

Race/Ethnicity in the 2018 Wasatch Front Labor Force: An Equal Employment Opportunity Analysis

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Overview

Current data reveals 1 in 5 Utahns identify as racial minorities, rising 3.8% from 2017 to 2018.¹ This is more rapid than the comparable 1.9% 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, minority identification in the Wasatch Front region is closer to 1 in 4 at 24%, while Salt Lake County is 29% minority.

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? And how has this changed over time? This report helps answer these questions by identifying under and over-representation in varying occupations 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 one (American Indian) 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.

Race/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, Native Hawaiian or Pacific Islander, and Two or More Races. Individuals self-identify their race. Ethnicity is a distinct category defined as Hispanic origin or Not Hispanic origin.

The term minority in this document refers to those who identified as Hispanic or any race category other than White Alone. When discussing racial groups, this document is referring to people who identify as either non-Hispanic, single-race (i.e., White, Asian, Native Hawaiian, and Pacific Islander) or non-Hispanic and more than one race group (separately identified as the Two or More Races category).

How is Utah and the Wasatch Front Population Diversifying?

The State of Utah

Utah's total minority population grew 3.8% from 2017 to 2018, over twice the 1.3% annual growth rate of the White population. Since 2010, Asians and Two or More Races grew most rapidly, with 49% and 43% growth respectively, while the White and American Indian racial groups grew least rapidly at 11% and 10% (see Table 1).² These growth patterns should continue for several reasons: current migration trends, differing fertility rates across race/ethnicity groups, changes in how individuals racially self-identify, and varying age structure differences between races.^{3,4,5}

The Kem C. Gardner Policy Institute released 50 year state-level racial/ethnic projections by age and sex.⁶ The projections show that from 2010 through 2060, the number of Utahns identifying as racial minorities will increase from 1 in 5 to 1 in 3. Utah's 2060 racial majority and minority shares match the United States' 2010 minority/majority shares. This is roughly a two-generation lag in diversity behind the United States (see Figure 1).

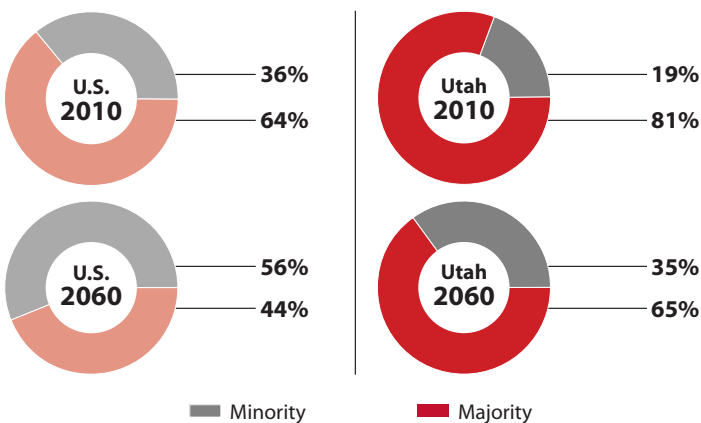
Table 1: Total Utah Population and Cumulative Change by Race/Ethnicity, 2010-2018

	Total Population		Change from Census 2010 to 2018	
	Census 2010	July 1, 2018	Absolute	Percent
Total Population	2,763,885	3,161,105	397,220	14.37%
White	2,226,363	2,466,025	239,662	10.76%
Minority	537,522	695,080	157,558	29.31%
Hispanic	358,340	450,218	91,878	25.64%
Black	26,328	36,307	9,979	37.90%
American Indian or Alaska Native	27,228	29,910	2,682	9.85%
Asian	54,794	81,356	26,562	48.48%
Native Hawaiian or Pacific Islander	24,183	30,824	6,641	27.46%
Two or More Races	46,649	66,465	19,816	42.48%

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

Figure 1: Share of Minority Population for Utah and the U.S., 2010 and 2060



Sources: U.S. Census Bureau; Kem C. Gardner Policy Institute Race/Ethnicity Projections

Table 2: Race/Ethnicity Shares of Total Population, Wasatch Front Counties, Region Total, and State, 2018

	White	Black	American Indian or Alaska Native	Asian	Native Hawaiian or Pacific Islander	Two or More Races	Hispanic	Minority
Davis	83.5%	1.2%	0.4%	2.0%	0.7%	2.2%	9.9%	16.5%
Salt Lake	70.7%	1.7%	0.7%	4.5%	1.6%	2.3%	18.6%	29.3%
Summit	84.2%	1.0%	0.3%	1.6%	0.1%	1.3%	11.4%	15.8%
Tooele	82.9%	0.7%	0.8%	0.7%	0.6%	1.7%	12.6%	17.1%
Utah	82.1%	0.6%	0.4%	1.7%	0.9%	2.3%	12.0%	17.9%
Weber	75.7%	1.3%	0.5%	1.4%	0.3%	2.0%	18.7%	24.3%
Region Total	76.4%	1.3%	0.6%	3.0%	1.1%	2.2%	15.4%	23.6%
State Total	78.0%	1.1%	0.9%	2.6%	1.0%	2.1%	14.2%	22.0%

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

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

The Wasatch Front region contains three-quarters of the state population, and for this analysis includes Davis, Salt Lake, Summit, Tooele, Utah, and Weber counties. Minorities 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 29% of the population identifying as a minority, while Weber County follows closely at approximately 24% minority. Utah, Davis, Summit, and Tooele are between 18% and 16% minority, 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.

Salt Lake County is the economic powerhouse of the state, containing almost half of Utah’s jobs.⁷ 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 its own nationally recognized university (Brigham Young University) 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, 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 high concentration of Asians, 5% of the county population, compared to other Wasatch Front counties (and 64% of the state’s Asian population). Salt Lake and Weber counties tie for the highest proportion of Hispanics in the Wasatch Front region (19%). Salt Lake also has the highest concentration of Native Hawaiian/Pacific Islanders in the state (61% of all Pacific Islanders/Native Hawaiians 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/ethnic and gendered distributions across occupational categories. This analysis combines the current Census Bureau age, sex, and race/ethnicity population estimates with the American Community Survey 2006-2010 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 70% Salt Lake County residents, and 30% from outside the county, including the following five surrounding counties: Davis, Summit, Tooele, Utah, and Weber.⁸ 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.⁹ These include:

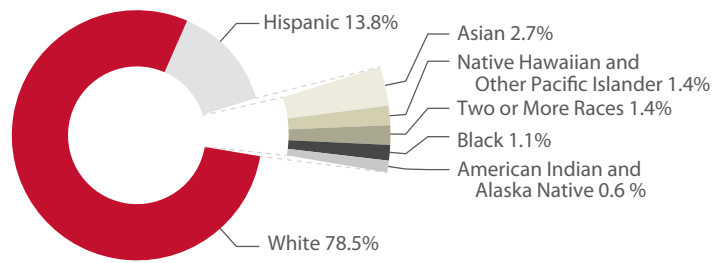
1. Officials and Administrators
2. Professionals
3. Technicians
4. Protective Services
5. Paraprofessionals
6. Administrative Support
7. Skilled Craft
8. Service Maintenance

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

Current Patterns

Figure 2 displays the 2018 racial and ethnic proportions of the combined counties’ labor force. The Wasatch Front labor force is slightly less diverse than the total population, with 79% identifying as White compared to 76% of the total Wasatch Front

Figure 2: Total Wasatch Front Civilian Labor Force by Race and Ethnicity, 2018



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

population. This pattern makes demographic sense because most minority populations are younger than their white counterparts.

Table 3 shows the current occupational supply distributions for the combined Wasatch Front region counties by race, ethnicity, and sex. The red and grey highlights indicate whether each race or gender is underrepresented or overrepresented in each occupation compared to the overall labor force make-up. For example, Whites are over-represented in the Officials and Administrators occupation (86.2%) compared to the Total Civilian Labor Force (78.5%), so the White category is highlighted grey, while the other races in the same row are highlighted red.

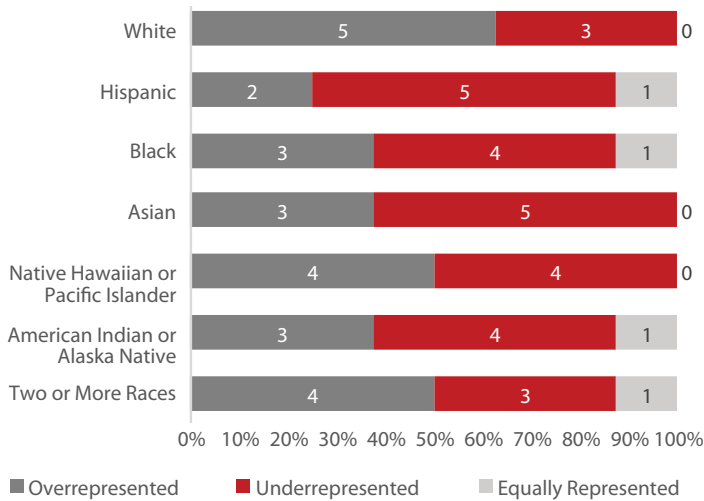
Figure 3 summarizes the number and percentage of over, under, and equal representation of each race across the eight different occupation types. Whites are over-represented in all occupations except for Paraprofessionals, Skilled Craft, and Service Maintenance. Two or More Races has the least amount of underrepresentation of minorities across occupations, while Hispanic and Asians tie for the most underrepresented (across five different occupations).

How does 2018 compare to 2017?

Table 4 compares the 2017 analysis (not updated with the 2018 vintage) and this year’s analysis with the benchmarked 2018 data. The red and grey highlights indicate whether a race or sex increased or decreased its share of that occupation since 2017.

One year is not typically a long enough time to see significant changes in the makeup of the workforce; however, Hispanics continue to slowly increase their share of the total workforce by 0.2 percentage points, while the White population has decreased their share of the workforce by about 0.6 percentage points since last year. Hispanics’ most substantial increases were in the Service Maintenance and Skilled Craft occupational categories. Asians not only increased their share of the total workforce, but they also increased their share in all professions.

Figure 3: Count and Percent of Racial Over, Under, and Equal Representation in Occupations, 2018



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 ACS EEO Tabulation (2006-2010)

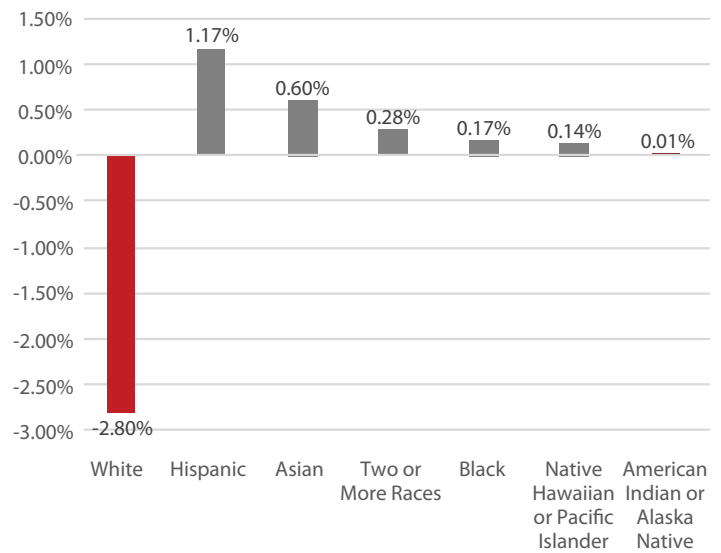
Blacks, Native Hawaiian and other Pacific Islanders, American Indians, and Two or More Races didn't change their share of the workforce since last year. Percentage changes tell a story of both increases and decreases for different racial/ethnic categories as a share of the labor force. The Wasatch Front's labor force is growing in total and across all racial and ethnic groups.

How does 2018 compare to 2010?

Since 2010, the data shows workforce composition changes in all racial and ethnic categories, except for American Indians which is virtually unchanged (see Figure 4 and Table 5). Asians have the second most growth in labor force share, with 0.6 percentage point growth in the labor force since 2010, and growth in all occupational categories ranging from the highest value of 1.1 percentage point in Technicians, and the lowest amount of 0.3 percentage point in the Professional occupational category.

Blacks experienced a 0.2 percentage point increase in their share of the workforce and between 0.1 and 0.2 percentage point growth in each occupation. The Native Hawaiian and other Pacific Islander population had slightly less growth than Blacks, with growth particularly concentrated in the Profession-

Figure 4: Percentage Point Change in Wasatch Front Racial/Ethnic Workforce Composition, 2010-2018



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 2018 Vintage Estimates and ACS EEO Tabulation (2006-2010)

al, Protective Services, and Paraprofessional occupational categories. Two or More Races shows slightly more growth with an overall 0.3 percentage point increase and 0.2 to 0.4 percentage point increases in all occupations except for the Paraprofessional category (no growth). The occupational shares of the American Indian racial category is unchanged since 2010.

Conclusion

The Hispanic and Asian labor force are the most rapidly growing race/ethnicity groups in the Wasatch Front labor force. There is slight growth in the Native Hawaiian or Pacific Islander population and the Two or More Races 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.

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

ACS 2006-2010 EEO Data – Benchmarked to Census Vintage 2018

Sex	Total	White	Hispanic	Black	Asian	NHPI	AIAN	Two or More Races
Total Civilian Labor Force								
Total	100.0%	78.5%	13.8%	1.1%	2.7%	1.4%	0.6%	1.4%
Male	55.4%	43.3%	8.0%	0.7%	1.3%	0.7%	0.3%	0.7%
Female	43.9%	34.7%	5.7%	0.4%	1.3%	0.7%	0.3%	0.7%
Officials and Administrators								
Total	100.0%	86.2%	7.2%	0.9%	2.2%	0.5%	0.2%	1.2%
Male	65.0%	56.4%	4.5%	0.6%	1.3%	0.3%	0.1%	0.8%
Female	35.0%	29.8%	2.6%	0.3%	0.9%	0.2%	0.1%	0.5%
Professional								
Total	100.0%	87.0%	4.4%	1.0%	1.2%	2.7%	0.5%	1.5%
Male	51.6%	45.3%	1.9%	0.6%	0.6%	1.4%	0.2%	0.7%
Female	48.3%	41.7%	2.5%	0.4%	0.6%	1.3%	0.3%	0.7%
Technicians								
Total	100.0%	82.8%	8.3%	0.8%	4.7%	0.4%	0.5%	1.9%
Male	57.3%	48.4%	4.3%	0.3%	2.4%	0.3%	0.3%	0.8%
Female	42.7%	34.4%	4.1%	0.5%	2.3%	0.1%	0.2%	1.1%
Protective Services								
Total	100.0%	84.6%	6.1%	1.3%	2.2%	2.0%	0.6%	1.7%
Male	75.0%	63.1%	4.8%	1.3%	1.5%	1.8%	0.4%	0.9%
Female	24.9%	21.4%	1.4%	0.0%	0.7%	0.2%	0.1%	0.7%
Paraprofessionals								
Total	100.0%	78.0%	13.8%	1.2%	4.0%	2.0%	0.7%	0.0%
Male	36.1%	28.2%	4.4%	0.2%	1.3%	1.0%	0.7%	0.0%
Female	64.0%	49.9%	9.4%	0.9%	2.7%	0.9%	0.0%	0.0%
Administrative Support								
Total	100.0%	81.8%	10.6%	1.1%	2.4%	1.1%	0.5%	1.7%
Male	39.3%	32.3%	4.1%	0.5%	0.9%	0.3%	0.1%	0.7%
Female	60.7%	49.5%	6.5%	0.6%	1.5%	0.8%	0.3%	1.0%
Skilled Craft								
Total	100.0%	74.6%	20.3%	0.6%	1.6%	1.0%	0.8%	1.0%
Male	94.8%	70.5%	19.5%	0.6%	1.3%	0.9%	0.8%	1.0%
Female	5.3%	4.1%	0.8%	0.0%	0.3%	0.1%	0.0%	0.0%
Service Maintenance								
Total	100.0%	65.6%	26.1%	1.7%	4.3%	1.5%	0.9%	1.4%
Male	57.7%	37.8%	15.3%	1.1%	2.0%	0.9%	0.5%	0.8%
Female	42.3%	27.8%	10.8%	0.5%	2.2%	0.6%	0.4%	0.6%

Source: Kem C. Gardner Policy Institute Analysis of U.S. Census Bureau Data (ACS 2006-2010 EEO Tabulation and 2018 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

Place of Residence Analysis, Davis, Salt Lake, Summit, Tooele, Utah, and Weber Counties
2018 Rebenchred minus 2017 Rebenchred

Sex	Total	White	Hispanic	Black	Asian	NHPI	AIAN	Two or More Races
Total Civilian Labor Force								
Total	0.0%	-0.6%	0.2%	0.0%	0.1%	0.0%	-0.0%	0.0%
Male	0.0%	-0.3%	0.1%	0.0%	0.1%	0.0%	-0.0%	0.0%
Female	0.0%	-0.2%	0.1%	0.0%	0.1%	0.0%	-0.0%	0.0%
Officials and Administrators								
Total	0.0%	-0.6%	0.1%	0.0%	0.1%	0.0%	-0.0%	0.0%
Male	0.0%	-0.4%	0.1%	0.0%	0.1%	0.0%	-0.0%	0.0%
Female	0.0%	-0.2%	0.0%	0.0%	0.1%	0.0%	-0.0%	0.0%
Professional								
Total	0.0%	-0.6%	0.1%	0.0%	0.1%	0.0%	-0.0%	0.0%
Male	0.0%	-0.3%	0.0%	0.0%	0.0%	0.0%	-0.0%	0.0%
Female	0.0%	-0.3%	0.0%	0.0%	0.0%	0.0%	-0.0%	0.0%
Technicians								
Total	0.0%	-0.6%	0.1%	0.0%	0.3%	0.0%	-0.0%	0.0%
Male	0.0%	-0.3%	0.1%	0.0%	0.1%	0.0%	-0.0%	0.0%
Female	0.0%	-0.2%	0.1%	0.0%	0.1%	0.0%	-0.0%	0.0%
Protective Services								
Total	0.0%	-0.6%	0.0%	0.1%	0.1%	0.0%	-0.0%	0.0%
Male	0.0%	-0.4%	0.0%	0.1%	0.1%	0.0%	-0.0%	0.0%
Female	0.0%	-0.2%	0.0%	0.0%	0.0%	0.0%	-0.0%	0.0%
Paraprofessionals								
Total	0.0%	-0.6%	0.2%	0.0%	0.2%	0.0%	-0.0%	0.0%
Male	0.0%	-0.2%	0.1%	0.0%	0.1%	0.0%	-0.0%	0.0%
Female	0.0%	-0.4%	0.2%	0.0%	0.2%	0.0%	0.0%	0.0%
Administrative Support								
Total	0.0%	-0.6%	0.2%	0.0%	0.1%	0.0%	-0.0%	0.0%
Male	0.0%	-0.2%	0.1%	0.0%	0.1%	0.0%	-0.0%	0.0%
Female	0.0%	-0.4%	0.1%	0.0%	0.1%	0.0%	-0.0%	0.0%
Skilled Craft								
Total	0.0%	-0.5%	0.3%	0.0%	0.1%	0.0%	-0.0%	0.0%
Male	0.0%	-0.5%	0.3%	0.0%	0.1%	0.0%	-0.0%	0.0%
Female	0.0%	-0.0%	0.0%	0.0%	0.0%	0.0%	-0.0%	0.0%
Service Maintenance								
Total	0.0%	-0.5%	0.4%	0.1%	0.2%	0.0%	-0.0%	0.0%
Male	0.0%	-0.3%	0.3%	0.0%	0.1%	0.0%	-0.0%	0.0%
Female	0.0%	-0.2%	0.2%	0.0%	0.1%	0.0%	-0.0%	0.0%

Source: Kem C. Gardner Policy Institute Analysis of U.S. Census Bureau Data (ACS 2006-2010 EEO Tabulation and 2018 Vintage Population Estimates)

- Denotes decrease in share
- Denotes increase in share

Table 5: Occupational Distributions - By Sex, Race, and Ethnicity

Place of Residence Analysis, Davis, Salt Lake, Summit, Tooele, Utah, and Weber Counties

2018 Rebenched minus 2010 Rebenched

Sex	Total	White	Hispanic	Black	Asian	NHPI	AIAN	Two or More Races
Total Civilian Labor Force								
Total	0.0%	-2.8%	1.2%	0.2%	0.6%	0.1%	0.0%	0.3%
Male	0.0%	-1.5%	0.7%	0.1%	0.3%	0.1%	0.0%	0.1%
Female	0.0%	-1.2%	0.5%	0.1%	0.3%	0.1%	0.0%	0.1%
Officials and Administrators								
Total	0.0%	-3.1%	0.6%	0.1%	0.5%	0.1%	0.0%	0.2%
Male	0.0%	-2.0%	0.4%	0.1%	0.3%	0.0%	0.0%	0.1%
Female	0.0%	-1.1%	0.2%	0.0%	0.2%	0.0%	0.0%	0.1%
Professional								
Total	0.0%	-3.1%	0.4%	0.1%	0.3%	0.3%	0.0%	0.3%
Male	0.0%	-1.6%	0.2%	0.1%	0.1%	0.1%	0.0%	0.1%
Female	0.0%	-1.5%	0.2%	0.1%	0.1%	0.1%	0.0%	0.1%
Technicians								
Total	0.0%	-2.9%	0.7%	0.1%	1.1%	0.0%	0.0%	0.4%
Male	0.0%	-1.7%	0.4%	0.0%	0.6%	0.0%	0.0%	0.2%
Female	0.0%	-1.2%	0.3%	0.1%	0.5%	0.0%	0.0%	0.2%
Protective Services								
Total	0.0%	-3.0%	0.3%	0.2%	0.5%	0.2%	0.0%	0.3%
Male	0.0%	-2.2%	0.2%	0.2%	0.4%	0.2%	0.0%	0.2%
Female	0.0%	-0.8%	0.1%	0.0%	0.2%	0.0%	0.0%	0.1%
Paraprofessionals								
Total	0.0%	-2.8%	1.2%	0.2%	0.9%	0.2%	0.0%	0.0%
Male	0.0%	-1.0%	0.4%	0.0%	0.3%	0.1%	0.0%	0.0%
Female	0.0%	-1.8%	0.8%	0.1%	0.6%	0.1%	0.0%	0.0%
Administrative Support								
Total	0.0%	-2.9%	0.9%	0.2%	0.6%	0.1%	0.0%	0.3%
Male	0.0%	-1.2%	0.3%	0.1%	0.2%	0.0%	0.0%	0.1%
Female	0.0%	-1.8%	0.6%	0.1%	0.3%	0.1%	0.0%	0.2%
Skilled Craft								
Total	0.0%	-2.7%	1.7%	0.1%	0.4%	0.1%	0.0%	0.2%
Male	0.0%	-2.5%	1.6%	0.1%	0.3%	0.1%	0.0%	0.2%
Female	0.0%	-0.1%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%
Service Maintenance								
Total	0.0%	-2.3%	2.2%	0.2%	1.0%	0.1%	0.0%	0.3%
Male	0.0%	-1.3%	1.3%	0.2%	0.5%	0.1%	0.0%	0.2%
Female	0.0%	-1.0%	0.9%	0.1%	0.5%	0.1%	0.0%	0.1%

Source: Kem C. Gardner Policy Institute Analysis of U.S. Census Bureau Data (ACS 2006-2010 EEO Tabulation and 2018 Vintage Population Estimates)

Denotes decrease in share

Denotes increase in share

Methodology

Study Area

This study focuses on the civilian workforce that works in Salt Lake City. The Salt Lake City civilian workforce is composed of 70% Salt Lake County residents, and 30% from outside the county, including the following five surrounding counties: Davis, Summit, Tooele, Utah, and Weber.¹⁰

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 defined in the Census 2010 categories:¹¹

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

The occupational classifications are defined by the EEO-4 Survey job classification, which is used by state and local governments.¹²

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 available in the published tabulations of the data. Paraprofessionals are not tabulated, and this creates some ambiguity about how to measure 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.¹³ Using the Paraprofessionals descriptions and examples, we searched the ACS 2006-2010 EEO Tabulation for all job category examples under Paraprofessionals and used the occupational categories available. We include the following occupations in the measurement of Paraprofessional (some occupations do not exist in every county):

- Miscellaneous life, physical, and social science technicians, including social science research assistants 1965 (SOC 19-40YY)
- Social and human service assistants 2017 (SOC 21-1093)
- Personal care aides 4610 (SOC 39-9021)
- Personal care and service workers, all other 4650 (SOC 39-9099)
- Library assistants, clerical 5320 (SOC 43-4121)
- Ambulance drivers and attendants, except emergency medical technicians 9110 (SOC 53-3011)

Procedure

Data

This updated Availability Analysis utilizes two primary data sources: the ACS EEO Tabulation (2006-2010) and the U.S. Census Bureau estimates (2018).

ACS EEO Tabulation (2006-2010)

The American Community Survey (2006-2010) is based on a sample interviewed from January 1, 2006 through December 31, 2010.¹⁴ The ACS is a national sample of roughly 15 million housing units over five years (producing an estimate that describes a five 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 provides the standard for this type of workforce analysis. We do not include confidence intervals in this report.

The "2006-2010 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 provides individual occupational searches.

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. Tooele and Summit counties fall into this category. Tooele County is in the Juab-Sanpete-Tooele county-set (sum of 144 paraprofessionals), and Summit is in the Morgan-Summit-Wasatch county-set (sum of 79 paraprofessionals).

U.S. Census Bureau Population Estimates (2018)

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, 2010 to the current year. To find the appropriate county-level population totals and racial/ethnic make-up, the July 1, 2010 estimates from the 2018 vintage were applied to the ACS EEO occupational distributions to determine the sex, race, and ethnicity of the 2010 labor force eligibles (non-institutionalized, civilian population 16 years and older) and also the labor force participation rates.¹⁵ The July 1, 2018 estimates from the 2018 vintage were then used to benchmark the 2010 estimates to the current racial and ethnic makeup of the different occupations. The 2018 analysis holds the 2006-2010 ACS EEO Tabulation occupational distribution by sex constant within any race or ethnic group.¹⁶

Basic Algorithm

The 2010 occupational supply distributions for the study area by sex, race, and ethnicity are based on the following equations:

$$\frac{\text{Labor Force}_{r,e}}{\text{Labor Force Eligibles}_{r,e}} = \text{Participation Rate}_{r,e}$$

$$\frac{\text{Occupations}_{s,r,e}}{\text{Labor Force}_{s,r,e}} = \text{Occupational Participation Rate}_{s,r,e}$$

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 Census 2010 and ACS 2006-2010 EEO tabulation data.

Updated EEO Procedure

This study uses the July 1, 2018 Census Bureau vintage population estimates for the aggregated study area to benchmark the 2010 Occupational Supply Distributions. Updated racial and ethnic counts by county and labor force eligibles were multiplied and then additionally multiplied by the 2010 labor force participation rate (derived from the EEO tabulation) to supply an updated 2018 labor force count. Next, the 2018 labor force by race and ethnicity was multiplied by the 2010 occupational participation rate to give a benchmarked 2018 occupational supply distribution for the aggregated study area. The equations are below to illustrate the steps:

$$\left(\frac{\text{2018 Total Population Share}_{r,e}}{\text{Labor Force Eligibles}_{r,e}} \right) \times \frac{\text{2010 Labor Force Participation Rate}_{r,e}}{\text{Labor Force}_{r,e}} = \text{2018 Labor Force}_{r,e}$$

Step 2:

$$\text{2018 Labor Force}_{r,e} \times \text{2010 Occupational Participation Rate}_{s,r,e} = \text{2018 Occupations}_{s,r,e}$$

Endnotes

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