

# Benchmarking Workforce Diversity in the Travel/Hospitality Industry in California

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Abstract: Having a racially and ethnically diverse workforce is an important goal for any industry interested in improving efficiency and supporting equity. This paper examines diversity within the travel/hospitality industry in California. We find significant differences in earnings across races and ethnicities, with Blacks and Hispanics earning less than their white counterparts. These patterns have only been exacerbated by the COVID-19 pandemic, which has resulted in significant losses across the board, particularly for the non-college educated workers. However, despite existing inequities within the industry, travel/hospitality still exhibits lower earnings disparities for non-whites/non-Asians than other sectors in California. It also remains a steppingstone to a higher earning-job, particularly for those outside of the labor market. Nonetheless, the industry should continue to investigate ways to improve workforce racial and ethnic diversity, especially among higher paying and managerial jobs.

Keywords: labor; discrimination; underrepresented; travel; hospitality

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## 1. Introduction

The United States has historically been thought of as a land of opportunity for all. However, data continuously reflects significant inequities in representation and earnings, particularly along racial and ethnic lines. As of 2019, Blacks and Hispanics had on average lower earnings and higher rates of joblessness than whites<sup>4</sup> and Asians (Bureau of Labor Statistics 2020). These statistics are part of a long trend in racial disparities in the U.S. that has been present for centuries. Moreover, differences in economic mobility by race have exacerbated intergenerational outcomes for underrepresented groups, particularly for Blacks (Chetty et al. 2020).

There are many reasons to support diversity and inclusion. From an economic perspective, evidence suggests that greater representation can influence economic outcomes through several channels. First, a better allocation of workers to firms would require removal of structural barriers that prevent highly capable underrepresented workers from becoming executives and leaders, and more broadly, serving in their most productive capacity in the labor market. Indeed, recent research finds that a more efficient allocation of worker talent translates into significant gains in GDP and economic growth (Hsieh et al. 2019). Second, having a diversity of perspectives in decision-making could shift the frontier of economic possibilities within a firm by fostering a diversity of solutions and thus greater innovation (Nathan & Lee 2015; Ely, Padavic & Thomas 2012). Underrepresented voices are particularly important in this regard because of the unique experiences they may bring to bear on the challenges that a firm is facing. Similarly, having voices from underrepresented groups could provide input from key demographic groups of the consumer base, which may lead to better tailoring of products and services to underserved segments of the population, and thus could increase firm profitability and efficiency. Finally, from an equity perspective, more underrepresented groups in highly paid occupations and leadership positions would decrease income inequality and could help to level the playing field in terms of economic outcomes, thereby increasing the potential for more equal economic mobility among all races and ethnicities. These factors motivate proactive efforts from industry leaders to improve diversity and inclusion, which begins by using the available data to document existing inequalities for underrepresented groups.

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<sup>4</sup> We lowercase white and uppercase Black in keeping with recent conventions adopted by the [Associated Press](#).

While there are many industries that one could examine when analyzing diversity and inclusion, an important test case is the travel/hospitality industry. The very purpose of the industry is to foster an open exchange of cultures and perspectives, in line with diversity and inclusion goals. Moreover, the travel/hospitality industry in the U.S. is a significant source of jobs, economic growth, and economic opportunity for its workers (U.S. Travel Association, 2018). Our analysis focuses on California, as workers in California's travel/hospitality industry represent approximately 14 percent of employment in travel/hospitality nationwide, ranking first in this measure among the U.S. states (followed by Florida and Texas) as of 2019. Additionally, California has a diverse underlying population, as over 62 percent of employed individuals in California are non-white.

We use two data sources in our analyses. First, we use recent data from the American Community Survey (ACS) to examine employment and earnings across a broad sample of workers.<sup>5</sup> Examining employment and earnings in recent data from the American Community Survey (ACS), we find that the travel/hospitality industry in California employed just over 1 million workers, with an average wage just under \$30/hour, as of 2019. However, there is significant heterogeneity in both employment and earnings by race/ethnicity. In particular, 60 percent of California's travel/hospitality is comprised of non-white<sup>6</sup> and Hispanic workers. This group makes up more of the lower end of the earnings distribution (earning less than \$15/hour), especially Hispanic workers. This pattern is similar to non-travel/hospitality industries in California, but different from the rest of the U.S. which has a lower share of Hispanic workers, reflecting demographic differences between the state and the rest of the country. Thus, the state has the potential to see significant improvement for different racial/ethnic groups within the travel/hospitality sector.

Next, we examine recent trends in the travel/hospitality industry using the Current Population Survey (CPS). These data allow us to examine racial/ethnic patterns through the COVID-19 pandemic and examine how employment and earnings have trended for different demographic groups.<sup>7</sup> We find evidence that less highly-educated workers experienced greater

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<sup>5</sup> While we could have used the Current Population Survey for this analysis, the ACS provides us with a larger sample of workers, particularly in terms of the race/ethnicity comparisons we are interested in.

<sup>6</sup> Non-white refers to all non-Hispanic workers who are not white.

<sup>7</sup> We rely on the CPS for this analysis since it provides data through late 2020, the pandemic period we are interested in, unlike the ACS.

employment losses during the pandemic relative to their college-educated counterparts (in aggregate, and within demographic groups). These compositional changes translated into a relative uptick in the average wages of whites and Asians compared to Blacks and Hispanics in 2020 versus the prior year.

Finally, we analyze earnings and employment of workers transitioning in and out of the industry. Our analysis uses data from the 2014 Survey of Income and Program Participation (SIPP) and finds evidence that travel/hospitality in California provides a springboard for those currently out of the paid labor force and those seeking a higher living standard. A relatively large share of those who enter travel/hospitality come from outside the paid labor force, as compared to peer industries. Moreover, entrants into travel/hospitality from other industries (paid employment) experience significant wage increases as a result of the change, even after controlling for demographic characteristics including race. Additionally, for those who exit the travel/hospitality industry in California, we find that travel/hospitality workers have the highest exit rate to the paid labor force and the lowest exit rate to unemployment when compared to workers in peer industries. While this data is prior to the pandemic, it allows us to characterize the opportunities the travel/hospitality sector has historically provided in terms of economic mobility.

The rest of the paper is structured as follows. Section 2 provides the definitions used in this paper. Section 3 discusses race and ethnicity earnings and employment patterns in travel/hospitality in California in the most recent year (2019) using the American Community Survey (ACS). Section 4 describes how these earnings and employment patterns by race and ethnicity have evolved through the COVID-19 pandemic using the Current Population Survey (CPS). Section 5 compares career pathways in travel/hospitality to other industries in California using the Survey of Income and Program Participation (SIPP). Section 6 discusses these results and concludes.

## **2. Definitions**

In order to explain the findings in the rest of the paper, it is first helpful to provide some common definitions we will use throughout. First, we define the travel/hospitality industry as those who work in relevant subindustries, following Baird et al. 2017, such as traveler accommodation, travel arrangements and reservation services, and performing arts, spectator

sports, and related industries (see Appendix Table 1 for the full list).<sup>8</sup> While we will refer to the overall industry of interest as the travel/hospitality industry, travel/hospitality as used in the data analysis in this paper refers to all travel/hospitality industries *except* the restaurant industry. We separate out and present the restaurant industry on its own. We make this separation for a number of reasons. First, of all of the identified sub-industries, the restaurant industry has an outsized contribution by having high total employment; however, unlike the other subindustries, the restaurant industry is not solely part of the hospitality side of travel/hospitality, given that restaurants also serve local, non-traveler customers. Leaving it in with the other travel/hospitality subindustries would allow for an overly-large impact on any estimates. Second, employment patterns in the restaurant industry are significantly different from the other subindustries in travel/hospitality, given the part-time nature of work and unpredictable hours for restaurant workers. By separating it out, we allow the reader to separately examine trends and impacts. Third, excluding the restaurant industry allows for a more direct comparison to relevant prior literature, including Baird et al. 2017 who do not include it.

At times we make comparisons to other similar industries in California. We define similarity as similar in size (total number of employees in the industry). Similarity in size is critical for having comparable entry and exit proportions (as is done in Section 5). We examine eight comparison industries based off of the North American Industry Classification System (NAICS) groupings: administrative work, support work, and waste management; agriculture; construction; durable manufacturing; education; financial activities; transportation/warehouse/utilities; and wholesale trade. These comparison industries as defined remove any identified travel/hospitality subindustry (such as airline and airport workers for the penultimate group), which are already accounted for in the travel/hospitality definition.

For race and ethnicity, we separate Hispanic workers from non-Hispanic, and label non-Hispanic workers simply by their race (e.g., non-Hispanic white workers are labeled as white). Races are defined as white, Black, or Asian and represent single-race categories; two or more races are included in the “Other” race category. We thus have five race/ethnicity groups used in the study: white (non-Hispanic white), Black (non-Hispanic Black), Hispanic (any race), Asian

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<sup>8</sup> Industries are defined using the 2012 Census Industry classification so that it is comparable with the SIPP analysis that follows (the SIPP analyses uses the 2012 Census Industry classification given the different period of data analyzed, 2013-2016).

(non-Hispanic Asian), and other (any other race or two or more races, non-Hispanic). For some of our analyses, we further group race/ethnicity into two groups: those workers belonging to the Black, Hispanic, or the Other race category, and those workers belonging to the white and Asian race category. We group together whites and Asians given the similarity in the earnings data for these two groups (relative to Blacks, Hispanics, and those in the Other race category),<sup>9</sup> though alternative definitions could group Asians with Blacks, Hispanics, and those in the Other race category, particularly when considering groups that have historically faced discrimination.

### **3. Examining Employment and Earnings Overall and by Race/Ethnicity**

We begin by examining average earnings and overall employment by race and ethnicity in California's travel/hospitality industry compared to the comparison industries in California. This enables us to characterize how representative California's travel/hospitality industry is relative to similar sectors as of 2019.

Given the fact that there are strong demographic correlates of race and ethnicity, we also examine how the racial and ethnic composition of California's travel/hospitality industry varies by age and educational attainment, as well as by subindustry within travel/hospitality (e.g., traveler accommodation versus amusement, gambling, and recreation industries). We then more formally examine the correlation between race/ethnicity status and earnings or holding a management position in regressions which account for other relevant factors, such as occupation and gender. In doing so, we aim to isolate how much of the gap in outcomes that certain workers face is related to their race/ethnicity status after controlling for other observable characteristics; we compare these results to non-travel/hospitality industries in California and the rest of the U.S.

#### *3.1 Data*

We utilize the American Community Survey (ACS)—a nationally representative survey reaching millions of Americans each year—in this part of our analysis, given the access it provides us to a large sample of workers across all race/ethnicity groups. We use the 1-year

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<sup>9</sup> The similarities in wage levels between whites and Asians corresponds to raw wages (i.e., not controlling for additional demographic characteristics such as education or age). Note that Asian is comprised of many different racial subgroups (e.g., Chinese, Indian, Vietnamese), which may have heterogenous earnings and employment outcomes; we do not present these subgroups in our analysis, though we acknowledge the variance across the subgroups.

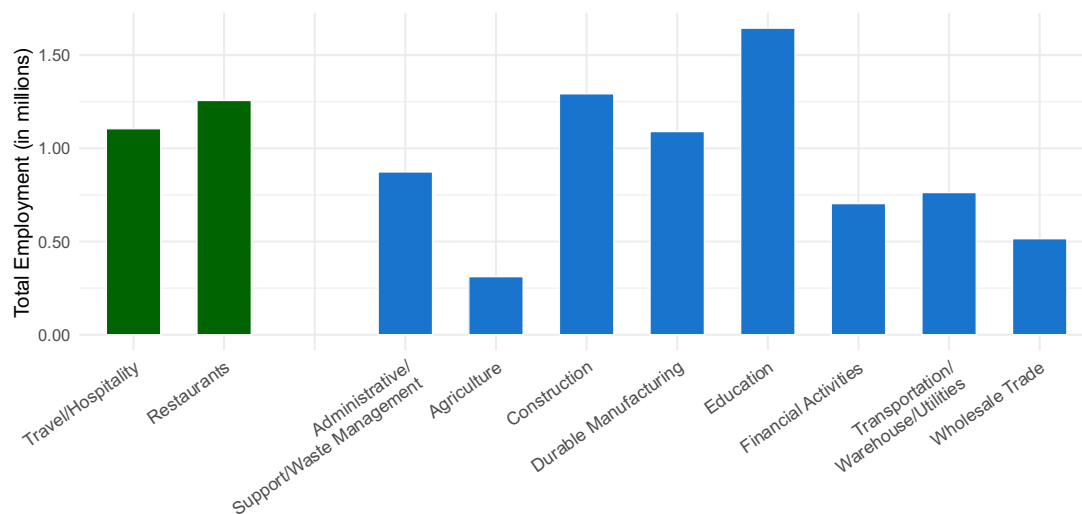


Public Use Microdata Sample (PUMS) for 2019. We do not make any restrictions on working a set number of hours or being full-time in the travel/hospitality industry, given the propensity for workers in the travel/hospitality industry to work less than 40 hours per week (i.e., full-time status; see Baird et al. 2017). See Appendix B for additional details about our sample cleaning procedures.

### 3.2. Results: Overall

Figure 1 displays total employment in 2019 for the travel/hospitality industry relative to a set of similarly-sized industries in California. As of 2019, travel/hospitality had over one million employees. The comparison industries are of similar size in terms of employment, smaller than the largest comparison group of the education industry (which has about 1.5 times the employment in travel/hospitality) and larger than the smallest comparison group of the agriculture industry (which has less than half of travel/hospitality’s employment). The restaurant industry has approximately 1.25 million workers, which puts it among the larger industries among these investigated.

**Figure 1:** Total Employment in Travel/Hospitality versus Similarly Sized Industries in California in 2019

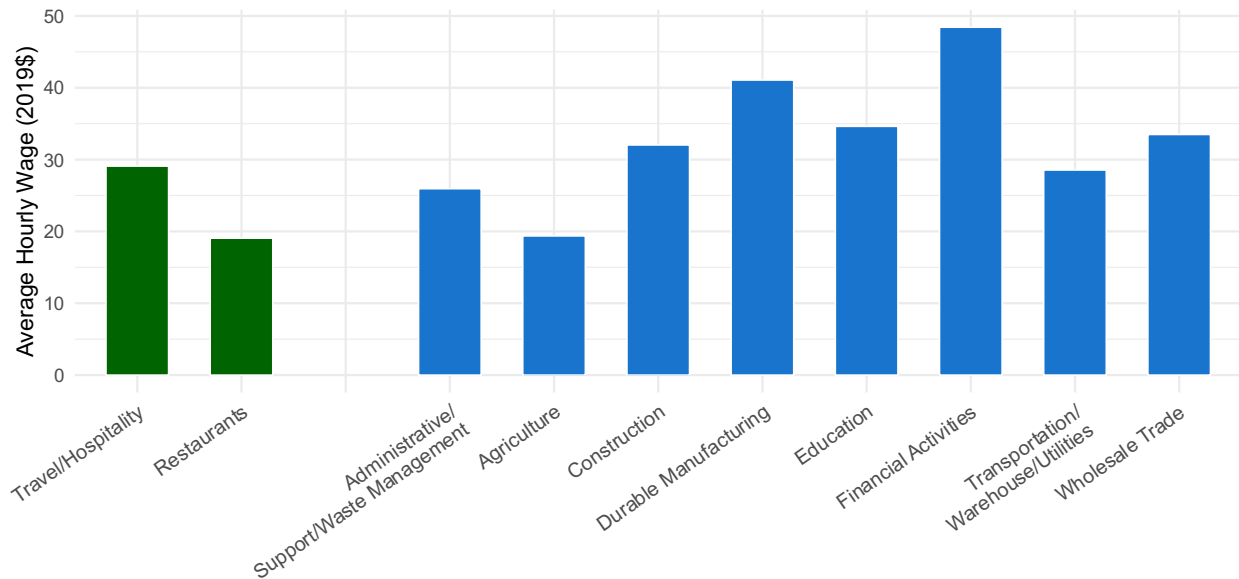


**Source:** American Community Survey PUMS 2019

**Note:** Sample includes all employed workers in each industry aged 15 and older (including self-employed workers). Travel/hospitality does not include workers in the restaurant industry.

Figure 2 compares earnings levels in these industries. For travel/hospitality workers, average earnings are at the middle of the comparison industries, with an average wage of just under \$30/hour.<sup>10</sup> Conversely, restaurants have a lower average hourly wage, just under \$20/hour.<sup>11</sup>

**Figure 2:** Average Hourly Wages in Travel/Hospitality versus Similarly Sized Industries in California in 2019



**Source:** American Community Survey PUMS 2019

**Note:** Sample includes all wage and salary workers in each industry aged 15 and older. Self-employed workers are excluded from the sample. Travel/hospitality does not include workers in the restaurant industry.

### 3.3. Results: Race/Ethnicity Analyses

These average hourly earnings and employment numbers mask considerable heterogeneity in terms of differences by race and ethnicity. It is important to characterize these racial and ethnic differences in order to understand the nature of diversity in the industry, and how it compares to other similarly sized industries. Only by first understanding the distributional patterns and existing correlates of race and ethnicity can we begin to close gaps in representation along meaningful dimensions, such as earnings.

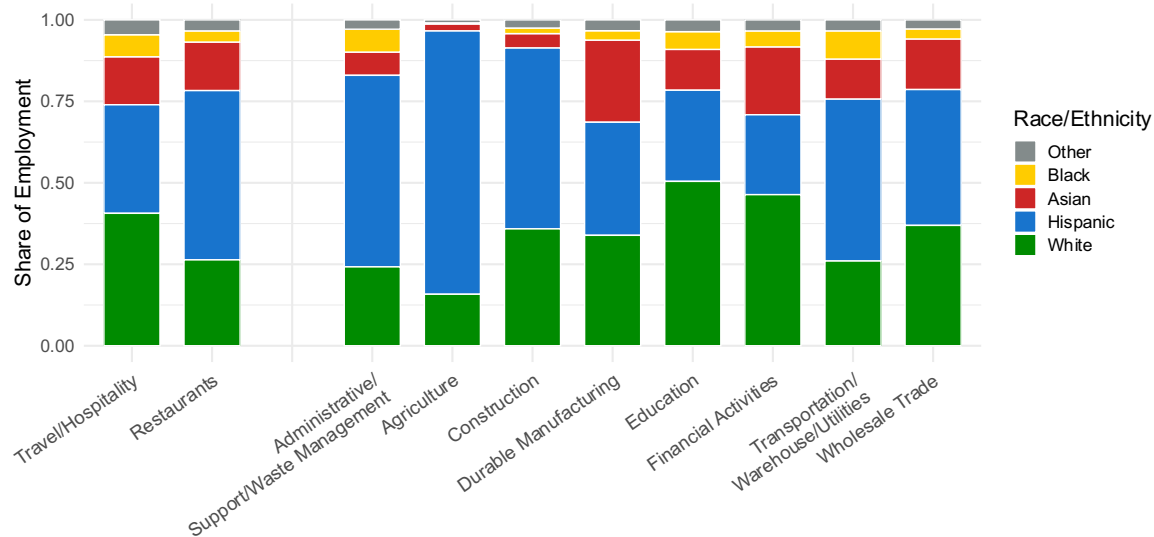
<sup>10</sup> We adjust earnings in two ways: first, wages of California workers below the 2018 California minimum wage are set at the minimum wage (we choose the 2018 level instead of the 2019 level since data is collected in 2019 but asks about an individual’s earnings over the prior year); second, we winsorize earnings at the 99.5<sup>th</sup> percentile. See Appendix B for more detail.

<sup>11</sup> Note that our measure of earnings here includes commissions, cash bonuses, tips, and other money income.

To examine this, we provide a breakdown of race/ethnicity by employment in travel/hospitality relative to the comparison industries in California in 2019. Figure 3 presents these results. The first point to note is that nearly all of the industries displayed have at least 50 percent non-white workers, with Hispanics comprising the largest non-white/non-Asian group in almost all industries examined (the exception is the Education industry with 49 percent non-white). In travel/hospitality specifically, approximately 60 percent of workers are non-white, which puts the industry toward the lower end of the comparison set, as all industries except for Education and Financial Activities have greater than 60 percent non-white workers. Restaurants have an even higher share of non-white workers, at over 70 percent.<sup>12</sup>

Examining within the non-white group for the travel/hospitality sector, we see that the largest representation comes from Hispanic, then Asian, and then Black workers. This general order is exhibited by most of the other comparison industries as well, though there is variance in the share of Hispanic, Asian, and Black workers; for example, Hispanics comprise a significantly higher share of employment in the agriculture industry.

**Figure 3: Racial & Ethnic Composition in Travel/Hospitality versus Similarly Sized Industries in California in 2019**



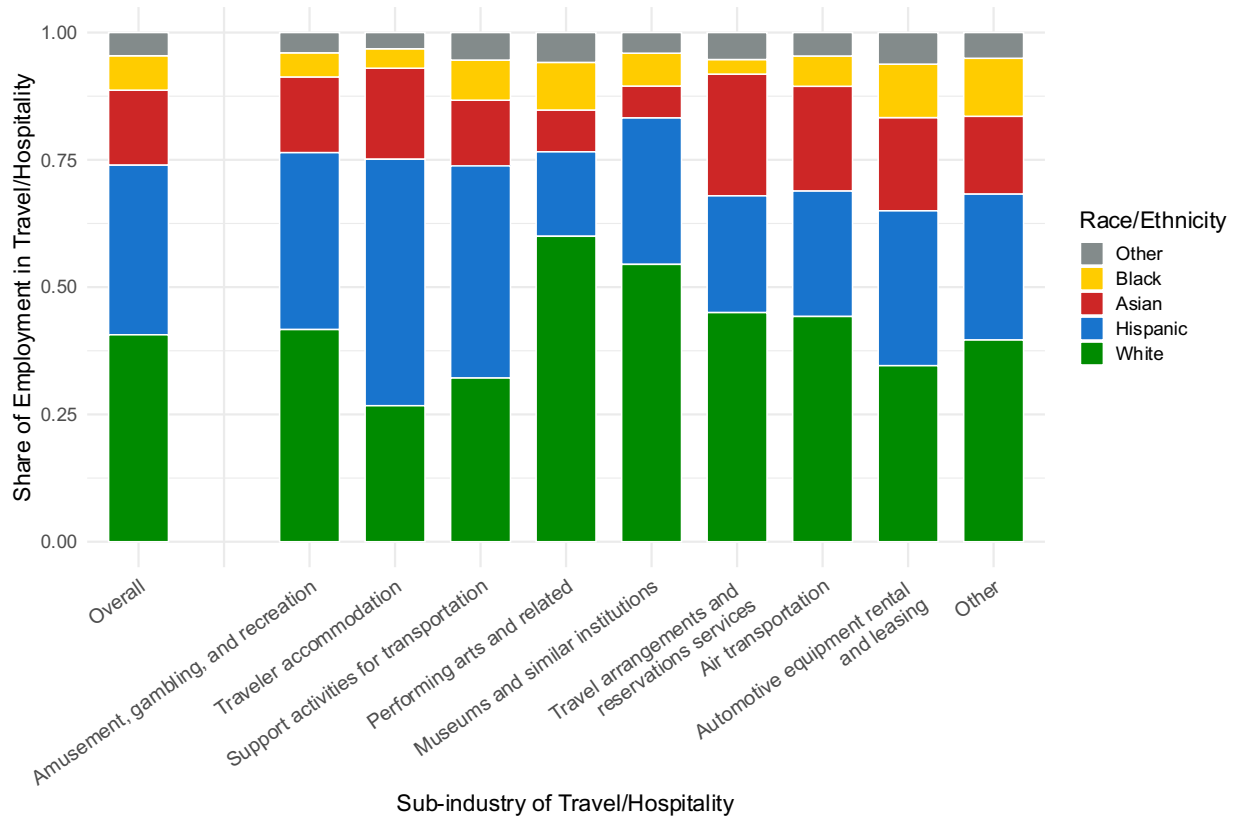
**Source:** American Community Survey PUMS 2019

**Note:** Sample includes all employed workers in each industry aged 15 and older (including self-employed workers). Travel/hospitality does not include workers in the restaurant industry.

<sup>12</sup> The race/ethnicity breakdown in California’s overall employed population (15 years or older) is as follows: 38 percent white, 16 percent Asian, 5 percent Black, 38 percent Hispanic, and 4 percent Other.

We can also examine the racial/ethnicity distribution by subgroup within the travel/hospitality industry. Figure 4 presents these results. Broadly, there is variance across these subindustries in terms of the share of white, Hispanic, Asian, and Black workers; traveler accommodation has the highest percentage of non-white workers while performing arts and related has the lowest proportion of non-white workers.

**Figure 4: Racial & Ethnic Composition in Travel/Hospitality in California in 2019, by Sub-Industry Category**



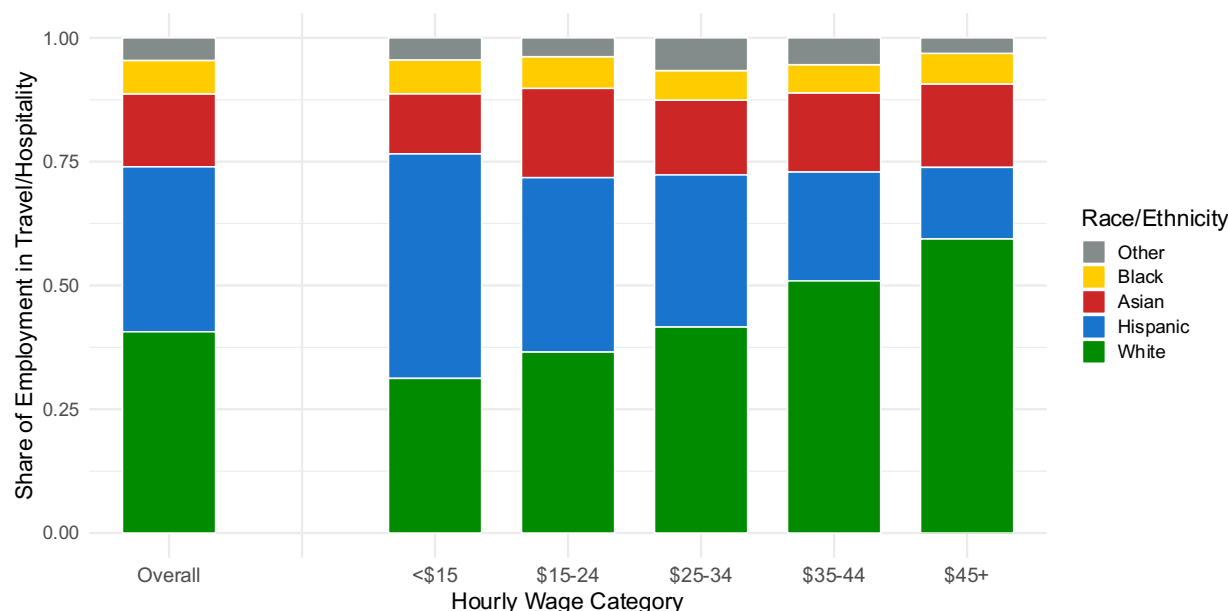
**Source:** American Community Survey PUMS 2019

**Note:** Sample includes all employed workers in the travel/hospitality industry aged 15 and older (including self-employed workers). Travel/hospitality does not include workers in the restaurant industry.

Figure 5 presents the racial/ethnic composition by wage level within the travel/hospitality industry. The left-most column displays the travel/hospitality industry as a whole, and the columns grouped at the right each reflect a specific wage bucket (e.g., <\$15/hour, \$15-\$24/hour, etc.). It is immediately clear from this figure that higher earnings levels correspond to a steady increase in the share of the industry that is white. Moreover, this is primarily accounted for by decreases in the proportion of workers who are Hispanic. The differences are sizable; Hispanics

represent approximately 45 percent of all travel/hospitality workers earning below \$15/hour, but less than 15 percent of all travel/hospitality workers earning \$45/hour or more. Thus, while Hispanics represent a sizeable portion of the travel/hospitality sector, they are more likely to have lower earnings (note that this does not control for other correlated factors such as occupation or education, as we do later in this section).

**Figure 5: Racial & Ethnic Composition in Travel/Hospitality in California in 2019, by Earnings Level**



**Source:** American Community Survey PUMS 2019

**Note:** Sample includes all employed wage and salary workers in the travel/hospitality industry aged 15 and older. Self-employed workers are excluded from the sample. Travel/hospitality does not include workers in the restaurant industry.

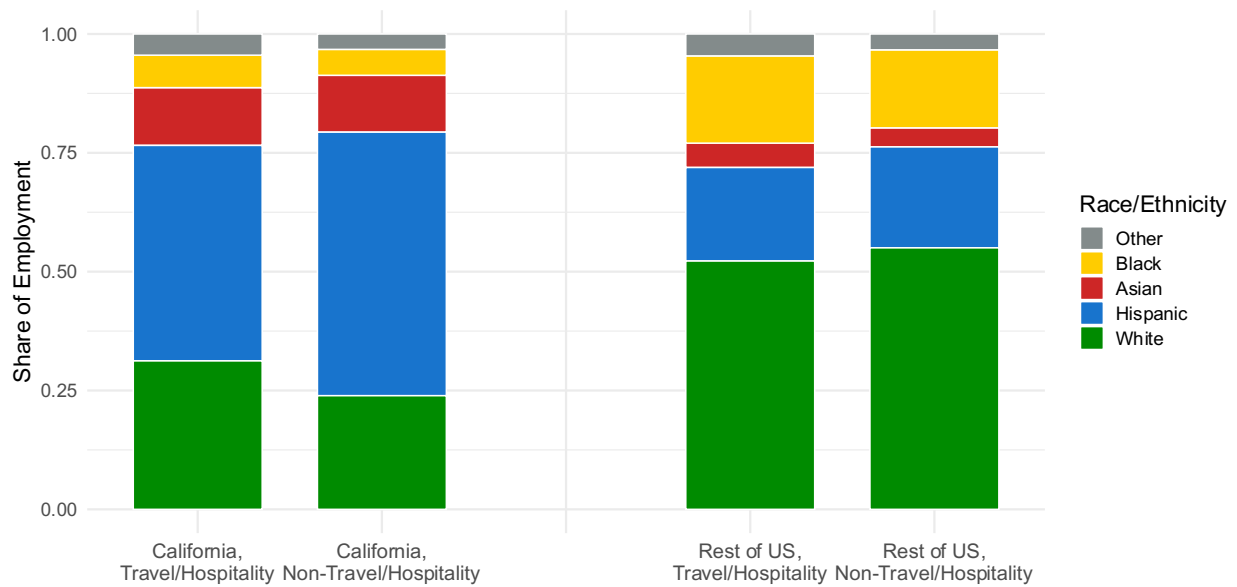
How do these earnings patterns stack up relative to non-travel/hospitality industries in California and the rest of the U.S., as well as travel/hospitality outside of California? To assess this, we examine earnings for three groups of earners: those making less than \$15/hour, those making \$15/hour or over but less than \$45/hour, and those making \$45/hour or over.

Figure 6 displays these results. Two main patterns emerge. First, there do not appear to be significant differences between the travel/hospitality sector and non-travel/hospitality industries. Secondly, whites in all of the geographic-industry subsamples are overrepresented in the highest earnings tier (panel c), in line with existing evidence that whites generally earn more relative to their Black and Hispanic counterparts (Bureau of Labor Statistics 2020).

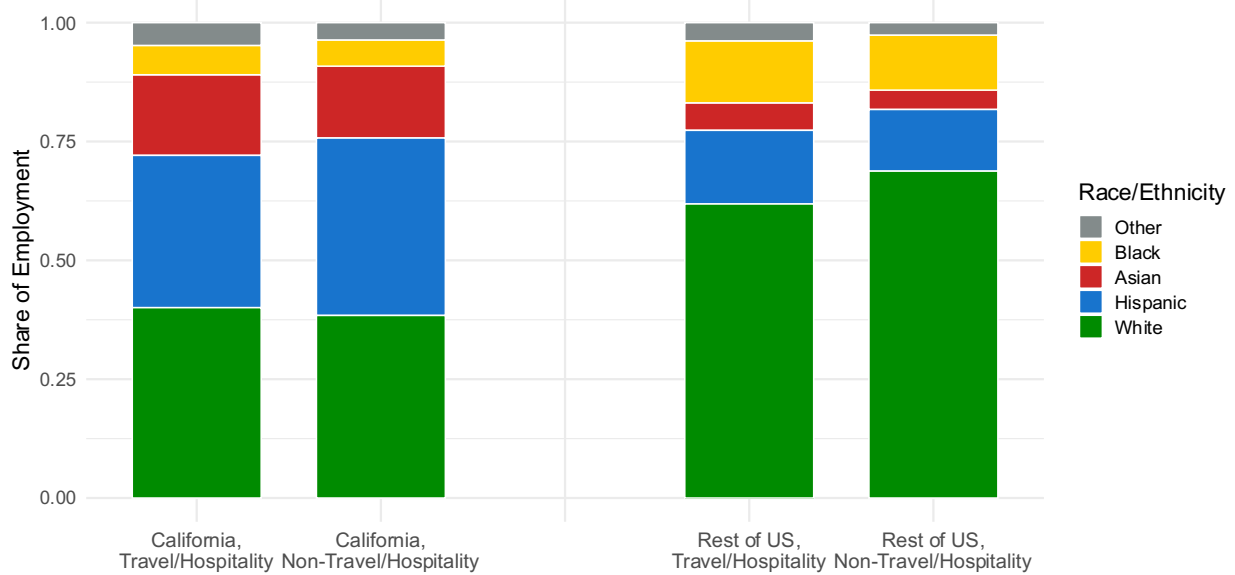
We can also examine the race/ethnicity patterns in more detail. From these figures, Hispanics are overrepresented within California relative to the rest of the U.S. (for both the travel/hospitality sector and non-travel/hospitality industries), and this pattern is concentrated at the lower end of the income distribution, i.e., those earning \$15/hour or less and between \$15/hour and \$45/hour. Asians, as well, represent a larger share of workers in California relative to the rest of the U.S., but the share of workers they represent in California increases moving from the lowest earnings tier in panel (a) to the highest earnings tier in panel (c) (which is the opposite pattern for Hispanics). Blacks represent a larger share of workers for the rest of the U.S. relative to California, particularly when considering the two lower income tiers (this difference appears to narrow as the wage increases).

It is also useful to consider other important demographic factors, such as age. Figure 7 displays the racial and ethnic composition by age for California’s travel/hospitality industry, where the left-most column presents the racial/ethnic composition for workers in California’s travel/hospitality industry as a whole, and the set of bars on the right side reflect individual age categories for workers within California’s travel/hospitality sector.

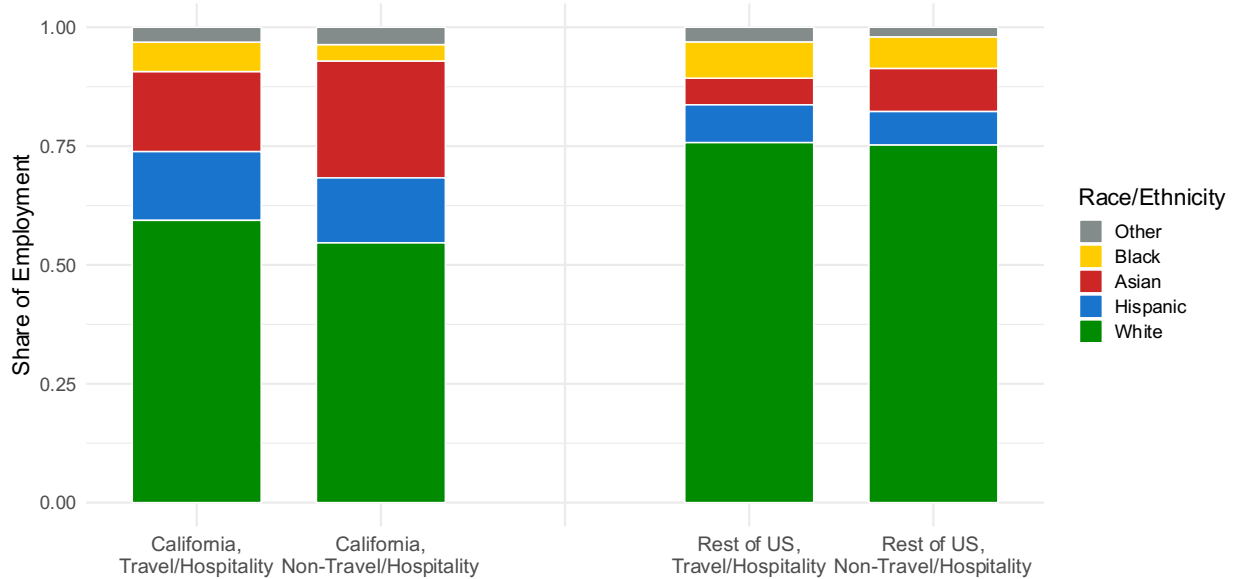
**Figure 6: Racial & Ethnic Composition in Travel/Hospitality: Comparison to Relevant Samples, By Earnings Levels**  
 (a) Less than \$15



(b) \$15 - \$44.99



(c) \$45 and higher



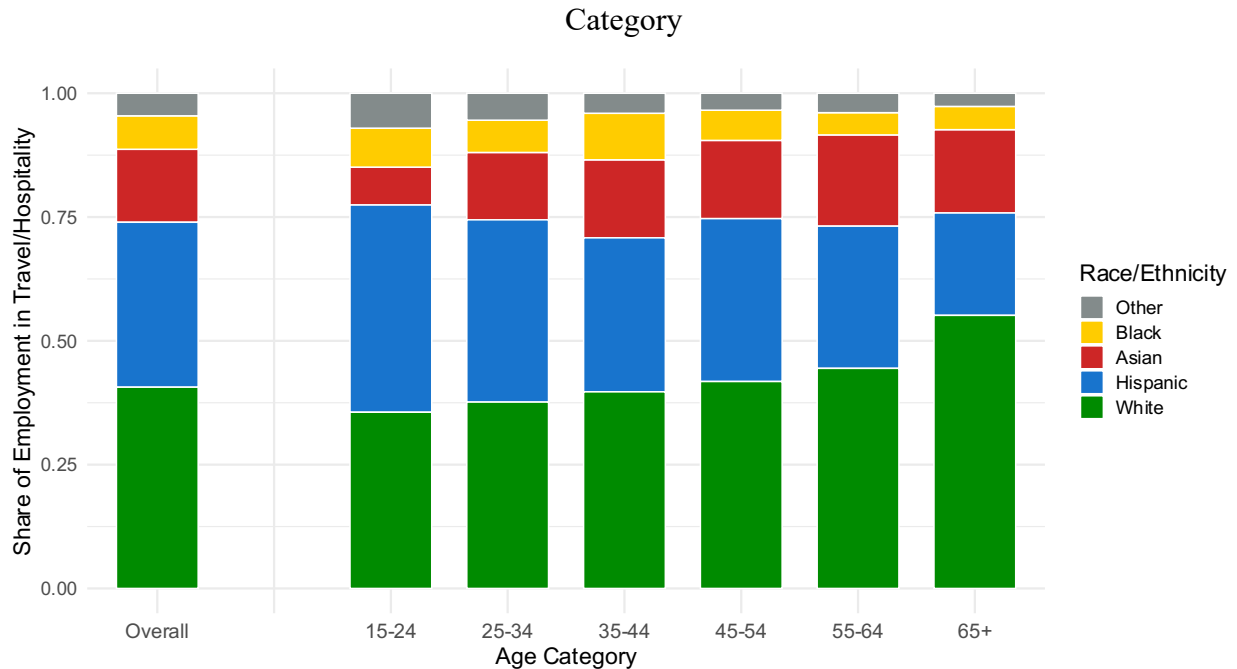
**Source:** American Community Survey PUMS 2019

**Note:** Sample includes all employed wage and salary workers aged 15 and older. Self-employed workers are excluded from the sample. Travel/hospitality does not include workers in the restaurant industry.

Broadly, this chart indicates that there is a higher representation of white workers among older age groups in California’s travel/hospitality industry, which is accounted for by a decreased representation among Hispanic workers. This aligns with patterns in the general U.S. population,

where Hispanics also tend to be younger than whites. No clear patterns are displayed for the Black and Asian groups.

**Figure 7: Racial & Ethnic Composition in Travel/Hospitality in California in 2019, by Age**



**Source:** American Community Survey PUMS 2019

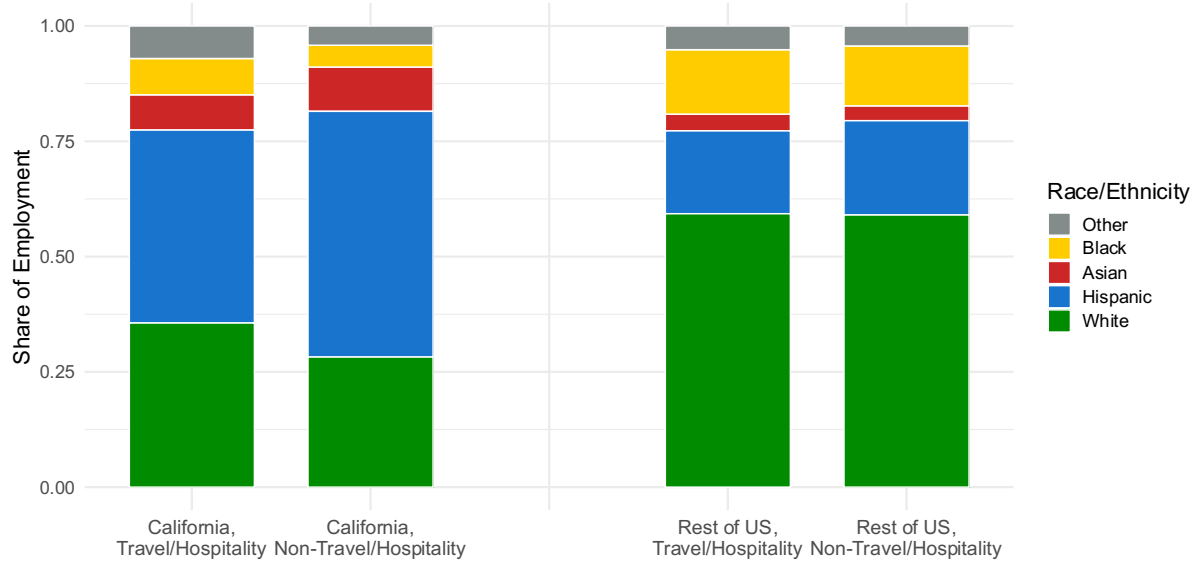
**Note:** Sample includes all employed workers in the travel/hospitality industry aged 15 and older (including self-employed workers). Travel/hospitality does not include workers in the restaurant industry.

To compare these trends with the rest of the U.S. and the non-travel/hospitality industry in California, we perform a similar exercise as above by analyzing racial/ethnic patterns for two age groups: those workers between 15 and 25 years old and those who are 25 years or older. Figure 8 displays these results. Within the younger age group – those between 15 and 25 – we see that Hispanics are overrepresented in California relative to the rest of the U.S. and represent a larger share of California’s non-travel/hospitality industries relative to California’s travel/hospitality industry. For the older age group, Hispanics represent a smaller share in all of the subsamples.

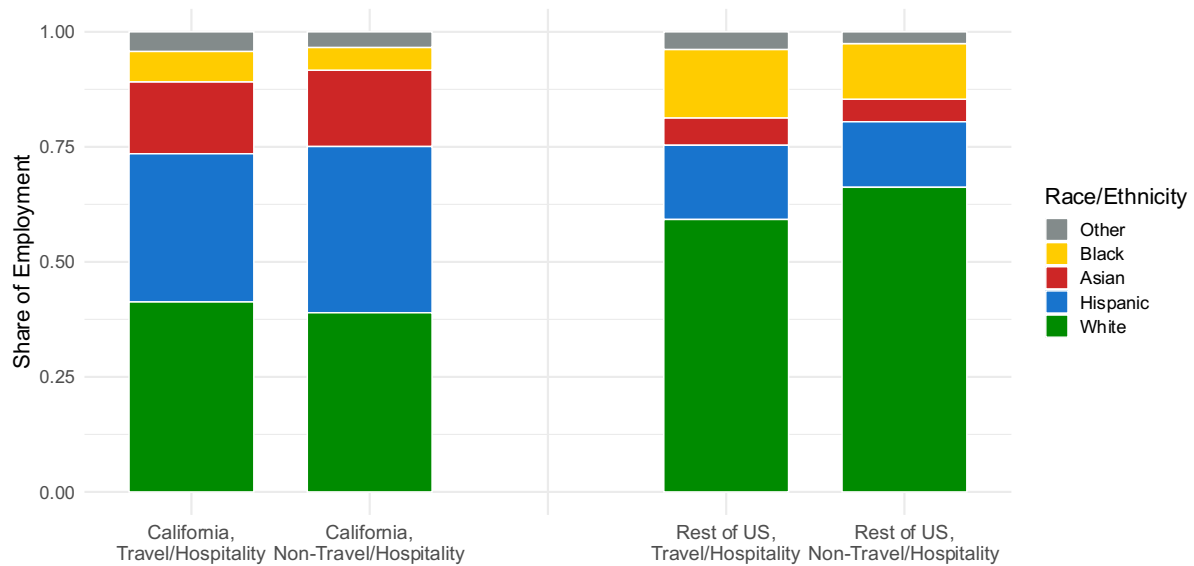


**Figure 8: Racial & Ethnic Composition in Travel/Hospitality: Comparison to Relevant Samples, By Age Category**

(a) Younger than 25 years old



(b) 25 years old and older



**Source:** American Community Survey PUMS 2019

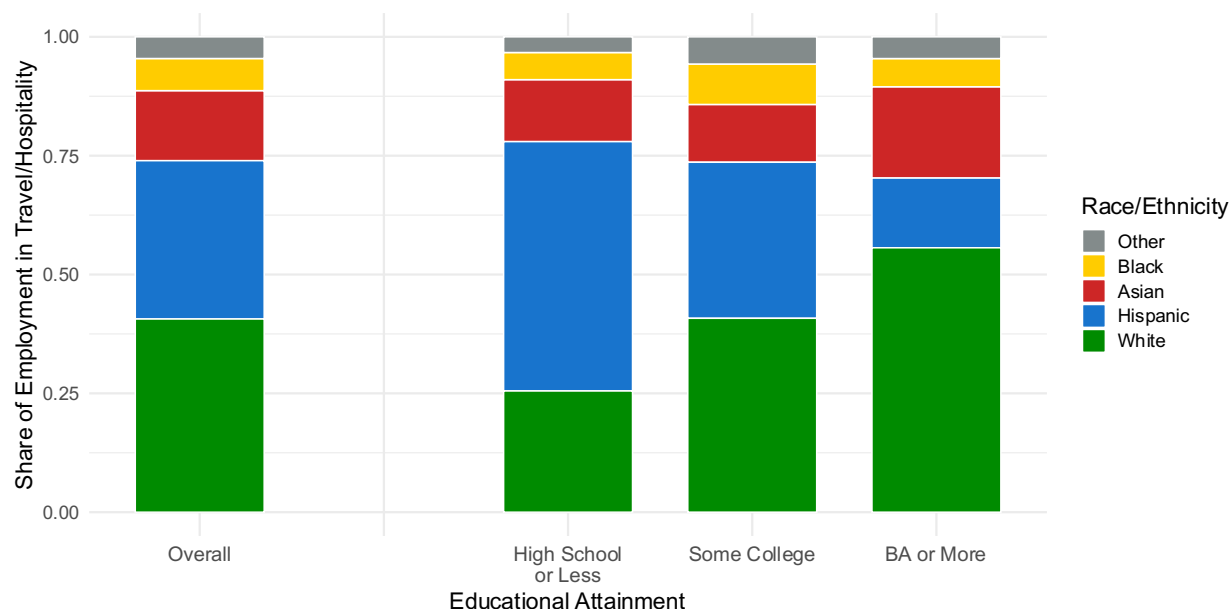
Note: Sample includes all employed workers aged 15 and older (including self-employed workers).

Travel/hospitality does not include workers in the restaurant industry.

Finally, given that schooling is a significant correlate of both wages and race/ethnicity, we present racial and ethnic distributions by educational attainment. As can be seen in Figure 9,

Hispanics are disproportionately represented among those with a high school degree or less, and the share of Hispanics falls as educational attainment increases. Conversely, among those with a college degree or higher, whites represent more than 50 percent of workers, followed by Asian workers. These patterns accord with the earnings data in Figure 5, given that higher education corresponds to higher earnings.

**Figure 9:** Racial & Ethnic Composition in Travel/Hospitality in California in 2019, by Educational Attainment



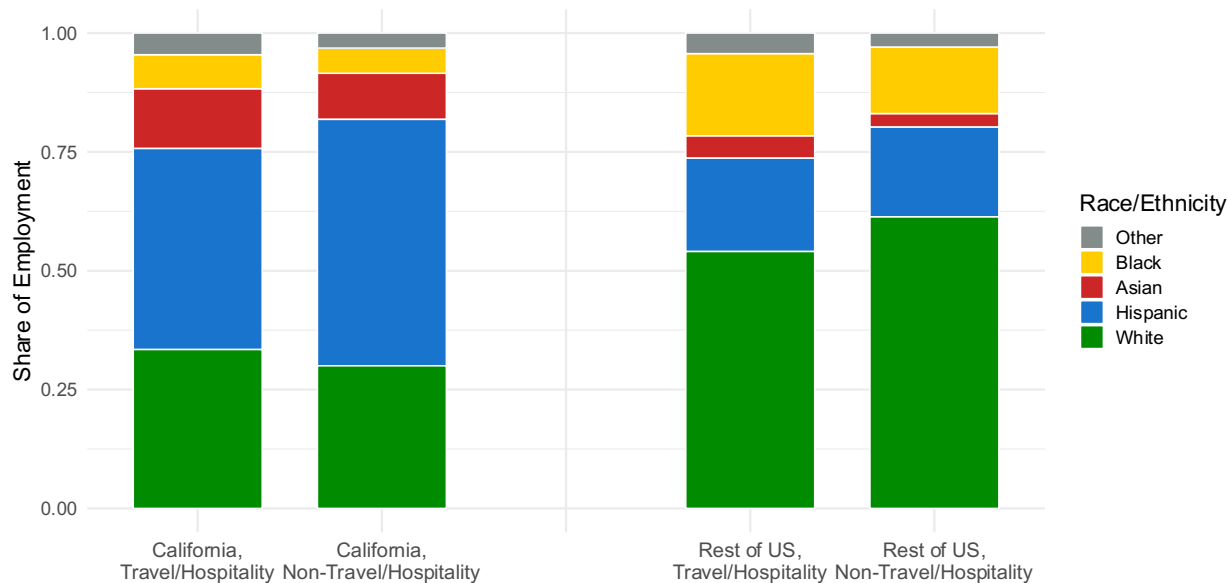
**Source:** American Community Survey PUMS 2019

**Note:** Sample includes all employed workers in the travel/hospitality industry aged 15 and older (including self-employed workers). Travel/hospitality does not include workers in the restaurant industry.

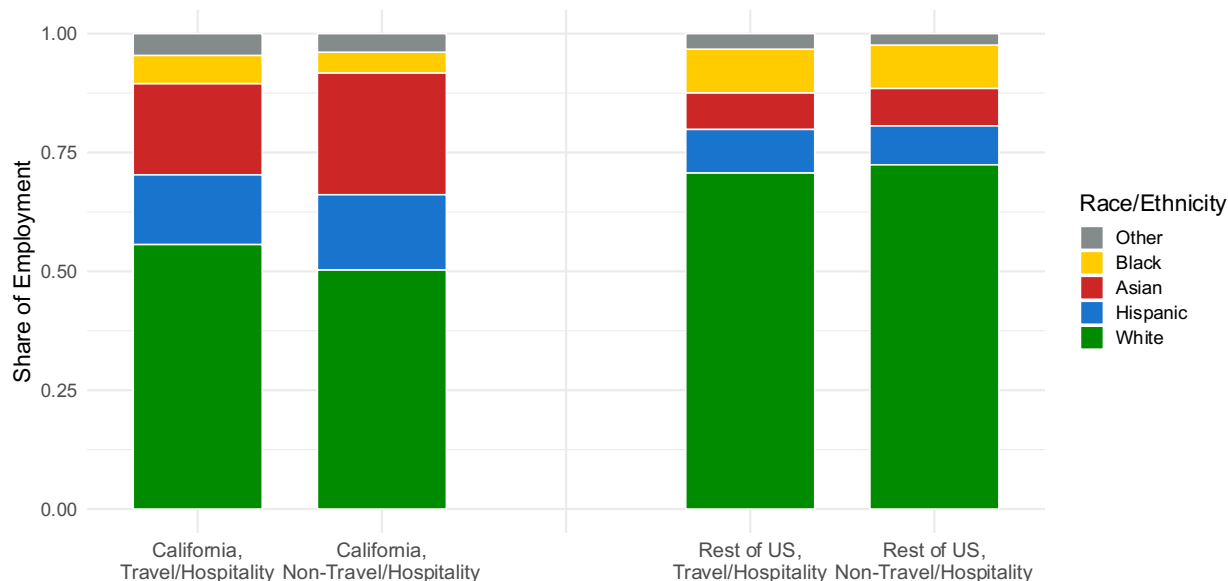
When we compare these educational patterns with other industries in California and the rest of the U.S., we see that the same broad patterns hold. As shown in Figure 10, among those with less than a college degree, Hispanics are overrepresented in industries in California relative to the rest of the U.S. Comparing across industries within California, there are fewer Hispanics in the travel/hospitality sector (proportionately) than in non-travel/hospitality for those with less than a college degree, whereas these proportions are relatively equivalent for those with a bachelor’s degree or higher. Whites are the majority group among those with a bachelor’s degree or higher across all four subsamples.

**Figure 10: Racial & Ethnic Composition in Travel/Hospitality: Comparison to Relevant Samples, By Educational Attainment**

(a) Less than Bachelor's Degree



(b) Bachelor's Degree or Higher



**Source:** American Community Survey PUMS 2019

**Note:** Sample includes all employed workers in the travel/hospitality industry aged 15 and older (including self-employed workers). Travel/hospitality does not include workers in the restaurant industry.

To more formally examine the relationship between race/ethnicity status and earnings, we run regressions that compare the outcomes of those who are Black, Hispanic, or in the Other race

category to those who are white or Asian.<sup>13</sup> We additionally control for demographic variables<sup>14</sup> in all regressions, to account for correlated factors that may impact earnings. More detail about the regressions is included in Appendix C.

Figure 11 presents the average adjusted difference in earnings for four categories of workers relative to whites/Asians.<sup>15</sup> As can be seen in the salmon-colored bar in the left panel, non-white/non-Asian workers in the travel/hospitality industry in California earn approximately 8.6 percent lower wages than their white/Asian counterparts in travel/hospitality in California holding constant demographics such as age, gender, and education. When industry and occupation fixed effects are included, the total earnings gap is nearly halved to approximately 4.9 percent lower wages (the salmon-colored bar in the right panel), suggesting that about half of the non-white/non-Asian earnings gap arises from differences *within* occupation and industry (that is, among workers in the same job), while the other half is accounted for by differential sorting *into* higher paying jobs and industries.

The non-white/non-Asian wage gap in the non-travel/hospitality sector in California is even larger, as seen in the approximately 10 percent lower wages these workers earn compared to their white/Asian counterparts (the green-colored bar in the left panel). As above, including industry and occupation fixed effects halves this earnings gap, suggesting that the wage gap for this group is also partly driven by differential sorting into higher paying industries or occupations. The non-white/non-Asian earnings gap is also larger in non-travel/hospitality in the rest of the country (the purple bars in both panels) compared to the non-white/non-Asian gap in California's travel/hospitality sector (the salmon-colored bars). These results broadly align with non-whites/non-Asians in California's travel/hospitality sector earning less than white/Asian workers in California's travel/hospitality sector, but with the sector being a relatively better industry for non-whites/non-Asians in California as compared to other industries in California, a

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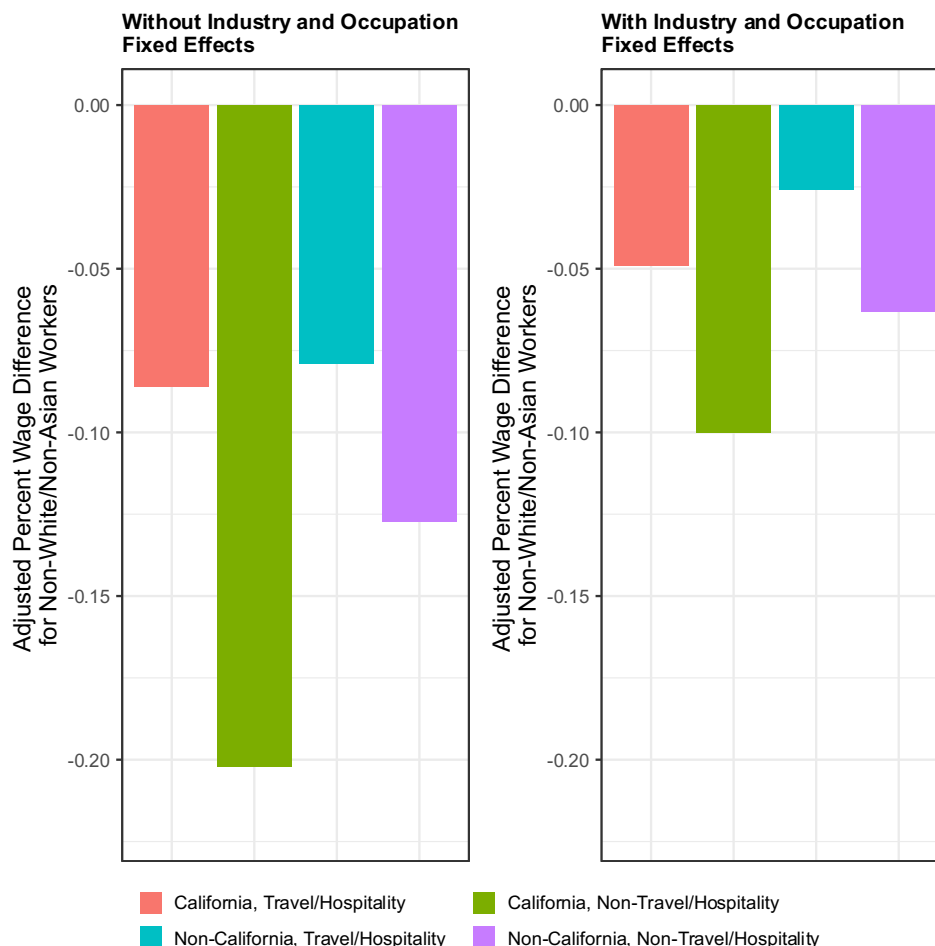
<sup>13</sup> As noted in Section 2, we combine the white and Asian groups due to relative similarity in the raw earnings data for these two groups, as compared to earnings for Blacks, Hispanics, and the Other race category. Results which group Asians with Blacks, Hispanics, and the Other race category are broadly qualitatively similar.

<sup>14</sup> We include the following demographic variables in all specifications: age, the square of age, gender, and educational attainment. In some models we also include industry or industry and occupation fixed effects. These earnings regressions additionally control for selection into paid employment through the Inverse Mills Ratio, though the main coefficients are similar when the Mills Ratio is excluded. See Appendix C for more detail on the Inverse Mills Ratio.

<sup>15</sup> Note that the earnings gaps presented reflect total differences between non-whites/non-Asians and whites/Asian as opposed to incremental effects from interaction terms. See Appendix C for more detail.

finding that is reinforced by the patterns we see when examining worker transitions using the SIPP data in Section 5.

**Figure 11: Effect of Non-white/Non-Asian Status on Earnings**



**Source:** American Community Survey PUMS 2019.

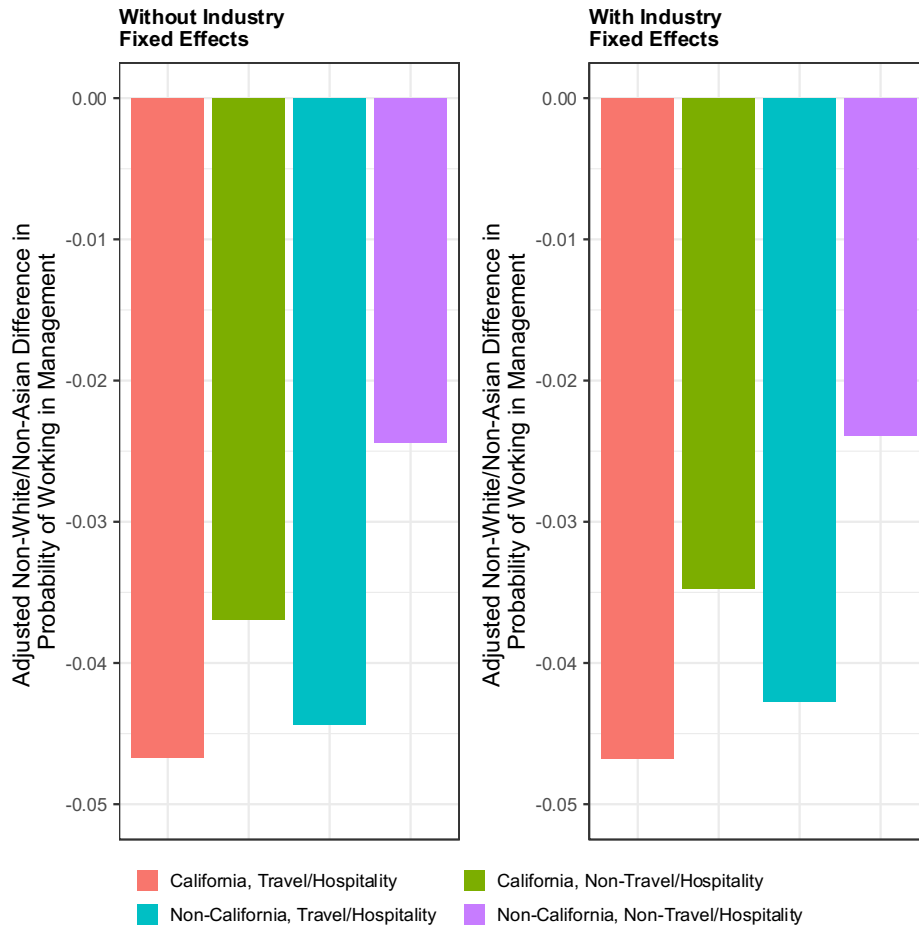
**Notes:** Sample includes all wage and salary workers aged 15 and older. The bars represent the effect of group status on log hourly wages. Travel/hospitality does not include workers in the restaurant industry.

We observe a slightly different pattern in Figure 12, where the dependent variable indicates working in a management occupation. Non-white/non-Asian California travel/hospitality workers are approximately 5 percentage points less likely to be in management occupations relative to their white/Asian counterparts,<sup>16</sup> controlling for demographics and

<sup>16</sup> Approximately 12 percent of workers in travel/hospitality are in management occupations. Thus a 5 percentage points decrease represents a significant share of the mean.

whether or not we control for occupation/industry fixed effects (the salmon-colored bars). The gap is the largest in this industry/geography of the four compared (although the differences are not meaningfully different except for non-travel/hospitality in the rest of the country, where the non-white/non-Asian management gap is about half as large, represented by the purple bars).

**Figure 12:** Effect of Non-white/Non-Asian Status on Being in a Management Occupation



**Source:** American Community Survey PUMS 2019.

**Notes:** Sample includes all wage and salary workers aged 15 and older. The bars represent the effect of group status on probability of being in a management occupation. Travel/hospitality does not include workers in the restaurant industry.

#### 4. Employment Trends by Race/Ethnicity through COVID

The racial and ethnic patterns described above highlight the important role of diversity in California’s travel/hospitality industry. It also raises the question of how race/ethnicity patterns have evolved over the recent time period and through the recent COVID-19 pandemic.

To analyze the most recent data through the pandemic, we use the Current Population Survey monthly files to measure trends in overall travel/hospitality employment and earnings, and the racial composition of the workforce for 2020 (through the pandemic) compared to recent years. We examine changes in employment levels overall and by race and analyze how these changes are related to earnings levels.

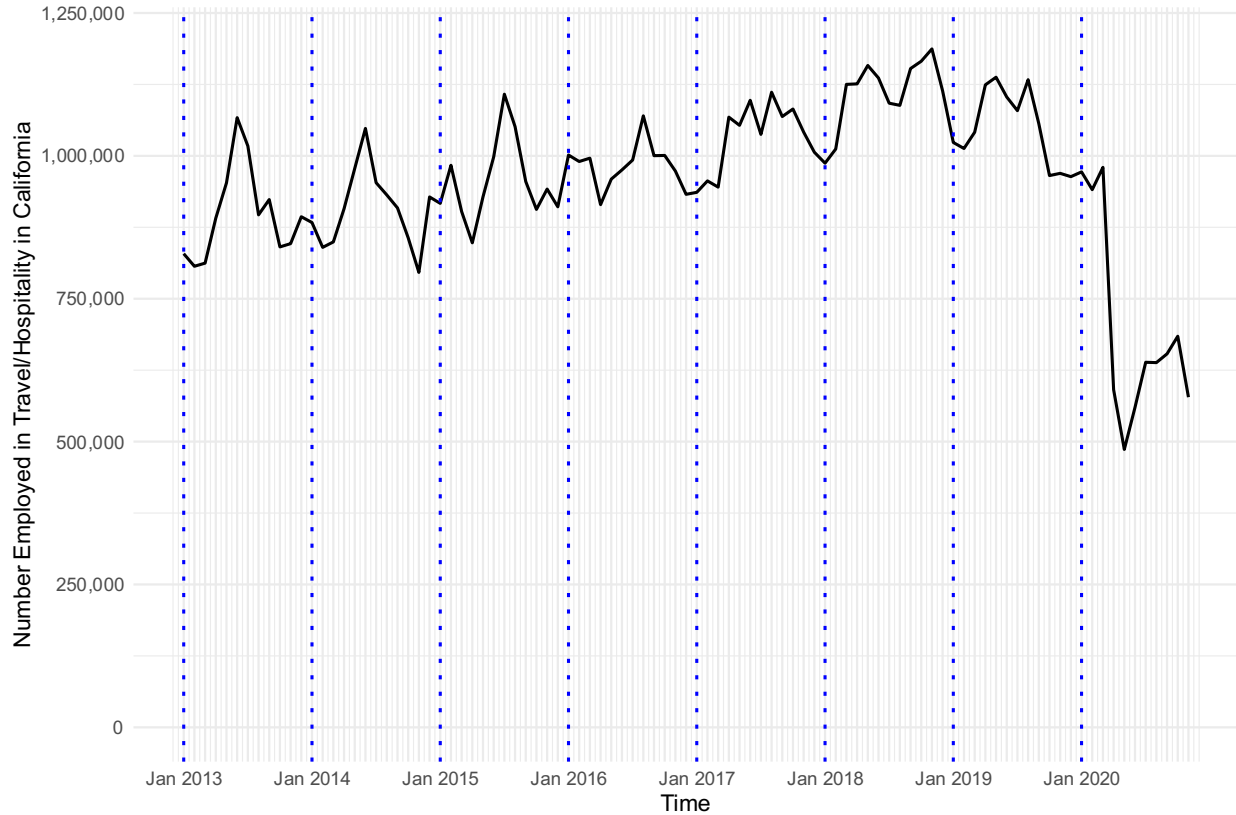
#### *4.1 Data*

The data from the Current Population Survey represents monthly level observations for employment from the basic monthly files, and earnings information from the Merged Outgoing Rotation Group (MORG) files; the latter reflects households interviewed in the fourth and eighth month of the survey about their earnings, and so reflects one-fourth of the full sample. Our analysis reflects the period from January 2013 through November 2020.

#### *4.2 Results*

Figure 13 shows monthly employment in the travel/hospitality sector in California over the January 2013 through November 2020 time period. Total employment increased from around 800,000 to around one million individuals from 2013 through 2019, in line with our ACS estimates. However, when the pandemic's economic impact hit in March 2020, we see sharp job losses, declining to approximately 500,000 at its trough. While some of the jobs were recovered in the latter part of 2020, the travel/hospitality sector stood at approximately 600,000 as of November 2020 (the latest data available), representing an almost 40 percent decline compared to pre-pandemic levels.

**Figure 13:** Total Employment of Travel/Hospitality Workers in California, 2013-2020



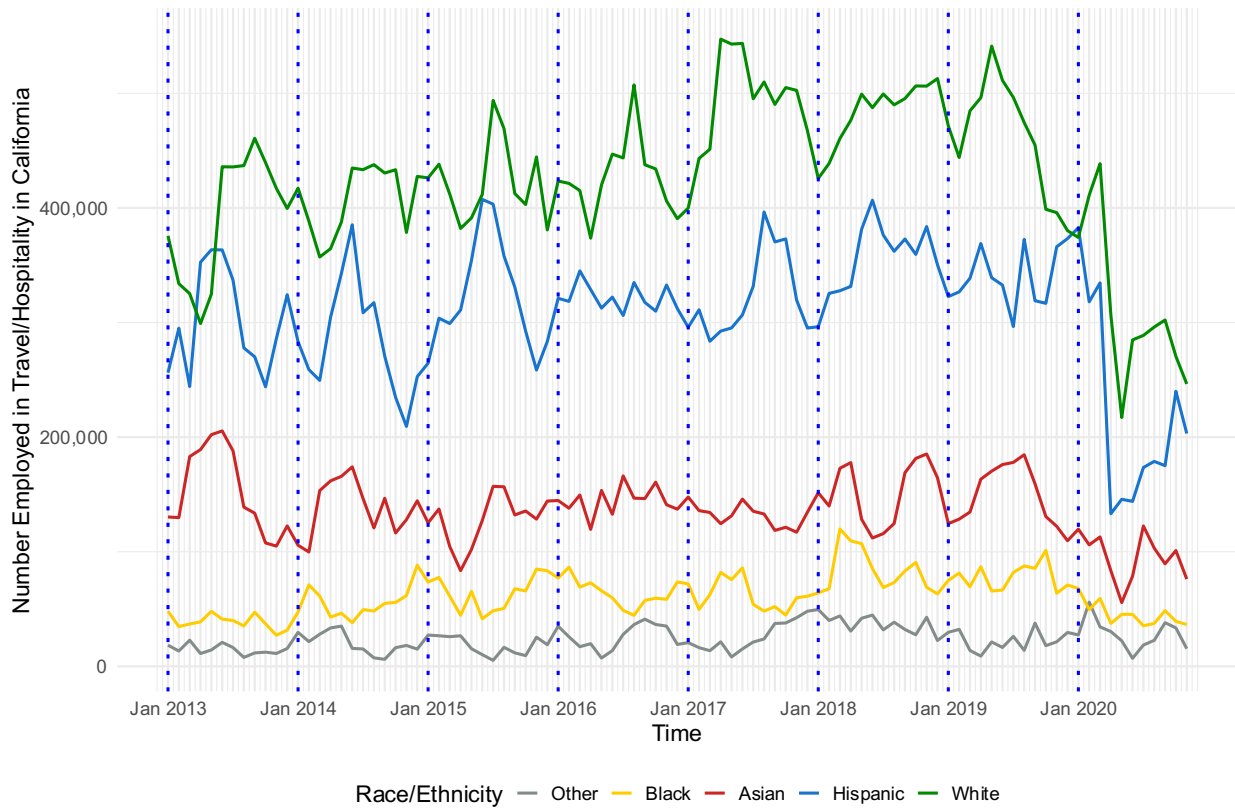
**Source:** Core Monthly Current Population Survey, January 2013 – November 2020

**Note:** Sample includes all employed workers in the travel/hospitality industry aged 15 and older (including self-employed workers). Travel/hospitality does not include workers in the restaurant industry.

Examining these trends by race in Figure 14, we see a similar drop in employment for all racial groups as a result of the pandemic, though there were steeper declines for Hispanic and white workers, who also represent the two largest racial groups in the industry. Moreover, both Hispanics and whites had recovered the least by November 2020, with employment at half of its pre-pandemic level.



**Figure 14: Total Employment of Travel/Hospitality Workers in California by Race/Ethnicity, 2013-2020**

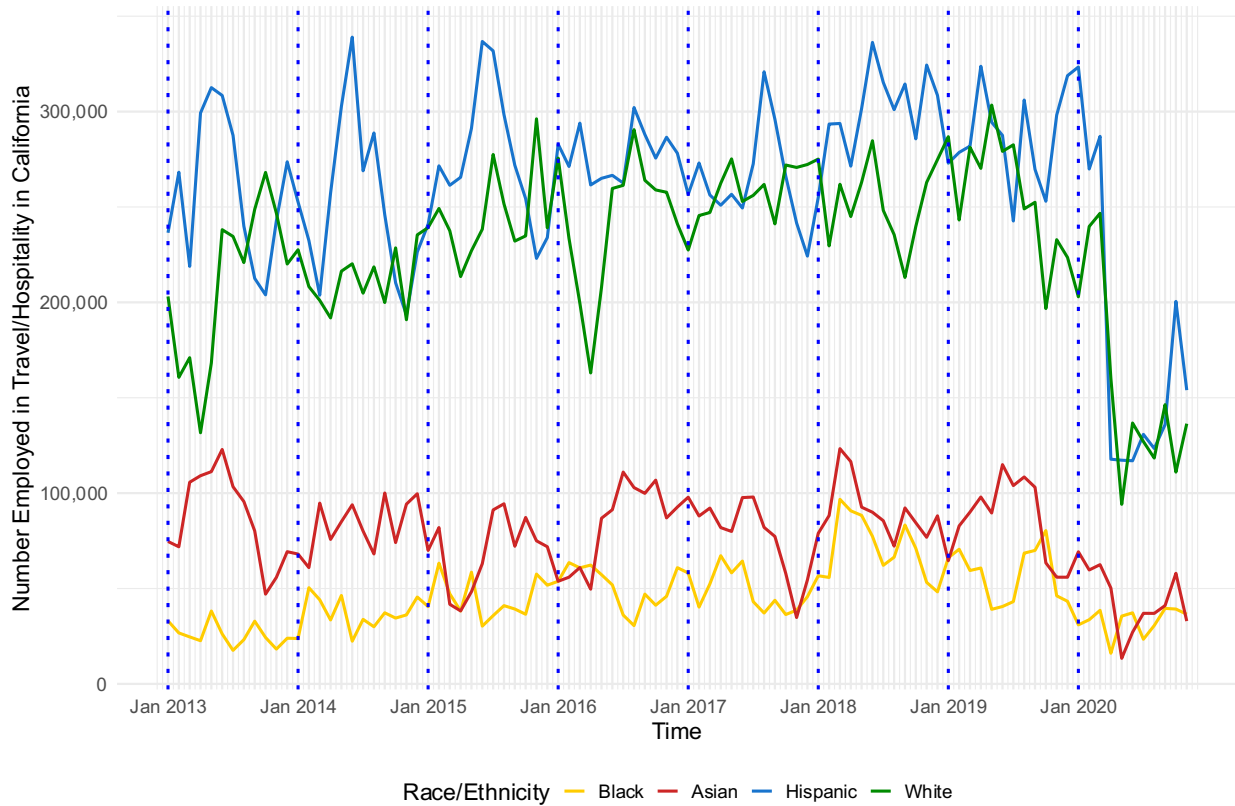


**Source:** Core Monthly Current Population Survey, January 2013 – November 2020

**Note:** Sample includes all employed workers in the travel/hospitality industry aged 15 and older (including self-employed workers). Travel/hospitality does not include workers in the restaurant industry.

When we examine these patterns by education status, it is clear that the largest drops are occurring for the sub-baccalaureate group (those with less than a bachelor’s degree, e.g., a high school or less or an associate degree), with the steepest declines for Hispanics, whites, and Asians (Figure 15). This aligns with recent research that finds significant drops in employment for non-college educated U.S. workers as a result of the pandemic (Daly, Buckman & Seitelman 2020).

**Figure 15: Total Employment of Travel/Hospitality Workers in California by Race/Ethnicity, Sub-Baccalaureate, 2013-2020**



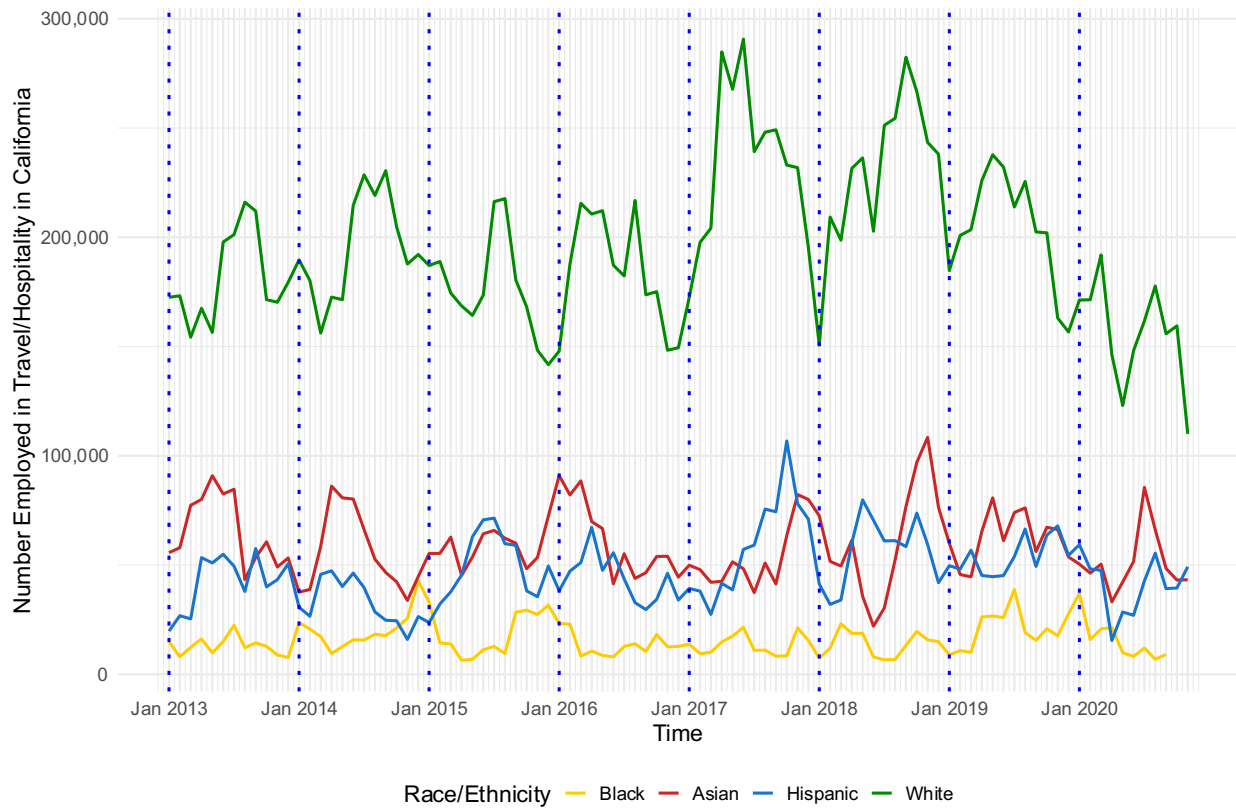
**Source:** Core Monthly Current Population Survey, January 2013 – November 2020

**Notes:** Sample includes all employed workers in the travel/hospitality industry aged 15 and older without college degrees (including self-employed workers). Workers whose race/ethnicity is classified as Other are excluded from the figure due to insufficient sample sizes. Travel/hospitality does not include workers in the restaurant industry.

While there was still a pandemic-related drop in employment for college-educated Hispanics, whites, and Asians in March 2020, employment has recovered for Hispanics and Asians (Figure 16). Interestingly, white, college-educated workers in California’s travel/hospitality sector have not experienced the same improvement in employment levels. This seems to reflect a longer-run downward trend in the share of college-educated whites in the sector over the past several years.<sup>17</sup>

<sup>17</sup> The share of college-educated Blacks in this sample is quite small, so we abstain from drawing conclusions about them.

**Figure 16: Total Employment of Travel/Hospitality Workers in California by Race/Ethnicity, Baccalaureate or Higher, 2013-2020**



**Source:** Core Monthly Current Population Survey, January 2013 – November 2020

**Notes:** Sample includes all employed workers in the travel/hospitality industry aged 15 and older with a college degree (including self-employed workers). Workers whose race/ethnicity is classified as Other are excluded from the figure due to insufficient sample sizes. Black workers in this sample had insufficient sample size in the last two months of 2020. Travel/hospitality does not include workers in the restaurant industry.

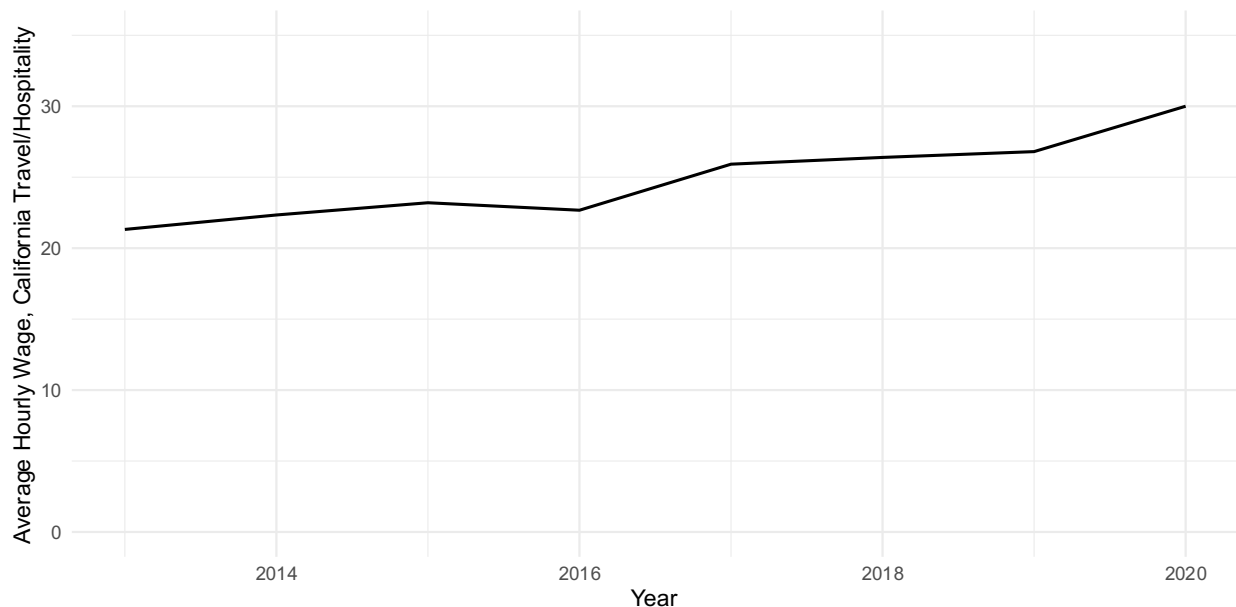
How do these compositional shifts affect wages? We examine this in Figures 17 and 18. Figure 17 presents the overall wage across all racial and ethnic groups over the January 2013 through November 2020 time period.<sup>18</sup> We see that the average wage was just over \$25/hour in 2019.<sup>19</sup> The average wage trended higher in the most recent data, with the pandemic period

<sup>18</sup> We adjust wages using a standard top-coding procedure in the literature (Autor, Katz & Kearney 2008), whereby top-coded wages (e.g., 2,4884.61 per week) are multiplied by 1.5x. We also adjust earnings similarly to our ACS wage adjustment: first, wages of California workers below the California minimum wage are set at the minimum wage in the respective month and year; second, we winsorize earnings at the 99.5<sup>th</sup> percentile. All wages reflect nominal values.

<sup>19</sup> This is slightly different from the ACS average wage of just under \$30/hour, likely due in part to differences in sampling and survey methodology. The key difference between the wage estimates in the ACS and the CPS is that the ACS asks about earnings in the previous year, whereas the CPS asks about usual earnings in the previous month.

seeing a relatively large increase, though this likely reflects compositional effects in employment (discussed below).

**Figure 17:** Average Annual Hourly Wage for Travel/Hospitality Workers in California, 2013-2020



**Source:** Current Population Survey Monthly Outgoing Rotation Group (MORG), January 2013 – November 2020  
**Note:** Sample includes all employed wage and salary workers in the travel/hospitality industry aged 15 and older. Self-employed workers are excluded from the sample. Travel/hospitality does not include workers in the restaurant industry.

We can also examine the wage by racial and ethnic categories.<sup>20</sup> Figure 18 shows wages averaged within a year and then plotted for each of the racial/ethnic groups. From this figure, we see two distinct patterns. The first is that Hispanic and Black workers exhibited lower earnings levels than whites and Asians over this time period, in keeping with the patterns seen using ACS data. The second is that Black and Hispanic workers exhibited a relative decline in 2020 (inclusive of the pandemic time period, the main economic effects of which began in March 2020), whereas whites and Asians exhibited a relative uptick in the average wage in 2020, causing a divergence from the prior year when differences appeared to start narrowing. While

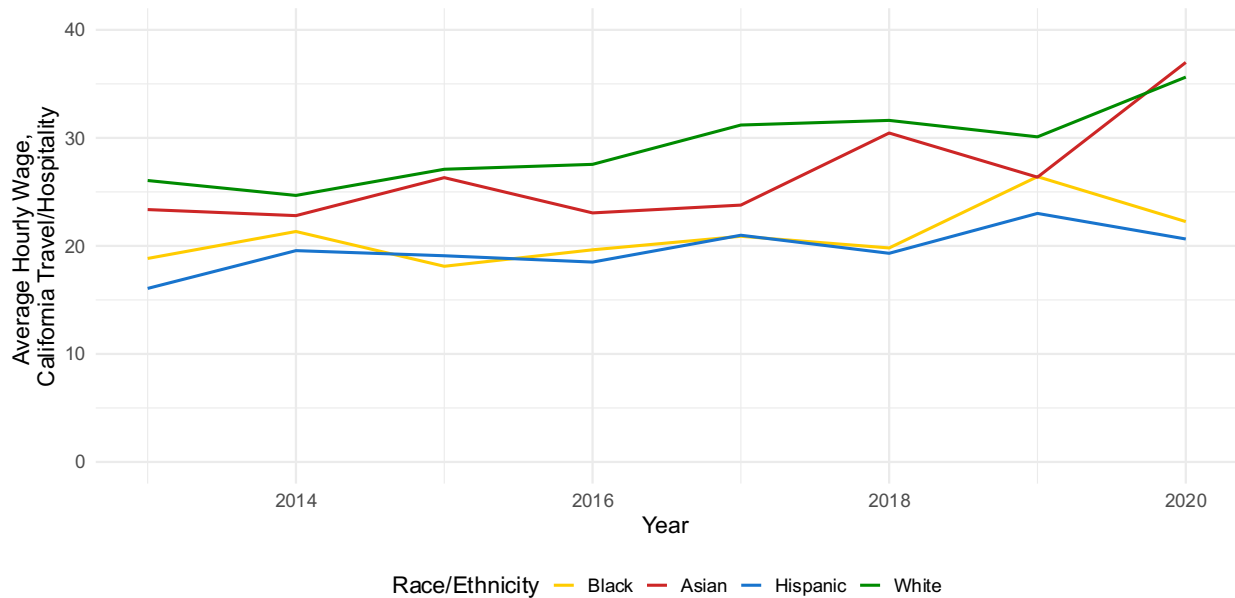
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As a consequence, ACS earnings estimates are more likely to include earnings from different jobs (e.g., if the respondent changed jobs or held multiple jobs in the survey year). Also, ACS estimates may be more vulnerable to measurement error if respondents do not have perfect recall about their annualized earnings, which would occur, for example, if someone reports their annual salary to the interviewer but only worked during part of the year.

<sup>20</sup> Note that we do not show average wages for the “Other” race category due to insufficient observations in the earnings data from the Merged Outgoing Rotation Group files.

these changes might appear counterintuitive, as one might expect wage declines due to the pandemic, these wage patterns likely reflect compositional shifts in the skill distribution as a result of the pandemic-employment-related losses: as shown in the figures above, for whites, much of the employment losses were concentrated among the non-college educated who earn less, thereby increasing the fraction of college-educated workers who earn a higher wage. Similarly, for Asians, we see a decline in the share that are non-college educated (both from a decline in the number of non-college educated and an increase in the number of college-educated). These compositional shifts likely drive the given wage changes we observe. This corresponds to an overall increase in the average wage in 2020 (seen in Figure 17) which masks considerable heterogeneity by race/ethnicity and exists in parallel to half of the industry, mostly lower-earners, having lost their jobs.

**Figure 18:** Average Annual Hourly Wage for Travel/Hospitality Workers in California by Race/Ethnicity, 2013-2020



**Source:** Current Population Survey Monthly Outgoing Rotation Group (MORG), January 2013 – November 2020  
**Note:** Sample includes all employed wage and salary workers in the travel/hospitality industry aged 15 and older. Self-employed workers are excluded from the sample. Workers whose race/ethnicity is classified as Other are excluded from the figure due to insufficient sample sizes. Travel/hospitality does not include workers in the restaurant industry.

## 5. Comparing Career Pathways in Travel/Hospitality to Other Industries in California

A complementary part of this analysis is a discussion of how career pathways in travel/hospitality in California compare to other industries in California. Given the inequality we have documented above – where non-whites/non-Asians in travel/hospitality are overrepresented among the low-education and low-earners groups – it is important to examine what pathways exist, particularly as the industry seeks to rebuild after the pandemic. To examine these issues, we examine many of the same questions as Baird et al. 2017, who employ the 2009-2013 Survey of Income and Program Participation (SIPP). We use the 2013-2016 SIPP cohort. In doing so, we are able to frame the underlying characteristics of the travel/hospitality industry for these workers, and identify where the industry is over- or under-performing compared to other sectors. As in the ACS analysis, we include comparisons with the restaurant industry given our broader interest in the hospitality sector.

### 5.1. Data

The data that we use is the Survey of Income and Program Participation (SIPP) for the 2014 cohort, which represents the 2013-2016 time period. The SIPP is a nationally representative sample of over 100,000 respondents. Individuals are surveyed yearly, and are asked retrospective questions about each of the months in the year. This data allows us to track individuals' employment history and movements in and out of industries. Similar to Baird et al. 2017, we created annual-level measures of employment and earnings for each individual, to identify transitions between primary jobs held in a year.<sup>21</sup> This allows for more direct comparison with other research without losing the advantages of the panel nature of the data. Our results are not directly comparable to the findings from Baird et al. 2017 because of changes in the survey methodology (see Appendix A for more detail).

### 5.2. Results

The first part of our analysis examines earnings of two types of workers in the travel/hospitality industry in California: long-term employees are older, and have lower wages;

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<sup>21</sup> As with our earlier analysis, we make the same adjustments to wages: first, wages of California workers below the California minimum wage are set at the minimum wage in the respective year; second, we winsorize earnings at the 99.5<sup>th</sup> percentile. All wages reflect nominal values.

and transitional employees, who may use the industry as a launching point into the workforce. Both of these types of career paths are of value not only to travel/hospitality, but to the California economy as a whole.

**Table 1:** Comparison of Long-term versus Transitional Workers by Industry

<b>Industry</b>	<b>Percentage long-term workers in industry</b>	<b>Differences between long-term workers in the industry and transitional workers in the industry (long-term minus transitional)</b>		
		<b>Average hourly wage difference (\$)</b>	<b>Average weekly hours worked difference</b>	<b>Average age difference</b>
Travel/Hospitality	26.5	-2.90	-0.5	7.8
Restaurants	46.0	-6.93	-0.3	3.1
Administrative/Support/Waste Management	23.4	1.92	1.6	2.0
Agriculture	45.0	1.36	4.4	1.3
Construction	50.6	2.87	-1.1	-3.3
Durable Manufacturing	36.7	-6.82	1.8	0.1
Education	60.3	20.91	-2.5	2.8
Financial Activities	53.6	-3.27	-0.5	4.9
Transportation/Warehouse/Utilities	32.8	12.50	0.9	4.3
Wholesale Trade	13.0	-14.32	-1.1	-3.5

**Source:** SIPP 2013–2016.

**Note:** Sample includes all employed workers in the travel/hospitality industry aged 15 and older (including self-employed workers). Each row additionally restricts to workers who in, at least one of the four years, was employed in the industry labeled. Long-term workers are those employed each of the four years of the sample in the industry; transitional employees are those who work in the industry for less than four years but at least one year of the sample in the industry labeled. Travel/hospitality does not include workers in the restaurant industry.

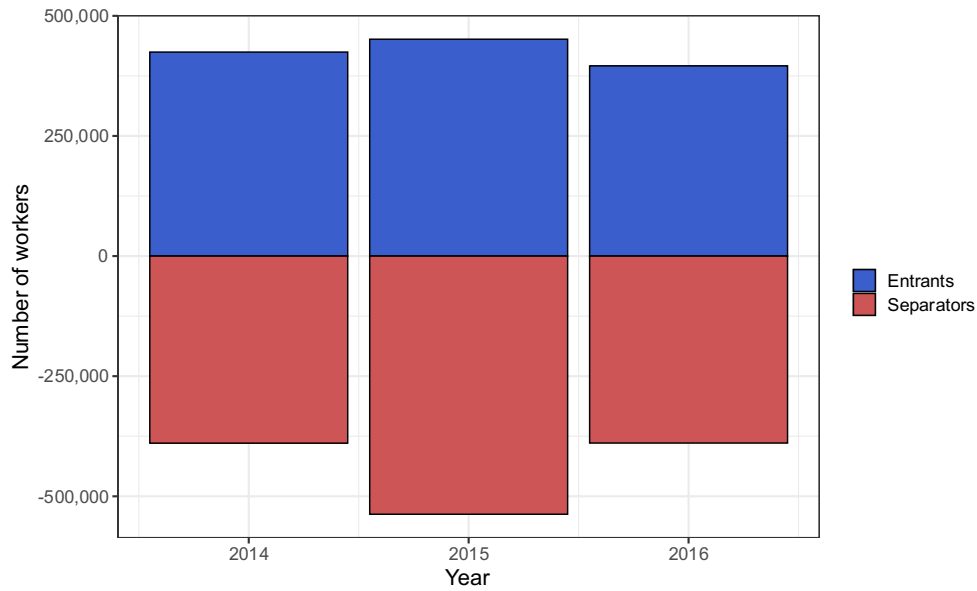
Table 1 compares these workers. The first column displays the percentage of workers employed every year in the given industry out of those employed any of the four years in the industry, i.e., the share of the industry represented by long-term workers. Interestingly, this ratio is approximately 27 percent for travel/hospitality, which is toward the lower end of the comparison industries, which have values ranging from 13 percent to approximately 60 percent. Travel/hospitality’s position in the distribution compared with the other industries supports the idea of travel/hospitality being relatively more of a springboard for other types of employment in

the more recent time period. It also accords with travel/hospitality's transitional workers having a higher earnings potential than long-term workers, seen in column 2, which shows earnings differences between the two groups of workers (i.e., long-term minus transitional) while employed in the industry. In the restaurant industry, the percentage of workers employed every year in the industry out of those employed any of the four years in the industry is higher, at 46 percent. Restaurant workers also exhibit a higher earnings potential for transitional workers versus long-term workers (shown in column 2, as long-term workers in the industry earn approximately \$3/hour less relative to transitional workers in the industry). Note, however, that these differences are purely descriptive, as these differences are not statistically significant and do not control for other relevant factors (e.g., occupation type).

To examine transitional patterns in greater depth, we examine churn into and out of California's travel/hospitality industry, defined as entrance into and separation away from the industry. Figure 19 shows that there has been fairly considerable churn (note that changing *jobs* within the travel/hospitality industry is not tallied as a transition). Around 400,000 workers entered the industry annually, and a roughly corresponding number separated away from it annually between 2013 and 2016. Thus, a significant amount of the nearly one million employees in California's travel/hospitality industry are new as of that year.



**Figure 19:** Estimated Annual Entrants Into and Separation Away from California’s Travel/Hospitality Industry

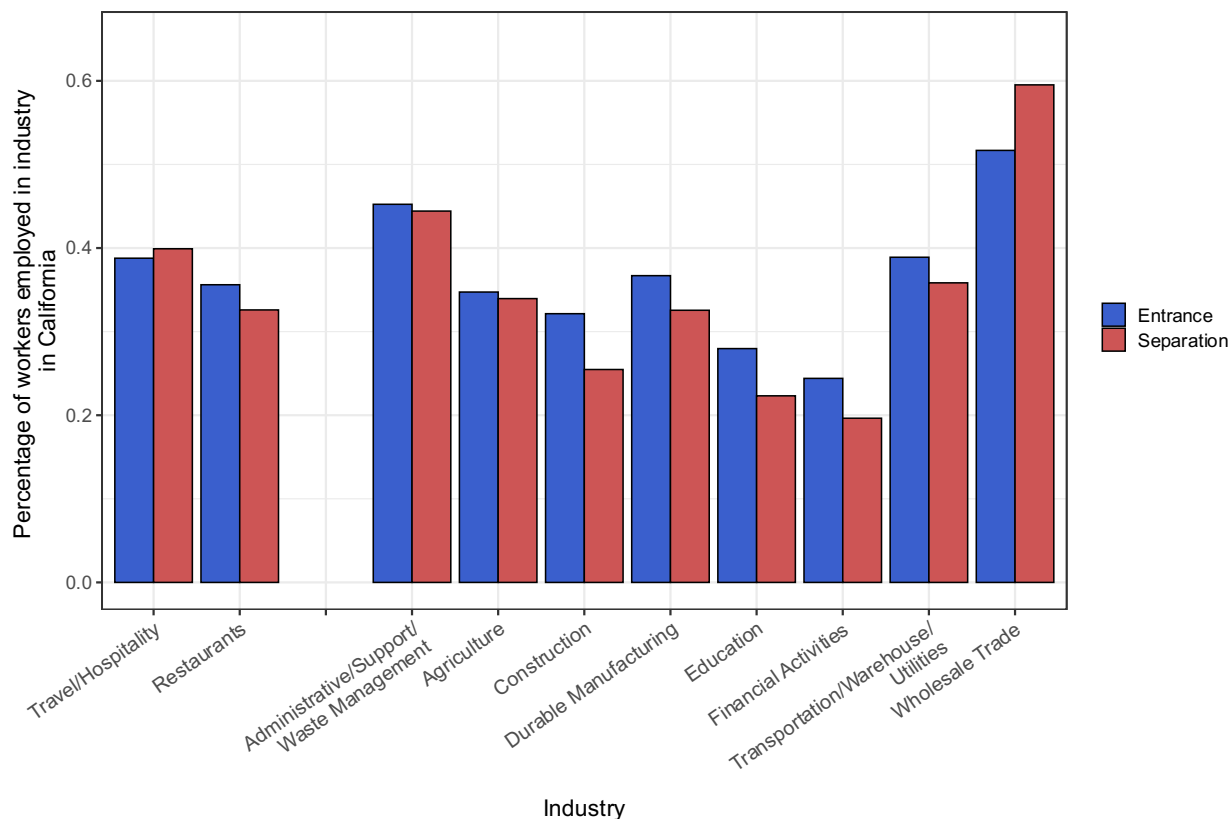


**Source:** SIPP, 2013–2016.

**Note:** Sample includes all employed workers in the travel/hospitality industry aged 15 and older (including self-employed workers). Travel/hospitality does not include workers in the restaurant industry.

While churn provides a measure of overall flows, it is useful to further examine what percentage of the industry’s workforce is associated with churn. Figure 20 shows the percentage of each industry’s workforce that was new to the industry in a typical year (e.g., working in the industry in 2016 after having not worked in the industry in 2015), as well as the percentage that separated away from the industry in a typical year (e.g., working in the industry in 2015, but not in 2016), averaging over the four years in our sample. Travel/hospitality has the fourth-highest entrance rate as a share of its workforce, and the third-highest separation rate as a share of its workforce, relative to the other industries. The restaurant industry is roughly comparable, although slightly lower.

**Figure 20:** Average Annual Percentage of Entrance and Separation for Comparison Industries



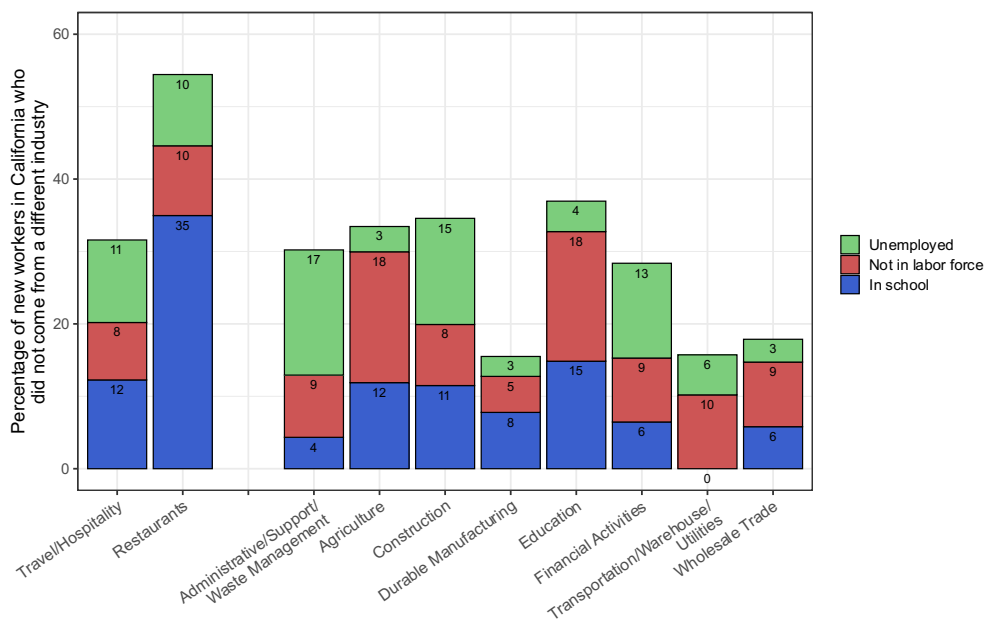
**Source:** SIPP, 2013–2016.

**Note:** Sample includes all employed workers in the travel/hospitality industry aged 15 and older (including self-employed workers). Travel/hospitality does not include workers in the restaurant industry.

Given that entrants represent on average 40 percent of California’s travel/hospitality workforce in a given year, it is useful to understand the status of entrants in the year preceding their entry. Figure 21 presents these results by first dividing the status of entrants into four groups – unemployed, not in labor force, in school, or from another industry – and displaying the share of entrants attributable to the first three groups (the residual represents entrants coming from another industry). For travel/hospitality specifically, approximately 30 percent of workers new to California’s travel/hospitality industry were not in the paid labor force the preceding year (the height of the bar). This puts travel/hospitality near the top of the peer industries in terms of attracting new employees outside of the paid labor force, and implies that California’s travel/hospitality industry has been welcoming to individuals not currently in the paid labor force, perhaps because of the comparatively low barriers to entry for new workers. This finding is consistent with Szivas, Riley, and Airey’s (2003) research suggesting that the industry

contains a diverse set of jobs accommodating different worker skills. The sizable number of entrants from outside of the paid labor force is also consistent with Dean Runyan Associates’ (2013) observation that the travel industry is well-suited to providing opportunities to the unemployed and to individuals entering the workforce. These patterns are even stronger for the restaurant industry, which exhibits the highest share of entrants from outside the labor force (at approximately 55 percent).

**Figure 21:** Previous-Year Status of Entrants into Comparison Industries in California



**Source:** SIPP, 2013–2016.

**Note:** Sample includes all employed workers in the travel/hospitality industry aged 15 and older (including self-employed workers). Travel/hospitality does not include workers in the restaurant industry.

Beyond employment status, it is worth examining the demographic characteristics of entrants coming from outside the paid labor force versus entrants coming from other industries. As shown in Table 2, travel/hospitality’s entering workers from outside the paid labor force are significantly younger, by approximately 10.5 years, than entrants to travel/hospitality from other industries. They are also 12 percent less likely to hold a bachelor’s degree or higher. Relative to other industries, travel/hospitality tends to attract younger individuals with somewhat less post-secondary schooling when examining entrants from outside the paid labor force compared to those switching occupations. This reinforces the case for travel/hospitality being a stepping stone to higher-paying employment for workers most in need of building their work experience. The

restaurant industry is also roughly in line with the travel/hospitality sector by these measures. Note, however, that this is purely descriptive as it reflects average differences and does not control for other relevant factors (e.g., occupation).

**Table 2:** Difference in Age and Percentage with BA/BS Degrees for New Industry Entrants Coming from Outside Paid Labor Force versus those Coming from Other Industries

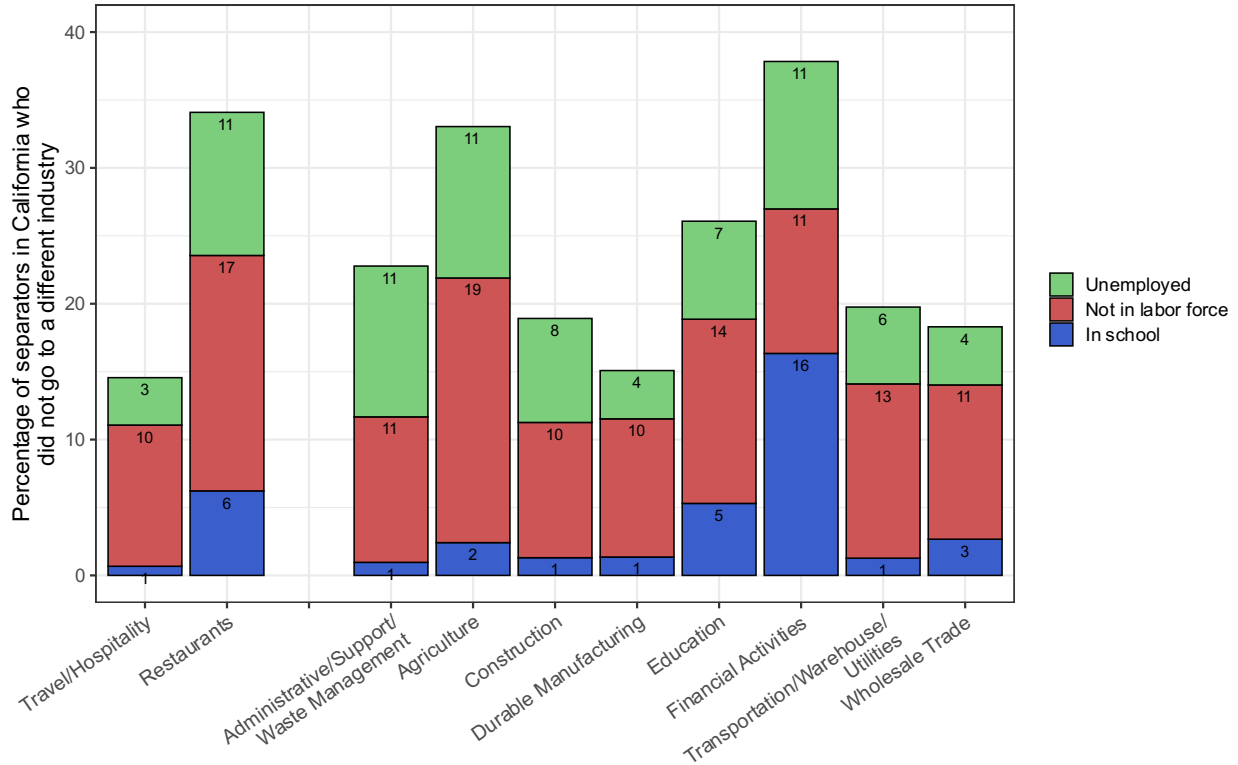
Industry	Age Difference of Entrants	Difference in Entrants with BA/BS Degree (%)
Travel/Hospitality	-10.52	-12
Restaurants	-11.02	-9
Administrative/Support/Waste Management	-7.11	-19
Agriculture	-9.51	-12
Construction	-4.65	-18
Durable Manufacturing	-3.86	-2
Education	-3.78	-21
Financial activities	-3.64	-9
Transportation/Warehouse/Utilities	0.57	-17
Wholesale Trade	-15.56	-15

**Source:** SIPP, 2013–2016.

**Note:** Sample includes all employed workers in the travel/hospitality industry aged 15 and older (including self-employed workers). Travel/hospitality does not include workers in the restaurant industry.

In examining the composition of those entering and separating from travel/hospitality, we now turn to the latter by analyzing the characteristics of those separating from the industry. Figure 22 displays these results. For all industries, the share of workers exiting to outside of the paid labor force is lower than in Baird et al. 2017, in accordance with these data not containing the Great Recession recovery period, which is also supported by a decline in the share exiting specifically to unemployment. For travel/hospitality in particular, only 14 percent were not in the paid labor force the year after they left California’s travel/hospitality industry, making travel/hospitality the industry with the highest rate of departure into other employment; restaurants, conversely, exhibit a much higher share of those exiting to outside the paid labor force.

**Figure 22: Year-After Status of Separators Away from Comparison Industries in California**



**Source:** SIPP, 2013–2016.

**Note:** Sample includes all employed workers in the travel/hospitality industry aged 15 and older (including self-employed workers). Travel/hospitality does not include workers in the restaurant industry.

For workers that move from employment from one industry to another, we examine, in Figure 23, the distribution of the ratio of new hourly wages to old hourly wage averaged across 2014 to 2016 for three different groups: those who entered travel/hospitality from a different industry (not in travel/hospitality last year but are this year), those who stayed in travel/hospitality (those who were in travel/hospitality last year and this year), and those who separated away from travel/hospitality but are employed in a different industry (those who were in travel/hospitality last year but not this year). The blue bars do not include individuals who were not employed the preceding year, and, similarly, the red bars do not include individuals not employed the following year.

Several patterns emerge from an examination of the distribution in Figure 23.<sup>22</sup> First, the spike at stable wages (100–109 percent of last year’s wage) for those who stayed in California’s travel/hospitality industry is the largest bar for those staying in the industry.<sup>23</sup> Secondly, for both entrants into and separators away from travel/hospitality, there is a large group of individuals with a more than 50-percent increase in wages (150 percent or more of previous wage); insofar as individuals often change jobs to increase wages, this implies that those who changed industries generally had higher wage growth than those who stayed in California’s travel/hospitality industry. Moreover, that group is larger for separators than entrants, with almost 30 percent of separators from the travel/hospitality industry experiencing an earnings increase of over 50 percent. This is consistent with the arguments of U.S. Travel Association (2012) that travel-related jobs provide a path to upward mobility. However, this particular outcome is not always guaranteed, as evinced by the sizeable share of workers who left California’s travel/hospitality industry for a job in a different industry and received less per hour than their travel/hospitality wage.<sup>24</sup>

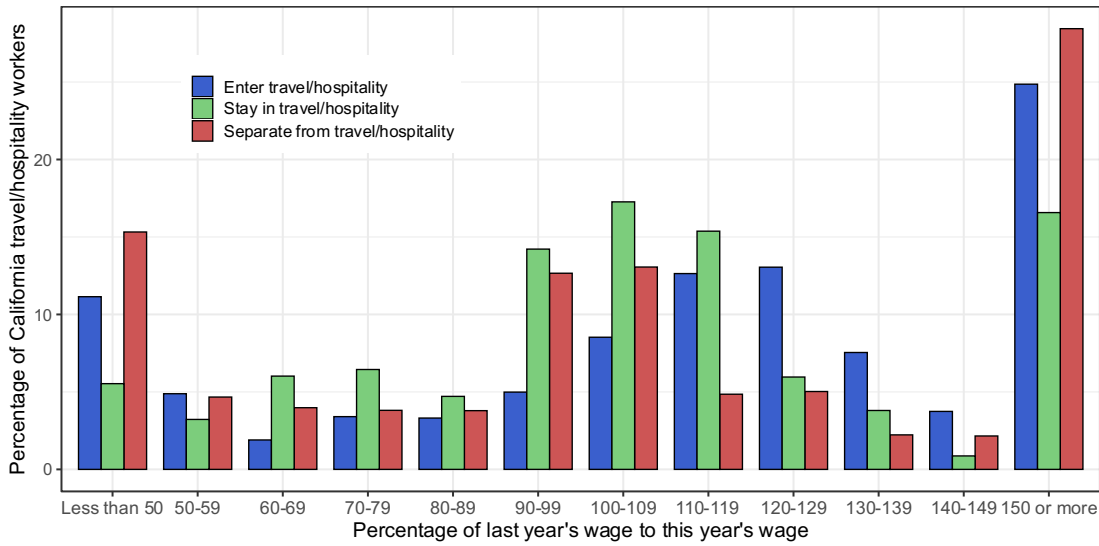
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<sup>22</sup> Prior to calculation of the average change in wages, we trim outliers, a typical approach done to account for measurement error at the extremes and the outsized role that the appearance of outliers in a random sample can have on the average (especially true for ratios which may have a very small denominator). We trim by calculating the 99.5th percentile for the *ratio* across all industries in the U.S. and set any value above this level equal to this level.

<sup>23</sup> This group represents a smaller share in the current sample relative to Baird et al. 2017 partly due to the increasing minimum wage during this latter period, as well as the differences to the SIPP survey described in Appendix A.

<sup>24</sup> Note that the much larger size of the groups in the tails of the distribution of Figure 23 compared to Baird et al. 2017 are at least partially driven by the changes in the surveying, described in more detail in Appendix A. It is not possible to determine the exact amount attributable to these methodological differences since this is the first cohort which experienced these particular survey changes.

**Figure 23: Average Change in Wages from Previous Year in California Travel/Hospitality**



**Source:** SIPP, 2013–2016.

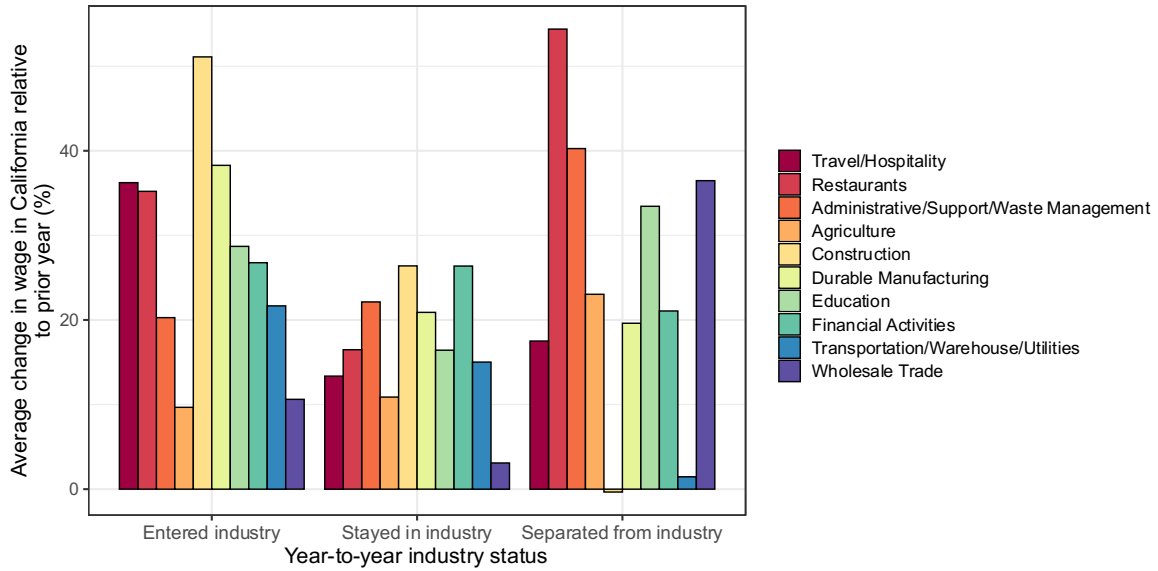
**Note:** Sample includes all employed workers in the travel/hospitality industry aged 15 and older (including self-employed workers). Travel/hospitality does not include workers in the restaurant industry.

Figure 24 complements this analysis by estimating average wage changes associated with transitions by industry.<sup>25</sup> For the travel/hospitality industry, specifically, there is a roughly 13 percent annual increase in wages for those who stayed in the same industry and are still working (middle panel of Figure 24). For those who entered California’s travel/hospitality industry, average wage growth was very high, at nearly 40 percent; this is on the higher end of the peer industries. Meanwhile, travel/hospitality had one of the smaller wage increases for separators, relative to the comparison industries, and especially when compared to the restaurant sector.<sup>26</sup>

<sup>25</sup> As in Figure 23, we trim outliers by calculating the 99.5th percentile for the *ratio* across all industries in the U.S. and set any value above this level equal to this level.

<sup>26</sup> These values are higher than in Baird et al. 2017’s analysis, likely due to the survey differences discussed in Appendix A; however, relative comparisons between industries are valid given that the survey differences likely affected all of the industries in the same manner.

**Figure 24: Average Annual Change in Wages from Previous Year by Industry**



**Source:** SIPP, 2013–2016.

**Note:** Sample includes all employed workers in the travel/hospitality industry aged 15 and older (including self-employed workers). Travel/hospitality does not include workers in the restaurant industry.

Finally, we examine how entering, staying, or separating from a given industry affects the worker’s annual wage-growth ratio (investigated in Figure 24) as compared to all other industries, after controlling for the worker’s source industry, destination industry, and demographic controls.<sup>27</sup> As can be seen in Table 3, the travel/hospitality regression-adjusted average wage increase of 0.332 for entering the travel/hospitality industry means that, controlling for individuals’ demographic characteristics, people who entered travel/hospitality from a different industry, on average, experienced an 33-percentage point increase in their wages. This aligns with Figure 24, where travel/hospitality had a 36 percent increase in average annual wages for entrants compared to its peer industries. This is near the top of the peer industry group (third highest) average increase in wages from entering the industry, in line with travel/hospitality providing relatively more opportunities compared to peer sectors.

<sup>27</sup> The reference category here includes all industries outside of the nine comparison ones, as well as the eight comparison industries to the one we examine. We include the following control variables in our regressions: age, educational achievement, gender, how many others in the household, whether the house/apartment is owned or rented, number of children under age 18, race, the U.S. citizenship status, speaking an additional language to English, marital status, and whether or not ever retired from a job.



**Table 3:** Regression-Adjusted Average Predicted Wage Percentage Increase by Transition

Industry	Entered Industry		Stay in Industry		Separated from Industry	
	Avg. Change	Std. Error	Avg. Change	Std. Error	Avg. Change	Std. Error
Travel/Hospitality	0.332**	(0.164)	0.105**	(0.047)	0.202	(0.140)
Restaurants	0.145	(0.165)	0.212***	(0.072)	0.392***	(0.173)
Administrative/Support/Waste Management	0.313***	(0.111)	0.195***	(0.055)	0.457***	(0.184)
Agriculture	0.148	(0.101)	0.109*	(0.063)	0.222	(0.161)
Construction	0.484**	(0.225)	0.214***	(0.061)	-0.096	(0.103)
Durable Manufacturing	0.356***	(0.107)	0.209***	(0.062)	0.140	(0.096)
Education	0.154	(0.182)	0.118***	(0.038)	0.354***	(0.160)
Financial Activities	-0.185	(0.197)	0.279***	(0.111)	0.115	(0.206)
Restaurants	0.145	(0.165)	0.212***	(0.072)	0.392***	(0.173)
Transpo./Warehouse/ Utilities	0.164	(0.116)	0.145**	(0.074)	-0.053	(0.092)
Wholesale Trade	0.063	(0.116)	0.032	(0.071)	0.299***	(0.116)

**Source:** RAND estimate using SIPP, 2013-2016

**Note:** Sample includes all employed workers aged 15 and older (including self-employed workers).

Travel/hospitality does not include workers in the restaurant industry. Reported coefficients are based on averaging the predicted wage ratio for each type of transition. Additional control variables in regressions are age, educational achievement, gender, how many others in the household, whether the house/apartment is owned or rented, number of children under age 18, race and ethnicity, the United States citizenship status, speaking an additional language to English, marital status, and whether or not ever retired from a job. \*\*\*Coefficient estimate is significant at the 1-percent level; \*\*Coefficient estimate is significant at the 5-percent level. Bootstrapped standard errors are clustered at the individual level.

## 6. Conclusion

It is important for industries to examine the state of their diversity and inclusion efforts. The existing economic evidence as well as the equity implications of an inclusive approach motivate proactive leadership among industry leaders. This includes documenting existing inequalities, especially for those who come from historically underrepresented and disadvantaged backgrounds.

Travel/hospitality in California is a unique case study for examining earning and employment trends by race and ethnicity. Our analysis finds that a significant share of non-white individuals are employed in California’s travel/hospitality sector, which broadly aligns with the rest of the state. However, non-whites – especially Hispanics – comprise more of the lower-end of the earnings distribution and are less educated. These patterns are similar to other industries in California but different from the rest of the U.S., which has a smaller share of Hispanic workers.

We find that these broad patterns have remained the same over the past several years, though the pandemic created a widening gap in wages for different race/ethnicity groups, as whites and Asians have seen increases in their wages while Blacks and Hispanics have seen wage declines, alongside sharp decreases in employment during the pandemic, driven mostly by Hispanic and White workers. Much of the widening wage gap in the wake of the COVID-19 pandemic could be due to compositional shifts in employment as a result of increased layoffs of low-income workers. In this way, travel/hospitality has experience a K-shaped recovery<sup>28</sup> within a K-shaped recovery: the industry itself has been hard-hit by the pandemic, and even within travel/hospitality, non-white/non-Asian workers have experienced a more significant decline in earnings.

Despite wage inequality across race/ethnicity, the industry as a whole still affords non-white/non-Asian workers benefits relative to other industries: though there is a wage gap for non-white/non-Asian workers in travel/hospitality in California (consistent with patterns in the United States overall), the gap in travel/hospitality is smaller than the same gap across all other industries in California after adjusting for covariates. The non-white/non-Asian gap for working in management is similar between travel/hospitality in California and other industries. Furthermore, travel/hospitality remains an important “spring-board” industry. Those already employed in other industries who transfer into travel/hospitality experience significant wage increases even after controlling for demographic characteristics, including race/ethnicity. And for those without labor market experience, travel/hospitality provides a critical pathway for workers seeking entry into the paid labor force. Inexperienced workers are less likely to be hired by employers relative to those with more experience, even if both have the same ability, because employers have more uncertainty about inexperienced workers (Pallais, 2014). Providing a pathway to employment for inexperienced individuals confers reputational and information benefits that can materially improve their subsequent earnings and employment outcomes. This type of pathway might be particularly valuable for Hispanics, Blacks, and other historically disadvantaged groups who likely face other impediments to equal hiring (Bertrand & Mullainathan 2004; Bartoš et al. 2016).

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<sup>28</sup>A “K-shaped” economic recovery refers to a recovery where some groups are able to rebound, while others continue to face a downturn (mirrored in the shape of the letter “K”).

Going forward, addressing existing inequities in earnings and leadership in the travel/hospitality sector will require additional effort; simply put, underrepresented groups are paid less than their white counterparts and are less likely to hold management positions, even after accounting for differences in age, education, and occupation. It is important to conduct further research to understand how these gaps can be rectified. This paper provides a benchmarking of persistent gaps that can be addressed.

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**Appendix Table 1:**

<b>Industries Included in Travel/Hospitality</b>
Air transportation
Rail transportation
Water transportation
Taxi and limousine service
Scenic and sightseeing transportation
Services incidental to transportation
Automotive equipment rental and leasing
Travel arrangements and reservation services
Performing arts, spectator sports, and related industries
Museums, art galleries, historical sites, and similar institutions
Other amusement, gambling, and recreation industries
Traveler accommodation
Recreational vehicle parks and camps, and rooming and boarding houses

## Appendix A: Comparison Between 2014 and 2008 SIPP Samples

Our preferred data source to document earnings and employment dynamics within-person over time is the Survey of Income and Program Participation (SIPP) administered by the U.S. Census Bureau. While we have attempted to make our SIPP analyses as comparable as possible to those in Baird et al. (2017), a few structural changes to the survey are likely affecting the results presented in this paper. It is outside the scope of this study to fully characterize the effects of these survey methodology changes on our findings; rather, in this section we briefly discuss each of the most significant changes and how they could influence our results.

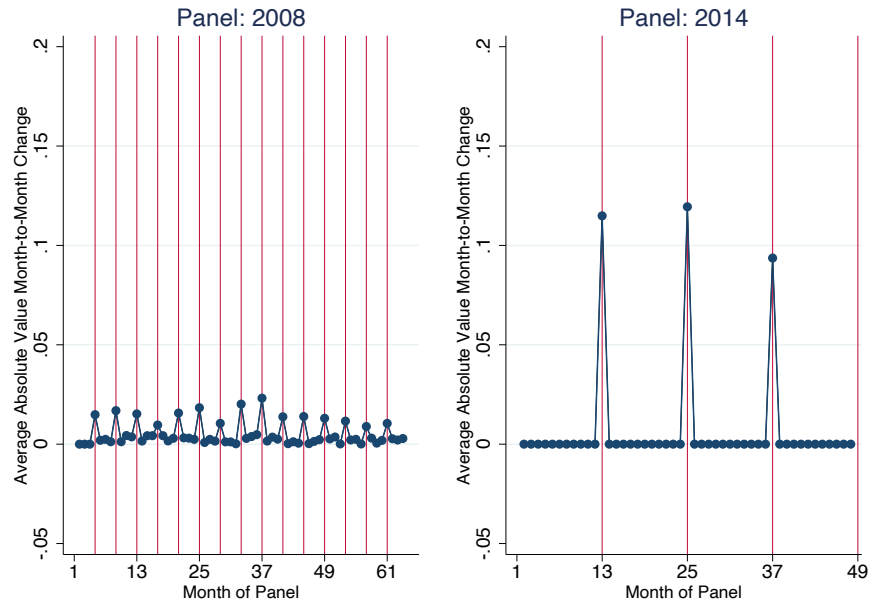
### *Changes to the lookback period*

Perhaps the most significant change to the SIPP in the 2014 panel is the adoption of a twelve-month lookback period compared to the four-month period in previous panels. A possible implication of this change is that fluctuations in earnings and wages that are not linked to specific events – such as a job loss or job change – may be captured at a lower frequency in the 2014 panel, and wage changes that occurred throughout the year may more likely be observed as year-to-year changes. One consequence of this is that estimates of year-to-year changes in earnings will likely have greater variance, which is what we observe in Figure 23 compared to its analogue in Baird et al. (2017), Figure 3.7. For example, we estimate that more than 15 percent of workers who stayed in the same job in the travel/hospitality industry in California saw year-on-year earnings increases of more than 50 percent, compared to less than 5 percent in the 2008 panel.

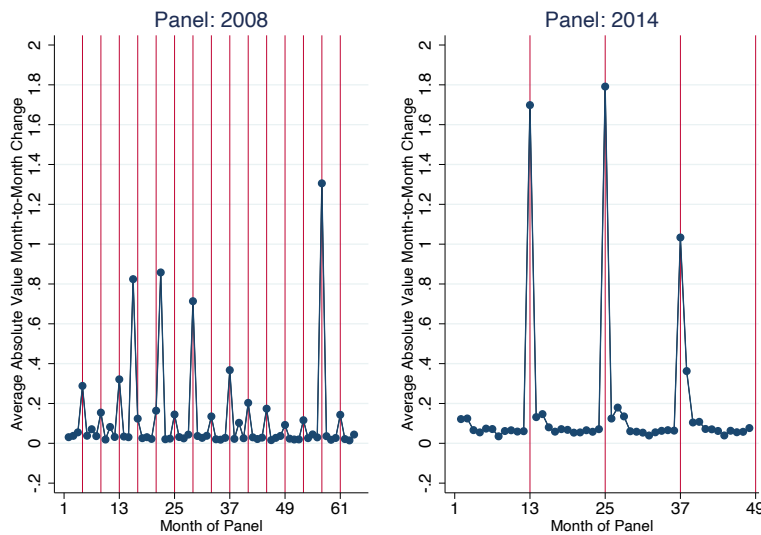
To verify that the longer lookback period mechanically affects the frequency with which changes are registered, we perform the following exercise: for both the 2008 and 2014 panels, and limiting attention to a sample of individuals who are observed and working in each month of the panel, we compare the average month-to-month absolute value percent changes in observed *marital status* and *total earnings* through the panel. These are both variables that are expected to be relatively stable most of the time but will change in any given month for some fraction of workers. Figure A.1 shows the average absolute value month-to-month changes for the marital status variable. Unsurprisingly, month-to-month changes spike in the first month of each survey wave, but the spikes are much larger in the 2014 panel relative to 2008. This is intuitive: while

changes in marital status are being registered throughout the year in the 2008 panel, in the 2014 survey design they are only documented once per year. The same pattern is also apparent in Figure A.2, which plots total earnings, although the difference between the 2008 and 2014 panels in this case is less extreme.

**Figure A.1:** Average Absolute Value Month to Month Change in Marital Status, 2008 and 2014 SIPP Panels



**Figure A.2:** Average Absolute Value Month to Month Change in Total Earnings, 2008 and 2014 SIPP Panels





One way to interpret these results is that the changes to data collection in the 2014 SIPP increased the measurement error of key variables, including earnings, within each year in the panel. Even without additional information about the direction of this error, we believe it contributed to the increased variance in wage changes we observe in the 2014 panel.

#### *Changes to job classifications*

The 2014 SIPP also introduced several changes to how jobs were reported and classified. These include: allowing respondents to report up to seven jobs, compared to just two in previous panels; allowing respondents to report up to three different values for the hourly wage and weekly hours worked variables; and not explicitly identifying a primary job, but rather listing jobs in the order in which they were held. One possible effect of these changes is that estimates of year-to-year changes in earnings based on a single job – for example, the first job listed – may be noisier than in previous panels. We believe, however, that these effects are likely to be small. Fewer than 20 percent of individuals in the 2014 panel report having more than one job at any time in the survey, and fewer than five percent report having more than two jobs. Similarly, in only seven percent of observed months in which earnings are reported do respondents list more than one value for the hourly wage, and in approximately six percent of such months respondents report more than one value for weekly hours worked. We have experimented with different ways of incorporating these survey changes into our analysis while also striving to maintain continuity with previous work. While choices about how we classify jobs as the main job and how multiple values for hourly wages and hours worked affect the results slightly, they do not qualitatively change the findings.

#### *Changes to minimum wages*

Another factor that affects our comparison between the 2008 and 2014 SIPP is increases in the minimum wage in California in 2014 and 2016. Our methodology automatically assigns people reporting that they earned (or those for whom the imputed hourly wage given weekly earnings and typical hours worked is comparable to) less than the minimum wage the minimum amount. Thus, these statutory changes to the minimum wage mechanically increase estimates of year-to-year wage changes. The influence of these changes on our estimates, however, is likely

modest, however, as they affect approximately 4 percent of observations in our sample and translate to year-to-year changes of less than 15 percent.

## **Appendix B: Sample Cleaning Details**

### American Community Survey

*Employment:* All figures which present employment data rely on a restricted sample. In particular, we restrict the ACS sample to those individuals aged 15 and over who report being employed at the time of the survey, including those who were employed but not working. We do not restrict the sample by the class of the worker, and therefore include self-employed workers in our employment estimates. The restricted sample reflects approximately 182,000 total observations in California of which 10,225 are in the travel/hospitality sector in California in 2019 (note that observations are weighted to reflect population employment estimates).

*Wages:* All figures presenting wage data rely on a restricted sample, which reflects the same restrictions as above, and also removes self-employed workers, as well as employees of family businesses who are not paid a wage. We removed these workers for comparability to the CPS earnings analysis (which automatically excludes non-wage and non-salary workers), and to focus attention on those workers whose earnings are determined in the formal labor market. Note that our measure of earnings includes commissions, cash bonuses, tips, and other money income.<sup>29</sup>

We made additional changes to the wage data itself. We calculate an hourly wage by taking the provided annual wage and dividing by weeks worked per year and the provided hours worked per week. We then restrict all annual average wages to be above the minimum wage in 2018 (\$10.50/hour)<sup>30</sup>; we choose the 2018 level instead of the 2019 level since ACS data is collected in 2019 but asks about an individual's earnings over the prior year. Finally, we winsorize wages at the 99.5<sup>th</sup> percentile (i.e., we set wages above the 99.5<sup>th</sup> percentile at the 99.5<sup>th</sup> percentile). All wages reflect nominal values.

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<sup>29</sup> [https://usa.ipums.org/usa-action/variables/INCWAGE#description\\_section](https://usa.ipums.org/usa-action/variables/INCWAGE#description_section)

<sup>30</sup> Note that we use the minimum wage threshold that applies to employers with 25 or fewer employees (see: [https://www.dir.ca.gov/dlse/faq\\_minimumwage.htm](https://www.dir.ca.gov/dlse/faq_minimumwage.htm)).

Note that restaurant and other workers who receive a majority of their earnings through tips are not subject to the standard minimum wage in some states. By imposing a minimum wage floor in our analyses, the implied hourly wage may overestimate earnings for workers in states that do not enforce the minimum wage. Note that California actually enforces the state minimum wage before tips.<sup>31</sup>

### Current Population Survey

*Employment:* All figures which present employment data rely on a restricted sample of the data from the basic monthly files. In particular, we restrict the CPS sample to those individuals aged 15 and over who report being employed in the month, including those with a job but not working. Note that this includes self-employed workers and individuals working for family businesses who are not paid a wage. The restricted sample reflects approximately 475,000 monthly observations in California of which 25,442 are in the travel/hospitality sector in California over the 2013 through 2020 time period (note that observations are weighted to reflect population employment estimates).

*Wages:* All figures which present wage data rely on a restricted sample of the CPS Merged Outgoing Rotation Group (MORG) data, which reflects the same restrictions as above and also automatically excludes self-employed workers. The MORG survey is only collected in the fourth and eighth months of an individual's rotation in the CPS, and therefore the sample size is significantly smaller than the core CPS. Note that our measure of earnings includes tips and commissions.<sup>32</sup> The restricted sample for wages reflects approximately 100,000 monthly observations in California of which 5,319 are in the travel/hospitality sector in California over the 2013 through 2020 time period (note that observations are weighted to reflect population wage estimates).

We made additional changes to the wage data itself. We calculate an hourly wage by taking weekly earnings and dividing by actual hours worked in the prior week (following Autor, Katz, and Kearney 2008). We then restrict all annual average wages to be above the minimum wage in each month-year in our sample (\$8/hour on January 1, 2013, \$9/hour on July 1, 2014,

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<sup>31</sup> <https://www.dol.gov/agencies/whd/state/minimum-wage/tipped>

<sup>32</sup> <https://data.nber.org/morg/docs/cpsx.pdf>

\$10/hour on January 1, 2016, \$10.50/hour on January 1, 2018, \$11/hour on January 1, 2019, and \$12/hour on January 1, 2020).<sup>33</sup> Given that the CPS has a low-value for top-coded wages (\$2884.61 per week), we multiply these top-coded wages by 1.5 to make more comparable comparisons to the ACS (following Autor, Katz, and Kearney 2008). Finally, we winsorize wages at the 99.5<sup>th</sup> percentile (i.e., we set wages above the 99.5<sup>th</sup> percentile at the 99.5<sup>th</sup> percentile). All wages reflect nominal values.

### Survey of Income and Program Participation

Employment: All figures which present employment data rely on a subsample. In particular, we restrict the SIPP sample to those individuals aged 15 or older who are employed and report a wage in at least one month of the calendar year. Note that this includes self-employed workers. The restricted sample reflects approximately 8,300 annualized observations in California of which 504 are in the travel/hospitality sector in California over the 2013 through 2016 time period (note that observations are weighted to reflect population employment estimates).

Wages: All figures which present wage data rely on a restricted sample, which reflects the same restrictions as above (note that this includes self-employed workers, unlike the ACS and CPS analyses above, for comparability with Baird et al. 2017). Note that our measure of earnings includes other earnings such as bonus payments, commissions, tips, overtime, and other business income.<sup>34</sup>

We made additional changes to the wage data itself. For each month in which an individual is working, we use the hourly wage if available; if an hourly wage is not provided, we calculate an hourly wage by multiplying monthly earnings by 12 and dividing by 50 weeks and the reported number of hours per week (we use 50 weeks in this calculation following Baird et al. 2017). We then restrict all annual average wages to be above the minimum wage in each year (\$8/hour for 2013, \$9/hour for 2014, and \$10/hour for 2016); for 2014, we set the wage to be \$9/hour for all of 2014, even though the minimum wage of \$9/hour was only enforced on July 1,

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<sup>33</sup> Note that we use the minimum wage threshold that applies to employers with 25 or fewer employees (see: [https://www.dir.ca.gov/dlse/faq\\_minimumwage.htm](https://www.dir.ca.gov/dlse/faq_minimumwage.htm)).

<sup>34</sup> <https://www.census.gov/programs-surveys/sipp/tech-documentation/user-notes/2018-usernotes/2018-TPEARN-hist-comp.html>

2014 (the 2013 and 2016 minimum wage changes were enforced on January 1 of the year, so do not face this issue). Finally, we winsorize wages at the 99.5<sup>th</sup> percentile (i.e., we set wages above the 99.5<sup>th</sup> percentile at the 99.5<sup>th</sup> percentile). For Figures 23 and 24, we trim the ratio by calculating the 99.5<sup>th</sup> percentile for the *ratio* across all industries in the U.S. and set any value above this level equal to this level. All wages reflect nominal values.

## Appendix C: Regressions of Non-white/non-Asian Status on Earnings and Probability of Being in a Management Occupation

We present more detailed information about our regression analyses in Figures 11 and 12. To more formally examine the relationship between non-white/non-Asian status and earnings while controlling for correlated factors that also may impact earnings, we run regressions of log hourly earnings on being non-white/non-Asian or not, where non-white/non-Asian is defined as being Black, Hispanic, or being in the other race category in comparison to those who are white or Asian.<sup>35</sup> We are primarily interested in the independent variables included, which interact being in the travel/hospitality industry (abbreviated as “TH”) and being in California or not. Given our specification in these regressions, the coefficients on *NWNA* (non-white/non-Asian) reflect the percentage change to earnings for non-white/non-Asian workers in California’s travel/hospitality industry relative to white/Asians that are also in California’s travel/hospitality industry, and the coefficients which identify affiliation in another subgroup (e.g., *NWNA*, *Non-TH*, *CA*) reflect the *incremental* effect on the non-white/non-Asian earnings gap for being in that subgroup relative to the California travel/hospitality subgroup. We additionally control for demographic variables<sup>36</sup> in all regressions, and test the model both including and not including industry and occupation fixed effects. We also run regressions where the outcome variable is a binary indicator for being in a management occupation using the same specification.

These results, shown in Appendix Table 1, indicate that non-white/non-Asian workers in the travel/hospitality industry in California earn approximately 8.6 percent lower wages than their white/Asian counterparts (the coefficient on *NWNA* in Column 1), holding constant demographics such as age, gender, and education. That effect is nearly halved to approximately

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<sup>35</sup> Results which group Asians with Blacks, Hispanics, and the Other race category are broadly qualitatively similar.

<sup>36</sup> We include the following demographic variables in all specifications: age, the square of age, gender, and educational attainment. In some models we also include industry or industry and occupation fixed effects. These earnings regressions additionally control for selection into paid employment through the Inverse Mills Ratio, though the main coefficients are similar when the Mills Ratio is excluded (not shown). Including the Inverse Mills Ratio is a two-step procedure proposed by James Heckman which corrects for sample selection bias that occurs in our setting from only wage-earners wages being observed (as opposed to the full population of potential wage-earners). In our setting, the Inverse Mills Ratio, defined as the ratio of the probability density to the cumulative distribution function at a given point in the distribution, is calculated by first running a probit regression where the dependent variable is an indicator for having wage earnings, and the independent variables are the same as in our main model, as well as additional controls interacting the number of dependents with gender and marital status. We then use the predicted values from this regression to estimate the numerator and denominator of the Inverse Mills Ratio.

4.9 percent lower wages when industry and occupation fixed effects are included (Column 2), suggesting that about half of the non-white/non-Asian earnings gap arises from differences *within* occupation and industry (that is, among workers in the same job), while the other half is accounted for by differential sorting into higher paying jobs and industries. However, the non-white/non-Asian wage gap in the non-travel/hospitality in California is even larger, as seen in the negative coefficient of *NWNA, Non-TH, CA*; workers in this subgroup earn approximately 10 percent lower wages compared to their white/Asian counterparts (Columns 1 or 2, calculated by adding the coefficient on *NWNA* to the coefficient on *NWNA, Non-TH, CA*, e.g.  $-0.0489-0.0513$ ). Just as in travel/hospitality for California, the non-white/non-Asian wage gap is approximately half the size when industry/occupation fixed effects are included, suggesting that the non-white/non-Asian wage gap for this group is also driven by differential sorting into higher paying industries or occupations. The non-white/non-Asian gap is also larger in non-travel/hospitality in the rest of the country. These results broadly align with non-whites/non-Asians earning less than white/Asian workers in travel/hospitality in California, but with travel/hospitality in California being a relatively better industry for non-whites/non-Asians in California as compared to other industries in California.

We observe a slightly different pattern in columns 3 and 4, where the dependent variable indicates working in a management occupation. Non-white/non-Asian California travel/hospitality workers are approximately 5 percentage points less likely to be in management occupations,<sup>37</sup> controlling for demographics and whether or not we control for occupation/industry fixed effects, with the gap being the largest in this industry/geography of the four compared (although the differences are not statistically significant except for non-travel/hospitality in the rest of the country, where the non-white/non-Asian management gap is about half as large).

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<sup>37</sup> Approximately 12 percent of workers in travel/hospitality are in management occupations. Thus a 5 percentage points decrease represents a significant share of the mean.

**Appendix Table 1: Regression-Adjusted Relationship between Non-White/Non-Asian Status and Hourly Earnings and Employment in a Management Occupation**

	<u>Ln(Hourly Wage)</u>		<u>Management Occupation</u>	
NWNA Status	-0.0860*** (0.0182)	-0.0489*** (0.0159)	-0.0467*** (0.00746)	-0.0468*** (0.00739)
NWNA, Non-TH, CA	-0.116*** (0.018)	-0.0513*** (0.0147)	0.00974 (0.00762)	0.0121 (0.00758)
NWNA, TH, Non-CA	0.00697 (0.0202)	0.023 (0.0182)	0.0023 (0.00843)	0.00404 (0.00821)
NWNA, Non-TH, Non-CA	-0.0413** (0.0187)	-0.0141 (0.0161)	0.0223*** (0.00755)	0.0229*** (0.00745)
CA	0.219*** (0.0132)	0.190*** (0.00798)	0.0119*** (0.00268)	0.00595** (0.00231)
TH	-0.155*** (0.0059)	(0)	0.0301*** (0.00227)	
CA x TH	-0.0421*** (0.0161)	0.00577 (0.0127)	-0.0135** (0.00646)	-0.00644 (0.00641)
Inverse Mills Ratio	-0.197*** (0.0129)	-0.129*** (0.00929)		
Observations	1,450,373	1,450,373	1,450,373	1,450,373
Adjusted R-squared	0.275	0.407	0.0392	0.0832
Demographic Controls	Yes	Yes	Yes	Yes
Industry FE	No	Yes	No	Yes
Occupation FE	No	Yes	No	No

**Source:** American Community Survey PUMS 2019.

**Notes:** Sample includes all wage and salary workers aged 15 and older. The outcome variable in the first two columns is log hourly wages. The outcome variable in columns three and four is a binary indicator for whether the worker was employed in a management occupation, as classified in the ACS. Wage regressions in columns 1 and 2 are estimated in a two-step procedure and control for the predicted Inverse Mills Ratio from the first stage in order to correct for sample selection bias. Standard errors in all models are clustered at the Public Use Microdata Area (PUMA) level, which is analogous to clustering on commuting zones. Standard errors are bootstrapped in columns 1 and 2. Travel/hospitality does not include workers in the restaurant industry.