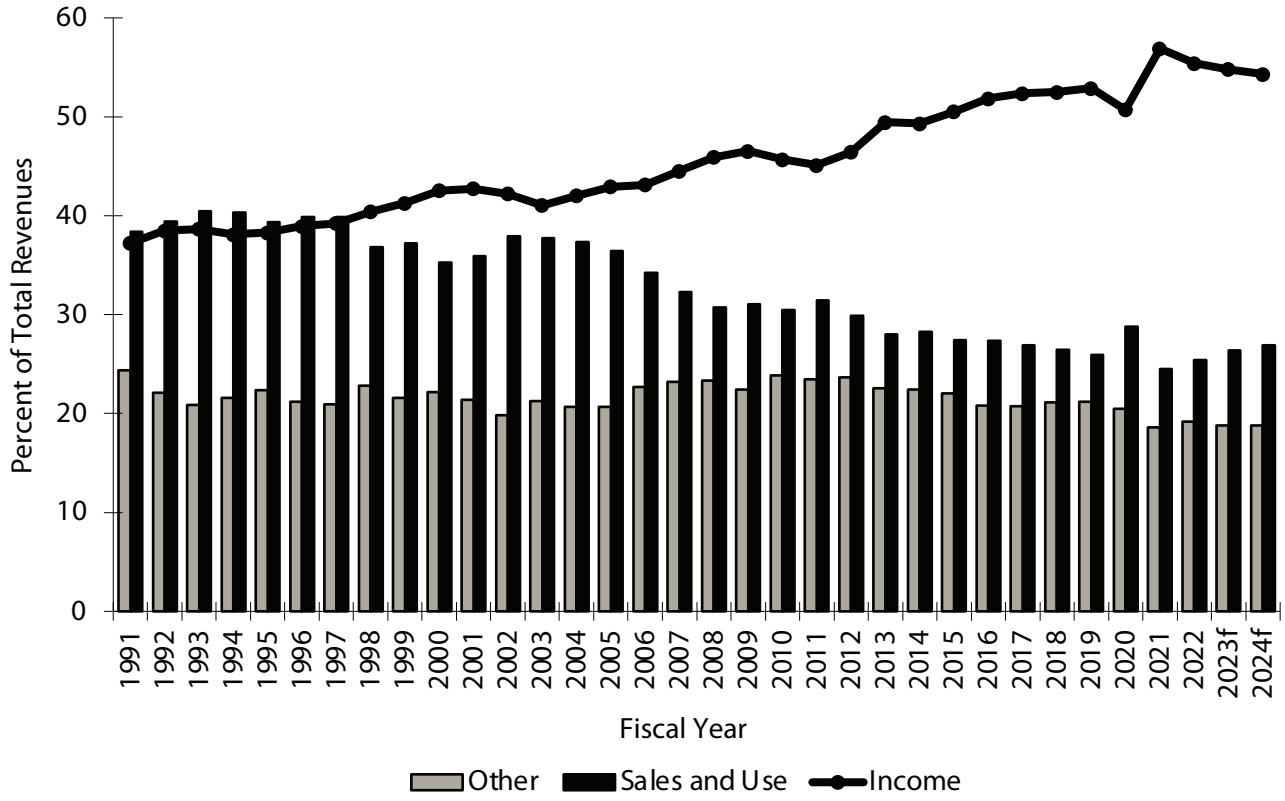
Despite its recent robust economic performance, the Utah economy faces a great deal of risk and uncertainty, which clouds the outlook. However, the underlying strength of the Utah economy is estimated to offset various economic headwinds in the coming year, such as higher interest rates, correcting stock and housing markets, and weaker consumer and business sentiment. In total, tax collections are forecasted to rise a modest 1.6% in FY 2023.

Figure 8.1: Unrestricted General and Education Fund/Income Tax Fund Revenues, FY 1983-2024f
(Inflation-Adjusted Percentage Change)



f = forecast
Note: These figures are not adjusted for the shift in income tax revenues (from FY 2020 into FY 2021) that occurred as a result of the extension of the filing deadline for tax year 2019 from April 15, 2020 to July 15, 2020.
Source: Utah State Tax Commission and Governor's Office of Planning and Budget

Figure 8.2: Sales and Use Taxes, Income Tax, and All Other Unrestricted Revenues, FY 1991-2024f
(Percent of Total State Unrestricted Revenues)



f = forecast
Note: Total State Unrestricted Revenues includes General Fund, Education Fund/Income Tax Fund, and Transportation Fund revenues. Mineral lease revenues are not included. The "Other" category includes all other revenue sources in those funds except for Sales and Use and Income tax. These figures are not adjusted for the shift in income tax revenues (from FY 2020 into FY 2021) that occurred as a result of the extension of the filing deadline for tax year 2019 from April 15, 2020 to July 15, 2020.
Source: Utah State Tax Commission and Governor's Office of Planning and Budget

Table 8.1: Fiscal Year Revenue Collections, FY 2007-2024f

(Millions of Current Dollars)

Revenue Source	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023f	2024f
Sales and Use Tax	$1,857.8	$1,739.4	$1,547.5	$1,402.7	$1,601.4	$1,582.5	$1,615.9	$1,656.8	$1,715.0	$1,778.5	$1,856.8	$2,018.7	$2,116.3	$2,265.3	$2,625.3	$3,098.5	$3,268.0	$3,390.0
Earmarked Sales and Use Tax	$250.0	$325.3	$276.3	$301.0	$189.2	$332.1	$422.1	$452.5	$495.8	$543.1	$585.4	$643.5	$690.6	$815.0	$929.3	$1,088.3	$1,196.4	$1,238.4
Total Sales and Use Tax	$2,107.8	$2,064.7	$1,823.8	$1,703.7	$1,790.6	$1,914.6	$2,038.0	$2,109.3	$2,210.7	$2,321.6	$2,442.1	$2,662.3	$2,806.9	$3,080.3	$3,554.6	$4,186.8	$4,464.4	$4,628.5
Cable/Satellite Excise Tax	$20.8	$24.1	$24.8	$25.3	$25.4	$28.7	$26.9	$26.0	$28.4	$28.6	$31.3	$29.3	$28.2	$28.4	$26.7	$27.6	$26.2	$26.0
Liquor Profits	$53.2	$59.7	$59.7	$58.4	$62.3	$70.8	$81.4	$87.8	$95.4	$104.0	$106.3	$112.3	$118.1	$121.7	$123.7	$134.7	$140.8	$145.6
Insurance Premiums	$71.8	$77.2	$83.0	$80.0	$75.9	$84.4	$89.6	$91.2	$92.4	$111.7	$122.0	$133.6	$136.6	$142.2	$157.4	$179.8	$188.6	$195.9
Beer, Cigarette, and Tobacco	$62.4	$62.8	$60.6	$58.7	$125.5	$125.4	$120.9	$113.1	$115.9	$118.3	$116.3	$112.1	$106.0	$108.5	$103.1	$99.5	$95.9	$94.1
Oil and Gas Severance Tax	$65.4	$65.5	$71.0	$56.2	$59.9	$65.5	$53.2	$89.2	$69.7	$20.8	$9.3	$17.4	$14.5	$19.5	$11.4	$40.3	$58.5	$49.8
Mining Severance Tax	$23.6	$26.5	$14.6	$20.9	$27.1	$25.4	$16.9	$15.9	$16.3	$7.0	$6.8	$7.6	$10.0	$10.8	$10.0	$8.6	$7.6	$9.2
Inheritance Tax	$0.5	$0.1	$0.3	$0.1	$0.1	—	—	—	—	—	—	—	—	—	—	—	—	$-
Investment Income	$83.5	$62.8	$25.1	$5.3	$2.4	$5.6	$6.0	$5.0	$6.6	$7.9	$14.3	$22.2	$34.8	$30.5	$10.3	$22.9	$95.1	$102.6
General Fund Other	$58.0	$53.4	$54.4	$80.3	$72.3	$95.9	$80.4	$81.8	$90.9	$69.8	$83.8	$91.4	$75.4	$108.0	$109.7	$113.3	$97.1	$100.2
Property and Energy Credit	-$6.2	-$6.4	-$6.2	-$6.4	-$6.0	-$6.8	-$6.3	-$6.0	-$5.4	-$6.0	-$5.6	-$5.6	-$5.8	-$5.9	-$5.9	-$5.8	-$5.9	-$6.0
General Fund Total	$2,290.9	$2,165.1	$1,934.6	$1,781.4	$2,046.3	$2,077.5	$2,084.9	$2,160.8	$2,225.2	$2,240.7	$2,341.3	$2,539.1	$2,634.2	$2,829.0	$3,171.7	$3,719.4	$3,971.8	$4,107.4
GF & Earmarks Total	$2,540.9	$2,490.4	$2,210.9	$2,082.4	$2,235.4	$2,409.6	$2,507.0	$2,613.3	$2,721.0	$2,783.8	$2,926.7	$3,182.6	$3,324.8	$3,644.0	$4,101.0	$4,807.7	$5,168.2	$5,345.8
Individual Income Tax	$2,561.4	$2,598.8	$2,319.6	$2,104.6	$2,298.2	$2,459.4	$2,852.0	$2,889.8	$3,157.7	$3,370.3	$3,609.5	$3,999.0	$4,320.0	$3,985.4	$6,110.5	$6,771.9	$6,780.9	$6,840.6
Corporate Taxes	$414.1	$405.1	$255.4	$258.4	$260.7	$268.9	$338.2	$313.5	$373.9	$338.3	$328.5	$447.9	$520.9	$355.9	$742.7	$937.0	$802.3	$758.8
Mineral Production Withholding	$23.1	$23.8	$32.5	$24.6	$26.7	$28.3	$26.1	$32.4	$27.1	$15.6	$15.1	$21.6	$28.8	$26.0	$16.2	$40.2	$52.4	$50.5
EF/ITF Other	$18.2	$20.1	$19.3	$24.6	$26.6	$25.2	$27.8	$23.2	$21.5	$25.4	$27.1	$30.9	$39.0	$48.1	$26.3	$55.8	$40.2	$40.9
EF/ITF Total	$3,016.8	$3,047.8	$2,626.8	$2,412.2	$2,612.2	$2,781.9	$3,244.1	$3,258.9	$3,580.2	$3,749.6	$3,980.1	$4,499.4	$4,908.7	$4,415.4	$6,895.7	$7,805.0	$7,675.7	$7,690.9
GF/EF/ITF Total	$5,307.7	$5,212.9	$4,561.4	$4,193.6	$4,658.5	$4,859.3	$5,329.0	$5,419.7	$5,805.4	$5,990.3	$6,321.4	$7,038.5	$7,543.0	$7,244.4	$10,067.4	$11,524.4	$11,647.5	$11,798.3
GF/EF/ITF & Earmarks Total	$5,557.7	$5,538.2	$4,837.7	$4,494.6	$4,847.7	$5,191.4	$5,751.1	$5,872.2	$6,301.2	$6,533.4	$6,906.8	$7,682.1	$8,233.6	$8,059.4	$10,996.7	$12,612.7	$12,843.9	$13,036.7
Motor Fuel Tax	$254.7	$250.7	$235.5	$243.3	$252.5	$253.0	$256.9	$256.8	$261.7	$305.2	$348.8	$354.0	$371.6	$351.0	$379.5	$399.3	$411.6	$450.9
Special Fuel Tax	$111.1	$113.0	$101.2	$94.4	$102.2	$104.1	$101.4	$101.7	$100.1	$115.5	$134.9	$134.9	$142.3	$153.4	$172.0	$173.9	$187.0	$204.3
Other	$78.8	$82.4	$85.4	$73.6	$80.7	$79.2	$81.2	$82.0	$85.1	$89.7	$89.8	$95.5	$106.0	$109.6	$114.5	$121.4	$131.4	$138.8
Transportation Fund Total	$444.6	$446.0	$422.1	$411.4	$435.4	$436.2	$439.4	$440.5	$446.9	$510.5	$573.5	$584.4	$619.9	$614.0	$665.9	$694.6	$730.0	$794.0
Mineral Lease Payments	$160.9	$150.3	$189.1	$147.2	$152.8	$194.0	$136.9	$167.6	$141.7	$71.4	$75.3	$78.8	$79.5	$60.2	$50.5	$77.8	$117.8	$109.0
TOTAL	$5,913.2	$5,809.2	$5,172.7	$4,752.2	$5,246.7	$5,489.5	$5,905.3	$6,027.8	$6,394.1	$6,572.2	$6,970.2	$7,701.8	$8,242.4	$7,918.5	$10,783.8	$12,296.8	$12,495.3	$12,701.2
TOTAL & Earmarks	$6,163.2	$6,134.6	$5,449.0	$5,053.2	$5,435.9	$5,821.6	$6,327.4	$6,480.3	$6,889.8	$7,115.3	$7,555.6	$8,345.3	$8,933.0	$8,733.5	$11,713.1	$13,385.1	$13,691.8	$13,939.7

Note: GF = General Fund; EF/ITF = Education Fund/Income Tax Fund; f = forecast

Source: Utah State Tax Commission & Governor's Office of Planning and Budget

Table 8.2: Fiscal Year Revenue Collections, FY 2008–2024f

(Annual Percent Change)

Revenue Source	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023f	2024f
Sales and Use Tax	-6.4%	-11.0%	-9.4%	14.2%	-1.2%	2.1%	2.5%	3.5%	3.7%	4.4%	8.7%	4.8%	7.0%	15.9%	18.0%	0.1	0.0
Earmarked Sales and Use Tax	30.1	-15.1	8.9	-37.2	75.6	27.1	7.2	9.6	9.5	7.8	9.9	7.3	18.0	14.0	17.1	9.9	3.5
Total Sales and Use Tax	-2.0	-11.7	-6.6	5.1	6.9	6.4	3.5	4.8	5.0	5.2	9.0	5.4	9.7	15.4	17.8	6.6	3.7
Cable/Satellite Excise Tax	15.5	3.0	2.0	0.3	13.0	-6.1	-3.5	9.5	0.6	9.4	-6.3	-3.7	0.5	-5.9	3.4	-5.2	-0.5
Liquor Profits	12.2	-0.0	-2.2	6.8	13.6	14.9	7.9	8.7	9.0	2.2	5.6	5.2	3.1	1.6	8.9	4.5	3.4
Insurance Premiums	7.6	7.5	-3.6	-5.2	11.2	6.1	1.8	1.3	20.9	9.3	9.5	2.3	4.1	10.7	14.2	4.9	3.9
Beer, Cigarette, and Tobacco	0.7	-3.6	-3.1	113.8	-0.1	-3.6	-6.4	2.5	2.1	-1.7	-3.5	-5.4	2.3	-5.0	-3.5	-3.7	-1.9
Oil and Gas Severance Tax	0.1	8.4	-20.8	6.5	9.5	-18.9	67.7	-21.8	-70.2	-55.2	87.4	-16.9	34.8	-41.5	252.9	44.9	-14.8
Mining Severance Tax	12.5	-45.1	43.2	30.0	-6.3	-33.3	-6.4	3.1	-57.3	-1.9	11.3	31.7	7.2	-6.8	-13.9	-11.8	20.5
Inheritance Tax	-80.9	236.7	-81.1	113.8	-100.0												
Investment Income	-24.8	-60.1	-78.8	-55.0	135.2	6.8	-16.3	30.4	21.0	80.3	55.0	56.9	-12.4	-66.3	123.3	314.8	7.8
General Fund Other	-8.0	1.8	47.6	-9.9	32.7	-16.1	1.7	11.1	-23.2	20.0	9.1	-17.5	43.2	1.5	3.3	-14.3	3.1
Property and Energy Credit	3.8	-2.6	2.4	-6.4	13.8	-7.7	-5.0	-9.2	10.2	-6.4	0.9	3.1	0.8	0.9	-1.1	1.6	1.1
General Fund Total	-5.5	-10.6	-7.9	14.9	1.5	0.4	3.6	3.0	0.7	4.5	8.4	3.7	7.4	12.1	17.3	6.8	3.4
GF & Earmarks Total	-2.0	-11.2	-5.8	7.3	7.8	4.0	4.2	4.1	2.3	5.1	8.7	4.5	9.6	12.5	17.2	7.5	3.4
Individual Income Tax	1.5	-10.7	-9.3	9.2	7.0	16.0	1.3	9.3	6.7	7.1	10.8	8.0	-7.7	53.3	10.8	0.1	0.9
Corporate Taxes	-2.2	-36.9	1.2	0.9	3.1	25.8	-7.3	19.3	-9.5	-2.9	36.4	16.3	-31.7	108.7	26.2	-14.4	-5.4
Mineral Production Withholding	3.4	36.3	-24.4	8.7	6.2	-8.0	24.1	-16.1	-42.6	-3.0	42.7	33.3	-9.5	-38.0	149.1	30.1	-3.5
Education Fund/Income Tax Fund Other	10.4	-3.8	27.4	8.1	-5.4	10.4	-16.6	-7.4	18.0	6.8	14.2	26.2	23.2	-45.2	111.9	-28.0	1.9
Education Fund/Income Tax Fund Total	1.0	-13.8	-8.2	8.3	6.5	16.6	0.5	9.9	4.7	6.1	13.0	9.1	-10.1	56.2	13.2	-1.7	0.2
GF/EF/ITF Total	-1.8	-12.5	-8.1	11.1	4.3	9.7	1.7	7.1	3.2	5.5	11.3	7.2	-4.0	39.0	14.5	1.1	1.3
GF/EF/ITF & Earmarks Total	-0.4	-12.6	-7.1	7.9	7.1	10.8	2.1	7.3	3.7	5.7	11.2	7.2	-2.1	36.4	14.7	1.8	1.5
Motor Fuel Tax	-1.6	-6.1	3.3	3.8	0.2	1.5	-0.0	1.9	16.6	14.3	1.5	5.0	-5.5	8.1	5.2	3.1	9.5
Special Fuel Tax	1.7	-10.4	-6.7	8.2	1.9	-2.6	0.3	-1.6	15.4	16.8	-0.0	5.5	7.8	12.1	1.1	7.6	9.2
Other	4.6	3.7	-13.8	9.6	-1.9	2.5	1.1	3.7	5.4	0.1	6.4	10.9	3.4	4.5	6.0	8.2	5.7
Transportation Fund Total	0.3	-5.4	-2.5	5.8	0.2	0.7	0.3	1.5	14.2	12.3	1.9	6.1	-1.0	8.5	4.3	5.1	8.8
Mineral Lease Payments	-6.5	25.8	-22.2	3.8	27.0	-29.4	22.4	-15.4	-49.6	5.4	4.7	0.8	-24.3	-16.1	54.2	51.4	-7.5
TOTAL	-1.8	-11.0	-8.1	10.4	4.6	7.6	2.1	6.1	2.8	6.1	10.5	7.0	-3.9	36.2	14.0	1.6	1.6
TOTAL & Earmarks	-0.5	-11.2	-7.3	7.6	7.1	8.7	2.4	6.3	3.3	6.2	10.5	7.0	-2.2	34.1	14.3	2.3	1.8

Note: GF = General Fund; EF/ITF = Education Fund/Income Tax Fund; f = forecast

Source: Utah State Tax Commission and Governor's Office of Planning and Budget

Exports

9

John Gilbert, Utah State University
Jeffrey Gilbert, Utah State University

OVERVIEW

Overall U.S. merchandise trade rebounded strongly in 2021 as recovery continued from the COVID-19 pandemic disruptions, with total U.S. exports of merchandise goods rising by just over 23%. While the total value of U.S. merchandise exports, at $1.75 trillion, remains slightly below expectations had the pre-pandemic growth trend continued, the pace of growth in 2021 went a long way to restoring the long-run trend at the national level.

Utah's merchandise exports also increased in 2021, although at a rate lower than the national average (2.4%), reaching a total value of $18.1 billion. The below-average expansion resulted in Utah falling slightly, from being the 23rd largest exporting state in the nation by overall merchandise export value in 2020, to 25th in the nation in 2021.

Major Export Categories

In line with previous years, the majority of Utah's merchandise exports occurred in the primary metals category, which accounted for just under 48% of Utah's exports by value in 2021 (around $8.6 billion, down from 2020). The other major industrial categories of Utah's exports in 2021 were computers and electronics ($2 billion in value, 11% of the total), chemicals ($1.8 billion in value and just under 10% of total exports), and food products ($1.3 billion in value, and just over 7% of the total value of Utah's merchandise exports).

Primary metal exports fell by nearly 6% over 2021. By contrast, the other top export categories experienced more robust export growth. Export value grew in the computers and electronics category by over 13%, and in chemicals by over 16%. Food product exports in 2021 grew by nearly 22% over 2020.

Smaller Export Categories

Significant export growth also occurred for a number of Utah's smaller export categories, such as machinery (up nearly 30% to $650 million). Continuing last year's trend, Utah's exports of textiles also grew quickly in 2021, by 72% in the raw textiles category, 24% in the milled category, and 52% in the apparel category. Utah's total exports of textiles and apparel now stand at $123 million, nearly double the amounts two years ago. Export declines occurred in a number of sectors, although they were neither as widespread nor as sharp as 2020 declines. In proportional and value terms, the most significant contraction occurred in exports in the minerals category, which fell by nearly 40%, after several years of consistent growth. The drop pushed minerals to under 2% of Utah's total export value.

International Profile

Relatively little changed in the regional profile of Utah's exports over the year. Utah's exports to the United Kingdom continue to dominate, at around 47% of value in 2021 ($8.5 billion). The North American trade partners, Canada and Mexico, took the next two spots, accounting for 8.4% and 6.3% of exports, respectively ($1.5 billion and $1.1 billion in dollar terms). Rounding out the top five export destinations were the East Asian powerhouses of China and Japan at 5.3% and 3.9% percent of the total, respectively ($963 million and $713 million). Including Hong Kong with China increases the total to 6.2% of Utah's total merchandise exports, putting China roughly on par with Mexico in terms of importance as a destination for Utah's exports.

While the United Kingdom's position as the major market for Utah's exports remained unchanged from 2020, that market, which is comprised almost exclusively of primary metals, is far from the fastest growing destination for Utah's exports. In fact, exports to the United Kingdom fell slightly in 2021 (by just over 4% relative to 2020). By contrast, exports to China continued their rising pattern (China was the 6th largest export market for Utah in 2019). While the biggest category of Utah's exports to China is food products (which accounts for about 27% of the total), the export profile is

considerably more diversified than for the United Kingdom, with significant exports in chemicals and computers and electronics also entering the Chinese market from Utah. Other growth markets for Utah's exports in 2021 were Mexico (up 21%), France (up 31%), Malaysia (up 63%), and India (up 81%). Exports to Japan recovered modestly from the falls seen last year.

Utah Export Area of Origin

The majority of Utah's merchandise export value continues to originate in the Salt Lake City metropolitan area, which accounted for just over 74% of the state's exports in 2021 ($13.5 billion in value, largely unchanged from 2020). This region dominates the state's exports in the primary metals, computers and electronics and chemicals sectors. Salt Lake City is now the 28th largest metropolitan export region in the US. Exports of the next largest metropolitan area, Provo-Orem, also remained at similar levels to previous years at just over $2 billion (approximately 11% of total Utah merchandise exports, with chemicals and computers and electronics being the largest categories), as did those of the Ogden-Clearfield metropolitan area, at around $1.5 billion (roughly 8 percent of the Utah total). The Ogden-Clearfield area supplies the majority of Utah's exports in the transportation equipment category. As in 2020, the only metropolitan region to experience strong growth of exports in 2021 was the Logan area, which exported approximately $1 billion in merchandise goods in 2021, or nearly 6% of Utah's total export value. This represents a growth rate of nearly 50% over 2020, and over 75% since 2019. The majority of the exports from this region are in the processed food category, with much of it destined for trading partners in Europe and East Asia.

2022 OUTLOOK

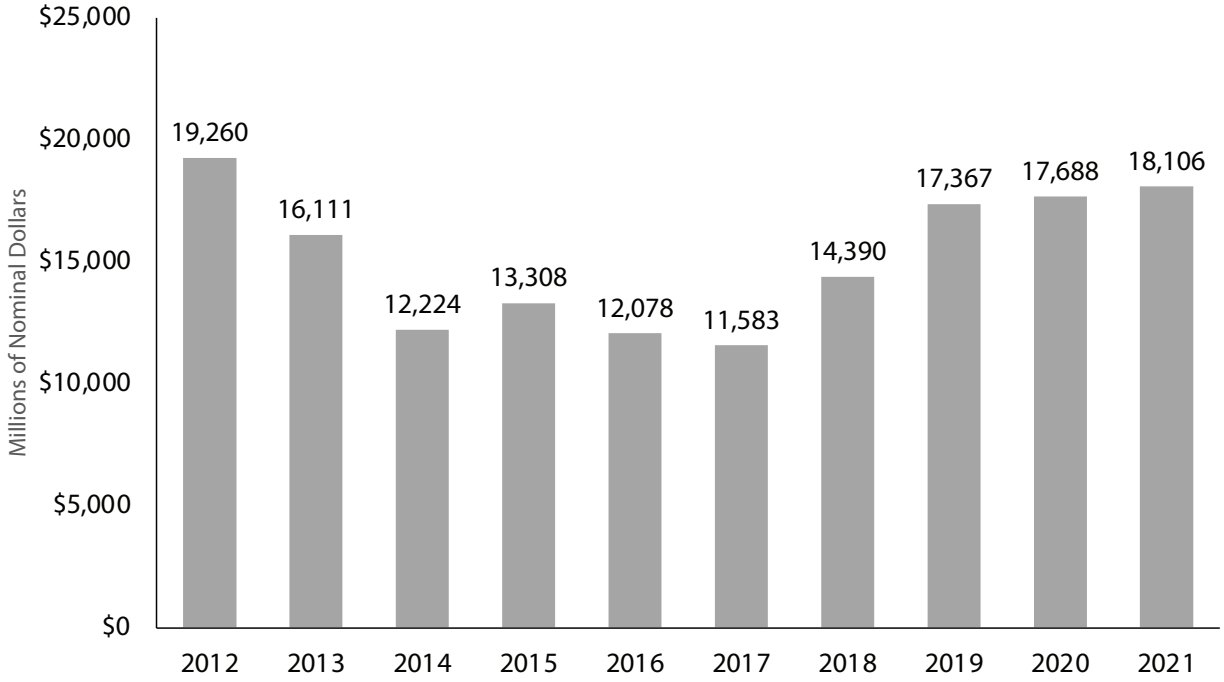
With the effects of the COVID-19 pandemic on international trade gradually receding, forecasts project Utah's exports to continue to recover to pre-pandemic trends as supply chain issues diminish and the global economy continues the process of reopening. Important markets for Utah's exports, such as Japan, have only recently reopened to travel, and forecasts project that market, important to Utah's food, chemical and electronics industries in particular, to continue to recover slowly. Preliminary export figures for Utah in 2022 show a decline of 12.8% relative to 2021.

In terms of risks, the expansion of Utah's exports to China over the last two years is encouraging. However, political tensions remain high. Moreover, China's efforts to maintain zero COVID-19, and the consequences of the sudden relaxation of that policy, raise serious questions over the future potential of that market. Economic growth slowed dramatically in China over the course of the pandemic, and a necessary condition for export sales is a population with the necessary wealth to buy Utah's products.

Continuing conflict in Ukraine also has the potential to negatively impact Utah's exports in multiple ways. First, it has the potential to disrupt important European markets directly. Indirectly, higher energy prices will ultimately reflect in higher shipping costs, which would dampen demand for Utah's exports worldwide. Finally, an expansion of hostilities has the potential to introduce considerable uncertainty into global markets.*

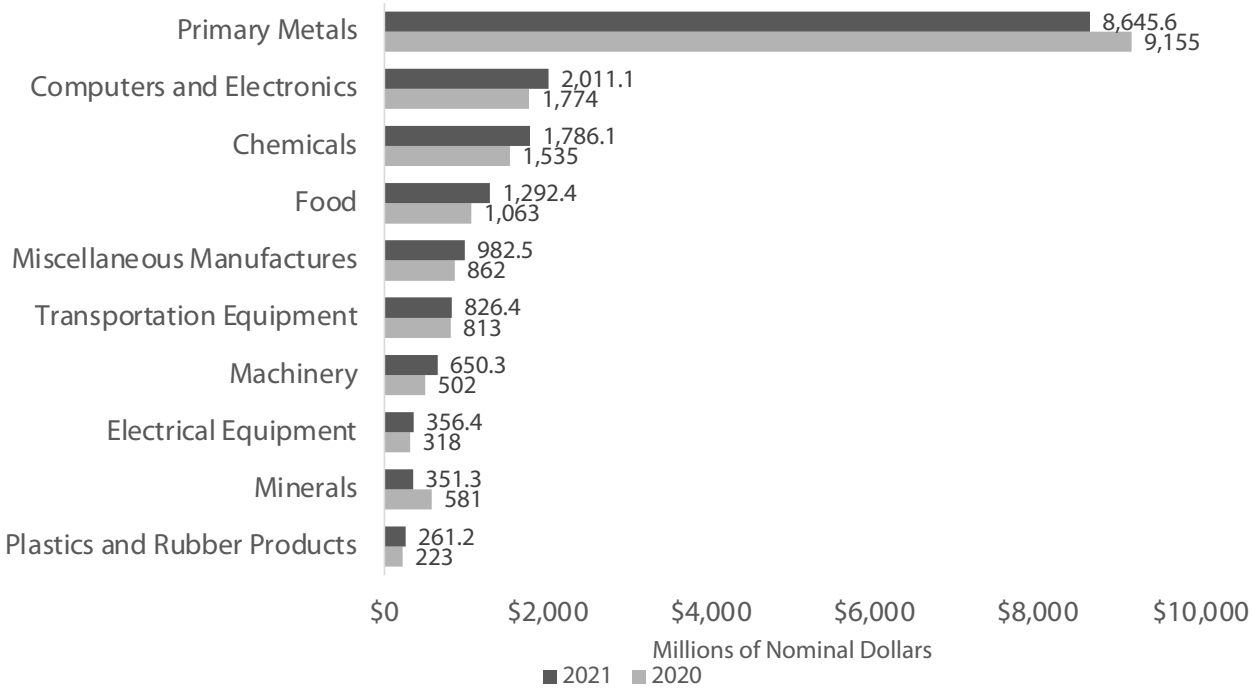
* Because exports data have not been published for all of 2022, this chapter summarizes exports for 2021 and provides an outlook for 2022.

Figure 9.1: Utah Merchandise Exports, 2012-2021



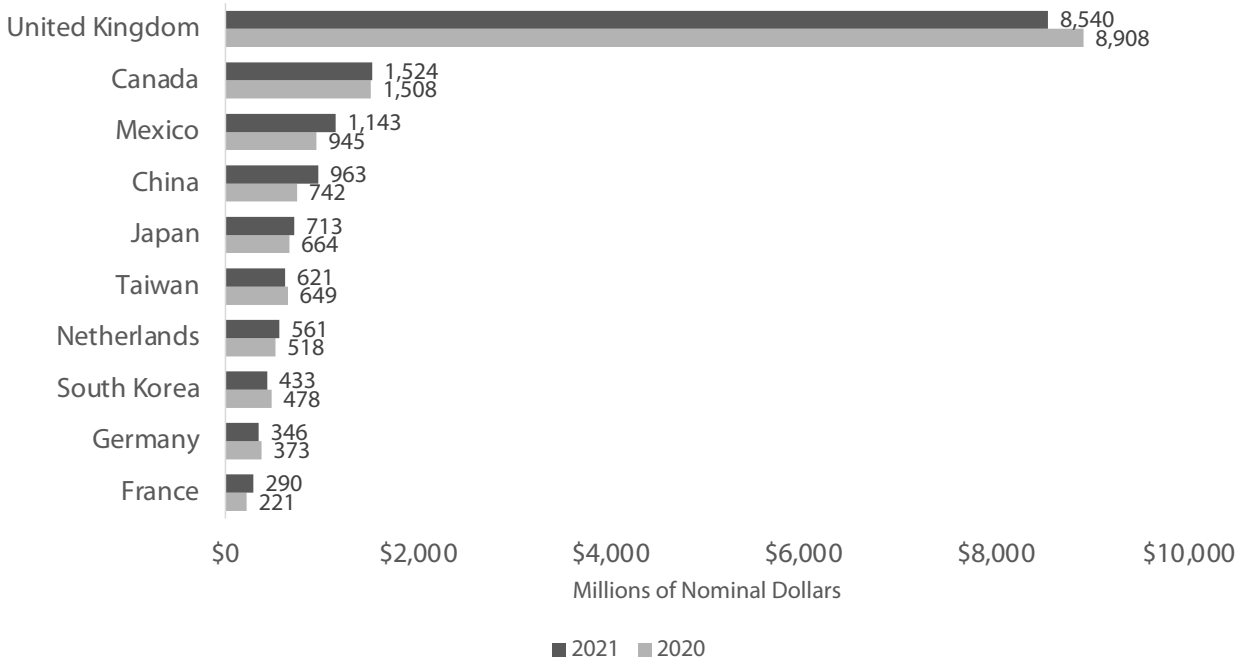
Source: U.S. Census Bureau, USA Trade Online

Figure 9.2: Utah Merchandise Exports of Top Ten Export Industries, 2020 and 2021



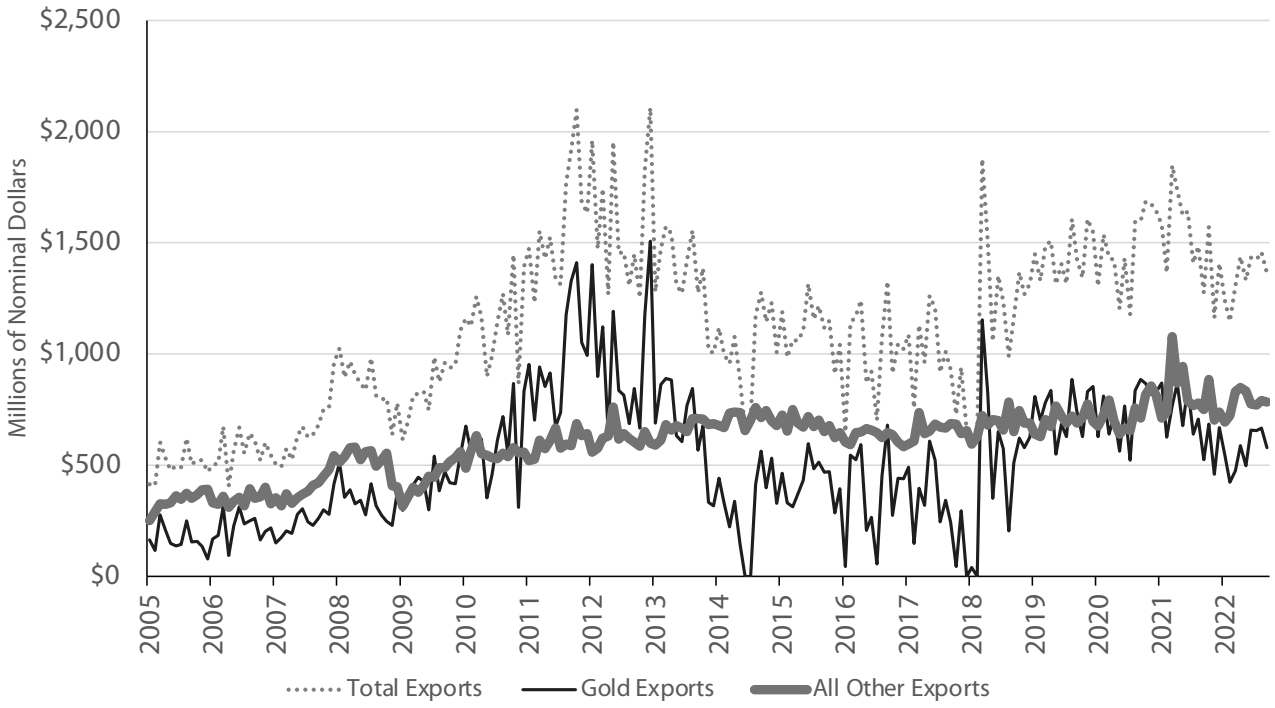
Source: U.S. Census Bureau, USA Trade Online

Figure 9.3: Utah Merchandise Exports to Top Ten Purchasing Countries, 2020 and 2021



Source: U.S. Census Bureau, USA Trade Online

Figure 9.4: Utah Monthly Exports, With and Without Gold, January 2005 – September 2022



Source: U.S. Census Bureau, USA Trade Online

Table 9.1: U.S. Merchandise Exports by State, 2016–2021

Rank	Geography	Millions of Current Dollars						Percent Change	2021 Share
		2016	2017	2018	2019	2020	2021	2020–2021	
	United States	$1,451,459.7	$1,547,195.4	$1,665,786.9	$1,642,820.4	$1,424,934.9	$1,754,300.4	23.1%	100%
1	Texas	$231,527.5	$265,067.8	$315,843.0	$328,584.8	$276,589.8	$376,330.6	36.1%	21.5%
2	California	$163,260.6	$171,920.4	$178,175.2	$173,754.5	$155,924.8	$174,926.7	12.2%	10.0%
3	New York	$76,690.9	$78,190.0	$84,734.2	$75,607.0	$65,611.3	$90,142.2	37.4%	5.1%
4	Louisiana	$48,367.0	$56,865.3	$67,232.7	$63,878.4	$58,590.4	$76,364.3	30.3%	4.4%
5	Illinois	$59,862.1	$65,288.0	$65,467.7	$59,767.0	$53,251.9	$66,027.5	24.0%	3.8%
6	Michigan	$54,752.0	$59,920.7	$58,006.6	$55,988.2	$44,709.5	$55,965.9	25.2%	3.2%
7	Florida	$52,036.3	$54,897.3	$57,251.7	$55,989.2	$45,746.2	$55,749.1	21.9%	3.2%
8	Washington	$79,562.4	$76,350.9	$77,868.2	$60,336.1	$41,133.1	$53,749.2	30.7%	3.1%
9	Ohio	$49,330.2	$50,070.8	$54,392.8	$53,224.6	$45,182.7	$50,701.6	12.2%	2.9%
10	New Jersey	$31,164.5	$34,257.7	$35,305.4	$35,699.3	$37,998.8	$49,398.2	30.0%	2.8%
11	Pennsylvania	$36,452.6	$38,640.2	$41,150.2	$42,730.7	$37,408.3	$44,707.2	19.5%	2.5%
12	Georgia	$35,673.2	$37,222.5	$40,619.1	$41,259.8	$38,584.8	$42,416.4	9.9%	2.4%
13	Indiana	$34,653.1	$37,746.6	$39,320.4	$39,421.8	$35,496.1	$41,155.7	15.9%	2.3%
14	Tennessee	$31,475.7	$33,233.2	$32,716.9	$31,116.0	$28,167.1	$34,695.1	23.2%	2.0%
15	North Carolina	$30,183.3	$32,620.1	$32,765.0	$34,333.4	$28,465.1	$33,462.3	17.6%	1.9%
16	Massachusetts	$25,893.0	$27,561.2	$27,159.7	$26,132.4	$24,900.2	$32,417.3	30.2%	1.8%
17	Oregon	$21,771.8	$21,894.0	$22,331.6	$25,879.5	$26,587.7	$29,923.1	12.5%	1.7%
18	South Carolina	$31,323.6	$32,201.7	$34,626.8	$41,461.2	$30,291.3	$29,655.6	-2.1%	1.7%
19	Kentucky	$29,192.2	$30,918.8	$31,807.6	$33,007.3	$24,601.8	$29,562.5	20.2%	1.7%
20	Wisconsin	$21,036.4	$22,305.4	$22,716.4	$21,667.8	$20,487.5	$24,811.1	21.1%	1.4%
21	Arizona	$22,003.6	$20,917.7	$22,515.5	$24,966.2	$20,201.4	$24,167.7	19.6%	1.4%
22	Minnesota	$19,200.8	$20,692.4	$22,681.0	$22,187.9	$20,175.1	$23,462.7	16.3%	1.3%
23	Alabama	$20,471.2	$21,797.7	$21,416.3	$20,795.7	$17,392.3	$20,932.3	20.4%	1.2%
24	Virginia	$16,310.7	$16,508.0	$18,336.4	$17,825.7	$16,373.3	$20,035.4	22.4%	1.1%
25	**Utah**	**$12,077.6**	**$11,583.3**	**$14,390.0**	**$17,367.5**	**$17,688.5**	**$18,105.5**	**2.4%**	**1.0%**
26	Maryland	$9,656.0	$9,317.2	$12,104.6	$13,051.0	$12,676.4	$16,418.4	29.5%	0.9%
27	Iowa	$12,330.3	$13,422.4	$14,370.4	$13,225.4	$12,640.1	$15,755.7	24.6%	0.9%
28	Missouri	$13,935.1	$14,289.5	$14,512.4	$13,489.9	$12,867.8	$15,487.0	20.4%	0.9%
29	Connecticut	$14,394.0	$14,791.6	$17,403.5	$16,230.6	$13,826.9	$14,541.8	5.2%	0.8%
30	Mississippi	$10,504.7	$10,984.8	$11,585.8	$11,833.0	$10,288.9	$12,888.0	25.3%	0.7%
31	Kansas	$10,154.6	$11,244.1	$11,581.8	$11,681.2	$10,405.3	$12,540.6	20.5%	0.7%
32	Nevada	$9,765.7	$12,162.3	$11,137.8	$9,100.9	$10,359.0	$10,546.0	1.8%	0.6%
33	Colorado	$7,569.5	$8,054.5	$8,331.7	$8,097.1	$8,174.4	$9,072.6	11.0%	0.5%
34	Nebraska	$6,381.4	$7,209.8	$7,947.2	$7,460.4	$6,989.5	$7,965.6	14.0%	0.5%
35	New Hampshire	$4,143.4	$5,147.8	$5,305.8	$5,827.5	$5,456.2	$6,365.6	16.7%	0.4%
36	West Virginia	$5,045.4	$7,110.3	$8,232.5	$5,948.8	$4,562.4	$6,341.1	39.0%	0.4%
37	Oklahoma	$5,046.3	$5,363.5	$6,112.3	$6,151.0	$5,395.5	$6,227.5	15.4%	0.4%
38	Alaska	$4,350.3	$4,941.4	$4,833.8	$4,988.7	$4,611.5	$5,988.9	29.9%	0.3%
39	Arkansas	$5,722.2	$6,234.1	$6,449.3	$6,230.9	$5,193.0	$5,604.2	7.9%	0.3%
40	New Mexico	$3,616.2	$3,695.7	$3,899.2	$4,679.0	$3,688.0	$5,460.8	48.1%	0.3%
41	North Dakota	$5,294.2	$6,148.0	$7,800.2	$6,971.4	$5,170.8	$5,195.8	0.5%	0.3%
42	Delaware	$4,517.5	$4,565.5	$4,703.8	$4,405.5	$3,911.6	$4,744.8	21.3%	0.3%
43	Idaho	$4,876.9	$3,863.0	$4,027.9	$3,433.5	$3,407.0	$3,752.4	10.1%	0.2%
44	Maine	$2,863.2	$2,712.4	$2,836.3	$2,724.1	$2,339.5	$3,105.2	32.7%	0.2%
45	Rhode Island	$2,278.4	$2,391.4	$2,405.4	$2,675.2	$2,357.7	$2,950.1	25.1%	0.2%
46	Vermont	$2,993.1	$2,776.5	$2,920.5	$2,841.6	$2,358.1	$2,585.2	9.6%	0.1%
47	Montana	$1,360.1	$1,616.0	$1,665.6	$1,697.2	$1,467.5	$1,975.5	34.6%	0.1%
48	South Dakota	$1,218.1	$1,356.2	$1,429.6	$1,356.1	$1,389.3	$1,857.9	33.7%	0.1%
49	Dist of Columbia	$1,330.7	$1,483.1	$2,724.2	$3,688.9	$2,770.1	$1,534.6	-44.6%	0.1%
50	Wyoming	$1,098.7	$1,196.4	$1,357.0	$1,367.2	$1,164.5	$1,428.3	22.7%	0.1%
51	Hawaii	$795.5	$952.4	$659.1	$460.0	$319.9	$339.8	6.2%	0.0%

Source: U.S. Census Bureau, USA Trade Online

Table 9.2: Utah Merchandise Exports by Industry, 2016–2021

Rank	Code	Industry Name	Millions of Current Dollars						Percent Change 2020–2021	2021 Share
			2016	2017	2018	2019	2020	2021		
		All Commodities	$12,077.6	$11,583.3	$14,390.0	$17,367.5	$17,688.5	$18,105.5	2.4%	100%
1	331	Primary Metals	$4,854.4	$3,888.7	$6,422.3	$9,109.6	$9,155.0	$8,645.6	-5.6%	47.8%
2	334	Computers and Electronics	$1,718.1	$1,848.3	$1,569.3	$1,481.4	$1,773.9	$2,011.1	13.4%	11.1%
3	325	Chemicals	$1,063.3	$1,110.0	$1,238.5	$1,301.3	$1,535.2	$1,786.1	16.3%	9.9%
4	311	Food	$922.0	$909.7	$999.4	$974.8	$1,063.0	$1,292.4	21.6%	7.1%
5	339	Miscellaneous Manufactures	$702.1	$739.9	$782.1	$807.3	$861.8	$982.5	14.0%	5.4%
6	336	Transportation Equipment	$865.4	$945.7	$884.3	$1,058.9	$812.7	$826.4	1.7%	4.6%
7	333	Machinery	$497.9	$523.4	$612.8	$577.8	$502.3	$650.3	29.5%	3.6%
8	335	Electrical Equipment	$371.9	$379.5	$410.5	$437.0	$318.0	$356.4	12.1%	2.0%
9	212	Minerals	$128.6	$325.5	$386.9	$463.3	$580.7	$351.3	-39.5%	1.9%
10	326	Plastics and Rubber Products	$161.9	$175.7	$206.1	$225.2	$223.0	$261.2	17.1%	1.4%
11	332	Fabricated Metals	$174.2	$155.5	$192.5	$203.4	$174.0	$185.4	6.5%	1.0%
12	910	Waste and Scrap	$159.3	$136.5	$221.5	$160.3	$157.7	$182.0	15.4%	1.0%
13	111	Agricultural Products	$90.7	$86.1	$115.8	$155.5	$132.4	$117.9	-10.9%	0.7%
14	322	Beverages	$32.0	$29.2	$32.7	$41.7	$52.9	$64.5	21.9%	0.4%
15	312	Paper	$29.7	$29.6	$39.1	$39.5	$70.1	$58.6	-16.3%	0.3%
16	313	Raw Textiles	$79.4	$61.6	$26.5	$25.1	$33.8	$58.1	72.1%	0.3%
17	314	Milled Textiles	$22.1	$22.3	$19.0	$21.7	$34.9	$43.1	23.5%	0.2%
18	990	Other Special Classification	$29.9	$33.8	$27.1	$88.5	$32.8	$41.8	27.7%	0.2%
19	337	Furniture and Fixtures	$34.9	$26.3	$30.9	$32.5	$27.8	$37.6	35.1%	0.2%
20	327	Nonmetallic Minerals	$43.1	$61.4	$59.8	$54.1	$31.8	$30.1	-5.4%	0.2%
21	112	Livestock and Livestock Products	$4.5	$5.3	$8.2	$11.2	$37.0	$26.8	-27.7%	0.1%
22	315	Apparel and Accessories	$12.1	$13.1	$14.7	$21.7	$14.4	$22.0	52.4%	0.1%
23	316	Leather	$17.1	$22.4	$23.1	$22.3	$15.9	$21.5	35.5%	0.1%
24	930	Used Merchandise	$12.3	$15.9	$19.7	$18.5	$13.3	$18.6	40.3%	0.1%
25	323	Printed Material	$23.2	$21.2	$24.9	$16.4	$14.7	$12.0	-18.2%	0.1%
26	321	Wood Products	$5.4	$7.9	$9.4	$6.9	$8.4	$10.6	26.4%	0.1%
27	324	Petroleum and Coal Products	$19.4	$5.7	$4.9	$6.9	$6.5	$7.2	11.8%	0.0%
28	113	Forestry Products	$1.9	$1.5	$1.5	$1.8	$2.5	$2.1	-15.4%	0.0%
29	114	Fish and Other Marine Products	$0.9	$1.0	$1.7	$0.6	$1.3	$1.5	13.0%	0.0%
30	980	Goods Returned	$0.1	$0.2	$0.2	$0.2	$0.2	$0.8	292.3%	0.0%
31	211	Oil and Gas	$0.0	$0.3	$5.0	$2.1	$0.7	$0.4	-50.4%	0.0%

Source: U.S. Census Bureau, USA Trade Online

Table 9.3: Utah Merchandise Exports by Purchasing Country and Region, 2016–2021

Rank	Country	Millions of Current Dollars						Percent Change 2020–2021	2021 Share
		2016	2017	2018	2019	2020	2021		
	World Total	$12,077.6	$11,583.3	$14,390.0	$17,367.5	$17,688.5	$18,105.5	2.4%	100%
1	United Kingdom	$3,074.0	$2,318.7	$5,096.2	$8,754.7	$8,908.0	$8,540.0	-4.1%	47.2%
2	Canada	$1,322.7	$1,212.6	$1,790.7	$1,391.3	$1,508.4	$1,524.4	1.1%	8.4%
3	Mexico	$740.9	$674.7	$725.5	$766.2	$945.0	$1,142.9	20.9%	6.3%
4	China	$648.3	$738.0	$575.9	$581.1	$742.4	$962.9	29.7%	5.3%
5	Japan	$504.0	$611.4	$811.7	$839.0	$663.7	$713.3	7.5%	3.9%
6	Taiwan	$610.1	$636.1	$712.2	$639.5	$649.2	$621.1	-4.3%	3.4%
7	Netherlands	$448.6	$406.7	$446.9	$487.1	$517.9	$561.3	8.4%	3.1%
8	South Korea	$318.3	$346.7	$401.6	$426.2	$478.1	$433.1	-9.4%	2.4%
9	Germany	$343.3	$394.0	$404.5	$408.7	$373.1	$346.2	-7.2%	1.9%
10	France	$172.0	$180.9	$216.1	$215.0	$221.3	$289.6	30.8%	1.6%
11	Singapore	$291.2	$396.1	$180.9	$204.4	$238.6	$253.6	6.3%	1.4%
12	Australia	$189.5	$250.5	$273.2	$258.8	$253.2	$243.5	-3.8%	1.3%
13	Malaysia	$75.9	$91.3	$84.2	$110.4	$119.1	$194.9	63.6%	1.1%
14	Italy	$173.4	$194.0	$162.2	$128.5	$145.4	$188.9	29.9%	1.0%
15	Hong Kong	$1,506.8	$1,618.1	$738.3	$144.5	$148.8	$160.6	7.9%	0.9%
16	India	$101.5	$58.7	$224.3	$138.3	$74.8	$135.8	81.4%	0.7%
17	Belgium	$87.6	$98.0	$128.4	$167.4	$198.0	$131.3	-33.7%	0.7%
18	Ireland	$36.6	$40.3	$32.5	$54.3	$82.4	$125.6	52.5%	0.7%
19	Switzerland	$209.0	$98.5	$165.0	$403.0	$128.9	$123.2	-4.4%	0.7%
20	Brazil	$103.2	$155.8	$103.7	$106.1	$82.7	$116.8	41.2%	0.6%
21	Austria	$58.5	$48.2	$45.5	$55.4	$75.7	$107.1	41.4%	0.6%
22	Chile	$34.0	$59.1	$42.9	$55.5	$75.9	$88.4	16.5%	0.5%
23	Spain	$63.2	$79.9	$93.3	$78.3	$49.4	$78.3	58.4%	0.4%
24	Thailand	$129.7	$63.4	$57.7	$37.3	$35.9	$66.3	84.6%	0.4%
25	Philippines	$47.8	$49.2	$63.2	$54.7	$93.3	$64.3	-31.1%	0.4%
26	Indonesia	$33.7	$37.8	$41.0	$45.7	$66.8	$62.6	-6.4%	0.3%
27	Israel	$49.4	$57.1	$63.5	$60.4	$49.3	$55.9	13.4%	0.3%
28	Saudi Arabia	$24.4	$15.5	$23.6	$19.5	$26.1	$48.2	84.5%	0.3%
29	Russia	$16.8	$18.9	$19.0	$20.5	$34.8	$45.8	31.7%	0.3%
30	Colombia	$17.8	$17.9	$30.2	$26.0	$30.4	$39.2	29.0%	0.2%
31	Poland	$42.8	$35.5	$27.6	$23.5	$23.3	$38.9	67.1%	0.2%
32	Vietnam	$26.2	$30.5	$37.6	$29.0	$18.3	$31.7	73.4%	0.2%
33	Guatemala	$12.8	$30.3	$9.6	$13.2	$16.3	$29.3	80.0%	0.2%
34	Costa Rica	$32.9	$28.6	$31.1	$23.8	$29.8	$28.1	-5.9%	0.2%
35	Norway	$15.8	$15.4	$19.8	$26.5	$16.1	$27.7	72.6%	0.2%

Source: U.S. Census Bureau, USA Trade Online

Table 9.4: Utah Merchandise Exports to Top Ten Purchasing Countries by Industry, 2021

Code	Industry Name	Millions of Current Dollars										
		United Kingdom	Canada	Mexico	China	Japan	Taiwan	Netherlands	South Korea	Germany	France	10-Country Industry Total
	All Commodities	$8,540.0	$1,524.4	$1,142.9	$962.9	$713.3	$621.1	$561.3	$433.1	$346.2	$289.6	$15,134.7
111	Agricultural Products	$0.1	$1.2	$3.7	$88.0	$10.0	$4.5	$0.0	$8.1	$0.1	$0.0	$115.6
112	Livestock and Livestock Products	$0.0	$1.5	$3.6	$1.2	$0.0	$0.0	$0.0	$3.3	$0.0	$0.0	$9.7
113	Forestry Products	$0.0	$0.8	$0.0	$0.2	$0.1	$0.0	$0.0	$0.0	$0.1	$0.2	$1.4
114	Fish and Other Marine Products	$1.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$1.0
211	Oil and Gas	$0.0	$0.0	$0.3	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.4
212	Minerals	$0.3	$20.7	$62.3	$46.9	$61.9	$0.1	$1.5	$8.1	$0.8	$0.0	$202.6
311	Food	$6.9	$102.1	$82.9	$261.3	$80.6	$68.6	$57.5	$146.7	$1.7	$2.0	$810.4
312	Beverages	$0.5	$6.4	$1.0	$0.1	$3.7	$3.6	$10.0	$0.2	$0.1	$0.1	$25.5
313	Raw Textiles	$0.3	$1.7	$48.6	$1.3	$0.2	$0.1	$0.2	$0.1	$0.4	$0.1	$52.9
314	Milled Textiles	$0.4	$30.7	$2.0	$1.2	$1.8	$1.9	$0.1	$0.6	$0.4	$0.2	$39.4
315	Apparel and Accessories	$1.2	$8.2	$0.8	$2.2	$1.6	$0.3	$0.4	$0.9	$2.0	$0.1	$17.6
316	Leather	$0.7	$6.4	$0.8	$0.2	$1.0	$0.1	$3.3	$0.3	$0.2	$0.1	$13.0
321	Wood Products	$0.0	$5.1	$4.5	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$9.7
322	Paper	$1.2	$28.4	$7.7	$4.4	$0.3	$0.1	$0.8	$0.1	$7.9	$0.4	$51.3
323	Printed Material	$0.2	$2.9	$1.2	$0.6	$0.2	$0.1	$0.5	$0.2	$0.1	$0.3	$6.2
324	Petroleum and Coal Products	$0.0	$5.9	$1.1	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$7.1
325	Chemicals	$25.0	$271.9	$101.2	$131.0	$129.7	$67.0	$122.9	$107.8	$26.2	$165.5	$1,148.3
326	Plastics and Rubber Products	$52.3	$92.7	$12.0	$13.5	$8.8	$1.5	$2.1	$7.0	$3.6	$7.4	$201.1
327	Nonmetallic Minerals	$0.3	$6.5	$1.1	$1.3	$0.2	$1.7	$0.5	$0.0	$0.0	$0.1	$11.7
331	Primary Metals	$8,290.5	$217.1	$10.7	$0.3	$1.3	$0.1	$0.1	$37.5	$0.8	$0.7	$8,559.1
332	Fabricated Metals	$3.7	$71.1	$21.1	$10.0	$4.0	$0.9	$1.6	$1.0	$10.2	$0.4	$124.0
333	Machinery	$45.2	$138.4	$23.4	$63.7	$31.8	$53.5	$11.8	$15.0	$15.9	$5.0	$403.7
334	Computers and Electronics	$40.4	$108.2	$439.3	$178.4	$198.8	$403.0	$88.8	$45.2	$114.1	$46.4	$1,662.7
335	Electrical Equipment	$16.9	$66.4	$63.1	$26.2	$4.2	$4.8	$6.6	$9.0	$44.4	$26.1	$267.6
336	Transportation Equipment	$23.4	$205.2	$213.8	$15.2	$22.2	$0.8	$4.1	$9.1	$54.1	$19.3	$567.0
337	Furniture and Fixtures	$2.0	$21.7	$8.1	$0.7	$0.1	$0.2	$0.2	$0.1	$0.2	$0.3	$33.7
339	Miscellaneous Manufactures	$23.8	$88.9	$11.2	$94.7	$144.8	$2.3	$247.4	$22.3	$59.8	$14.1	$709.1
511	Publications	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
910	Waste and Scrap	$0.0	$5.6	$15.3	$19.3	$4.4	$5.9	$0.1	$10.1	$0.2	$0.0	$60.9
920, 930	Used Merchandise	$1.0	$4.6	$1.1	$0.0	$0.1	$0.0	$0.1	$0.1	$0.2	$0.2	$7.3
980	Goods Returned	$0.0	$0.8	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.8
990	Other Special Classification	$2.8	$3.5	$0.9	$1.0	$1.5	$0.1	$0.6	$0.5	$2.4	$0.5	$13.8

Source: U.S. Census Bureau, USA Trade Online

Price Inflation and Cost of Living

10

David Stringfellow, Office of the Utah State Auditor

OVERVIEW

Inflation was the most salient economic issue in 2022.

Economists find it remarkable when family dinner table discussions, comedian jokes, and popular culture references focus on inflation. With that heightened focus, understanding the mechanics of what higher inflation really means to people becomes increasingly important. Avoiding errant thinking about how price changes impact our economy is – again – a highly relevant issue.

For a family looking at the increasing cost of weekly groceries, inflation feels highly personal. So it can seem cold to think about inflation as a technical measure of how the prices of all goods and services change over time. Prices can change due to supply constraints faced by businesses or shifts in consumer demand. The total amount of money available in an economy and our collective expectations about the future also affect inflation. In short, whether a full-time economist or someone who prefers to think about economics as little as possible – inflation now concerns everyone in society.

As an economy grows, the amount of money should also grow to maintain stable prices. Stable prices are desirable because they allow people to plan and predictably use their resources for exchange. Low and stable inflation (near 2.0% a year) appears to allow an economy to function efficiently and effectively.

But significant or sudden disruptions to normal economic activity – such as a pandemic – can also upset things we typically take for granted, like the value and function of money. Our collective societal response, from federal economic stimulus, to supply chain problems, to purchasing pattern changes, cause price changes.

The Federal Reserve governs monetary policy in the United States. It targets a 2.0% annual inflation rate as most consistent with its mandate for price stability and maximum employment, conditions associated with economic growth and prosperity. It warns that an inflation rate "that is too high may reduce the public's ability to make accurate long-term economic decisions." Conversely, "deflation" —a harmful economic phenomenon where prices, and perhaps wages, fall — has also been of concern this last decade.

The growth and persistence of inflation surprised many this year – and grave world events exacerbated price changes in key food and energy markets even as pandemic-related shocks largely dissipated. Inflation accelerated into the summer before easing near the end of the year. The issue framed both policy and political arguments. Google Trends reported a quadrupling of public interest in the search term 'inflation.'

Over the last 20 years, inflation remained stable – growing at roughly 2%, aside from a few temporary shocks that pushed inflation up or down, reverting toward the mean as policy interventions played out within about a year. Most forecasters thought inflation would follow this pattern last year. The forecasters were wrong. Inflation persisted and further accelerated when Russia invaded Ukraine in early 2022 – dramatically affecting trade in world food, energy, and financial markets.

The Federal Reserve successively ratcheted federal funds rates higher from near 0% at the beginning of 2022 to an effective rate of 4.3% by year's end. Stock values fell while interest rates moved up, with the average 30-year fixed rate conventional mortgage hitting 7% in November, and dropping somewhat since.

The Consumer Price Index (CPI) growth appeared to peak in June at 9%, according to the Bureau of Labor Statistics, and fell into the 7% range at year's end. While various inflation measures exist, all remained elevated. For example, the Federal Reserve utilizes the Personal Consumption Expenditures (PCE) index as their preferred inflation measure– and growth stayed near 6% for the entire year. Core CPI (excluding food/energy) moved around 6% throughout the year.

Some prices change regardless of a general price increase. Supply chain havoc showed this to be the case last year, and restrictions on grain exports and oil embargos point to the same lesson in 2022. Supply chain disruptions have largely eased, but with consumer confidence and business expectations weakening, some fear central banks will cause more economic pain than necessary given their apparent commitment to bring down inflation.

Businesses have raised prices. Labor markets remained tight, prompting workers to demand robust wage increases to counteract inflation in their daily purchases. These interdependencies shape future expectations about inflation. Even small changes in inflation cause big differences over time. In the 1960s, a general "basket of goods" that cost $10 to purchase would have cost $50 to acquire in 1995 and $100 to acquire today.

The only major category with price declines this year was Communication Services, down 2% for the year. Education (3%) and Medical Care (5%) prices grew slower than most other major categories. Motor fuel prices grew alarmingly before countervailing moderation in the Fall of 2022 - the category still outpaced all others, up 18% for the year. Transportation, Car Insurance, Maintenance, Parts, Utilities, and Food outpaced general price increases with double-digit growth. Housing, Shelter, and Vehicles expanded near an average of 7%. Regionally, inflation grew faster in smaller urban areas throughout the country. In 2022, some of the biggest cities like New York City, San Francisco, and Chicago measured inflation below 6%, while other large cities – Tampa, Atlanta, and Phoenix - realized inflation over 10%.

Regional Price Parity data from the Bureau of Economic Analysis show 2021 (the most recent data available) Utah prices were about 5% cheaper than the country overall, with housing costs only 0.6% behind the national average.

Throughout 2022, the Mountain Region experienced inflation well above the U.S. average. Regional inflation spiked at 10.4% over the 12 months ending March 2022 and consistently ranged roughly 1 to 2 percentage points higher than overall U.S. inflation.

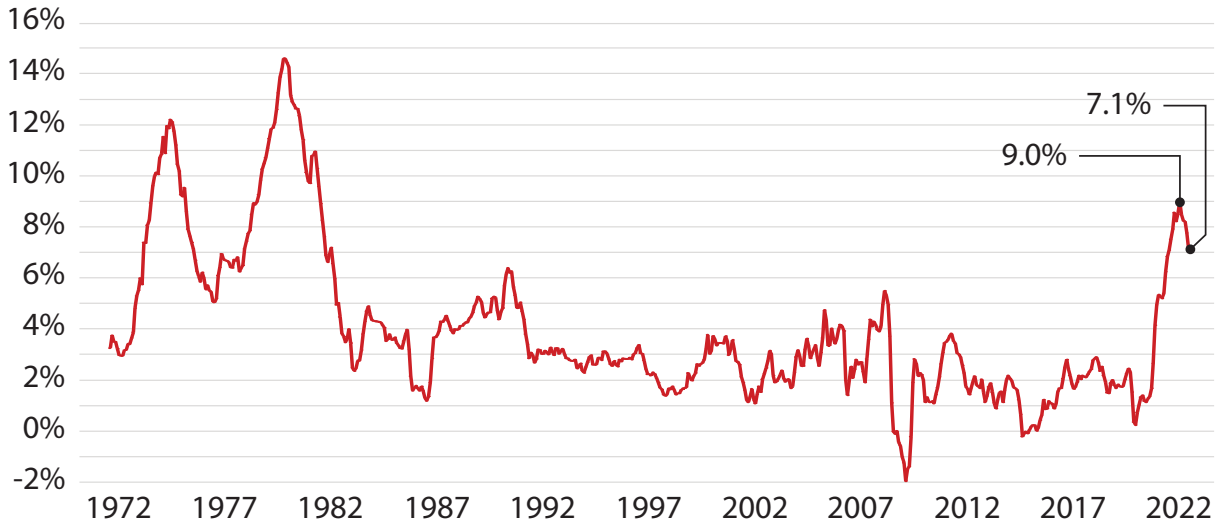
2023 OUTLOOK

Inflation ticked down to end 2022 but remained elevated. Market and economic forecasters expect inflation to continue abating. However, uncertainty surrounding our collective grasp of the phenomenon we label "inflation" has clearly increased. Policymakers have committed to rein inflation back to acceptable norms in both the short run and the long run. Whether this causes a mild or severe economic dislocation in 2023 and beyond remains an open question.

Even if inflation cools as quickly as it grew, it would still take until 2024 before a return to the pre-pandemic norm. If inflation remains high despite the best efforts of monetary authorities or continued shocks exacerbate uncertainty, then the odds of more severe economic pain increase in the near term. Governments and businesses will face tough budget, policy, and resource allocation choices even as inflation eases.

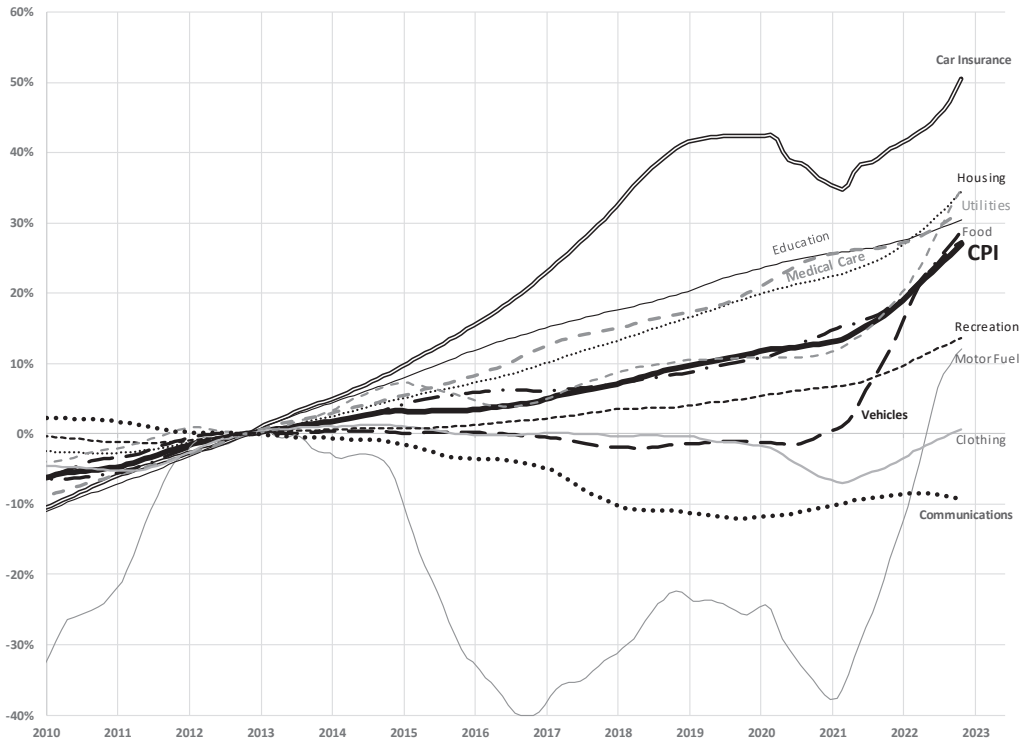
Forecasts project inflation for 2023 to moderate, but it may remain higher than many expect. Inflation will remain in the news and move markets. Economists, politicos, business leaders, and everyone that uses money will continue to closely monitor price levels. Measured inflation may move closer to 5% in the Spring of 2023 and may trend to 3% by the end of the year. If inflation does fall quickly, markets will likely turn much more optimistic at the chance of avoiding a painful recession. Even if prices moderate according to forecast, some will find it uncomfortably high as the economy moderates or slows.

Figure10.1: Consumer Price Index Year-over Change, 1972-2022



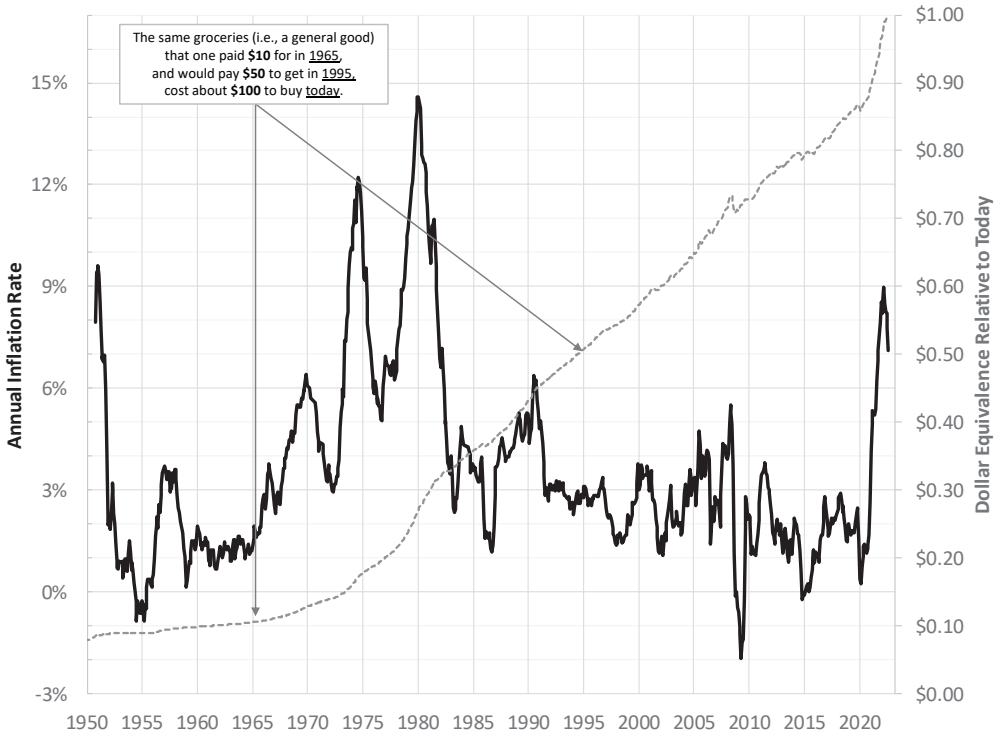
Source: Bureau of Labor Statistics

Figure 10.2: Cumulative Percent Change in Consumer Price Index (CPI), 2010–2023



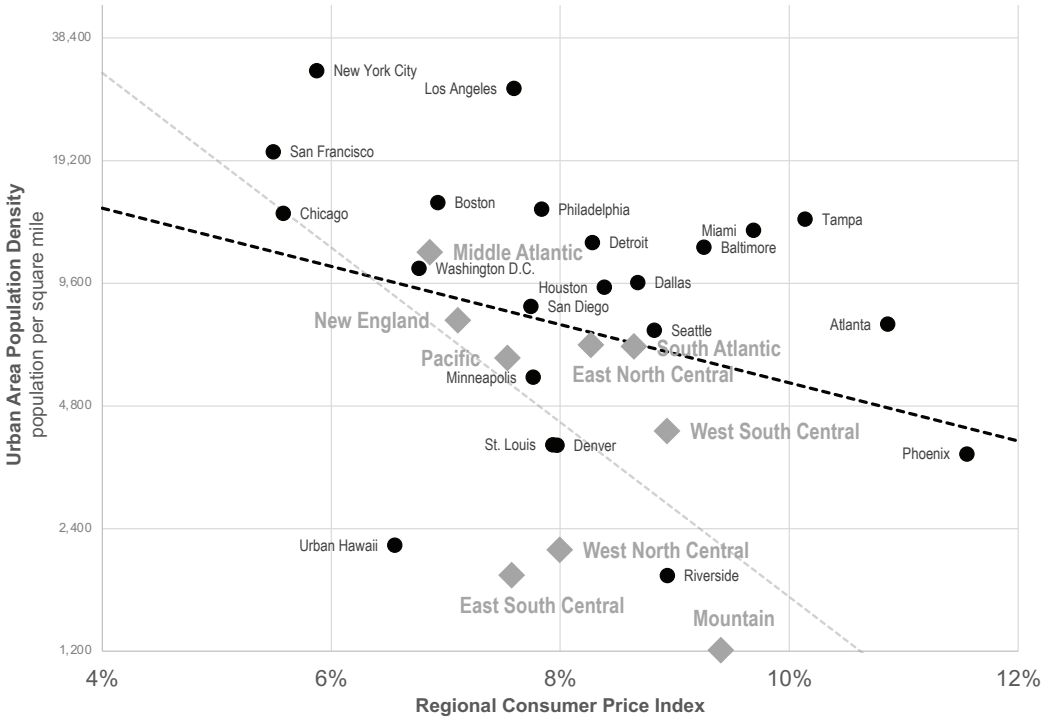
Source: Bureau of Labor Statistics

Figure 10.3: Consumer Price Index (CPI) Year-over Price Change and Relative Value of a Dollar



Source: Bureau of Labor Statistics

Figure 10.4: Regional Consumer Price Index (CPI) by Population Density, 2022



Source: U.S. Bureau of Labor Statistics, CPI Regional Resources; U.S. Census Bureau, U.S. MSA Distance Profiles

Table 10.1: Consumer Price Index for All Urban Consumers, 1960–2022, (1982–1984=100)
Not Seasonally Adjusted

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	Annual Change
1960	29.4	29.4	29.4	29.5	29.6	29.6	29.6	29.6	29.6	29.8	29.8	29.8	29.6	
1961	29.8	29.8	29.8	29.8	29.8	29.8	29.9	29.9	30.0	30.0	30.0	30.0	29.9	1.1%
1962	30.0	30.1	30.2	30.2	30.2	30.2	30.2	30.3	30.4	30.4	30.4	30.4	30.3	1.2%
1963	30.4	30.5	30.5	30.5	30.5	30.6	30.7	30.8	30.7	30.8	30.8	30.9	30.6	1.3%
1964	30.9	30.9	30.9	31.0	31.0	31.0	31.0	31.1	31.1	31.1	31.2	31.3	31.0	1.3%
1965	31.3	31.3	31.3	31.4	31.5	31.6	31.6	31.6	31.6	31.7	31.8	31.9	31.5	1.6%
1966	31.9	32.1	32.2	32.3	32.4	32.4	32.5	32.7	32.8	32.9	32.9	32.9	32.5	3.0%
1967	32.9	33.0	33.0	33.1	33.1	33.3	33.4	33.5	33.6	33.7	33.9	34.0	33.4	2.8%
1968	34.1	34.2	34.3	34.4	34.5	34.7	34.9	35.0	35.1	35.3	35.4	35.6	34.8	4.2%
1969	35.7	35.8	36.1	36.3	36.4	36.6	36.8	36.9	37.1	37.3	37.5	37.7	36.7	5.4%
1970	37.9	38.1	38.3	38.5	38.6	38.8	38.9	39.0	39.2	39.4	39.6	39.8	38.8	5.9%
1971	39.9	39.9	40.0	40.1	40.3	40.5	40.6	40.7	40.8	40.9	41.0	41.1	40.5	4.2%
1972	41.2	41.4	41.4	41.5	41.6	41.7	41.8	41.9	42.1	42.2	42.4	42.5	41.8	3.3%
1973	42.7	43.0	43.4	43.7	43.9	44.2	44.2	45.0	45.2	45.6	45.9	46.3	44.4	6.3%
1974	46.8	47.3	47.8	48.1	48.6	49.0	49.3	49.9	50.6	51.0	51.5	51.9	49.3	11.0%
1975	52.3	52.6	52.8	53.0	53.1	53.5	54.0	54.2	54.6	54.9	55.3	55.6	53.8	9.1%
1976	55.8	55.9	56.0	56.1	56.4	56.7	57.0	57.3	57.6	57.9	58.1	58.4	56.9	5.8%
1977	58.7	59.3	59.6	60.0	60.2	60.5	60.8	61.1	61.3	61.6	62.0	62.3	60.6	6.5%
1978	62.7	63.0	63.4	63.9	64.5	65.0	65.5	65.9	66.5	67.1	67.5	67.9	65.2	7.6%
1979	68.5	69.2	69.9	70.6	71.4	72.2	73.0	73.7	74.4	75.2	76.0	76.9	72.6	11.3%
1980	78.0	79.0	80.1	80.9	81.7	82.5	82.6	83.2	83.9	84.7	85.6	86.4	82.4	13.5%
1981	87.2	88.0	88.6	89.1	89.7	90.5	91.5	92.2	93.1	93.4	93.8	94.1	90.9	10.4%
1982	94.4	94.7	94.7	95.0	95.9	97.0	97.5	97.7	97.7	98.1	98.0	97.7	96.5	6.2%
1983	97.9	98.0	98.1	98.8	99.2	99.4	99.8	100.1	100.4	100.8	101.1	101.4	99.6	3.2%
1984	102.1	102.6	102.9	103.3	103.5	103.7	104.1	104.4	104.7	105.1	105.3	105.5	103.9	4.4%
1985	105.7	106.3	106.8	107.0	107.2	107.5	107.7	107.9	108.1	108.5	109.0	109.5	107.6	3.5%
1986	109.9	109.7	109.1	108.7	109.0	109.4	109.5	109.6	110.0	110.2	110.4	110.8	109.7	1.9%
1987	111.4	111.8	112.2	112.7	113.0	113.5	113.8	114.3	114.7	115.0	115.4	115.6	113.6	3.6%
1988	116.0	116.2	116.5	117.2	117.5	118.0	118.5	119.0	119.5	119.9	120.3	120.7	118.3	4.1%
1989	121.2	121.6	122.2	123.1	123.7	124.1	124.5	124.5	124.8	125.4	125.9	126.3	123.9	4.8%
1990	127.5	128.0	128.6	128.9	129.1	129.9	130.5	131.6	132.5	133.4	133.7	134.2	130.7	5.4%
1991	134.7	134.8	134.8	135.1	135.6	136.0	136.2	136.6	137.0	137.2	137.8	138.2	136.2	4.2%
1992	138.3	138.6	139.1	139.4	139.7	140.1	140.5	140.8	141.1	141.7	142.1	142.3	140.3	3.0%
1993	142.8	143.1	143.3	143.8	144.2	144.3	144.5	144.8	145.0	145.6	146.0	146.3	144.5	3.0%
1994	146.3	146.7	147.1	147.2	147.5	147.9	148.4	149.0	149.3	149.4	149.8	150.1	148.2	2.6%
1995	150.5	150.9	151.2	151.8	152.1	152.4	152.6	152.9	153.1	153.5	153.7	153.9	152.4	2.8%
1996	154.7	155.0	155.5	156.1	156.4	156.7	157.0	157.2	157.7	158.2	158.7	159.1	156.9	2.9%
1997	159.4	159.7	159.8	159.9	159.9	160.2	160.4	160.8	161.2	161.5	161.7	161.8	160.5	2.3%
1998	162.0	162.0	162.0	162.2	162.6	162.8	163.2	163.4	163.5	163.9	164.1	164.4	163.0	1.5%
1999	164.7	164.7	164.8	165.9	166.0	166.0	166.7	167.1	167.8	168.1	168.4	168.8	166.6	2.2%
2000	169.3	170.0	171.0	170.9	171.2	172.2	172.7	172.7	173.6	173.9	174.2	174.6	172.2	3.4%
2001	175.6	176.0	176.1	176.4	177.3	177.7	177.4	177.4	178.1	177.6	177.5	177.4	177.0	2.8%
2002	177.7	178.0	178.5	179.3	179.5	179.6	180.0	180.5	180.8	181.2	181.5	181.8	179.9	1.6%

Table 10.1: Consumer Price Index for All Urban Consumers, 1960–2022, (1982–1984=100) (continued)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	Annual Change
2003	182.6	183.6	183.9	183.2	182.9	183.1	183.7	184.5	185.1	184.9	185.0	185.5	184.0	2.3%
2004	186.3	186.7	187.1	187.4	188.2	188.9	189.1	189.2	189.8	190.8	191.7	191.7	188.9	2.7%
2005	191.6	192.4	193.1	193.7	193.6	193.7	194.9	196.1	198.8	199.1	198.1	198.1	195.3	3.4%
2006	199.3	199.4	199.7	200.7	201.3	201.8	202.9	203.8	202.8	201.9	202.0	203.1	201.6	3.2%
2007	203.4	204.2	205.3	205.9	206.8	207.2	207.6	207.7	208.5	209.2	210.8	211.4	207.3	2.9%
2008	212.2	212.7	213.4	213.9	215.2	217.5	219.0	218.7	218.9	217.0	213.2	211.4	215.3	3.8%
2009	211.9	212.7	212.5	212.7	213.0	214.8	214.7	215.4	215.9	216.5	217.2	217.3	214.6	-0.3%
2010	217.5	217.3	217.4	217.4	217.3	217.2	217.6	217.9	218.3	219.0	219.6	220.5	218.1	1.6%
2011	221.2	221.9	223.0	224.1	224.8	224.8	225.4	226.1	226.6	226.8	227.2	227.2	224.9	3.1%
2012	227.8	228.3	228.8	229.2	228.7	228.5	228.6	229.9	231.0	231.6	231.2	231.2	229.6	2.1%
2013	231.7	232.9	232.3	231.8	231.9	232.4	232.9	233.5	233.5	233.7	234.1	234.7	233.0	1.5%
2014	235.3	235.5	236.0	236.5	236.9	237.2	237.5	237.5	237.5	237.4	237.0	236.3	236.7	1.6%
2015	234.7	235.3	236.0	236.2	237.0	237.7	238.0	238.0	237.5	237.7	238.0	237.8	237.0	0.1%
2016	237.7	237.3	238.1	239.0	239.6	240.2	240.1	240.5	241.2	241.7	242.0	242.6	240.0	1.3%
2017	243.6	244.0	243.9	244.2	244.0	244.2	244.2	245.2	246.4	246.6	247.3	247.8	245.1	2.1%
2018	248.7	249.4	249.6	250.1	250.8	251.1	251.3	251.7	252.2	252.9	252.7	252.6	251.1	2.4%
2019	252.5	253.1	254.3	255.2	255.3	255.4	255.9	256.2	256.6	257.3	257.8	258.3	255.6	1.8%
2020	258.7	259.0	258.2	256.1	255.9	257.2	258.5	259.6	260.2	260.4	260.7	261.6	258.8	1.2%
2021	262.2	263.3	265.0	266.7	268.6	271.0	272.2	273.1	274.2	276.6	278.5	280.1	271.0	4.7%
2022	281.9	284.2	287.7	288.7	291.5	295.3	295.3	295.6	296.8	298.1	298.3			

Source: U.S. Bureau of Labor Statistics

Table 10.2: Regional Price Parities by State, 2021

State	All items	Goods	Services		
			Housing	Utilities	Other
Alabama	88.1	94.1	60.7	86.7	96.1
Alaska	104.4	108.6	102.9	118.9	102.2
Arizona	96.7	95.3	102.4	87.5	96.6
Arkansas	89.4	95.7	59.5	82.8	97.5
California	111.8	108.0	164.9	143.6	102.1
Colorado	103.0	101.8	129.5	85.4	97.2
Connecticut	102.6	97.0	120.9	146.6	100.6
Delaware	97.7	94.5	97.1	94.0	100.4
District of Columbia	111.3	107.9	175.4	111.8	102.7
Florida	101.4	98.3	113.1	89.8	100.6
Georgia	95.8	96.6	85.5	95.5	98.9
Hawaii	113.2	110.6	140.8	184.7	104.4
Idaho	91.8	96.8	84.2	68.5	92.2
Illinois	101.4	104.0	96.2	86.2	102.0
Indiana	92.7	96.2	71.4	90.8	98.3
Iowa	89.6	94.1	66.3	98.5	95.2
Kansas	91.2	94.0	69.8	100.8	96.4
Kentucky	89.1	94.2	63.4	79.8	96.5
Louisiana	91.3	95.4	66.9	80.6	99.3
Maine	97.2	98.9	81.2	126.9	101.5
Maryland	106.2	103.7	124.2	105.1	102.7
Massachusetts	106.6	105.3	129.0	154.2	100.9
Michigan	94.3	94.8	80.7	101.0	98.3
Minnesota	98.4	100.5	93.1	91.6	99.1
Mississippi	86.6	94.5	56.2	80.6	94.7
Missouri	92.0	98.4	70.1	91.6	95.4
Montana	91.6	96.8	79.3	75.1	92.9
Nebraska	91.8	94.3	75.7	85.4	95.8
Nevada	95.5	97.0	107.9	76.3	91.6
New Hampshire	102.5	102.0	107.1	140.4	100.6
New Jersey	109.1	101.9	135.1	115.2	107.5
New Mexico	89.9	96.9	73.0	81.6	92.1
New York	109.5	102.0	131.6	136.1	107.9
North Carolina	93.8	96.1	76.0	84.5	99.7
North Dakota	91.1	94.2	71.1	87.1	95.2
Ohio	92.5	95.0	72.8	91.9	97.4
Oklahoma	90.3	95.8	64.0	79.6	98.2
Oregon	103.0	106.3	109.4	97.0	99.0
Pennsylvania	96.4	95.5	86.7	106.0	99.5
Rhode Island	102.1	98.0	109.1	145.9	101.4
South Carolina	93.7	96.0	76.1	90.6	99.9
South Dakota	90.1	93.9	64.9	93.9	95.5
Tennessee	90.9	94.4	76.4	76.0	94.8
Texas	98.5	98.6	95.6	85.9	100.2
Utah	**94.6**	**96.5**	**99.4**	**71.7**	**92.7**
Vermont	98.7	97.9	93.6	129.7	100.1
Virginia	102.3	101.5	110.2	91.9	101.0
Washington	108.9	111.5	125.7	92.4	103.3
West Virginia	90.8	96.6	59.1	85.4	100.2
Wisconsin	93.3	95.7	76.2	95.6	97.8
Wyoming	91.4	96.5	77.3	76.3	93.8

Source: U.S. Bureau of Economic Analysis

Consumer Sentiment

11

Michael Hogue, Kem C. Gardner Policy Institute
Dianne Meppen, Kem C. Gardner Policy Institute

OVERVIEW

Changes in consumer sentiment often signal future changes in economic behavior, particularly consumer discretionary spending. When sentiment increases we can often expect near-future increases in consumer discretionary spending. Consumer sentiment can therefore provide an early notice of pending changes in economic growth and certain streams of tax revenue.

U.S. consumer sentiment fell in 2022. From a high of 67.2 in January, the index reached a multi-decade low of 50.0 in June, before partially recovering to around 60.0 by the end of the year. The average value of the index is 85.4, going back to 1978; the average is 86.3 excluding the pandemic years 2020–2022. Likely reasons for the decline during 2022 include various forms of economic disruption including Russia's invasion of Ukraine, the sharp increase in gasoline prices, interest rate and price increases, a stock market decline, and ongoing concerns about inflation more broadly.

Utah's economic stakeholders now have access to a localized reading of consumer sentiment, with the Kem C. Gardner Policy Institute measuring Utah consumer sentiment beginning in October 2020. Generally, sentiment among Utahns is higher than, but parallels, sentiment among Americans as a whole. Utah's consumer sentiment peaked in February at 78.8, before falling to a low of 62.9 in July. Like the U.S. as a whole, sentiment recovered in the second half of 2022 and ended the year at 68.7. Utah's consumer sentiment has averaged 79.4 since inception (October 2020); sentiment among Americans as a whole has averaged 69.6 over the same period.

Like Michigan's index for the U.S., the Utah Consumer Sentiment Index reflects consumer opinions on five topics: current family financial situation relative to one year ago, expected future change in family financial situation, business conditions expected during the following year, business conditions expected over the next five years, and current buying conditions for large household goods.

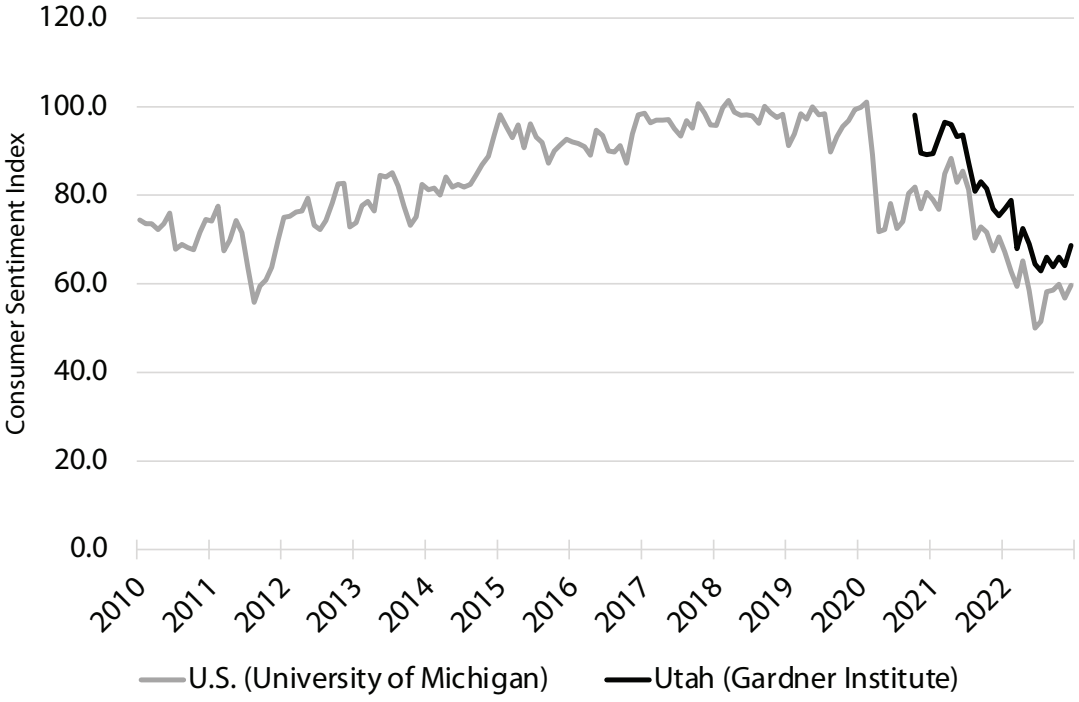
2023 OUTLOOK

Toward the end of 2022, the U.S. and Utah indices of consumer sentiment recovered some of their declines from earlier in the year. The pattern of decline and recovery coincides with falling gasoline prices and early indications that overall rate inflation is beginning to ease. If these and other recent patterns (e.g. the greatly reduced rates of COVID-19 hospitalization and death) continue into 2023, we may expect both U.S. and Utah sentiment to continue recovering. The recent decline in sentiment may have been even steeper but for an otherwise strong economy, with low unemployment rates and rapid wage growth (not adjusted for inflation). A reversal of these recent conditions, perhaps stemming from the rapid increase in interest rates as part of the fight against inflation, presents a significant downside risk to sentiment in 2023.

About the Utah Consumer Sentiment Survey

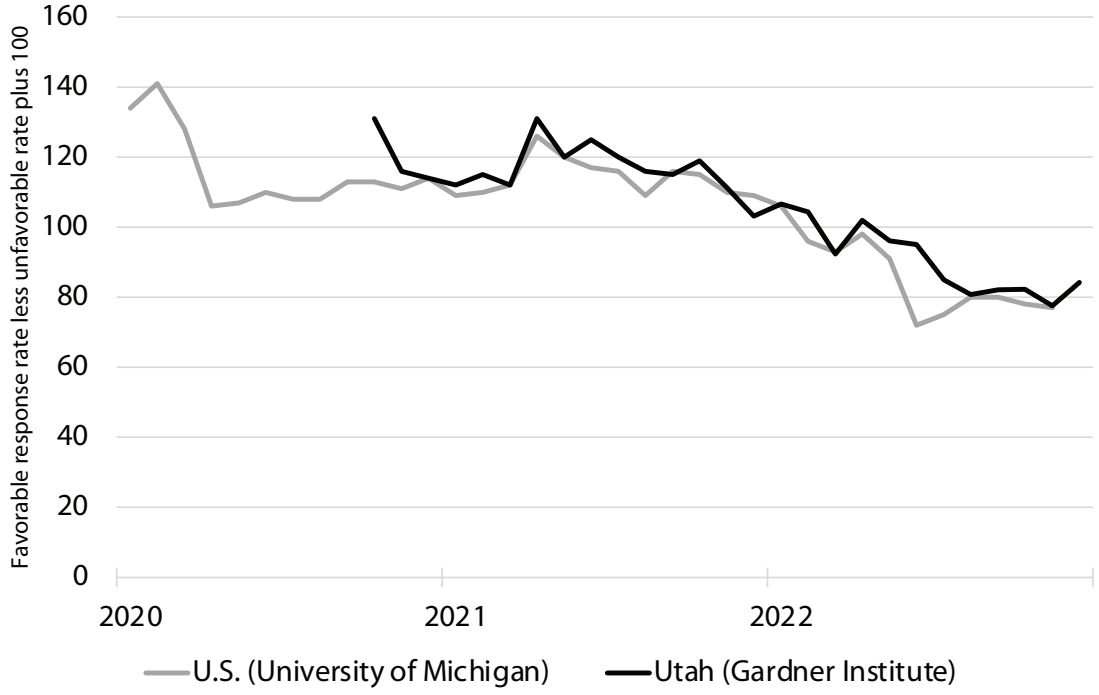
The Utah Consumer Sentiment Survey uses key questions from the University of Michigan's Surveys of Consumers. These questions measure residents' views of the present economic situation and their expectations for the economy in the future. Data gathered from the key questions are used to create the consumer sentiment index for Utah. Demographic questions are included on the questionnaire to allow for additional analysis of the data and assess the sample's representativeness. The 405-interview sample yields a +/- 5.0% tolerated error on total data. All survey interviews are conducted by telephone by a professional data collection company. The sample is drawn to be proportional to the population of Utah's 29 counties. Demographic data may be used for weighting to ensure the sample more closely aligns with Census data for Utah adult residents.

Figure 11.1: Overall Monthly Utah and U.S. Consumer Sentiment, 2010–2022



Source: University of Michigan Surveys of Consumers and Kem C. Gardner Policy Institute.

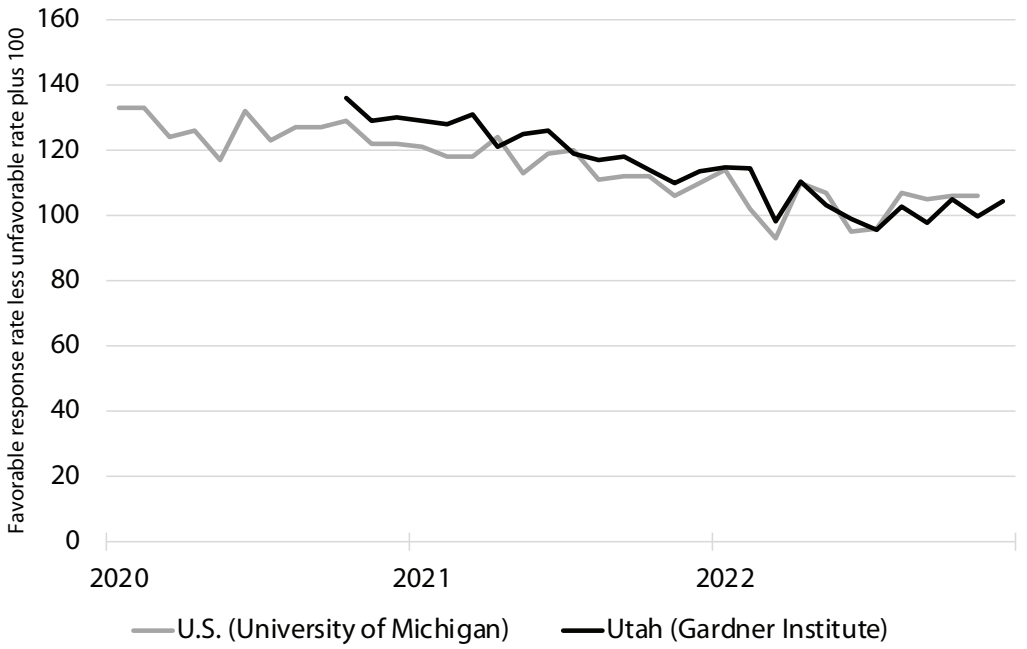
Figure 11.2: Components of Monthly Utah and U.S. Consumer Sentiment: Current Family Financial Situation Compared with a Year Ago, 2020–2022



Note: Gardner Institute data through December 2022. University of Michigan data through November 2022

Source: University of Michigan Surveys of Consumers and Kem C. Gardner Policy Institute.

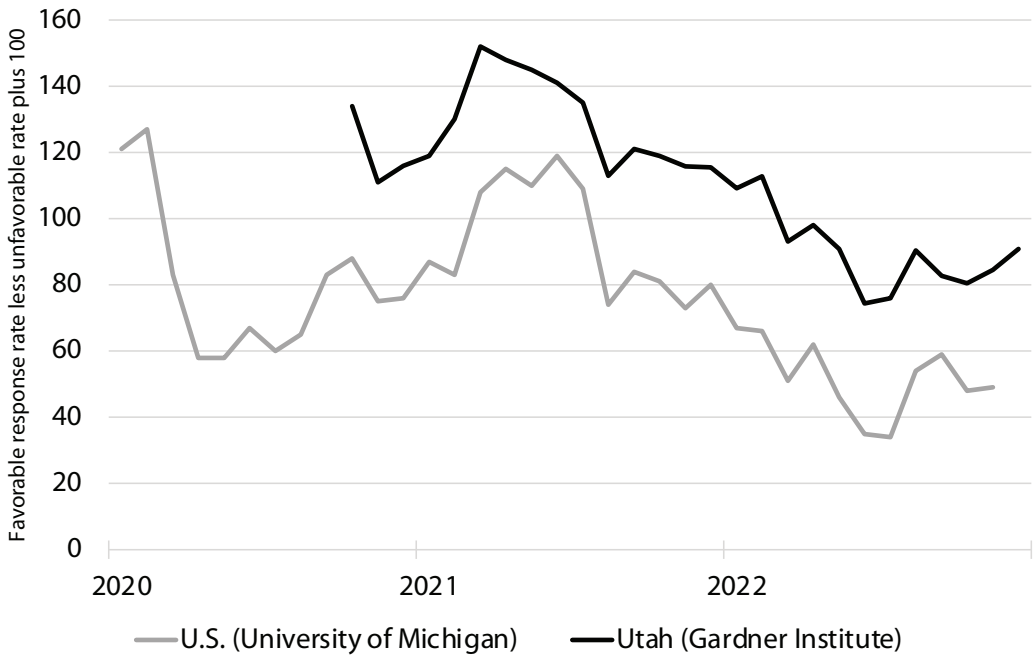
Figure 11.3: Components of Monthly Utah and U.S. Consumer Sentiment: Expected Family Financial Situation Change in a Year, 2020–2022



Note: Gardner Institute data through December 2022. University of Michigan data through November 2022

Source: University of Michigan Surveys of Consumers and Kem C. Gardner Policy Institute.

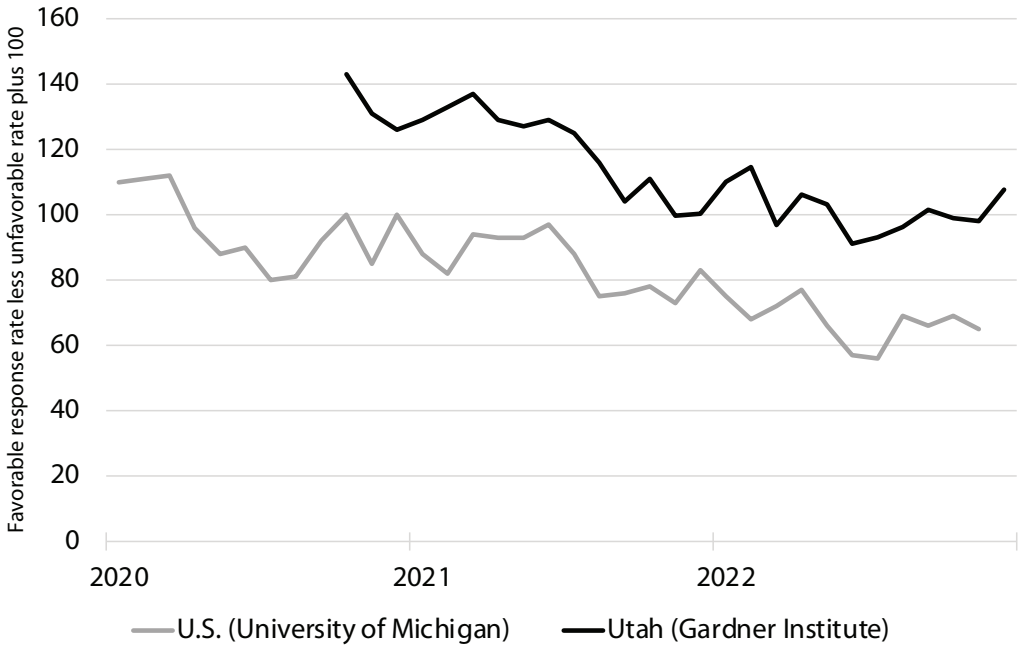
Figure 11.4: Components of Monthly Utah and U.S. Consumer Sentiment: Business Conditions Expected During the Next Year, 2020–2022



Note: Gardner Institute data through December 2022. University of Michigan data through November 2022

Source: University of Michigan Surveys of Consumers and Kem C. Gardner Policy Institute.

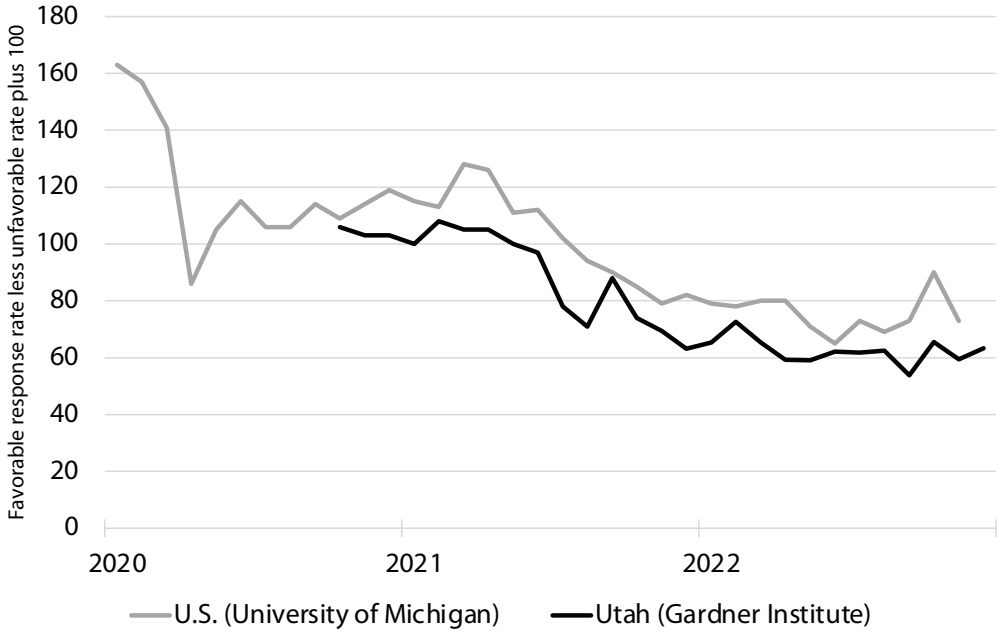
Figure 11.5: Components of Monthly Utah and U.S. Consumer Sentiment: Business Conditions Expected During the Next Five Years, 2020–2022



Note: Gardner Institute data through December 2022. University of Michigan data through November 2022

Source: University of Michigan Surveys of Consumers and Kem C. Gardner Policy Institute.

Figure 11.6: Components of Monthly Utah and U.S. Consumer Sentiment: Current Buying Conditions for Large Household Goods, 2020–2022



Note: Gardner Institute data through December 2022. University of Michigan data through November 2022

Source: University of Michigan Surveys of Consumers and Kem C. Gardner Policy Institute.

Table 11.1 Consumer Sentiment in the U.S. and Utah, 2020–2022e

	2020				2021				2022				2020	2021	2022(e)
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4(e)			
University of Michigan Surveys of Consumers, Components															
Current Family Financial Situation Compared with a Year Ago	134.3	107.7	109.7	112.7	110.3	121.0	113.7	111.3	98.3	87.0	78.3	77.5	116.1	114.1	85.3
Expected Change in Family Financial Situation in a Year	130.0	125.0	125.7	124.3	119.0	118.7	114.3	109.3	103.0	104.0	102.7	106.0	126.3	115.3	103.9
Business Conditions Expected During the Next Year	110.3	61.0	69.3	79.7	92.7	114.7	89.0	78.0	61.3	47.7	49.0	48.5	80.1	93.6	51.6
Business Conditions Expected During the Next 5 Years	111.0	91.3	84.3	95.0	88.0	94.3	79.7	78.0	71.7	66.7	63.7	67.0	95.4	85.0	67.3
Buying Conditions for Large Household Goods	153.7	102.0	108.7	114.0	118.7	116.3	95.3	82.0	79.0	72.0	71.7	81.5	119.6	103.1	76.0
Overall Consumer Confidence Index for the U.S.*	96.6	74.1	75.7	79.8	80.2	85.6	74.8	69.9	63.1	57.9	56.1	58.4	81.5	77.6	58.9
Kem C. Gardner Policy Institute Utah Consumer Confidence Survey, Components															
Current Family Financial Situation Compared with a Year Ago	-	-	-	120.3	113.0	125.3	117.0	111.2	101.1	97.7	82.6	81.4	-	116.6	90.7
Expected Change in Financial Situation in a Year	-	-	-	131.7	129.3	124.0	118.0	112.5	109.2	104.2	98.7	103.0	-	121.0	103.8
Utah Business Conditions Expected During the Next Year	-	-	-	120.3	133.7	144.7	123.0	116.8	105.0	87.7	83.1	85.3	-	129.5	90.3
Utah Business Conditions Expected During the Next 5 Years	-	-	-	133.3	133.0	128.3	115.0	103.7	107.2	100.2	97.0	101.6	-	120.0	101.5
U.S. Business Conditions Expected During the Next Year	-	-	-	83.3	93.0	95.7	74.3	68.9	56.5	50.2	45.9	48.6	-	83.0	50.3
U.S. Business Conditions Expected During the Next 5 Years	-	-	-	95.0	86.3	76.7	67.7	61.3	65.9	63.5	61.1	70.8	-	73.0	65.3
Buying Conditions for Large Household Goods	-	-	-	104.0	104.3	100.7	79.0	68.8	67.7	60.1	59.3	62.7	-	88.2	62.5
Overall Consumer Confidence Index for Utah	-	-	-	92.3	92.9	94.2	83.8	77.9	74.6	68.6	64.3	66.2	-	87.2	68.4
Overall Consumer Confidence Index for the U.S.*	-	-	-	81.1	80.0	79.3	69.6	64.6	61.3	57.6	53.5	56.2	-	73.3	57.1

*The Michigan and Gardner overall indices for the U.S. are not directly comparable. ** e=estimate for Michigan survey components (data through Nov. 2022). Gardner Institute data are complete through Dec. 2022.

Notes: The Kem C. Gardner Policy Institute Utah Consumer Confidence Survey commenced in October, 2020. Component measures reflect the difference in favorable and unfavorable response rates plus 100.

Sources: University of Michigan Surveys of Consumers and Kem C. Gardner Policy Insitute

Social Capital

12

Shawn Teigen, Utah Foundation

OVERVIEW

Social capital touches a wide variety of public policy and economic concerns. Low levels of social capital often lead to poor economic and social outcomes, both for individuals and populations. Policymakers often seek to address these poor outcomes through costly endeavors that span educational efforts, election reforms, public assistance programs, and law enforcement interventions. As social capital declines, the challenges become more acute—and social scientists across the political spectrum affirm that social capital in the United States is in long-term decline. But in places where social capital is comparatively robust, it can translate into heightened economic prospects and lower demands on the public sector.

Social capital refers to the bonds between people and among networks that can be used to benefit individuals and the group as a whole. In July 2022, the Utah Foundation completed an eight-part series on Utah Social Capital. The first seven installments looked at roughly 30 metrics in the categories of civic engagement, social trust, community life, family life, social cohesion, future focus, and social mobility. The final report provided a composite index for Utah's social capital. The following information comes from these reports.[1]

Overall Performance: No. 1 in the Nation

Utah's Social Capital Index score in 2021 stood at 94. This is higher than 2013 and 2017 when the index stood at 84 and 79, respectively.

Utah Foundation researchers suspected that Utah would perform well on social capital. However, it was surprising how strongly Utah performed from the composite perspective, especially compared to the national score.

Utah had the highest level of social capital in 2021 among the 50 states. Wyoming and Colorado are also among the top 10. By contrast, Nevada, New Mexico, and Arizona have some of the lowest levels of social capital in the nation, suggesting that strong social capital is not consistent among the Mountain States.

Community Life: Ranked No. 1

Robert Putnam's 2000 book, *Bowling Alone,* uses the example of the decline in bowling leagues as being emblematic of the disintegration of community participation.

This disintegration tears at a community's social fabric and can diminish individuals mental and physical health. Recent developments, such as the increasing time spent on personal technology devices and the lockdowns in response to COVID-19, may be encouraging these trends.

That said, Utah far outpaces the nation at large on the composite measure of community life. Though Utah saw a small decline from 2013 to 2017, there was a notable increase in subsequent years. Utah's No. 1 ranking can be attributed primarily to high levels of charitable donations, volunteerism, religious service attendance, and participation in community projects.

Family Life: Ranked No. 1

Strong family life is inextricably linked with a network of interrelated and self-perpetuating benefits. For instance, families with two parents are far less likely to live in poverty, and the children of those families are more likely to do well in terms of educational attainment. The data are so connected that it is difficult to examine economic or educational outcomes without considering family structure.

Beyond structure though, there is increasing concern about how families spend time together and how children spend their time. The pandemic significantly impacted family life, both positively and negatively. On the one hand, families spent more time having dinner together and parents read more often to children. But there was a

1. For citations, see reports at utahfoundation.org.

remarkable upsurge in recreational electronic device usage among children that was accelerated by the pandemic.

Overall, Utah performs best in the nation when it comes to the factors related to family life—driven primarily by its high levels of marriage and children in married families.

Social Trust: Ranked No. 3

Social trust can be described as the extent to which people believe that others in their community will do the right thing most of the time. When such trust is high, people will more easily work together, collaborate in a crisis, and reach productive political outcomes. Unfortunately, trust in national institutions like the federal government, the media, and cultural institutions seems to be in rapid decline nationally. At the state level, however, trust may be higher.

On a composite basis, Utah's performance on social trust ranks third in the nation. This is due to relatively low levels of fraud, corruption, and crime.

Focus on the Future: Ranked No. 5

Observers have suggested there is a widening opportunity gap among American children, with declining interactions between social classes and growing disparity in educational and recreational offerings. These consequences project into adulthood.

Participation in youth sports now requires significant investments, and youth participation in sports has generally declined in recent years. This means many children are missing out on the chance to build soft skills like teamwork. It also means reduced opportunities to build social capital.

Utah's public investments in recreation per $1,000 of personal income have been in decline. Even with nominal funding increases, Utah's expenditures per $1,000 of personal income on primary and secondary education have also been in decline.* Utah and neighboring Arizona rank last in the nation when it comes to the number of youth organizations per 1,000 children ages 5 to 17. But this is not typical of the region: Wyoming and Montana have some of the highest rates. Meanwhile, Utah's birth rate has been in decline.

Taken together, the trends suggest Utah's investment (as a percentage of the economy) in Utah youth has lessened over time. Yet Utah remains one of the top five states in this category overall, along with neighbors Nevada and Wyoming.

Social Mobility: Ranked No. 5

Social mobility has received significant attention in recent years, with some economists suggesting that where children grow up has major implications for their economic outlook. Significant differences may be detectable both at the state and local levels.

Utah is in the top third of states when it comes to four-year degree attainment. Among the Mountain States, only Colorado outperforms Utah in the percentage of the population with a bachelor's degree or higher. As to homeownership, Utah outperforms all of the other seven Mountain States—and ranks sixth nationally. When it comes to youth engagement in education, training, or the workforce, Utah performs among the top 10 states nationally (with Colorado) and has experienced positive trends over time.

When it comes to intergenerational economic mobility, Utah ranks in the top third of states. Among the Mountain States, only Montana outperforms Utah.

Utah and Montana have high rankings across all four metrics, implying that they may be the most socially mobile states in the region. By contrast, Nevada performed worst on all four metrics.

In terms of this category's composite measure, the Beehive State ranks fifth in the nation, just ahead of Montana. Colorado is also in the national top 10. Nevada, Arizona, and New Mexico are in the bottom 10, with Nevada ranking last in the nation.

Civic Engagement: In the Nation's Top Third

Robust citizen engagement in the democratic process and in civic improvement has long been seen as a barometer of the vitality of the American republic. At the state and local levels, civic engagement has significant implications for the

*Data only available through FY 2020.

effectiveness and efficiency of government, the quality of the services that government delivers, and the responsiveness of public officials to the priorities of the public. A decline in civic engagement, by contrast, can reduce the accountability of the public sector and lead to a negative public spirit.

Utah has made modest gains in its level of civic engagement, moving from ranking just above the national average in 2013 to the top third of states in 2021. This increase was driven by higher levels of voter participation and strong public meeting attendance.

Social Cohesion: Middle of the Pack

"Social cohesion" refers to the foundational commonalities that allow a population to function effectively as a group and open the way for individuals to participate in that whole.

While Utah's social cohesion is higher than the national average, it is near the median of states. It is also in the middle of the Mountain States. That said, Utah has low economic stratification and a remarkably strong middle class. As of 2019, Utah's middle class ranked No. 1 in the nation.

Utah's overall performance on social cohesion, however, is tempered by the other metrics in this measure. While Utah's percentage of children with limited English proficiency is in the bottom half of all states, this contrasts with the adult population: Utah has the 22nd highest share of adults with limited English proficiency.

Furthermore, the share of Utah residents born in the state ranks 19th highest in 2019. Utah is unique among the Mountain States with its robust population of state natives. Most states in the region are well below average on this count, and some rank among the very lowest.

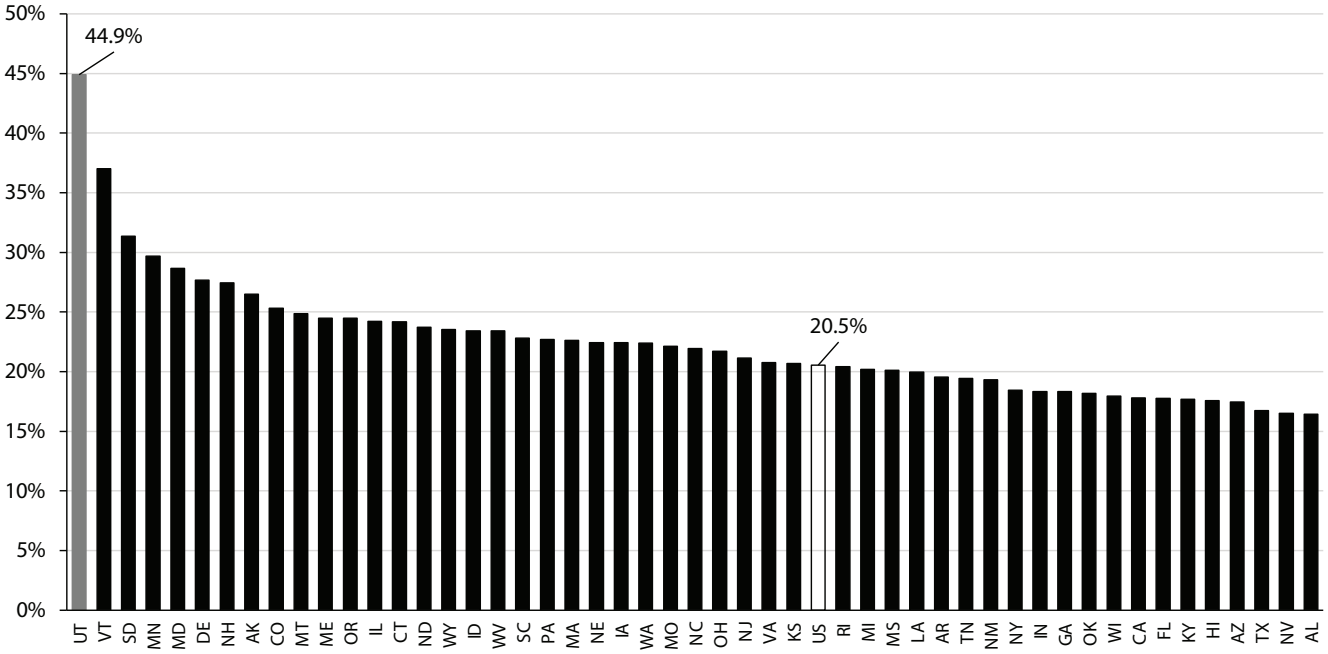
2023 Outlook

Despite Utah's relatively high level of social capital, there are areas of possible concern that could be addressed moving forward.

Utah has low levels of organizations per capita across several metrics, whether they are professional, non-professional, advocacy, or youth organizations. While Utah has a strong family structure, the state experienced an alarming decline in parents spending quality time with children. That changed substantially in 2020 due to the pandemic, but unless families make concentrated improvements in these areas, electronic entertainment devices will continue to consume a growing share of childhood.

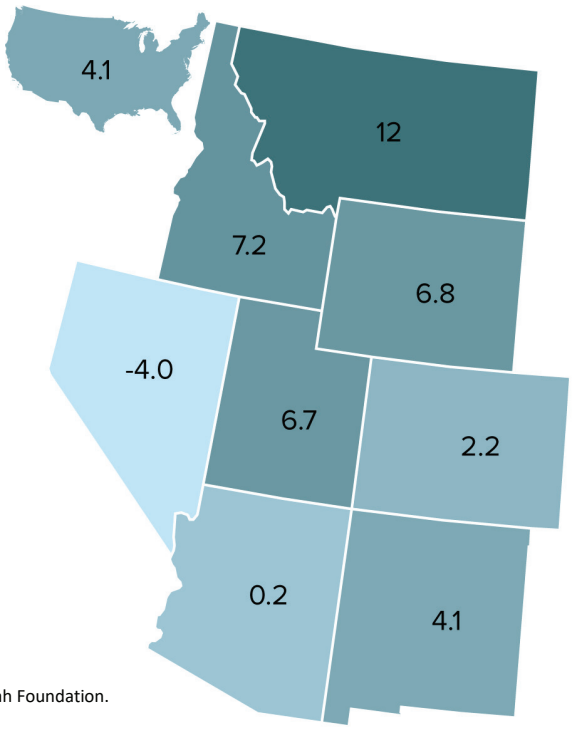
Finally, in terms of future generations, Utah has seen a decline in three of its four metrics: its birth rate; relative investments in recreation; and relative investments in public schools. And, as noted above, the ratio of children to the number of youth organizations is far below the national average. While nearly topping the nation in the future-generations subindex, Utah's decline in these metrics deserves a closer look from policymakers and civic leaders.

Figure 12.1: Share of Adults Who Report Participating in Neighborhood Projects in the Previous 12 Months, 2019



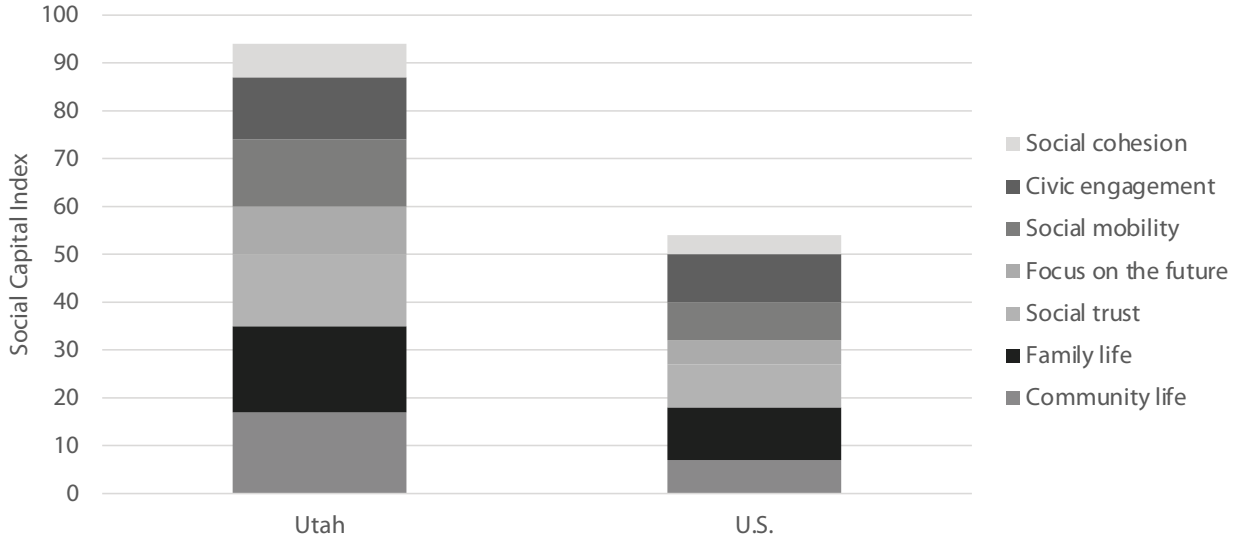
Source: U.S. Census Bureau, Volunteering and Civic Life.

Figure 12.2: The Utah Foundation's Social Capital Project Social Cohesion Subindex, Mountain States and the U.S., 2021



Source: The Utah Foundation.

Figure 12.3: The Utah Foundation's Social Capital Index with Subindexes, Utah and the U.S., 2021



Note: Each subindex has the average of states set at just over 7 at the base year.
Source: The Utah Foundation.

Table 12.1: Social Capital Indicators

	Community Life: Percent Share of Population Participating in a Public Meeting in the Previous 12 months, 2019	Family Life: Percent Share of Children Read to Every Day, 2020	Social Trust: Fraud Convictions per Million in the Mountain States, Three-Year Average, 2018-2020. Rate per One Million Individuals	Focus on the Future: State and Local Expenditures on Parks and Recreation per $1,000 of Personal Income in the Mountain States, 2019	Social Mobility: Percent Share of Population Age 25 Years or Older with a Bachelor's Degree or Higher, 2019	Civic Engagement: Percent Share of Adults Who Report Participating in Neighborhood Projects in the Previous 12 Months, 2019	Social Cohesion: Percent Share of Households in Middle-Class , 2019
Utah	17.6	12.0	15.0	$4.2	34.8	44.9	54.5
Arizona	9.2	11.0	30.0	$2.7	30.2	17.5	48.5
Colorado	15.3	15.0	9.0	$4.9	42.7	25.3	48.7
Idaho	11.2	9.0	18.0	$2.8	28.7	23.4	51.6
Montana	13.2	11.0	24.0	$ 2.4	33.6	24.9	49.0
Nevada	7.6	10.0	15.0	$4.9	25.7	16.5	49.5
New Mexico	11.5	11.0	24.0	$3.8	27.7	19.3	44.1
Wyoming	15.9	11.0	18.0	$3.9	29.1	23.5	52.5
National avg.	11.2	12.0	19.0	$2.7	33.1	20.5	46.6

Note: Middle class is defined as households that earn between two-thirds and twice the median income.
Sources:
Share of Population Participating in a Public Meeting in the Previous 12 months 2019
U.S. Census Bureau, "Volunteering and Civic Life." Available from www.census.gov/data/datasets/time-series/demo/cps/cps-supp_cps-repwgt/cps-volunteer.html.
Share of Children Read to Every Day 2020
U.S. Census Bureau, "National Survey of Children's Health (NSCH)." Available from https://www.census.gov/programs-surveys/nsch/data/datasets.2019.html.
Fraud Convictions, Three-year Average, 2018-2020
United States Sentencing Commission, "Data Reports by Geography," www.ussc.gov/research/data-reports/ geography.
State and Local Expenditures on Parks and Recreation per $1,000 of Personal income in the Mountain States, 2019
U.S. Census Bureau, 2019, "Annual Survey of State and Local Government Finances," Available from https://www.census.gov/programs-surveys/gov-finances.html.
(Nevada is 2018) Bureau of Economic Analysis, 2020, "Personal Income, Population, Per Capita Personal Income (SQINC1)." Available from https://bea.gov/.
Share of Population Age 25 Years or Older with a Bachelor's Degree or Higher 2019
U.S. Census Bureau, "Educational Attainment for the Population 25 Years and Over." Available from https://data.census.gov/cedsci/table?tid=ACSDT1Y2019.B15003.
Share of Adults Who Report Participating in Neighborhood Projects in Previous 12 Months 2019
U.S. Census Bureau, "Volunteering and Civic Life." Available from www.census.gov/data/datasets/time-series/demo/cps/cps-supp_cps-repwgt/cps-volunteer.html.
Share of Households in Middle-Class 2019
U.S. Census Bureau, "Public Use Microdata Sample." Available from https://data.census.gov/mdat/#/.

Economic Development

13

Utah Governor's Office of Economic Opportunity (GO UTAH)
Economic Development Corporation of Utah (CDC UTAH)

OVERVIEW

The past year's strategic efforts by the Utah Governor's Office of Economic Opportunity (GO Utah) focused on cultivating prosperity, future-proofing Utah's economy, and working with the private sector to move beyond the COVID-19 emergency response and look to strengthen the future.

Utah's low tax rates, vibrant workforce, and sensible regulations are part of the foundation for the state's excellent business environment. The careful execution of these strategies brought accolades such as "Best U.S. Economy" *U.S. News & World Report* — July 2022 and "Best Economic Outlook" *Rich States Poor States* — April 2022.

Utah's business-friendly environment, entrepreneurial attitude, and sense of community — combined with a willingness to collaborate — continue to set the state apart and position us as economic leaders in the country and worldwide. The strength of Utah's economy comes from close partnerships between the public and private sectors. Three state-led partnerships anchor the effort, the Utah Inland Port Authority, the Military Installation Defense Authority, and the Point of the Mountain State Land Authority. These projects create generational impacts for Utahns with opportunities to incubate and expand private sector businesses.

Gov. Cox leads the Unified Economic Opportunity Commission (UEOC), a joint effort with the Legislature and many other stakeholders around Utah, which develops, directs, and coordinates Utah's statewide and regional economic development strategies. The commission informs policy decisions and builds consensus. In its inaugural year, the UEOC developed more than 30 policy initiatives and funding recommendations. Of particular note is H.B. 333 Economic Development and Workforce Amendments, which reorganized many programs within the Governor's Office of Economic Opportunity, established the Women in the Economy Subcommittee of the UEOC, modified grant programs administered through the office, and created the Rural Opportunity Fund and a Rural Opportunity Advisory Committee, centralizing previous programs.

Utah emerged from the coronavirus pandemic far better than most states. A *Wall Street Journal* article from 2022, titled States of Covid Performance, ranked Utah first for its economic, education, and mortality ranking and touted its resilience. The state's business-friendly responses allowed Utah to push beyond the emergency response phase of the pandemic and focus on strengthening and supporting the diversification of core businesses and industries in the state.

Expansion and Relocation Projects

With inflation and talks of a looming economic contraction, Utah's expansion and relocation pipeline has been partially immune. In the first half of FY23, we saw an average of 11 new projects start per month, returning to roughly the state's pre-pandemic monthly average from the high water mark of FY22 activity.

Several expansion and relocation trends that started during the COVID-19 pandemic continued in 2022. In the two years before March 2020, the information technology industry dominated Utah's expansion and relocation project pipeline, accounting for 33% of additions. However, from March 2020 onward, the share of information technology projects dropped, and manufacturing-related projects rose to 46% of expansion projects in 2022.

Some industries that experienced decreased activity early in the pandemic returned to pre-pandemic levels. For example, in 2022, the market saw an increase in advanced manufacturing, aerospace and defense, and financial services projects. However, information technology projects remain low due in part to industry-facing headwinds and ongoing work-from-anywhere policies.

The manufacturing expansions are attributed to recent reshoring efforts, attempts to mitigate supply chain constraints, and other market factors. Manufacturing and distribution projects generally have more complex site requirements, require higher capital investment, change the dynamics of power and different infrastructure needs, and require more technical support from economic developers. Rapidly changing real estate costs and land availability have shifted the focus of where projects can land in Utah. Currently, 14 of the 29 project wins in 2022 occurred off the Wasatch Front, deepening the impact of economic development across the state and in our rural communities. Go Utah supported these reshoring efforts through the Manufacturing Modernization Grant. The grant assisted 22 companies with supply chain-related projects to strengthen Utah's ecosystem and lessen dependence on foreign sources.

Major Projects

In 2022, Go Utah and EDCUtah worked together to support 29 company relocations or expansions in Utah. These projects are estimated to provide 10,300 jobs to the state's economy and include capital investments totaling more than $1.3 billion.

Business Climate

Utah's young, educated workforce continues to grow, state and local governments remain fiscally responsible and stable, and the cost of doing business remains lower than the national average. In April 2022, Utah recorded the nation's lowest unemployment rate at 1.9%.

Utah continues to receive recognition as a leading global business destination. *Forbes* ranked Utah No.1 for GDP Growth, and *WalletHub* ranked the state No.1 for Best State Economy. *Heartland Forward* ranked Utah No. 3 in Entrepreneurial Capacity, Site Selection Group ranked Utah No. 2 in its Best States for Manufacturing rankings, and *Site Selection* Magazine ranked Utah as the Best State in the Intermountain West for Workforce Development.

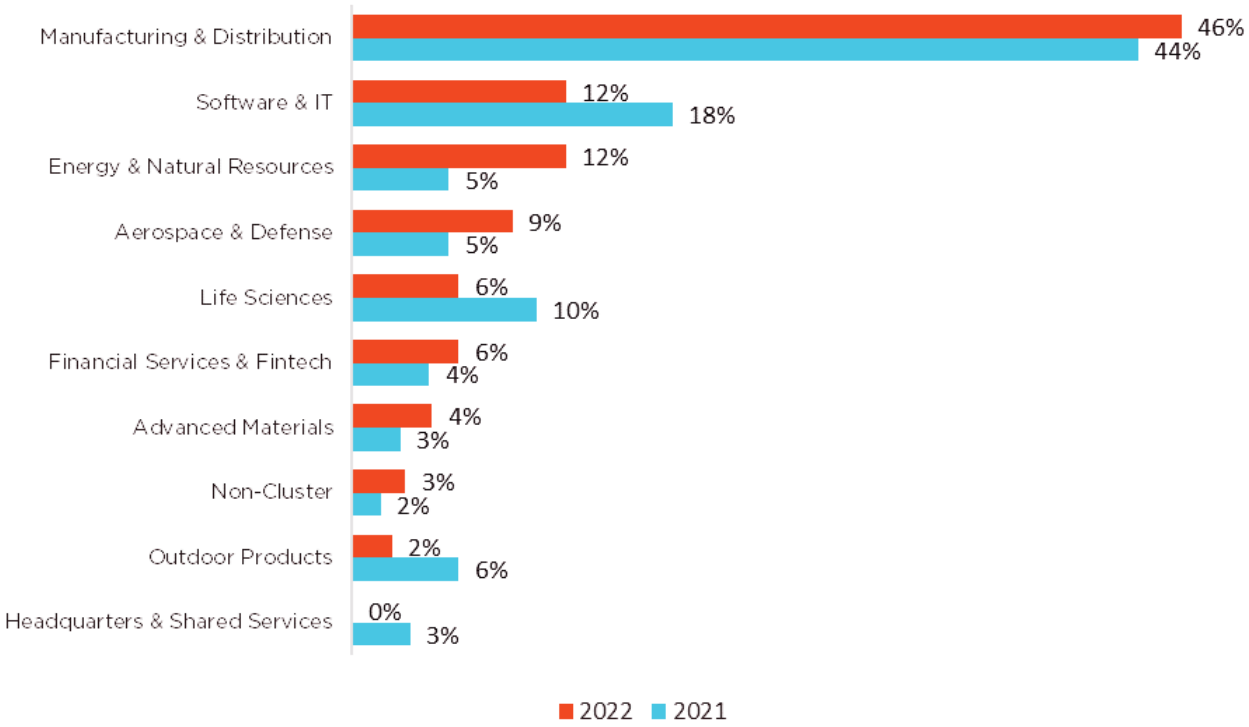
Targeted Industries

Utah's targeted industries employed over 380,000 Utahns in 2022, an increase from 365,000 in 2021 and 353,000 in 2020, demonstrating 5.4% growth. Also, our industry organizations play a key role in helping our office with critical information on how we can assist our targeted industries. It's worth noting that the Aerospace and Defense Industry recently announced the creation of the Utah Aerospace and Defense Association. We assisted in the creation and look forward to supporting this critical association for our state.

2023 OUTLOOK

Utah's diverse industries and strong economic growth are indicators of the state's robust economy. The state continues to be envied for its strong fiscal policies and unmatchable quality of life.

Figure 13.1: Changes in the Pipeline of Expansion and Relocation Projects, 2021–2022



Source: Governor's Office of Economic Opportunity

Table 13.1: Notable Employer Expansions or Relocations in 2022

Company	Expansion Location	Jobs	State Wages	State Revenue	Capital Investment	Rebate Percentage	Term
LiveView Technologies	Orem	3,400	$1,318,589,576	$88,125,355	$328,212,621	20%	10 years
Electric Power Systems	North Logan	3,130	$867,413,432	$279,513,019	$206,000,000	25%	9 years
Morgan Stanley	South Jordan	800	$575,000,000	$21,800,000	$1,000,000	30%	10 years
Jabil	Grantsville	150	$60,876,970	$2,354,058	$10,000,000	30%	7 years
Frulact	Logan	131	$123,976,671	$8,272,260	$75,632,896	25%	15 years

Source: Governor's Office of Economic Opportunity

Agriculture

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Caroline Hargraves, Utah Department of Agriculture and Food

2022 OVERVIEW

General

Total agriculture receipts, or the market value of agricultural commodities, totaled $1.99 billion in 2021, up 11.2% from 2020's $1.79 billion. The farm sector provided 20,552 jobs in 2021 earning a total of $214.5 million.[1]

In 2021, Utah had an estimated 10.7 million acres in farmland, including 8.6 million acres of pastureland, 19.7% of Utah's total 54.3 million acres of land. This ranks Utah as 26th in the country in total land in farms. Utah is home to 17,900 agriculture operations (ranked 37th nationally), up 100 since 2020 and down 200 operations from 2018. Utah's average farm size is 598 acres (ranked 12th nationally), down slightly compared with 601 acres in 2020.

Top Counties

Utah's top five counties for 2020 agricultural sales were Beaver ($230 million), Millard ($201 million), Utah ($197 million), Cache ($174 million), Sanpete ($165 million).[2]

Utah's top five counties in total number of farms are Utah (2,589), Cache (1,397), Weber (1,260), Box Elder (1,187), and Uintah (1,114). Daggett County had the fewest at 52.[3]

Production

In terms of revenue generated, Utah's top five agricultural products are beef cattle and calves, dairy products, hogs, hay, and greenhouse and nursery crops. Livestock is the foundation of Utah agriculture. Over three-quarters of Utah's agricultural income is generated by livestock and livestock products, with beef cattle and dairy leading this sector. Abundant rangelands support the state's livestock production and more than 8,000 cattle-ranching operations.

Hay is Utah's largest crop, grown to feed beef and dairy cattle. Leading fruits are apples, cherries, peaches, apricots, and pears. Leading vegetables are onions, potatoes, and dry beans. Mushrooms and safflower are also grown in Utah.

Nationally, Utah ranks second in mink pelt production, second in tart cherry production, fourth in wool production, fifth in safflower production, 15th in hog and pig production, 21st in dairy cow production, and 28th in beef cows.

Sales and Prices

In 2021, there were 790,000 cattle and calves, down from 820,000 in 2020, a 3.7% decrease. There were 940,000 hogs on Utah farms in 2021, a slight decrease from the 1 million hogs in 2020. In 2021, hog sales increased 35.8% to $208 million, up from $153 million in 2020. Sheep and lambs totaled 270,000 in 2021, down slightly from 285,000 in 2020. There were 94,000 milk cows in 2021, compared with 95,000 milk cows in 2020, a 1.1% decrease. The compensation price for milk increased slightly over the same period from $18.20/cwt to $18.50/cwt, a 1.65% increase.

Animal and animal product sales increased 8.8% from $1.25 billion in 2020 to $1.36 billion in 2021. Total crop sales increased from $539.3 million in 2020 to $627.5 million in 2021, a 16.4% increase.

Total agriculture sales figures do not reflect the value of commodities produced and used on Utah farms and ranches, such as hay, grain, and corn fed to livestock. Nor do they include multiplier effects of this revenue circulating in local economies. By incorporating these values, the overall contribution of agriculture production would increase substantially.

1 U.S. Bureau of Economic Analysis
2 2022 Utah Agriculture Statistics and Utah Department of Agriculture and Food Annual Report
3 Ibid.

Significant Issues

In 2022, Utah poultry producers were impacted by the most significant outbreak of highly pathogenic avian influenza to date. 19 commercial flocks and 9 backyard flocks have been affected, totaling in a loss of 2.2 million birds, including 701,600 turkeys, causing substantial losses for producers.

Utah farmers and ranchers continued to face extreme drought conditions, resulting in devastating losses for many producers. As the industry prepares for the future, agricultural water access and water optimization projects to improve efficiency will be pressing needs in the years ahead.

Animal agriculture is the foundation of Utah agriculture. Ranching operations require a combination of private and public lands to be sustainable and economically viable. Ranchers face significant uncertainty with 63% of Utah lands under federal control in addition to market volatility and supply chain disruptions.

Predation, led by coyotes, continues to be a problem for sheep, cattle, and poultry producers. Predator control funding comes from state and federal sources, as well as from ranchers who pay a per-head assessment. The focus of the program is to protect livestock, primarily adult sheep, lambs, and calves, from predators, including coyotes, cougars, bears, and ravens. In 2021, 17,100 sheep were lost solely to coyotes, up 9% from 15,700 losses in 2020. Total sheep losses due to predation in 2021 were 42,000, up 12% from 37,500 in 2020.

Agriculture Sustainability

Each Utah farm or ranch is unique. Often, we think of ranchers on horseback surrounded by their animals or a farmer in a large field with a tractor; these types of farms still account for the majority of agricultural products in Utah. However, urban farms are also a valuable component to a safe, secure, and abundant local food supply.

Utah's population growth, land prices, and increasing operating costs, and fluctuating market prices for agricultural products continue to pressure the conversion of fruit, vegetable, and other farmland into residential and commercial development. In the nation's second most arid state, urban encroachment and growth continues to pressure conversion of agricultural water to municipal and industrial uses.

Farmers continue to face economic uncertainty. The farmer share of food spending remains low at 14.5 cents per dollar in 2021, up slightly from 14.3 cents per dollar in 2019. With rising costs for fuel, fertilizer, and other agricultural inputs, maintaining the financial viability of agricultural operations is a challenge.[4]

2023 OUTLOOK

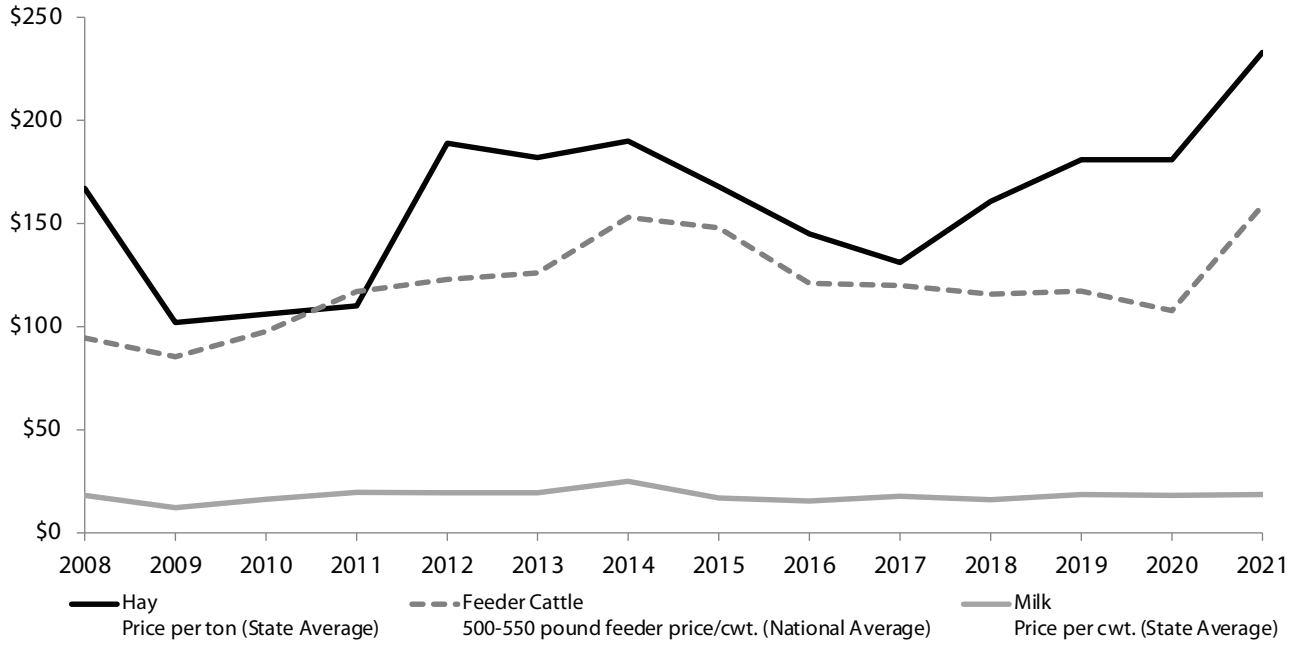
Agricultural production and processing play a significant role in Utah's diverse economy. In recent years, the impacts of COVID-19 and subsequent supply chain disruptions have exposed new vulnerabilities, brought past vulnerabilities to the surface, and have highlighted the importance of a safe and secure local food supply chain. The meat supply chain in particular has proven to be at risk from market disruptions.

There is substantial interest in increasing agricultural processing in Utah. Connecting local agricultural production with local processing could hold substantial opportunities for economic growth and food security. Expanding infrastructure for meat, fruit processing and packaging, co-packing, and bottling presents unique opportunities to capture manufacturing dollars for agricultural products in Utah.[5]

Developing countries, expanding global markets, and changing consumer food purchasing behaviors keep Utah's production agriculture industry evolving and in demand. Additionally, farms and ranches provide critical open space and are highly valued contributors to Utahns' quality of life. Population growth in a state with limited water and private land continues to put pressure on these natural resources to transition from food production to urban development. Other opportunities for Utah agriculture include growth in agritourism and innovative processing and distribution systems such as food hubs. Helping citizens develop a deeper connection with and understanding of the importance of agriculture will be key in continuing a successful future for the industry.

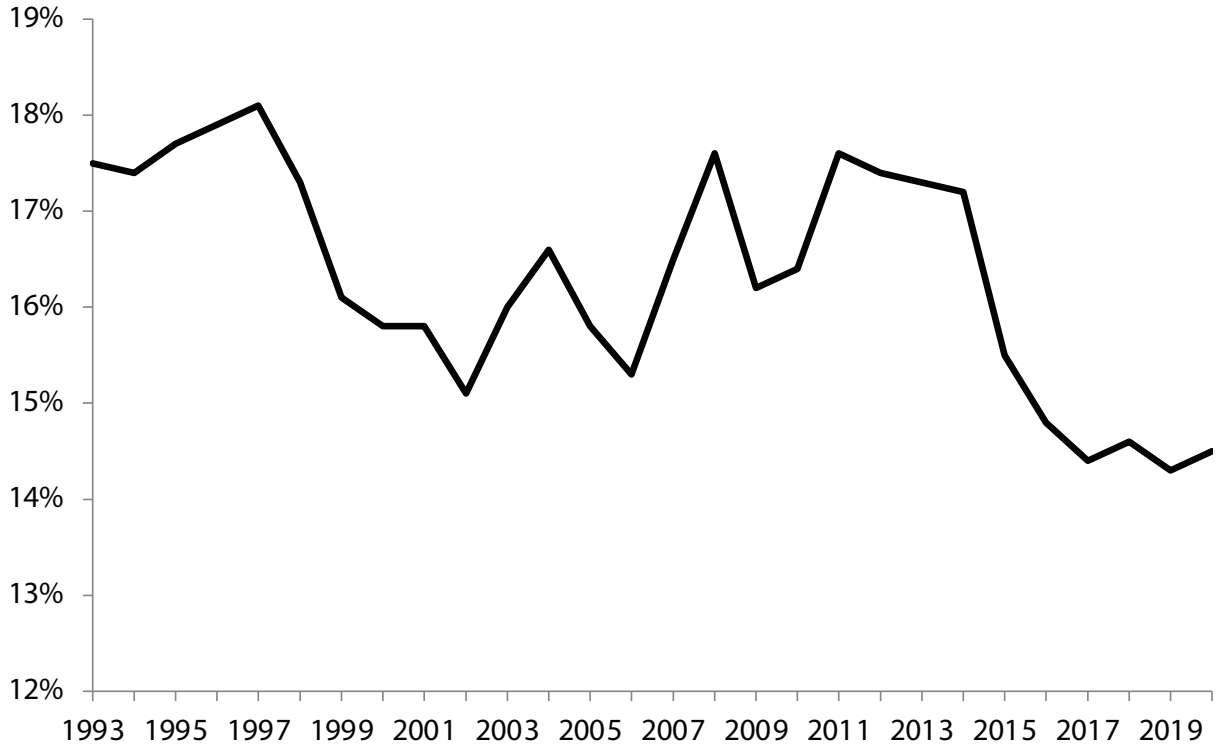
4 United States Department of Agriculture, Economic Research Service
5 Utah Department of Agriculture and Food 2021 Centennial Strategic Plan

Figure 14.1: Nominal Average Annual Price Received in Major Utah Agricultural Sectors, 2008-2021



Source: U.S. Department of Agriculture & Utah Department of Agriculture and Food

Figure 14.2: Farmers' Share of Food Spending,1993-2020



Source: U.S. Department of Agriculture , Economic Research Service

Defense

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Kevin Sullivan, Utah Defense Alliance
Michael Hogue, Kem C. Gardner Policy Institute

2022 OVERVIEW

Employment

In 2021, federal defense employment totalled 35,559 in Utah: 16,959 military personnel and 18,600 civilian employees. This represents a 0.3% decrease from 2019. Over the past five years, Utah experienced a net gain of 1,303 federal civilian jobs (7.5% increase) and 989 military personnel (6.2% increase). Hill Air Force Base, Dugway Proving Ground, Tooele Army Depot, Utah National Guard, the Reserves, and Veteran Affairs (benefits office, hospital, clinics, and centers) installations employ most of Utah's federal defense employees. Federal defense employment excludes defense-related private sector employment, such as jobs at defense contractors.

Federal defense employment in Utah shrank from 42,474 in 1990 to a low of 29,276 in 1999. In 2021, defense employment reached 35,559, its highest level since 1993. However, defense's share of total employment was 2.1% in 2021, significantly lower than its share of 5.5% in 1990. Even with recent employment gains since 2014, defense's share of total employment has fallen.

In 2021, three counties contained 81.4% of federal defense employment in Utah: 18,936 jobs in Davis County (53.3%), 8,601 jobs in Salt Lake County (24.2%), and 1,411 jobs in Tooele County (4.0%). Hill Air Force Base, the largest military installation in Utah, drives Davis County's large share of total defense employment. Hill AFB was the state's sixth-largest employer in 2021. The largest installations in Salt Lake and Tooele counties are the reserve branches of the armed forces and Dugway Proving Ground, respectively.

Compensation

Utah's compensation per federal defense job has historically exceeded Utah's average compensation rate, with the gap widening by over 50% in 2009. Even with some tapering in recent years, federal defense jobs in Utah offered an average of $91,229 in compensation, 29.0% more than the $70,725 at non-defense jobs in 2021.[1]

Veterans & Military Retirees

The National Center for Veterans Analysis and Statistics estimates 130,668 veterans lived in Utah in 2020. The largest numbers of veterans live in Salt Lake, Davis, Utah, and Weber counties.

About 1-in-7 Utah veterans are military retirees. Retirees predominantly live in Davis, Salt Lake, and Weber counties, with relatively strong presences in Utah and Washington counties.

Contracts and Grants

At $3.2 billion in FY 2021, the total value of Department of Defense (DOD) and Veteran Affairs (VA) contracts and grants increased by 48% from FY 2020. Annual amounts vary considerably, driven primarily by changes in DOD contracting levels. Even with year-to-year fluctuations, DOD contracts consistently make up a majority share of total awards, ranging between 87% to 97% depending on the year. Total grant awards typically fall between 1% and 11% of total awards. In 2021, DOD contracts and grants accounted for 96% of total Utah awards.

1. Compensation includes wages and salaries and employer-paid pension and government social insurance and contributions.

2023 OUTLOOK

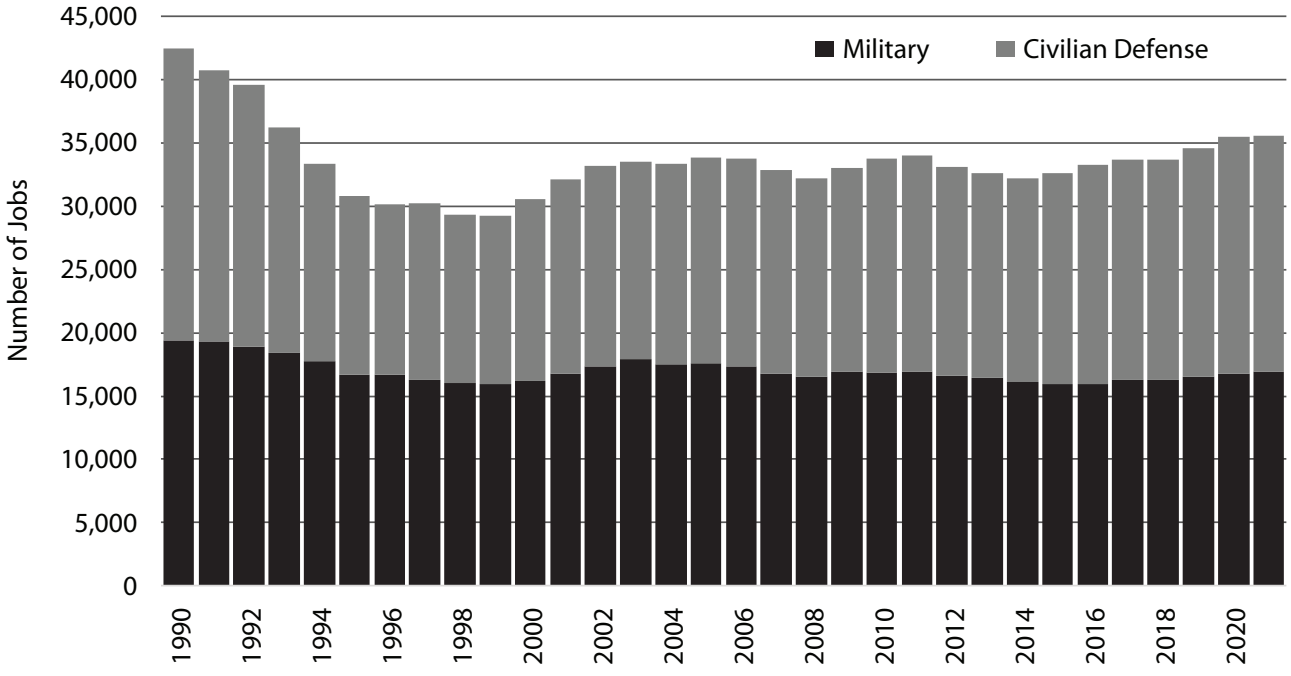
As has been the case for the past several years, forecasters project employment at the majority of Utah's military installations to remain relatively stable for 2023. The exception once again involves continued Hill Air Force Base growth, both on base and in the surrounding defense contractor community, associated with the Ground Based Strategic Deterrent program—recently designated the Sentinel program by the Department of Defense.

On base, the Sentinel government program office will continue to hire modest numbers of both DoD civilian and military members to build out program office staffing. Off base, the Northrup Grumman Corporation completed construction of all four business complex buildings and the company will continue hiring into 2023 as well.

While the magnitude of Sentinel program subcontractor growth in Utah remains difficult to determine, strong indications suggest that, with both the prime contractor and Air Force program offices located in Utah, a number of these companies will locate all or part of their Sentinel related operations here as well.

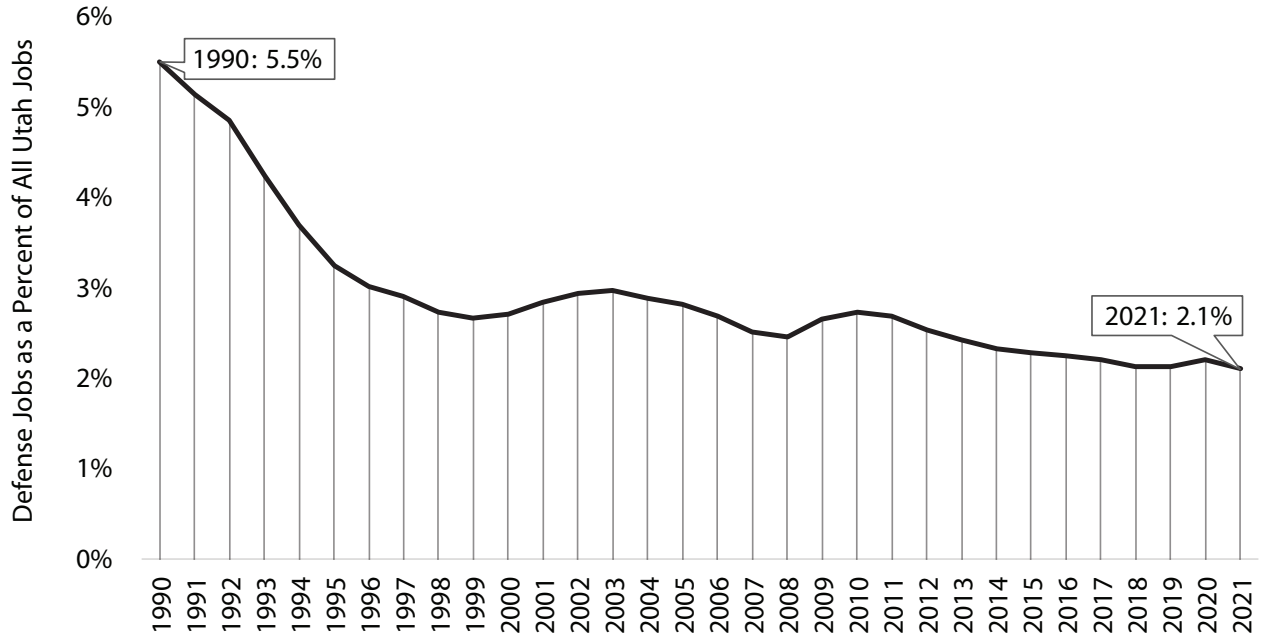
Compensation associated with this growth in Sentinel related jobs will continue to reflect the historically higher-than-Utah-average compensation enjoyed by federal defense jobs for many years. Many of these new jobs will be highly technical, requiring advanced degrees and often significant experience levels. These prerequisites, accompanied by Utah housing costs which have risen significantly over the past few years, will require attractive compensation packages to convince qualified defense sector employees to make Utah their home.

Figure 15.1: Military and Federal Civilian Defense Employment in Utah, 1990–2021



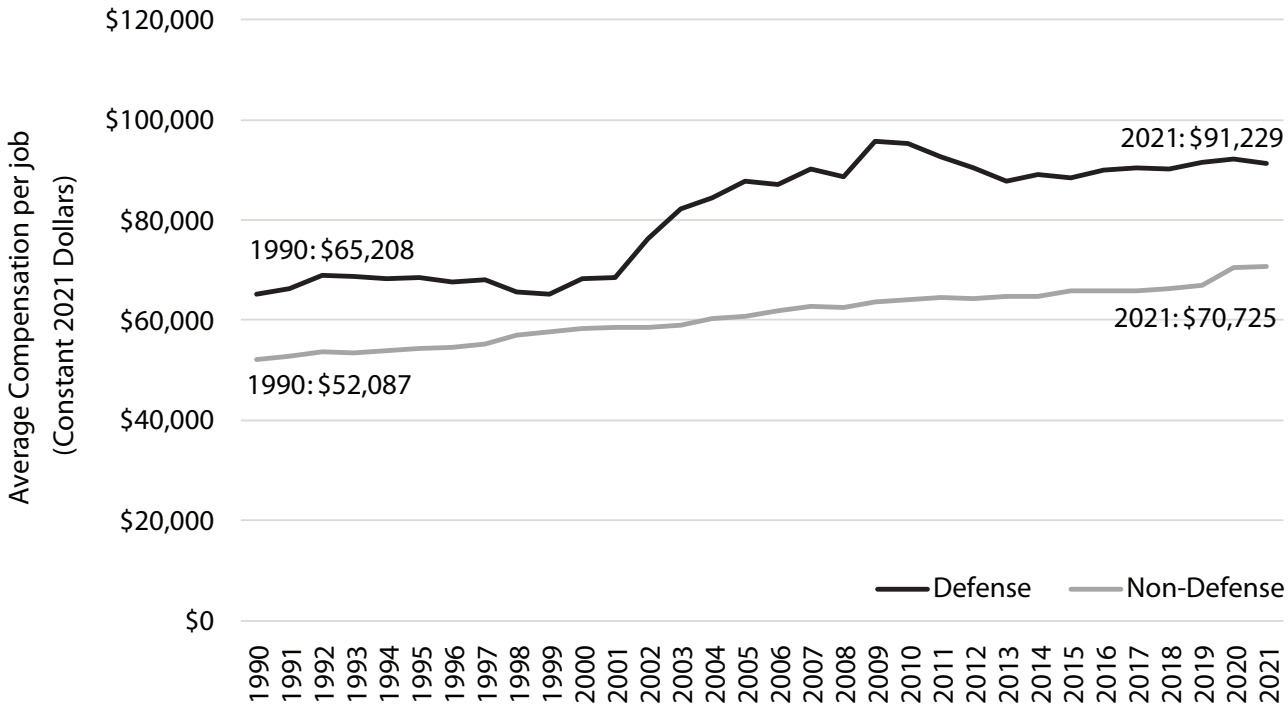
Note: Federal defense employment includes the military, whether active-duty employment or part-time employment in reserve or National Guard units. It also includes federal civilian employment for national security and medical care provided by the VA and DOD.
Source: Bureau of Economic Analysis, Bureau of Labor Statistics.

Figure 15.2: Defense Share of Total Employment in Utah, 1990–2021



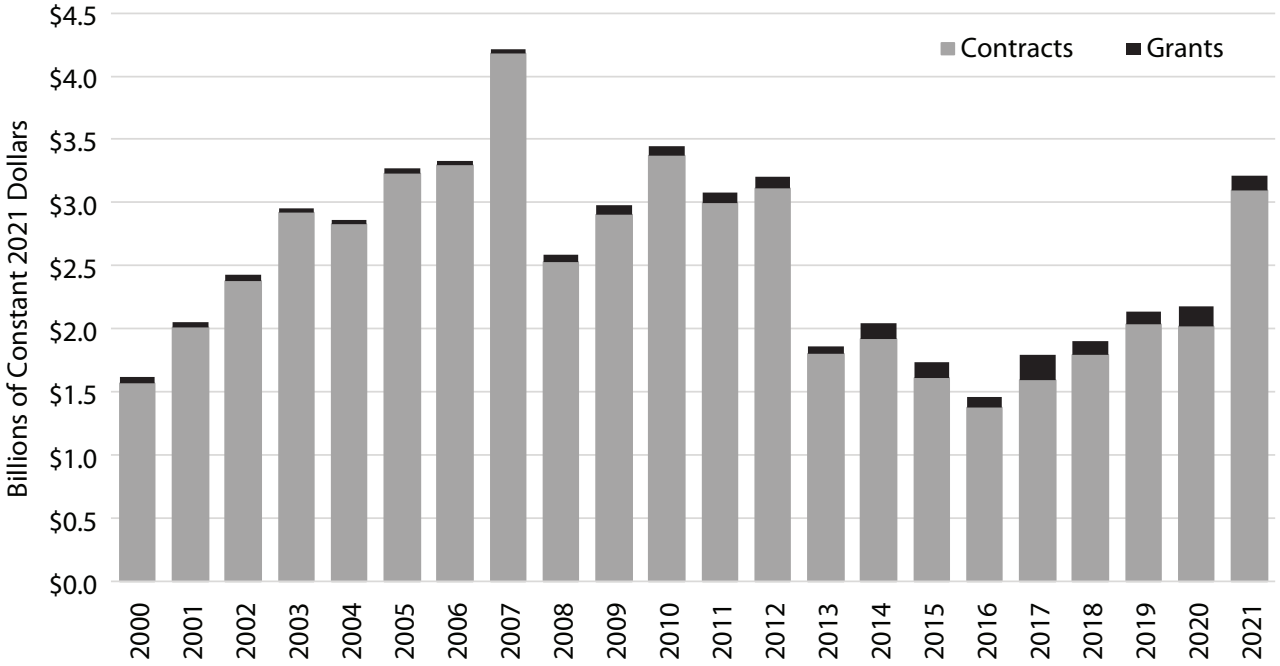
Source: Bureau of Economic Analysis, Bureau of Labor Statistics.

Figure 15.3: Average Total Compensation per Utah Job, Defense vs. Non-Defense, 1990–2021



Note: Total compensation includes wages and salaries and employer-paid pension and government social insurance and contributions.
Source: Bureau of Economic Analysis, Bureau of Labor Statistics.

Figure 15.4: Total DoD and VA Prime Contracts and Grants Performed in Utah, 2000–2021



Note: Amounts include dollars obligated each federal fiscal year for prime awards for contracts and grants funded by the U.S. Department of Defense (DoD) and U.S. Department of Veterans Affairs (VA) for which Utah was given as the primary place of performance. All amounts are in constant 2021 dollars.
Source: USAspending.gov by the U.S. Department of Treasury.

Table 15.1: Defense Employment and Compensation in Utah, 1990–2021

Year	Employment				Compensation (Millions of Dollars)			
	Military	Federal Civilian	Total Defense	Share of All Utah Jobs	Military	Federal Civilian	Total Defense	Share of Utah Compensation
1990	**19,399**	**23,075**	**42,474**	**5.5%**	**$784.7**	**$1,865.2**	**$2,649.8**	**6.8%**
1991	19,336	21,387	40,723	5.1%	$800.1	$1,781.3	$2,581.5	6.4%
1992	18,938	20,619	39,557	4.9%	$800.8	$1,812.4	$2,613.2	6.2%
1993	18,406	17,850	36,256	4.2%	$742.6	$1,639.5	$2,382.0	5.4%
1994	17,748	15,570	33,318	3.7%	$713.7	$1,461.9	$2,175.6	4.6%
1995	**16,695**	**14,134**	**30,829**	**3.2%**	**$685.6**	**$1,333.4**	**$2,019.0**	**4.0%**
1996	16,676	13,472	30,148	3.0%	$699.8	$1,249.7	$1,949.5	3.7%
1997	16,261	13,975	30,236	2.9%	$678.2	$1,288.5	$1,966.6	3.6%
1998	16,033	13,277	29,310	2.7%	$551.8	$1,289.4	$1,841.2	3.1%
1999	15,922	13,354	29,276	2.7%	$560.4	$1,263.5	$1,823.9	3.0%
2000	**16,222**	**14,291**	**30,513**	**2.7%**	**$580.1**	**$1,412.9**	**$1,993.0**	**3.2%**
2001	16,761	15,375	32,136	2.8%	$620.9	$1,488.9	$2,109.8	3.3%
2002	17,334	15,825	33,159	2.9%	$790.7	$1,630.7	$2,421.5	3.8%
2003	17,918	15,618	33,536	3.0%	$980.3	$1,657.9	$2,638.3	4.1%
2004	17,500	15,874	33,374	2.9%	$995.8	$1,703.6	$2,699.4	4.0%
2005	**17,608**	**16,232**	**33,840**	**2.8%**	**$1,076.7**	**$1,764.5**	**$2,841.2**	**4.0%**
2006	17,326	16,464	33,790	2.7%	$1,006.6	$1,809.9	$2,816.5	3.7%
2007	16,768	16,072	32,840	2.5%	$975.0	$1,857.1	$2,832.1	3.6%
2008	16,540	15,638	32,178	2.5%	$983.1	$1,743.4	$2,726.5	3.5%
2009	16,959	16,069	33,028	2.7%	$1,080.8	$1,946.1	$3,026.9	3.9%
2010	**16,886**	**16,881**	**33,767**	**2.7%**	**$1,070.5**	**$2,011.0**	**$3,081.5**	**4.0%**
2011	16,896	17,115	34,011	2.7%	$989.8	$2,025.9	$3,015.6	3.8%
2012	16,570	16,561	33,131	2.5%	$930.1	$1,938.3	$2,868.4	3.5%
2013	16,432	16,171	32,603	2.4%	$891.0	$1,845.3	$2,736.4	3.3%
2014	16,074	16,126	32,200	2.3%	$836.1	$1,905.5	$2,741.6	3.2%
2015	**15,962**	**16,603**	**32,565**	**2.3%**	**$800.7**	**$1,951.9**	**$2,752.6**	**3.0%**
2016	15,970	17,297	33,267	2.2%	$825.4	$2,037.2	$2,862.6	3.0%
2017	16,262	17,434	33,696	2.2%	$829.5	$2,082.8	$2,912.3	3.0%
2018	16,300	17,346	33,646	2.1%	$858.9	$2,043.7	$2,902.7	2.9%
2019	16,506	18,032	34,538	2.1%	$898.1	$2,124.4	$3,022.5	2.9%
2020	**16,784**	**18,671**	**35,455**	**2.2%**	**$929.4**	**$2,199.5**	**$3,128.9**	**2.9%**
2021	16,959	18,600	35,559	2.1%	$980.1	$2,263.9	$3,244.0	2.7%

Note: Federal defense employment includes the military, whether active-duty employment or part-time employment in reserve or National Guard units. It also includes federal civilian employment for national security and medical care provided by the VA and DOD. Total Utah employment consists of total full- and part-time employment. All dollars are in millions of constant 2021 dollars.
Source: Bureau of Economic Analysis, Bureau of Labor Statistics.

Table 15.2: Total DoD and VA Prime Contracts and Grants Performed in Utah, FY 2000–2021
(Millions of Constant FY 2021 Dollars)

Fiscal Year	Contracts			Grants			Contracts & Grants		
	DoD	VA	Total	DoD	VA	Total	DoD	VA	Total
2000	$1,553	$19	$1,572	$44	$2	$46	$1,596	$21	$1,617
2001	$1,966	$42	$2,008	$43	$2	$45	$2,009	$44	$2,053
2002	$2,323	$53	$2,376	$50	$2	$53	$2,374	$55	$2,429
2003	$2,859	$63	$2,922	$30	$2	$33	$2,890	$65	$2,955
2004	$2,779	$46	$2,824	$36	$2	$39	$2,815	$48	$2,863
2005	$3,144	$87	$3,231	$41	$2	$43	$3,185	$89	$3,274
2006	$3,225	$70	$3,296	$29	$2	$32	$3,255	$73	$3,328
2007	$4,109	$70	$4,179	$37	$0	$37	$4,146	$70	$4,216
2008	$2,457	$74	$2,531	$55	$0	$55	$2,513	$74	$2,587
2009	$2,786	$116	$2,902	$80	$0	$80	$2,865	$116	$2,982
2010	$3,237	$135	$3,372	$56	$17	$73	$3,292	$152	$3,445
2011	$2,868	$125	$2,994	$76	$12	$88	$2,944	$137	$3,081
2012	$3,003	$109	$3,113	$59	$29	$88	$3,062	$139	$3,201
2013	$1,706	$100	$1,805	$51	$1	$52	$1,757	$101	$1,858
2014	$1,816	$105	$1,921	$104	$22	$126	$1,920	$126	$2,046
2015	$1,515	$97	$1,613	$90	$31	$121	$1,606	$128	$1,734
2016	$1,263	$114	$1,377	$78	$2	$80	$1,341	$116	$1,458
2017	$1,519	$71	$1,590	$173	$32	$205	$1,692	$103	$1,795
2018	$1,719	$71	$1,791	$79	$28	$107	$1,798	$100	$1,898
2019	$1,965	$71	$2,036	$64	$37	$100	$2,028	$108	$2,136
2020	$1,904	$118	$2,022	$109	$47	$156	$2,013	$165	$2,178
2021	$3,003	$95	$3,097	$69	$48	$117	$3,072	$143	$3,214

Note: Amounts include dollars obligated each federal fiscal year for prime awards for contracts and grants funded by the U.S. Department of Defense (DoD) and U.S. Department of Veterans Affairs (VA) for which Utah was given as the primary place of performance. All dollars are in millions of constant 2021 dollars.
Source: USAspending.gov by the U.S. Department of Treasury.

Public Education

16

Nestor M. Rodriguez, Economist, Utah State Board of Education
Sam Urie, Finance Director, Utah State Board of Education
Dale Frost, MSP Administrator/Fiscal Policy Analyst, Utah State Board of Education

OVERVIEW

Enrollment

In Fall 2022, 675,660 students enrolled in Utah's public education system, an increase of 413 students (.06%) from Fall 2021. There were 46,664 kindergarten students, a decrease of 1,855 students**,** or 4.3% from the previous Fall 2021 (48,758). Kindergarten enrollment had previously increased in the Fall 2021 by 1,855 students from the Fall of 2020.

Although Utah's student population is primarily White (71.4%), it is becoming more diverse. In Fall 2022, Utah's student body was 19.5% Hispanic or Latino, 1.7% Asian, 1.6% Pacific Islander, 0.9% American Indian and Alaska Native, 1.3% African American or Black, and the remaining students (3.4%) identified with multiple ethnicities.

In 2022, 115 charter schools operated in Utah. The Utah State Charter School Board, school districts, and public universities authorize charter schools. Charter schools educate 78,732 students, about 11.6% of all Utah public school students.

Transportation

In Fall 2021, the state's 3,288 school buses transported 164,279 students more than 25 million miles to and from school. Twenty-five percent of students travel on school buses to and from school.

Construction

In 2021, the Utah State Board of Education issued 77 construction project numbers to 17 school districts and 12 charter schools located throughout the state. These construction projects include new or replacement schools composed of three high schools, three junior high/middle schools, 10 elementary schools and five charter schools.

Finances

In fiscal year 2019, the most recent year for which state-level National Center for Education Statistics data are available, Utah's net current expenditure per pupil totaled $7,950 (the nation's lowest). Net current expenditures do not include capital spending. Including capital spending raises total expenditure per pupil for fiscal year 2019 to $9,723 (22% more than current expenditures).

However, some consider current expenditure as a percent of total personal income as a better measure of Utah's effort to fund public education. Using this measure, Utah ranks 34th nationally, at 3.4% of personal income. Utah's per pupil net current expenditures for fiscal year 2022 was $9,963.

The Basic Program, the Minimum School Program's largest funding program, allocates funds using a weighted pupil unit (WPU) methodology. Along with other funding increases, for fiscal year 2022, the Legislature appropriated funds for a $229 increase (6.0%) in the value of the WPU, increasing it from $3,809 to $4,038 for fiscal year 2023.

Achievement

In 2022, Utah ranked 29th in the nation with an ACT Average Composite Score of 20.6. In 2022, 91% of eligible Utah high school students took the test. In 2021, the four-year cohort high school graduation rate was 88.1%, compared to 88.2% in 2020. However, because the 2021 cohort was larger, 1,233 more students graduated in 2021.

In 2021, Utah's pupil-teacher ratio was 21.1, a 2.3% decrease compared with the previous year's ratio.

A total of 48,974 Utah students earned 367,233 hours of college credit in 2022 through Utah's concurrent enrollment program. This total represents a 6.1% increase in students over 2020-2021. Students pass ninety-five percent of the credits attempted.

A total of 28,970 Utah public school students took 41,479 Advanced Placement (AP) exams in 2022, with 28,326 earning a score of 3 or better (a 69% pass rate), which qualifies students to earn college credit. Nationally, the pass rate at public schools is 59%. Utah has 11 schools involved in the International Baccalaureate (IB) program; three Primary Year Programs; One Middle Year Programs; Seven Diploma Year Programs; Three Career Related Programs. There are 3,433 students total among those schools, accounting for 189 diplomas.

325 Utah schools—or 31% of Utah schools—offer dual immersion programs in French, German, Mandarin Chinese, Russian, Portuguese, Arabic, and Spanish.

Impacts of COVID-19

National Assessment of Education Progress (NAEP) 2021 results show widespread learning loss nationwide. On average, U.S. public school students in grades three through eight lost the equivalent of a half year of learning in math and a quarter of a year in reading.

Relative to other states, Utah students fared better. While Utah saw statistically significant declines in fourth grade math and reading, Utah showed no significant change in eighth grade math and reading. Utah was the only state in the nation where the eighth-grade math declines were not statistically significant. No states saw statistically significant improvements in math or reading at either grade-level.

Statewide RISE (grades 3-8) and ASPIRE (grades 9-12) test results show that on average, proficiency rates fell from 2019 to 2021. While they rose slightly from 2021 to 2022, they are still below 2019 (pre-pandemic) levels.

Learning loss also varies across demographic groups. Low-income students' proficiency rates fell between two and three times more than the state average across all three subject areas. Students identifying as White, Asian, or multiple races had proficiency rates that fell by less than the state average while American Indian, Hispanic/Latino, and Pacific Islander students' proficiency rates fell by more than the state average across all three subject areas.

School districts and charter schools across the state are utilizing pandemic-related funding assistance to address learning loss in a variety of ways.

2023–2024 OUTLOOK

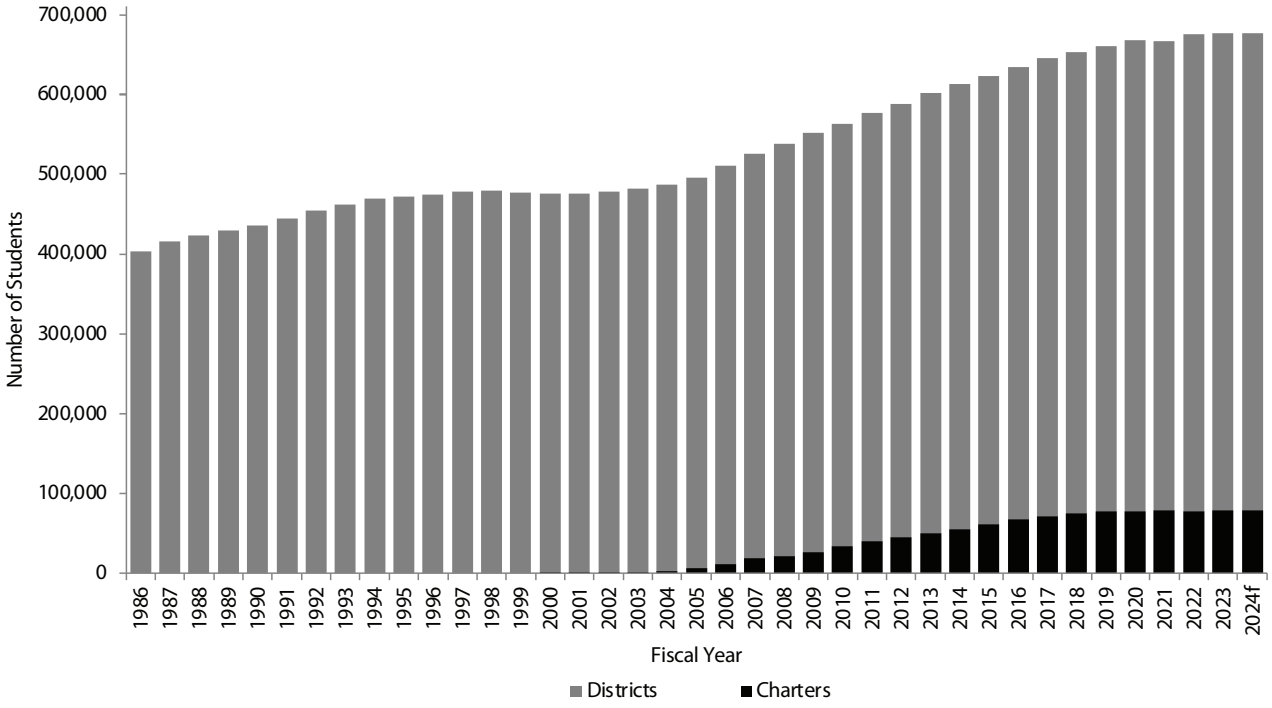
Enrollment

For the 2023-2024 school year, state forecasters project total enrollment in Utah's public education system to increase by 90 students (0.01%) to 675,750.

Kindergarten enrollment declined by more than four percent from 2021 to 2022 and has declined most of the past five school years. This change corresponds to a declining number of total births five years prior. Based on birth trends and a declining fertility rate, forecasts anticipate declining kindergarten class size will continue.

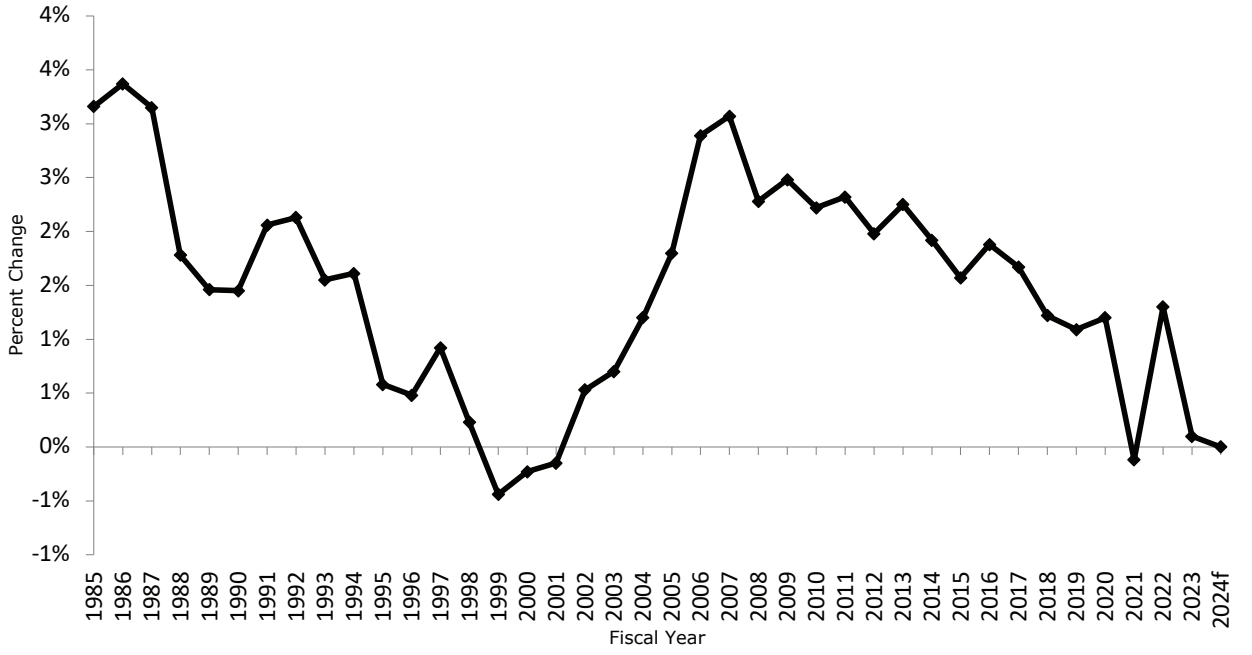
Utah's charter school enrollment has increased by approximately 0.5% per year, on average, over the last three years. Forecasts estimate that enrollment in charter schools in Utah will grow by 0.4% in the fall of 2023.

Figure 16.1: Utah Public Education Enrollment, FY 1985–FY 2024f



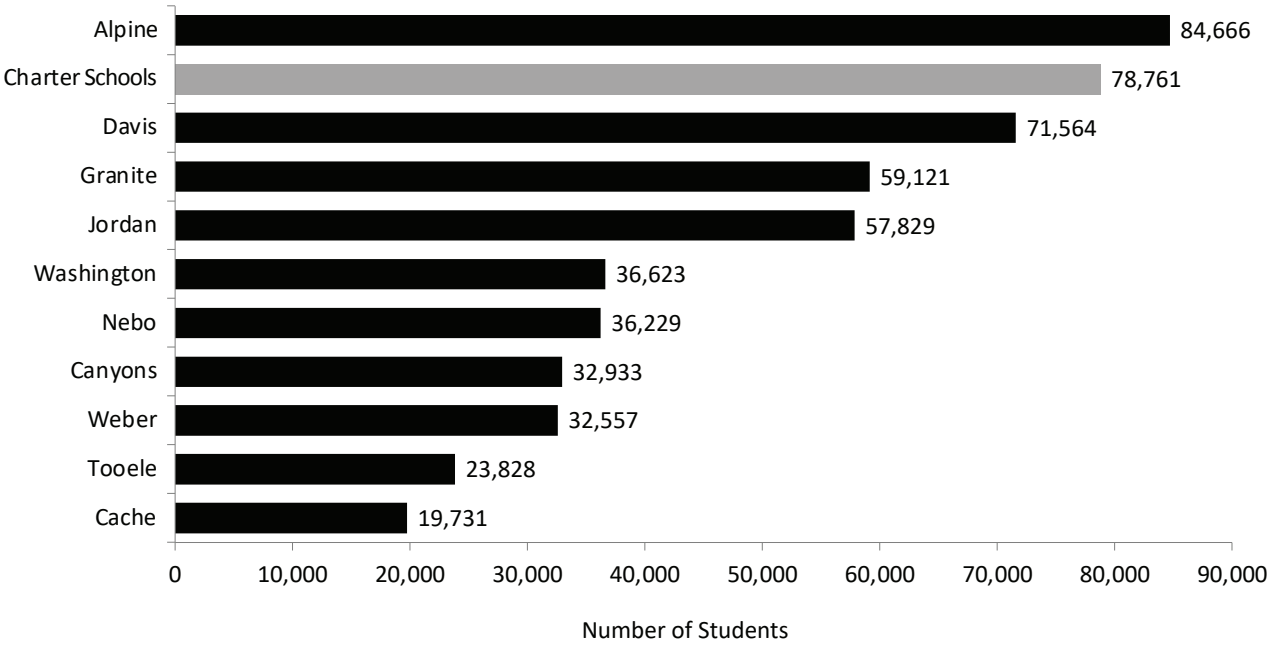
Note: f = forecast
Source: Utah State Board of Education, School Finance & Data and Statistics

Figure 16.2: Percent Change in Public Education Enrollment, FY 1985–FY 2024f



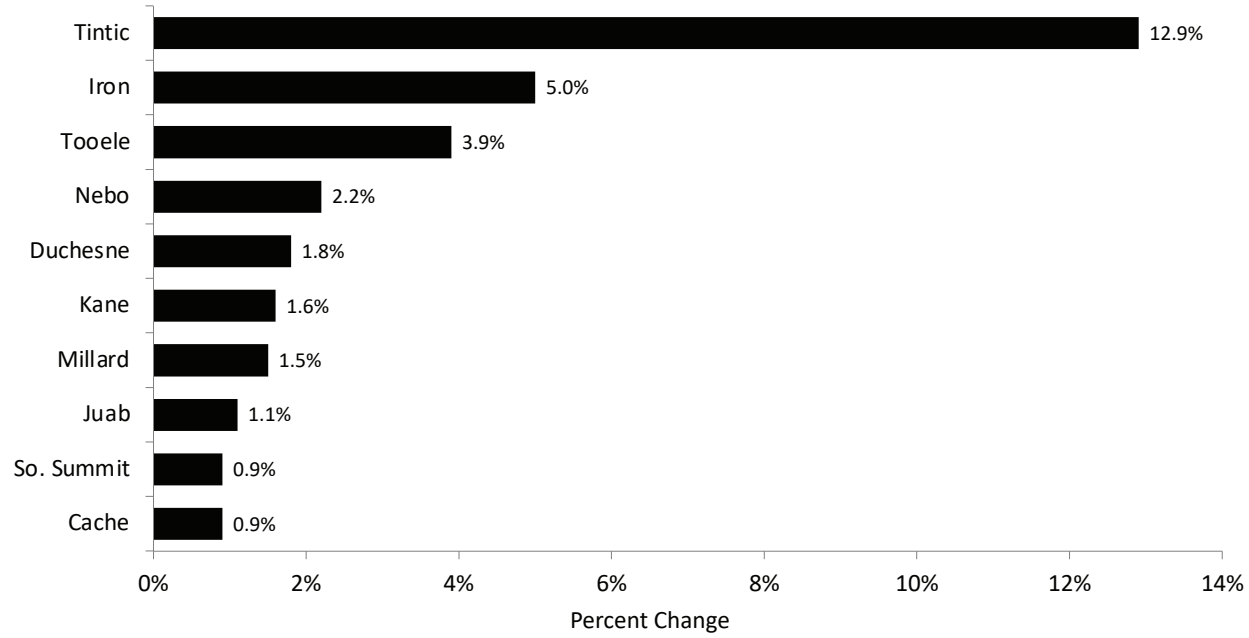
Note: f = forecast
Source: Utah State Board of Education, School Finance & Data and Statistics

Figure 16.3: Largest Enrollment by District, FY 2023



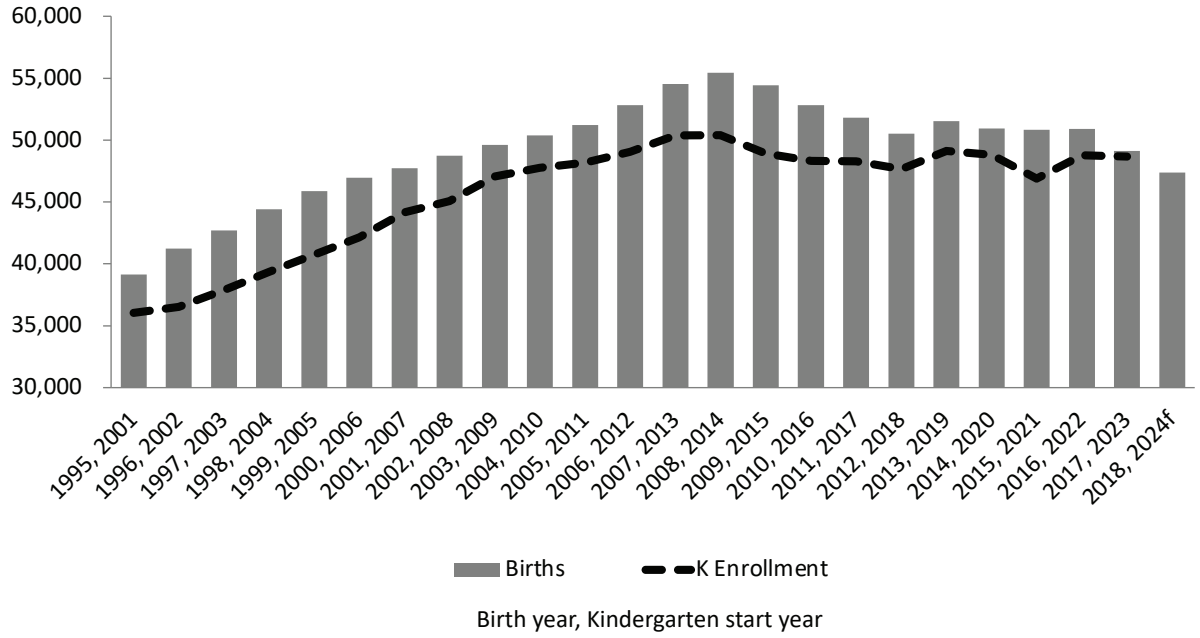
Source: Utah State Board of Education, School Finance & Data and Statistics

Figure 16.4: Largest Enrollment Growth by District, FY 2022–FY 2023



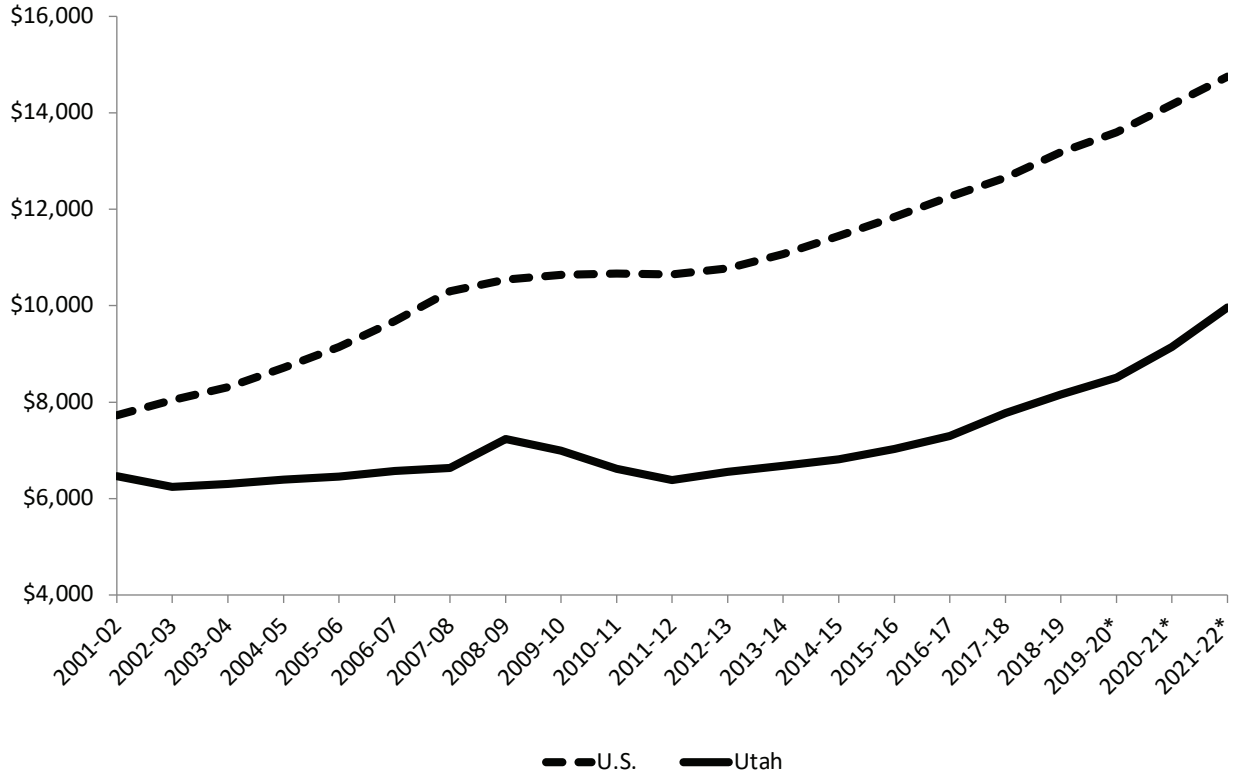
Source: Utah State Board of Education, School Finance & Data and Statistics

Figure 16.5: Kindergarten Enrollment and Five Years Prior Birth, 2001–2024f



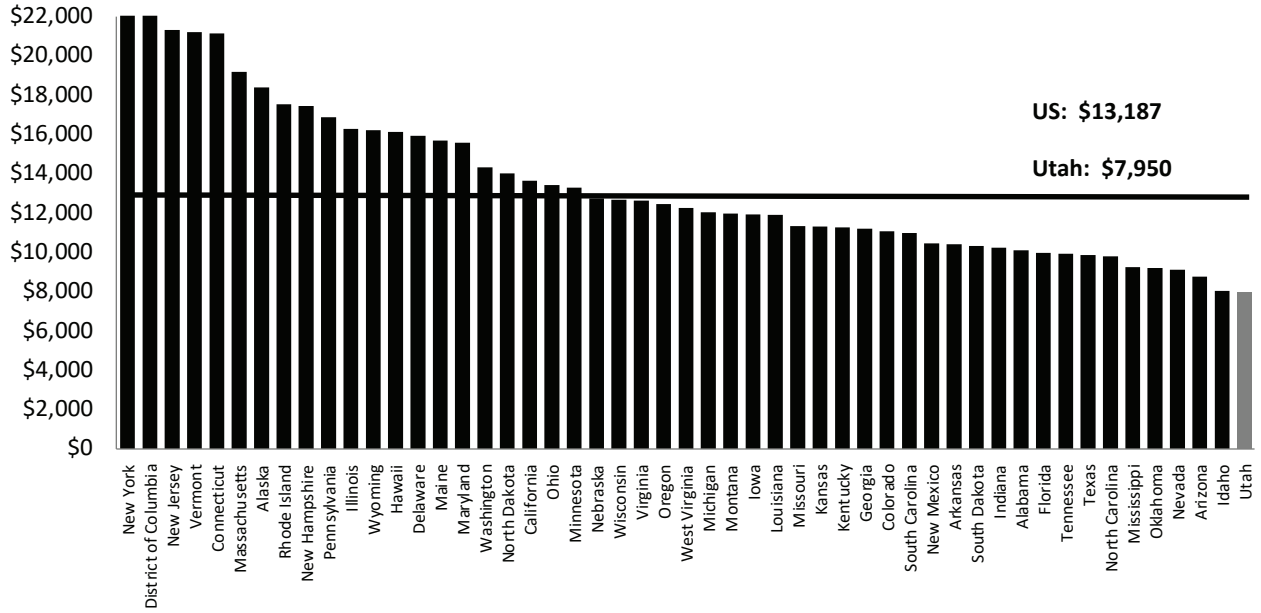
Source: Utah State Board of Education - School Finance & Data and Statistics, Interagency Common Data Committee, and Utah Department of Health

Figure 16.6: Utah and U.S. Current Expenditures per Pupil, FY 2002 – FY 2022



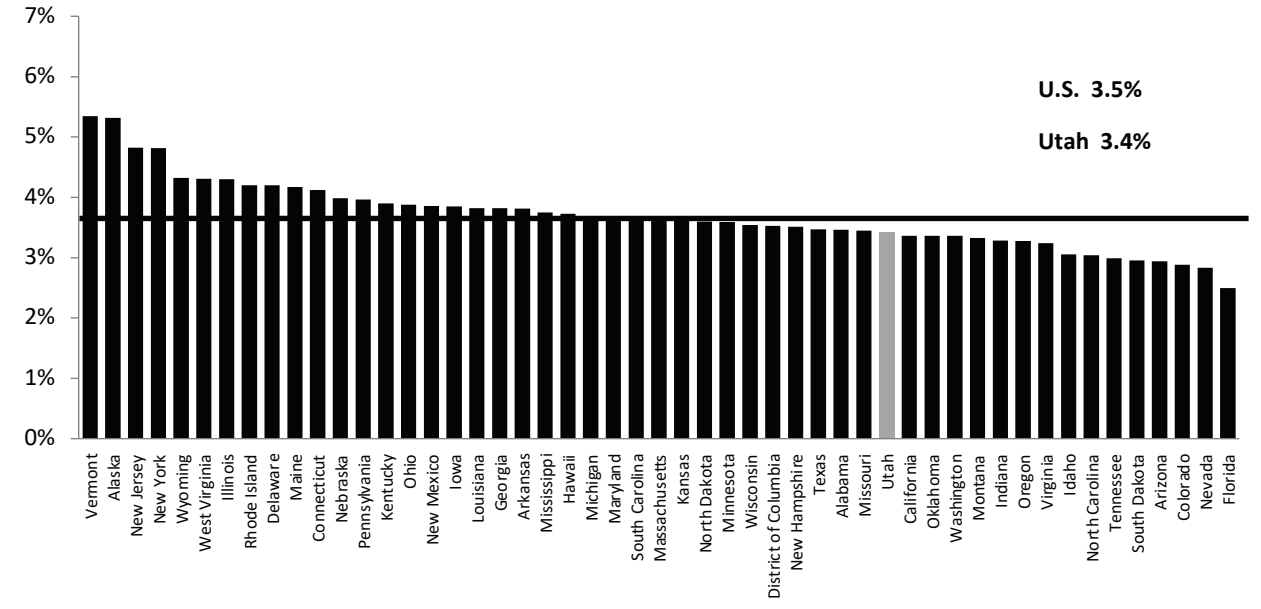
Note: U.S. expenditures are in constant 2020-21 dollars based on the Consumer Price Index adjusted to a school-year basis.
For Fiscal Years 2020-2022*, U.S. data is projected.
Source: USBE, School Finance, and U.S. Department of Education, National Center for Education Statistics

Figure 16.7: Current Expenditures per Pupil, by State, FY 2019



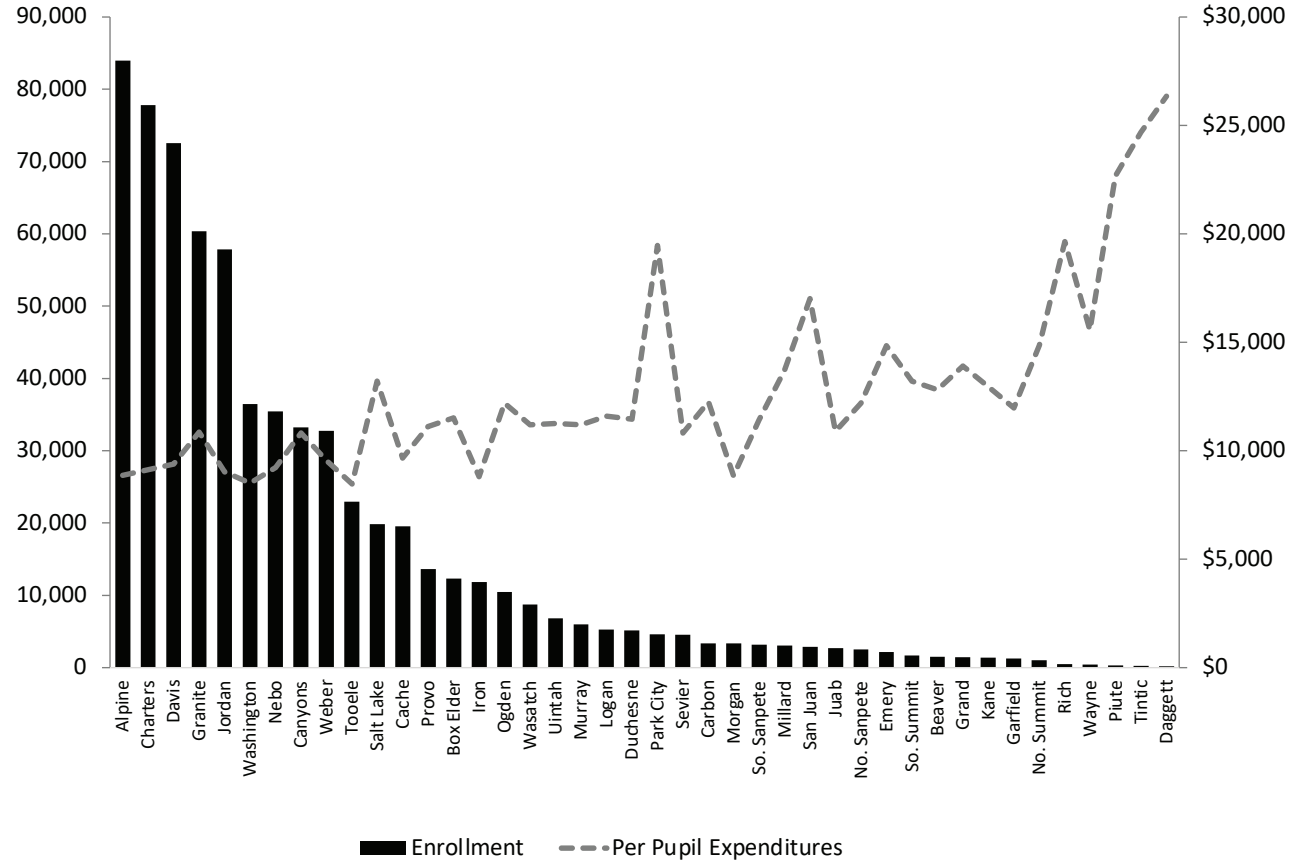
Source: USBE, School Finance, and U.S. Department of Education, National Center for Education Statistics

Figure 16.8: Current Expenditures as a Percentage of Personal Income by State, FY 2019



Source: USBE, School Finance, U.S. Department of Education, National Center for Education Statistics, and the Bureau of Economic Analysis

Figure 16.9: Utah Total Enrollment and Current Expenditures per Pupil by District, FY 2022



Source: USBE, School Finance

Table 16.1: Utah Public School Enrollment and State of Utah Population,1980–2023f

Year	October 1 Enrollment	Annual Change	Percent Change	July 1 State Pop	Annual Change	Percent Change	Enrollment/ Population
1980	342,885	10,310	3.1%	1,474,000	58,050	4.1%	23.3%
1981	354,540	11,655	3.4%	1,515,000	41,000	2.8%	23.4%
1982	369,338	14,798	4.2%	1,558,000	43,000	2.8%	23.7%
1983	378,208	8,870	2.4%	1,595,000	37,000	2.4%	23.7%
1984	390,141	11,933	3.2%	1,622,000	27,000	1.7%	24.1%
1985	403,305	13,164	3.4%	1,643,000	21,000	1.3%	24.5%
1986	415,994	12,689	3.1%	1,663,000	20,000	1.2%	25.0%
1987	423,386	7,392	1.8%	1,678,000	15,000	0.9%	25.2%
1988	429,551	6,165	1.5%	1,690,000	12,000	0.7%	25.4%
1989	435,762	6,211	1.4%	1,706,000	16,000	0.9%	25.5%
1990	444,732	8,970	2.1%	1,729,227	23,227	1.4%	25.7%
1991	454,218	9,486	2.1%	1,780,870	51,643	3.0%	25.5%
1992	461,259	7,041	1.6%	1,838,149	57,279	3.2%	25.1%
1993	468,675	7,416	1.6%	1,889,393	51,244	2.8%	24.8%
1994	471,402	2,727	0.6%	1,946,721	57,328	3.0%	24.2%
1995	473,666	2,264	0.5%	1,995,228	48,507	2.5%	23.7%
1996	478,028	4,362	0.9%	2,042,893	47,665	2.4%	23.4%
1997	479,151	1,123	0.2%	2,099,409	56,516	2.8%	22.8%
1998	477,061	-2,090	-0.4%	2,141,632	42,223	2.0%	22.3%
1999	475,974	-1,087	-0.2%	2,193,014	51,382	2.4%	21.7%
2000	475,269	-705	-0.1%	2,246,468	53,454	2.4%	21.2%
2001	477,801	2,532	0.5%	2,290,634	44,166	2.0%	20.9%
2002	481,143	3,342	0.7%	2,331,826	41,192	1.8%	20.6%
2003	486,938	5,795	1.2%	2,372,458	40,632	1.7%	20.5%
2004	495,682	8,744	1.8%	2,430,223	57,765	2.4%	20.4%
2005	510,012	14,330	2.9%	2,505,843	75,620	3.1%	20.4%
2006	525,660	15,648	3.1%	2,576,229	70,386	2.8%	20.4%
2007	537,653	11,993	2.3%	2,636,075	59,846	2.3%	20.4%
2008	551,013	13,360	2.5%	2,691,122	55,047	2.1%	20.5%
2009	563,273	12,260	2.2%	2,731,560	40,438	1.5%	20.6%
2010	576,335	13,062	2.3%	2,772,371	40,811	1.5%	20.8%
2011	587,745	11,410	2.0%	2,820,613	48,242	1.7%	20.8%
2012	600,985	13,240	2.3%	2,864,744	44,131	1.6%	21.0%
2013	612,551	11,566	1.9%	2,902,179	37,435	1.3%	21.1%
2014	622,182	9,631	1.6%	2,941,964	39,785	1.4%	21.1%
2015	633,896	11,714	1.9%	2,997,584	55,620	1.9%	21.1%
2016	644,476	10,580	1.7%	3,054,994	57,410	1.9%	21.1%
2017	652,347	7,871	1.2%	3,113,983	58,989	1.9%	20.9%
2018	659,438	7,091	1.1%	3,166,647	52,664	1.7%	20.8%
2019	667,403	7,965	1.2%	3,219,116	52,469	1.7%	20.7%
2020	666,609	-794	-0.1%	3,284,823	65,707	2.0%	20.3%
2021	675,247	8,638	1.3%	3,343,552	58,729	1.8%	20.2%
2022	675,660	413	0.1%	3,403,190	59,638	1.8%	19.9%
2023f	675,750	90	0.0%	3,464,887	61,697	1.8%	19.5%

Note: f = forecast
Source: Utah State Board of Education (enrollment counts). Interagency Common Data Committee (2022 enrollment forecast). State Population and 2022 Forecast: Kem C. Gardner Policy Institute

Table 16.2: Fall Enrollment by District, FY 2020 – FY 2024f

	FY 2020 10/1/19	FY 2021 10/1/20	FY 2022 10/1/21	FY 2023 10/1/22	FY 2024f 10/1/23f	Total Annual Change				Percent Change				FY 2023 Rank		
						FY 20-21	FY 21-22	FY 22-23	FY 23-24F	FY 20-21	FY 21-22	FY 22-23	FY 23-24	Size	Total Annual Change	Percent Change
Alpine	81,532	80,953	83,999	84,666	85,447	-579	3,046	667	781	-0.7%	3.8%	0.8%	0.9%	1	4	12
Beaver	1,524	1,519	1,528	1,507	1,472	-5	9	-21	-35	-0.3%	0.6%	-1.4%	-2.3%	33	28	32
Box Elder	11,914	11,832	12,296	12,338	12,393	-82	464	42	55	-0.7%	3.9%	0.3%	0.4%	15	11	15
Cache	18,802	18,833	19,554	19,731	19,886	31	721	177	155	0.2%	3.8%	0.9%	0.8%	11	6	11
Canyons	34,178	33,488	33,252	32,933	32,486	-690	-236	-319	-447	-2.0%	-0.7%	-1.0%	-1.4%	8	39	29
Carbon	3,472	3,289	3,362	3,334	3,340	-183	73	-28	6	-5.3%	2.2%	-0.8%	0.2%	24	31	27
Daggett	189	187	187	177	164	-2	0	-10	-13	-1.1%	0.0%	-5.3%	-7.3%	42	24	41
Davis	72,897	70,643	72,540	71,564	70,846	-2,254	1,897	-976	-718	-3.1%	2.7%	-1.3%	-1.0%	3	41	31
Duchesne	5,164	4,987	5,133	5,224	5,325	-177	146	91	101	-3.4%	2.9%	1.8%	1.9%	20	8	5
Emery	2,141	2,172	2,136	2,085	2,032	31	-36	-51	-53	1.4%	-1.7%	-2.4%	-2.5%	31	33	37
Garfield	899	923	1,267	1,243	1,225	24	344	-24	-18	2.7%	37.3%	-1.9%	-1.4%	36	30	33
Grand	1,498	1,379	1,448	1,435	1,388	-119	69	-13	-47	-7.9%	5.0%	-0.9%	-3.3%	34	27	28
Granite	63,989	61,851	60,371	59,121	58,533	-2,138	-1,480	-1,250	-588	-3.3%	-2.4%	-2.1%	-1.0%	4	42	35
Iron	9,544	10,748	11,830	12,421	12,967	1,204	1,082	591	546	12.6%	10.1%	5.0%	4.4%	14	5	2
Jordan	56,339	56,102	57,840	57,829	56,838	-237	1,738	-11	-991	-0.4%	3.1%	-0.0%	-1.7%	5	25	20
Juab	2,655	2,590	2,676	2,705	2,724	-65	86	29	19	-2.4%	3.3%	1.1%	0.7%	29	12	9
Kane	1,275	1,287	1,402	1,424	1,424	12	115	22	0	0.9%	8.9%	1.6%	0.0%	35	14	6
Logan	5,420	5,484	5,278	5,143	5,247	64	-206	-135	104	1.2%	-3.8%	-2.6%	2.0%	21	34	38
Millard	2,973	2,973	3,074	3,120	3,178	0	101	46	58	0.0%	3.4%	1.5%	1.9%	27	10	7
Morgan	3,194	3,201	3,334	3,290	3,210	7	133	-44	-80	0.2%	4.2%	-1.3%	-2.4%	25	32	30
Murray	6,425	6,097	5,991	5,768	5,703	-328	-106	-223	-65	-5.1%	-1.7%	-3.7%	-1.1%	19	36	39
Nebo	33,379	35,335	35,454	36,229	36,726	1,956	119	775	497	5.9%	0.3%	2.2%	1.4%	7	3	4
N. Sanpete	2,507	2,445	2,531	2,534	2,509	-62	86	3	-25	-2.5%	3.5%	0.1%	-1.0%	30	17	18
N. Summit	1,014	1,011	1,027	1,026	995	-3	16	-1	-31	-0.3%	1.6%	-0.1%	-3.0%	37	20	23
Ogden	11,460	10,617	10,475	10,246	10,172	-843	-142	-229	-74	-7.4%	-1.3%	-2.2%	-0.7%	16	37	36
Park City	4,757	4,696	4,592	4,350	4,216	-61	-104	-242	-134	-1.3%	-2.2%	-5.3%	-3.1%	23	38	40
Piute	279	291	283	260	237	12	-8	-23	-23	4.3%	-2.7%	-8.1%	-8.8%	40	29	42
Provo	16,603	13,317	13,623	13,612	13,809	-3,286	306	-11	197	-19.8%	2.3%	-0.1%	1.4%	13	25	21
Rich	498	498	510	511	514	0	12	1	3	0.0%	2.4%	0.2%	0.6%	38	18	16
Salt Lake	22,017	20,536	19,833	19,449	19,297	-1,481	-703	-384	-152	-6.7%	-3.4%	-1.9%	-0.8%	12	40	34
San Juan	2,891	2,929	2,880	2,881	2,853	38	-49	1	-28	1.3%	-1.7%	0.0%	-1.0%	28	18	19
Sevier	4,548	4,461	4,567	4,563	4,552	-87	106	-4	-11	-1.9%	2.4%	-0.1%	-0.2%	22	22	22
S. Sanpete	3,230	3,127	3,194	3,189	3,156	-103	67	-5	-33	-3.2%	2.1%	-0.2%	-1.0%	26	23	24
S. Summit	1,701	1,635	1,654	1,669	1,619	-66	19	15	-50	-3.9%	1.2%	0.9%	-3.0%	32	15	10
Tintic	214	213	225	254	256	-1	12	29	2	-0.5%	5.6%	12.9%	0.8%	41	12	1
Tooele	17,608	22,004	22,939	23,828	24,554	4,396	935	889	726	25.0%	4.2%	3.9%	3.0%	10	2	3
Uintah	6,989	6,668	6,820	6,829	6,832	-321	152	9	3	-4.6%	2.3%	0.1%	0.0%	18	16	17
Wasatch	7,146	9,061	8,731	8,793	8,992	1,915	-330	62	199	26.8%	-3.6%	0.7%	2.3%	17	9	13
Washington	33,884	35,346	36,453	36,623	36,812	1,462	1,107	170	189	4.3%	3.1%	0.5%	0.5%	6	7	14
Wayne	436	429	441	438	431	-7	12	-3	-7	-1.6%	2.8%	-0.7%	-1.6%	39	21	26
Weber	32,588	32,197	32,731	32,557	32,295	-391	534	-174	-262	-1.2%	1.7%	-0.5%	-0.8%	9	35	25
Charter Schools	77,630	79,255	77,786	78,761	79,095	1,625	-1,469	975	334	2.1%	-1.9%	1.3%	0.4%	2	1	8
State of Utah	667,403	666,609	675,247	675,660	675,750	-794	8,638	413	90	-0.1%	1.3%	0.1%	0.0%			

Note: f = forecast
Source: Utah State Board of Education, Data and Statistics

Table 16.3: Utah Public Education Enrollment by Race and Ethnicity, FY 2023

		African American or Black		American Indian		Asian		Hispanic/ Latino		Pacific Islander		Two or More Races		White	
	FY 2023 Enrollment 10/1/22	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
State of Utah	675,660	8,950	1.3%	6,346	0.9%	11,335	1.7%	132,078	19.5%	11,130	1.6%	23,153	3.4%	482,668	71.4%
Alpine	84,666	602	0.7%	256	0.3%	759	0.9%	12277	14.5%	1261	1.5%	3698	4.4%	65813	77.7%
Beaver	1,507	4	0.3%	12	0.8%	3	0.2%	268	17.8%	11	0.7%	22	1.5%	1187	78.8%
Box Elder	12,338	48	0.4%	61	0.5%	42	0.3%	1521	12.3%	41	0.3%	221	1.8%	10404	84.3%
Cache	19,731	105	0.5%	138	0.7%	149	0.8%	1989	10.1%	107	0.5%	465	2.4%	16778	85.0%
Canyons	32,933	516	1.6%	137	0.4%	881	2.7%	6075	18.4%	417	1.3%	1855	5.6%	23052	70.0%
Carbon	3,334	10	0.3%	34	1.0%	7	0.2%	462	13.9%	6	0.2%	39	1.2%	2776	83.3%
Daggett	177	0	0.0%	3	1.7%	0	0.0%	6	3.4%	0	0.0%	4	2.3%	164	92.7%
Davis	71,564	781	1.1%	262	0.4%	795	1.1%	8577	12.0%	953	1.3%	2393	3.3%	57803	80.8%
Duchesne	5,224	23	0.4%	322	6.2%	16	0.3%	541	10.4%	10	0.2%	218	4.2%	4094	78.4%
Emery	2,085	3	0.1%	9	0.4%	2	0.1%	187	9.0%	2	0.1%	22	1.1%	1860	89.2%
Garfield	1,243	2	0.2%	36	2.9%	5	0.4%	121	9.7%	3	0.2%	25	2.0%	1051	84.6%
Grand	1,435	3	0.2%	79	5.5%	5	0.3%	309	21.5%	2	0.1%	30	2.1%	1007	70.2%
Granite	59,121	2063	3.5%	518	0.9%	2391	4.0%	23517	39.8%	2586	4.4%	1309	2.2%	26737	45.2%
Iron	12,421	72	0.6%	190	1.5%	101	0.8%	1376	11.1%	84	0.7%	276	2.2%	10322	83.1%
Jordan	57,829	612	1.1%	203	0.4%	923	1.6%	10821	18.7%	1127	1.9%	2645	4.6%	41498	71.8%
Juab	2,705	10	0.4%	8	0.3%	12	0.4%	149	5.5%	17	0.6%	35	1.3%	2474	91.5%
Kane	1,424	4	0.3%	20	1.4%	6	0.4%	90	6.3%	0	0.0%	33	2.3%	1271	89.3%
Logan	5,143	131	2.5%	71	1.4%	136	2.6%	1716	33.4%	120	2.3%	122	2.4%	2847	55.4%
Millard	3,120	5	0.2%	21	0.7%	20	0.6%	525	16.8%	4	0.1%	61	2.0%	2484	79.6%
Morgan	3,290	13	0.4%	7	0.2%	8	0.2%	110	3.3%	6	0.2%	57	1.7%	3089	93.9%
Murray	5,768	212	3.7%	43	0.7%	119	2.1%	1322	22.9%	75	1.3%	293	5.1%	3704	64.2%
Nebo	36,229	178	0.5%	110	0.3%	111	0.3%	5932	16.4%	238	0.7%	1206	3.3%	28454	78.5%
North Sanpete	2,534	3	0.1%	29	1.1%	4	0.2%	434	17.1%	13	0.5%	39	1.5%	2012	79.4%
North Summit	1,026	6	0.6%	1	0.1%	2	0.2%	186	18.1%	0	0.0%	8	0.8%	823	80.2%
Ogden	10,246	158	1.5%	77	0.8%	52	0.5%	5086	49.6%	75	0.7%	374	3.7%	4424	43.2%
Park City	4,350	20	0.5%	6	0.1%	56	1.3%	858	19.7%	2	0.0%	171	3.9%	3237	74.4%
Piute	260	3	1.2%	0	0.0%	0	0.0%	44	16.9%	0	0.0%	5	1.9%	208	80.0%
Provo	13,612	138	1.0%	101	0.7%	223	1.6%	4259	31.3%	457	3.4%	598	4.4%	7836	57.6%
Rich	511	0	0.0%	0	0.0%	0	0.0%	22	4.3%	3	0.6%	10	2.0%	476	93.2%
Salt Lake	19,449	984	5.1%	261	1.3%	869	4.5%	7501	38.6%	1003	5.2%	889	4.6%	7942	40.8%
San Juan	2,881	6	0.2%	1559	54.1%	4	0.1%	203	7.0%	2	0.1%	72	2.5%	1035	35.9%
Sevier	4,563	30	0.7%	84	1.8%	13	0.3%	249	5.5%	38	0.8%	0	0.0%	4149	90.9%
South Sanpete	3,189	13	0.4%	15	0.5%	4	0.1%	441	13.8%	29	0.9%	70	2.2%	2617	82.1%
South Summit	1,669	4	0.2%	2	0.1%	1	0.1%	235	14.1%	1	0.1%	12	0.7%	1414	84.7%
Tintic	254	1	0.4%	0	0.0%	1	0.4%	27	10.6%	0	0.0%	13	5.1%	212	83.5%
Tooele	23,828	236	1.0%	199	0.8%	362	1.5%	3173	13.3%	355	1.5%	380	1.6%	19123	80.3%
Uintah	6,829	32	0.5%	481	7.0%	24	0.4%	734	10.7%	26	0.4%	181	2.7%	5351	78.4%
Wasatch	8,793	31	0.4%	15	0.2%	32	0.4%	1595	18.1%	19	0.2%	189	2.1%	6912	78.6%
Washington	36,623	378	1.0%	452	1.2%	372	1.0%	5790	15.8%	516	1.4%	891	2.4%	28224	77.1%
Wayne	438	1	0.2%	6	1.4%	2	0.5%	42	9.6%	2	0.5%	14	3.2%	371	84.7%
Weber	32,557	281	0.9%	96	0.3%	276	0.8%	4724	14.5%	229	0.7%	937	2.9%	26014	79.9%
Charter Schools	78,761	1,228	1.6%	422	0.5%	2,547	3.2%	18,584	23.6%	1,290	1.6%	3,271	4.2%	51,419	65.3%

Source: Utah State Board of Education, Data and Statistics

Table 16.4: Statewide Selected Data, FY 2021 and FY 2022

School District	FY22 Per Pupil Current Expenditures	Rank	Class of 2022 Graduation Rate	Rank	FY21 Pupil-Teacher Ratio	Rank	FY22 Share of Free and Reduced Students	Rank
State of Utah	$9,963		88%		21.1		28.7%	
Alpine	8,875	38	90%	20	24.1	2	18.8%	33
Beaver	12,821	15	95%	5	19.0	21	38.0%	13
Box Elder	11,507	21	86%	34	21.1	10	23.0%	29
Cache	9,673	32	95%	4	22.5	8	16.9%	35
Canyons	10,815	31	89%	25	21.0	13	26.8%	25
Carbon	12,250	16	87%	31	18.0	28	41.9%	10
Daggett	26,346	1	89%	24	9.4	42	12.1%	41
Davis	9,391	34	92%	15	22.5	7	16.3%	37
Duchesne	11,449	22	86%	35	18.4	26	34.4%	16
Emery	14,842	9	87%	30	17.1	33	49.9%	4
Garfield	11,967	19	88%	29	15.0	35	31.3%	20
Grand	13,900	10	73%	41	14.6	37	40.0%	12
Granite	10,868	29	79%	37	20.7	17	43.8%	7
Iron	8,798	40	88%	28	23.3	5	33.2%	18
Jordan	9,017	37	90%	21	20.9	15	15.9%	38
Juab	10,893	28	96%	3	21.1	11	28.2%	23
Kane	12,949	14	99%	1	18.6	24	24.1%	27
Logan	11,587	20	90%	23	20.9	14	43.3%	9
Millard	13,714	11	93%	12	18.8	23	43.4%	8
Morgan	8,855	39	93%	9	20.8	16	6.3%	42
Murray	11,191	26	79%	38	19.9	20	29.2%	21
Nebo	9,233	35	93%	13	23.4	3	19.6%	32
No. Sanpete	12,187	18	90%	22	20.3	18	46.0%	5
No. Summit	14,865	8	93%	8	17.2	31	16.8%	36
Ogden	12,196	17	89%	26	18.0	30	63.5%	2
Park City	19,472	5	94%	6	14.8	36	13.4%	40
Piute	22,665	3	89%	26	11.5	40	56.6%	3
Provo	11,112	27	91%	18	18.6	25	31.4%	19
Rich	19,637	4	97%	2	14.4	38	29.0%	22
Salt Lake	13,206	13	74%	40	18.0	29	45.0%	6
San Juan	17,020	6	91%	17	16.6	34	73.1%	1
Sevier	10,829	30	83%	36	20.3	19	36.1%	14
So. Sanpete	11,419	23	90%	19	18.2	27	40.3%	11
So. Summit	13,215	12	93%	14	17.2	32	13.7%	39
Tintic	24,677	2	86%	33	10.5	41	22.8%	30
Tooele	8,470	42	77%	39	29.7	1	21.6%	31
Uintah	11,248	24	87%	32	22.5	6	35.5%	15
Wasatch	11,195	25	93%	10	23.3	4	17.3%	34
Washington	8,501	41	93%	11	22.2	9	26.8%	25
Wayne	15,569	7	94%	7	13.9	39	34.1%	17
Weber	9,545	33	91%	16	21.0	12	23.2%	28
Charter Schools	9,122	36	**	**	18.9	22	27.6%	24

**Data unavailable

Source: Utah State Board of Education, School Finance (Expenditures); Utah State Board of Education, Data and Statistics (Graduation Rate, Pupil-Teacher Ratio); Utah State Board of Education, Child Nutrition Programs (Free & reduced students include directly certified, categorically certified, and income-based National School Lunch Program School Meal applications based on October Survey, 2020).

Table 16.5: College Entrance Exam Scores, 2022

	Average ACT Scores by State: 2022						
State	**Estimated Percent of Graduates Tested**	**Average Composite Score**	**Average English Score**	**Average Math Score**	**Average Reading Score**	**Average Science Score**	**Rank**
United States	36	19.8	19	19.3	20.4	19.9	
Alabama	100	18	17.3	17.4	18.5	18.2	48
Alaska	14	20.4	19.3	20	21.4	20.4	27
Arizona	64	18.4	17.3	18.5	18.8	18.5	46
Arkansas	93	18.8	18.3	18.1	19.2	19.1	41
California	4	26.5	26.9	25.6	27.3	25.8	2
Colorado	15	23.2	23	22.4	24	23	18
Connecticut	9	26.3	26.8	25.3	27.1	25.7	4
Delaware	5	24.9	25.3	23.6	26.1	24.3	9
District of Columbia	18	26.9	27.4	25.2	28.2	26	1
Florida	46	19	18.5	18.4	20	18.8	39
Georgia	30	21.6	21	20.8	22.5	21.5	22
Hawaii	53	18.8	17.6	18.6	19.4	19.1	41
Idaho	15	22.8	22.3	22.2	23.7	22.6	20
Illinois	18	24.5	24.8	23.7	25.2	24	14
Indiana	13	22.8	22.1	22.5	23.7	22.5	20
Iowa	49	21.4	20.4	20.6	22.3	21.6	24
Kansas	73	19.9	18.9	19.4	20.6	20.1	29
Kentucky	96	18.6	17.8	18	19.2	18.7	43
Louisiana	100	18.1	17.6	17.4	18.6	18.3	47
Maine	2	25.1	25.2	23.7	26.2	24.6	8
Maryland	8	24.4	24.6	23	25.4	23.9	15
Massachusetts	9	26.5	26.6	25.6	27.3	25.8	2
Michigan	8	24.6	24.7	23.9	25.2	24.2	10
Minnesota	69	21	19.7	20.7	21.7	21.4	25
Mississippi	100	17.8	17.2	17.4	18.2	18	50
Missouri	66	20.2	19.5	19.5	21	20.4	28
Montana	94	19.3	18	19	20.1	19.5	36
Nebraska	94	19.4	18.6	19.1	19.8	19.6	33
Nevada	100	17.3	16.1	17.1	17.8	17.6	51
New Hampshire	5	25.7	25.7	25	26.5	25.2	5
New Jersey	12	24.6	24.9	23.9	25.1	24	10
New Mexico	20	19.8	18.7	19.1	20.9	20.1	31
New York	10	25.3	25.2	24.6	26	25	6
North Carolina	88	18.5	17.1	18.5	19.2	18.8	45
North Dakota	96	19.2	17.9	19.1	19.7	19.6	37
Ohio	82	19.4	18.2	19.2	20	19.7	33
Oklahoma	94	17.9	17	17.3	18.6	18.2	49
Oregon	7	23	22.5	22	24.2	22.8	19
Pennsylvania	7	24.4	24.3	23.7	25.2	24	15
Rhode Island	5	25.2	25.3	24	26.2	24.7	7
South Carolina	40	18.9	17.8	18.5	19.6	19.1	40
South Dakota	58	21.5	20.5	21.2	22.2	21.7	23
Tennessee	100	18.6	18	18.1	19	18.6	43
Texas	22	19.8	18.7	19.5	20.4	19.9	31
Utah	**91**	**19.9**	**18.9**	**19.4**	**20.6**	**20.2**	**29**
Vermont	8	23.7	23.4	22.4	25	23.5	17
Virginia	9	24.6	24.6	23.5	25.7	24.3	10
Washington	7	24.6	24.3	23.6	25.6	24.3	10
West Virginia	28	20.5	20.2	19.4	21.4	20.4	26
Wisconsin	93	19.4	18.3	19.3	19.7	19.8	33
Wyoming	100	19.2	18.1	18.9	20	19.5	37

Source: ACT (http://www.act.org)

Table 16.6: Selected Data by State, FY 2019

	Fall 2019 Enrollment	2018-19 Current Expenditures (thousands of dollars)	2018-19 Current Expenditures Per Pupil	Rank	CY 2019 Personal Income (millions of dollars)	Current Exp as % of Personal Income	Rank	Fall 2019 Pupil/ Teacher Ratio	Rank
United States	50,796,445	$639,951,946	$13,187	-	$18,402,004	3.5%	-	15.9	..
Alabama	744,235	7,475,961	10,107	41	215,930	3.5%	34	17.7	9
Alaska	132,017	2,408,810	18,393	7	45,294	5.3%	2	17.6	10
Arizona	1,152,586	9,827,893	8,773	49	334,024	2.9%	46	23.6	1
Arkansas	496,927	5,156,738	10,412	38	135,303	3.8%	19	12.9	41
California	6,249,005	85,566,797	13,641	19	2,544,235	3.4%	35	23.0	2
Colorado	913,223	10,092,540	11,072	35	350,390	2.9%	47	16.9	14
Connecticut	523,690	11,133,063	21,140	5	270,283	4.1%	10	12.4	46
Delaware	139,930	2,204,611	15,929	14	52,538	4.2%	8	14.4	31
District of Columbia	89,878	2,020,361	22,831	2	57,240	3.5%	30	12.1	48
Florida	2,858,461	28,425,418	9,986	42	1,139,799	2.5%	49	17.2	12
Georgia	1,769,657	19,798,793	11,203	34	518,278	3.8%	18	15.0	23
Hawaii	181,088	2,924,320	16,132	13	78,516	3.7%	21	14.8	25
Idaho	311,096	2,497,424	8,043	50	81,834	3.1%	42	18.1	8
Illinois	1,943,117	32,207,915	16,281	11	748,812	4.3%	6	14.6	29
Indiana	1,051,411	10,823,183	10,252	40	329,682	3.3%	39	17.0	13
Iowa	517,324	6,143,589	11,933	29	159,665	3.8%	16	14.5	30
Kansas	497,963	5,638,278	11,328	32	154,961	3.6%	26	13.6	38
Kentucky	691,996	7,646,150	11,280	33	196,251	3.9%	13	16.4	15
Louisiana	710,439	8,484,794	11,920	30	222,060	3.8%	17	18.4	6
Maine	180,291	2,830,663	15,686	15	67,855	4.2%	9	12.2	47
Maryland	909,404	13,968,752	15,576	16	381,397	3.7%	23	14.8	26
Massachusetts	959,394	18,471,917	19,196	6	506,614	3.6%	25	12.8	43
Michigan	1,495,925	18,128,540	12,052	27	492,022	3.7%	22	17.6	11
Minnesota	893,203	11,824,723	13,297	21	329,524	3.6%	28	16.1	17
Mississippi	466,002	4,361,150	9,253	46	116,336	3.7%	20	14.8	27
Missouri	910,466	10,366,636	11,349	31	300,546	3.4%	33	13.2	40
Montana	149,917	1,783,700	11,984	28	53,613	3.3%	38	14.0	34
Nebraska	330,018	4,160,210	12,746	22	104,430	4.0%	11	13.7	37
Nevada	496,934	4,495,961	9,126	48	158,924	2.8%	48	19.5	5
New Hampshire	177,351	3,047,648	17,457	9	86,798	3.5%	31	12.1	49
New Jersey	1,411,917	29,864,232	21,331	3	619,066	4.8%	2	12.1	50
New Mexico	331,206	3,490,740	10,466	37	90,539	3.9%	15	15.2	21
New York	2,692,589	65,549,087	24,882	1	1,361,473	4.8%	3	12.4	45
North Carolina	1,560,350	15,213,245	9,799	45	500,497	3.0%	43	15.5	20
North Dakota	116,185	1,597,597	14,033	18	44,420	3.6%	27	12.5	44
Ohio	1,689,867	22,778,613	13,433	20	587,177	3.9%	14	15.9	18
Oklahoma	703,719	6,432,157	9,203	47	191,367	3.4%	36	16.2	16
Oregon	610,648	7,246,638	12,457	25	221,186	3.3%	40	20.2	4
Pennsylvania	1,732,449	29,235,226	16,892	10	737,161	4.0%	12	13.9	36
Rhode Island	143,557	2,515,700	17,539	8	59,909	4.2%	7	13.4	39
South Carolina	786,879	8,585,210	10,994	36	234,444	3.7%	24	14.7	28
South Dakota	139,949	1,434,930	10,325	39	48,548	3.0%	45	14.1	33
Tennessee	1,014,744	10,017,249	9,941	43	334,750	3.0%	44	15.7	19
Texas	5,495,398	53,618,624	9,868	44	1,544,021	3.5%	32	15.1	22
Utah	**684,694**	**5,382,401**	**7,950**	**51**	**157,335**	**3.4%**	**34**	**22.6**	**3**
Vermont	86,759	1,847,486	21,217	4	34,570	5.3%	1	10.8	51
Virginia	1,297,012	16,300,033	12,642	24	502,601	3.2%	41	14.9	24
Washington	1,142,073	16,116,448	14,342	17	479,841	3.4%	37	18.4	7
West Virginia	263,486	3,287,865	12,269	26	76,299	4.3%	5	14.0	35
Wisconsin	855,400	10,904,913	12,690	23	308,224	3.5%	29	14.3	32
Wyoming	94,616	1,530,465	16,228	12	35,425	4.3%	4	12.8	42

Source: National Center for Education Statistics, Digest of Education Statistics, Bureau of Economic Analysis (personal income)

Higher Education

17

Carrie Mayne, Utah System of Higher Education

2022 OVERVIEW

Across the nation, institutions of higher education face a reckoning of identity as the number of people attending colleges and universities trends downward and the value proposition of a postsecondary degree is called into question. Overall enrollment across the Utah System of Higher Education (USHE) which includes 16 public universities and colleges, increased slightly from 2021 to 2022, but some individual institutions experienced an enrollment contraction. Institutions across the system are striving to deliver the highest-quality experience for Utah students in order to prove the value of higher education to enrollees, to local businesses, and to the Utah population as a whole.

Enrollment

The number of students enrolled in a Utah System of Higher Education (USHE) institution at the third week of Fall semester 2022 increased 1.4% over Fall third week of 2021. In 2021, enrollments were rebounding from the pandemic contraction and exhibited year-over growth of 1.6% over 2020. The total headcount for Fall 2022 across the 16 USHE institutions was 215,004, an increase of 3,050 over the prior year. Note that at the time of this publication, only Fall third week enrollment numbers were available for 2022. While most tables show end of term enrollment for prior years, third week is used here to allow for direct comparisons of the most recent data. Given the slower enrollment trends exhibited at some institutions, 10-year outlook for USHE's degree-granting institutions has softened, with an expected 55,000 additional students enrolling in USHE schools over the next 10 years.

Third week enrollment data from Fall 2022 shows year-over increases for 11 institutions across the USHE system and slight decreases for Salt Lake Community College, Snow College, Bridgerland Technical College, Davis Technical College, and Uintah Basin Technical College. The overall change for all degree-granting institutions was 1.5% and for all technical colleges was 1.2%.

Degrees and Awards

USHE colleges and universities issued 60,530 certificates and degrees to the class of 2022, a 7.5% increase over the prior year. Slightly less than 20,000 of the awards were in the form of a certificate, primarily issued in fields of technical education. Another 16,100 were at the associate degree level and slightly more than 19,000 were issued at the bachelor's degree level. A full 4,600 masters degrees were earned. Certificates were also awarded at the post-bachelor's and post-master's level; roughly 800 were earned in the 2021-2022 academic year. And for the same academic year, roughly 1,100 doctorate degrees were earned by Utah students.

Student Success

The Utah Board of Higher Education continues to gain understanding of the effects of the COVID-19 pandemic as a way to inform policy to support students in their efforts to earn degrees and awards. Of particular concern is the effect of the COVID-19 pandemic on students' path to completion. Students struggled to stay engaged in coursework while operating in a learning environment abruptly transitioned to virtual classrooms, electronic learning management systems, and other online tools.

To ascertain some of the effects of the pandemic on student success, researchers at USHE evaluated student pass rates in the ten most commonly enrolled courses across the system. For the five years that preceded the pandemic, students failed or did not complete coursework 11.7% of the time. In 2020, that rate actually decreased to 10.6%. A possible explanation for the improvement may be changes in student decisions on course load or increased latitude provided by institutions and instructors as learning environments adjusted to the social distancing conditions of the pandemic. In 2021 and 2022 the rates of failure or incompletion remained low, at 10.8%.

Statewide Attainment Goals

Senate Bill 193 from the 2021 session of the Utah Legislature codified changes in a portion of the funding available to USHE institutions to align with the statewide higher education attainment goals. The goals, designed to foster economic growth, are in the areas of student access, completion, and workforce alignment. Each institution is expected to set five-year goals marking their contribution to the system-wide goals in each of the three measurement areas. Aligning supplementary funding to the attainment goals allows institutions to focus on the key areas that drive student success and economic vitality for our state.

The access goal encourages student enrollment in higher education following high school graduation. Currently, about 36.1% of all Utah high school graduates do not enroll in a postsecondary technical or degree-granting program in Utah or elsewhere. The System proposes to reduce that number to 31.5% in the academic year 2027 by increasing the percentage of Utah high school graduates attending USHE technical education and degree-granting institutions.

The timely completion goal encourages USHE institutions to find innovative solutions to move students through certificate and degree programs to graduation in a timely manner. Currently, about 48% of all USHE degrees and awards are achieved within one-and-a-half time (1.5 years for a one-year certificate, 6-years for a bachelor's degree, etc.). The System proposes to increase that number to 50.4% in the academic year 2027 by increasing the timely completion rates of each USHE institution.

The high-yield award goal encourages USHE institutions to advise students to seek certificate and degree programs that lead to jobs in high-wage, high-demand fields. Currently, about 71% of all USHE awards are aligned with high-wage, high-demand occupations (4- and 5-star jobs as delineated by the Utah Department of Workforce Services). The System proposes to increase that number to 74% in the academic year 2027 by increasing the percent of high-yield awards at each USHE institution.

Affordability

Over the past 10 years, tuition and fees for full-time resident students have increased at an average pace of 3.1% per year in Utah's degree-granting institutions; the pace of increase in the consumer price index over this time was approximately 2.5% per year. Employee wage and benefit inflation are a major driver of tuition increases given, like most public sector organizations, wages and benefits are the System's greatest expense. Each year, the legislature funds a compensation package for the state that addresses cost of living and/or merit wage increases and benefits escalations. The legislature regularly appropriates funds to cover the full costs at technical colleges and 75% of the costs at degree-granting institutions; degree-granting institutions cover the remaining 25% through tuition increases and efficiencies. Acknowledging the pressures of rapid, widespread inflation, the Governor has called for a tuition freeze for the 2023-24 academic year. His budget recommendations include funding to cover 87.5% of compensation increases, calling on schools to find efficiencies for the remaining amount.

Scholarships are an effective tool to increase the affordability of higher education. As such, the Utah Board of Higher Education awarded or allocated scholarship funds to institutions to support nearly 20,000 students in FY 2022. Almost 60% of all scholarships awarded were needs-based and intended to reduce barriers for first-generation and underserved student populations or industry-specific scholarships. A needs-based Promise Partner pilot program that included matching funds from industry partners for 19 students and the inaugural USHE Employee Scholarship (129 students) are included in this total. Almost two-thirds of Promise Partner scholarships and nearly half of USHE employee scholarships were earned by first-generation students. The Commissioner's office worked with the Legislature to streamline multiple merit-based state scholarships into the Opportunity Scholarship. Additionally, the Utah Board of Higher Education forgave approximately $3.1 million in incentive loans for teachers after the Legislature changed the T.H. Bell Incentive Loan Program into the T.H. Bell Grant Program.

2023 OUTLOOK

The future for higher education, once thought of as unquestionably bright, now is less certain given trends of increasing costs of higher education, student loan debt, and low completion rates. With challenges though, come improvements. USHE institutions, in partnership with the USHE Commissioner's Office and leaders across the state, have committed to re-focusing attention on ensuring students have access to affordable and varied education programs that align with students' needs as well as the needs of Utah's economy.

Table 17.1: Utah System of Higher Education Fall End-of-Term* Enrollments at Degree-Granting Institutions and State of Utah Population,1980-2022*

Year	Fall Enrollment	Annual Change		Estimated State Pop.	Annual Change		Enrollment/ Population
		Absolute	Percent		Absolute	Percent	
1980	61,115	3,474	6.0%	1,474,000	58,050	4.1%	4.1%
1981	63,090	1,975	3.2%	1,515,000	41,000	2.8%	4.2%
1982	67,056	3,966	6.3%	1,558,000	43,000	2.8%	4.3%
1983	69,579	2,523	3.8%	1,595,000	37,000	2.4%	4.4%
1984	69,212	-367	-0.5%	1,622,000	27,000	1.7%	4.3%
1985	70,615	1,403	2.0%	1,643,000	21,000	1.3%	4.3%
1986	72,674	2,059	2.9%	1,663,000	20,000	1.2%	4.4%
1987	73,088	414	0.6%	1,678,000	15,000	0.9%	4.4%
1988	74,929	1,841	2.5%	1,690,000	12,000	0.7%	4.4%
1989	74,884	-45	-0.1%	1,706,000	16,000	0.9%	4.4%
1990	80,430	5,546	7.4%	1,729,227	23,227	1.4%	4.7%
1991	86,843	6,413	8.0%	1,780,870	51,643	3.0%	4.9%
1992	94,923	8,080	9.3%	1,838,149	57,279	3.2%	5.2%
1993	99,163	4,240	4.5%	1,889,393	51,244	2.8%	5.2%
1994	103,633	4,470	4.5%	1,946,721	57,328	3.0%	5.3%
1995	110,594	6,961	6.7%	1,995,228	48,507	2.5%	5.5%
1996	112,666	2,072	1.9%	2,042,893	47,665	2.4%	5.5%
1997	116,047	3,381	3.0%	2,099,409	56,516	2.8%	5.5%
1998	129,755	13,708	11.8%	2,141,632	42,223	2.0%	6.1%
1999	139,249	9,494	7.3%	2,193,014	51,382	2.4%	6.3%
2000	142,116	2,867	2.1%	2,246,468	53,539	2.4%	6.3%
2001	155,539	13,423	9.4%	2,290,634	44,166	2.0%	6.8%
2002	154,192	-1,347	-0.9%	2,331,826	41,192	1.8%	6.6%
2003	156,162	1,970	1.3%	2,372,458	40,632	1.7%	6.6%
2004	162,553	6,391	4.1%	2,430,223	57,765	2.4%	6.7%
2005	160,317	-2,236	-1.4%	2,505,843	75,620	3.1%	6.4%
2006	157,802	-2,515	-1.6%	2,576,229	70,386	2.8%	6.1%
2007	158,349	547	0.3%	2,636,075	59,846	2.3%	6.0%
2008	163,593	5,244	3.3%	2,691,122	55,047	2.1%	6.1%
2009	175,810	12,217	7.5%	2,731,560	40,438	1.5%	6.4%
2010	179,837	4,027	2.3%	2,772,667	41,107	1.5%	6.5%
2011	183,008	3,171	1.8%	2,822,091	49,424	1.8%	6.5%
2012	179,842	-3,166	-1.7%	2,867,404	45,313	1.6%	6.3%
2013	174,221	-5,621	-3.1%	2,906,022	38,618	1.3%	6.0%
2014	173,962	-259	-0.1%	2,946,989	40,967	1.4%	5.9%
2015	175,092	1,130	0.6%	3,003,792	56,803	1.9%	5.8%
2016	179,851	4,759	2.7%	3,062,384	58,592	2.0%	5.9%
2017	186,060	6,209	3.5%	3,122,477	60,093	2.0%	6.0%
2018	189,086	3,026	1.6%	3,176,342	45,132	1.4%	6.0%
2019	193,863	4,777	2.5%	3,231,108	54,766	1.7%	6.0%
2020	193,536	-327	-0.2%	3,284,823	53,715	1.7%	5.9%
2021	197,648	4,112	2.1%	3,343,518	58,695	1.8%	5.9%
2022*	194,921	-2,727	-1.4%	3,404,760	61,242	1.8%	5.7%

*Fall 2022 End-of-Term data were unavailable at the time of publication. This figure represents 3rd week data and will be updated to EOT next year.
Note: Enrollment figures prior to 1998 sourced from Fall term 3rd week enumeration. Thereafter, enrollment figures are sourced from Fall end of term enumeration.
Source: Utah System of Higher Education Fall End-of-Term Enrollment Data, Utah Population Committee

Table 17.2: History of Fall End-of-Term* Enrollment at Public Degree-Granting Institutions in Utah, 2012-2022*

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022*
Student Headcount											
University of Utah	33,294	32,767	32,006	32,155	32,451	33,153	33,369	33,152	33,273	34,681	34,734
Utah State University	29,667	28,690	28,675	29,288	28,921	28,953	29,292	29,093	29,252	29,293	27,943
Weber State University	27,381	25,886	26,913	26,252	27,236	28,379	28,700	29,969	29,709	30,001	29,914
Southern Utah University	8,706	8,227	8,200	9,145	9,598	10,245	10,772	12,210	12,998	14,324	14,330
Snow College	4,598	4,581	4,805	5,107	5,414	5,589	5,574	5,450	5,875	6,156	5,997
Utah Tech University	8,587	8,147	8,342	8,464	8,991	9,707	9,986	11,177	12,005	12,277	12,556
Utah Valley University	31,810	30,880	31,589	33,565	35,126	37,785	40,471	42,030	41,888	42,915	43,099
Salt Lake Community College	35,799	35,043	33,432	31,116	32,114	32,249	30,922	30,782	28,536	28,001	26,348
Total	179,842	174,221	173,962	175,092	179,851	186,060	189,086	193,863	193,536	197,648	194,921
Full-Time Equivalent											
University of Utah	27,576	27,314	27,015	27,187	27,683	28,188	28,594	28,629	28,801	30,166	30,619
Utah State University	21,136	20,674	21,286	22,415	22,455	22,813	23,153	22,899	22,919	22,504	21,791
Weber State University	16,781	15,742	16,133	16,108	16,557	17,221	17,465	18,022	18,223	18,074	18,171
Southern Utah University	6,652	6,331	6,277	7,025	7,396	7,761	8,268	8,758	9,574	10,190	10,148
Snow College	3,556	3,530	3,777	3,982	4,041	4,097	4,022	3,931	4,138	4,488	4,377
Utah Tech University	6,443	6,175	6,318	6,377	6,851	7,398	7,539	8,146	8,884	9,003	9,183
Utah Valley University	21,692	20,780	21,402	22,693	23,761	25,198	26,770	27,636	27,542	27,000	27,646
Salt Lake Community College	18,348	17,676	16,898	16,045	15,905	16,297	15,621	15,544	14,566	13,904	13,126
Total	122,184	118,221	119,106	121,831	124,648	128,973	131,431	133,565	134,648	135,330	135,062

*Fall 2022 End-of-Term data were unavailable at the time of publication. This figure represents 3rd week data and will be updated to End-Of-Term next year.
Source: Utah System of Higher Education

Table 17.3: Utah System of Higher Education Fall 3rd Week Enrollment at Degree-Granting Institutions, by County, 2018-2022

County	Fall 2018	Fall 2019	Fall 2020	Fall 2021	Fall 2022	Total Annual Change				Percent Change			
						2018–2019	2019–2020	2020–2021	2021–2022	2018–2019	2019–2020	2020–2021	2021–2022
Beaver	313	280	349	315	318	-33	69	-34	3	-10.5%	24.6%	-9.7%	1.0%
Box Elder	1,622	1,492	2,100	2,233	2,264	-130	608	133	31	-8.0%	40.8%	6.3%	1.4%
Cache	3,943	3,570	6,308	6,652	6,714	-373	2,738	344	62	-9.5%	76.7%	5.5%	0.9%
Carbon	525	402	850	885	827	-123	448	35	-58	-23.4%	111.4%	4.1%	-6.6%
Daggett	28	30	30	30	26	2	0	0	-4	7.1%	0.0%	0.0%	-13.3%
Davis	19,211	19,750	21,418	21,662	22,536	539	1,668	244	874	2.8%	8.4%	1.1%	4.0%
Duchesne	456	423	599	651	660	-33	176	52	9	-7.2%	41.6%	8.7%	1.4%
Emery	365	320	540	560	507	-45	220	20	-53	-12.3%	68.8%	3.7%	-9.5%
Garfield	208	184	202	222	228	-24	18	20	6	-11.5%	9.8%	9.9%	2.7%
Grand	199	185	285	280	281	-14	100	-5	1	-7.0%	54.1%	-1.8%	0.4%
Iron	2,429	2,426	2,477	2,692	2,723	-3	51	215	31	-0.1%	2.1%	8.7%	1.2%
Juab	554	511	530	543	545	-43	19	13	2	-7.8%	3.7%	2.5%	0.4%
Kane	296	323	348	333	359	27	25	-15	26	9.1%	7.7%	-4.3%	7.8%
Millard	641	656	658	655	723	15	2	-3	68	2.3%	0.3%	-0.5%	10.4%
Morgan	604	642	714	809	931	38	72	95	122	6.3%	11.2%	13.3%	15.1%
Piute	81	80	73	77	64	-1	-7	4	-13	-1.2%	-8.8%	5.5%	-16.9%
Rich	103	77	124	112	112	-26	47	-12	0	-25.2%	61.0%	-9.7%	0.0%
Salt Lake	48,165	48,150	48,420	48,491	49,869	-15	270	71	1,378	-0.0%	0.6%	0.1%	2.8%
San Juan	450	367	553	585	609	-83	186	32	24	-18.4%	50.7%	5.8%	4.1%
Sanpete	1,545	1,486	1,645	1,508	1,471	-59	159	-137	-37	-3.8%	10.7%	-8.3%	-2.5%
Sevier	1,153	1,183	1,180	1,135	1,087	30	-3	-45	-48	2.6%	-0.3%	-3.8%	-4.2%
Summit	1,862	1,922	2,082	2,034	2,187	60	160	-48	153	3.2%	8.3%	-2.3%	7.5%
Tooele	2,084	1,946	2,602	2,691	2,708	-138	656	89	17	-6.6%	33.7%	3.4%	0.6%
Uintah	574	490	861	889	899	-84	371	28	10	-14.6%	75.7%	3.3%	1.1%
Utah	31,281	32,402	34,044	31,979	36,122	1,121	1,642	-2,065	4,143	3.6%	5.1%	-6.1%	13.0%
Wasatch	1,783	1,741	1,837	1,771	1,876	-42	96	-66	105	-2.4%	5.5%	-3.6%	5.9%
Washington	7,138	7,821	8,267	8,085	8,546	683	446	-182	461	9.6%	5.7%	-2.2%	5.7%
Wayne	121	103	96	98	101	-18	-7	2	3	-14.9%	-6.8%	2.1%	3.1%
Weber	10,690	11,039	11,464	11,669	11,802	349	425	205	133	3.3%	3.8%	1.8%	1.1%
Other US Locations	28,022	28,264	29,611	30,749	29,160	242	1,347	1,138	-1,589	0.9%	4.8%	3.8%	-5.2%
Foreign Locations	5,503	5,832	5,167	6,224	7,039	329	-665	1,057	815	6.0%	-11.4%	20.5%	13.1%
Unknown/Unidentified	12,000	15,254	3,587	5,513	1,627	3,254	-11,667	1,926	-3,886	27.1%	-76.5%	53.7%	-70.5%
Total	**183,949**	**189,351**	**189,021**	**192,132**	**194,921**	**5,402**	**-330**	**3,111**	**2,789**	**2.9%**	**-0.2%**	**1.6%**	**1.5%**

Source: Utah System of Higher Education Fall 3rd Week Enrollment Data

Table 17.4: History of Enrollment at Technical Colleges in Utah, 2013-2022*

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022*
Postsecondary Student Headcount										
Bridgerland	4,253	3,860	3,527	3,741	3,815	3,940	3,793	3,527	3,426	3,462
Davis	5,197	4,923	5,160	4,743	4,604	4,528	4,547	4,733	4,795	4,384
Dixie	6,108	5,693	6,693	7,569	4,333	4,920	6,146	1,998	1,773	2,009
Mountainland	2,375	2,456	2,925	2,868	2,840	2,919	3,442	3,684	4,088	4,124
Ogden-Weber	4,008	3,924	4,221	4,392	4,173	4,257	4,187	4,014	4,376	4,602
Southwest	789	743	669	990	1,452	1,351	1,515	1,214	1,179	1,359
Tooele	401	563	555	617	661	721	840	763	808	804
Uintah Basin	4,440	4,542	3,791	2,870	2,324	2,450	2,356	2,275	1,680	1,870
Total	27,571	26,704	27,541	27,790	24,202	25,086	26,826	22,208	22,125	22,614
Secondary Student Headcount										
Bridgerland	1,737	1,722	1,779	1,968	1,875	2,142	2,031	1,942	1,672	1,807
Davis	1,095	946	1,086	1,264	1,435	1,313	1,464	1,717	1,918	1,812
Dixie	985	730	951	2,528	301	292	296	169	161	184
Mountainland	1,422	1,284	1,259	1,373	1,453	1,501	1,591	1,479	1,468	1,601
Ogden-Weber	1,219	1,028	1,203	1,443	1,327	1,384	1,828	1,869	1,551	1,685
Southwest	644	798	839	894	856	902	833	890	922	1,056
Tooele	30	44	86	128	144	147	205	314	365	423
Uintah Basin	1,269	1,348	1,449	1,597	1,643	1,703	1,642	1,455	1,498	1,718
Total	8,401	7,900	8,652	11,195	9,034	9,384	9,890	9,835	9,555	10,286

*Fall 2022 End-of-Term data were unavailable at the time of publication. This figure represents 3rd week data and will be updated to EOT next year.
Note: Enrollments include certificates and all other occupational training
Source: Utah System of Higher Education

Table 17.5: History of Degrees by Public Degree-Granting Institutions in Utah, 2014-2022

Degree	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	1-Year Change		5-Year Change	
									Absolute	%	Absolute	%
University Totals												
University of Utah	8,392	8,169	8,554	8,604	8,758	9,147	9,174	9,223	49	0.5%	669	7.8%
Utah State University	6,082	6,231	6,446	6,642	6,978	7,128	7,462	7,334	-128	-1.7%	888	13.8%
Weber State University	5,086	5,105	5,191	5,380	5,615	5,782	6,445	6,620	175	2.7%	1,429	27.5%
Southern Utah University	1,545	1,736	2,177	2,357	2,763	3,027	2,735	4,407	1,672	61.1%	2,230	102.4%
Snow College	856	968	1,020	1,055	1,142	1,434	1,389	1,316	-73	-5.3%	296	29.0%
Utah Tech University	1,941	1,919	1,935	2,034	2,309	2,538	2,658	3,211	553	20.8%	1,276	65.9%
Utah Valley University	5,082	5,107	5,024	6,084	6,304	9,917	12,591	15,351	2,760	21.9%	10,327	205.6%
Salt Lake Community College	4,022	4,587	6,432	5,684	4,753	5,058	5,520	5,181	-339	-6.1%	-1,251	-19.4%
Total Public	33,006	33,822	36,779	37,840	38,622	44,031	47,974	52,643	4,669	9.7%	15,864	43.1%
Certificates & Awards*												
University of Utah	431	386	410	430	488	674	639	522	-117	-18.3%	112	27.3%
Utah State University	247	237	214	258	390	568	826	1,053	227	27.5%	839	392.1%
Weber State University	90	118	110	144	163	168	360	471	111	30.8%	361	328.2%
Southern Utah University	21	31	113	163	282	404	157	526	369	235.0%	413	365.5%
Snow College	47	79	74	125	126	395	341	284	-57	-16.7%	210	283.8%

Table 17.5: History of Degrees by Public Degree-Granting Institutions in Utah, 2014-2022 (continued)

Degree	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	1-Year Change		5-Year Change	
									Absolute	%	Absolute	%
Utah Tech University	316	299	288	390	594	709	763	966	203	26.6%	678	235.4%
Utah Valley University	113	178	204	331	352	3,567	2,765	6,036	3,271	118.3%	5,832	2858.8%
Salt Lake Community College	640	900	2,670	2,433	1,533	1,665	2,084	1,920	-164	-7.9%	-750	-28.1%
Total Certificates & Awards	1,905	2,228	4,083	4,274	3,928	8,150	7,935	11,778	3,843	48.4%	7,695	188.5%
Associate												
Utah State University	1,272	1,252	1,451	1,346	1,100	1,209	1,203	1,092	-111	-9.2%	-359	-24.7%
Weber State University	2,216	2,245	2,361	2,473	2,670	2,678	3,079	3,110	31	1.0%	749	31.7%
Southern Utah University	294	532	641	821	906	963	756	1,734	978	129.4%	1,093	170.5%
Snow College	801	864	929	910	979	1,010	1,019	1,001	-18	-1.8%	72	7.8%
Utah Tech University	1,013	974	923	894	901	863	781	987	206	26.4%	64	6.9%
Utah Valley University	1,996	1,929	1,784	2,336	2,231	2,352	5,538	4,917	-621	-11.2%	3,133	175.6%
Salt Lake Community College	3,382	3,687	3,762	3,251	3,220	3,393	3,436	3,261	-175	-5.1%	-501	-13.3%
Total Associate	10,974	11,483	11,851	12,031	12,007	12,468	15,812	16,102	290	1.8%	4,251	35.9%
Baccalaureate												
University of Utah	5,246	5,167	5,214	5,263	5,237	5,310	5,437	5,498	61	1.1%	284	5.4%
Utah State University	3,551	3,810	3,846	3,952	4,531	4,411	4,341	4,178	-163	-3.8%	332	8.6%
Weber State University	2,505	2,488	2,458	2,414	2,451	2,603	2,700	2,639	-61	-2.3%	181	7.4%
Southern Utah University	928	895	1,043	961	1,157	1,210	1,311	1,474	163	12.4%	431	41.3%
Snow College	8	25	17	20	37	29	29	31	2	6.9%	14	82.4%
Utah Tech University	612	646	724	750	814	936	1,090	1,224	134	12.3%	500	69.1%
Utah Valley University	2,915	2,903	2,940	3,224	3,471	3,713	3,996	4,072	76	1.9%	1,132	38.5%
Total Baccalaureate	15,765	15,934	16,242	16,584	17,698	18,212	18,904	19,116	212	1.1%	2,874	17.7%
Masters												
University of Utah	1,948	1,901	2,140	2,155	2,198	2,296	2,283	2,265	-18	-0.8%	125	5.8%
Utah State University	904	830	838	979	839	837	993	893	-100	-10.1%	55	6.6%
Weber State University	275	254	262	349	331	333	294	371	77	26.2%	109	41.6%
Southern Utah University	302	278	380	412	418	450	511	673	162	31.7%	293	77.1%
Utah Tech University						30	24	34	10	41.7%	34	0.0%
Utah Valley University	58	97	96	193	250	285	292	326	34	11.6%	230	239.6%
Total Masters	3,487	3,360	3,716	4,088	4,036	4,231	4,397	4,562	165	3.8%	846	22.8%
Doctorate												
University of Utah	384	331	339	346	376	371	355	470	115	32.4%	131	38.6%
Utah State University	102	94	95	99	113	96	93	113	20	21.5%	18	18.9%
Total Doctorate	486	425	434	445	489	467	448	583	135	30.1%	149	34.3%
First Professional												
University of Utah	383	384	451	410	459	496	460	468	8	1.7%	17	3.8%
Utah State University	6	8	2	8	5	7	6	5	-1	-16.7%	3	150.0%
Weber State University	—	—	—	—	—	—	12	29	17	141.7%	29	0.0%
Total First Professional	389	392	453	418	464	503	478	502	24	5.0%	49	10.8%

Note: Institutions are sorted by the type of institution and the year they were founded.
*Includes Post-Baccalaureate and Post-Master's Certificates for the University of Utah and Utah State University
Source: USHE Completions Data

Table 17.6: Degrees and Awards by Race/Ethnicity at Degree-Granting Public Institutions in Utah: Academic Year, 2021-2022

USHE Institution	Total Degrees Awarded	American Indian or Alaskan Native	Asian	Black or African American	Hispanic or Latino	Native Hawaiian or Pacific Islander	Non-resident Unknown	Two or more races	White	Race/ Ethnicity Not Specified
University of Utah	9,223	30	541	87	1014	25	703	431	6,131	261
Utah State University	7,334	164	111	62	432	19	62	160	5,904	420
Weber State University	6,620	35	149	85	674	30	87	195	5,019	346
Southern Utah University	4,407	33	77	68	287	30	177	56	3,348	331
Snow College	1,316	1	—	—	107	—	47	62	1,090	9
Utah Tech University	3,211	19	36	36	335	30	51	112	2,582	10
Utah Valley State College	15,351	70	266	137	1643	71	165	545	12,296	158
Salt Lake Community College	5,181	31	260	146	981	34	78	224	3,388	39
Total	52,643	383	1,440	621	5,473	239	1,370	1,785	39,758	1,574
Percent of Total		0.7%	2.7%	1.2%	10.4%	0.5%	2.6%	3.4%	75.5%	3.0%

Source: Utah System of Higher Education

Table 17.7: Public Degree-Granting Institutions in Utah Total Degrees and Awards by Instructional Program 2021–2022

Classification of Instructional Program (CIP)	U of U	USU	WSU	SUU	SNOW	UTU	UVU	SLCC	TOTAL
Agricultural/Animal/Plant/Veterinary Science and Related Fields	—	257	—	29	26	—	—	—	312
Architecture and Related Services	61	26	5	—	—	—	—	22	114
Area, Ethnic, Cultural, Gender, and Group Studies	75	32	—	—	—	—	—	—	107
Biological and Biomedical Sciences	330	193	117	95	12	78	307	22	1,154
Business, Management, Marketing, and Related Support Services	1474	691	720	461	132	278	2345	365	6,466
Communication, Journalism, and Related Programs	341	148	151	112	29	94	191	68	1,134
Communications Technologies/Technicians and Support Services	—	—	—	—	—	14	17	131	162
Computer and Information Sciences and Support Services	822	224	538	50	35	70	2048	596	4,383
Construction Trades	—	9	—	—	7	—	65	43	124
Culinary, Entertainment, and Personal Services	—	24	—	1	24	—	41	25	115
Education	219	549	229	262	94	45	478	61	1,937
Engineering	861	374	102	25	60	62	161	36	1,681
Engineering/Engineering-Related Technologies/Technicians	5	743	122	32	12		202	44	1,160
English Language and Literature/Letters	134	106	76	26	10	35	102	36	525
Family and Consumer Sciences/Human Sciences	112	174	78	100	28	1	164	7	664
Foreign Languages, Literatures, and Linguistics	68	26	110	7	1	6	46	5	269
Health Professions and Related Programs	1097	793	2072	112	284	663	860	694	6,575
History	65	37	23	21	6	14	22	10	198
Homeland Security, Law Enforcement, Firefighting and Related Protective Services	4	34	172	47	10	69	879	111	1,326
Legal Professions and Studies	160	16	—	3	5	—	4	26	214
Liberal Arts and Sciences, General Studies and Humanities	61	874	1580	2308	274	1414	5015	2095	13,621
Mathematics and Statistics	165	53	43	13	4	19	37	7	341
Mechanic and Repair Technologies/Technicians		74	22	5	14	2	132	98	347
Military Technologies and Applied Sciences	—	—	—	—	—	—	19	—	19
Multi/Interdisciplinary Studies	278	235	14	120	—	44	35	8	734
Natural Resources and Conservation	45	105	1	—	12	—	4	—	167
Parks, Recreation, Leisure, Fitness, and Kinesiology	337	168	43	114	5	101	134	24	926
Philosophy and Religious Studies	34	18	5	4	1	—	36	—	98
Physical Sciences	226	46	26	23	10	4	35	19	389
Precision Production	—	17	—	—	48	—	10	52	127
Psychology	557	276	81	102	37	67	443	199	1,762
Public Administration and Social Service Professions	372	97	90	48	22	—	100	80	809
Science Technologies/Technicians	—	—	62	—	—	—	—	40	102
Social Sciences	907	656	50	64	18	20	173	99	1,987
Transportation and Materials Moving	—	154	—	61	—	—	456	81	752
Visual and Performing Arts	413	105	88	162	96	111	790	77	1,842
Total	9,223	7,334	6,620	4,407	1,316	3,211	15,351	5,181	52,643

— Indicates that either no degrees/awards were earned in the 2021-2022 school year or the institution does not offer any degrees/awards in the given CIP category.
Source: Utah System of Higher Education

Table 17.8: Technical College Certificates Awarded, 2012-2022e

	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022e
Bridgerland	912	829	862	918	847	797	906	933	960	1,003
Davis	1,371	1,419	1,646	1,769	1,403	1,299	1,468	1,456	1,439	1,521
Dixie	258	471	770	781	292	306	370	341	550	684
Mountainland	1,636	1,776	2,609	2,194	1,925	1,712	2,178	1,716	2,156	2,285
Ogden-Weber	1,029	1,129	1,240	1,348	891	854	952	882	945	1,019
Southwest	126	270	211	341	319	371	451	310	430	398
Tooele	99	200	219	228	221	196	222	194	256	288
Uintah Basin	487	877	782	571	522	542	574	568	769	689
Total	5,918	6,971	8,339	8,150	6,420	6,077	7,121	6,400	7,505	7,887

Note: e = estimate
Source: Utah System of Higher Education

Table 17.9: Full Cost Study Summary (Appropriated Funds Only), 2021–2022

	Direct Cost of Instruction
University of Utah[1]	$285,204,011
Utah State University[2, 3]	$182,936,729
Weber State University	$84,875,743
Southern Utah University	$48,475,428
Snow College[2]	$21,130,474
Utah Tech University	$31,884,495
Utah Valley University	$126,649,694
Salt Lake Community College[2]	$66,733,509
Total	$847,890,084

Note: Institutions are sorted by the type of institution and the year they were founded.
1. Does not include the Hospital, School of Medicine, and the Regional Dental Education Program
2. Does not include Applied Technology Education
3. Does not include Veterinary Medicine
Source: Utah System of Higher Education

Table 17.10: USHE Summary of Tuition and Fees by Institution, 2002-2022

USHE Institution	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17	2017–18	2018–19	2019-20	2020-21	2021-22
University of Utah																				
Resident	$3,325	$3,646	$4,000	$4,298	$4,663	$4,987	$5,287	$5,746	$6,274	$6,763	$7,139	$7,457	$7,876	$8,197	$8,518	$8,824	$9,222	$9,500	$9,665	$9,817
Nonresident	$10,182	$11,292	$12,410	$13,370	$14,593	$15,662	$16,600	$18,136	$19,841	$21,388	$22,642	$24,019	$25,208	$26,022	$27,039	$28,067	$29,215	$30,134	$30,711	$31,389
Utah State University																				
Resident	$2,834	$3,071	$3,247	$3,615	$3,949	$4,199	$4,274	$4,828	$5,150	$5,563	$5,931	$6,185	$6,383	$6,664	$6,866	$7,175	$7,424	$7,659	$7,859	$8,055
Nonresident	$8,199	$8,946	$9,533	$10,431	$11,449	$12,224	$12,725	$13,802	$14,797	$16,078	$17,077	$17,888	$18,490	$19,133	$19,772	$20,727	$21,505	$22,197	$22,805	$23,434
Weber State University																				
Resident	$2,427	$2,632	$2,876	$3,165	$3,432	$3,664	$3,854	$4,088	$4,311	$4,547	$4,761	$4,990	$5,183	$5,339	$5,523	$5,712	$5,859	$5,986	$6,106	$6,228
Nonresident	$7,295	$7,958	$8,736	$9,599	$10,415	$11,135	$11,161	$11,555	$11,901	$12,258	$12,858	$13,311	$13,837	$14,252	$14,749	$15,260	$15,646	$15,969	$16,288	$16,645
Southern Utah University																				
Resident	$2,350	$2,794	$3,054	$3,358	$3,565	$3,796	$4,028	$4,269	$4,736	$5,198	$5,576	$5,924	$6,138	$6,300	$6,530	$6,676	$6,770	$6,770	$6,770	$6,726
Nonresident	$7,344	$8,158	$9,008	$9,877	$10,603	$11,327	$12,082	$12,847	$14,386	$15,910	$16,984	$17,902	$18,596	$19,132	$19,810	$20,288	$20,586	$20,586	$20,586	$20,542
Snow College																				
Resident	$1,523	$1,670	$1,794	$1,996	$2,164	$2,262	$2,348	$2,542	$2,746	$2,910	$3,086	$3,220	$3,388	$3,484	$3,592	$3,692	$3,742	$3,836	$3,912	$4,000
Nonresident	$5,742	$6,372	$6,556	$7,210	$7,498	$7,889	$8,228	$8,238	$8,984	$9,586	$10,230	$10,722	$11,342	$11,676	$12,070	$12,382	$12,562	$12,876	$13,156	$13,476
Utah Tech University																				
Resident	$1,612	$1,778	$1,886	$1,984	$2,492	$2,728	$2,893	$3,145	$3,489	$3,888	$4,089	$4,285	$4,456	$4,620	$4,840	$5,080	$5,253	$5,496	$5,662	$5,862
Nonresident	$6,038	$6,554	$7,034	$7,390	$9,056	$9,447	$10,063	$10,897	$12,117	$13,536	$11,721	$12,307	$12,792	$13,206	$13,855	$14,548	$15,051	$15,792	$16,260	$16,986
Utah Valley University																				
Resident	$2,196	$2,450	$2,788	$3,022	$3,308	$3,528	$3,752	$4,048	$4,288	$4,584	$4,786	$5,086	$5,270	$5,386	$5,530	$5,432	$5,726	$5,820	$5,906	$6,010
Nonresident	$6,802	$7,630	$8,718	$9,472	$10,338	$11,029	$11,514	$11,888	$12,246	$12,940	$13,518	$14,256	$14,802	$15,202	$15,690	$16,066	$16,296	$16,570	$16,806	$17,092
Salt Lake Community College																				
Resident	$1,890	$2,035	$2,174	$2,312	$2,404	$2,536	$2,660	$2,790	$2,932	$3,052	$3,170	$3,342	$3,468	$3,568	$3,689	$4,009	$3,843	$3,929	$3,989	$4,086
Nonresident	$5,800	$6,277	$6,754	$7,232	$7,519	$7,958	$8,374	$8,730	$9,172	$9,604	$10,012	$10,594	$11,010	$11,020	$11,728	$12,020	$12,206	$12,460	$12,709	$12,773

Note: Tuition is equal to two semesters at 15 credit hours each. Lower division (freshman & sophomore) rate only. Higher differential rate for upper division (junior and senior) for University of Utah. Higher differential rates may apply based on institution and program of study. Institutions are sorted by the type of institution and the year they were founded.
Source: Utah System of Higher Education

Energy

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Michael Vanden Berg, Utah Geological Survey

OVERVIEW

Heading into 2022, energy experts debated the speed and timing of a return to "normal" energy demand following a tumultuous 2020–2021 as the world responded to the COVID-19 pandemic. As vaccines became widely available in the first half of 2021, optimism grew in the energy economy as demand quickly headed back to pre-pandemic levels. In many cases, energy demand increased faster than supply, causing significant run-ups in prices, as well as supply chain constraints. These problems were compounded when Russia invaded Ukraine causing more disruption to energy supplies. Overall, the higher energy prices and the greater demand spurred increases in local drilling and production of oil and natural gas. In addition, the federal administration maintains an emphasis on a transition to carbon-neutral energy sources, most acutely seen in the electric utility sector with a continued shift away from coal to more renewable sources.

Utah crude oil prices peaked near $100 per barrel in summer 2022, before dropping back to about $75 per barrel in the fall, and averaged $82 per barrel for the year, the highest price since 2013 and more than double the average price in 2020. This rebound in price, coupled with record-high petroleum demand, resulted in a 24% increase in Utah crude oil production to 44 million barrels in 2022, the highest annual production on record. Natural gas prices nearly tripled since 2020 to $5.90 per thousand cubic feet (Mcf) in 2022 and resulted in an annual natural gas production increase for the first time in nearly 10 years, reaching 265 billion cubic feet (Bcf) in 2022.

Construction of new utility-scale solar facilities continued in 2021 and 2022 with the addition of about 650 megawatts (MW) of capacity, bringing Utah's total solar capacity to 1.5 gigawatts (GW). Solar dominates Utah's renewable energy portfolio, providing 65% of total renewable capacity. In the residential sector, total installed residential photovoltaic (PV) capacity in Utah has increased from just 6 MW in 2013 to about 356 MW in 2021.

Utah coal production dropped to the lowest level in nearly 40 years, just 11 million tons in 2022, despite a significant increase in coal prices. The establishment of a foreign export coal market continues to be a challenge as access to West Coast ports remains in question. Electricity generation in Utah decreased 5% in 2022, despite consumption increasing to a new record high of 33,100 GWh. Electricity prices also increased but continue to be nearly 30% lower than the national average.

Demand for oil and natural gas remained strong in 2022 and will continue to play a major role in Utah's energy landscape. However, there is a noticeable shift at the federal level to move more quickly to carbon-neutral energy sources. Fortunately, Utah is well positioned to take the lead in this energy transition with major research projects focused on geothermal energy, hydrogen technology, carbon sequestration opportunities, and utility-scale storage, as well as the continued buildout of large-scale PV solar farms, which soon could be coupled with innovative battery storage.

2022 Summary

Petroleum

Production Utah oil production took a major hit in 2020, dropping to 31.0 million barrels, when the COVID-19 pandemic caused major global disruptions to petroleum prices and demand. Production bottomed out at 69,600 barrels per day in May 2020, but then steadily increased and then surpassed pre-pandemic levels in 2021 and 2022, hitting a record high of 131,300 barrels per day in August 2022 (before dropping slightly in September to 121,200 barrels per day). Total crude oil production for 2022 is expected to reach a record high of 44 million barrels, a 24% increase

from 2021 (42% higher than 2020), mostly attributable to the drilling of very successful long-reach (10,000+ feet) horizontal wells in the Uinta Basin. Total crude oil pipeline imports from Colorado, Wyoming, and Canada increased a modest 3.1% to 39 million barrels in 2022 as refineries continued to adjust to post-COVID-19 increases in petroleum product demand. Similarly, refinery receipts—the amount of crude oil delivered to Utah's five refineries–increased 6.8% to a new record high of 71 million barrels. With the growth in production in 2022, estimated exports of Utah crude oil nearly doubled to 11.8 million barrels, mostly related to more Uinta Basin crude oil leaving the state via trains that are loaded in Price, Utah.

Prices and Value After a volatile year in 2020, oil prices increased steadily in 2021 and the first half of 2022 as petroleum demand returned to pre-pandemic levels. Utah oil prices started the year near $70 per barrel but steadily increased to about $100 per barrel by mid-summer, before falling again back to the lower $70 per barrel range in December. The overall average 2022 crude oil price in Utah is estimated at $82 per barrel, up 35% from the 2021 price, and up 135% from 2020. The increase in price, coupled with a resultant surge in production, pushed the value of Utah's produced crude oil up to $3.6 billion in 2022, a new record high in nominal dollars and more than triple the 2020 value. Following suit, Utah's average price for regular unleaded motor gasoline and diesel also significantly increased in 2022 to $4.24 and $5.01 per gallon, respectively.

Consumption Petroleum product demand plummeted in 2020 as travel restrictions and stay-at-home directives went into effect due to the COVID-19 pandemic, but demand quickly rebounded, surpassing pre-pandemic levels in 2021 and again in 2022. Utah's refined petroleum product production reached a record high of 81 million barrels in 2022, a 5% increase from 2021. Refined petroleum product imports from Wyoming via the Pioneer pipeline also increased by 3% in 2022, and Utah refineries export an estimated 30 to 35 million barrels of petroleum products per year via pipeline to other states. Utah's total petroleum product consumption is expected to reach a new record high in 2022 at 64 million barrels, 4% higher than 2021 and 16% higher than the COVID-19-influenced drop in demand in 2020. Nearly 48% of total petroleum demand was motor gasoline, and diesel represented 28%. Utah imports and exports significant amounts of petroleum products from and to surrounding states, but overall, Utah is a net exporter, only using about 80% of the product refined at Utah-based refineries.

Natural Gas

Production Utah's natural gas production peaked in 2012 at 491 Bcf but then retreated to 240 Bcf by 2021, due to several years of low prices and a lack of natural gas drilling in Utah. However, production rebounded 10% in 2022 to about 265 Bcf as prices spiked and natural gas-specific drilling resumed for the first time in nearly four years. Natural gas production was also boosted by the significant associated gas produced from new crude oil wells. Dry natural gas production and natural gas sales in 2022 also increased to 255 and 220 Bcf, respectively, and natural gas liquids production increased to 3.8 million barrels.

Prices and Value After averaging only about $2.50 per Mcf between 2015 and 2020, the wellhead price for natural gas in Utah increased to $4.11 in 2021 and then again to $5.90 in 2022. Natural gas prices near $2.50 per Mcf provided little economic justification for natural gas exploration or development. However, with the dramatic increase in prices over the past year, natural gas-specific drilling has resumed (four rigs were drilling natural gas wells in late 2022). When wellhead prices increase, so do consumer prices; the residential natural gas price increased over 15% in 2022 to $10.30 per Mcf and the price for industrial uses increased 42% to $7.70. Higher natural gas and natural gas liquids production, coupled with higher prices, pushed the 2022 natural gas production value to $1.8 billion, 62% higher than 2021 and nearly triple the value recorded in 2020.

Consumption Natural gas consumption in Utah has been volatile over the past several years mostly due to large swings in the electric utility and residential markets. After reaching a near record high of 261 Bcf in 2021 (only behind the 264 Bcf consumed in 2019), consumption decreased 2% in

2022 to 256 Bcf. Most natural gas in Utah is used for residential purposes (26%) or electricity generation (30%), followed by the commercial (16%) and industrial (15%) sectors. After two years of consuming more natural gas than was produced in the state, Utah returned to being a net exporter of natural gas in 2022.

Coal

Production In 2022, Utah had six active coal mines, the fewest number since mining operations began in Utah nearly 150 years ago. This number was recently reduced to five when the Lila Canyon mine was temporarily idled due to an underground combustion event, and it is currently unclear when the mine will be able to resume production. Overall, coal production is expected to decrease by 12% in 2022 to 11.0 million short tons, well below the 24.5 million tons averaged in the 2000s. Declining Utah coal production started during the 2008 recession, but demand never rebounded like other energy commodities since coal has dropped out of favor as a fuel for electric and industrial needs. Production at the two remaining Wolverine mines, Skyline and Sufco, accounted for 60% (6.6 million tons) of Utah's total coal production. The Emery County Coal Resources Lila Canyon mine produced 2.3 million tons of coal before being idled in September. In mid-2020, COP Coal Development bought the Castle Valley mines, now called Gentry, from Rhino Resources and produced about 500,000 tons in 2021 and 600,000 tons in 2022. The Coal Hollow mine in southern Utah produced about 400,000 tons in 2022 from their surface mine, including new production on their long-sought federal coal leases. Bronco Energy's Emery mine produced about 1.1 million tons of coal in 2022, about the same as in 2021.

Prices and Value The average mine-mouth price for Utah coal dramatically increased to about $45 per short ton in 2022, a relatively high price in nominal dollars but still well below the inflation-adjusted high of $118 per ton reached in 1976. The end-use price of coal at Utah electric utilities, which includes transportation costs, also increased to $47 per ton in 2022. The value of coal produced in Utah totaled $495 million in 2022, 3% higher than 2021, but well below the inflation-adjusted high of $1.5 billion recorded in 1982.

Consumption Demand for coal in Utah dropped 17% between 2015 and 2016, then remained steady (about 12.6 million tons) until 2020 when it dropped to about 11 million tons in response to the pandemic-related decline in electricity demand. Demand rebounded in 2021 back to 12.6 million short tons, but decreased again in 2022 to 11.6 million tons, 97% of which was burned at electric utilities. Coal demand in Utah's industrial sector, mostly by cement and lime producers, dropped to about 340,000 tons in 2022, a quarter of peak demand of 1.4 million tons reached in 2005. Utah used to be a significant net exporter of coal to neighboring states, but out-of-state domestic demand dropped from a high of 16 million tons in 2001 to just 1.6 million tons in 2022. Utah's foreign coal exports peaked in the mid-1990s at about 5 million tons, then dropped to near zero in the mid-2000s. Demand from the foreign market has increased over the past decade, totaling an estimated 2.7 million tons in 2022; however, West Coast port access for overseas transport remains a challenge.

Electricity and Renewable Resources

Production Electricity generation in Utah decreased 5% in 2022 to 40,440 gigawatt hours (GWh) after rebounding in 2021 (42,566 GWh) from a nearly 20-year low in 2020 (37,087 GWh). Coal-fired electric generation once dominated Utah's electric portfolio, providing 94% of electric generation back in 2005. In 2022, coal accounted for only 59% of Utah's electric generation. Increases in natural gas generation (26% in 2022) and renewable sources (14% in 2022) have broadened Utah's generation portfolio. The largest change in Utah's electricity sector is the recent exponential increase in utility-scale PV solar capacity. Between mid-2015 and the end of 2016, 855 MW of utility-scale solar capacity came online, more than wind, hydroelectric, geothermal, and biomass combined. Between late 2019 and the end of 2022, an additional 680 MW of solar was installed for a total of 1.5 GW of utility-scale solar capacity. With these new additions, solar contributed just under 10% of Utah's total electric generation in 2022. In contrast, electric generation at Utah's coal-fired power plants has decreased over 37% since 2008.

Prices The overall price of electricity in Utah has remained mostly steady over the past ten years, but with a slight uptick (7%) in 2022. Utah's 2022 average electric rate of 8.9 cents per kilowatt-hour (kWh) for all sectors of the economy is about 30% lower than the national average of 12.5 cents. This lower rate is mostly attributed to Utah's established fleet of coal-fired power plants, which still supply 59% of electricity generation in the state. The residential price of Utah's electricity increased 5% in 2022 to 11.0 cents per kWh, lower than the national average of 15.0 cents per kWh.

Consumption After several years of near-steady demand (from about 2013 to 2019), electricity consumption resumed its upward trend in 2020, setting new record highs for three years in a row, reaching an estimated 33,100 GWh in 2022. These increases took place in the residential (accounting for 34% of total demand) and commercial (38% of total demand) sectors, whereas electricity demand in the industrial sector (27% of total) decreased slightly. Residential electricity consumption per person decreased from an average of 3.22 MWh per capita between 2006 and 2013 to 3.05 MWh between 2014 and 2019. This decrease was most likely related to increased energy efficiency measures as well as the increased use of residential PV solar. However, the COVID-19 pandemic seems to have spurred increased electricity usage in the residential sector (e.g., more work-from-home opportunities, etc.), resulting in an increase in per person electricity usage of 3.21 MWh in 2020, 3.28 MWh in 2021, and 3.32 MWh in 2022. Overall, Utah remains a net exporter of electricity, using only 82% of in-state electric generation.

2023 OUTLOOK

Although the past couple years were dominated by the impact of the COVID-19 pandemic on Utah's energy industry, 2022 returned to a "new normal" with a strong economy, surging energy demand, high energy prices, and the positives and negatives that go along with each. This situation is coupled with the intensifying interest in "the energy transition" with increasing emphasis on renewable and carbon-neutral energy sources, innovations in the hydrogen economy, and the electrification of the transportation system.

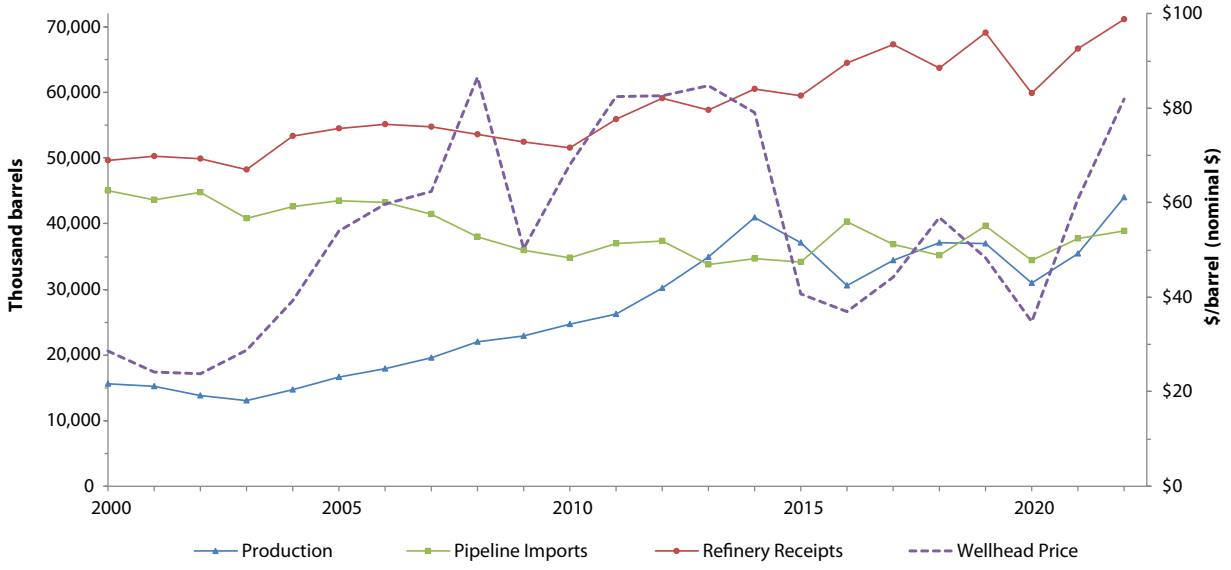
Oil prices in Utah will most likely remain volatile but relatively high in 2023, in the upper-$70 to low-$80 per barrel range as demand continues to grow and geopolitical situations influence global prices. Oil prices in this range will continue to support 10 to 12 drill rigs in the Uinta Basin, mostly drilling long-reach horizontal oil wells but with some continued vertical/directional development. However, in the short term, production will be curtailed by transportation constraints, supply-chain issues, labor issues, and gas off-take options. The game-changer for the Uinta Basin would be the construction of the proposed Uinta Basin railway. All approvals from the federal government have been granted and construction can begin after financing has been secured. When built, the proposed railway could open new out-of-state markets for Utah's crude oil, creating potential for significantly higher crude oil production. Exploration/development elsewhere in Utah will likely remain minor compared with drilling in the Uinta Basin, but the increase in crude oil prices has spurred new interest in the Paradox Basin (e.g., Cane Creek play) and the Utah Central Thrust Belt. Demand for petroleum products in Utah is projected to hit record highs in 2022 and is expected to continue this upward trend into 2023 and beyond—any petroleum demand reductions predicted by the electrification of Utah's transportation sector will take years to materialize as electric vehicles still only account for 0.4% (2021 data) of total vehicle registrations.

Several years of sub-$3 per Mcf natural gas prices caused stagnation in Utah's natural gas production industry, resulting in the lowest production levels since the 1980s. However, in late 2021 and continuing into 2022, the price of natural gas increased to the $5 to $8 per Mcf range and is projected to remain high (~$5 to $6 per Mcf) for the foreseeable future. These higher prices have facilitated the return of drilling rigs that specifically target natural gas reservoirs, with four rigs drilling gas wells currently (all in the Uinta Basin) and a possibility of two to three more rigs coming online in 2023. This renewed drilling coupled with production of associated gas from increased crude oil drilling will result in higher natural gas production in the coming years.

Coal production in Utah is expected to remain in the 11- to 13-million-ton per year range for the next few years, as in-state demand currently averages 11 to 12 million tons a year, and out-of-state demand continues to be less than 2 million tons per year. This current supply-demand balance will change starting in about 2025 when the coal-fired Intermountain Power Plant converts to natural gas and eventually hydrogen, removing demand for 3 to 4 million tons of coal. Utah coal deliveries to the foreign export market have experienced a modest jump in the past few years and potential remains for access to a strong overseas market which could partially replace falling domestic demand. However, West Coast port facilities are vital for accessing the Asian coal market, but current capacity at existing ports is limited and additional capacity could be a challenge to build.

Utah's electric generation portfolio will continue to evolve as demand for carbon-neutral electricity increases and several new utility-scale solar farms are installed in 2023 and beyond (an additional 600 MW of new capacity is under construction as of late 2022, with many more facilities in the planning stages). This intensified emphasis on carbon-neutral energy sources has spurred research and development into large-scale electric storage facilities (e.g., underground compressed air, pumped hydroelectric facilities, and more traditional utility-scale battery storage), enhanced geothermal systems at the Frontier Observatory for Research in Geothermal Energy (FORGE) site in central Utah as well as traditional geothermal resources, the production of carbon-neutral hydrogen for electricity generation or vehicle fuel, and next generation nuclear energy facilities (e.g., molten salt, etc.). Consumption of electricity has resumed its faster-paced growth as our modern society becomes more reliant on electricity for everyday conveniences. Despite recent changes, Utah's well-established coal-fired power plants (which still provide 59% of Utah's electricity generation), as well as an established fleet of natural-gas plants and nearly 1.5 GW of solar capacity, will assure affordable, reliable electric power for the near future and keep Utah's electricity prices nearly 30% below the national average.

Figure 18.1: Utah's Crude Oil Production, Pipeline Imports, and Refinery Receipts Plotted with Wellhead Price, 2000–2022e



Sources: Utah Geological Survey; Utah Division of Oil, Gas and Mining; U.S. Energy Information Administration, Baker Hughes (rig data)

Table 18.1: Supply, Disposition, Price, and Value of Crude Oil in Utah, 2000–2022e

Year	Supply[1]				Drilling	Disposition				Price	Value
	Utah Crude Production	Colorado Imports	Wyoming Imports	Canadian Imports	Average # of rigs operating in Utah	Utah Crude Exports[2]	Refinery Receipts	Refinery Inputs	Refinery Beginning Stocks	Wellhead $/barrel	Value of Utah Crude Oil (Million $)
	Thousand barrels					Thousand barrels					
2000	15,608	7,163	26,367	11,528	15	10,950	49,716	49,999	786	$28.53	$445
2001	15,271	7,208	25,100	11,364	21	8,633	50,310	50,143	457	$24.09	$368
2002	13,770	7,141	25,455	12,215	13	8,619	49,962	49,987	591	$23.87	$329
2003	13,096	6,964	24,152	9,690	14	5,635	48,267	48,284	547	$28.88	$378
2004	14,742	7,559	22,911	12,195	22	4,007	53,400	53,180	532	$39.35	$580
2005	16,675	8,214	24,372	10,991	28	5,739	54,513	54,544	767	$53.98	$900
2006	17,926	9,355	23,256	10,633	40	6,051	55,119	55,192	728	$59.70	$1,070
2007	19,534	10,708	22,012	8,769	41	6,258	54,764	54,952	662	$62.48	$1,220
2008	22,040	10,259	21,316	6,382	42	6,360	53,637	53,165	473	$86.58	$1,908
2009	22,941	7,409	23,000	5,520	18	6,395	52,475	52,479	519	$50.22	$1,152
2010	24,666	6,525	24,000	4,278	27	7,832	51,637	51,678	511	$68.09	$1,679
2011	26,276	6,997	26,050	3,894	28	7,318	55,900	55,656	473	$82.53	$2,169
2012	30,204	7,805	25,118	4,394	37	8,368	59,153	58,961	692	$82.73	$2,499
2013	35,002	7,601	23,124	3,111	29	11,493	57,345	56,921	669	$84.79	$2,968
2014	40,914	7,662	23,425	3,636	25	15,090	60,548	60,677	798	$79.04	$3,234
2015	37,136	7,048	22,211	4,963	7	11,809	59,549	59,568	660	$40.69	$1,511
2016	30,528	7,110	27,318	5,873	3	6,348	64,482	64,496	719	$36.92	$1,127
2017	34,438	5,763	26,187	4,967	9	4,043	67,311	67,526	826	$44.24	$1,524
2018	37,117	5,616	23,819	5,803	7	8,575	63,780	63,805	730	$56.85	$2,110
2019	36,933	5,253	26,059	8,308	6	7,487	69,067	69,033	821	$48.32	$1,785
2020	31,001	4,820	22,572	7,030	3	5,588	59,835	60,178	978	$34.91	$1,082
2021	35,514	4,189	25,010	8,582	8	6,557	66,737	66,881	747	$60.74	$2,157
2022e	44,000	4,050	26,400	8,500	12	11,750	71,200	71,400	830	$82.00	$3,608

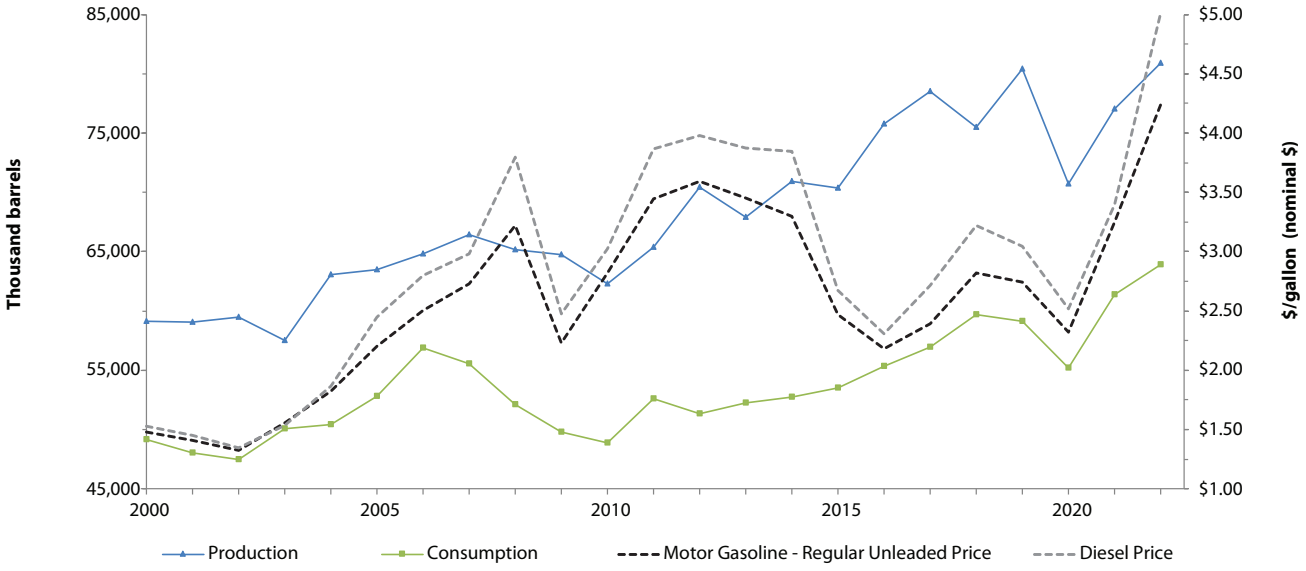
e = estimate

1. Out-of-state imports only include pipeline shipments; minor imports may arrive by truck, and additional minor imports may come from other states.
2. Estimated by subtracting refinery receipts from total supply; all crude oil imports are assumed to be accounted for.

Note: Prices and values are in nominal dollars.

Sources: Utah Geological Survey; Utah Division of Oil, Gas and Mining; U.S. Energy Information Administration, Baker Hughes (rig data)

Figure 18.2: Utah's Petroleum Product Production and Consumption Plotted with Motor Gasoline and Diesel Prices, 2000–2022e



Sources: Utah Geological Survey, U.S. Energy Information Administration, Federal Energy Regulatory Agency

Table 18.2: Supply, Disposition, and Select Prices of Petroleum Products in Utah, 2000–2022e

	Supply			Consumption* by Product					Exports	Prices	
	Refined Product Production	Refinery Beginning Stocks	Refined Product Pipeline Imports[1,2]	Motor Gasoline	Jet Fuel	Distillate Fuel	All Other	Total	Pipeline Exports to Other States[1,3]	Motor Gasoline - Regular Unleaded	Diesel
Year	Thousand barrels									$/gallon	
2000	59,125	2,426	14,568	23,895	7,701	10,629	6,954	49,179	22,811	$1.48	$1.53
2001	59,094	2,306	15,764	22,993	6,880	11,236	6,904	48,013	23,937	$1.41	$1.45
2002	59,514	2,739	16,848	24,158	6,416	11,482	5,394	47,450	24,082	$1.32	$1.34
2003	57,511	2,846	16,515	24,325	6,758	12,082	6,917	50,082	22,729	$1.56	$1.54
2004	63,071	2,599	18,486	24,744	7,137	12,264	6,289	50,434	24,475	$1.82	$1.87
2005	63,487	2,806	20,258	24,677	7,394	13,717	7,015	52,803	24,482	$2.20	$2.45
2006	64,806	2,587	18,976	25,312	7,560	17,292	6,699	56,863	23,321	$2.50	$2.80
2007	66,443	2,924	15,991	26,054	7,085	15,946	6,465	55,550	22,851	$2.73	$2.98
2008	65,178	2,513	14,854	25,051	6,509	14,138	6,415	52,113	21,619	$3.22	$3.79
2009	64,752	2,715	13,138	25,324	5,751	12,852	5,854	49,781	21,043	$2.23	$2.48
2010	62,310	2,665	12,307	24,761	5,031	12,707	6,367	48,866	21,490	$2.82	$3.03
2011	65,369	2,689	11,383	25,568	4,825	15,448	6,772	52,613	23,058	$3.44	$3.87
2012	70,456	2,860	13,316	25,228	4,608	14,776	6,694	51,306	26,695	$3.59	$3.98
2013	67,892	3,077	15,204	26,085	4,468	15,317	6,366	52,236	26,654	$3.45	$3.88
2014	70,931	2,676	13,853	26,469	4,816	15,169	6,272	52,726	27,260	$3.30	$3.85
2015	70,385	2,980	16,615	27,776	5,288	14,293	6,167	53,524	28,972	$2.47	$2.67
2016	75,780	2,771	16,402	28,535	5,963	14,248	6,575	55,321	30,966	$2.19	$2.31
2017	78,473	2,652	15,530	28,769	6,357	15,043	6,762	56,931	32,666	$2.39	$2.71
2018	75,506	2,918	15,876	28,725	8,619	15,700	6,671	59,715	31,164	$2.82	$3.22
2019	80,371	2,762	16,370	29,667	7,483	15,040	6,958	59,148	33,025	$2.74	$3.04
2020*	70,700	3,316	14,700	27,425	5,252	15,714	6,837	55,228	19,589	$2.32	$2.52
2021*	77,000	2,620	15,270	29,894	7,369	17,101	7,038	61,402	33,500	$3.25	$3.40
2022e	80,900	2,970	15,700	30,600	8,000	18,100	7,200	63,900	na	$4.24	$5.01

*Consumption was estimated. e = estimate; na = not available

1. Amounts shipped by truck are unknown.
2. The Pioneer pipeline, originating from Sinclair, Wyoming, is the only pipeline importing petroleum products into Utah.
3. Prior to 2012, only the Chevron Petroleum pipeline exported product to the Northwest (Idaho and Washington); in 2013 this line was sold to Tesoro. Starting in 2012, the UNEV pipeline started shipping product to the Las Vegas area; however, a minor amount of product is offloaded near Cedar City (amount estimated).

Note: Prices are in nominal dollars.

Sources: Utah Geological Survey, U.S. Energy Information Administration, Federal Energy Regulatory Agency

Figure 18.3: Utah's Natural Gas Production and Consumption Plotted with Wellhead and Residential Prices, 2000–2022e

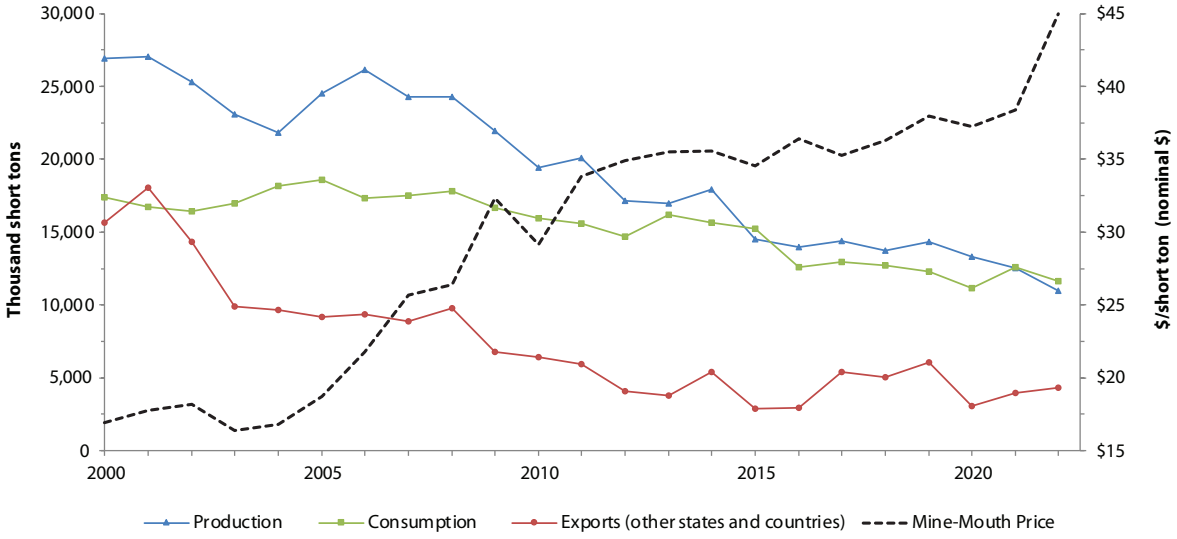
Sources: Utah Geological Survey; Utah Tax Commission; Utah Division of Oil, Gas and Mining; U.S. Energy Information Administration

Table 18.3: Supply, Disposition, Prices, and Value of Natural Gas in Utah, 2000–2022e

	Production				Consumption by End Use							Prices					Value
Year	Gross Production	Dry Production	Actual Sales	Natural Gas Liquids Production (Thousand bbl)	Residential	Commercial	Vehicle Fuel	Industrial	Electric Utilities	Lease, Plant, & Pipeline	Total	Wellhead	End-Use Residential	End-Use Commercial	End-Use Industrial	Natural Gas Liquids	Value of NG and NGL (Million $)
	Million cubic feet				Million cubic feet							$/thousand cubic feet				$/bbl	
2000	281,170	256,490	140,226	5,150	55,626	31,282	848	39,378	10,544	27,344	165,022	$3.31	$6.20	$4.92	$3.93	$11.31	$907
2001	300,966	272,534	219,138	4,641	55,008	30,917	474	33,584	15,141	24,175	159,300	$3.54	$8.09	$6.78	$5.29	$12.47	$1,023
2002	293,030	271,387	250,172	3,542	59,398	33,501	482	26,879	15,439	27,681	163,380	$1.99	$6.39	$5.20	$3.91	$8.91	$572
2003	287,141	264,654	224,327	3,080	54,632	30,994	589	25,200	14,484	28,226	154,125	$4.12	$7.33	$5.95	$5.04	$12.18	$1,128
2004	293,807	274,588	253,855	3,196	60,527	31,156	661	26,674	9,423	27,450	155,891	$5.22	$8.12	$6.75	$5.90	$19.66	$1,496
2005	313,491	298,408	269,062	2,310	58,044	34,447	187	25,370	12,239	29,989	160,276	$7.40	$9.71	$8.23	$7.33	$32.31	$2,283
2006	356,339	345,409	320,163	1,925	60,017	34,051	186	29,076	28,953	35,116	187,399	$5.69	$11.02	$9.61	$8.02	$31.40	$2,026
2007	385,517	373,680	350,285	1,769	60,563	34,447	209	31,578	56,438	36,464	219,699	$4.14	$9.44	$8.03	$6.35	$45.16	$1,627
2008	442,524	430,286	382,960	2,564	65,974	37,612	208	33,112	55,374	31,907	224,187	$6.82	$9.00	$7.74	$7.21	$68.15	$3,109
2009	449,675	435,673	390,475	4,817	65,184	37,024	149	29,845	49,984	32,034	214,220	$3.38	$8.95	$7.57	$5.62	$38.87	$1,660
2010	439,929	422,067	387,593	5,869	66,087	38,461	203	32,079	48,399	33,985	219,214	$4.25	$8.22	$6.83	$5.57	$49.98	$2,087
2011	462,495	442,615	406,323	7,571	70,076	40,444	290	33,633	40,138	37,646	222,227	$3.92	$8.44	$7.05	$5.50	$60.99	$2,197
2012	490,575	474,756	436,090	8,106	59,801	35,363	289	36,350	47,138	44,098	223,039	$2.82	$8.70	$7.00	$4.69	$50.49	$1,748
2013	470,349	455,454	409,704	8,132	70,491	41,398	224	38,009	49,562	47,602	247,286	$3.68	$8.55	$7.13	$5.22	$54.03	$2,115
2014	450,024	435,893	391,536	9,693	62,458	38,156	256	38,330	58,780	43,758	241,738	$4.35	$9.48	$7.71	$5.87	$46.13	$2,343
2015	417,023	401,722	360,018	7,286	58,562	35,772	326	37,189	56,449	44,315	232,613	$2.60	$9.72	$7.97	$5.93	$22.84	$1,213
2016	365,281	352,437	319,056	5,573	63,929	39,066	305	38,568	59,684	38,562	240,114	$2.24	$9.12	$7.43	$5.52	$25.51	$932
2017	315,197	304,266	278,015	4,813	66,700	41,264	354	40,007	40,830	32,679	221,834	$2.72	$9.05	$7.40	$5.51	$31.94	$981
2018	295,826	284,264	249,763	3,817	67,415	42,367	348	39,935	61,161	32,831	244,057	$2.77	$9.04	$7.37	$5.31	$46.33	$964
2019	272,978	262,157	223,142	4,003	75,938	47,336	322	41,348	67,386	31,972	264,302	$2.51	$7.82	$6.35	$5.00	$24.07	$754
2020	242,560	233,239	202,663	2,935	74,191	44,216	273	40,119	67,226	29,824	255,849	$1.96	$8.15	$6.56	$5.07	$22.64	$524
2021	239,936	230,767	197,391	2,785	71,628	43,970	290	39,747	74,395	30,718	260,748	$4.11	$8.99	$7.37	$5.43	$56.97	$1,107
2022e	265,000	255,000	220,000	3,800	67,000	41,000	300	38,500	77,500	32,000	256,300	$5.90	$10.30	$8.60	$7.70	$75.00	$1,790

e = estimate
NG = natural gas, NGL = natural gas liquids, bbl = barrels
Note: Prices and values are in nominal dollars.
Sources: Utah Geological Survey; Utah Tax Commission; Utah Division of Oil, Gas and Mining; U.S. Energy Information Administration

Figure 18.4: Utah's Coal Production, Consumption, and Exports Plotted with Mine-mouth Price, 2000–2022e



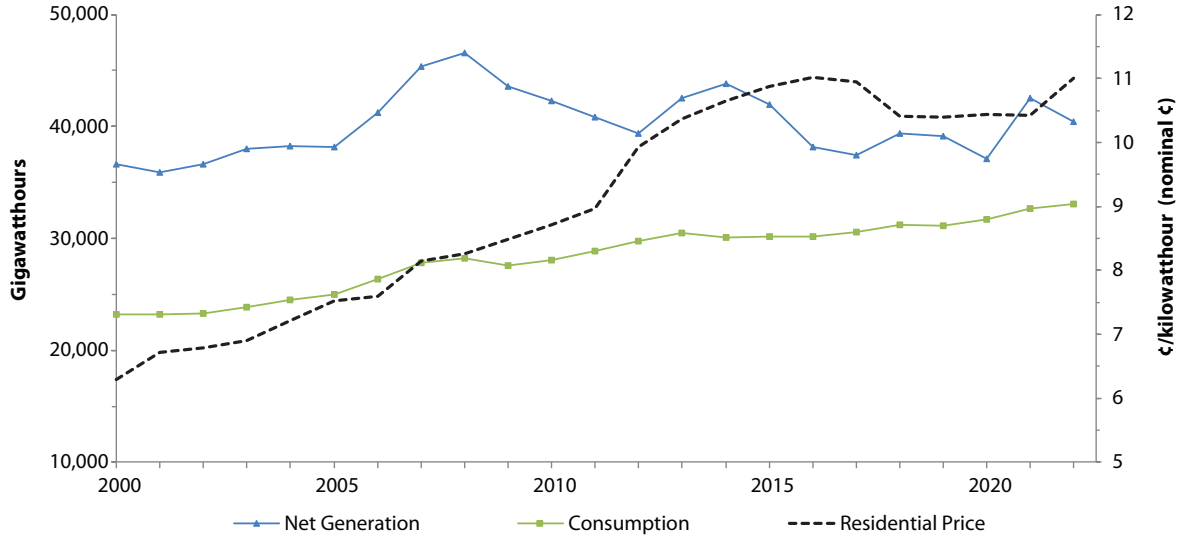
Sources: Utah Geological Survey, U.S. Energy Information Administration

Table 18.4: Supply, Disposition, Price, and Value of Coal in Utah, 2000–2022e

Year	Supply		Distribution	Consumption by End Use					Exports		Prices		Value
	Prod.	Imports	Total Dist. of Utah Coal	Res. & Comm.	Coke Plants	Other Ind.	Electric Utilities	Total	To Other U.S. States	To Canada and/or Overseas	Mine Mouth	End-Use Electric Utilities	Value of Utah Coal (Million $)
	Thousand short tons										$/short ton		
2000	26,920	2,535	27,955	59	984	1,166	15,164	17,373	12,553	3,073	$16.93	$23.16	$456
2001	27,024	3,062	26,906	60	547	1,235	14,906	16,748	15,920	2,144	$17.76	$25.48	$480
2002	25,299	2,251	24,392	198	0	592	15,644	16,434	13,170	1,142	$18.20	$21.84	$460
2003	23,069	2,039	23,551	61	0	611	16,302	16,974	9,584	318	$16.36	$23.20	$377
2004	21,818	3,033	23,145	214	0	1,330	16,606	18,150	9,294	346	$16.82	$24.95	$367
2005	24,556	2,776	23,025	45	0	1,431	17,118	18,594	8,835	351	$18.71	$24.52	$459
2006	26,131	1,925	24,520	35	0	680	16,609	17,324	9,279	55	$21.77	$27.34	$569
2007	24,288	1,596	24,451	23	0	911	16,593	17,527	8,877	0	$25.69	$30.33	$624
2008	24,275	2,528	25,426	0	0	873	16,927	17,800	9,219	541	$26.39	$30.66	$641
2009	21,927	4,251	20,487	0	0	718	15,925	16,643	6,643	148	$32.32	$33.96	$709
2010	19,406	1,775	19,220	0	0	717	15,233	15,950	5,807	634	$29.15	$37.68	$566
2011	20,073	2,020	19,039	0	0	598	15,005	15,603	4,841	1,081	$33.80	$39.21	$678
2012	17,155	1,708	16,140	0	0	588	14,084	14,672	3,012	1,080	$34.92	$41.84	$599
2013	16,953	1,864	16,896	0	0	645	15,529	16,174	2,673	1,110	$35.52	$44.73	$602
2014	17,933	1,967	17,829	0	0	614	15,062	15,676	2,543	2,869	$35.59	$46.03	$638
2015	14,513	3,098	14,938	0	0	662	14,580	15,242	2,116	735	$34.53	$42.12	$501
2016	13,978	1,908	14,620	0	0	575	12,001	12,576	1,890	1,049	$36.40	$41.36	$509
2017	14,417	2,314	15,020	0	0	485	12,438	12,923	2,242	3,123	$35.28	$41.56	$509
2018	13,753	1,907	14,084	0	0	378	12,332	12,710	1,907	3,148	$36.31	$43.31	$499
2019	14,347	2,219	15,284	0	0	382	11,891	12,272	2,077	3,964	$37.95	$42.79	$544
2020	13,325	2,334	13,176	0	0	306	10,866	11,173	1,521	1,554	$37.22	$44.53	$496
2021	12,542	1,571	12,953	0	0	335	12,274	12,609	1,656	2,292	$38.41	$43.44	$482
2022e	11,000	2,500	12,300	0	0	340	11,300	11,640	1,600	2,700	$45.00	$46.90	$495

e = estimate
Note: Prices and values are in nominal dollars.
Sources: Utah Geological Survey, U.S. Energy Information Administration

Figure 18.5: Utah's Electricity Net Generation and Consumption Plotted with End-use Residential Price, 2000–2022e



Source: Utah Geological Survey, U.S. Energy Information Administration

Table 18.5: Supply, Disposition, and Price of Electricity in Utah, 2000–2022e

	Net Generation by Fuel Type										Consumption by End Use					Prices by End Use			
	Coal	Petroleum	Natural Gas	Hydro	Geo-thermal	Wind	Solar	Biomass[1]	Other[2]	Total	Residential	Commercial	Industrial	Total	Residential Consumption Per Capita (MWh/person)	Residential	Commercial	Industrial	All Sectors
Year	Gigawatthours															¢/kilowatthour			
2000	34,491	58	890	746	186	0	0	9	258	36,639	6,514	8,754	7,917	23,185	2.90	6.3	5.2	3.4	4.8
2001	33,679	58	1,446	508	186	0	0	5	4	35,887	6,693	9,113	7,411	23,217	2.92	6.7	5.6	3.5	5.2
2002	34,488	54	1,380	458	247	0	0	6	5	36,638	6,938	9,309	7,019	23,267	2.98	6.8	5.6	3.8	5.4
2003	35,979	33	1,383	421	198	0	0	5	4	38,024	7,166	9,048	7,646	23,860	3.02	6.9	5.6	3.8	5.4
2004	36,618	33	910	450	195	0	0	4	3	38,212	7,325	9,370	7,816	24,512	3.01	7.2	5.9	4.0	5.7
2005	35,970	41	1,178	784	185	0	0	4	3	38,165	7,567	9,444	7,989	25,000	3.02	7.5	6.1	4.2	5.9
2006	36,856	62	3,389	747	191	0	0	15	5	41,263	8,232	9,778	8,356	26,366	3.20	7.6	6.2	4.2	6.0
2007	37,171	39	7,424	539	164	0	0	31	5	45,373	8,752	10,275	8,759	27,785	3.32	8.2	6.5	4.5	6.4
2008	38,020	44	7,366	668	254	24	0	24	179	46,579	8,786	10,319	9,086	28,192	3.26	8.3	6.7	4.6	6.5
2009	35,526	36	6,444	835	279	160	0	48	215	43,543	8,725	10,268	8,594	27,587	3.16	8.5	7.0	4.8	6.8
2010	34,057	50	6,455	696	277	448	0	56	210	42,249	8,834	10,402	8,808	28,044	3.19	8.7	7.2	4.9	6.9
2011	33,138	54	5,256	1,230	330	573	0	58	197	40,836	8,947	10,579	9,333	28,859	3.17	9.0	7.4	5.1	7.1
2012	30,799	40	6,580	748	335	704	2	60	137	39,403	9,188	10,841	9,694	29,723	3.20	9.9	8.1	5.6	7.8
2013	34,285	26	6,606	505	319	540	2	71	163	42,517	9,402	11,062	10,010	30,474	3.24	10.4	8.3	5.9	8.2
2014	33,377	24	8,376	633	522	660	2	73	118	43,785	8,964	11,114	9,965	30,043	3.04	10.7	8.5	6.1	8.4
2015	31,656	20	8,218	769	430	626	32	85	114	41,949	9,117	11,670	9,405	30,192	3.04	10.9	8.6	6.2	8.5
2016	25,939	32	8,691	760	485	822	1,054	84	267	38,134	9,371	11,622	9,187	30,180	3.06	11.0	8.8	6.3	8.7
2017	26,390	38	5,871	1,294	481	858	2,211	78	191	37,412	9,511	11,795	9,283	30,589	3.05	11.0	8.7	6.1	8.6
2018	25,912	37	8,724	927	446	795	2,224	79	232	39,375	9,715	12,135	9,393	31,242	3.06	10.4	8.2	5.9	8.2
2019	25,241	40	9,369	875	310	819	2,186	71	206	39,117	9,740	11,912	9,491	31,143	3.01	10.4	8.3	6.0	8.2
2020	22,806	40	9,460	817	377	803	2,571	78	137	37,087	10,547	11,444	9,672	31,663	3.21	10.4	8.3	5.9	8.3
2021	26,376	38	10,686	494	420	825	3,479	81	167	42,566	10,950	12,255	9,472	32,678	3.28	10.4	8.1	6.2	8.3
2022e	23,900	30	10,700	540	450	700	3,900	75	145	40,440	11,300	12,700	9,100	33,100	3.32	11.0	8.5	6.7	8.9

e = estimate MWh = megawatthours

1. Includes landfill gas, biogenic municipal solid waste, and other biogenic gases.
2. Includes blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels, as well as nonbiogenic municipal solid waste.

Note: Prices are in nominal dollars.

Sources: Utah Geological Survey, U.S. Energy Information Administration

Health Care

19

Laura Summers, Kem C. Gardner Policy Institute

OVERVIEW

COVID-19 continued as a leading public health issue in Utah in 2022. However, the public's focus on the disease dropped as stay-at-home, mask, and other public health directives lessened this year.

The incidence and risk of COVID-19 remains prevalent, however. As of November 8, 2022, Utah had the 10th highest rate of total reported COVID-19 cases per 100,000 people in the country (32,670). The state had the third lowest rate of total COVID-19 deaths per 100,000 people (157), with only Hawaii and Vermont having lower rates. Research by the Kem C. Gardner Policy Institute suggests that approximately 50% of Utah's lower COVID-19 per-capita death rate during the first year of the pandemic can be attributed to the demographic composition of its population.[1]

The pandemic's impacts extend beyond just health measures though. Many economic, social, and educational measures merit examination when evaluating a state's COVID-19-related performance and outcomes. To understand how Utah's COVID-19 response and outcomes compare to other states, Figure 19.3 presents the state's ranking on four composite measures.

While not comprehensive, the rankings represent available analyses that present a composite score, as opposed to a single measure. Developed using different data from different periods of time, they also come from a mix of academic, nonprofit, and other entities. As such, they are not comparable, but when combined, provide an indication of Utah's COVID-19 response and outcomes compared to other states.

As shown in Figure 19.3, Utah COVID-19 response and outcomes performed well relative to other states. Utah ranks first and second on two of the rankings and in the top 10 on three of the four. The fourth measure, from U.C. Berkeley, only considers health-related measures such as rates of infection, death, and testing, rather than a more comprehensive view of the economy and social factors.

Life Expectancy

A decline in Utah's life expectancy illustrates some of the health impacts of COVID-19. Following national trends, 2020 was the first year since 2016 where Utah experienced a decrease in life expectancy for males (declining more than one year from 78.4 years to 77.1). It was also the first time since 2015 that life expectancy for Utah females decreased (declining one year from 81.9 years to 80.9).[2] Life expectancy estimates a person's expected average number of years of life (or a person's age at death).

According to the Centers for Disease Control and Prevention (CDC), the pandemic largely drives the declines in national life expectancy since 2019. "COVID-19 deaths contributed to nearly three-fourths or 74% of the decline from 2019 to 2020 and 50% of the decline from 2020 to 2021." Deaths from accidental/unintentional injuries contribute about 16% of the decline, with drug overdose deaths accounting for nearly half of unintentional injury deaths.[3]

Health Care Workforce

While COVID-19 negatively impacted Utah's health care workforce, the impact seems to be lessening. Data from the Utah Department of Workforce Services shows that growth in Utah's health care and social assistance industry slowed in 2020 compared with 2019 but remained positive (0.2%). The data also show that the industry rebounded in 2021, with a positive growth rate of 3.5%. That said, initial data from 2022 shows growth slowing again, with a growth rate of only 1.7%.

Many areas in Utah are classified as health professional shortage areas and slowing growth in

1 Hollingshaus, M. (2021 Oct). Utah's Demographics and COVID-19 Death Rates: A Data Update. Kem C. Gardner Policy Institute.
2 Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health.
3 Arias E, Tejada-Vera B, Kochanek KD, Ahmad FB. (2022 Aug). Provisional life expectancy estimates for 2021. Vital Statistics Rapid Release; no 23. Hyattsville, MD: National Center for Health Statistics.

health care employment could worsen these shortages. Heading into 2023, Utah will continue to face the challenge of ensuring a sufficient health care workforce as Utah's population grows, changes, and ages.

Health Insurance

The majority of Utahns receive health insurance through their employers. Utah continues to have the highest rate of employer-sponsored insurance (ESI) in the nation, with more than 59.3% of Utahns having ESI compared with the national average of 48.5% (2021).[4]

The purchase of health savings account (HSA)-qualified high-deductible health plans (HDHPs) has also continued to increase in Utah since the mid-2000s. In 2021, HSA-qualified HDHPs accounted for 40.1% of Utah's commercial health insurance market, compared with 37.7% in 2020 and only 3.0% in 2007.

HSAs make up 50.5% of Utah's large-group market (defined as employers with 51 or more employees), 48.3% of the state's small-group market, and 21.4% of health plans purchased in the individual market.[5] These percentages represent an increase in market share in the large- and small-group markets compared with 2020.

2022 is the first year where available data show some of the initial impacts from Utah's Medicaid expansion as well. Utah's full Medicaid expansion became effective in January 2020. This means any individual with income below 133% of the federal poverty level (FPL) is eligible for Medicaid coverage (income eligibility thresholds are higher for some children and adult populations).

Preliminary data from the American Community Survey show the percent of Utah's population with Medicaid coverage increased from 9.3% to 11.0% from 2019 to 2021. Utah's uninsured rate fell from 9.6% to 9.1%. The percent of the population covered by ESI and those with non-group coverage (which includes those covered by a policy purchased directly from an insurance company) also declined over this two-year period.[6]

Data from the Utah Department of Health show Medicaid enrollment steadily increased since the beginning of 2020. However, some of this increase comes from the Medicaid continuous coverage requirement associated with the national COVID-19 public health emergency. For states to receive an enhanced federal financial match for their Medicaid programs, they cannot discontinue coverage for most Medicaid enrollees while the public health emergency is in place, regardless of changes in a person's eligibility.

As of December 2022, the public health emergency remains effective through at least January 2023, meaning Utah's Medicaid rolls will not see a decline due to eligibility changes until early spring 2023. Once the public health emergency ends, Utah's uninsured population could look different than two years ago. Health care coverage data in 2023 and 2024 could also look different, with an expected smaller percent enrolled in Medicaid.

Medicaid expansion's impact is already affecting some of Utah's adults, particularly among Utah's minority populations. Utah's adult uninsured rates fell for every racial and ethnic population between 2019 and 2021. Utah's Hispanic/Latino and Native Hawaiian or Other Pacific Islander populations, and populations that identify as two or more races experienced some of the largest declines.[7]

Other Health Care Concerns

Prior to COVID-19, the Utah Department of Health identified three priority improvement areas: reducing obesity and related chronic conditions; reducing prescription drug misuse, abuse, and overdose; and improving mental health and reducing suicide.[8]

4 Kaiser Family Foundation estimates based on the Census Bureau's American Community Survey 2021 1-yr estimates.
5 Hawley, J. (2022, December). 2022 Health Insurance Market Report, State of Utah Insurance Department.
6 KFF estimates based on the Census Bureau's American Community Survey 2019 and 2021 1-yr estimates.
7 Utah Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health and Human Services (DHHS).
8 Utah Health Status Update: The Utah Health Improvement Plan Implementation Process. (2019, May). UDOH.

Obesity

Utah has a relatively low share of adults who are obese compared with other states, but the percentage has been steadily increasing. For example, the share of adults who indicate they are obese or overweight increased by 5.2 percentage points from 2009 (60.3%) to 2021 (65.5%).[9] Men are more likely to be overweight or obese than women (70.0% vs. 60.7% in 2021). Overweight, but not obese, is defined as a 25–29 BMI. Obesity is defined as a BMI of 30 or more.

Drug Misuse, Abuse, and Overdose

In 2020, Utah's age-adjusted opioid overdose death rate was 14.7 per 100,000 population, up from 13.3 in 2019 (but down from a high of 16.8 in 2014).[10] In 2020, Utah had the 33rd highest opioid death rate in the country, which fell below the national average of 21.4. (2021 data had not been provided as of December 2022).

Suicide and Mental Health

Utah suffers from one of the country's highest suicide rates (Utah ranked ninth highest in 2020; 2021 data was not available).[11] However, Utah's rate fell from 21.2 deaths per 100,000 total population in 2019 to 20.8 in 2020.

While Utah's suicide rate declined, other mental health indicators increased. For example, the share of Utah's new mothers who experienced postpartum depression symptoms increased from 14.9% in 2020 to 16.2% in 2021. Over the last 10 years, the reported share of new mothers with postpartum depression increased by five percentage points. Many women who experience postpartum depression also go undiagnosed.

Housing

Interestingly, housing rose as a frequently cited health care concern in 2022. Adequate housing is not only a key factor to improving the financial well-being and economic security of families, but research increasingly shows that housing stability, safety, and affordability impact health outcomes as well. Homeowners generally experience better physical health, mental health, and better access to health care.

Utah's housing affordability challenges not only create stress and instability that negatively impact health, behavioral health, and the wellbeing of Utahns, but also limit the ability to provide necessary housing-related health care services as well (e.g., supportive housing). Housing challenges also exacerbate the state's existing health care workforce shortages. Health care systems across Utah's urban and rural areas noted that they struggle to attract talent due to housing affordability concerns.

2023 OUTLOOK

Moving into 2023, the state will likely continue to address many of the direct and indirect health issues that emerged from the pandemic. This includes, but is not limited to, encouraging people to access necessary preventive services; addressing mental and behavioral health needs among Utah's adults, youth, and children; continuing to grow Utah's health care workforce; and addressing racial, ethnic, income, and regional disparities in health.

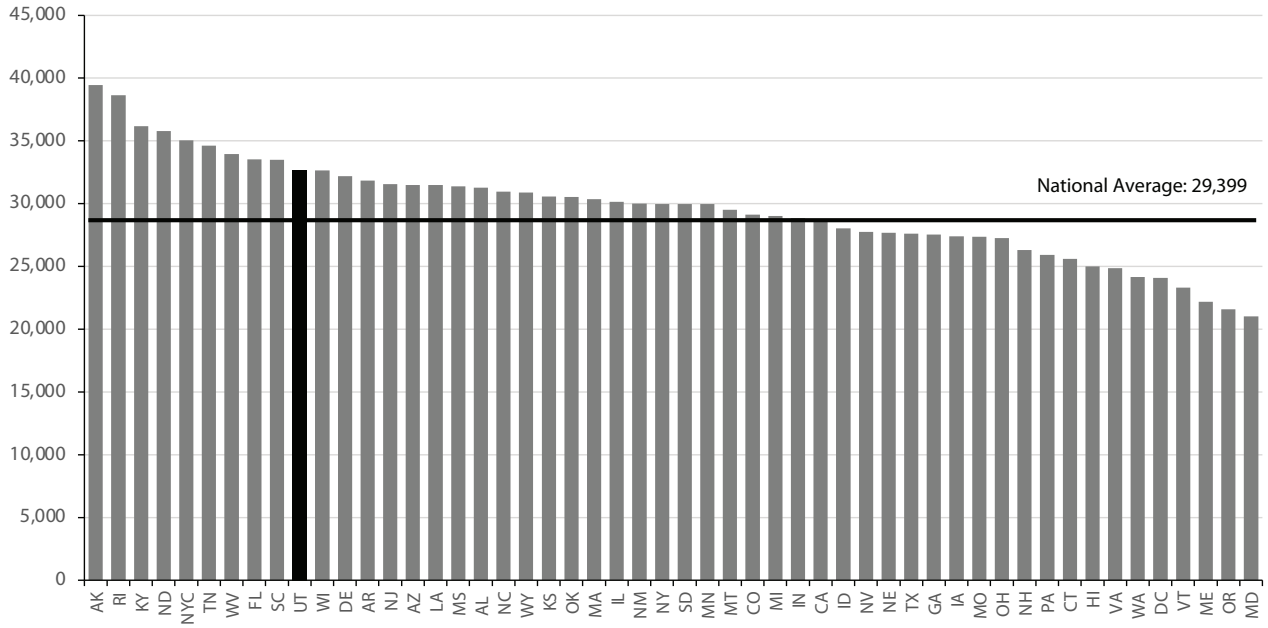
In addition, the state has supported the development of the One Utah Health Collaborative, a community-owned 501(c)(3), that will address health care costs and help the state move toward cost-efficient, innovative health care.

9 Age-adjusted for population age 18 and older. Behavioral Risk Factor Surveillance System, Utah Department of Health.

10 Kaiser Family Foundation analysis of Centers for Disease Control and Prevention (CDC), National Center for Health Statistics. Multiple Cause of Death 1999–2020 on CDC WONDER Online Database, released 2021.

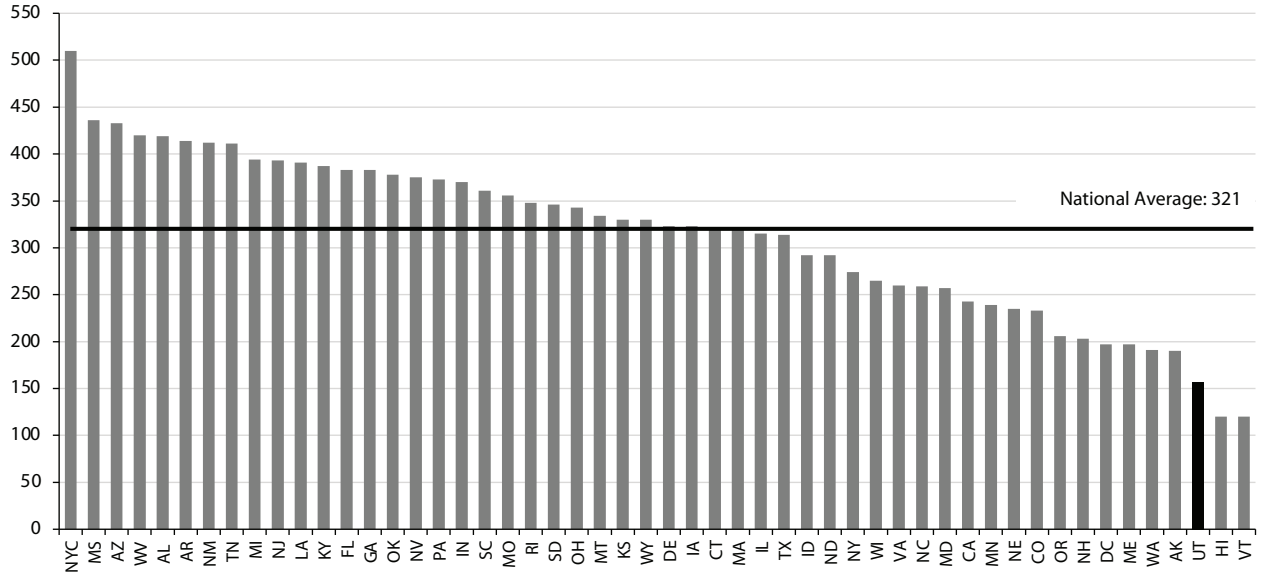
11 Suicide Mortality by State, Centers for Disease Control and Prevention.

Figure 19.1: Total COVID-19 Cases per 100,000 People by State, November 8, 2022



Note: Counts for New York City and New York State are shown separately for case and death metrics; data for New York State case and death metrics are for the state excluding data for New York City. Data represent total counts starting January 21, 2020.
Source: Centers for Disease Control and Prevention (CDC) Data as of: Tuesday, November 8, 2022.

Figure 19.2: Total COVID-19 Deaths per 100,000 People by State, November 8, 2022



Note: Counts for New York City and New York State are shown separately for case and death metrics; data for New York State case and death metrics are for the state excluding data for New York City. Data represent total counts starting January 21, 2020.
Source: Centers for Disease Control and Prevention (CDC) Data as of: Tuesday, November 8, 2022.

Figure 19.3: Utah's Ranking on Four Composite Measures of States' COVID-19 Response

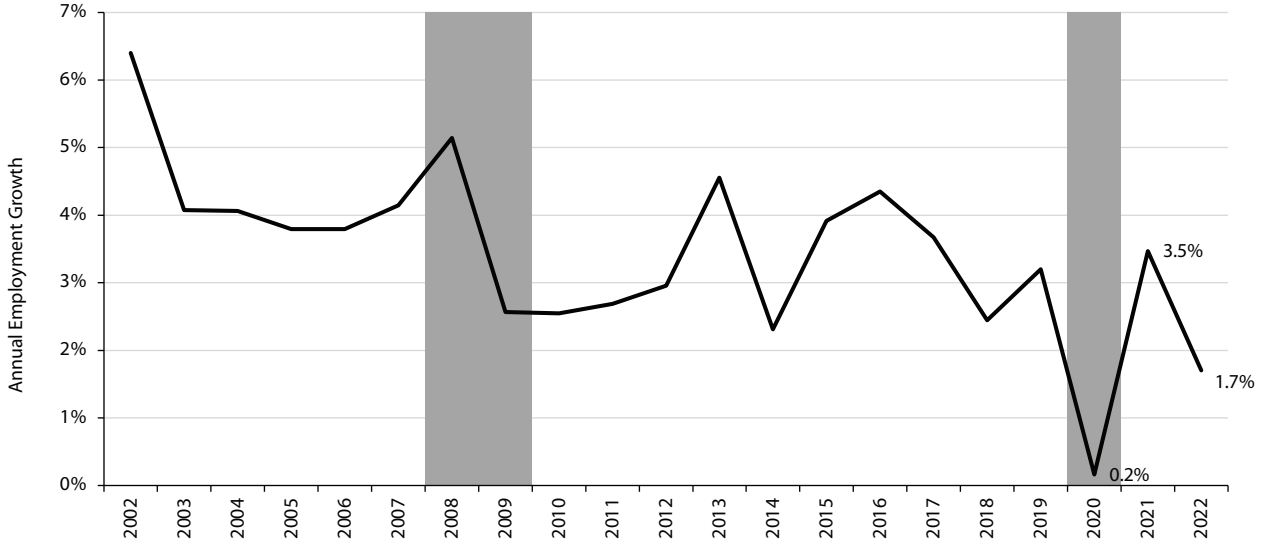
Utah's Ranking	Ranking Criteria	Source
1st	Measures states' COVID-19 responses based on three categories: • Economy (unemployment and GDP) • Education (percentage of in-person instruction for the 2020–21 school year) • Mortality (COVID-19 associated deaths reported to the CDC and all-cause excess mortality, measured through March 5, 2022)	Committee to Unleash Prosperity's Final Report Card on the States' Response to COVID-19
2nd	Measures COVID-19 policy outcomes in four categories: • Health (deaths per capita, hospitalizations per capita, COVID-19 tests completed compared to hospital admissions, and vaccine doses administered per capita) • Economy (GDP, job creation, and unemployment rates) • Social well-being (food insecurity, ability to afford household expenses, and violent crime) • Education (change in reading achievement, change in math achievement, and change in enrollment)	Politico's State Pandemic Scorecard
7th	Analyzes seven COVID measures to reflect state progress in: • Vaccinating residents • COVID-related hospitalization rates • Health system stress (ICU stress, hospital staffing shortages, etc.) • COVID-related mortality through the end of March 2022.	Commonwealth's 2022 Scorecard on State Health System Performance
23rd	Measures state performance primarily based on three factors: • Rates of infection • Death • COVID-19 testing	Berkeley's Othering and Belonging Institute

Source: Committee to Unleash Prosperity's Final Report Card on the States' Response to COVID-19; Politico's State Pandemic Scorecard; Commonwealth's 2022 Scorecard on State Health System Performance; Berkeley's Othering and Belonging Institute.

Figure 19.4: Utah Life Expectancy at Birth by Gender, 1980–2020

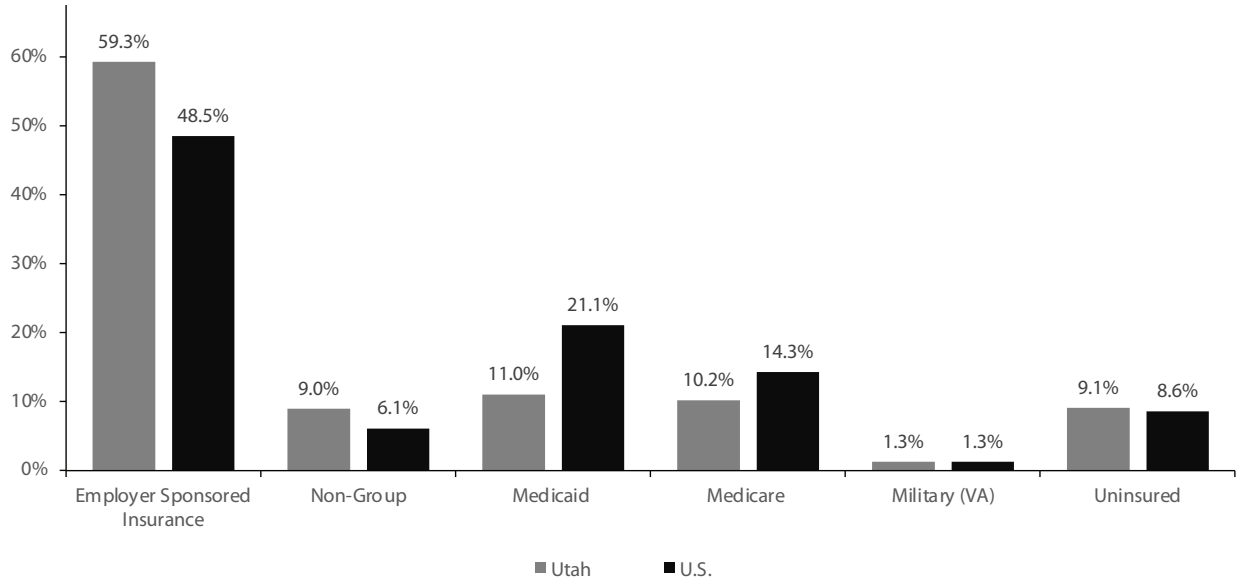
Source: Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health and Human Services.

Figure 19.5: Change in Annual Average Employment in Utah's Health Care and Social Assistance Industry, 2002–2022



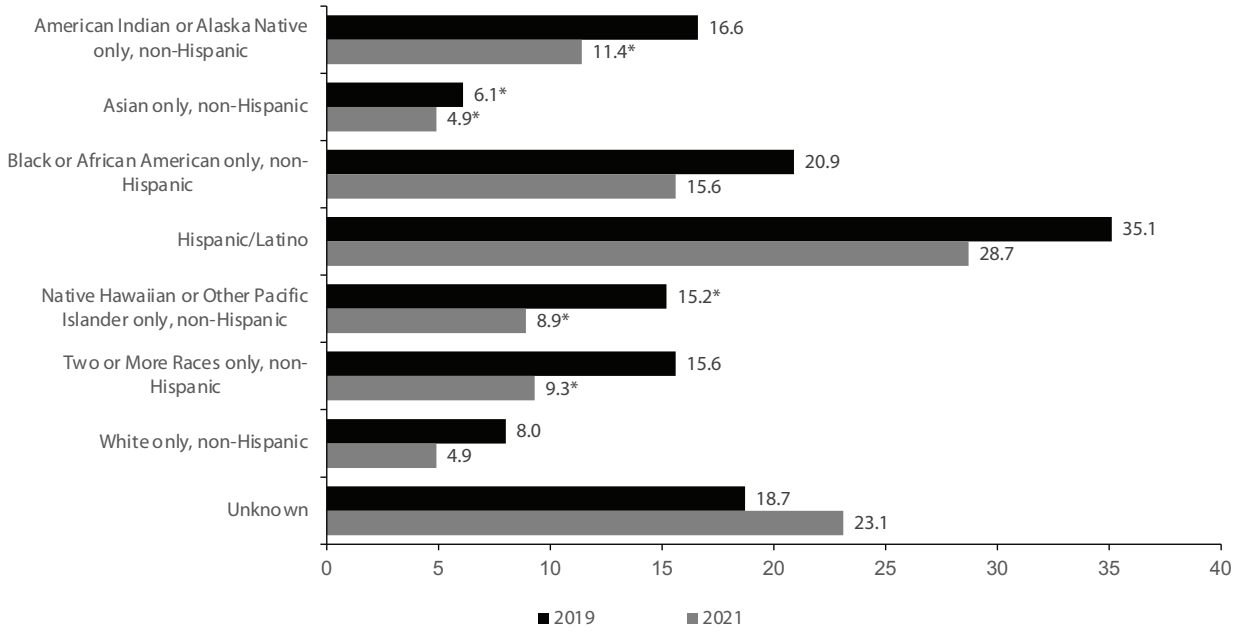
Note: The health care and social assistance sector comprises establishments providing health care and social assistance for individuals. Establishments in this sector deliver services by trained professionals. NBER-dated recessions in gray.
Source: Kem C. Gardner Policy Institute analysis of Utah Department of Workforce Services data and Federal Reserve Bank of St. Louis.

Figure 19.6: Share of Utah and U.S. Population with Health Insurance by Coverage Type, 2021



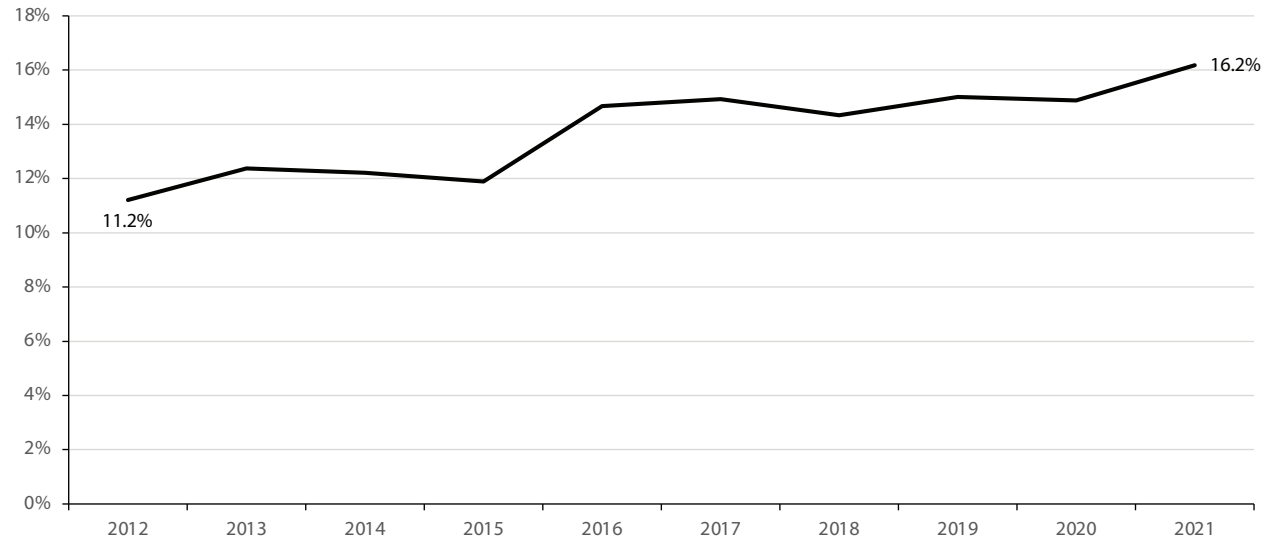
Note: Non-Group includes those covered by a policy purchased directly from an insurance company, either as policyholder or as dependent. Data may differ from estimates in Figure 19.7 and Tables 19.2 and 19.3 due to different data sources.
Source: Kaiser Family Foundation estimates based on the Census Bureau's American Community Survey 2021 1-Year Estimates.

Figure 19.7: Utah Adult Uninsured Rates by Race and Ethnicity, 2019 compared to 2021



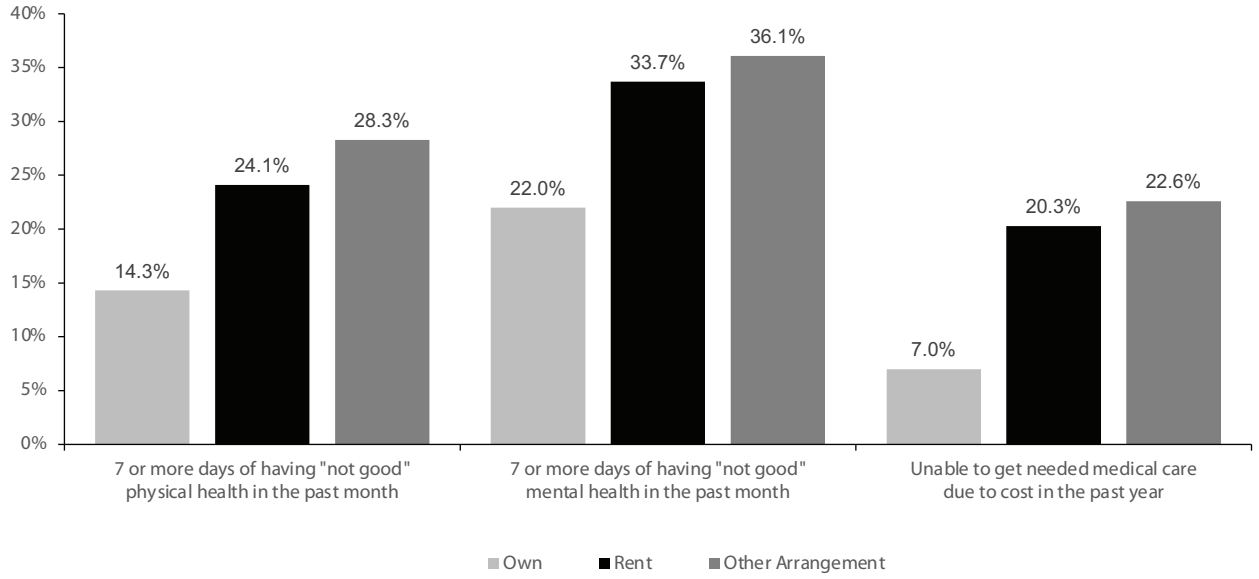
Note: Age-adjusted. *Use caution in interpreting; the estimate has a coefficient of variation >30% and is therefore unreliable by DHHS standards.
Data may differ from estimates in Figure 19.6 and Tables 19.2 and 19.3 due to different data sources.
Source: Utah Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health and Human Services (DHHS).

Figure 19.8: Share of Utah's New Mothers Who Experience Postpartum Depression Symptoms, 2012–2021



Source: Utah Pregnancy Risk Assessment Monitoring System (PRAMS) & Utah Birth Certificate Database, Office of Vital Records and Statistics, Utah Department of Health and Human Services.

Figure 19.9: Utah Adult Health Care Indicators by Home Ownership Status, 2021



Note: Age-adjusted. Other arrangements may include group home, staying with friends or family without paying rent.
Source: Utah Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health and Human Services.

Table 19.1: Prevalence of Common Diseases Among Utah Adults Age 18 Years and Older, 2011–2021

Year		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Arthritis	Male	18.8%	18.6%	18.1%	18.4%	18.4%	18.4%	17.6%	19.8%	21.8%	18.7%	18.9%
	Female	25.0%	25.2%	24.3%	25.0%	23.7%	23.9%	23.1%	25.9%	26.7%	25.0%	24.7%
Asthma	Male	6.9%	6.7%	7.2%	6.9%	6.5%	6.4%	6.3%	7.5%	7.7%	8.3%	7.8%
	Female	10.5%	11.2%	10.9%	10.4%	11.4%	10.2%	11.4%	11.1%	12.0%	13.3%	11.7%
Skin Cancer	Male	7.9%	7.4%	8.0%	7.9%	8.5%	8.5%	8.3%	9.8%	9.2%	8.7%	8.0%
	Female	7.1%	6.6%	7.2%	6.7%	6.8%	7.2%	7.1%	6.5%	7.3%	6.9%	7.5%
Cancer (all others besides skin cancer)	Male	5.4%	4.8%	5.2%	5.0%	5.5%	5.1%	4.7%	5.6%	4.6%	5.1%	5.7%
	Female	6.4%	6.3%	7.1%	6.9%	6.8%	6.8%	7.4%	7.5%	6.7%	6.5%	7.6%
Chronic Obstructive Pulmonary Disease (COPD)	Male	4.0%	3.4%	3.7%	3.4%	3.5%	4.0%	4.1%	4.5%	4.2%	3.8%	4.1%
	Female	4.6%	4.8%	4.7%	4.2%	4.1%	4.1%	4.0%	4.3%	4.3%	4.8%	4.8%
Diabetes	Male	8.2%	8.7%	8.5%	8.5%	8.4%	8.7%	8.1%	9.6%	9.1%	9.2%	9.5%
	Female	6.9%	7.5%	7.2%	7.2%	7.0%	7.0%	6.9%	8.0%	7.8%	8.0%	7.3%
Depression	Male	15.3%	15.0%	15.5%	14.7%	14.4%	14.8%	16.1%	17.3%	16.5%	16.0%	16.3%
	Female	28.6%	26.6%	28.0%	26.8%	27.1%	28.3%	29.0%	31.3%	29.3%	30.4%	32.1%
Heart Disease	Male	8.9%	7.7%	8.1%	8.0%	7.4%	7.4%	7.7%	7.9%	7.1%	7.5%	7.2%
	Female	5.6%	5.4%	5.3%	5.1%	4.9%	4.5%	5.4%	4.8%	4.8%	5.5%	4.9%
High Blood Pressure	Male	28.6%	27.1%	29.6%	28.1%	28.8%	NA	29.7%	NA	31.9%	NA	32.2%
	Female	22.0%	22.7%	22.6%	22.0%	21.4%	NA	21.7%	NA	22.2%	NA	23.0%
General Health Status	Male	85.0%	86.9%	88.0%	88.1%	87.0%	88.1%	86.3%	85.1%	85.5%	89.4%	88.3%
	Female	86.5%	85.7%	85.7%	86.5%	87.1%	87.4%	85.9%	85.0%	85.0%	88.5%	86.2%
Poor Oral Health	Male	NA	34.1%	NA	32.8%	NA	34.3%	NA	33.2%	NA	34.0%	NA
	Female	NA	33.6%	NA	33.6%	NA	33.9%	NA	32.1%	NA	34.3%	NA

Note: Age-adjusted data. Heart Disease includes angina or coronary heart disease, a heart attack or myocardial infarction, and stroke.
General Health Status is responding that, in general, your health is excellent, very good, or good.
Poor Oral Health is percent of adults that have had any permanent teeth extracted (crude prevalence).
Source: Utah Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health. Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health. BRFSS Prevalence & Trends Data [online].

Table 19.2: Utah's Uninsured Rate by County, 2006–2020

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Beaver	23.6%	22.6%	21.6%	19.5%	20.7%	20.8%	18.7%	18.9%	15.9%	14.6%	12.0%	12.5%	12.4%	13.2%	14.0%
Box Elder	14.0%	13.3%	14.1%	14.7%	15.0%	14.3%	13.7%	12.7%	11.6%	9.1%	8.4%	8.8%	8.8%	10.1%	9.8%
Cache	19.8%	18.0%	15.9%	14.8%	15.9%	15.8%	15.1%	14.5%	12.6%	9.5%	9.3%	10.1%	9.8%	9.4%	9.6%
Carbon	12.1%	11.6%	13.9%	13.3%	13.9%	14.4%	14.4%	12.6%	14.0%	10.9%	9.4%	10.3%	9.2%	10.0%	9.1%
Daggett	24.1%	23.5%	24.5%	19.4%	18.0%	18.7%	15.9%	17.0%	12.8%	11.2%	9.7%	8.8%	8.5%	9.3%	13.2%
Davis	11.9%	10.5%	11.8%	11.5%	11.5%	12.0%	10.3%	10.8%	9.6%	8.4%	6.7%	7.0%	6.9%	8.1%	6.9%
Duchesne	17.0%	16.6%	20.6%	18.2%	18.7%	19.3%	17.1%	16.4%	17.4%	17.1%	13.7%	15.5%	15.4%	14.8%	14.1%
Emery	16.3%	15.5%	16.2%	14.8%	15.7%	15.4%	14.6%	14.4%	13.7%	10.9%	8.7%	9.1%	8.7%	9.9%	10.4%
Garfield	20.0%	20.0%	19.6%	17.3%	18.8%	18.1%	18.1%	20.5%	16.9%	15.2%	14.7%	16.3%	14.3%	17.4%	14.5%
Grand	19.9%	20.5%	25.3%	22.0%	23.2%	23.6%	21.6%	22.1%	18.1%	16.2%	13.9%	13.2%	12.9%	16.4%	14.8%
Iron	19.7%	19.1%	19.5%	18.5%	22.8%	22.3%	18.3%	19.8%	18.2%	16.2%	11.9%	13.7%	12.1%	12.3%	12.5%
Juab	13.5%	13.7%	19.3%	15.7%	17.0%	16.1%	14.5%	14.6%	15.0%	12.7%	10.2%	10.6%	10.5%	11.1%	11.6%
Kane	18.6%	17.7%	19.7%	20.1%	17.7%	16.8%	18.0%	15.6%	14.2%	10.1%	8.6%	9.6%	9.8%	10.2%	11.0%
Millard	21.6%	17.8%	17.2%	20.3%	23.6%	21.8%	20.3%	20.0%	18.8%	17.5%	13.1%	14.9%	14.1%	15.0%	14.1%
Morgan	18.3%	16.9%	15.4%	13.1%	12.7%	12.0%	11.3%	10.0%	8.8%	8.2%	6.5%	7.2%	6.9%	7.9%	6.8%
Piute	26.9%	19.5%	22.2%	22.5%	25.0%	22.9%	22.1%	25.2%	22.4%	16.0%	12.8%	12.4%	14.6%	13.2%	11.3%
Rich	25.5%	26.2%	22.4%	20.1%	20.8%	18.1%	15.9%	18.4%	14.8%	12.5%	10.2%	11.8%	10.1%	10.6%	13.7%
Salt Lake	16.6%	16.9%	16.6%	17.0%	17.9%	17.2%	16.9%	16.7%	14.8%	12.2%	10.9%	11.0%	11.8%	11.4%	10.0%
San Juan	17.5%	18.1%	26.1%	23.7%	22.5%	23.4%	22.9%	20.8%	20.2%	19.9%	17.1%	17.0%	16.2%	17.5%	16.0%
Sanpete	20.7%	19.6%	19.4%	19.2%	23.0%	20.6%	19.5%	19.8%	18.6%	13.6%	12.7%	12.7%	13.4%	14.8%	13.2%
Sevier	15.0%	15.1%	17.3%	15.6%	17.0%	18.4%	17.6%	15.5%	16.5%	13.4%	10.6%	12.7%	11.1%	11.8%	11.1%
Summit	21.1%	18.0%	13.6%	14.6%	16.0%	14.8%	14.9%	14.5%	13.7%	10.9%	9.5%	9.6%	9.2%	10.1%	8.6%
Tooele	14.0%	13.6%	15.5%	14.3%	13.4%	14.2%	12.5%	12.4%	11.8%	9.2%	8.1%	8.4%	10.1%	10.5%	11.6%
Uintah	19.6%	19.8%	21.0%	21.0%	20.4%	20.7%	18.1%	16.6%	16.5%	15.7%	12.9%	15.7%	14.8%	13.1%	16.6%
Utah	18.0%	15.1%	16.0%	14.1%	15.1%	16.0%	14.4%	13.7%	12.1%	10.5%	7.9%	8.1%	8.8%	9.4%	8.4%
Wasatch	19.5%	18.6%	18.5%	18.9%	21.4%	20.8%	18.9%	19.2%	17.7%	15.7%	12.4%	11.9%	11.2%	11.5%	9.9%
Washington	21.2%	17.9%	20.7%	19.7%	20.7%	21.2%	20.3%	19.4%	19.6%	16.9%	11.6%	13.9%	13.5%	15.0%	12.8%
Wayne	22.6%	20.6%	19.3%	16.9%	22.2%	24.2%	22.5%	20.7%	16.8%	16.2%	13.6%	15.2%	13.8%	15.7%	15.1%
Weber	15.2%	14.8%	16.6%	18.1%	17.7%	17.0%	16.9%	15.3%	14.0%	11.6%	9.6%	10.1%	10.2%	9.9%	10.4%
Utah	16.7%	15.7%	16.3%	15.9%	16.7%	16.6%	15.7%	15.3%	13.8%	11.6%	9.7%	10.0%	10.4%	10.7%	9.7%
U.S.	17.1%	16.6%	16.6%	17.3%	17.7%	17.3%	17.0%	16.8%	13.5%	10.9%	10.0%	10.2%	10.4%	11.6%	11.8%

Note: Uninsured rate is for those age 65 and younger.
Data may differ from estimates in Figures 19.6, 19.7, and Table 19.3 due to different data sources.
Source: U.S. Census Bureau Small Area Health Insurance Estimates.

Table 19.3: Percent of Utah's Population with Health Insurance by Coverage Type, 2007–2021

Year	Employer-Sponsored Self-Funded Plans			Commercial Health Insurance		Government-Sponsored Health Plans					Uninsured
	Public Employees Health Plan (PEHP)	Federal Employee Health Benefit Plan (FEHBP)	Other Self-Funded Health Plans	Group	Individual	Medicare	Medicaid	CHIP	PCN	HIP Utah	
2007	5.9%	3.4%	30.7%	27.1%	5.3%	9.4%	5.9%	0.9%	0.7%	0.1%	10.6%
2008	5.8%	3.5%	30.4%	26.5%	5.4%	9.6%	6.0%	1.3%	0.7%	0.1%	10.7%
2009	5.8%	3.5%	30.8%	24.5%	5.1%	9.7%	7.0%	1.5%	0.9%	0.1%	11.2%
2010	4.7%	3.6%	26.2%	24.9%	5.0%	10.1%	8.0%	1.5%	0.5%	0.1%	15.3%
2011	4.6%	3.8%	27.9%	23.6%	5.6%	10.3%	8.7%	1.3%	0.6%	0.1%	13.4%
2012	4.5%	3.4%	29.5%	22.2%	5.5%	10.7%	9.0%	1.3%	0.6%	0.1%	13.2%
2013	4.3%	3.3%	31.4%	21.9%	5.4%	10.9%	9.3%	1.2%	0.6%	0.1%	11.6%
2014	4.2%	3.3%	32.7%	20.6%	7.0%	11.2%	9.8%	0.5%	0.5%	NA	10.3%
2015	4.3%	3.4%	33.7%	20.0%	7.6%	11.4%	9.9%	0.6%	0.4%	NA	8.8%
2016	4.4%	3.4%	35.0%	18.1%	7.8%	11.7%	9.8%	0.6%	0.6%	NA	8.7%
2017	4.5%	3.7%	35.0%	17.7%	6.6%	12.0%	9.6%	0.6%	0.4%	NA	9.8%
2018	4.7%	3.4%	36.2%	16.3%	6.5%	12.6%	9.6%	0.6%	0.4%	NA	9.5%
2019	4.8%	3.5%	36.2%	15.7%	6.6%	13.2%	9.9%	0.5%	NA	NA	9.7%
2020	4.8%	3.7%	36.2%	14.9%	6.6%	12.6%	11.2%	0.5%	NA	NA	NA
2021	4.7%	3.7%	33.7%	14.7%	7.6%	12.8%	13.7%	0.3%	NA	NA	9.0%

Note: Due to the impact of the COVID-19 pandemic on data collection, the U.S. Census Bureau has not published state-level uninsured estimates for 2020 (Keisler-Starkey and Bunch, 2021). No other estimates were available at the time of publication. The employer-sponsored self-funded membership estimate is based on limited data from commercial insurers and employers. It is not a complete count of the self-funded membership in Utah and should be used with caution. Estimates may not total exactly due to rounding and differences in methodology.
PCN (Primary Care Network) is a limited-benefit health plan offered by the Utah Department of Health to adults who are not traditionally eligible for Medicaid. The PCN program closed on March 31, 2019. Members previously enrolled in PCN were automatically enrolled in Medicaid.
HIP Utah (Utah Comprehensive Health Insurance Pool) was discontinued in 2014 with the Affordable Care Act.
Data may differ from estimates in Figures 19.6, 19.7, and Table 19.2 due to different data sources.
Source: State of Utah Health Insurance Market Reports.

Table 19.4A: Utah's Private Sector Health Care Employment by Facility Type, 2001–2021

Year	Provider Offices					Mental Health Provider Offices			Miscellaneous Health Practitioner Offices
	Physicians	Dentists	Chiropractors	Podiatrists	Optometrists	Mental Health Physicians	Mental Health Practitioners	Specialty Therapists	
2001	12,046	7,779	898	209	506	138	358	1,578	298
2002	12,555	8,098	1,011	228	505	133	374	1,722	316
2003	13,301	8,459	1,040	242	525	136	369	1,775	378
2004	13,793	8,708	1,030	257	545	149	406	1,864	414
2005	14,446	8,981	1,052	256	573	148	434	1,976	500
2006	16,416	9,431	1,051	273	618	138	446	1,985	586
2007	17,393	9,800	1,097	287	647	117	449	1,989	726
2008	18,551	10,109	1,099	284	690	123	482	2,084	822
2009	19,140	10,408	1,123	292	726	127	523	2,157	868
2010	19,624	10,676	1,123	299	751	148	541	2,308	875
2011	19,800	10,976	1,189	286	766	174	571	2,503	1,052
2012	20,213	11,272	1,246	294	804	197	635	2,568	971
2013	20,515	11,527	1,303	298	868	217	686	2,696	985
2014	19,660	11,737	1,376	288	915	336	774	2,890	1,154
2015	20,123	12,116	1,397	303	959	360	837	2,970	1,316
2016	20,855	12,401	1,464	310	999	415	922	3,061	1,558
2017	20,973	12,701	1,591	316	1,040	442	966	3,155	1,577
2018	21,660	13,166	1,678	329	1,090	444	1,064	3,234	1,332
2019	21,084	13,457	1,753	346	1,144	467	1,240	3,319	1,145
2020	21,279	13,333	1,799	349	1,163	381	1,557	3,153	1,202
2021	22,899	14,246	1,905	397	1,223	476	2,548	3,512	1,397
Avg. Annual % Increase									
	3.3%	3.1%	3.8%	3.3%	4.5%	6.4%	10.3%	4.1%	8.0%
2020–2021 % Change									
	7.6%	6.8%	5.9%	13.8%	5.2%	24.9%	63.6%	11.4%	16.2%

Note: Mental Health Practitioners: This industry comprises establishments of independent mental health practitioners (except physicians) primarily engaged in (1) the diagnosis and treatment of mental, emotional, and behavioral disorders and/or (2) the diagnosis and treatment of individual or group social dysfunction brought about by such causes as mental illness, alcohol and substance abuse, physical and emotional trauma, or stress. These practitioners operate private or group practices in their own offices (e.g., centers, clinics) or in the facilities of others, such as hospitals or HMO medical centers.
Specialty Therapists: This industry comprises establishments of independent health practitioners primarily engaged in one of the following: (1) providing physical therapy services to patients who have impairments, functional limitations, disabilities, or changes in physical functions and health status resulting from injury, disease or other causes, or who require prevention, wellness or fitness services; (2) planning and administering educational, recreational, and social activities designed to help patients or individuals with disabilities regain physical or mental functioning or adapt to their disabilities; and (3) diagnosing and treating speech, language, or hearing problems. These practitioners operate private or group practices in their own offices (e.g., centers, clinics) or in the facilities of others, such as hospitals or HMO medical centers.
Miscellaneous Health Practitioners: This U.S. industry comprises establishments of independent health practitioners (except physicians; dentists; chiropractors; optometrists; mental health specialists; physical, occupational, and speech therapists; audiologists; and podiatrists). These practitioners operate private or group practices in their own offices (e.g., centers, clinics) or in the facilities of others, such as hospitals or HMO medical centers. Examples include acupuncturists' (except MDs or DOs) offices, hypnotherapists' offices, and dental hygienists' offices.
Source: U.S. Bureau of Labor Statistics Quarterly Census of Employment and Wages.

Table 19.4B: Utah's Private Sector Health Care Employment by Facility Type, 2001–2021

	Medical Services				Medical Facilities			Hospitals			
Year	Outpatient Care Centers	Medical and Diagnostic Laboratories	Home Health Care Services	Other Ambulatory Health Care Services	Skilled Nursing Care Facilities	Residential Intellectual and Developmental Disability, Mental Health, and Substance Abuse Facilities	Assisted Living Facilities	General Medical and Surgical Hospitals	Psychiatric and Substance Use Disorder Hospitals	Other Specialty Hospitals	Health and Medical Insurance Carriers
2001	1,428	1,864	2,953	927	8,474	3,984	2,440	22,655	NA	NA	2,713
2002	1,619	2,039	3,239	958	8,411	4,329	2,608	23,201	NA	NA	2,673
2003	1,471	2,175	3,647	908	8,482	4,586	2,804	24,156	536	2,954	2,529
2004	1,688	2,410	3,960	861	8,689	4,853	3,113	24,693	596	2,992	2,456
2005	1,902	2,491	4,161	916	8,825	5,143	3,286	25,400	NA	NA	2,443
2006	2,189	2,621	4,564	1,017	8,770	5,503	3,454	24,961	554	3,147	2,268
2007	2,315	2,800	4,693	1,093	8,870	5,950	3,583	25,808	539	3,314	2,490
2008	2,486	3,080	5,005	1,272	9,350	6,214	3,813	26,822	526	3,538	2,501
2009	2,432	3,251	5,595	1,350	9,331	6,444	4,257	27,346	428	3,646	2,437
2010	2,546	3,515	5,804	1,248	9,412	6,291	4,457	27,910	474	3,631	2,280
2011	2,569	3,546	6,344	1,327	9,382	6,486	4,664	28,389	668	3,569	2,359
2012	2,726	3,483	6,826	1,625	9,262	6,787	4,888	29,027	727	3,521	2,501
2013	2,789	3,543	7,339	1,832	9,194	7,016	5,264	29,528	702	3,645	2,735
2014	3,097	3,621	7,485	2,024	9,404	7,399	5,466	29,728	697	3,800	2,839
2015	3,022	3,714	7,653	2,268	9,492	8,159	5,883	30,824	744	3,824	2,622
2016	3,157	4,080	7,947	2,329	9,428	8,388	6,351	32,218	745	3,878	2,772
2017	3,352	4,403	8,065	2,499	9,463	8,604	6,912	33,315	771	3,972	2,633
2018	3,530	4,556	8,168	2,750	9,349	9,414	7,392	32,758	833	3,933	2,582
2019	3,759	4,886	8,408	2,659	9,161	9,600	7,802	34,476	854	3,994	2,690
2020	4,089	5,138	8,319	2,678	8,882	9,941	7,884	34,860	798	3,934	2,848
2021	4,751	5,828	8,639	2,888	8,453	9,932	7,710	34,744	808	3,786	2,947
Avg. Annual % Increase											
	6.2%	5.9%	5.5%	5.8%	0.0%	4.7%	5.9%	2.2%	2.5%	1.2%	0.4%
2020–2021 % Change											
	16.2%	13.4%	3.8%	7.8%	-4.8%	-0.1%	-2.2%	-0.3%	1.3%	-3.8%	3.5%

Note: Other Ambulatory Health Care Services: This U.S. industry comprises establishments primarily engaged in providing ambulatory health care services (except offices of physicians, dentists, and other health practitioners; outpatient care centers; medical and diagnostic laboratories; home health care providers; ambulances; and blood and organ banks). Examples include health screening services (except by offices of health practitioners), physical fitness evaluation services (except by offices of health practitioners), hearing testing services (except by offices of audiologists), and smoking cessation programs.
Other Specialty Hospitals: This industry comprises establishments known and licensed as specialty hospitals primarily engaged in providing diagnostic and medical treatment to inpatients with a specific type of disease or medical condition (except psychiatric or substance abuse). Hospitals providing long-term care for the chronically ill and hospitals providing rehabilitation, restorative, and adjustive services to physically challenged or disabled people are included in this industry. These establishments maintain inpatient beds and provide patients with food services that meet their nutritional requirements. They have an organized staff of physicians and other medical staff to provide patient care services. These hospitals may provide other services, such as outpatient services, diagnostic X-ray services, clinical laboratory services, operating room services, physical therapy services, educational and vocational services, and psychological and social work services.
Source: U.S. Bureau of Labor Statistics Quarterly Census of Employment and Wages.

Life Sciences

20

Levi Pace, Kem C. Gardner Policy Institute
Andrea Brandley, Kem C. Gardner Policy Institute

OVERVIEW

The life sciences industry advances health care globally and represents a high-growth cross-section of Utah's economy. Life sciences companies develop, manufacture, and distribute pharmaceuticals, medical devices, and related products. The industry includes biotechnology firms, medical laboratories, diagnostics companies, and professional service providers in 1,285 business establishments around the state, as of 2020.[1] The state's life sciences industry interfaces with medical providers, pharmacies, and other customers. In 2021, bioscience-related innovation in Utah resulted in 432 patent awards.[2] While the state's employee workforce has an exceptionally high concentration in life sciences companies, opportunities exist to increase workforce diversity.

The life sciences industry provided 49,281 full-time and part-time jobs in 22 counties across Utah during 2020. Employees held 85.4% of these jobs, and self-employed workers filled the remaining 14.6%. Their combined earnings were $4.6 billion in inflation-adjusted 2021 dollars.

Recent Growth

Life sciences employers help stabilize and advance Utah's economy and public health. From 2020 to 2021, life sciences employment increased by an estimated 6.4%, exceeding the 5.8% growth in other industries and the 5.4% life sciences growth in other states.[3] From 2019 to 2020, Utah's life sciences job growth was 3.6%, as the number of jobs in other industries declined by 1.2%.

Life sciences companies offer well-paying career opportunities in Utah. At an estimated $103,400 per job in 2021 dollars, life sciences employee compensation was 46.5% above the annual average for all other industries.[4]

Industry Composition

Utah's life sciences industry includes four segments. In 2020, "research, testing and medical laboratories" provided 38.0% of all life sciences jobs in the state, followed closely by "medical devices and equipment" with 34.1%. Rounding out the state's life sciences ecosystem are "therapeutics and pharmaceuticals" manufacturing (15.5%) and wholesalers in "biosciences-related distribution" (12.4%). Across the four segments, life sciences companies advance digital health and tech innovation.

Workforce Demographics

Science, technology, engineering, and mathematics (STEM) workers anchor research and operations in the life sciences industry. As in most places in the U.S., Utah's STEM talent does not fully match the gender, racial, and ethnic diversity of the population working in the state. For example, from 2016 to 2020, 2.4% of employed Utah women were in STEM occupations, near the U.S. average. Meanwhile, 8.8% of Utah's male workforce held STEM jobs (versus 7.3% nationwide).

From 2016 to 2020, 4.8% of Utah's minority workers were in STEM occupations, similar to the U.S. average. Utah's Asian and multiracial workers were well represented in STEM jobs (16.2% and 5.8%, respectively). The most underrepresented groups in the state were Hispanic or Latino, American Indian

1 For 2020 employment, aggregate earnings, and average compensation, we define Utah's life sciences sector as all companies in 15 industries and 142 individually selected establishments spread across 30 other industries. The 15 industries' six-digit codes in the North American Industry Classification System are NAICS 325411–4, 334510, 334516–7, 339112–6, 423450, 423460, and 621511. For methodology details, see Pace, L. & Spolsdoff, J. (August 2018). Economic Impacts of Utah's Life Sciences Industry. Kem C. Gardner Policy Institute, University of Utah, http://gardner.utah.edu/wp-content/uploads/Aug2018-LifeSciencesReport.pdf

2 Biotechnology Innovation Organization (BIO) & TEConomy Partners, LLC. (2022). The U.S. Bioscience Industry: Fostering Innovation and Driving America's Economy Forward. https://www.bio.org/value-bioscience-innovation-growing-jobs-and-improving-quality-life

3 Job growth and workforce concentration estimates follow a simplified life sciences industry definition for which annual data are available nationwide. For industry job growth and workforce concentration in 2021, we define the life sciences industry to include every company in 17 NAICS industries. Compared with the legacy definition we used for historical growth and workforce concentration in the 2022 Economic Report to the Governor, the updated definition here adds three NAICS codes (NAICS 333314, 424210, and 541714) and leaves out one (NAICS 339116). The new definition aligns better with the evolving industry. See Pace, L. & Brandley, A. (November 9, 2022). Utah's Life Sciences Workforce and Industry Growth. Kem C. Gardner Policy Institute technical memo to BioHive and BioUtah

4 Average compensation was $70,600 for other industries. Utah compensation from 2020 is adjusted for inflation to 2021 dollars based on the U.S. Bureau of Labor Statistics consumer price index for urban areas in the West with a population of 2.5 million or less.

or Alaska Native, Native Hawaiian or Other Pacific Islander, and some other race, with shares below 3.0%. Meanwhile, 6.1% of workers who are White and not Hispanic or Latino held STEM jobs in Utah (versus 5.2% in the U.S.).

2023 OUTLOOK

Growth Trends

Utah's life sciences sector has momentum for expansion. From 2017 to 2021, life sciences employment in the state increased by 5.2% per year, on average. This four-year growth rate exceeded the 4.5% industry average in other states and the 2.8% average for other industries in Utah.

The productivity of life sciences companies depends on Utahns' depth in research, laboratory, management, manufacturing, entrepreneurial, and other roles. Colleges and universities enable continued workforce growth. Employers and educators provide opportunities for minority groups, women, and other communities in Utah.

Private and Public Investment

Utah's life sciences sector continues to attract sizable investments. From 2018 to 2021, life sciences companies received a cumulative $682 per capita in venture capital, the eighth most among states.[5] These investments rose from $181.7 million in 2018 to $896.9 million in 2021.[6] In addition, awards from the National Institutes of Health totaled $254.8 million in 2021 after steady growth from $225.5 million in 2018.

Utah initiatives and partnerships in and around the life sciences industry improve its outlook. BioHive, BioUtah, the Utah Governor's Office of Economic Opportunity, World Trade Center Utah, and Economic Development Corporation of Utah provide statewide leadership. Local government planning is also essential, for example with Salt Lake City's strategies for economic development and greater workforce inclusion.[7] Business initiatives and institutions of higher learning also help the life sciences ecosystem thrive.

Comparative Advantage

Among all states in 2021, Utah had the third highest workforce concentration in life sciences at 2.7%.[8] Only seven states had employee shares above 2.0%, and the nationwide median was 0.6%. Utah had the 14th most life sciences jobs of any state, noteworthy for the 30th largest employed workforce in the U.S.[9]

Within the life sciences sector, Utah's highest concentration of workforce talent lies in the medical devices and equipment segment, with a 2021 location quotient of 3.31, where 1.00 is the U.S. average.[10] At 5.22, Salt Lake City had the second highest location quotient for this segment among large metropolitan statistical areas (MSAs) nationwide, and at 2.60, Ogden-Clearfield ranked fifth among all medium MSAs.[11] Meanwhile, in bioscience-related distribution, Provo-Orem had a location quotient of 1.89, second highest among medium MSAs. Logan's highest concentration was in research, medical, and testing laboratories, where its location quotient of 1.26 was eighth highest among all small MSAs.

Summary

During 2023, the life sciences industry is likely to outperform most sectors in Utah's economy in terms of employment, even if growth softens due to macroeconomic conditions. Along the Wasatch Front and beyond, local businesses are poised for continued success in one or more life sciences segments. Potential benefits from continued investments in life sciences workers and technologies include population health, investor returns, tax revenue and the livelihoods of people in life sciences jobs in Utah. The state has room for improvement in terms of gender, racial, and ethnic inclusion in the STEM workforce, which is essential for life sciences firms. The state remains well positioned in this strategic industry.

5 See BIO/TEConomy (2022).

6 See Utah supplement for BIO/TEConomy (2022) at https://www.bio.org/sites/default/files/2022-10/UT-BIO2022%20-%20state%20profile.pdf.

7 Salt Lake City & Kem C. Gardner Policy Institute. (February 2022). A Blueprint for Growing Salt Lake City's Health Care Innovation Economy. https://gardner.utah.edu/wp-content/uploads/SLCHI-Report-Feb2022.pdf?x71849

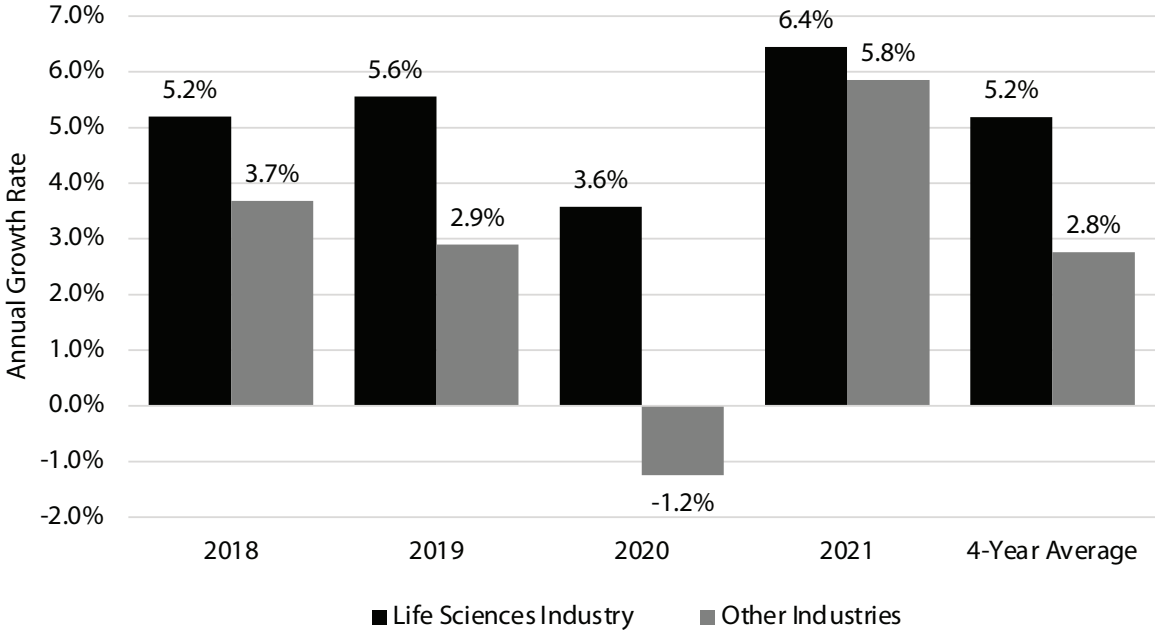
8 See Gardner Institute tech memo (2022).

9 For Utah employment in all industries, see U.S. Bureau of Labor Statistics. (November 2022, extracted). "State and Metro Area Employment, Hours, and Earnings." Current Employment Statistics. https://www.bls.gov/sae/data/

10 See BIO/TEConomy (2022). These location quotients equal an industry segment's share of total employment in a state or MSA divided by the industry segment's U.S. share in the U.S.

11 "Large" MSAs had at least 250,000 in total private employment in all industries in 2021; "medium" MSAs had 75,000 to 249,000 such jobs; and "small" MSAs had less than 75,000 jobs.

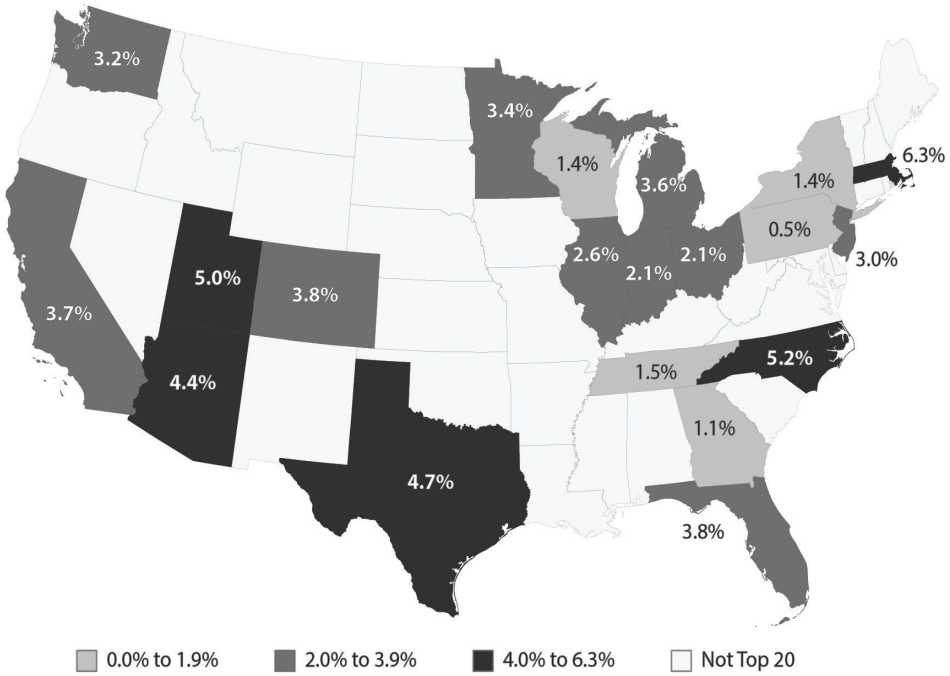
Figure 20.1: Utah Job Growth, Life Sciences and Other Industries, 2018–2021
(Annual Percent Change in Employment)



Note: Results include all employees (no self-employed workers) at life sciences companies (any occupation). Single-year growth rates are calculated as percentage changes since the previous year; four-year averages are compound annual growth rates since 2017.

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

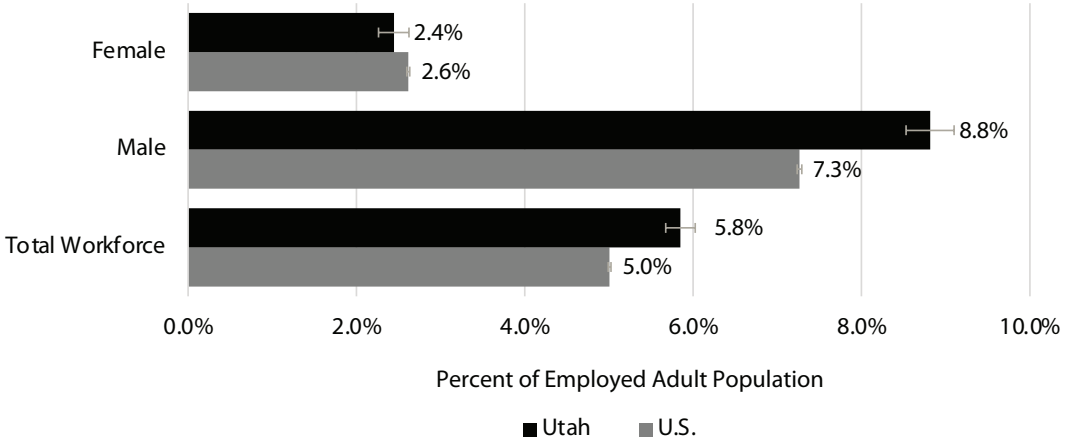
Figure 20.2: Life Sciences Job Growth by State, 2019–2021
(Two-Year Average, Annual Percent Change in Employment, for States with the 20 Largest Life Sciences Industries)



Note: Average annual growth rates for the two-year period shown for the 20 states with the most 2021 employment in the life sciences industry. Growth rates represent all employees (no self-employed workers) at life sciences companies (any occupation).

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

Figure 20.3: Women in STEM Occupations, 2016–2020
(STEM Share of Total Adult Workforce)

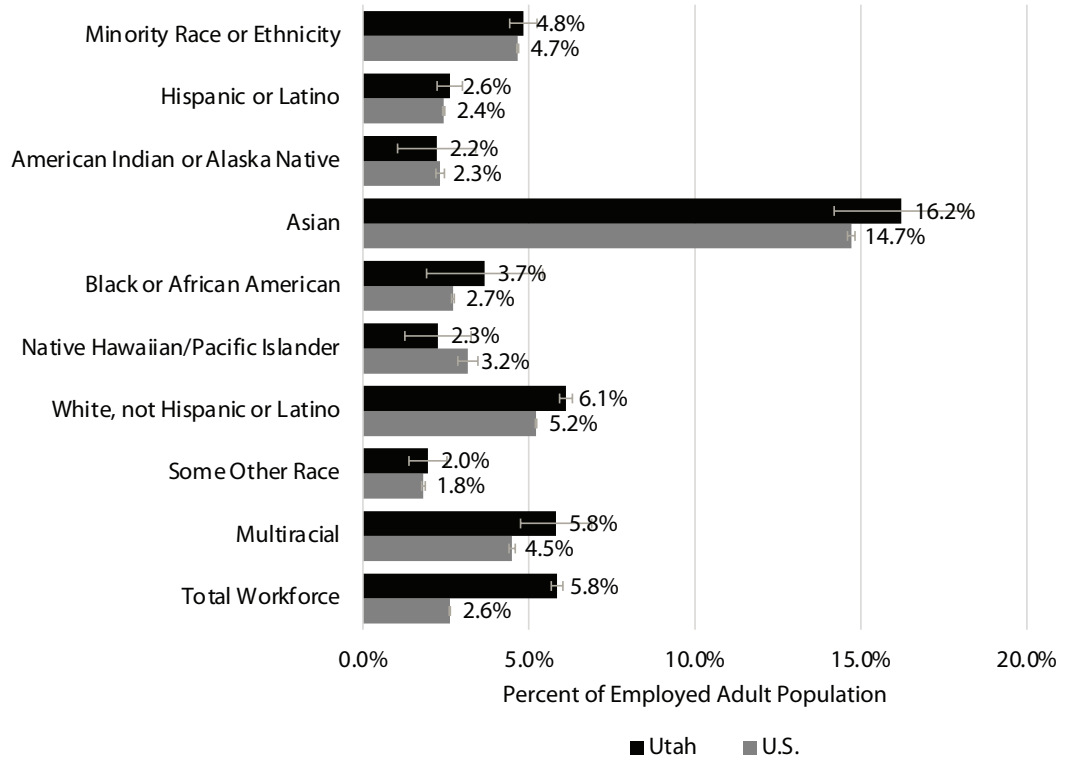


STEM = Science, Technology, Engineering, and Mathematics (occupations defined under the 2018 Standard Occupation Classification system)

Note: Shares include people ages 18 years and above, not living in group quarters, with employee or self-employed jobs in the previous five years. Markers at the end of each bar indicate a 90% confidence interval based on a systematic Utah sample of 83,768 adults, among them 941 women STEM workers.

Source: U.S. Census Bureau, American Community Survey, Integrated Public Use Microdata Series; U.S. Bureau of Labor Statistics definition of STEM occupations

Figure 20.4: STEM Occupations in Racial and Ethnic Groups, 2016–2020
(STEM Share of Total Adult Workforce)



STEM = Science, Technology, Engineering, and Mathematics (occupations defined under the 2018 Standard Occupation Classification system)

Note: Shares include people ages 18 years and above, not living in group quarters, with employee or self-employed jobs in the previous five years. Minority aggregation includes any race besides White and any ethnicity that is Hispanic or Latino. "Hispanic or Latino" ethnicity includes people from any minority racial group. Minority races include people regardless of their ethnicity. People who are "multiracial" belong to two or more standard race groups. Markers at the end of each bar indicate a 90% confidence interval based on a systematic Utah sample of 83,768 adults. STEM minority demographic subgroups each included between 19 and 227 members of the workforce.

Source: U.S. Census Bureau, American Community Survey, Integrated Public Use Microdata Series; U.S. Bureau of Labor Statistics definition of STEM occupations

Minerals

21

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OVERVIEW

The Utah Geological Survey (UGS) projects an estimated gross production value of metallic and industrial mineral commodities of $4.1 billion in 2022, essentially unchanged from 2021's estimated value of $4.1 billion (in nominal dollars; $4.5 billion adjusting for inflation). The U.S. Geological Survey reported that the 2021 value of Utah's nonfuel (metallic and industrial) minerals production ranked seventh nationally, accounting for 4.2% of the total U.S. nonfuel minerals production. The UGS's 2022 production values come primarily from industry production surveys, corporate quarterly reports, and discussions with mining industry professionals.

The 2022 mineral production value estimate of $4.1 billion includes a metals value of $2.5 billion (60%) and an industrial minerals value of $1.7 billion (40%). Utah's metal production includes copper, gold, magnesium, iron, molybdenum, beryllium, and silver in decreasing order of estimated value. Utah also produces a long list of industrial mineral commodities including potash, salt, sand and gravel, crushed stone, portland cement, lime, limestone, lithium, phosphate, gilsonite, gypsum, frac sand, and other mineral products.

The most significant metal producer in the state remains Rio Tinto's Bingham Canyon open-pit mine. Bingham Canyon is the largest producer of copper, gold, and silver in Utah and is the state's only producer of molybdenum and tellurium. Copper production is projected to increase from 2021 to 2022 given the shift of mining at Bingham Canyon to zones of higher-grade copper, though production of gold and silver are expected to decrease moderately and molybdenum production to decrease notably. Rio Tinto announced the beginning of tellurium recovery in May 2022, becoming one of only two producers in the United States, following a $2.9 million investment in the recovery facility. In September 2022, Rio Tinto announced a $55 million investment to start underground mining to supplement open pit production through 2027. This is in addition to a $108 million investment for a feasibility study of more extensive underground mining announced in July 2021. Current mine life is estimated to reach 2032.

The Lisbon Valley copper mine in San Juan County, the only other copper producer in Utah, re-initiated active mining in 2022 and embarked on an aggressive exploration program to increase the mine's known resources and reserves. Lisbon Valley Mining Company is pursuing permitting for an in-situ mining operation that would allow them to mine deeper parts of the ore body. Mining continued at the Iron Mountain iron mine in Iron County and at the Trixie gold-silver mine in Juab County, both relatively new mining operations that continued to expand production in 2021 and are likely to plateau at current levels in 2022.

Industrial mineral value from 2021 to 2022 is projected to increase modestly. Potash is produced at three facilities in Utah, and potash value increased substantially during 2022 due to the war in Ukraine. Lithium value also increased substantially in 2022, and US Magnesium continues to work towards increasing lithium production at their facility at Great Salt Lake after beginning production in 2020. U.S. Geological Survey data for the first half of 2022 indicate that construction aggregate production in Utah was similar to the first half of 2021. Construction aggregate, consisting of sand and gravel and crushed stone, is one of the more significant mineral commodities in Utah and is an indicator of the growth or decline of the construction sector.

Utah produced six critical minerals in 2022 (beryllium, lithium, magnesium metal, palladium, platinum, and tellurium), and hosts known resources of seven more (aluminum, fluorspar,

indium, gallium, germanium, vanadium, and zinc) based on the U.S. Department of the Interior's (DOI) 2022 critical mineral list. Beryllium is produced from the Spor Mountain mining district by Materion Resources, and this operation accounts for over 65% of global beryllium production. US Magnesium remains the only producer of magnesium metal in the United States, producing from Great Salt Lake brines. Platinum and palladium, along with tellurium, are recovered as byproducts of metal refining at Bingham Canyon. Notable established resources of critical minerals include Blawn Mountain in Beaver County as the largest alunite (aluminum, potash) resource in the country and the West Desert zinc-copper-indium deposit in Juab County as the only known indium resource in the country.

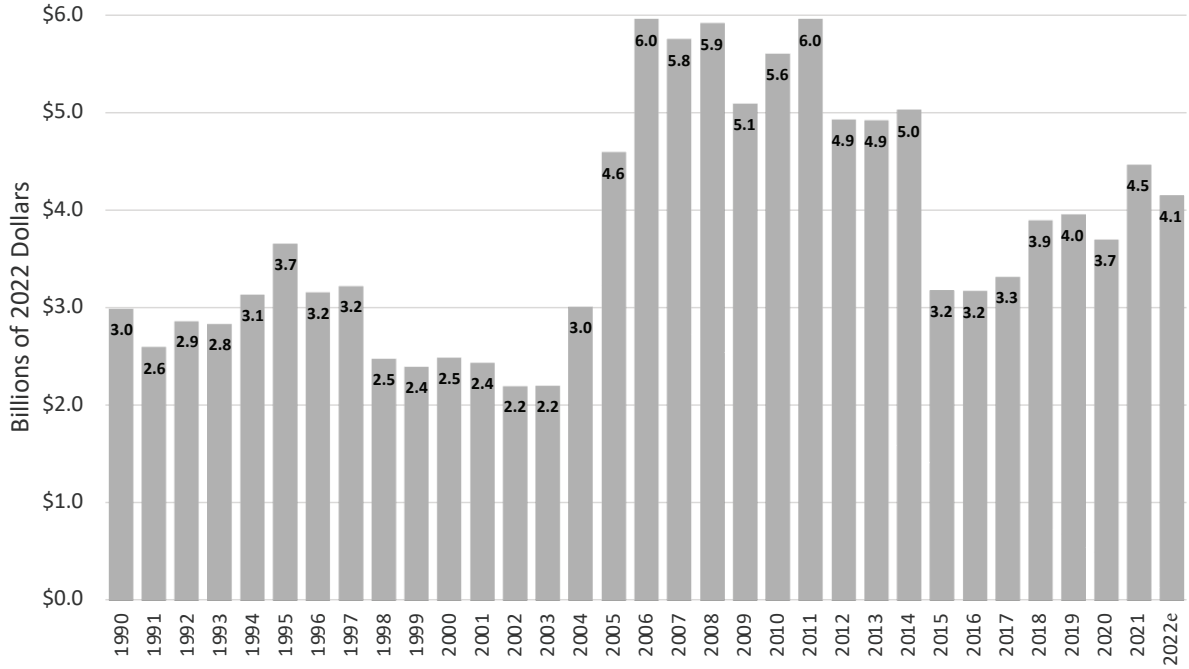
Metal exploration activity held steady in 2022 after a substantial increase in 2021. Notable drilling programs have taken place in Beaver, Iron, Juab, Millard, Piute, Tooele, Utah, and Washington Counties, primarily for copper and gold. Early stage exploration has been active in Box Elder, Emery, Garfield, Grand, and San Juan Counties for uranium and copper. Overall exploration drilling footage in 2022 decreased modestly from 2021 and is expected to remain stable in 2023.

Recent industrial mineral exploration and development in Utah has included fluorspar, lithium, pozzolan, and others. Utah is poised to become the nation's only fluorspar producer as Ares Strategic Mining revives the Lost Sheep mine, Utah's largest historical producer of fluorspar. Due to battery demand, lithium prices continue to rise with renewed exploration interest. Compass Minerals, a potash producer on Great Salt Lake, defined a lithium resource and expressed intent to begin lithium production from the lake by 2025. Anson Resources continues to pursue a potential lithium resource in subsurface brines of the Paradox Basin. Anson has re-entered old oil and gas wells in the basin to test lithium concentration in brines with some success and have expanded their in-place resource to over 1 million tons of lithium carbonate equivalent. Recently, interest in rock-hosted lithium in the West Desert has also emerged. Pozzolan is a material that has cementitious properties and can be used as an additive to portland cement to extend or enhance the cement. The benefits of pozzolans over conventional cement production can include reductions in manufacturing cost and greenhouse gas emissions. Interest in natural pozzolanic material has increased recently as availability of coal fly ash, a common manufactured pozzolan, has decreased. Multiple companies have been looking for natural pozzolan resources in Utah.

2023 OUTLOOK

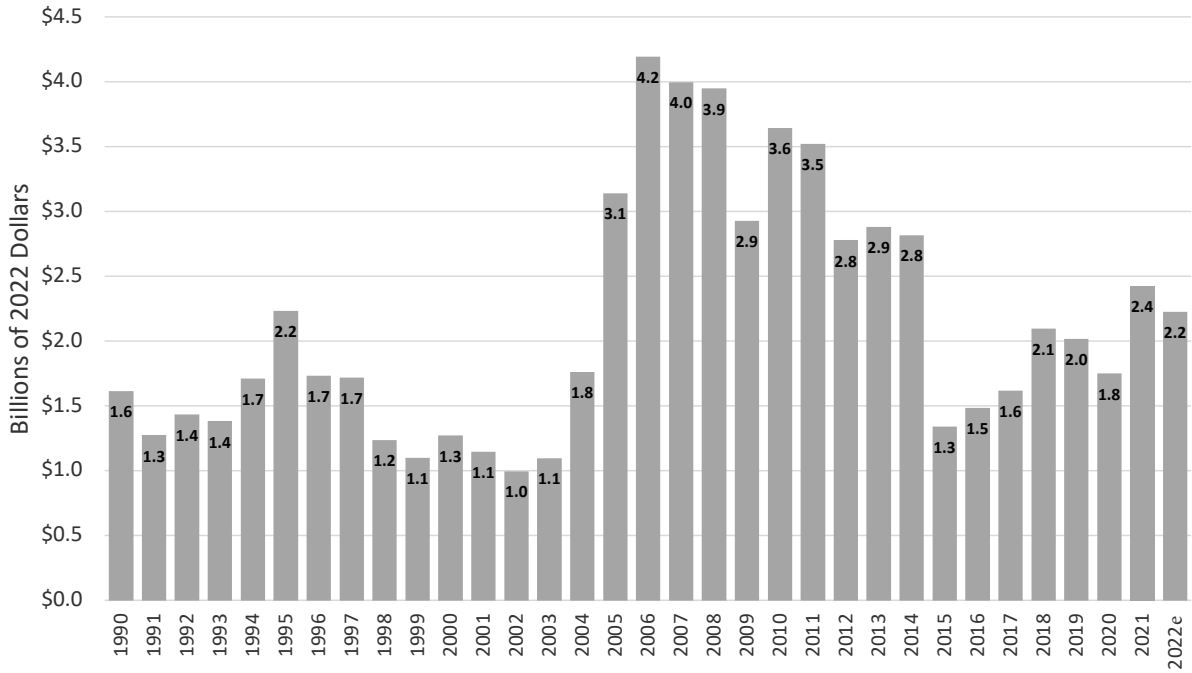
In 2023, Bingham Canyon is expected to increase copper mining rates, hold relatively stable with gold and silver production, and decrease molybdenum production because of pivoting to higher copper zones. Commodity prices dropped notably in the middle of 2022, and it remains unclear where prices might go in 2023 though the long-term outlook for copper remains robust. Consolidation of exploration projects may cause short-term contraction of exploration budgets; however, the need for more resources to support a high tech and increasingly carbon neutral economy is likely to drive strong exploration budgets in the moderate to long term. Given the increase in potash prices during 2022, potash exploration in Utah may be revived after a few years of limited activity. Lithium prices are likely to remain high and exploration and development activity in Utah will likely continue. Major swings in production and commodity prices for other industrial minerals are not expected in 2023. In summary, the UGS estimates that the production value of Utah's metallic and industrial mineral commodities will be similar to or slightly less in 2023 than 2022, mainly due to lower commodity prices.

Figure 21.1: Total Value of Utah's Annual Metallic and Industrial Mineral Production, 1990-2022e



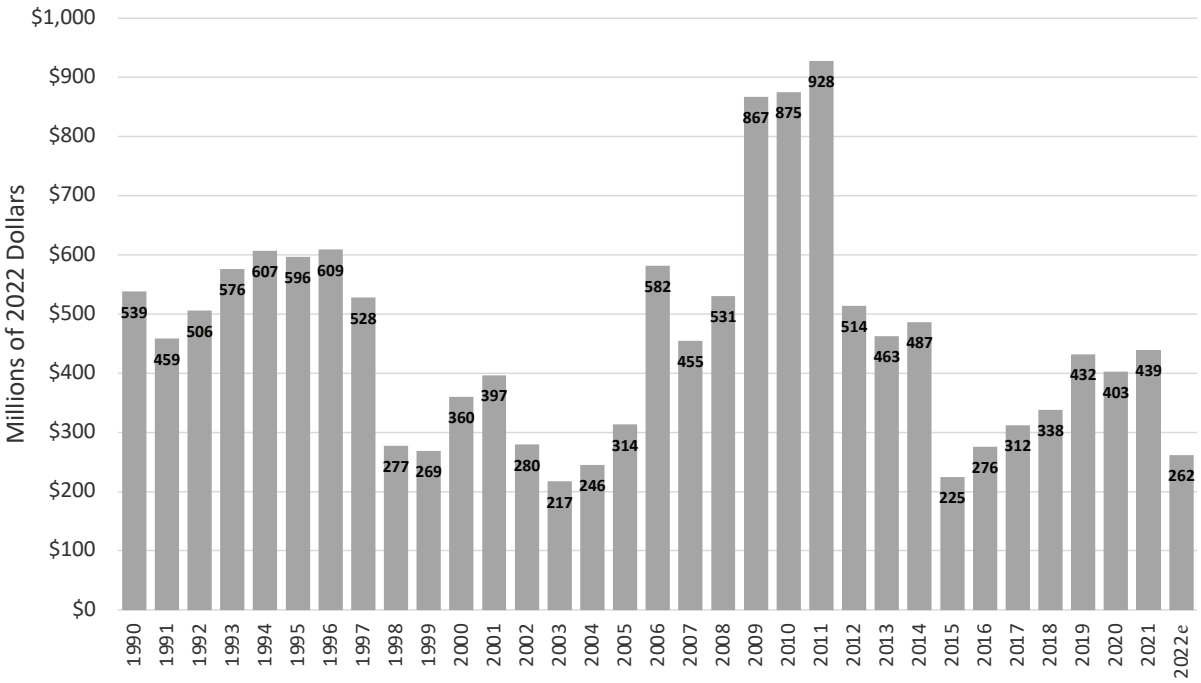
Note: e = estimate
Source: Utah Geological Survey

Figure 21.2: Value of Utah's Annual Base Metal Production, 1990-2022e



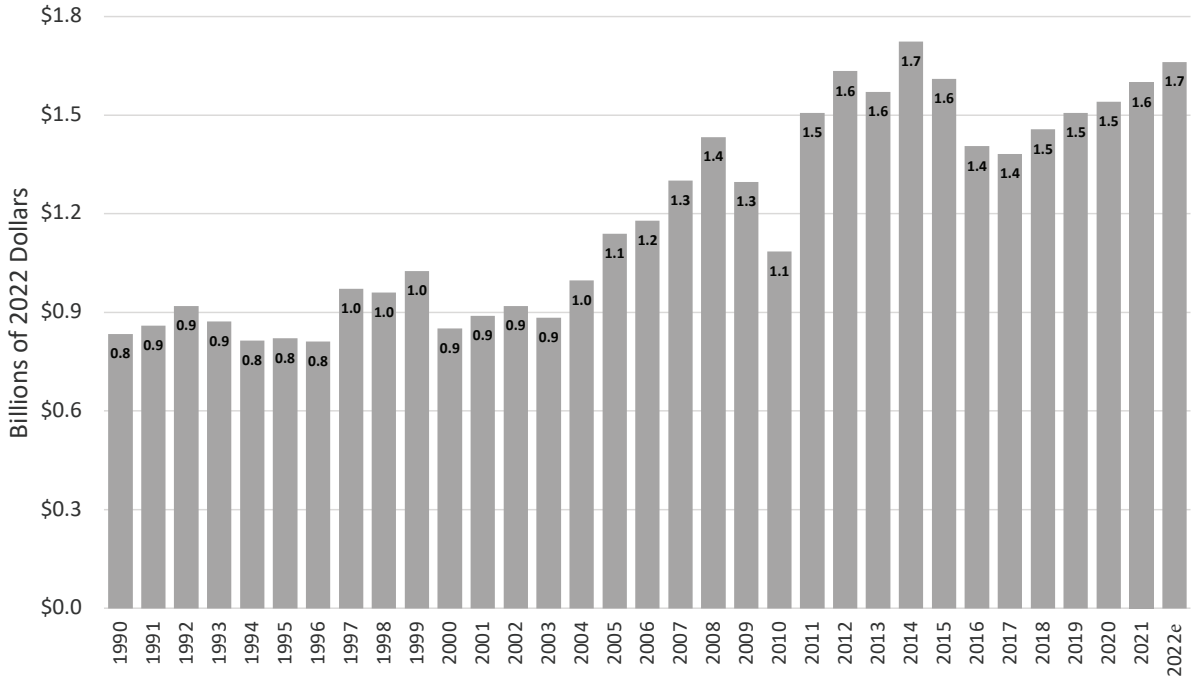
Note: e = estimate
Source: Utah Geological Survey

Figure 21.3: Value of Utah's Annual Precious Metal Production, 1990-2022e



Note: e = estimate
Source: Utah Geological Survey

Figure 21.4: Value of Utah's Annual Industrial Mineral Production,1990-2022e



Note: e = estimate
Source: Utah Geological Survey

Real Estate and Residential Construction 22

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OVERVIEW

In 2022, the value of permit authorized construction in Utah totaled $12.04 billion, the second highest on record. Construction value includes the value of permit authorized residential and nonresidential construction as well as the construction value of additions, alterations, and repairs to existing structures. Permit authorized construction does not include most public construction, such as roads, highways, prisons, and schools.

Residential Construction

Of the estimated $12.04 billion in total permitted construction value, residential activity accounts for 58.9%. The value of residential construction in 2022 totaled $7.10 billion, 19.8% lower than the previous year.

Local governments issued an estimated 29,500 residential permits in 2022, a 26.5% decrease from the record of 40,144 in 2021. Historically low interest rates from the Federal Reserve's response to COVID-19 spurred the 2021 housing market activity. However, as inflationary pressures arose for various reasons, including the federal fiscal stimulus, the Federal Reserve began raising interest rates. The aggressive rate increases since early 2022 caused the most abrupt and sharpest nine-month increase in mortgage rates in over fifty years. The mortgage rate doubled from 3.45% in January 2022 to 6.90% by October 2022, dropping to about 6.30% as of December 2022.

In 2022, higher home prices and a doubling of the mortgage rate combined to erode housing affordability. As a result, demand decreased and new housing construction steeply declined throughout the second half of 2022.

The boom in multi-family (apartments, condominiums, and townhomes) construction continued from last year, albeit at a slower pace. Multi-family units totaled 17,250 and accounted for 58.5% of all residential units in 2022, which was a record share of total units. This represents a 22.5% decrease from the record 22,264 permitted multi-family units in 2021. While this loss is significant, 2022 is still the second highest year on record for multi-family permitted units.

In 2022, apartment unit permits totaled 9,800, accounting for one-third of all residential building permits issued. Local governments permitted 7,450 condominium and townhome units permitted as well, a year-over decline of 5.6%. This is the fourth year that multi-family permitted units exceeded single-family units.

Since the beginning of the residential boom in 2014, local governments issued permits for 69,500 apartment units statewide and 47,400 for condominiums. Apartments, townhomes, and condominiums combined account for 50.2% of all residential building permits issued since 2014.

Rising interest rates have brought single-family permitted units down by 32.0% from last year, the strongest decrease since 2008. The strong housing demand in 2021 decreased in 2022 as affordability left a majority of buyers on the sidelines. Over 12 months, the median sales price of a single-family home in the four Wasatch Front counties rose from $522,000 to $550,000. During the same period, the mortgage interest rate increased from 3.07% to 6.90% (although it has declined since). Driven primarily by higher interest rates, the monthly mortgage payment increased from $2,921 to $4,276, a 46% increase in a single year. Given similar assumptions, the 46% payment increase would apply to homes at all price levels, above or below the median price.

2023 OUTLOOK

Forecasts project the value of 2023 total permit authorized construction in Utah at $9.15 billion, a 24.0% decrease from 2022. The number of new residential units is forecast at 22,750 units, a 22.9% decline from 2022. Forecasts project the value of residential construction to decrease to $5.30 billion, the value of nonresidential construction to decline by 20.2% to $2.60 billion, and additions, alterations, and repairs to fall by 26.0% to $1.25 billion.

Table 22.1: Residential and Nonresidential Construction Activity, 1970–2023f

Year	Single-Family Units	Multi-Family Units	Mobile Homes/ Cabins	Total Units	Value (nominal millions)			
					Residential	Nonresidential	Add., Alt., and Repairs	Total
1970	5,962	3,108	na	9,070	$117.0	$87.3	$18.0	$222.3
1971	6,768	6,009	na	12,777	176.8	121.6	23.9	322.3
1972	8,807	8,513	na	17,320	256.5	99.0	31.8	387.3
1973	7,546	5,904	na	13,450	240.9	150.3	36.3	427.5
1974	8,284	3,217	na	11,501	237.9	174.2	52.3	464.4
1975	10,912	2,800	na	13,712	330.6	196.5	50.0	577.1
1976	13,546	5,075	na	18,621	507.0	216.8	49.4	773.2
1977	17,424	5,856	na	23,280	728.0	327.1	61.7	1,116.8
1978	15,618	5,646	na	21,264	734.0	338.6	70.8	1,143.4
1979	12,570	4,179	na	16,749	645.8	490.3	96.0	1,232.1
1980	7,760	3,141	na	10,901	408.3	430.0	83.7	922.0
1981	5,413	3,840	na	9,253	451.5	378.2	101.6	931.3
1982	4,767	2,904	na	7,671	347.6	440.1	175.7	963.4
1983	8,806	5,858	na	14,664	657.8	321.0	136.3	1,115.1
1984	7,496	11,327	na	18,823	786.7	535.2	172.9	1,494.8
1985	7,403	7,844	na	15,247	706.2	567.7	167.6	1,441.5
1986	8,512	4,932	na	13,444	715.5	439.9	164.1	1,319.5
1987	6,530	755	na	7,285	495.2	413.4	166.4	1,075.0
1988	5,297	418	na	5,715	413.0	272.1	161.5	846.6
1989	5,197	453	na	5,650	447.8	389.6	171.1	1,008.5
1990	6,099	910	na	7,009	579.4	422.9	243.4	1,245.7
1991	7,911	958	572	9,441	791.0	342.6	186.9	1,320.5
1992	10,375	1,722	904	13,001	1,113.6	396.9	234.8	1,745.3
1993	12,929	3,865	1,010	17,804	1,504.4	463.7	337.3	2,305.4
1994	13,947	4,646	1,154	19,747	1,730.1	772.2	341.9	2,844.2
1995	13,904	6,425	1,229	21,558	1,854.6	832.7	409.0	3,096.3
1996	15,139	7,190	1,408	23,737	2,104.5	951.8	386.3	3,442.6
1997	14,079	5,265	1,343	20,687	1,943.5	1,370.9	407.1	3,721.5
1998	14,476	5,762	1,505	21,743	2,188.7	1,148.4	461.3	3,798.4
1999	14,561	4,443	1,346	20,350	2,238.0	1,195.0	537.0	3,970.0
2000	13,463	3,629	1,062	18,154	2,140.1	1,213.0	583.3	3,936.4
2001	13,851	5,089	735	19,675	2,352.7	969.8	562.8	3,885.3
2002	14,466	4,149	926	19,541	2,491.0	897.2	393.0	3,781.2
2003	16,515	5,555	766	22,836	3,046.4	1,017.5	497.0	4,560.9
2004	17,724	5,853	716	24,293	3,552.6	1,089.9	476.0	5,118.5
2005	20,912	6,562	811	28,285	4,662.6	1,217.8	707.6	6,588.0
2006	19,888	5,658	776	26,322	4,955.5	1,588.4	865.3	7,409.2
2007	13,510	6,290	739	20,539	3,963.2	2,051.4	979.7	6,994.3
2008	5,513	4,544	546	10,603	1,877.0	1,919.1	781.2	4,577.3
2009	5,217	4,951	320	10,488	1,674.0	1,056.1	660.1	3,390.2
2010	5,936	2,890	240	9,066	1,667.0	925.1	672.0	3,264.1
2011	5,391	3,518	176	9,085	1,769.7	1,456.5	846.4	4,072.5
2012	7,655	4,108	156	11,919	2,205.0	1,020.2	728.9	3,954.0
2013	9,858	5,008	143	15,009	3,087.1	1,106.0	785.1	4,978.2
2014	8,715	9,864	231	18,810	3,390.4	1,475.9	1,034.5	5,900.8
2015	9,940	7,143	211	17,294	3,819.2	2,076.5	1,006.4	6,902.1
2016	10,692	9,170	202	20,064	4,082.0	2,680.1	1,624.2	8,386.2
2017	12,146	10,530	326	23,002	4,696.1	2,280.6	1,214.6	8,191.3
2018	12,947	11,059	239	24,245	5,153.0	2,166.5	1,136.0	8,455.5
2019	11,985	15,365	260	27,610	5,800.2	2,595.9	1,413.7	9,809.8
2020	15,919	16,002	316	32,237	6,785.2	2,567.3	1,876.7	11,229.2
2021	17,635	22,264	245	40,144	8,850.2	2,930.2	1,935.2	13,715.5
2022e	12,000	17,250	250	29,500	7,096.6	3,256.2	1,688.2	12,041.0
2023f	8,250	14,250	250	22,750	5,300.0	2,600.0	1,250.0	9,150.0

Notes: e = estimate, f = forecast. Beginning in 2011, single-family counts include other residential units; beginning in 2016, multi-family counts include group quarters units.
Source: Ivory-Boyer Construction Database, Kem C. Gardner Policy Institute, University of Utah

Table 22.2: Average Rates for 30-Year Mortgages,1968-2022*

Year	Mortgage Rate
1968	7.03%
1969	7.82%
1970	8.35%
1971	7.55%
1972	7.38%
1973	8.04%
1974	9.19%
1975	9.04%
1976	8.86%
1977	8.84%
1978	9.63%
1979	11.19%
1980	13.77%
1981	16.63%
1982	16.09%
1983	13.23%
1984	13.87%
1985	12.42%
1986	10.18%

Year	Mortgage Rate
1987	10.19%
1988	10.33%
1989	10.32%
1990	10.13%
1991	9.25%
1992	8.40%
1993	7.33%
1994	8.36%
1995	7.95%
1996	7.81%
1997	7.60%
1998	6.95%
1999	7.43%
2000	8.06%
2001	6.97%
2002	6.54%
2003	5.80%
2004	5.84%
2005	5.87%

Year	Mortgage Rate
2006	6.40%
2007	6.38%
2008	6.10%
2009	5.04%
2010	4.69%
2011	4.45%
2012	3.66%
2013	3.98%
2014	4.17%
2015	3.85%
2016	3.65%
2017	3.99%
2018	4.54%
2019	3.94%
2020	3.11%
2021	2.96%
2022*	5.24%

Note: *through November
Source: Freddie Mac (FHLMC)

Table 22.3: Housing Price Index for Utah,1992-2022

Year	Index	Year-Over Change
1992	110.2	8.1%
1993	125.6	14.0%
1994	146.1	16.3%
1995	159.5	9.2%
1996	172.2	7.9%
1997	178.6	3.7%
1998	184.8	3.5%
1999	189.4	2.5%
2000	193.4	2.1%
2001	196.9	1.8%
2002	200.2	1.6%
2003	205.2	2.5%
2004	217.0	5.8%
2005	241.1	11.1%
2006	281.4	16.7%
2007	315.2	12.0%

Year	Index	Year-Over Change
2008	300.7	-4.6%
2009	269.9	-10.2%
2010	254.0	-5.9%
2011	238.1	-6.3%
2012	253.8	6.6%
2013	278.8	9.8%
2014	291.7	4.6%
2015	309.6	6.1%
2016	334.8	8.2%
2017	365.1	9.0%
2018	401.9	10.1%
2019	434.4	8.1%
2020	483.8	11.4%
2021	610.7	26.2%
2022	710.3	16.3%

Note: Four-quarter average; 2022 is three-quarter average. Not seasonally adjusted; purchase only.
Source: Federal Housing Finance Agency

Nonresidential Construction

23

Dejan Eskic, Kem C. Gardner Policy Institute

OVERVIEW

After a record-setting 2021 in nonresidential permitted construction value, the pace continued into 2022. Permitted values increased to a record $3.26 billion, an 11.1% increase from 2021. The positive performance comes from several (years-in-the-making) projects that started in 2022, as well as Utah's strong economy. Utah has performed with strong job growth alongside a historically low unemployment rate near 2.0%. Every employment sector in Utah experienced positive job growth in 2022.

Office, Bank, Professional Construction

The office sector had an unexpectedly strong year in permitted construction value. The sector permitted $630.1 million in construction value, a 21.3% increase over 2021. This growth was unexpected since many professional businesses have continued to operate in a hybrid working environment. However, the increase was due to breaking ground on several new projects that have been in the design and planning stages for years. This level of permitted construction value ranks second on record. Additionally, office-using employment, such as the professional and business service sectors, saw positive job growth in 2022. However, the hybrid office/work-from-home model continues to challenge historic office space demand. Office owners and tenants are still deciding how to approach future space needs.

Retail, Mercantile, Restaurant Construction

The retail sector experienced an above-average year in terms of permitted construction value. Like the office sector, several retail projects years in development broke ground in 2022. The sector permitted an estimated $288.3 million in construction value in 2022, a 76.2% increase compared with last year. It is important to note that the 2022 retail construction value ranks second to 2008, the year that the City Creek Center was permitted.

Industrial, Warehouse, Manufacturing Construction

The industrial, warehouse, and manufacturing sector commands the largest share of commercial construction activity. After a record 2021, the sector experienced its first annual decrease since 2016 in permitted construction value. The decline of 8.0% in permitted value put the estimated value for 2022 at $1.1 billion. Although there was a decline, this was still the second highest permitted value on record. A surge in manufacturing and trade employment kept construction demand high in 2022.

Structures Other Than Buildings

Structures other than buildings is a broad category and fluctuates each year. The sector experienced a 9.9% year-over increase in 2022. Permitted construction value in 2022 is estimated at $375.7 million.

Remaining Nonresidential Buildings

Twelve individual building types constitute this sector; together, they accounted for $882.8 million in 2022 permitted construction value, a 20.6% increase over 2021. The increase comes from to several new projects in the amusement and recreation areas, hotels, hospitals, administrative public buildings, and education sector projects.

2023 OUTLOOK

The 2023 forecast projects the value of permit-authorized nonresidential construction in Utah at $2.60 billion, a decrease of 20.2% from 2022. The challenging environment created by rising interest rates is expected to continue slowing the momentum from 2022.

Inflation, along with other challenging economic factors such as a tight labor market, could slow construction and send many potential projects back to the drawing board. Because of these factors, commercial construction is expected to be slower in the next year.

Table 23.1: Nonresidential Construction Activity, 2000-2023f

Year	Value of Office/Bank/ Professional Construction (millions)	Value of Retail/ Mercantile/ Restaurant Construction (millions)	Value of Industrial/ Warehouse/ Manufacturing Construction (millions)	Value of Structures Other Than Buildings Construction* (millions)	Value of Remaining Nonres. Buildings Construction** (millions)	Total Value of Nonresidential Construction (millions)	Year-Over % Change
2000	$212.5	$192.2	$191.0	$44.4	$572.8	$1,213.0	
2001	$166.7	$182.2	$133.1	$39.2	$448.7	$969.8	-20.0%
2002	$184.2	$144.2	$85.0	$47.4	$436.3	$897.2	-7.5%
2003	$110.9	$205.6	$165.3	$32.8	$503.0	$1,017.5	13.4%
2004	$145.7	$212.7	$133.6	$62.8	$535.2	$1,089.9	7.1%
2005	$218.9	$164.6	$228.9	$58.7	$546.7	$1,217.8	11.7%
2006	$299.5	$284.2	$295.2	$75.4	$634.2	$1,588.4	30.4%
2007	$399.8	$267.9	$434.8	$164.2	$784.8	$2,051.4	29.1%
2008	$249.8	$358.1	$449.0	$102.4	$759.8	$1,919.1	-6.5%
2009	$104.6	$123.6	$356.0	$43.5	$428.4	$1,056.1	-45.0%
2010	$127.1	$94.2	$127.4	$67.7	$508.8	$925.1	-12.4%
2011	$414.2	$104.6	$324.8	$63.6	$549.3	$1,456.5	57.4%
2012	$114.0	$133.7	$235.3	$54.1	$483.2	$1,020.2	-30.0%
2013	$214.9	$145.3	$176.8	$46.3	$522.6	$1,106.0	8.4%
2014	$354.5	$194.5	$270.3	$71.7	$584.9	$1,475.9	33.4%
2015	$442.0	$155.7	$502.4	$330.6	$645.9	$2,076.5	40.7%
2016	$380.7	$279.1	$289.1	$413.4	$1,317.8	$2,680.1	29.1%
2017	$489.1	$224.8	$405.9	$264.5	$896.3	$2,280.6	-14.9%
2018	$629.1	$152.5	$454.2	$188.0	$742.7	$2,166.5	-5.0%
2019	$693.2	$154.3	$672.2	$353.7	$722.5	$2,595.9	19.8%
2020	$380.3	$183.1	$744.9	$334.9	$938.4	$2,581.6	-0.6%
2021	$519.5	$163.6	$1,172.9	$342.0	$732.2	$2,930.2	13.5%
2022e	$630.1	$288.3	$1,079.3	$375.7	$882.8	$3,256.2	11.1%
2023f	$390.0	$190.0	$870.0	$370.0	$780.0	$2,600.0	-20.2%

Note: Nonresidential Construction Activity.
e = estimate
f = forecast
* Includes any new structure that requires a permit that is not a building and otherwise does not fit into another building or permit category, such as solar & alt. energy, retaining walls, signs, fences, etc.
** Includes: Agricultural Bldg. & Sheds, Amusement & Recreation, Churches & Other Religious, Hospital & Institutional, Hotels & Motels, Other Nonresidential Buildings, Parking Structures, Public Buildings & Projects, Public Utility (Private), Residential Garages/Carports, School & Educational (Private), Service Station/Repair Garages
Source: Ivory-Boyer Construction Database, Kem C. Gardner Policy Institute, University of Utah.

Tourism and Travel

24

Jennifer Leaver, Kem C. Gardner Policy Institute

OVERVIEW

Visitors spent a record $10.56 billion in Utah's economy in 2021, creating 89,600 direct jobs and a record $1.3 billion in direct state and local tax revenue. Visitation remained strong during the first half of 2022 but began softening in late spring due to economic and geopolitical forces. Despite the industry's post-pandemic recovery, leisure and hospitality employment failed to keep up with increased visitation, exerting pressure on Utah's service-related businesses. Additionally, surging inflation has resulted in healthy year-over-year growth in visitor spending and all tourism-related tax revenues.

From January to September 2022, transient room tax revenue increased 20.6% over the same period in 2021. Similarly, there were year-over-year increases in both short-term leasing (i.e., car rental) tax revenue and restaurant tax revenue (29.5% and 32.2%, respectively). During the first three quarters of 2022, 26 of Utah's 29 counties experienced year-over-year increases in county transient room tax revenue. Year-over-year taxable leisure and hospitality sales likewise increased 21.0% in the first half of 2022.

Preliminary employment data for the first half of 2022 indicates an estimated 1.9% year-over-year increase in Utah's private leisure and hospitality sector jobs. The 2022 estimated number of private leisure and hospitality jobs (for the first half of the year) surpassed 2019 baseline employment by 4.5% for the same time period.

During the 2021-2022 winter season, Utah ski resorts reported a record number of skier days (5.8 million) and skier spending ($2.35 billion). This is a new skier spending record and $800 million more than the 2019-2020 winter season, and nearly $700 million more than the previous record set in 2018-2019.

State and national park visitation started strong in 2022 but began to decelerate in the late spring. From January to September 2022, Utah national parks experienced a 6.6% decrease in visitation and state parks experienced a 13.4% decrease compared to the same period in 2021. Reasons for the deceleration include both economic and geopolitical forces such as rising gas and food prices, talk of a U.S. recession, a strong U.S. Dollar, and the war in Ukraine.

Despite the significant impact COVID-19 had on urban and business travel, visitation to Utah's urban areas returned to the 2019 baseline in 2022. From January to September, Salt Lake County hotel occupancy rates were down only 1.7% and Salt Lake County transient room tax revenues were up 17.4% compared with 2019.

Visit Salt Lake reports that conference and convention delegate spending in Salt Lake County in the amount of $143.6 million during the first half of 2022 was down only 2.7% from delegate spending in the amount of $147.6 million during the first half of 2019, reflecting a near return to pre-pandemic spending. In addition, Salt Lake City's newest convention hotel, the Hyatt Regency, opened to guests in October 2022, paving the way for even larger and more Salt Lake City-based conferences, conventions, and meetings.

Finally, the new Salt Lake City International Airport celebrated its second anniversary in fall 2022, acknowledging the 12 million craft hours over 700 employees have put into airport redevelopment since it started in July 2014. Phases 2 and 3 of the airport redevelopment are currently underway.

2023 OUTLOOK

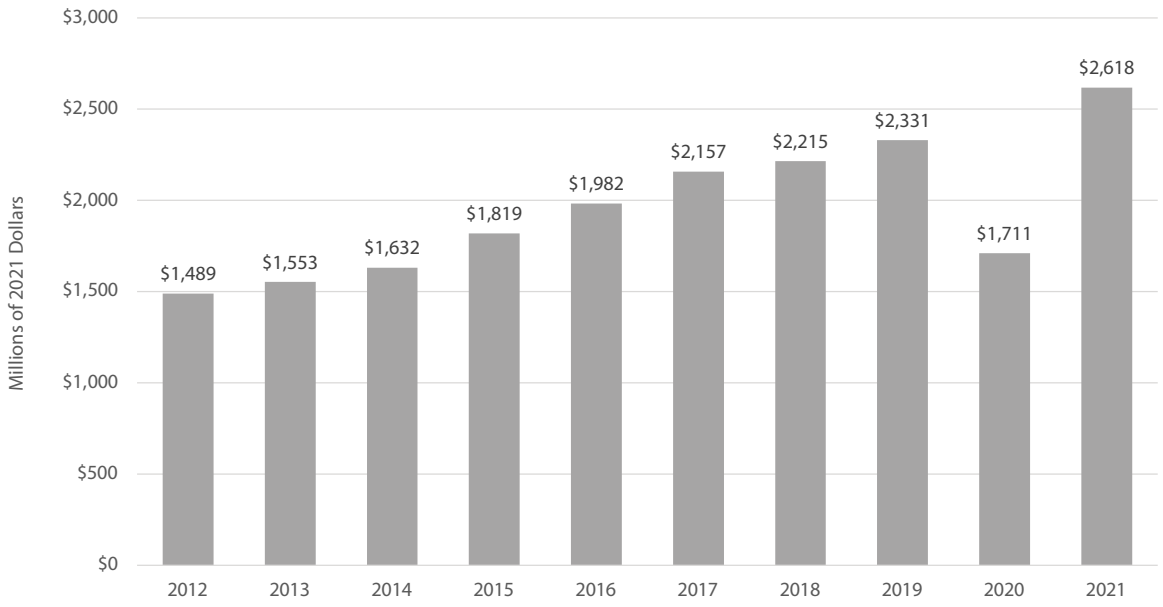
Softening of Utah's travel market will likely continue in 2023. However, a return of business travel will help blunt the effects of the softening environment.

That said, a strong U.S. Dollar will continue to negatively impact international travel to the United States, meaning an international travel post-pandemic rebound remains unlikely until 2024.

U.S. Travel Association forecasts that in 2023, domestic air travel will increase an estimated 3.0% above the 2019 baseline, while international air travel will remain 18.0% below baseline, but up an estimated 22.0% from 2022. Additionally, while leisure travel in the United States rebounded to pre-pandemic levels in 2022, business travel is not expected to rebound until 2024.

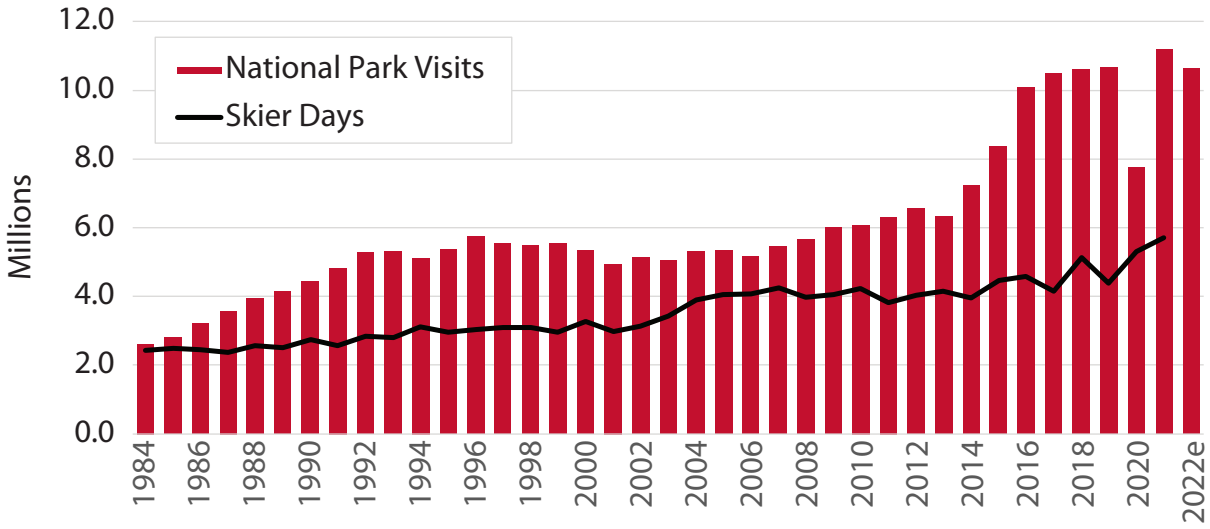
Overall, auto travel is anticipated to continue to be the preferred transportation mode in 2023 with a 5.0% year-over increase. Air travel in 2023 is forecasted to not only increase an estimated 11.0% from 2022, but also return to pre-pandemic 2019 levels.

Figure 24.1: Accommodations Taxable Sales, 2012-2021



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

Figure 24.2: Utah National Park and Skier Visits, 1983-2022e



Note: Ski seasons include December of the year noted through late spring of the following year (i.e., 2019 represents the 2019-2020 ski season). e=estimate
Sources: U.S. National Park Service and Ski Utah

Table 24.1: Historical Utah Tourism Data, 1984-2021

Year	Accom. Taxable Sales (millions*)	National Park Visits	State Park Visits	Salt Lake Int'l. Airport Passengers	Skier Days	Travel-Related Emp.	Visitor Spending (millions*)	Intl. Visitor Spending (millions*)	Travel-Related Tax Revenue (millions*)
1984	$161	2,616,301	4,400,103	7,514,113	2,436,544	na	na	na	na
1985	$165	2,804,693	4,846,637	8,984,780	2,491,191	na	na	na	na
1986	$176	3,224,694	5,387,791	9,990,986	2,440,668	na	na	na	na
1987	$197	3,566,069	5,489,539	10,163,883	2,368,985	na	na	na	na
1988	$221	3,941,791	5,072,123	10,408,233	2,572,154	na	na	na	na
1989	$241	4,135,399	4,917,615	11,898,847	2,500,134	na	na	na	na
1990	$261	4,425,086	5,033,776	11,982,276	2,751,551	na	na	na	na
1991	$295	4,829,317	5,425,129	12,477,926	2,560,805	na	na	na	na
1992	$313	5,280,166	5,908,000	13,870,609	2,839,650	na	na	na	na
1993	$352	5,319,760	6,950,063	15,894,404	2,808,148	na	na	na	na
1994	$378	5,111,428	6,953,400	17,564,149	3,113,072	na	na	na	na
1995	$429	5,381,717	7,070,702	18,460,000	2,954,690	na	na	na	na
1996	$477	5,749,156	7,478,764	21,088,482	3,042,767	na	na	na	na
1997	$519	5,537,260	7,184,639	21,068,314	3,101,735	na	na	na	na
1998	$677	5,466,090	6,943,780	20,297,371	3,095,347	na	na	na	na
1999	$692	5,527,478	6,768,016	19,944,556	2,959,778	na	na	na	na
2000	$743	5,332,266	6,555,299	19,900,770	3,278,291	na	na	na	na
2001	$763	4,946,487	6,075,456	18,367,961	2,984,574	na	na	na	na
2002	$840	5,147,950	5,755,782	18,662,030	3,141,212	na	na	na	na
2003	$766	5,042,756	4,570,393	18,466,756	3,429,141	na	na	na	na
2004	$820	5,318,157	4,413,702	18,352,495	3,895,578	na	$5,648	na	$758
2005	$900	5,329,931	4,377,041	22,237,936	4,062,188	na	$5,779	na	$772
2006	$921	5,165,498	4,494,990	21,557,646	4,082,094	na	$5,908	na	$785
2007	$1,006	5,445,591	4,925,277	22,044,533	4,249,190	na	$6,769	$628	$905
2008	$1,049	5,670,851	4,564,770	20,790,400	3,972,984	na	$6,925	$697	$908
2009	$909	6,002,104	4,820,930	20,432,218	4,048,153	na	$5,689	$565	$771
2010	$1,015	6,072,900	4,842,891	21,016,686	4,223,064	na	$6,317	$667	$867
2011	$1,161	6,304,838	4,803,876	20,389,474	3,826,130	na	$6,955	$731	$942
2012	$1,248	6,555,833	5,093,740	20,096,549	4,031,621	109,300	$7,318	$774	$989
2013	$1,323	6,328,040	4,063,387	20,186,474	4,148,573	110,900	$7,507	$838	$1,058
2014	$1,406	7,239,149	4,070,063	21,141,610	3,946,762	115,200	$7,805	$789	$1,097
2015	$1,571	8,369,533	4,906,625	22,141,026	4,457,575	119,700	$8,259	$770	$1,150
2016	$1,732	10,087,077	5,321,308	23,155,527	4,584,658	125,900	$8,535	$805	$1,113
2017	$1,932	10,507,960	6,350,291	24,199,351	4,145,321	129,400	$9,148	$830	$1,202
2018	$2,038	10,600,000	6,988,627	25,554,244	5,125,441	136,600	$9,745	$823	$1,277
2019	$2,130	10,682,894	7,995,641	26,808,104	4,390,831	141,500	$10,064	$812	$1,340
2020	$1,627	7,768,944	10,597,511	12,559,026	5,301,766	119,600	$7,065	$159	$1,164
2021	$2,618	11,268,247	11,636,456	22,378,989	5,829,679	130,600	$10,562	$174	$1,818
Percent Change									
2020-2021	60.9%	45.0%	9.8%	78.2%	10.0%	9.2%	49.5%	9.4%	56.2%
2019-2021	22.9%	5.5%	45.5%	-16.5%	32.8%	-7.7%	4.9%	-78.6%	35.7%
Average Annual Rate of Change									
1984-2021	7.8%	4.0%	2.7%	3.0%	2.4%	2.0%	3.8%	-8.8%	5.3%

*Dollar amounts reported in nominal dollars.

Notes: Accommodations taxable sales from 1998 to 2016 were updated February 2018.

Spending estimates by D.K. Shifflet (2004-2008), U.S. Travel Association (2009-2019); and Tourism Economics (2020-2021); includes international spending.

Tax revenue estimates provided by GOMB (2004-2008) and Kem C. Gardner Policy Institute (2009-present); new methodology employed in 2016.

Sources: National Park Service; Utah State Tax Commission; Utah Department of Transportation; Department of Workforce Services; Department of Natural Resources; Salt Lake International Airport; Ski Utah; Department of Community & Economic Development; Governor's Office of Economic Development; Kem C. Gardner Policy Institute, University of Utah; Governor's Office of Planning and Budget; Utah Office of Tourism; Utah State Parks; D.K Shiflet and Associates Ltd; U.S. Travel Association; and Tourism Economics.

Tax Modernization

25

Phil Dean, Chief Economist and Public Finance Senior Research Fellow, Gardner Institute

OVERVIEW AND OUTLOOK

In recent years, a dramatically shifting economy and tax policy changes impacted Utah's tax system. Just prior to the pandemic, the state began collecting sales and use tax revenue remitted by remote marketplace facilitators. Shortly thereafter, initial pandemic declines in economic activity led to short-term declines in some tax collections, such as sales and use taxes and fuel taxes. But as fiscal and monetary stimulus took hold and Utah's economy largely reactivated by the end of 2020, nominal tax collections increased dramatically.

This high nominal revenue growth continued through 2021 and 2022 as inflation increased to levels not experienced in four decades. Moreover, the Mountain West region experienced higher inflation than the U.S. overall.

Given high inflation, it is important to remember that a meaningful portion of this high revenue growth simply corresponds to higher inflation and population growth, while other portions represent real increases. Figure 25.1 shows real per capita tax collection for Utah's three major state and local taxes, which together generate about 90% of Utah's state and local tax revenue (income, sales, and property tax). Revenue collections will continue to be driven by both economic changes and tax policy.

Income Tax

Income tax is Utah's single largest revenue source and imposed only by the state. In Utah's tax portfolio, it combines growth and volatility. These features remained evident in recent years.

Individual and corporate income tax growth rates spiked during the pandemic. A portion of this spike relates to an income tax due date timing shift from April 15, 2020 to July 15, 2020 that shifted nearly $800 million between fiscal years, which artificially reduced FY 2020 revenues and artificially increased FY 2021 revenues. But beyond this anomaly, as Utah's economy recovered from the pandemic much earlier than most states and experienced inflation, total incomes grew significantly.

However, of the three major taxes, income taxes remain the most volatile (see Figure 25.1), so future income collections may vary from recent trends as the economy moderates.

The state cut its tax rate to 4.85% and enacted various tax credits in 2022. Major income tax policy discussions moving forward likely will include income tax credits that benefit low- and middle-income households, further reductions in the income tax rate, and the Utah Constitution's provision limiting the use of income tax revenue only to public and higher education, other services to children, and programs for people with disabilities.

Property Tax

Property tax is currently Utah's third largest revenue source and imposed only by local governments such as school districts (57% of total), cities and towns (13% of total), counties (18% of total), and other local districts like water districts (12% of total). In Utah's tax portfolio, the property tax brings stability and local fiscal control. The relative stability derives from both the nature of property and the design of Utah's tax structure. However, being more stable than income and sales taxes does not mean property tax payers experience no volatility.

In 2022, property taxes shifted from businesses to households as assessed home valuations outpaced assessed commercial valuations. Market conditions drove a sizable portion of this change (home values increased dramatically while some commercial sectors like office and retail faced headwinds), but another portion of the shift likely relates to assessment practices. Moreover, property taxes increased with the final year of statewide school property tax rate adjustment (Figure 25.2) and many entities going through the "Truth in Taxation" rate increase process, as they responded to inflationary pressures (see Figure 25.3).

Major tax policy discussions moving forward likely will include targeted programs to mitigate

regressive property tax impacts on certain taxpayers, improved property data and assessment practices for commercial property in particular, overall tax levels, and school property tax funding equalization.

Sales and Use Tax

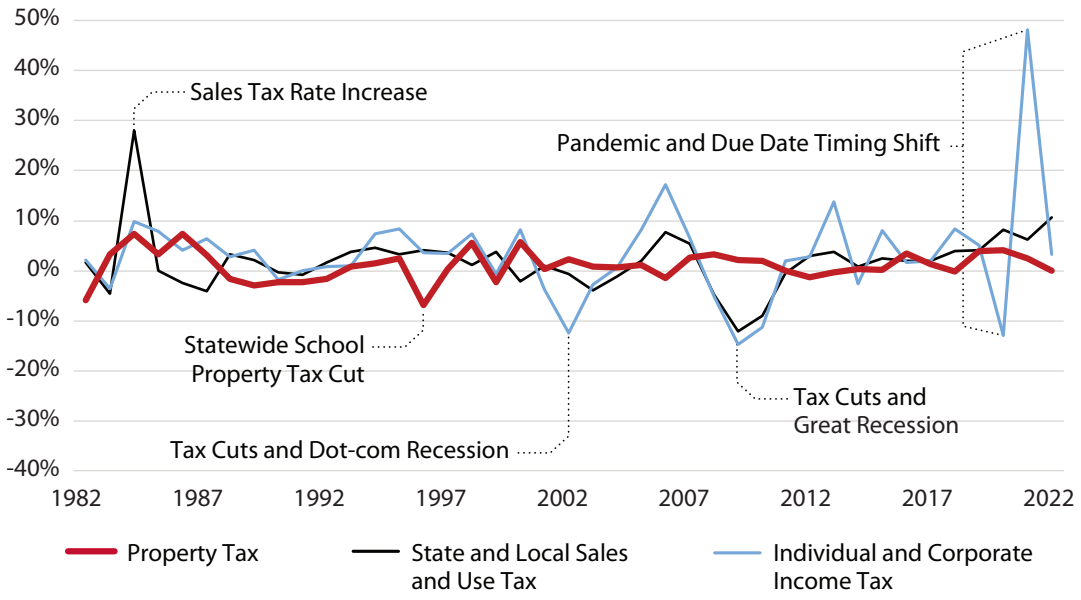
Imposed by the state and by local governments, the sales and use tax is Utah's second largest major revenue source. In Utah's tax portfolio, the sales and use tax provides growing revenue that adjusts as taxable purchases increase, but it is regressive (meaning low-income people pay a larger share of the tax as a share of income). It provides state and local discretionary General Fund revenue as well as paying for a much larger share of transportation costs than fuel taxes. Governments also use it for other purposes such as recreational facilities.

In recent years, the state collected previously-uncollected tax revenue on remote sales. Although the use tax was always due on these purchases, remote businesses did not collect and remit the tax like brick-and-mortar businesses do. Leading up to and in the aftermath of the *South Dakota v Wayfair* U.S. Supreme Court decision, more remote sellers began to collect and remit the tax to Utah. Just prior to the pandemic, the state began collecting the last sizable chunk of due-but-uncollected revenue as remote marketplace facilitators began remitting. In short, just prior to the pandemic as more buyers shifted to remote purchases, the state began to receive more of these escaped taxes.

After a brief early pandemic lull, Utah sales and use tax collections skyrocketed, growing by 13% year-over as of June 2020, and continuing strong ever since. This occurred for a variety of reasons, including early pandemic panic buying, federal fiscal stimulus, unavailability or limited availability of many normal service-sector businesses which shifted consumption from services to goods, teleworking driving more home goods purchases, increased consumption ability as households paid down and refinanced debt, and higher nominal incomes as tight labor markets increased nominal wages.

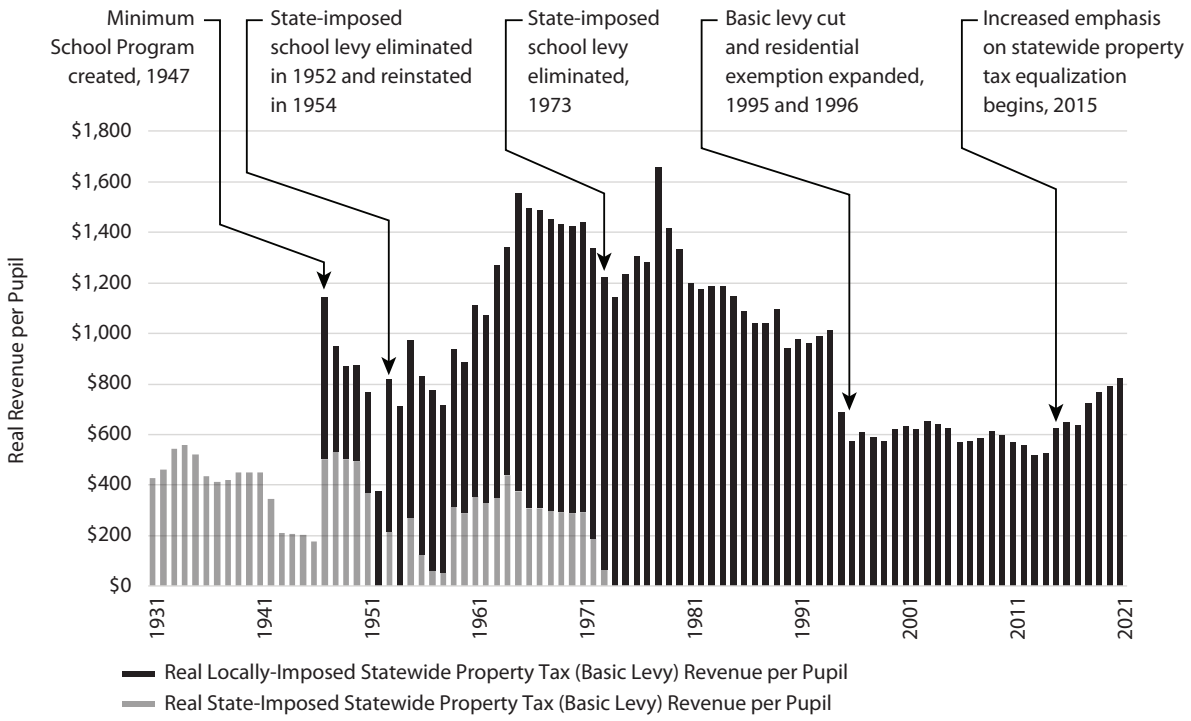
In addition to the short-term uncertainty tied to economic uncertainty, various long-term sales and use tax issues will likely remain on policymakers' minds. These include the long-term shift of the economy away from goods in favor of services, the regressive impact of continued sales and use tax rate increases for transportation, and state funding imbalances between use-restricted income taxes and to non-restricted sales and use taxes.

Figure 25.1: Year-Over Change in Real (Inflation-Adjusted) Tax Revenue per Capita for Major Utah Taxes, FY 1982–2022



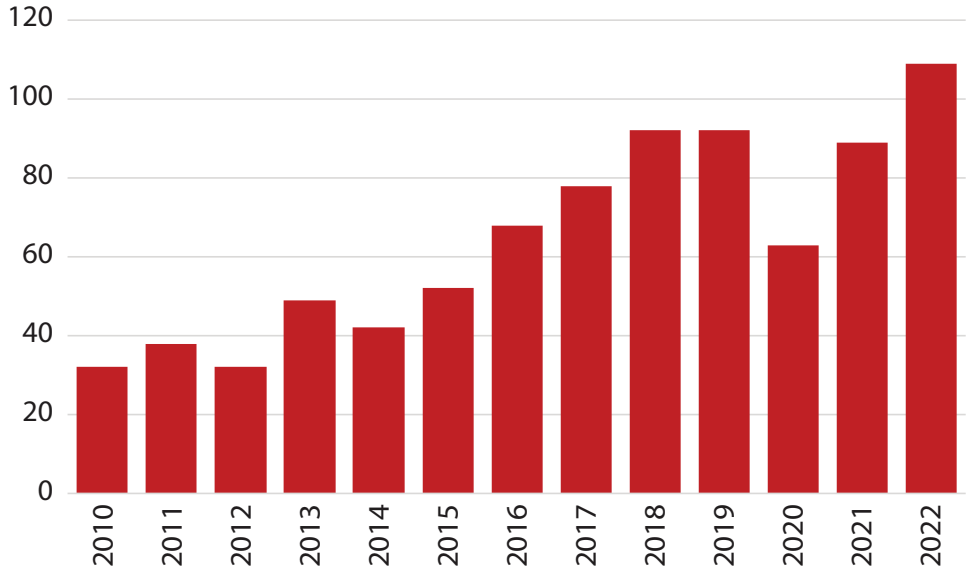
Source: Utah State Tax Commission and Kem C. Gardner Policy Institute

Figure 25.2: Real Per Pupil Basic Levy School Property Tax Revenue, 1931–2021



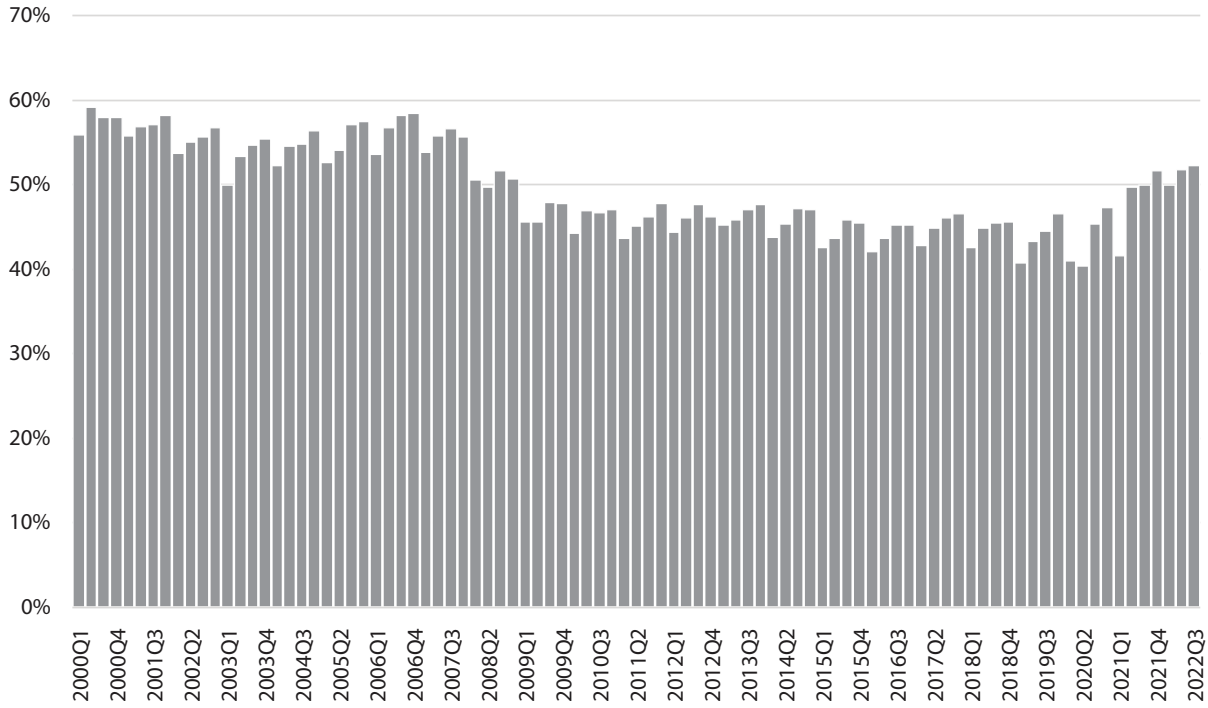
Source: Utah Superintendent's annual reports and Utah Foundation

Figure 25.3: Statewide Count of Entities Holding Truth in Taxation Hearing, 2010–2022



Source: Utah State Tax Commission

Figure 25.4 Utah Taxable Sales as a Percent of Personal Income, 1980–2022



Source: Utah State Tax Commission and U.S. Bureau of Economic Analysis

Housing Prices and Affordability

26

James A. Wood, Kem C. Gardner Policy Institute

OVERVIEW

In 2022, higher home prices and a doubling of the mortgage rate combined to erode housing affordability. Thus, homeownership has become more difficult for many of Utah's 333,000 renter households. However, for the 770,000 homeowners, rising prices in 2022 added over $50 billion in increased equity (wealth). Current homeowners can comfortably weather the affordability threat, aware that higher prices add to their wealth. But for renters and future generations of homeowners, declining affordability thwarts housing and wealth opportunities.

2022

A Sharp Increase in Interest Rates

In the wake of the pandemic's historically low mortgage rates, 30-year conventional mortgage rates reached their highest level in 20 years (see Figure 26.1). The pandemic led to a historic level of federal fiscal stimulus ($5.2 trillion) and disrupted global supply chains. Both led to accelerating inflation rates. From June 2021 to June 2022, the inflation rate increased from 5.3% to 9.0%.

In response to rapidly rising prices, the Federal Reserve raised the federal funds rate seven times from March to December, an increase of four percentage points. Interest rate increases are an often-used tool by the Federal Reserve to manage monetary policy. However, the Federal Reserve's tightening (including for mortgages) and aggressive rate increases since early 2022 caused the most abrupt and sharpest nine-month increase in mortgage rates in over fifty years. The 30-year mortgage rate average doubled from 3.5% in January 2022 to over 7.0% by late October and early November 2022. However, rates have since dropped to about 6.3% as of mid-December 2022.

Housing Price Increases Slow Down in 2022

Utah has a long history of volatile but generally increasing housing prices (see Figure 26.2). Typically, the rate of increase accelerates over several quarters, establishing a peak followed by a period of slower increases.

In the price cycles of the 1990s and 2000s, Utah led the country in housing price increases for a few quarters. Year-over prices seldom decline. However, declines have occurred, most notably during the Great Recession when year-over prices fell for 15 consecutive quarters. The current cycle growth rate peaked in the second quarter of 2021 with a year-over percentage increase of 28.3%. Only Idaho, with a 37% increase in the second quarter of 2021, exceeded Utah's year-over percentage gain. Price increases continue decelerating, slowing to a 10.7% year-over increase in the third quarter of 2022. Monthly year-over price data from UtahRealEstate.com show that since March 2022, the rate of price increases in Utah decelerated for eight consecutive months, although still slightly growing overall statewide (see Table 26.1).

High Mortgage Payment Hinders Homeownership

The rapid increase in interest rates makes homeownership more difficult for many would-be homeowners. Potential homeowners face steep financial challenges without trade-up equity from an existing home. Comparing the mortgage payment required to purchase the median-priced home in October 2021 to October 2022 best illustrates this challenge. Over 12 months, the median sales price of a single-family home in the four Wasatch Front counties rose from $522,000 to $550,000. During the same period, the 30-year mortgage interest rate increased from 3.07% to 6.90%. Driven primarily by higher interest rates, the monthly mortgage payment increased from $2,921 to $4,276, a 46% increase in a single year. Given these assumptions, the 46% increase would apply to homes at all price levels, above or below the median price.

Using the standard rule that a mortgage payment should not exceed 28% of gross income, the income required to finance the median price home jumps from $125,185 in 2021 to $183,257 in 2022.

Affordability Worsens for Renters

Compounding the affordability challenge, over the past five years, the median income of renters grew by 19% (U.S. Census Bureau) while rents in the Wasatch Front counties increased at roughly double that rate (see Table 26.3). That is, Wasatch Front rental rates grew twice as fast as renters' income. In the past year alone, rental rates in Salt Lake County increased by 9.4% and 11.6% in Weber County, with somewhat more moderate, but still high, increases in Davis County (7.3%) and Utah County (7.1%).

In the past two years, many renters received some temporary financial assistance from the Emergency Rental Assistance Program (ERAP). ERAP provided $385 million in federal assistance for Utah renter households. Authorized by the Consolidated Appropriations Act of 2021 and expanded by the American Rescue Plan Act of 2021, the assistance helps tenants unable to pay their rent or utilities due to circumstances related to the COVID-19 pandemic.

Program requirements insulate the 35,000 renter households living in Low-Income Housing Tax Credit units from rising rents. About one in eight renters in Utah live in affordable tax credit units. Rents in these units fall at least 10% below market rents, and tax credit requirements preserve unit affordability for 50 years. In the next two years, the inventory of tax credit units will increase by nearly 10% when the 3,000 units currently under construction are completed.

In addition to the tax credit program, federal Section 8 Housing Choice Vouchers provide rental assistance to about 12,000 renter households. Unfortunately, the number of renters who qualify for tax credit units and Section 8 Vouchers far exceeds the number of available units and vouchers. Consequently, in 2022 at least 50,000 Utah renter households are very low-income renters (≤50% Area Median Income[AMI]) and pay at least 50% of their income for housing and utilities. These households receive no rental assistance and live in market-rate rental units. Nearly 40,000 of these households are extremely low-income households (≤30% AMI) and pay at least 50% of their income for rent and utilities.

2023 OUTLOOK

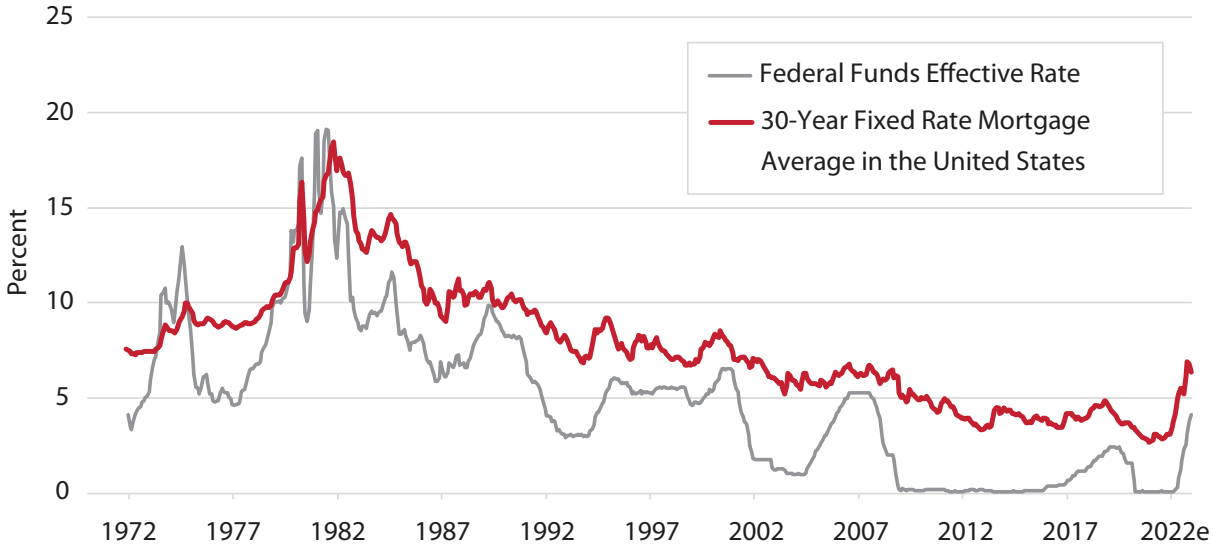
Housing prices in Utah nearly doubled in the past five years, growing much faster than incomes and overall inflation. A correction is due in 2023. In a best-case scenario, declines occur in the first and second quarters, but over four quarters, prices finish at about the 2022 level. But a year-over price decline is possible given the extraordinary 42% increase in prices from the fourth quarter of 2020 through the second quarter of 2022. Absent a serious recession and substantial job losses, the estimated worst-case scenario is a one-year price decline of 10% followed by stable prices in 2024.

In addition to a price correction, 2023 will likely feature a decline in existing home sales, builder discounts on new homes, continued upward pressure on rents, and additional state legislation addressing housing, including housing assistance for renters and potential homeowners. Finally, 2023 brings a respite from price increases, but with interest rates likely to remain above 6%, the housing market will see only marginal improvement in affordability.

About Housing Affordability

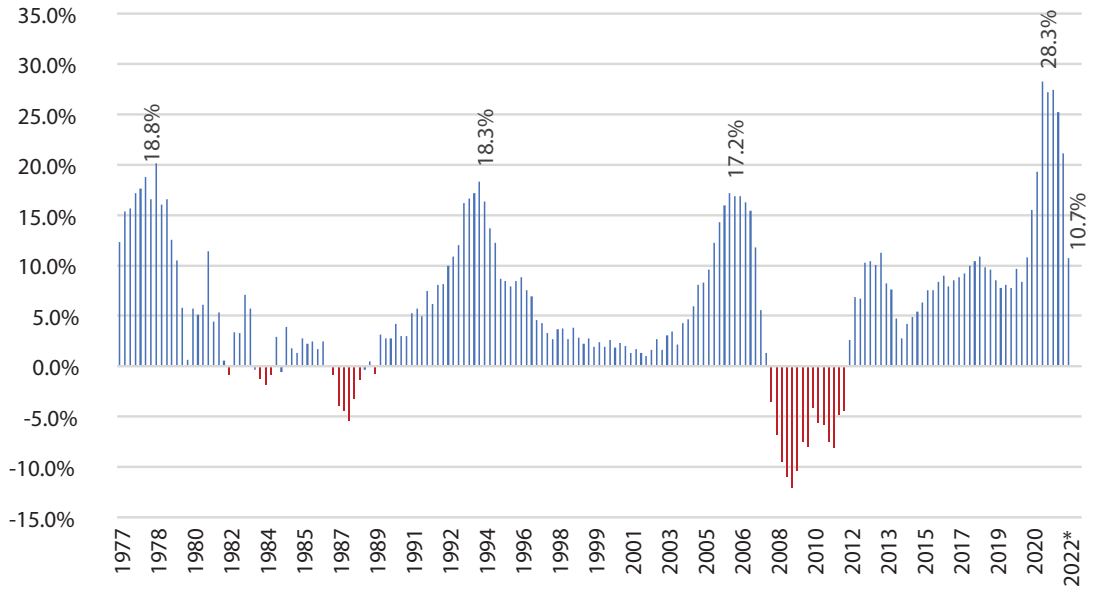
Two concepts of affordability: affordable housing versus housing affordability. Affordable housing refers to a specific type of housing, generally government-assisted rental housing targeted for very low to extremely low-income households. Housing affordability is a much broader term and refers to the general level of housing prices relative to the general level of household incomes. The term does not refer to any particular type of housing. The two concepts are not mutually exclusive or in conflict but are complementary with affordable housing being a subset of housing affordability.

Figure 26.1: 30-Year Conventional Fixed Rate Mortgage and Effective Federal Funds Interest Rates, 1972–2022e



Note: e=estimate
Source: Freddie Mac (FHLMC)

Figure 26.2: Year-Over Quarterly Nominal Increase in Housing Price Index, 1977–2022*



Note: * Data through Q3 2022
Source: Federal Housing Finance Agency

Table 26.1: Year-over Monthly Percent Increase in the Median Home Sales Price in Utah (single-family, condominium, twin home, and townhouse), 2022

2022	Year Over % Change
January	27.6%
February	28.2%
March	29.0%
April	24.4%
May	23.8%
June	17.8%

2022	Year Over % Change
July	11.6%
August	8.9%
September	6.5%
October	6.4%
November	3.2%

Source: UtahRealEstate.com

Table 26.2: Mortgage Payment for Median Price Single-Family Home in Wasatch Front Counties, October 2021 – October 2022

Category	October 2021	October 2022
Median sales price of single-family home	$522,000	$550,000
5% down payment	$26,100	$27,500
Amount to finance	$495,900	$522,500
Interest rate	3.07%	6.90%
Monthly Payments		
Principal and interest payment	$2,104	$3,421
Private mortgage insurance 1% of the loan	$413	$435
Home Insurance	$100	$100
Property tax @0.007% of home value	$304	$320
Total mortgage payment	$2,921	$4,276

Source: Kem C. Gardner Policy Institute, Freddie Mac (FHLMC), UtahRealEstate.com

Table 26.3: Average Rent in Wasatch Front Counties, 2018-2022

	2018	2021	2022	2018-2022	2021-2022
Davis	$1,060	$1,369	$1,469	38.6%	7.3%
Salt Lake	$1,153	$1,484	$1,623	40.8%	9.4%
Utah	$1,138	$1,432	$1,534	34.8%	7.1%
Weber	$864	$1,265	$1,412	63.4%	11.6%

Note: Composite average for all types of units.
Source: CBRE, The Greater Salt Lake Area Multifamily Market.

Demographic Impacts on the Labor Market 27

Mark Knold, Utah Department of Workforce Services

OVERVIEW

Throughout this nation's history, the economic labor supply has expanded with above-replacement internal population growth coupled with new in-migrants to produce an abundant labor supply. For the first time in our nation's history, that labor abundance is running out of steam.

As the nation's aging Baby Boom generation exits the labor force, in its wake is a smaller labor pool. Couple this internal labor shortfall with a recent reduction in international in-migration and the U.S. finds itself on the cusp of an economic future with a diminished labor supply. This decline dynamic is already in motion. The COVID-19 pandemic exposed the tip of that iceberg. This demographic pivot is the basis for the nation's current labor shortage. The pandemic's disruptive force exposed its emergence.

National Labor Shortage

The forces producing the nation's current labor shortfall began more than 70 years ago. It was then that the Baby Boom generation emerged. The 1960 population pyramid in Figure 27.1 shows this large Baby Boom base. At this time, the U.S. population was nearly four-to-one pre-labor-age population to retirement-age population. The Baby Boom generation was a sizeable mass, and the nation was about to experience a large injection of youthful labor.

The working-age population largely establishes the size of economic activity, which is symbolized by the national labor tree's interior vertical lines (Figure 27.1, top). Yet with that Baby Boom generation poised to age upward, both the United States and Utah economies needed to expand to absorb and employ this upcoming labor. The Baby Boom generation was poised to make both economies significantly larger.

By 1980, the Baby Boom generation had aged into the U.S. economy and the economic expansion was underway. However, economies don't expand overnight, and initially the unemployment rate was high and unskilled labor was abundant. Utah's experience differed from the nation's experience because of our population dynamics. Utah's Baby Boom generation was supplemented by large population echo booms, which were less pronounced nationally. That contrast set the stage for the nation's current labor shortage.

By 2020, the Baby Boom had stretched the U.S. economy to its fullest extent (see the outer lines in Figure 27.1 that indicate it was destined to establish as viewed from 1960). But in order to maintain the economy at this expanded size upon the Baby Boom's departure, there must be a sufficient trailing quantity of youthful labor.

An economy's size is correlated with the available labor-force size. With sufficient additional labor, an economy can grow. Conversely, an insufficient labor supply will pressure an economy to contract. If more labor ages out than in, the labor supply reduces. When such occurs, the initial stage is announced with a low-skill labor shortage. The backfill is insufficient. This is currently the case in the United States. The pandemic aggressively made this announcement.

Population Components

The overall United States population has largely reached no growth (Figure 27.2). Recently, the United States Census Bureau reported that the nation's population only grew by 0.1% in 2021, "the slowest rate since the founding of the nation."[1] Corresponding with the Baby Boom generation's aging, the nation's annual deaths are about to outpace annual births. That combination results in population decline. Congruently, international in-migration has turned downward since 2016. Therefore, there is no counter from the outside to override the population decline from the inside.

1 US Census Bureau, https://www.census.gov/library/stories/2021/12/us-population-grew-in-2021-slowest-rate-since-founding-of-the-nation.html.

Baby Boom Generation Still Influencing the Economy

The size of the Baby Boom generation pushed the United States' labor market and economic output to an historical peak. A labor shortfall was destined to arrive once that generation started to exit from the economy's *production* side. Many exiting boomers are still around and spending money, sustaining the economy's *consuming* side. But economic production needs to support economic consumption. In growing numbers, boomers are no longer contributing to production yet are still pushing economic consumption. When demand (consumption) outpaces supply (production), a production (labor) shortage emerges. The pandemic pulled back the curtain upon this drama.

OUTLOOK

Given the factors outlined, national labor shortages are likely to continue. In the past, "labor shortages" were spoken of only in the labor hierarchy's higher and specialized-skill segments. "Offer better wages" was the prescribed solution. That worked when there was an ever-growing supply of additional labor. But with ancillary labor now drying up, the labor-shortage narrative has descended to the labor hierarchy's lowest-skilled arena, a segment where bodies and not dollars are the solution.

Labor is a churning reservoir. It follows the money upward. This nation has always found an adequate supply of low-skilled labor to backfill this upward kinesis. The United States' current demographic profile implies that such a backfill will lessen with time and shortly regress. Professionals will not be in short supply; manual and service laborers will. Labor shortages have rapidly descended from the labor-tree's higher branches to its lower, even affecting the roots. Options are before us. They will be determined by the nation's collective approach.

Figure 27.1: Utah and U.S. Population by Age and Sex, 1960, 1980, and 2020

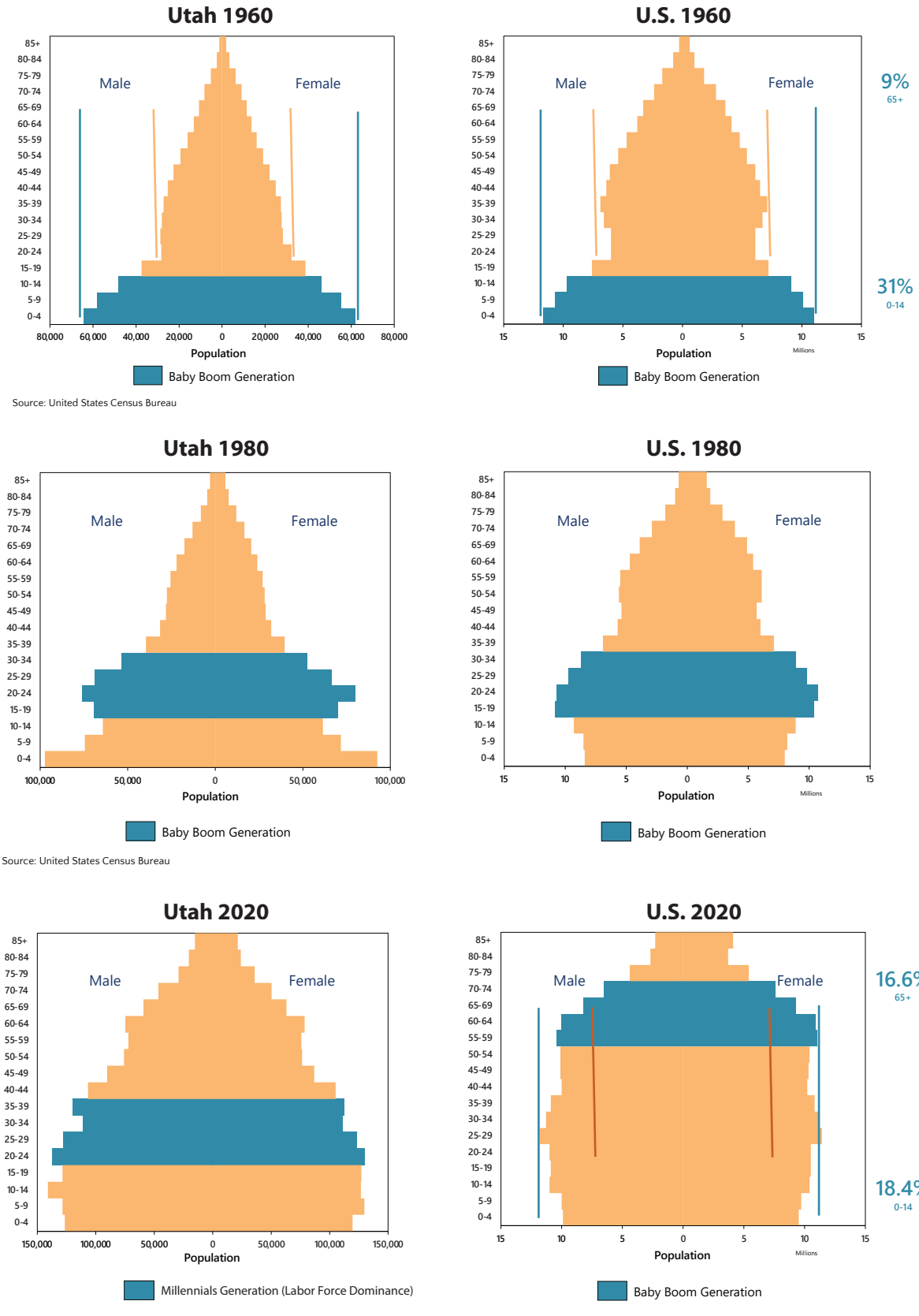
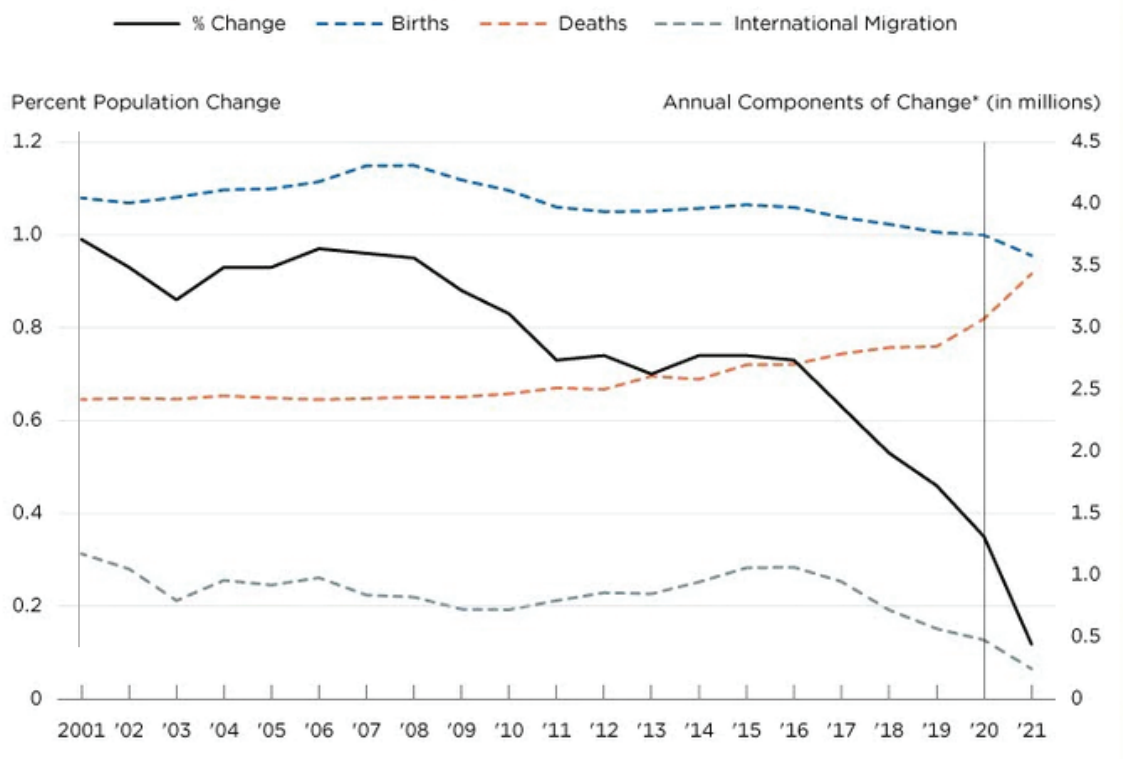


Figure 27.2: U.S. Population Change and the Components of Change 2001-2021



* Components of change include births, deaths, and net international migration.
Note: Only data to the right of the line are from Vintage 2021.
Source: United States Census Bureau