ECONOMIC IMPACTS OF EQUITY

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SCAG
INNOVATING FOR A BETTER TOMORROW

Economic Impacts of Equity

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Before the COVID-19 pandemic, planning agencies had already begun discussing and adopting a greater focus on equity. However, the pandemic brought to light racial and gender inequities in health, transportation, housing, employment and broadband accessibility, exacerbated by historical planning practices that intentionally and unintentionally segregated and exploited communities of color. Since the beginning of the pandemic, planning agencies across the United States have taken deliberate steps to adopt equitable and inclusive planning practices with greater urgency. In July 2020, SCAG's Regional Council adopted Resolution No. 20-623-2, stating that racism is a human rights and public health crisis and reaffirming its commitment to advancing justice, equity, diversity and inclusion in the region. Among numerous other benefits, an equity perspective in planning is essential for long-term economic growth in metropolitan areas. This report quantifies the economic impacts of an equity approach in metropolitan planning, focusing on the SCAG region.

The SCAG region includes six counties in Southern California, spanning more than 38,000 square miles. SCAG serves 18.7 million residents, accounting for 48 percent of California's population. The SCAG region has a gross domestic product (GDP) of $1.6 trillion as of 2021, making it the 15th largest economy in the world. The analysis reported in this paper estimates that GDP could be 17 percent higher if we could eliminate the race and gender wage gap in the SCAG region. This gain is substantial compared to the rest of California and the rest of the United States, approximately 8 percent for both. This analysis also identifies the region's key drivers of wage inequities, providing insights to inform policy discussions and future program priorities focused on equitable and inclusive economic development.

BACKGROUND

Wage and income inequity poses a risk to economic prosperity and quality of life in the SCAG region. Persistent wage inequity based on race, ethnicity and gender represents an inefficient use of resources, because it leads to underutilization of human capital, reduces consumer spending, and limits innovation and productivity, all of which are significant drivers of economic growth. Economic losses due to wage inequity would be more pronounced in areas with greater racial diversity. As one of the most racially and ethnically diverse metropolitan areas in the United States, the SCAG region would benefit from a better understanding of the economic impact of equity and inclusion. This paper quantifies the gains to the regional economy from eliminating race and gender wage inequity.

Exhibit 1 shows the race distribution shows the race distribution of the civilian labor force in the SCAG region, which is 29.4 percent white. The percentage of the white civilian labor force is higher in the rest of California (40.6 percent) and in the rest of the United States (62.4 percent).
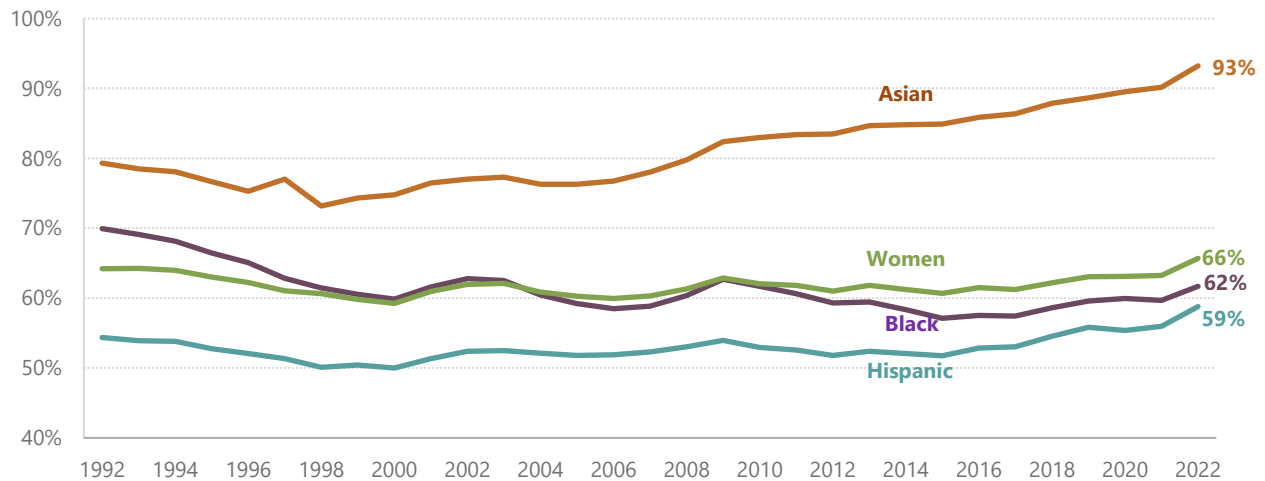
Exhibit 1: Race Distribution in the Labor Force

Race Distribution of Civilian Labor Force, Ages 25-64

Group	SCAG	Rest of California	Rest of U.S.
White	29.4%	40.6%	62.4%
Black	5.4%	4.1%	12.3%
Hispanic	47.1%	31.3%	15.4%
Asian	14.7%	19.2%	5.3%
Other	3.4%	4.8%	4.6%

Source: ACS PUMS

Exhibit 2 demonstrates the persistent wage inequities in the SCAG region by race and gender. In 1992, Black workers in the SCAG region, on average, earned 70 percent of white men's wages. The Black wage gap decreased to 60 percent in 2021 and increased to 62 percent in 2022. Hispanic workers, the largest race/ethnicity share of the region's workers, earned 54 percent (1992) and 59 percent (2022) of white men's wages. Asian workers have done better than other workers of color. However, in 2022, they still earned 93 percent of white men's wages. Women (all races) earned 64 percent of white men's wages in 1992 and 66 percent in 2022. For all groups, the wage disparities relative to white men have been persistent, and for most groups, the gap in wages is large. However, we observe an uptick in workers of color wages relative to white men between 2021 and 2022.

Exhibit 2: Average Weekly Wages as a Percent of White Men's Wages by Race and Gender, SCAG Region
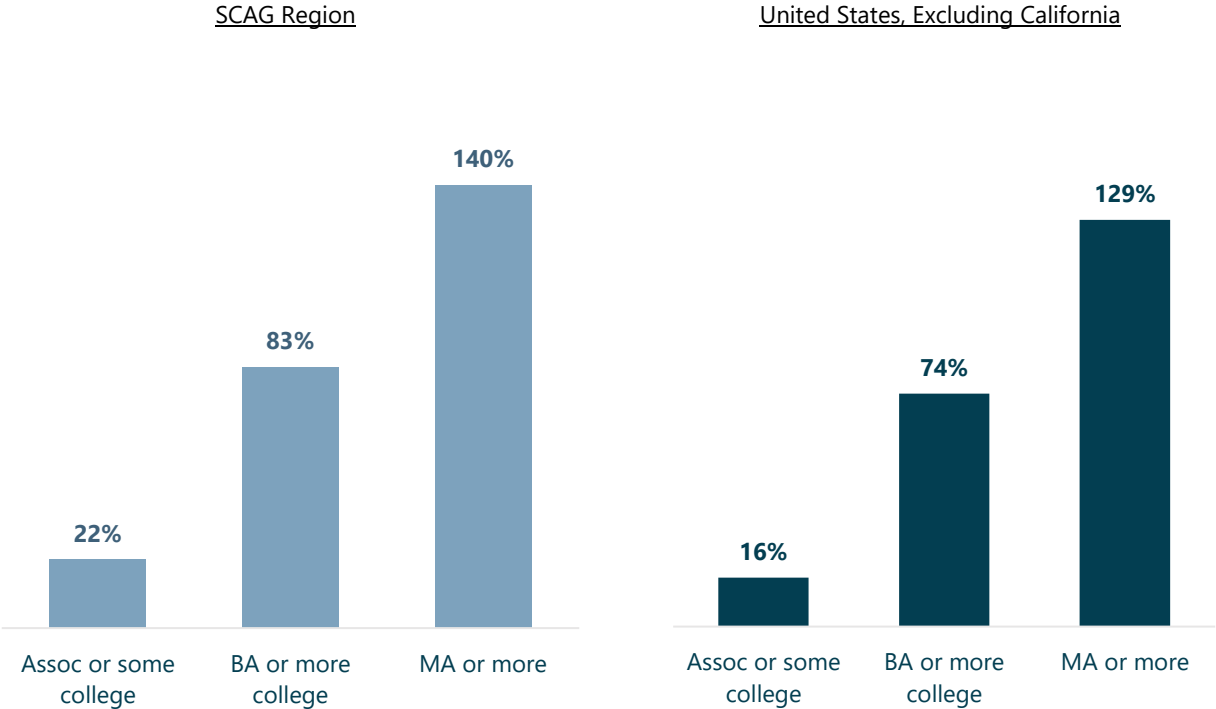

Notes and sources: Includes wage and salary workers only. Hispanic include all races. Based on data from U.S. Census Bureau, Quarterly Workforce Indicators (1990-2022).

Differences in education, occupational preferences and other factors unique to individuals can explain wage differences across individuals. **Exhibit 2** does not control for these factors. However, in a world with equitable treatment of workers, and equitable access to education and occupational opportunities, we should expect thatworkers of all races and genders have the same opportunities on average. Therefore, observation of large differences in average wagesis informative as a starting point for this analysis, even without controlling for factors that explain individual differences in wages.

Educational attainment is a key determinant of wages (Budig et al., 2021). **Exhibit 3** shows the education wage premium relative to wage income for workers with only a high school degree in the SCAG region. In the SCAG region, workers with at least an associate degree earn 22 percent more than those with only a high school diploma. Workers with at least a bachelor's degree earn 83 percent more than workers with only a high school education. This education wage premium jumps to 140 percent of high school graduates' wage income for workers with at least a master's degree. For comparison, **Exhibit 3** also reports United States education wage premiums, excluding California. In the United States, college and graduate education also offers a significant wage premium. However, the premiums are lower than in the SCAG region.

Exhibit 3: Education Wage Premium Relative to High School Diploma

Percent Above High School Graduate's Average Annual Wage Income, 2021

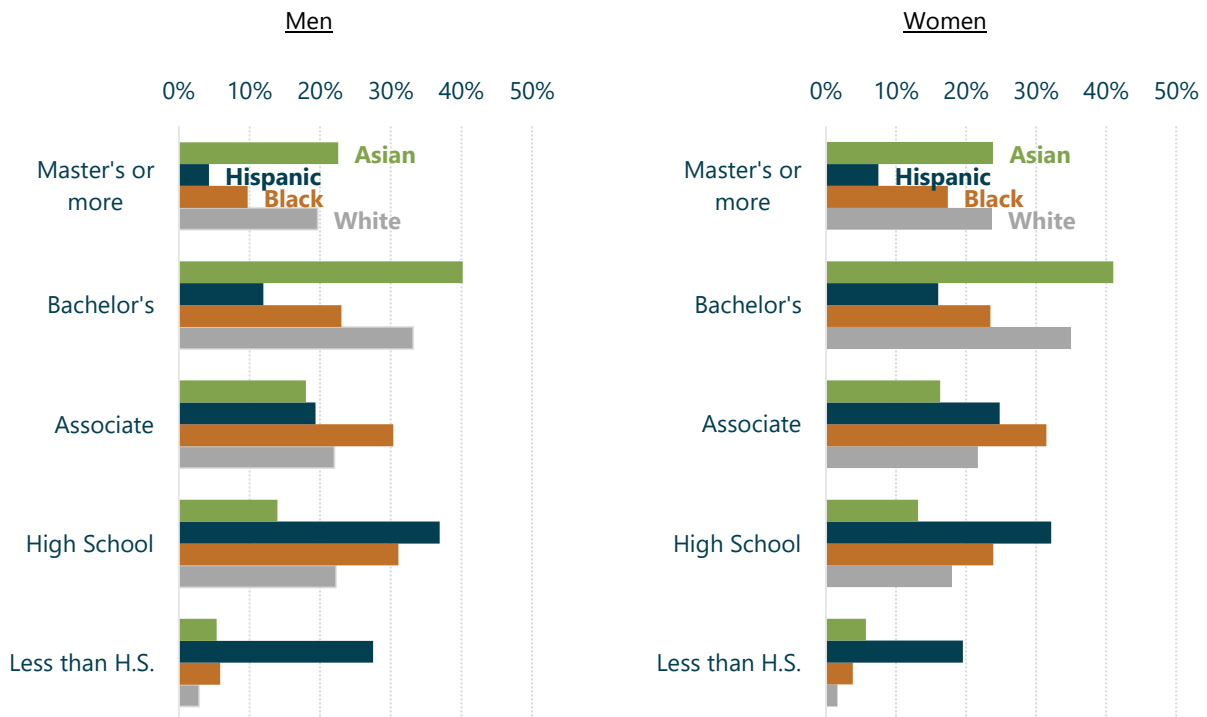| SCAG Region | United States, Excluding California |

Source: American Community Survey PUMS 1-Year Survey, 2021 from Ruggles et al (2023) and U.S. Census Bureau (2023).

While the education wage premium can explain wage differences in the labor market, we observe disparities in educational attainment. **Exhibit 4** reports educational attainment by race for men and women in the labor force in the SCAG region. The distributions of educational attainment for men and

women are surprisingly similar, given the observed wage disparities for women. For all race groups, slightly more women have associate, bachelor's and master's degrees. This suggests that education is likely not a significant factor in explaining the wage gap for women. However, greater shares of white and Asian workers have bachelor's and master's degrees than Black and Hispanic workers, which explains some of the wage differentials between these groups. Black and Hispanic workers with lower educational attainment cannot benefit from the educational wage premiums observed in **Exhibit 3**.

Exhibit 4: Educational Attainment for Labor Force by Race and Gender

Percent of Labor Force Participants, Ages 25-64 in the SCAG Region, 2021

Source: American Community Survey PUMS, 1-year Survey, 2021 from data from Ruggles et al (2023) and U.S. Census Bureau (2023).

The disparities observed in **Exhibit 2** through **Exhibit 4** present a social and economic problem. From an economic perspective, such disparities are a "market failure" and suggest an inefficient use of resources and lost productive capacity (Buckman et al., 2021; Daly et al., 2020, Cook, 2020). Persistent wage gaps discourage workers and reduce labor force participation, which, in turn, decreases labor supply and increases the cost of labor. Moreover, a smaller, shallower pool of workers reduces innovation and economic growth (Bell et al., 2019). Racial and gender wage inequity reduces consumption because lower-paid workers have less disposable income and spend less on goods and services. As a result, economic growth slows, and lower earnings and spending lead to lower tax revenues for local jurisdictions. Persistent income inequality contributes to social unrest, which negatively impacts the quality of life in the region and the perception of the region. Indeed, income inequity can have significant impacts on the aggregate SCAG region economy.

A starting point for changing these trends and improving aggregate economic outcomes for the region is to measure the economic impacts and the drivers of wage inequities. Efforts to quantify the impacts of

race and gender wage inequity have focused inequity at the national level. A 2019 study by McKinsey Consulting estimated the wealth inequity between non-Hispanic white and Black households in the country and found that closing the gap by 2028 could increase GDP by $1.1-$1.7 trillion. Another study published by RAND in 2020 documented the increased inequality in taxable income during the four decades following World War II. This study estimated that aggregate income among taxpayers earning below the 90th percentile would have been $2.5 trillion higher in 2018 if personal income growth between 1975 and 2018 had remained as equitable as it had been in the first two post-war decades.

Buckman, Daly, Choi and Seitelman of the Federal Reserve Bank of San Francisco developed a straightforward method for estimating the impacts of wage inequities in terms of lost GDP, grounded in economic theory. They find that in 2019, U.S. GDP would have been $65 billion higher—a 10 percent increase—if race-based wage inequities were eliminated. Existing research has primarily focused on the potential economic impact of eliminating wage inequity for the United States economy. In places with diverse workforces, such as the SCAG region, we expect that the economic gains from closing race- and gender-based wage gaps will be more significant. This report builds on the approach in the Buckman et al. paper and localizes the analysis of the benefits of an equitable and inclusive economy by computing the economic impacts of wage inequity in the SCAG region and its six counties.

In recent years SCAG has taken steps to integrate equity as a core focus of its overall work. In 2020, SCAG's Regional Council passed Resolution 20-623-2, reaffirming its commitment to advancing justice, equity, diversity and inclusion in the SCAG region (SCAG, 2022). In early 2021, SCAG adopted its Racial Early Action Plan to help facilitate consistent integration of equity in its planning work. In late 2021, SCAG's Regional Council adopted the Inclusive Economic Recovery Strategy (IERS) and received a $3.5 million grant from the State of California to implement key IERS strategies for inclusive and equitable economic growth. The analysis in this report supports the grant deliverables by quantifying the economic impacts of equity and inclusion.

METHODS & DATA

This report quantifies the gains to the regional economy from eliminating race and gender wage inequity by applying the counterfactual and shift-share approach proposed by Buckman et al. (2021) to the SCAG region. This approach compares the observed wage income to counterfactual wage income, where wage gaps by race and gender have been eliminated. Drawing on the American Community Survey microdata disseminated by IPUMS, we estimate gains in the region's GDP had wage inequity been eliminated. Next, we assess how various factors contribute to labor market inequity by race and gender, including employment rate, weekly work hours, education attainment and skill utilization.

This analysis relies on the American Community Survey Public Use Microdata Sample (PUMS), one-year survey data compiled by IPUMS (Ruggles et al., 2023), henceforth "ACS microdata." The ACS microdata is a subset of the American Community Survey conducted by the U.S. Census Bureau. It provides detailed and anonymized demographic, social, economic and housing information about a sample of U.S. households and individuals. Specifically, it contains information on an individual's age, gender, race, ethnicity and socioeconomic characteristics, including educational attainment, employment status and income.

Based on self-reported race and ethnicity in the ACS microdata, we divide the sample into six groups. First, we assign respondents to the Hispanic category regardless of race. We then grouped respondents who reported not being Hispanic into the race groups, including white, Black, Asian and all others. Respondents who report being mixed race or do not respond to the race question are categorized as

"Other." Due to the small sample size, we aggregate Native American workers into the "Other" category. Finally, we categorize the sample by gender.

From the ACS microdata, we select civilian workers, regardless of employment status, aged 25 to 64 who are not self-employed (i.e., "wage and salary" workers). We exclude workers under age 25 because they are generally less experienced, might earn "training" wages, or might still be in college or other training programs, and are not representative of the broader labor force. We focus on wage and salary workers. Since self-employment compensation includes wages and capital returns, we exclude self-employed workers from the analysis.

We compute each group's contribution to the region's GDP based on the group's average hourly wage. Using average hourly wage in our analysis allows us to explore differences in hours worked as a driver of wage gaps. However, the ACS microdata do not report hourly wage but do report annual wage income, typical weekly hours worked, and weeks worked in the previous year. To compute hourly wage from annual wage income, we follow Ross and Bateman (2019) and divide annual wage income by usual weekly hours worked and weeks worked. When computing wages, we further limit the sample to non-seasonal, full-time workers, which we assume to be workers who worked at least 14 weeks a year and 35 hours a week. In other words, while the shares of part-time or seasonal workers can vary across groups, we assume that everyone in the labor force is a candidate for full-time, year-round employment and, as such, can earn the estimated group average hourly wage.

COUNTERFACTUAL ANALYSIS

Following Buckman et al. (2021), we measure the economic gains from eliminating race and gender wage gaps using a counterfactual analysis. We measure the economic gains in terms of the region's gross domestic product (output) and compare this outcome as observed in the actual world to the estimated outcome in a counterfactual world where race and gender wage inequity are eliminated. As demonstrated in Exhibit 2, historically, white male workers have been paid higher wages compared to women and workers of color. Disparities in wages can be attributed to multiple factors, including education levels, occupation, industry, and historical and ongoing discriminatory practices in the labor market. In our counterfactual scenario, labor market outcomes for women and workers of color are at least as favorable as those for white male workers.

We compute each race and gender group's observed contribution to regional GDP, defined as the observed number of employed workers times the observed average annual wages. To construct each group's counterfactual contribution to GDP, we assume that in a world without race and gender wage gaps, all groups are employed at least at the same rate as white men and earn, on average, the same wages. For the actual and counterfactual scenarios, we sum labor's contribution to GDP across the race and gender groups. The gains to the regional economy from eliminating race and gender wage gaps are given by the difference between the counterfactual labor contribution to GDP and the actual contribution to GDP. Exhibit 5 shows this calculation for the SCAG region.
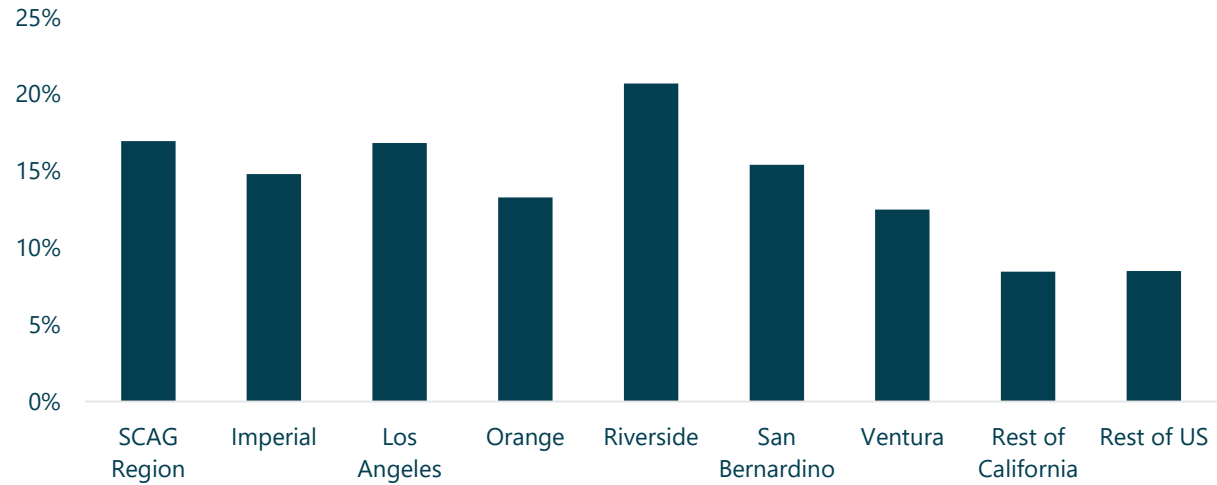
Exhibit 5: Aggregate Impacts in SCAG Region

		Actual in SCAG Region, 2021		Counterfactual: Full Equity			
Group	Group Share of Sample	Group Average Annual Labor Income	Total Earnings Contribution to GDP (Billions of 2022$)	Group Average Annual Labor Income	Total Earnings Contribution to GDP (Billions of 2022$)	Incremental GDP Gains from Equity (Billions of 2022$)	Equity Gains as a Percent of SCAG GDP ($1.4T)
White Men	16.3%	97,127	111.2	97,127	111.2		
White Women	13.1%	71,057	66.0	97,127	90.2		
Black Men	2.6%	65,764	12.0	97,127	17.9		
Black Women	2.8%	59,593	11.5	97,127	19.0		
Hispanic Men	26.6%	51,777	97.9	97,127	183.7		
Hispanic Women	20.5%	41,377	59.7	97,127	140.2		
Native Am Men	0.1%	62,092	0.3	97,127	0.5		
Native Am Women	0.1%	57,051	0.2	97,127	0.4		
Asian Men	7.3%	81,677	42.7	97,127	50.8		
Asian Women	7.3%	64,359	33.6	97,127	50.7		
Other Men	1.7%	84,471	9.9	97,127	11.4		
Other Women	1.6%	65,901	7.4	97,127	10.9		
Total			452.4		686.8	**$234.3**	**17.0%**

Notes: Analysis follows methods in Buckman et al (2021). Employment data from Ruggles et al (2023) and 2021 American Community Survey PUMS 1-Year Estimates. Includes wage and salary workers in the labor force aged 25-64. Excludes observations with labor income below 1st and above 99th percentiles. All races are non-Hispanic. Hispanic includes any race identifying as Hispanic. SCAG Region GDP estimated at $1.4 trillion in 2021 (REMI).

We repeat this analysis for each SCAG county, the rest of California and the United States, excluding California. **Exhibit 6** summarizes the economic gains of eliminating race and gender wage gaps. We report the gains as a share of 2021 GDP for each area to allow comparison across different-sized economies. We observe that gains from eliminating wage inequities vary by locality and level of aggregation. Within the SCAG region, the largest gains are in Los Angles and Riverside counties. The gains in the SCAG region are also larger than in the rest of California and the rest of the United States. This is primarily driven by the diversity of the labor force in the SCAG region relative to the rest of California and the country.
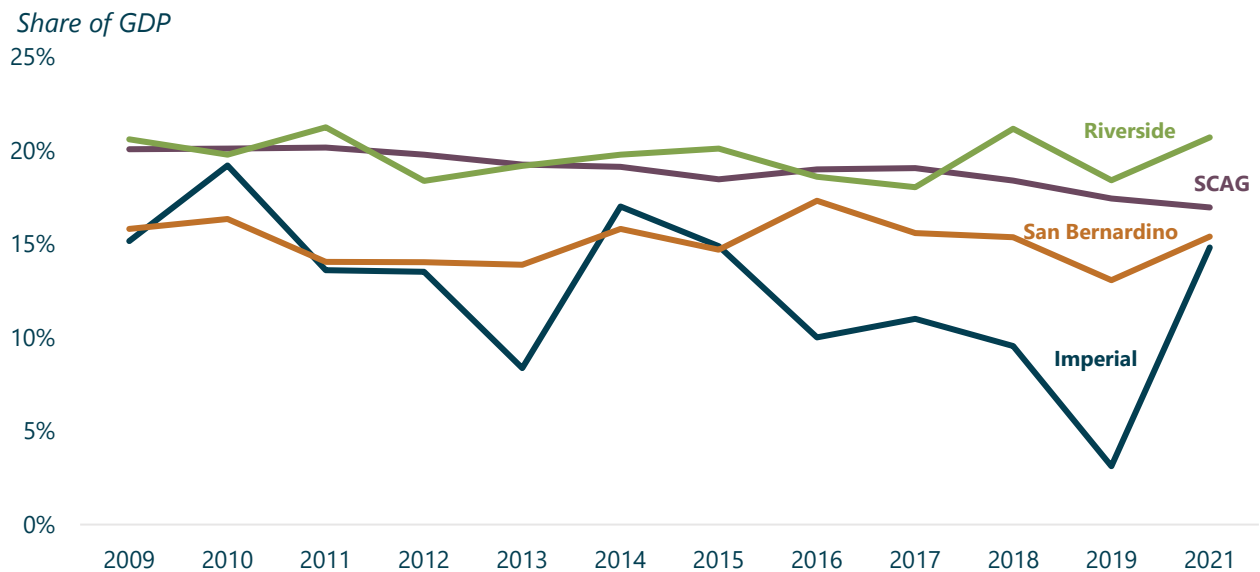
Exhibit 6: Summary of Impacts by County

Percent of GDP Lost Due to Wage Inequity, 2021

Source: Author calculations based on data from Ruggles et al (2023) and U.S. Census Bureau (2023)

Exhibit 7 replicates the analysis for prior years, beginning in 2009. We observed that the potential gains are significant from 2009 to the present (ranging from 17 to 20 percent of regional GDP), but these gains decreased between 2017 and 2021 in the SCAG region. This pattern is driven by the fast-growing regional economy (since GDP is the denominator in the calculation) and the gradually narrowing wage gaps between white men and women/workers of color, as demonstrated in **Exhibit 2**. However, the inland counties of Imperial, Riverside and San Bernardino saw increases in potential loss in GDP due to labor market inequity.

Exhibit 7: Lost GDP Over Time, SCAG and select counties

Share of GDP

Source: Author calculations based on data from Ruggles et al (2023) and U.S. Census Bureau (2023)
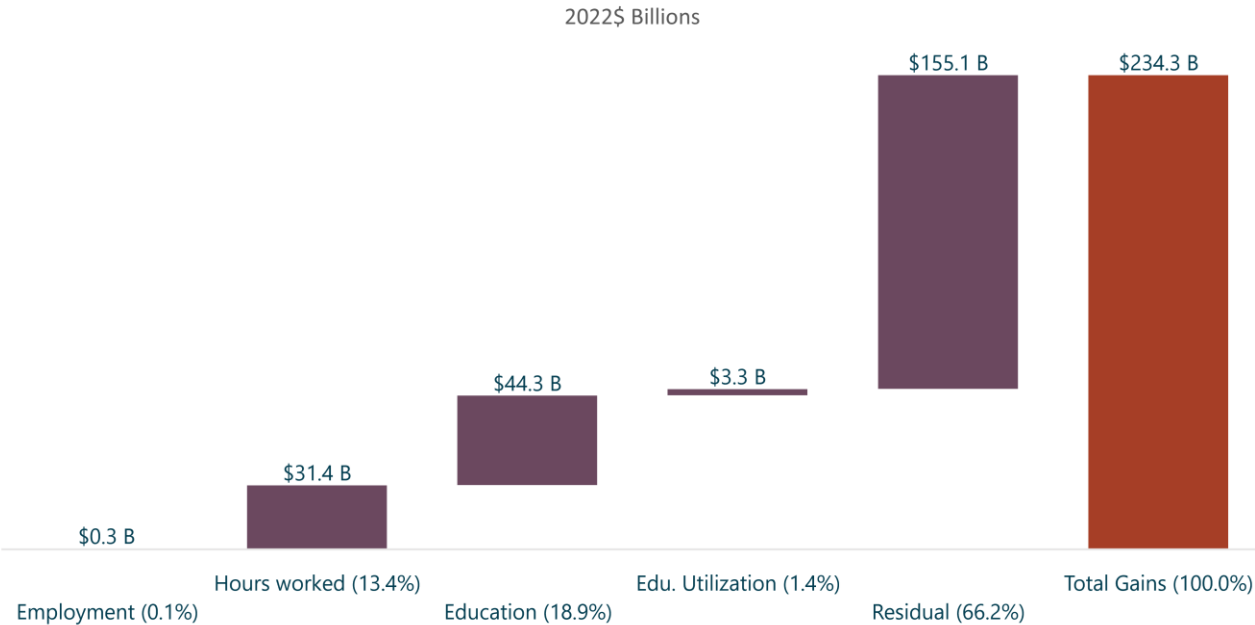
DRIVERS OF WAGE INEQUITY

Several factors drive race and gender wage gaps. This analysis focuses on four well-documented drivers of wage differences, following Buckman et al. (2021):

    i.   employment rates,
    ii.   hours worked,
   iii. education, and
   iv. educational (skills) utilization

After netting out the effects of these drivers on wage differences, the remaining differences are residuals—the unexplained differences. The residual differences are driven by factors we have not accounted for in our model, including discrimination. **Exhibit 8** reports the estimated effects of the four drivers we explore plus the residual.

Exhibit 8: Potential Gains from Equity by Drivers of Wage Gap in SCAG Region, 2022$ Billions (Percent of gains in parentheses)

2022$ Billions

Source: Author calculations based on data from Ruggles et al (2023) and U.S. Census Bureau (2023)

This analysis assesses how different factors contribute to wage gaps by race and gender. For example, total labor earnings are lower for Hispanic women workers, partially due to working fewer hours per week on average or because they have a smaller proportion of workers with a bachelor's degree compared to white men.

As described below, this analysis requires us to divide the sample into smaller subgroups, such as non-Hispanic white male workers with bachelor's degrees. Because Native American workers account for a relatively smaller share of the total labor force (0.1 percent in 2021) and do not have a full distribution

across various levels of education attainment, we assess the factors contributing to inequity by dividing the sample into ten groups: five racial/ethnic groups (non-Hispanic white, Black, Hispanic, Asian, and all others) and two genders (men and women workers).

Analyzing inequity drivers begins with the observed baseline labor earnings contribution to GDP, which is equal to the sum of total annual labor earnings across all groups. We then calculate the increases in annual labor earnings resulting from equalizing each of the four drivers to the observed value of white male workers. We explore each of the four effects in sequence. First, we start with the employment rate. In our data (i.e., wage and salary workers in the labor force aged 25-64), we observed that white men have higher rates of employment relative to most race-gender groups. In the counterfactual world, total annual labor earnings would be higher for non-white workers if their employment rates were higher. We, therefore, replace the employment rates of the non-white worker groups with the white men's employment rate (if it is higher) and calculate the total annual labor earnings resulting from this adjustment.

Next we address differences in hours worked, educational attainment and skills utilization. Relative to most race-gender groups, white men, on average, (ii) work more hours per week, (iii) have a lower proportion of workers without a high school degree and (iv) have a lower rate of skill underutilization among college graduates. Following Buckman et al. (2021), we define workers whose skills are underutilized if they have a bachelor's degree or higher and work in an industry where less than 50 percent of workers hold a college degree. In the counterfactual world, total labor earnings would be higher for non-white worker groups if they fare better in one or more of these indicators. Therefore, we sequentially replace the weekly work hours, education attainment distribution and skill utilization rate for each non-white worker group with the group average levels of white men if white men fare better.

The adjustments reveal incremental improvements in labor earnings as disparities in employment rates, weekly work hours, educational attainment and skill utilization are eliminated step by step (**Exhibit 2.8**). Of the $234.35 billion in regional economic gains that could be realized through wage equity, only $0.27 billion (0.1 percent of total gains) can be explained by differences in employment rates across race-gender combinations. Differences in skills utilization also explain only a small share ($3.3 billion or 1.4 percent of total gains). Equalizing educational attainment explains a far greater amount of the difference ($44.28 billion or 18.9 percent) as does equalizing the number of hours worked across race and gender ($31.44 billion, or 13.4 percent). Even after accounting for these four drivers of wage inequality, a rather significant $155.08 billion (66.1 percent) of the wage gap remains, which we refer to as residual earnings gap..

DISCUSSION

We begin the analysis by exploring a simple counterfactual that replaces the wages for each race and gender group with the average wages for white male workers. While this exercise creates a counterfactual scenario where race- and gender-based wage gaps are eliminated, it is necessarily incomplete. The multitude of labor market inequities beyond the gender and race wage gap, as well as the diverse array of factors contributing to such disparities, are too complex to explore in a single exercise. This analysis also does not fully consider the potential adjustments in labor supply and demand in response to wage changes. Nonetheless, it presents a straightforward approach to quantify the potential gains from addressing wage inequity by race and gender.

This analysis shows how eliminating race- and gender-based wage inequities would boost economic productivity in the region. Moving all groups to at least the wage levels of non-Hispanic white men would result in labor earnings of over $234 billion, or approximately 17 percent of the SCAG-region GDP in 2021.

This gain is substantial compared to the rest of California (8.4 percent of GDP) and the rest of the country (8.5 percent of GDP). Our analysis also finds that differences in education, employment opportunities, hours worked, educational attainment and education utilization can account for only about a third of the race and gender wage inequities.

The significant gain from addressing wage inequity is partially attributable to Southern California's racially and ethnically diverse labor force. A growing body of research finds that racial diversity in the workforce is associated with enhanced market performance (Kline et al., 2022). To harness the diverse labor force within the region, it is essential to address the misallocation of human resources as reflected by persistent racial, ethnic and gender disparities. Regional planning plays a vital role in addressing inequity in the labor market by implementing strategies for inclusive and equitable economic growth.

Rectifying labor market inequity requires coordinated efforts from different levels of government. Regional planning agencies across the United States propose policies for equitable and inclusive economic development in large metropolitan areas such as the SCAG region. As a metropolitan planning organization, SCAG plays a key role in promoting equity and inclusion in the labor market, primarily through funding projects advancing equity or securing funding for such projects. In addition, SCAG supports equity-related work by convening stakeholders, supporting discussion, and data sharing and collection.. Many of these efforts are outlined in SCAG's Racial Equity Early Action Plan (SCAG, 2021).

SCAG's Connect SoCal 2024 details specific regional planning policies and investments that can contribute to fairer labor market outcomes. Strategies centering on mobility and communities will enhance regional connectivity and help improve access to education and employment opportunities. Regional planning also involves developing strategies to address socioeconomic factors that influence disparities in the labor market, such as housing instability, access to healthcare, poverty and more. SCAG is also developing a regional and subregional job quality index to provide a benchmark for a common understanding of the region's job markets and inform policy discussions and help measure progress toward a more robust, inclusive and equitable economy.

This analysis points to several policy directions for the region. Specifically, disparity in educational attainment is among the most important drivers of wage inequities. By addressing barriers in education attainment, the SCAG region's GDP would increase by more than $52 billion. Differences in work hours across races and genders serve as another factor contributing to inequity. Such disparities could be attributable to factors such as structural barriers to employment opportunities, variation in work hours by industry and occupation, geographic accessibility of jobs and societal expectations that could impact work hour choices, particularly for women.

Perhaps most tellingly, factors explored in this analysis account for only one-third of the gaps in labor earnings, leaving a substantial two-thirds unexplained. The residual earnings gaps underscore the need for coordinated efforts to address additional contributors to labor market inequity, such as historical and ongoing discriminatory practices, occupational segregation and cultural norms perpetuating such disparities. As part of this comprehensive initiative, regional planning is vital in guiding the development of housing, jobs, transportation, and other essential infrastructure. These strategies support the region's growth, enhance connectivity and support programs that facilitate economic recovery, resilience and the creation of diverse, supportive work environments.

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