

Race and Ethnicity in the 2021 Wasatch Front Labor Force: An Equal Employment Opportunity Analysis

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Overview

Current data reveals 22.5% of Utahns identify as racial minorities, rising 3.1% from 2020 to 2021.¹ This is a faster increase than the comparable 1.7% year-over growth rate of the total population. Racial and ethnic diversity continues to increase across the nation and in Utah. The extent of this diversity varies significantly by neighborhood, community, and county. For example, racial or ethnic minority identification in the Wasatch Front region is 1 in 4 at 25.5%, while in Salt Lake County it is 30.4%.

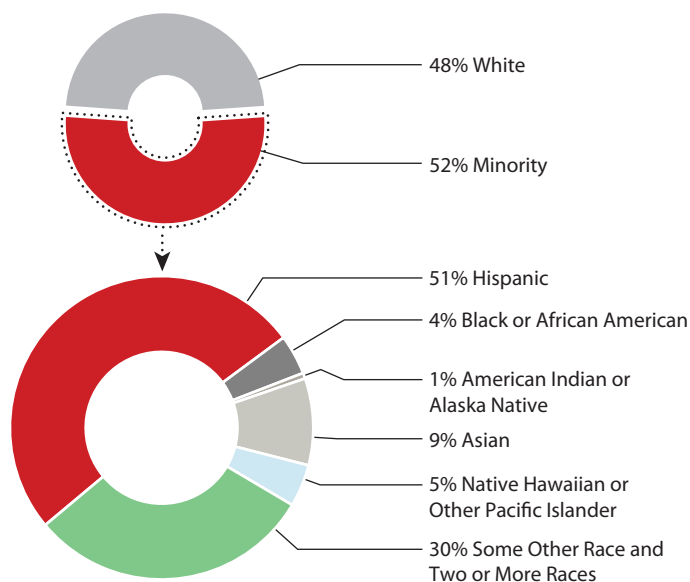
These demographic trends also influence the composition of the regional labor market and raise interesting questions. What is the demographic composition of the Wasatch Front labor force? How are people of different races and genders distributed across occupations? How has this changed over time? This report helps answer these questions by identifying under and over-representation in eight occupational groupings by race, ethnicity and gender for the Wasatch Front region.

The Wasatch Front labor force is gradually becoming more diverse as the shares of all minority groups but two (American Indian and Black or African American) are increasing. The composition of the labor force differs from the racial and gender composition of the entire Wasatch Front population:

- Racial minorities are most underrepresented in the Professionals and Officials & Administration categories,
- Whites are most underrepresented in the Service Maintenance and Skilled Craft categories,
- Women are especially underrepresented in the Skilled Craft and Protective Services categories, and
- Males are significantly underrepresented in the Paraprofessionals and Administrative Support categories.

Each occupation requires a particular skill set, education, and investment of monetary and social capital. These patterns are consistent with prevailing social and cultural expectations and outcomes. Local governments, cities, counties, and businesses can use this material to inform hiring and employment practices and initiatives.

Figure 1: Share of Growth by Race and Ethnicity in Utah, 2010-2020



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

Race and Ethnicity Categories

These particular race and ethnicity categories, defined by the Office of Management and Budget (OMB) in 1997, are the required standard for federal statistical agencies. The categories include White, Black or African American, American Indian or Alaska Native, Asian, and Native Hawaiian or Other Pacific Islander. Race is a self-identification determination, and people may choose more than one category. The “Two or More” category includes those identifying with multiple race groups.

When discussing racial groups, this document refers to people who identify as non-Hispanic, single-race (i.e., White, Asian, Native Hawaiian and Pacific Islander), or Two or More Races. The Hispanic category includes individuals of any race that also identified as Hispanic or Latino. Additionally, this report uses the term minority to refer to those identifying as Hispanic or Latino or any race category other than non-Hispanic White.

How is Utah and the Wasatch Front Population Diversifying?

The State of Utah, 2010-2020

Utah was the fastest growing state in the nation from 2010 to 2020 at 18.4%, and over half of that growth (52%) occurred in minority populations.² In 2010, 1 in 5 Utahns identified as minority, increasing to 1 in 4 Utahns in 2020.

The Hispanic or Latino population, the second largest racial and ethnic group in Utah, grew by 37.6% and grew its share of the population from 13% in 2010 to 15% in 2020. The fastest growing racial and ethnic group was the Two or More Races or Some Other Race Group, growing by 152% and accounting for 15.8% of the total population growth from 2010-2020 (see Figure 1).

The State of Utah, 2018-2021

Growth across Utah's minority populations was 9.4% from 2018 to 2021, more than twice the 4.5% growth rate of the White population. Since 2018, the Native Hawaiian or Pacific Islanders and Two or More Races populations grew most rapidly, with 13.8% and 14.4% growth respectively, while the Asian and American Indian populations grew least rapidly at 4.1% and 3.7% (see Table 1).³

These growth patterns should continue for several reasons: current migration trends, differing fertility rates across race and ethnicity groups, changes in how individuals racially self-identify, and varying age structure differences between races.^{4,5,6}

There are regional and community differences in these demographic characteristics and dynamics within Utah. Urban counties tend to be more diverse than rural counties, except for counties containing Native American reservations such as San Juan County. The remainder of this report will focus on the Wasatch Front region, Utah's most populous urban area.

The Wasatch Front, 2021

The Wasatch Front region contains three-quarters of the state population, and for this analysis includes Davis, Salt Lake, Summit, Tooele, Utah, Wasatch and Weber counties. Minority populations are 24% of the Wasatch Front region, slightly more diverse than the state. This share varies significantly among Wasatch Front counties.

Salt Lake is the most diverse county in the Wasatch Front, with 30% of the population identifying as a minority, while Weber County follows closely at approximately 25%. Between 19% and 16% of Utah, Davis, Summit, Wasatch and Tooele identify in a minority population group, which is lower than the average state share. See Table 2 for the racial shares of each county in the Wasatch Front region, the region as a whole, and the state.

Why do the 2020 Census numbers differ from the 2021 Census Bureau Population Estimates?

The 2020 Census counts for race and ethnicity are not consistent with the most recent 2021 Census Bureau population estimates used in this report. This is due to a few reasons:

- 1) Until more complete Census 2020 data is released, Census Bureau population estimates "are developed from a base population that combines estimates from Vintage 2020 and 2020 Demographic Analysis with total population from the 2020 Census; no race or Hispanic origin data from the 2020 Census were used in the development of the Vintage 2021 estimates series".⁷
- 2) Census 2020 race and ethnicity reporting includes an additional race category not used in the population estimates: Some Other Race.
- 3) Census Bureau population estimates use a technique called "race-bridging" which assigns those in the Some Other Race category from the decennial Census into the traditional OMB race categories.

Table 1: Total Utah Population and Cumulative Change by Race and Ethnicity, 2018-2021

	Total Population		Change from 2018 to 2021	
	July 1, 2018	July 1, 2021	Absolute	Percent
Total Population	3,161,105	3,337,975	176,870	5.6%
White	2,466,025	2,577,888	111,863	4.5%
Minority	695,080	760,087	65,007	9.4%
Hispanic	450,218	493,636	43,418	9.6%
Black or African American	36,307	39,687	3,380	9.3%
American Indian or Alaska Native	29,910	31,014	1,104	3.7%
Asian	81,356	84,651	3,295	4.1%
Native Hawaiian or Pacific Islander	30,824	35,066	4,242	13.8%
Two or More Races	66,465	76,033	9,568	14.4%

Note: Individuals claiming Hispanic, Latino, or Spanish origin are categorized as Hispanic and can be of any race. Non-Hispanic persons are also classified as a single race alone—White, Black or African American, American Indian or Alaska Native, Asian, Native Hawaiian or Pacific Islander—or as two or more races.

Source: Kem C. Gardner Policy Institute analysis of Census Bureau 2018 Vintage Estimates and 2021 Vintage Estimates

Table 2: Race and Ethnicity Shares of Total Population, Wasatch Front Counties, Region Total, and State, 2021

	White	Black	American Indian or Alaska Native	Asian	Native Hawaiian or Pacific Islander	Two or More Races	Hispanic	Minority
Davis	82.3%	1.2%	0.5%	2.0%	0.8%	2.4%	10.7%	17.7%
Salt Lake	69.6%	1.8%	0.7%	4.4%	1.8%	2.5%	19.3%	30.4%
Summit	84.4%	0.8%	0.3%	2.0%	0.1%	1.6%	10.9%	15.6%
Tooele	80.6%	0.8%	0.8%	0.7%	0.9%	2.0%	14.2%	19.4%
Utah	80.9%	0.6%	0.5%	1.8%	0.9%	2.6%	12.7%	19.1%
Wasatch	82.8%	0.6%	0.3%	1.1%	0.2%	1.2%	13.9%	17.2%
Weber	75.4%	1.3%	0.5%	1.4%	0.3%	2.2%	18.8%	24.6%
Region Total	75.6%	1.3%	0.6%	2.9%	1.2%	2.4%	16.0%	24.4%
State Total	77.2%	1.2%	0.9%	2.5%	1.1%	2.3%	14.8%	22.8%

Note: Individuals claiming Hispanic, Latino, or Spanish origin are categorized as Hispanic and can be of any race. Non-Hispanic persons are also classified as a single race alone—White, Black or African American, American Indian or Alaska Native, Asian, Native Hawaiian or Pacific Islander—or as two or more races.

Source: Kem C. Gardner Policy Institute analysis of Census Bureau 2021 Vintage Estimates

Salt Lake County is the economic powerhouse of the state, containing almost half of Utah’s jobs.⁸ It also has Utah’s flagship university, state capital, headquarters to a global religion, and a wealth of cultural and commercial assets. Utah County is much less diverse despite having two major universities and rapidly growing employment around the Silicon Slopes tech corridor. The projected growth in Utah County over the next 50 years has the potential to add not only more people, but also more diversity to the area.

Weber County has similar, yet smaller in scale, employment opportunities, public infrastructure, and Weber State University, that promotes and supports diverse communities. Davis, Summit, Wasatch and Tooele counties, while providing local employment, are commuter counties with strong employment ties to Salt Lake, Utah, and Weber counties.

Salt Lake has a higher share of Asian residents (4.4%) compared to other Wasatch Front counties (and 61% of the state’s Asian population). Salt Lake and Weber counties have the highest proportion of Hispanic or Latino residents in the Wasatch Front region (19%). Salt Lake also has the highest concentration of Native Hawaiian or Pacific Islander residents in the state (59% of this population live in Salt Lake County).

What Do These Trends Mean for the Wasatch Front Labor Force and Occupations?

An increasingly diverse population results in an increasingly diverse workforce. However, the different age structures, particularly younger racial and ethnic minorities and older white populations, translate into a slightly less diverse workforce compared to the total population. Eventually, the younger minority population will age and be eligible to join the labor force.

This report updates current racial and ethnic and gendered distributions across occupational categories. This analysis combines the current Census Bureau age, sex, and race and

ethnicity population estimates with the American Community Survey 2014-2018 Equal Employment Opportunity Tabulation occupational data.

The Study Area

This analysis defines the Wasatch Front region as the labor force region for Salt Lake County employers. The Salt Lake City workforce is composed of 67% Salt Lake County residents, and 33% from outside the county, including the following six surrounding counties: Davis, Summit, Tooele, Utah, Wasatch and Weber.⁹ This aggregation of geographies makes this analysis useful for any employer within the Wasatch Front, not just Salt Lake City.

Occupational Classifications

Occupations are defined by the EEO-4 survey job classification list, used at the state and local government levels.¹⁰ These include:

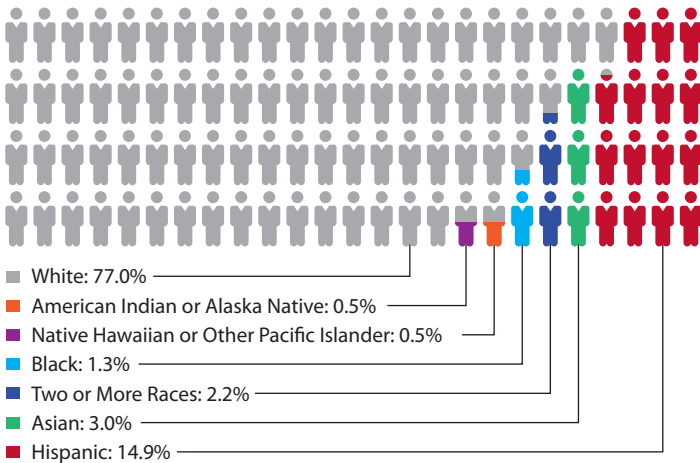
- 1. Officials and Administrators
- 2. Professionals
- 3. Technicians
- 4. Protective Services
- 5. Paraprofessionals
- 6. Administrative Support
- 7. Skilled Craft
- 8. Service Maintenance

The methodology section at the end of the report provides additional information about these data and methods.

Current Patterns

Figure 2 displays the 2021 racial and ethnic proportions of the combined counties’ labor force. The Wasatch Front labor force is slightly less diverse than the total population, with 77% identifying as White compared to 76% of the total Wasatch Front population. This pattern makes demographic sense because most minority populations are younger than their white counterparts.

Figure 2: Total Wasatch Front Civilian Labor Force by Race and Ethnicity, 2021



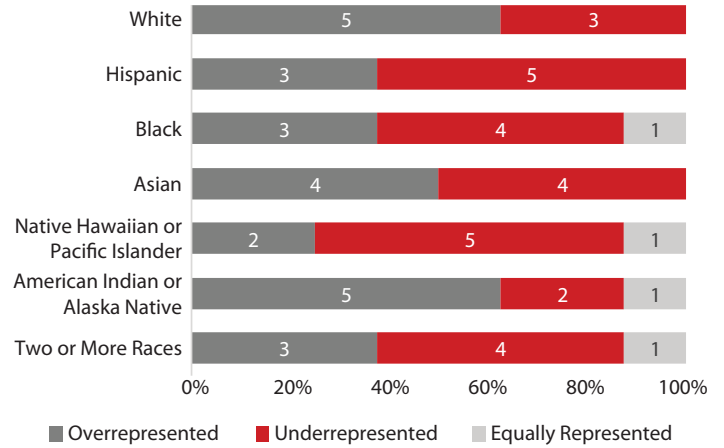
Note: Individuals claiming Hispanic, Latino, or Spanish origin are categorized as Hispanic and can be of any race. Non-Hispanic persons are also classified as a single race alone—White, Black or African American, American Indian or Alaska Native, Asian, Native Hawaiian or Pacific Islander—or as two or more races.

Source: Kem C. Gardner Policy Institute analysis of Census Bureau 2021 Vintage Estimates and ACS EEO Tabulation (2014-2018)

Table 3 shows the current occupational supply distributions for the combined Wasatch Front region counties by race, ethnicity, and sex. The red and green highlights indicate whether each race or gender is underrepresented or overrepresented in each occupation compared to the overall labor force make-up. For example, the White population is over-represented in the Officials and Administrators occupation (85.1%) compared to the Total Civilian Labor Force (77.0%), so the White category is highlighted green, while the other races in the same row are highlighted red.

Figure 3 summarizes the number and percentage of over, under, and equal representation of each race across the eight different occupation types. The White population is over-represented in all occupations except for Technicians, Skilled Craft, and Service Maintenance. The American Indian or Alaska Native population has the least amount of underrepresentation of minorities across occupations, while the Hispanic or Latino and Native Hawaiian or Pacific Islander populations tie for the most underrepresented (across five different occupations).

Figure 3: Count and Percent of Racial and Ethnic Over, Under, and Equal Representation in Occupations, 2021



Note: Individuals claiming Hispanic, Latino, or Spanish origin are categorized as Hispanic and can be of any race. Non-Hispanic persons are also classified as a single race alone—White, Black or African American, American Indian or Alaska Native, Asian, Native Hawaiian or Pacific Islander—or as two or more races.

Source: Kem C. Gardner Policy Institute analysis of Census Bureau 2021 Vintage Estimates and ACS EEO Tabulation (2014-2018)

How does 2021 compare to 2018?

Table 4 compares the 2018 analysis and this year’s analysis with the benchmarked 2021 data. The red and green highlights indicate whether a race or sex increased or decreased its share of that occupation since 2018.

The Hispanic or Latino population continues to slowly increase their share of the total workforce by 0.5 percentage points, while the White population has decreased their share of the workforce by about 1 percentage point since 2018. The most substantial increases for the Hispanic or Latino population were in the Service Maintenance and Skilled Craft occupational categories. The Two or More Races population not only increased as a share of the total workforce, but also increased as a share in all professions.

The Black or African American and American Indian or Alaska Native populations did not change their share of the workforce since 2018, but the Asians and Native Hawaiian or Pacific Islander populations experienced both increases and decreases in their share of different occupations. Percentage changes tell a story of both increases and decreases for different racial and ethnic categories as a share of the labor force. The Wasatch Front’s labor force is growing in total and across all racial and ethnic groups.

Table 3: Occupational Distributions - By Sex, Race, and Ethnicity

ACS 2014-2018 EEO Data Rebenched to Census Vintage 2021

Sex	Total	White	Hispanic	Black	Asian	NHPI	AIAN	Two or More Races
Total Civilian Labor Force								
Total	100.0%	77.0%	14.9%	1.3%	3.0%	1.1%	0.5%	2.2%
Male	55.8%	42.9%	8.5%	0.8%	1.5%	0.6%	0.3%	1.2%
Female	44.2%	34.0%	6.4%	0.5%	1.5%	0.5%	0.2%	1.0%
Officials and Administrators								
Total	100.0%	85.1%	7.7%	1.0%	1.9%	0.9%	0.4%	2.0%
Male	64.1%	55.6%	4.3%	0.6%	1.5%	0.5%	0.2%	1.2%
Female	35.9%	29.6%	3.4%	0.4%	0.4%	0.4%	0.2%	0.8%
Professional								
Total	100.0%	86.1%	5.7%	0.7%	1.2%	1.5%	0.2%	2.1%
Male	52.7%	45.5%	2.8%	0.4%	0.7%	0.9%	0.1%	1.1%
Female	47.2%	40.6%	3.0%	0.3%	0.5%	0.6%	0.1%	1.0%
Technicians								
Total	100.0%	68.0%	21.6%	1.3%	5.0%	1.8%	0.7%	2.2%
Male	57.2%	39.1%	12.5%	0.7%	2.2%	0.9%	0.5%	1.1%
Female	42.8%	28.8%	9.1%	0.5%	2.8%	0.9%	0.2%	1.1%
Protective Services								
Total	100.0%	85.0%	8.2%	1.1%	2.2%	0.3%	0.9%	2.3%
Male	76.6%	65.5%	6.4%	0.8%	1.1%	0.2%	0.7%	1.5%
Female	23.5%	19.5%	1.8%	0.3%	1.1%	0.1%	0.2%	0.8%
Paraprofessionals								
Total	100.0%	77.1%	13.4%	1.7%	4.3%	0.9%	0.9%	2.9%
Male	27.1%	21.1%	2.8%	0.8%	1.0%	0.3%	0.3%	0.8%
Female	72.9%	56.0%	10.6%	1.0%	3.3%	0.5%	0.6%	2.1%
Administrative Support								
Total	100.0%	79.8%	12.9%	1.4%	2.7%	0.8%	0.5%	2.1%
Male	42.2%	34.1%	5.0%	0.7%	0.9%	0.3%	0.2%	1.0%
Female	57.8%	45.7%	7.8%	0.6%	1.8%	0.5%	0.3%	1.2%
Skilled Craft								
Total	100.0%	68.8%	25.5%	1.0%	3.5%	0.5%	0.7%	1.6%
Male	92.2%	64.2%	23.2%	0.9%	2.7%	0.4%	0.6%	1.4%
Female	7.8%	4.6%	2.3%	0.1%	0.8%	0.1%	0.1%	0.1%
Service Maintenance								
Total	100.0%	64.8%	26.2%	1.8%	3.9%	1.1%	0.7%	2.3%
Male	63.6%	41.6%	16.4%	1.3%	2.1%	0.6%	0.5%	1.5%
Female	36.4%	23.2%	9.9%	0.5%	1.8%	0.5%	0.2%	0.8%

Source: Kem C. Gardner Policy Institute Analysis of U.S. Census Bureau Data (ACS 2014-2018 EEO Tabulation and 2021 Vintage Population Estimates)

- Denotes under-representation compared to Total Civilian Labor Force distribution
- Denotes over-representation compared to Total Civilian Labor Force distribution

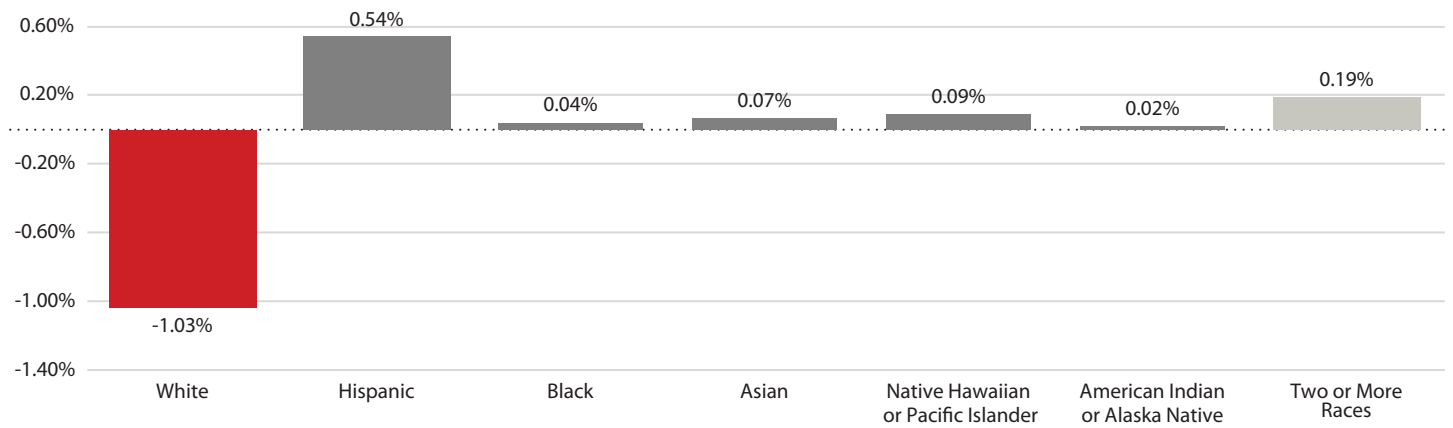
Table 4: Occupational Distributions - By Sex, Race, and Ethnicity
 Census Vintage 2021 Rebenched Results minus ACS 2014-2018 EEO Data

Sex	Total	White	Hispanic	Black	Asian	NHPI	AIAN	Two or More Races
Total Civilian Labor Force								
Total	0.0%	-1.0%	0.5%	0.0%	0.1%	0.1%	0.0%	0.2%
Male	0.0%	-0.6%	0.3%	0.0%	-0.0%	-0.0%	0.1%	0.1%
Female	0.0%	-0.5%	0.2%	0.0%	0.1%	0.1%	-0.0%	0.1%
Officials and Administrators								
Total	0.0%	-1.1%	0.3%	0.0%	-0.6%	0.2%	0.1%	0.2%
Male	0.0%	-0.7%	0.2%	0.0%	0.1%	0.1%	-0.0%	0.1%
Female	0.0%	-0.4%	0.1%	0.0%	-0.8%	0.1%	0.1%	0.1%
Professional								
Total	0.0%	-1.2%	0.2%	0.0%	-2.9%	1.1%	-0.0%	0.2%
Male	0.0%	-0.6%	0.1%	0.0%	-1.7%	0.7%	-0.0%	0.1%
Female	0.0%	-0.5%	0.1%	0.0%	-1.2%	0.4%	0.0%	0.1%
Technicians								
Total	0.0%	-0.9%	0.8%	0.0%	0.0%	0.6%	-0.2%	0.2%
Male	0.0%	-0.5%	0.5%	0.0%	-0.2%	-0.0%	0.1%	0.1%
Female	0.0%	-0.4%	0.3%	0.0%	0.3%	0.6%	-0.3%	0.1%
Protective Services								
Total	0.0%	-1.1%	0.3%	0.0%	1.4%	-1.3%	0.5%	0.2%
Male	0.0%	-0.9%	0.2%	0.0%	0.6%	-1.1%	0.5%	0.1%
Female	0.0%	-0.3%	0.1%	0.0%	0.7%	-0.2%	0.0%	0.1%
Paraprofessionals								
Total	0.0%	-1.0%	0.5%	0.1%	2.0%	-0.8%	0.1%	0.2%
Male	0.0%	-0.3%	0.1%	0.0%	0.2%	-0.2%	0.1%	0.1%
Female	0.0%	-0.8%	0.4%	0.0%	1.8%	-0.6%	0.0%	0.2%
Administrative Support								
Total	0.0%	-1.1%	0.5%	0.0%	0.5%	-0.1%	0.0%	0.2%
Male	0.0%	-0.5%	0.2%	0.0%	0.2%	-0.0%	0.0%	0.1%
Female	0.0%	-0.6%	0.3%	0.0%	0.3%	-0.1%	0.0%	0.1%
Skilled Craft								
Total	0.0%	-0.9%	0.9%	0.0%	2.0%	-0.8%	0.1%	0.1%
Male	0.0%	-0.9%	0.8%	0.0%	1.6%	-0.8%	0.2%	0.1%
Female	0.0%	-0.1%	0.1%	0.0%	0.4%	-0.0%	-0.1%	0.0%
Service Maintenance								
Total	0.0%	-0.9%	1.0%	0.1%	0.8%	-0.3%	0.1%	0.2%
Male	0.0%	-0.6%	0.6%	0.0%	0.4%	-0.4%	0.2%	0.1%
Female	0.0%	-0.3%	0.4%	0.0%	0.4%	0.1%	-0.1%	0.1%

Source: Kem C. Gardner Policy Institute Analysis of U.S. Census Bureau Data

Denotes decrease in share
 Denotes increase in share

Figure 4: Percentage Point Change in Wasatch Front Racial and Ethnic Workforce Composition, 2018-2021



Note: Individuals claiming Hispanic, Latino, or Spanish origin are categorized as Hispanic and can be of any race. Non-Hispanic persons can be classified as a single race alone—White, Black or African American, American Indian or Alaska Native, Asian, Native Hawaiian or Pacific Islander—or as two or more races.
Source: Kem C. Gardner Policy Institute analysis of Census Bureau 2021 Vintage Estimates and ACS EEO Tabulation (2014-2018)

Conclusion

The Hispanic or Latino and Two or More Races populations are the most rapidly growing race and ethnicity groups in the Wasatch Front labor force. There is slight growth in the Asian and Native Hawaiian or Pacific Islander population categories that, while growing much slower, are becoming a larger share of the Wasatch Front labor force and labor market area.

Utah and the Wasatch Front’s increasing diversity translates to an increasingly diverse labor force. Regional employers benefit by understanding these changing demographics and developing practices that support and provide opportunities for the changing local population.

Methodology

Definition of Terms

Study Area

This study focuses on the civilian workforce that work (but not necessarily live) in Salt Lake County. The Salt Lake County civilian workforce is 67% Salt Lake County residents, and 33% from outside the county, including the following six surrounding counties: Davis, Summit, Tooele, Utah, Wasatch, and Weber.¹¹ This percentage is down from 70% Salt Lake County residents in 2010.

Race and Ethnicity Grouping

In this study, we estimate the labor force for males, females, and total population for the following mutually exclusive and exhaustive racial and ethnic groups provided by the most recent data:¹²

1. White (alone, not Hispanic)
2. Hispanic or Latino
3. Black or African American (alone, not Hispanic)
4. Asian (alone, not Hispanic)
5. Native Hawaiian or Other Pacific Islander (alone, not Hispanic)
6. American Indian or Alaska Native (alone, not Hispanic)
7. Two or More Races, (not Hispanic)

Occupational Classification

We utilize the EEO-4 Survey job classification list typically used at the state and local government level.¹³

1. Officials and Administrators
2. Professionals
3. Technicians
4. Protective Services
5. Paraprofessionals
6. Administrative Support
7. Skilled Craft
8. Service Maintenance

All but one of the EEO-4 job classifications are explicitly measured in the available data. The data do not categorize any occupations as Paraprofessionals, which creates some ambiguity on how to classify this job category.

The EEO-4 Form 164, used as a submission guide for state and local governments, provides descriptions and examples of each occupational classification.¹⁴ Using the Paraprofessionals descriptions and examples, we searched the ACS 2014-2018 EEO Tabulation for all job category examples under Paraprofessionals and used the occupational categories available. In the future, it would be helpful to understand how Salt Lake City determines their Paraprofessional categories. We could then align our definitions and occupations consistently with Salt Lake City.

We included the following occupations in the measurement of Paraprofessional:

- Life, physical, and social science technicians (2018 SOC Code 19-4000)
- Counselors, social workers, and other community and social service specialists (2018 SOC Code 21-10XX)
- Teaching assistants (2018 SOC Code 25-9040)
- Nursing, psychiatric, and home health aides (2018 SOC Code 31-1100)
- Occupational therapy and physical therapist assistants and aides (2018 SOC Code 31-2000)
- Childcare workers (2018 SOC Code 39-9011)
- Other personal care and service workers (2018 SOC Code 39-YYYY)
- Information and record clerks, except customer service representatives (2018 SOC Code 43-4XXX)
- Other motor vehicle operators (2018 SOC Code 53-30XX)

Procedure

Data

The updated Availability Analysis utilizes two main data sources: the ACS EEO Tabulation (2014-2018) and the U.S. Census Bureau Population Estimates, Vintage 2021.

ACS EEO Tabulation (2014-2018)¹⁵

The American Community Survey (2014-2018) is based on a sample interviewed from January 1, 2014 through December 31, 2018.¹⁶ The ACS is a national sample of roughly 15 million housing units over five years (producing an estimate that describes a 5-year period). It replaced the 2000 Census long-form data which sampled roughly 1-in-6 housing units and was a point estimate. Due to the target sampling rate of Utah (2.8%), all ACS estimates include a margin of error and confidence interval to interpret these data. However, the ACS is the only provider of EEO tabulations and thus used in the analysis. We do not include confidence intervals in this report.

The “2014-2018 State and Local Government Job Groups by Sex, and Race/Ethnicity for Residence Geography, Total Population” provided the occupational distributions by sex and race/ethnicity for each job classification except for Paraprofessionals. To obtain the specific occupations within the Paraprofessionals category, we used the “Detailed Census Occupation” data which allows one to search by occupation.

A limitation of this dataset is that some counties have a small number of employees in specific occupations. The ACS combines these into “County-sets” that result in more meaningful estimates. Summit County falls into this category. Summit is included in the Summit-Wasatch county-set, and thus Wasatch County is also included in this availability analysis.

U.S. Census Bureau Population Estimates, Vintage 2021

The postcensal estimates produced by the Census Bureau are annual estimates of populations at the national, state, and county levels for each year following the decennial enumeration. Each year, the Census Bureau releases a new vintage which produces updated estimates from July 1, 2020 to the current year.¹⁷ The July 1, 2021 estimates from the 2021 vintage were used to benchmark the 2014-2018 EEO estimates to the current racial and ethnic makeup of the different occupations. The 2021 analysis holds the 2014-2018 ACS EEO Tabulation occupational distribution by sex constant within any race or ethnic group.¹⁸

Basic Algorithm

The 2014-2018 occupational supply distributions for the study area by sex, race, and ethnicity are based on the following equations:

$$\frac{Labor\ Force_{r,e}}{Labor\ Force\ Eligibles_{r,e}} = Participation\ Rate_{r,e}$$

$$\frac{Occupations_{s,r,e}}{Labor\ Force_{s,r,e}} = Occupational\ Participation\ Rate_{s,r,e}$$

In these equations, *s* is sex, *r* is race, and *e* is ethnicity. We only include the civilian (non-military) labor force. All of the underlying distributions necessary for these computations are available in the ACS 2014-2018 EEO tabulation data and the U.S. Census Bureau Population Estimates, Vintage 2021.

Updated EEO Procedure

This study uses the July 1, 2021 Census Bureau vintage population estimates for the aggregated study area to benchmark the 2014-2018 Occupational Supply Distributions. Updated racial and ethnic counts by county and labor force eligibles were multiplied and then additionally multiplied by the 2018 labor force participation rate (derived from the EEO tabulation) to supply an updated 2021 labor force count. Next, the 2021 labor force by race and ethnicity was multiplied by the 2018 occupational participation rate to give a benchmarked 2021 occupational supply distribution for the aggregated study area. The equations are below to illustrate the steps:

Step 1:

$$\left(\begin{matrix} 2021\ Total \\ Population \\ Share_{r,e} \end{matrix} \right) \times \left(\begin{matrix} Labor \\ Force \\ Eligibles_{r,e} \end{matrix} \right) \times \left(\begin{matrix} 2018 \\ Labor\ Force \\ Participation \\ Rate_{r,e} \end{matrix} \right) = \begin{matrix} 2021 \\ Labor \\ Force_{r,e} \end{matrix}$$

Step 2:

$$\begin{matrix} 2021\ Labor \\ Force_{r,e} \end{matrix} \times \begin{matrix} 2018\ Occupational \\ Participation\ Rate_{s,r,e} \end{matrix} = \begin{matrix} 2021 \\ Occupations_{s,r,e} \end{matrix}$$

Endnotes

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