THE LATINO POPULATION IN THE UNITED STATES AND ARIZONA, WITH AN EMPHASIS ON EDUCATION

A Report from the Office of the University Economist

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SUMMARY

The Latino share of the national population increased substantially during the 1990s and into the 2000s. The rate of increase has been slower since 2007, about the same rate as in the 1980s. The current pace of the increase in the Latino share is expected to continue for the next two decades, then slow a little, as seen in Chart S-1. The 2018 Latino share of 18.3 percent is projected to rise to 27.5 percent in 2060. In Arizona, the Latino share historically was higher than in the nation. As in the nation, the Latino share rose especially rapidly between 1990 and 2007. The 2018 Latino share in Arizona was 31.6 percent.

Two factors in particular account for the slower pace of Latino population growth relative to the growth of the overall American and Arizona population since 2007. First, the number of undocumented immigrants from Mexico and Central America living in the United States and Arizona has decreased. Second, a greater decline in fertility rates among Latinos than non-Latinos has slowed the growth rate of the Latino population nationally and in Arizona.

Latinos in 2018 accounted for a lesser share of U.S. employment (17.5 percent) than population; a similar situation was present in Arizona, where the Latino share of employment was 30.9 percent. Two factors in particular contributed to the employment share being less than the population share nationally and in Arizona. First, a greater proportion of the Latino than non-Latino population was younger than 16. Second, the workforce participation rate of Latinas was less than that of non-Latina women.

The Latino share of aggregate income in 2018 (11.1 percent nationally and 19.3 percent in Arizona) was considerably lower than their share of employment, as seen in Chart S-2. In

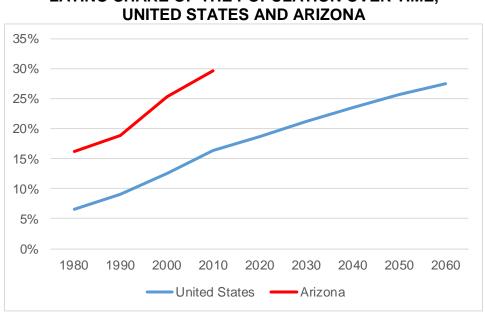
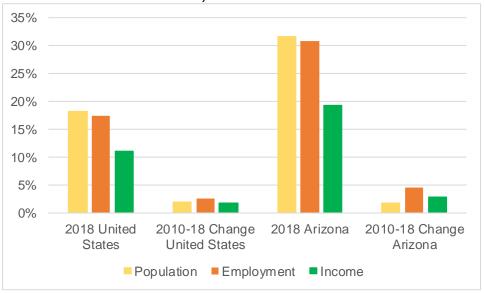


CHART S-1
LATINO SHARE OF THE POPULATION OVER TIME,
UNITED STATES AND ARIZONA

Source: U.S. Department of Commerce, Census Bureau. The 1980 through 2010 figures are from the decennial censuses; and the 2020 through 2050 figures are projections.

CHART S-2 LATINO SHARE OF THE POPULATION, EMPLOYMENT, AND AGGREGATE INCOME, UNITED STATES AND ARIZONA



Note: The percentage-point change in share is displayed.

Source: U.S. Department of Commerce, Census Bureau, American Community Survey.

addition to the lesser share of Latinos than non-Latinos at work, earnings of Latinos are much less than of non-Latinos. In 2018 nationally among those working full time and year round, the median earnings of Latino men was 37 percent less than of non-Latino white men. The differential among females was 31 percent. Latinos were further below non-Latino whites on measures of individual income in 2018.

The goal of economic development is to enhance prosperity, not simply to become larger. Thus, measures of prosperity, such as earnings per individual and per capita income, are far more relevant than measures of aggregate growth, such as population, employment, and aggregate income. That the prosperity of Latinos is far less than that of non-Latinos should be of primary concern.

Between 2010 and 2018, the Latino share of the U.S. population rose 11.4 percent, less than the gain in employment (17.0 percent). The greater increase in the employment share was a result of the larger gains in the employment-to-population ratio among Latinos than non-Latinos. The somewhat larger increase in the Latino share of aggregate income (19.3 percent) than employment indicates that some progress was made in narrowing the earnings gap, but it would take decades to eliminate the gap at this pace. Further, no progress was made in Arizona in narrowing the gap. In Arizona, the Latino share rose 6.2 percent for population, 17.0 percent for employment, and 16.7 percent for aggregate income.

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¹ The percentage-point change was 1.87, from 16.40 percent in 2010 to 18.27 percent in 2018. The percent increase between 16.40 and 18.27 is 11.4 percent.

Among the factors accounting for the much lower earnings of Latinos is their much lesser educational attainment — earnings rise substantially with attainment. The very different occupational mix of Latinos, tied to the lesser educational attainment, also contributes. In addition, the average age of the Latino workforce is younger than the average age of non-Latino whites — earnings rise strongly with age.

For Latinos to significantly boost their share of income and other dollar measures of the U.S. economy, and to reduce the gap in prosperity, gains in educational attainment greater than the advances of non-Latinos are necessary. The educational attainment of Latinos 25 and older is much less than the attainment of non-Latino whites, and less than each of the other racial/ethnic groups other than Native Americans. In 2018 nationally, 17.0 percent of Latinos had earned at least a bachelor's degree compared to 36.3 percent of non-Latino whites. The proportion without a high school diploma or the equivalent was 30.4 percent for Latinos and only 6.8 percent for non-Latino whites.

Between 2010 and 2018, the proportion who had not received a high school diploma or the equivalent fell more among Latinos than other racial/ethnic groups. However, Latinos fell further behind each of the other racial/ethnic groups except for Native Americans in the proportion with at least a bachelor's degree.

Educational attainment in Arizona in 2018 was somewhat less than in the nation, with the differential greater among Latinos. The gain in educational attainment in Arizona was not quite as strong as the national average between 2010 and 2018. As in the nation, Latinos in Arizona had the largest decline in the share who had not received a high school diploma or the equivalent, but lagged behind all groups except Native Americans in the increase in share with at least a bachelor's degree.

A simulation in which the educational attainment of Latinos rises faster than that of the overall population provides insight into the gains in earnings that could be achieved by Latinos in Arizona and nationwide.

With a policy intervention that would raise the share of Arizona's Latino workforce with at least a bachelor's degree by one-fifth of 1 percent (0.2 percent) per year more than the current trend, the educational gap between Latinos and non-Latino whites would potentially decrease from the current (2019) 22.5 percent to 21.2 percent in 2039, the 20th year of the simulation, and to 20.5 percent by 2050. Without the policy intervention, the differences are projected to be 25.2 percent in 2039 and 26.7 percent in 2050.

A simulation with similar assumptions at the national level suggests that the educational gap between Latinos and non-Latino whites with at least a bachelor's degree, currently (2019) at 19.5 percent, would decrease to 18.0 percent in 2039, the 20th year of the simulation, and to 17.1 percent by 2050. Without the policy intervention, the differences are projected to be 21.0 percent in 2039 and 23.3 percent in 2050.

While the decrease in the Latino educational attainment gap in the simulation may seem modest, the economic effects are substantial. The economic impacts of the policy initiative are measured by calculating its direct and spillover effects, and then summing the two to obtain total effects. The "direct" effect is the result of the higher wages realized by individuals who complete a bachelor's degree. The "spillover" effect is the increase in wages that occurs throughout the labor force due to a productivity gain resulting from enhanced educational attainment.

The simulation is run through 2050, separately for Arizona and the nation. The effects of the policy initiative increase over time as more individuals earn bachelor's degrees and their earnings increase. In Arizona, at the end of the simulation period, the number of Latinos earning a bachelor's degree due to the policy initiative exceeds 160,000, accounting for 2.9 percent of the entire workforce. The total impact of the initiative is estimated at \$11.7 billion, with an increase in state government general fund revenue of \$613 million.

In the United States, at the end of the simulation in 2050, the number of Latinos earning a bachelor's degree due to the policy initiative exceeds 2.5 million, accounting for 1.6 percent of the entire workforce. The total impact of the initiative is \$184 billion, with an increase in federal tax revenue of \$31.7 billion.

TOTAL POPULATION BY RACE/ETHNICITY

The Latino share of the national population increased substantially during the 1990s and into the 2000s. Based on the decennial censuses, the Latino share rose 3.5 percentage points in the 1990s and a further 3.8 percentage points in the 2000s. The rate of increase was less between 2010 and 2018, according to Census Bureau estimates. The projected increase in Latino share of 2.4 percentage points between 2010 and 2020 is about the same as between 1980 and 1990. The increase in each of the next two decades is forecast by the U.S. Census Bureau to be 2.4 percentage points.

The greater increase in the Latino share of the U.S. population during the 1990s into the 2000s largely was the result of increased immigration, due mostly to a surge in undocumented immigration from Mexico. The primary factor stimulating this increase in immigration was a reduction in the number of young people aging into the workforce in the United States, which can be traced to the substantially lesser number of births in the United States from the mid-1960s through the mid-1980s than in the preceding baby-boom generation.

Two factors primarily account for the slower pace of Latino population growth relative to the growth of the overall American population since the late 2000s. First, the number of undocumented immigrants from Mexico and Central America living in the United States has decreased. According to the Pew Research Center, the total number of unauthorized immigrants living in the United States shot up between 1990 and 2007, the peak year, from 3.5 million to 12.2 million. The number was down to 10.5 million in 2017. Between 2007 and 2017, the number from Mexico and Central America fell from 8.4 million to 6.8 million, accounting for nearly all of the overall decrease.

The decline in undocumented immigrants living in the United States since 2007 has been due to a variety of factors:

- The deep recession in the United States in 2008 and 2009 reduced job opportunities for immigrants.
- The number of native-born Americans aging into the workforce increased, also reducing job opportunities for immigrants.
- Enforcement of U.S. immigration laws increased, reducing the number of unauthorized immigrants entering the United States and making it more difficult for those already in the United States to find work.
- A long and substantial decrease in fertility rates in Mexico resulted in a lesser number of Mexicans reaching workforce age, making it easier for Mexicans to find work in Mexico, and thus reducing the number of undocumented immigrants entering into, and living in, the United States.

The second cause of the slower pace of Latino population growth relative to the growth of the overall American population is a greater decline in fertility rates in the United States among Latinos than non-Latinos. Fertility rates among all races/ethnicities have declined since 2007 in the United States. The initial decrease was tied to reductions in household income during the recession, but since the end of the recession fertility rates have continued to drop among all races/ethnicities. In 2007, the fertility rate of Latinos living in the United States was much higher than that of both other residents of the United States and residents of Mexico. Thus, the larger

decline in the fertility rate of Latinos living in the United States since 2007 represents a convergence toward the fertility rates prevailing in both Mexico and the United States. In 2018, the fertility rate of Latinos living in the United States still was higher than the fertility rates of other residents of the United States, but had dropped a little below the fertility rate in Mexico.

The actual and projected share of the U.S. population by major racial/ethnic group is shown in Table 1. The population share of those other than Latino and non-Latino white (including non-Latino blacks, Native Americans, and Asians) is rising, though not as fast as the Latino share. The share of non-Latino whites is falling substantially. During the 2040s, the population share of non-Latino whites in the United States is predicted to fall below 50 percent, while the share of Latinos and the "other" group each rises to more than 25 percent.

Based on the Census Bureau's projections by age, the Latino share and the "other" share of the population will rise considerably in all age groups, with the largest increase among those 55 and older. Yet, 40 years from now, the Latino and "other" shares of the population 70 and older are expected to remain less than 25 percent, while the shares of children and young adults exceed 30 percent.

TABLE 1
RACIAL/ETHNIC SHARE OF THE POPULATION OVER TIME,
UNITED STATES AND ARIZONA

		United States Non-Latino			Arizona Non-Latino	
	Latino	White	Other	Latino	White	Other
1980*	6.5%			16.2%		
1990	9.0	75.6%	15.4%	18.8	71.7%	9.6%
2000	12.5	69.1	18.3	25.3	63.8	10.9
2010	16.3	63.7	19.9	29.6	57.8	12.5
2018	18.3	60.4	21.3	31.6	54.4	14.0
2020	18.7	59.7	21.6			
2030	21.1	55.8	23.2			
2040	23.5	51.7	24.8			
2050	25.7	47.8	26.5			
2060	27.5	44.3	28.2			
Change:						
1980-90*	2.5			2.6		
1990-2000	3.5	-6.5	2.9	6.5	-7.9	1.3
2000-10	3.8	-5.4	1.6	4.3	-6.0	1.6
2010-18	2.0	-3.3	1.4	2.0	-3.4	1.5
2010-20	2.4	-4.0	1.7			
2020-30	2.4	-3.9	1.6			
2030-40	2.4	-4.1	1.6			
2040-50	2.2	-3.9	1.7			
2050-60	1.8	-3.5	1.7			

^{*} Ethnic data from the 1980 census are limited. The Latino population was described as "Spanish origin."

Source: U.S. Department of Commerce, Census Bureau. The 1980 through 2010 figures are from the decennial censuses; the 2018 figures are from the population estimates; and the 2020 through 2050 figures are projections.

Arizona

As in the nation, the Latino share of the Arizona population increased considerably from the 1990s into the 2000s, but the rate of growth in the share has slowed since the late 2000s. Arizona experienced a greater percent increase than the nation in the number of unauthorized immigrants between 1990 and 2007, but has had a greater percentage decrease since 2007. The "employer sanctions law" that took effect in mid-2007 contributed to the larger decline in Arizona.

The share of Latinos living in Arizona is much higher than in the nation, offset by lesser shares of both non-Latino whites and the "other" group, as seen in Table 1. In 1980, the Latino share was more than twice as high in Arizona (16.2 percent) as the nation (6.5 percent). The Latino share of the population rose much more in Arizona than the nation during the 1990s. Otherwise, the share in Arizona has not increased much more than the national share in recent decades.

Calculation of Change Over Time

The change over time in the share can be measured in two ways. Based on the 2010 and 2018 population shares, the percentage-point change in the national (18.27 percent minus 16.40 percent equals 1.87) and Arizona (31.60 percent minus 29.76 percent equals 1.84) shares was nearly the same. However, the calculation of the percent change in the shares results in a considerably lesser gain in Arizona, due to its much higher Latino share than the nation in 2010. Nationally, the change of 1.87 on a base of 16.40 equals an 11.4 percent increase, while in Arizona the change of 1.84 on a base of 29.76 equals only a 6.2 percent increase.

In this paper, both methods of expressing the change are used. The terminology distinguishes between the two methods: "percentage-point change" versus "percent change."

CHARACTERISTICS OF THE POPULATION IN 2018

Most of the data presented in this section come from the American Community Survey (ACS) that is conducted annually by the U.S. Census Bureau. The latest data are for 2018. The Census Bureau produces tables by race/ethnicity only for selected topics, which dictates the content included in this section. Survey error is not a concern for the national data, but sampling error for small subsets of Arizona's population (for example, those between the ages of 20 and 24) is substantial.

Age Distribution

The age distribution of the U.S. population in 2018 is shown in Table 2. The distribution of Latinos is very different from that of non-Latino whites, with higher proportions of Latinos in each age group under the age of 45 and considerably lesser proportions of Latinos among those 55 and older. The age distribution of the "other" racial/ethnic group was between that of non-Latino whites and Latinos, but closer to that of Latinos.

Another way of examining the age distribution is the racial/ethnic share of the population by age group (see Table 3). In 2018, non-Latino whites accounted for less than half of the U.S. population under the age of 10, but the non-Latino share increased with age, particularly among those 45 and older, reaching 80 percent of those 85 and older. In contrast, Latinos accounted for more than one-fourth of the population younger than 15, but less than 8 percent of the population 85 and older.

Arizona

The age distribution of Arizona's residents differed from that of the nation in 2018, with lesser shares of those 30-to-64 years of age, particularly in the 45-to-64 age bracket, offset by considerably greater shares of those 65-to-84 years old and somewhat higher shares of those younger than 25. The difference between Arizona and the nation was particularly large among non-Latino whites, with much higher shares among those from 65-to-84 years of age, offset by lesser shares in each age group younger than 55.

The Latino population in Arizona was younger than its national counterpart, with greater shares in each age group younger than 30 and lesser shares in each older age group, particularly between 35-and-54 years old. The "other" population in Arizona also was younger than its national counterpart, with greater shares in each age group younger than 45 and lesser shares in each older age group, particularly between 55-and-64 years old.

Latinos outnumbered non-Latino whites among those younger than 20 in Arizona. In contrast, among those at least 85 years of age, the number of non-Latino whites was eight times more than the number of Latinos.

Based on the racial/ethnic share of the population by age group and relative to the nation, the non-Latino white share in Arizona in 2019 was much less among those younger than 55 but higher among those 65 and older. The Latino share in Arizona was higher than in the nation in every age group, but the differential was relatively small among those 65 and older (see Chart 1). The "other" share was smaller in Arizona than in the nation in all age groups.

TABLE 2
AGE DISTRIBUTION OF THE POPULATION BY RACE/ETHNICITY,
UNITED STATES, 2018

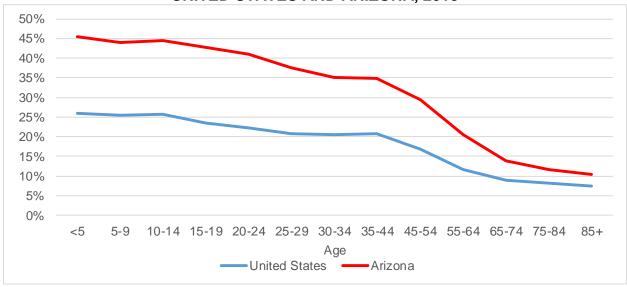
Age	Total	Non-Latino White	Latino	Other
TOTAL	100.0%	100.0%	100.0%	100.0%
Less Than 5	6.0	4.9	8.6	6.9
5 to 9	6.1	5.0	8.4	7.0
10 to 14	6.5	5.4	9.2	7.4
15 to 19	6.6	5.7	8.4	7.4
20 to 24	6.6	5.9	8.1	7.5
25 to 29	7.1	6.4	8.1	8.2
30 to 34	6.7	6.3	7.6	7.4
35 to 44	12.7	11.9	14.4	13.5
45 to 54	12.7	13.1	11.7	12.4
55 to 64	12.9	15.0	8.2	11.1
65 to 74	9.3	11.6	4.5	7.0
75 to 84	4.8	6.1	2.1	3.1
85 and Older	1.9	2.6	8.0	1.1

Source: U.S. Department of Commerce, Census Bureau, American Community Survey.

TABLE 3
RACIAL/ETHNIC SHARE OF THE POPULATION BY AGE,
UNITED STATES, 2018

	Non-Latino		
Age	White	Latino	Other
TOTAL	60.2%	18.3%	21.5%
Less Than 5	49.4	26.0	24.5
5 to 9	49.7	25.4	24.9
10 to 14	50.1	25.7	24.2
15 to 19	52.3	23.5	24.2
20 to 24	53.4	22.3	24.3
25 to 29	54.4	20.7	24.8
30 to 34	55.9	20.5	23.6
35 to 44	56.4	20.7	22.9
45 to 54	62.2	16.8	21.0
55 to 64	69.9	11.5	18.5
65 to 74	75.0	8.8	16.2
75 to 84	77.8	8.0	14.1
85 and Older	80.1	7.4	12.5

CHART 1
LATINO SHARE OF THE POPULATION BY AGE GROUP,
UNITED STATES AND ARIZONA, 2018



Source: U.S. Department of Commerce, Census Bureau, American Community Survey.

Educational Attainment and Achievement

Educational attainment data by race/ethnicity are available from the ACS only for the entire 25-and-older population. In 2018 nationally, the attainment of Latinos was considerably less than that of both non-Latino whites and the "other" group, as seen in Table 4. Compared to 7 percent of non-Latino whites and 13 percent of the "other" group, 30 percent of Latinos had not received a high school diploma or its equivalent. While 36 percent of non-Latino whites and 32 percent of the "other" group had earned at least a bachelor's degree, the figure for Latinos was 17 percent. Latino attainment was far less than in the rest of the population among both men and women.

Splitting the "other" group into its main components, the educational attainment of Latinos in 2018 was far less than that of Asians, less than blacks, and mixed versus Native Americans — Latinos had a much higher proportion with attainment of less than ninth grade, but a somewhat higher share with a bachelor's degree. The share who had earned at least a bachelor's degree is shown in Chart 2 by racial/ethnic group.

Educational achievement can be measured through test scores. The National Assessment of Educational Progress (NAEP, also known as the Nation's Report Card), administered by the National Center for Education Statistics, tests public-school fourth-grade and eighth-grade students from across the nation on reading and mathematics. The NAEP results for 2019 are shown in Table 5.

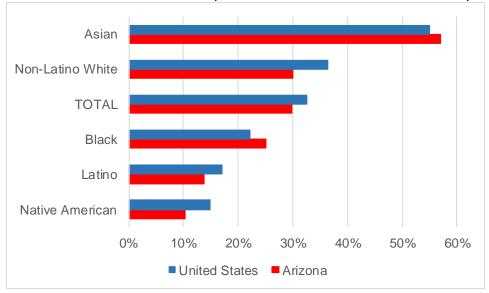
In each of the grades and subjects, the test scores of Latinos were lower than the scores of the entire population of test takers and considerably lower than the scores of non-Latino whites and Asians/Pacific Islanders. In contrast, Latinos scored a little higher than non-Latino blacks and Native Americans.

TABLE 4
EDUCATIONAL ATTAINMENT OF THE POPULATION 25 YEARS OF AGE AND OLDER BY RACE/ETHNICITY, UNITED STATES, 2018

	Non-Latino			
	Total	White	Latino	Other
TOTAL	100.0%	100.0%	100.0%	100.0%
Less Than Ninth Grade	5.0	2.0	17.7	4.7
Ninth-to-12th Grade, No Diploma	6.7	4.8	12.7	8.1
High School Diploma or Equivalent	26.9	26.8	28.2	25.9
Some College	20.3	20.8	17.8	20.5
Associate Degree	8.6	9.2	6.7	8.2
Bachelor's Degree	20.0	22.2	11.5	19.2
Graduate Degree	12.6	14.1	5.5	13.3

Source: U.S. Department of Commerce, Census Bureau, American Community Survey.

CHART 2
SHARE OF THE 25-AND-OLDER POPULATION WITH AT LEAST A BACHELOR'S
DEGREE BY RACE/ETHNICITY, UNITED STATES AND ARIZONA, 2018



Source: U.S. Department of Commerce, Census Bureau, American Community Survey.

The educational attainment of Latinos is further below the overall figure than their achievement. For example, the proportion of Latinos 25 and older with at least a bachelor's degree was 15.6 percentage points, or 48 percent, less than that of the total population 25 and older, while the NAEP test scores were just 4-to-5 percent below the total population.

Arizona

For the population 25 and older, educational attainment in Arizona was less than the national average in 2018; a larger share of Arizonans had not earned a high school diploma or the equivalent and a lesser share had earned at least a bachelor's degree. The attainment of

TABLE 5 NATIONAL TEST SCORES, 2019

Grade and					Asian/Pacific	Native	Two or More
Subject	Total	Latino	White	Black	Islander	American	Races
4th Reading	219	209	230	204	237	204	226
8th Reading	262	252	272	244	281	248	267
4th Math	240	231	249	224	260	227	244
8th Math	281	268	292	260	310	262	286
Latino Score Les	s Score of Othe	r Groups					
4th Reading	-10	-	-21	5	-28	5	-17
8th Reading	-10		-20	8	-29	4	-15
4th Math	-9		-18	7	-29	4	-13
8th Math	-13		-24	8	-42	6	-18

Source: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress.

non-Latino whites and the "other" group in Arizona was somewhat below their national counterparts, while the differential was greater among Latinos. In particular, a lesser share of Latinos in Arizona had earned at least a bachelor's degree than in the nation (see Chart 2).

Since only a small sample of students in each state take the NAEP test, the overall results by state are subject to considerable sampling error, with very considerable sampling error present by race/ethnicity. Results for any year need to be interpreted cautiously.

Of the entire population of test takers, test scores in 2019 in Arizona were a little lower than the national average in each grade and subject. Native Americans scored lower than their national counterparts in each grade and subject, while the comparison to the nation was mixed by grade and subject for each of the other racial/ethnic groups. For example, Latinos in Arizona scored slightly higher than the U.S. Latino average in eighth-grade math, but less in each of the other tests. As in the nation, Arizona's Latinos scored substantially lower than non-Latino whites and Asians/Pacific Islanders, but a little higher than non-Latino blacks and Native Americans.

Employment Status and Occupation

Two analyses of employment status were made. The first was limited to those 16 and older and specifically focused on those employed in civilian jobs. The racial/ethnic groups were those used elsewhere in this paper: Latinos, non-Latino whites, and others. The second analysis combined those serving in the armed forces with those employed in civilian jobs, compared Latinos to all non-Latinos, and was not limited to those 16 and older. Since participation in the workforce varies by sex and age, employment status was examined by age and sex in each analysis.

First Analysis. The percentage of the U.S. population employed in a civilian job in 2018 is shown in Table 6. Those not employed in a civilian job include those unemployed, not active in the labor force, and serving in the armed forces.

Among men, the percentage employed was a little higher among Latinos than non-Latino whites in each age group from 20 through 69. The employment rate was noticeably lower in the "other" group among men from 16 to 69. Because of differences in the age distribution, particularly the much higher share of non-Latino whites of retirement age, the percentage employed among all males 16 and older was considerably higher for Latinos than for non-Latino whites.

Among females, the percentage of Latinas employed was lower than non-Latina whites in each age group and lower than in the "other" group in each age group 25 and older. Because of differences in the age distribution, the percentage employed among all females 16 and older was slightly higher for Latinas than for non-Latina whites.

Second Analysis. As seen in Table 7, the employment-to-population (E-P) ratio in 2018 among both Latinos and non-Latinos varied widely with age. The age distribution of Latinos was much different from that of non-Latinos, with a much higher share younger than 16 and a much lesser share 65 and older. Because of the large share of Latinos younger than 16, the overall E-P ratio for Latino males was slightly less than that of non-Latino males, even though the Latino E-P was higher than that of non-Latinos in each age group. Among women, the E-P ratios of Latinas were below the figures of non-Latinas in each of the age groups.

TABLE 6
PERCENTAGE OF THE POPULATION 16 YEARS OF AGE AND OLDER EMPLOYED IN A CIVILIAN JOB BY SEX AND RACE/ETHNICITY, UNITED STATES. 2018

	Non-Latino		
Sex and Age Total	White	Latino	Other
Male:			
16 to 19 30.2%	34.1%	29.2%	22.7%
20 to 24 65.6	68.5	69.7	55.6
25 to 54 83.1	84.8	85.2	76.5
55 to 64 68.0	69.4	71.3	60.4
65 to 69 35.9	36.4	36.8	32.8
70 and Older 14.1	14.5	12.7	12.5
Total 16 and Older 64.3	63.8	70.9	60.4
Female:			
16 to 19 33.9	38.3	29.9	28.3
20 to 24 68.3	71.8	66.5	62.4
25 to 54 74.0	76.3	67.9	73.5
55 to 64 58.3	59.7	53.6	56.3
65 to 69 27.6	28.3	24.2	26.7
70 and Older 8.3	8.6	6.3	8.0
Total 16 and Older 55.5	54.8	56.0	57.2

Source: U.S. Department of Commerce, Census Bureau, American Community Survey.

TABLE 7
EMPLOYMENT-TO-POPULATION RATIO AND AGE DISTRIBUTION,
UNITED STATES, 2018

	Employment-to-Population Ratio			Share of Total Population			
	Latino	Non-Latino	Difference	Latino	Non-Latino	Difference	
MALE							
Total	51.4	51.6	-0.2				
Less Than 16	0.0	0.0	0.0	28.2%	18.9%	9.3	
16 to 24	52.8	51.3	1.5	15.1	11.8	3.3	
25 to 64	83.5	79.3	4.2	50.3	53.0	-2.7	
65 and Older	21.9	21.6	0.3	6.3	16.3	-10.0	
FEMALE							
Total	40.7	45.9	-5.2				
Less Than 16	0.0	0.0	0.0	27.5	17.3	10.2	
16 to 24	50.1	54.4	-4.3	14.6	10.8	3.8	
25 to 64	65.5	71.1	-5.6	49.5	52.4	-2.9	
65 and Older	12.3	14.5	-2.2	8.4	19.5	-11.1	
TOTAL							
Total	46.1	48.7	-2.6				
Less Than 16	0.0	0.0	0.0	27.9	18.1	9.8	
16 to 24	51.5	52.8	-1.3	14.9	11.3	3.6	
25 to 64	74.6	75.1	-0.5	49.9	52.7	-2.8	
65 and Older	16.5	17.6	-1.1	7.4	18.0	-10.6	

Despite the higher employment rates among Latino men, Latinos accounted for only 17.5 percent of those employed in the United States in 2018, compared to a 18.3 percent share of the population as a result of the lower E-P ratio for Latinas than non-Latina women and the higher share of children in the Latino population.

Occupational Mix. Significant differences in the national occupational mix were present across the racial/ethnic groups in 2018, as seen in Table 8. In general, the first 11 occupational groups in the table (through health technologists and technicians) consist of "white-collar" occupations requiring postsecondary education that pay relatively well, while the remaining occupations generally require less education and pay less.

In each of the first 11 occupational groups in Table 8, the share of Latinos in 2018 was less than the share of both non-Latino whites and the "other" group. In several of the 11 groups, the Latino share was much less than the non-Latino white share, including each of the seven groups with a median annual wage exceeding \$65,000.

Of the remaining 14 occupational groups, the share of Latinos was higher than the share of non-Latino whites in 11 and higher than both non-Latino whites and the "other" group in seven. The Latino share was far higher than the non-Latino white share in the very low-paying groups of food preparation and serving; building and grounds cleaning and maintenance; and farming, fishing, and forestry, and also in the construction and extraction group.

Arizona

First Analysis. In 2018, the share of the population employed was less in Arizona than the national average in each sex/age group category except for males younger than 25 and females between 20 and 24. Except among teenage females, the lower figures in Arizona were predominantly due to individual choice not to be in the labor force rather than due to unemployment.

As in the nation, the share employed generally was higher for Latinos than for non-Latinos among males in Arizona. Among females, the share employed was lower for Latinas than non-Latina whites in every age group and lower than for the "other" group among women 25 and older.

Second Analysis. The overall employment-to-population ratio in 2018 was lower in Arizona than the U.S. average among both Latinos and non-Latinos among both males and females. The age distribution of non-Latinos in Arizona was older than in the nation, but the age distribution of Arizona's Latinos was a little younger than their national counterparts. As in the nation, the Latino share of employment (30.9 percent) was a little less than the Latino share of population (31.6 percent).

Occupational Mix. The overall occupational mix in Arizona in 2018 was somewhat different than the national average, with lesser shares in most of the "white-collar" occupational groups. This was offset particularly by higher shares than in the nation in the food preparation and serving; building and grounds cleaning and maintenance; and office and administrative support groups.

TABLE 8
OCCUPATIONAL MIX OF THE POPULATION 16 YEARS OF AGE AND OLDER
EMPLOYED IN A CIVILIAN JOB BY RACE/ETHNICITY, UNITED STATES, 2018

		Non- Latino			Median Annual
Occupational Group	Total	White	Latino	Other	Wage*
Total					\$38,640
Management	10.2%	11.9%	6.4%	8.0%	104,240
Business and Financial Operations	5.4	6.1	3.1	5.4	68,350
Computer and Mathematical	3.2	3.2	1.4	4.8	86,340
Architecture and Engineering	1.9	2.1	1.0	1.9	80,170
Life, Physical, and Social Science	1.0	1.0	0.5	1.1	66,070
Community and Social Service	1.7	1.7	1.3	2.1	44,960
Legal	1.1	1.4	0.6	0.7	80,810
Educational Instruction and Library	6.0	6.8	3.8	5.2	49,700
Arts, Design, Entertainment, Sports, and Media	2.0	2.4	1.4	1.6	49,290
Health Diagnosing and Treating Practitioners	4.1	4.6	1.7	4.6	80,990
Health Technologists and Technicians	2.0	2.0	1.5	2.5	44,700
Healthcare Support	3.3	2.5	3.6	5.4	29,740
Firefighting and Other Protective Service	1.2	1.1	1.1	1.7	50,010
Law Enforcement	0.9	1.0	0.8	1.0	55,760
Food Preparation and Serving	5.7	4.7	8.4	6.4	23,070
Building and Grounds Cleaning and Maintenance	3.9	2.7	8.1	3.7	26,840
Personal Care and Service	2.9	2.7	2.8	3.4	24,420
Sales and Related	10.1	10.6	9.4	9.2	28,180
Office and Administrative Support	11.3	11.4	10.6	11.7	35,760
Farming, Fishing, and Forestry	0.7	0.5	1.9	0.2	25,380
Construction and Extraction	5.2	4.6	10.2	2.4	46,010
Installation, Maintenance, and Repair	3.0	3.2	3.4	2.0	45,540
Production	5.7	5.1	7.3	5.9	35,070
Transportation	3.9	3.5	4.4	4.7	**
Material Moving	3.8	3.0	5.5	4.6	**

^{*} Of all workers, regardless of race/ethnicity.

Source: U.S. Department of Commerce, Census Bureau, American Community Survey (employment) and U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics (median wage).

^{**} The median wage for transportation and material moving combined is \$32,730.

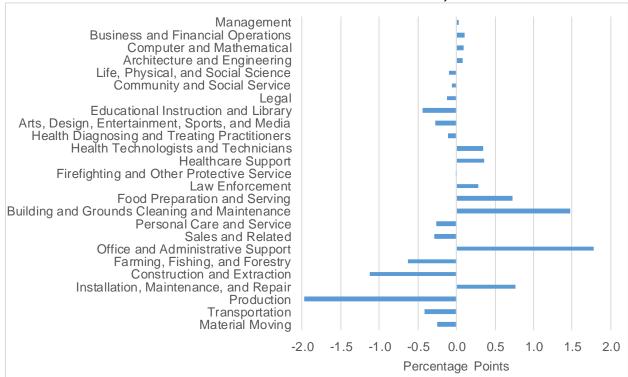
As in the nation, the share of Arizona's Latinos employed in each of the "white-collar" occupational groups was less than the shares of non-Latino whites and the "other" group, with much lower shares in several of the groups. Relative to Latinos nationally, a higher proportion of Latinos in Arizona were employed in the building and grounds cleaning and maintenance; office and administrative support; food preparation and serving; and installation, maintenance, and repair groups, offset by lesser shares in the production; and construction and extraction groups (see Chart 3).

Earnings, Income, and Poverty

The Census Bureau reports various measures of earnings and income from the ACS. Earnings are reported for those 16 and older with earnings, but only the median is reported. Average individual income, which includes earnings and other sources of income — such as dividend income and public assistance — can be calculated for those 15 and older by dividing aggregate income by the number of individuals 15 and older. Per capita income is reported by the Census Bureau, calculated as aggregate income divided by the entire population.

The Census Bureau also reports median household income. Average household income can be calculated by dividing aggregate income by the number of households. Poverty rates are provided for those individuals for whom the poverty status could be determined, by sex and age.

CHART 3
DIFFERENCES IN THE OCCUPATIONAL MIX OF LATINOS,
ARIZONA MINUS THE UNITED STATES, 2018



Source: U.S. Department of Commerce, Census Bureau, American Community Survey.

The earnings and income figures for the nation in 2018 are summarized in Table 9. A significant difference between males and females was present in the median earnings of individuals. The overall median of Latinos was 32 percent less than that of non-Latino whites, with a differential of 37 percent among men working full time and year round and 31 percent among women working full time and year round. Among the factors accounting for the much lower earnings of Latinos is the much lesser educational attainment of Latinos — earnings rise substantially with attainment. The very different occupational mix of Latinos, tied to the lesser educational attainment, also contributes. In addition, the average age of the Latino workforce is younger than the average age of non-Latino whites — earnings rise strongly with age.

Latinos were further below non-Latino whites in two measures of individual income: mean income of individuals of age 15 and older and per capita income. Due to the larger share of the Latino population who are children, per capita income was especially low relative to non-Latino whites. The differential in household income, though still substantial, was smaller for households headed by Latinos compared to non-Latino whites. A number of factors likely account for the smaller differential, including the much higher proportion of households of retirement age — whose median income is substantially less than that of households headed by someone between the ages of 25 and 64 — of non-Latino whites than Latinos.

In 2018, the lesser earnings of Latinos combined with the lesser share of the Latino population who worked resulted in Latinos having a much lesser share of the nation's aggregate income (11.1 percent) than employment (17.5 percent) and population (18.3 percent).

TABLE 9
EARNINGS AND INCOME BY RACE/ETHNICITY, UNITED STATES, 2018

	Total	Non- Latino White	Latino	Latino Share of Non- Latino White
Median Earnings, Individuals Age 16 and Older	With Earning	js –		
TOTAL	\$35,291	\$40,072	\$27,368	68.3%
Male	41,119	47,407	31,414	66.3
Full-Time, Year-Round	52,004	60,350	37,873	62.8
Other	12,222	12,369	12,875	104.1
Female	30,048	31,975	22,492	70.3
Full-Time, Year-Round	42,238	46,675	32,113	68.8
Other	11,543	11,815	11,017	93.2
Per Capita Income	33,831	40,027	20,590	51.4
Mean Income of Individuals Age 15 and Older	41,560	47,289	27,895	59.0
Household Income*				
Mean	87,864	94,972	69,150	72.8
Median	61,937	67,937	51,404	75.7

^{*} Race/ethnicity determined from the household head.

Poverty rates by age for the nation are shown in Table 10. Poverty rates in 2018 were highest for very young adults and for children, particularly those younger than five. The overall poverty rate for non-Latino whites was substantially lower than for Latinos and the "other" group. Relative to the rest of the population, poverty rates of Latinos were especially high for those 65 and older but were relatively low among those 18-to-24 years old.

Arizona

Earnings and incomes in Arizona generally were less than the national average in 2018. This is partially due to the state's lower cost of living; the latest living-cost data for 2017 show a differential of 3.6 percent. However, median earnings in Arizona were further below the national average than the cost of living — 8 percent below average overall and among men working full time and year round and 5 percent below average among women working full time and year round.

Among non-Latino whites, median earnings in Arizona were only slightly below the national average. The same was true of Latinos — the overall median earnings figure was only 2 percent below the national Latino average, with a differential of 5 percent for men working full time and year round and 1 percent for women working full time and year round.

Per capita income and the mean income of those 15 and older were between 9 and 10 percent below the national average in Arizona. The differential was smaller for non-Latino whites (3-to-5 percent) than for Latinos (approximately 9 percent). Household incomes also were below the national average in Arizona, by 4 percent for the median and 8 percent for the mean. Mean household income for Latinos in Arizona was further below their national peers than for non-Latinos, but the reverse was true for median household income.

As in the nation, the lesser earnings of Arizona's Latinos in 2018 combined with the lesser share of the Latino population who worked resulted in Latinos having a much lesser share of the state's aggregate income (19.3 percent) than employment (30.9 percent) or population (31.6 percent).

TABLE 10
POVERTY RATES BY AGE AND RACE/ETHNICITY, UNITED STATES, 2018

Age Group	Total	Non-Latino White	Latino	Other
TOTAL	13.1%	9.5%	18.8%	18.5%
Less Than 5	19.5	12.0	26.5	27.1
5 to 17	17.5	10.4	25.2	24.1
18 to 24	20.6	19.3	19.0	25.3
25 to 34	12.4	9.5	15.5	16.4
35 to 44	10.9	7.9	16.4	13.5
45 to 54	9.6	7.6	12.4	13.4
55 to 64	10.6	8.6	13.6	16.5
65 to 74	8.8	6.6	17.3	14.3
75 and Older	10.4	8.4	19.0	16.9

The overall poverty rate in Arizona in 2018 was 14.0 percent, higher than the national average of 13.1 percent. The poverty rate in Arizona was particularly higher than the national average among children; Arizona's rate was less than the nation among those 18 to 24 and 65 and older. Among non-Latino whites, the poverty rate in Arizona was less than the national average overall and in most age groups. In contrast, the poverty rate in Arizona was higher among Latinos, and considerably higher in the "other" group, than among their national counterparts. However, the poverty rate of Latinos 65 and older was lower in Arizona than the nation.

Nativity and Mobility

Nativity data by race/ethnicity are available for two age groups: younger than 18, and 18 and older. Among children nationally in 2018, the percentage not born in the United States was lowest for non-Latino whites and highest for the "other" group, as seen in Table 11. Regardless of race/ethnicity, most of the foreign-born children had not yet become U.S. citizens.

The proportion of adults not born in the United States was higher in each racial/ethnic group than for children, with the lowest figure for non-Latino whites and the highest figure for Latinos. The proportion of these individuals who had become U.S. citizens was considerably less for Latinos (40 percent) than for non-Latino whites (64 percent) and the "other" group (61 percent).

The mobility statistics compare where people were living in 2018 versus the prior year. More than 83 percent of each racial/ethnic group were living in the same dwelling unit. Mobility within the same county was slightly higher for Latinos and the "other" group than for non-Latino whites, likely related to their younger age profile. Just 1 percent of Latinos and the "other" group had moved from abroad; the figure was 0.3 percent for non-Latino whites.

Arizona

Compared to the nation, lesser proportions of Latinos and the "other" group living in Arizona were born outside the United States, among both children and adults. For Latinos, the foreignborn share of children was 3.1 percent in Arizona and 5.5 percent nationally; for adults, the comparison was 36.5-versus-45.7 percent.

TABLE 11
PROPORTION OF THE POPULATION FOREIGN BORN
BY RACE/ETHNICITY, UNITED STATES, 2018

Non-Latino				
	Total	White	Latino	Other
Younger Than 18				
TOTAL	3.4%	1.1%	5.5%	6.0%
Naturalized Citizen	0.9	0.3	1.0	2.0
Not a Citizen	2.5	0.8	4.5	4.0
18 and Older				
TOTAL	16.7	4.7	45.7	30.3%
Naturalized Citizen	8.7	3.0	18.2	18.4
Not a Citizen	8.0	1.7	27.5	11.9

Mobility in Arizona was higher than the national average, with greater shares moving within the same county and moving from another U.S. state, in each of the racial/ethnic groups. The proportion of Latinos making an interstate move was less than for the other groups.

Household Type and Size

The average household size in 2018 varied considerably by racial/ethnic group in the United States, from 2.38 for non-Latino whites to 3.05 for the "other" group to 3.99 for Latinos. The household type also varied. As seen in Table 12, a lesser share of Latinos was living in nonfamily households — individuals living alone or with unrelated individuals — than the other groups. Relative to non-Latino whites, the proportion of married-couple family households was lower for Latinos, while the share of family households headed by a single adult was much higher among Latinos. However, compared to the "other" group, Latinos had a greater share of married-couple households and only a slightly higher share of households headed by a single adult.

Arizona

Compared to the nation, the average household size in Arizona was lower for non-Latino whites, slightly higher for Latinos, and considerably higher in the "other" group. Among Latinos, the share living in each household type was nearly the same in Arizona as the national average. In contrast, a somewhat higher share of non-Latino whites lived in nonfamily households in Arizona than the nation while a somewhat higher share of the "other" group lived in family households in Arizona than the nation.

Housing Characteristics

Homeownership nationally in 2018 was significantly higher for non-Latino whites (72 percent) than for Latinos and the "other" group (each 47 percent). A higher proportion of non-Latino whites (69 percent) than Latinos (51 percent) and the "other" group (49 percent) lived in detached single-family dwellings, offset by lesser shares of non-Latino whites living in attached housing units, including condominiums, townhouses, and apartments.

TABLE 12
PROPORTION OF HOUSEHOLDS BY TYPE BY RACE/ETHNICITY,
UNITED STATES,2018

		Non-Latino		
	Total	White	Latino	Other
TOTAL	100.0%	100.0%	100.0%	100.0%
FAMILY TOTAL	65.2	63.7	75.3	63.4
Married Couple	47.9	51.2	47.5	36.9
Male Head	4.9	3.9	8.7	5.8
Female Head	12.4	8.6	19.1	20.8
NONFAMILY TOTAL	34.8	36.3	24.7	36.6
Living Alone	28.0	29.2	18.5	30.5
Living With Nonrelatives	6.8	7.1	6.2	6.1

Note: Race/ethnicity was determined from the household head.

Arizona

Relative to the nation, homeownership in Arizona in 2018 was marginally lower among non-Latino whites, somewhat higher in the "other" group, and higher among Latinos. Still, the Latino share of 54 percent was considerably less than the non-Latino white share of 72 percent.

Compared to the nation, in each racial/ethnic group, a higher proportion of Arizonans lived in mobile homes/manufactured housing. The share of Latinos and the "other" group living in detached single-family housing in Arizona was considerably higher than the U.S. average, offset by lower shares living in each type of attached housing. Still, the share living in detached single-family dwellings in Arizona was higher for non-Latino whites (69 percent) than Latinos (64 percent) and the "other" group (57 percent).

Other Characteristics

The ACS provides information by race/ethnicity for three other diverse topics: the share of individuals with access to a computer at home, the share with health insurance by age, and the proportion receiving nutrition assistance (food stamps).

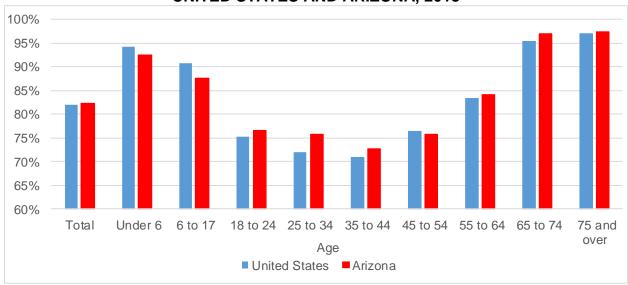
For each racial/ethnic group, computer access nationally in 2018 was between 94 and 95 percent. However, the proportion of those with a computer but without Internet access varied somewhat, from 5.0 percent of non-Latino whites to 9.3 percent of Latinos.

The proportion receiving food stamps nationally in 2018 was the same for Latinos and the "other" group at 19 percent, considerably higher than the 8 percent of non-Latino whites. The proportion with health insurance varied by racial/ethnic group: 94 percent of non-Latino whites, 91 percent of the "other" group, and 82 percent of Latinos. In each racial/ethnic group, health insurance coverage was lowest among young adults and highest among those 65 and older. Compared to non-Latino whites, the coverage for Latinos was only a little lower among children and senior citizens but was considerably lower for those between 18-and-64 years of age.

Arizona

Relative to the nation, computer access in Arizona was higher for non-Latino whites, about the same for Latinos, and lower for the "other" group. The share of Arizonans receiving food stamps was about the same for Latinos and slightly less for the other groups. The proportion with health insurance was the same in Arizona as the nation for Latinos and non-Latino whites, but a little lower in Arizona for the "other" group. Coverage in each racial/ethnic group was lower in Arizona than the nation for children. Among Latinos, coverage was higher in Arizona than the nation particularly among young adults (see Chart 4).

CHART 4
PROPORTION OF THE LATINO POPULATION WITH HEALTH INSURANCE,
UNITED STATES AND ARIZONA, 2018



Source: U.S. Department of Commerce, Census Bureau, American Community Survey.

23

CHANGE IN THE CHARACTERISTICS OF THE POPULATION BETWEEN 2010 AND 2018

Most of the data presented in this section come from the American Community Survey. While the ACS goes back to 2005, various modifications to the survey made in the early years affect comparisons to later years. Thus, the latest data for 2018 are compared to the data for 2010 in this section. When comparing data from different years, survey error generally is not a concern for the national data, but the sampling error for subsets of Arizona's population may be considerable.

Age Distribution

Overall between 2010 and 2018, the share of the U.S. population younger than 25 declined. Decreases in the younger-than-25 share occurred in each of the racial/ethnic groups, especially among Latinos younger than 10 years old (see Table 13). Decreases also occurred among those 35-to-54 years old, with a large drop in the 45-to-54 age group due to the aging of the babyboom generation. While the share in the 35-to-44 group fell in each racial/ethnic group, the percentage-point change in the 45-to-54 age group varied considerably from a very large decrease among non-Latino whites to an increase among Latinos.

The shares of those 55 and older increased, particularly in the 65-to-74 age group as the oldest baby-boomers aged into this age group. Increases occurred in each of the racial/ethnic groups, with Latinos having the largest increase in the 55-to-64 age group but the smallest rise in the 65-to-74 group.

The non-Latino white share of the population decreased in every age group. The Latino share increased in every age group except 30 to 34 and the "other" group's share rose in every age group.

TABLE 13
PERCENTAGE-POINT CHANGE IN THE AGE DISTRIBUTION OF THE POPULATION BY RACE/ETHNICITY, UNITED STATES, 2010 TO 2018

Non-Latino						
Age	Total	White	Latino	Other		
Less Than 5	-0.5%	-0.3%	-1.5%	-1.0%		
5 to 9	-0.5	-0.5	-1.1	-0.6		
10 to 14	-0.2	-0.4	0.2	-0.4		
15 to 19	-0.6	-0.6	-0.5	-1.1		
20 to 24	-0.4	-0.4	-0.5	-0.4		
25 to 29	0.4	0.3	-0.3	1.0		
30 to 34	0.3	0.4	-0.6	0.3		
35 to 44	-0.6	-0.9	-0.1	-0.6		
45 to 54	-1.8	-2.6	0.9	-1.2		
55 to 64	1.0	1.1	1.8	1.3		
65 to 74	2.3	3.0	1.2	1.9		
75 to 84	0.5	0.8	0.4	0.6		
85 and Older	0.1	0.2	0.2	0.2		

Arizona

Relative to the nation, Arizona experienced a larger decline in age-group share among those younger than 10 and a larger increase among those in the 75-to-84 age group. The former occurred across the racial/ethnic groups while the latter was due almost entirely to non-Latino whites. Among Latinos, the share in the 10-to-14 age group fell in Arizona but rose slightly nationally, while the share in the 20-to-29 age group increased in Arizona but decreased nationally.

As in the nation, the non-Latino white share of the population decreased in every age group in Arizona. The Latino share and the "other" group's share rose in every age group. In Chart 5, the 2010-to-2018 percentage-point change in the Latino share by age in Arizona is compared to the national average.

Educational Attainment and Achievement

Educational attainment among those 25 and older in the United States rose between 2010 and 2018, with declines in the shares with some college or lesser attainment and gains in the shares with an associate degree, a bachelor's degree, and a graduate degree. This pattern generally prevailed in each of the racial/ethnic groups, as seen in Table 14. Based on the percentage-point change, the greatest improvement at the low end of the attainment scale occurred among Latinos, but Latino gains in the bachelor's degree or more category lagged behind most of the other groups, as seen in Chart 6.

The NAEP has been administered in odd-numbered years since 2003; the tests were given at irregular intervals prior to that, with the earliest of the test results from 1990. Nationally since the

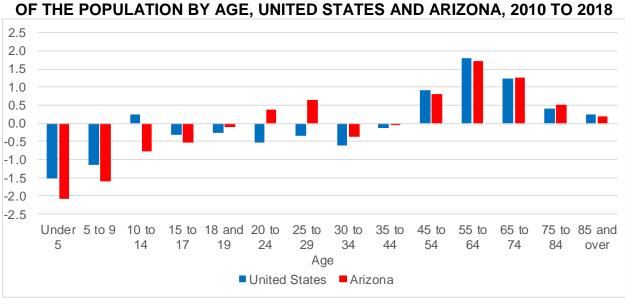


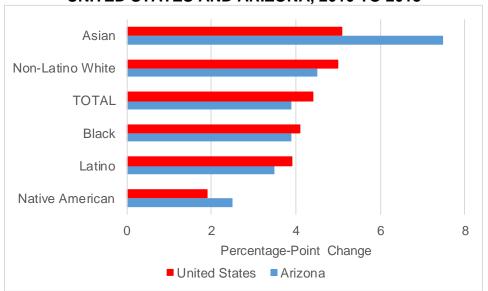
CHART 5
PERCENTAGE-POINT CHANGE IN THE LATINO SHARE
OF THE POPULATION BY AGE, UNITED STATES AND ARIZONA, 2010 TO 2018

TABLE 14
PERCENTAGE-POINT CHANGE IN THE EDUCATIONAL ATTAINMENT OF THE POPULATION 25 YEARS OF AGE AND OLDER BY RACE/ETHNICITY, UNITED STATES, 2010 TO 2018

	Non-Latino			
	Total	White	Latino	Other
Less Than Ninth Grade	-1.1%	-0.9%	-4.9%	-1.3%
Ninth-to-12th Grade, No Diploma	-1.6	-1.5	-2.6	-2.5
High School Diploma or Equivalent	-1.6	-2.5	1.8	-1.1
Some College	-1.0	-1.1	0.6	-1.3
Associate Degree	1.0	1.1	1.2	0.9
Bachelor's Degree	2.2	2.5	2.6	2.3
Graduate Degree	2.2	2.4	1.3	3.1

Source: U.S. Department of Commerce, Census Bureau, American Community Survey.

CHART 6
PERCENTAGE-POINT CHANGE IN THE SHARE OF THE 25-AND-OLDER
POPULATION WITH AT LEAST A BACHELOR'S DEGREE BY RACE/ETHNICITY,
UNITED STATES AND ARIZONA, 2010 TO 2018



early 2000s, the test results of Latinos have improved relative to both non-Latino whites and Native Americans, particularly in reading. Little change has occurred in Latino results relative to non-Latino blacks and Asians.

Arizona

Overall, the percentage-point gain in educational attainment in Arizona was not quite as strong as the national average between 2010 and 2018. Arizona had a lesser decrease in the share without a high school diploma and a lesser gain in the share with a college degree. As in the nation, Latinos in Arizona had the strongest gain in the share graduating from high school but lagged behind all groups except Native Americans in the increase in share with at least a bachelor's degree.

Overall, NAEP test scores in Arizona declined relative to the nation during the 2000s. Since then, Arizona's test scores have improved relative to the nation, with the results surpassing those of the 1990s on some of the tests. Due to the erratic nature of the test scores by year by race/ethnicity in Arizona — due to sampling error — trends in the relationship between Latinos and other racial/ethnic groups cannot be discerned.

Employment Status and Occupation

The improving economy between 2010 (just after the end of the recession) and 2018 caused a large increase nationally in the percentage of the population employed and a significant decrease in the percentage of the population unemployed among each racial/ethnic group, each age group, and each sex. The proportion not in the labor force dropped a little in each age group for each sex, but due to the aging of the population, the not-in-the-labor-force share of the entire population 16 and older rose, almost entirely due to non-Latino whites.

As seen in Table 15, the overall increase in the percentage employed was less among non-Latino whites than Latinos and the "other" group, but this was in part due to the differences in the age distribution across the racial/ethnic groups. By age group, Latinas generally had the greatest gains among females, but the "other" group generally posted the greatest gains among men.

Based on the entire population and including those in the armed forces, the Latino share of employment rose 17.0 percent between 2010 and 2018, more than the 11.4 percent gain in the share of population. The greater increase in the employment share was a result of the larger gains in the employment-to-population ratio among Latinos than non-Latinos.

Between 2010 and 2018 nationally, the overall occupational mix shifted to higher shares in the business and finance; computer and mathematical; healthcare support; and material moving occupational groups. In each of these occupational groups, the share increased in each of the three racial/ethnic groups, though the Latino increase was relatively small in the computer and mathematical group.

Offsetting the rising shares in these occupational groups were decreasing shares in the personal care; sales; and especially the office and administrative support groups. The Latino share did not fall as much as the non-Latino share in the latter two groups. In other occupational groups — food preparation and serving; building and grounds cleaning and maintenance; and production —

TABLE 15
PERCENTAGE-POINT CHANGE IN THE POPULATION 16 YEARS OF AGE AND OLDER EMPLOYED IN A CIVILIAN JOB BY SEX AND RACE/ETHNICITY, UNITED STATES, 2010 TO 2018

	Non-Latino				
Sex and Age	Total	White	Latino	Other	
Male:					
Total 16 and Older	3.3	1.9	4.8	6.6	
16 to 19	5.9	6.4	4.9	6.6	
20 to 24	6.8	6.7	4.5	10.4	
25 to 54	5.3	4.4	6.0	8.5	
55 to 64	5.0	4.7	8.3	5.4	
65 to 69	3.2	3.2	3.3	3.8	
70 and Older	1.9	2.2	1.3	1.0	
Female:					
Total 16 and Older	2.3	1.1	4.9	4.2	
16 to 19	5.8	4.9	7.0	8.1	
20 to 24	7.5	6.0	10.7	10.0	
25 to 54	4.3	4.0	5.7	5.6	
55 to 64	2.9	2.6	5.6	4.0	
65 to 69	3.2	3.0	4.6	4.1	
70 and Older	1.9	2.1	1.4	1.6	

Source: U.S. Department of Commerce, Census Bureau, American Community Survey.

the Latino share fell much more than the non-Latino share. In contrast, the Latino share rose in the construction and extraction group, compared to a small decline among non-Latinos, and rose by more than non-Latinos in the management group.

Arizona

As in the nation, the improving economy between 2010 and 2018 led to a large increase in Arizona in the percentage of the population employed and a significant decrease in the percentage of the population unemployed among each racial/ethnic group, each age group, and each sex. The share of the population not in the labor force generally decreased more in Arizona than nationally by age group and sex, yet the increase in the not-in-the-labor-force share of the entire population 16 and older rose slightly more in Arizona due to the greater shift of non-Latino whites to the 65-and-older age group.

Based on the entire population and including those in the armed forces, the Latino share of Arizona's employment rose 17.0 percent between 2010 and 2018 — the same as the nation and more than the 6.2 percent gain in the Latino share of Arizona's population.

The shift in the overall occupational mix between 2010 and 2018 was somewhat different in Arizona than the nation, with lesser gains or larger declines in most of the "white-collar" occupational groups. Among the other occupational groups, Arizona experienced an increase in share relative to the nation especially in the food preparation and serving; and building and grounds cleaning and maintenance groups.

The share of Latinos in the educational instruction group fell substantially in Arizona, by more than non-Latinos in Arizona and Latinos nationally. Unlike in the nation, Arizona's Latinos did not experience sizable declines in share in the food preparation and serving; and building and grounds cleaning and maintenance groups or an increase in the share in the construction and extraction group (see Chart 7).

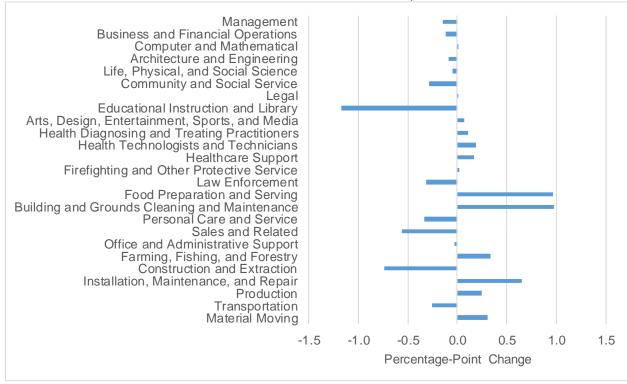
Earnings, Income, and Poverty

Due to the improving economy between 2010 and 2018, inflation-adjusted gains in earnings and incomes occurred nationally, as summarized in Table 16. In each measure, the percent change was greater for Latinos than for non-Latino whites. Between 2010 and 2018, the Latino share of the nation's aggregate income rose 19.3 percent, more than the gain in the share of population (11.4 percent) and the rise in employment (17.0 percent).

Poverty rates also fell between 2010 and 2018 due to the economic cycle. The decrease was greatest among young adults and children; poverty rates rose among those 55 and older.

The decline in the poverty rate was not as great for non-Latino whites as for the rest of the population, whether measured as a percent change or a percentage-point change. The poverty rate of Latinos dropped 5.9 percentage points, from 24.7-to-18.8 percent, between 2010 and

CHART 7
DIFFERENCES IN THE CHANGE IN THE OCCUPATIONAL MIX OF LATINOS,
ARIZONA MINUS THE UNITED STATES, 2010 TO 2018



Source: U.S. Department of Commerce, Census Bureau, American Community Survey.

TABLE 16
INFLATION-ADJUSTED PERCENT CHANGE IN EARNINGS AND INCOME
BY RACE/ETHNICITY, UNITED STATES, 2010 TO 2018

Madian Faminas Individuals Anad Cond Older W	Total	Non- Latino White	Latino	Latino Versus Non- Latino White		
Median Earnings, Individuals Age 16 and Older With Earnings						
TOTAL	6.3%	10.1%	13.7%	3.6		
Male	7.6	5.4	20.8	15.4		
Full-Time, Year-Round	-2.7	2.2	7.0	4.8		
Other	-3.2	-4.6	-0.2	4.4		
Female	8.3	7.3	9.1	1.8		
Full-Time, Year-Round	0.6	3.3	3.4	0.1		
Other	0.0	-1.1	5.8	6.9		
Per Capita Income	13.0	13.0	21.1	8.1		
Mean Income of Individuals Age 15 and Older	11.3	11.5	17.1	5.6		
Household Income*						
Mean	12.0	12.3	14.2	1.9		
Median	7.7	9.2	11.4	2.2		

^{*} Race/ethnicity determined from the household head.

Source: U.S. Department of Commerce, Census Bureau, American Community Survey.

2018. All age groups experienced a decrease; the largest drop was among young adults and children.

Arizona

The real percent increase in median earnings between 2010 and 2018 was considerably smaller in Arizona than the nation, overall and for both Latinos and non-Latino whites. The differential in the growth rate between Arizona and the nation was not as large based on per capita income and the mean income of those 15 and older. The per capita income of Latinos rose more in Arizona than the nation.

Mean household income rose only a bit less in Arizona than the nation and median household income advanced more in Arizona than the nation. Relative to the nation, households headed by Latinos outperformed households headed by non-Latino whites on both measures in Arizona.

Unlike the nation, the gain between 2010 and 2018 in the Latino share of Arizona's aggregate income (16.7 percent) was a bit less than the increase in the employment share (17.0 percent), but was considerably more than the increase in the share of the population (6.2 percent).

The decline in poverty rates between 2010 and 2018 was somewhat larger in Arizona than the nation, but this largely resulted from the much more severe recession in Arizona that caused a greater increase in poverty rates during the late 2000s. As in the nation, the amount of decline between 2010 and 2018 was considerably greater for Latinos than non-Latino whites.

Nativity and Mobility

Between 2010 and 2018 nationally, the proportion of Latinos — both children and adults — who were not U.S. citizens decreased. The share of adult naturalized citizens increased for both Latinos and the "other" group. Otherwise, there was little change in the nativity statistics between 2010 and 2018, as seen in Table 17.

The primary change in mobility between 2010 and 2018 was a reduction in the share of households moving from one dwelling to another in the same county, offset by an increase in the share of households not moving. Each of the racial/ethnic groups experienced this shift, but it was greatest among Latinos.

Arizona

Changes in nativity between 2010 and 2018 were about the same in Arizona as the nation. The magnitude of the shift in mobility away from moving within the same county was greater in Arizona than the nation. Arizona also experienced an increase in the share moving to Arizona from another state, tied to the improvement in economic conditions, but this was almost entirely among the non-Latino white population.

Household Type and Size

Average household size declined nationally between 2010 and 2018, slightly for non-Latino whites, moderately for the "other" group, and substantially for Latinos. The change in the share of households by type was not significant, especially for non-Latino whites. The share of Latinos and the "other" group living in family households declined somewhat.

Arizona

The decline in household size in Arizona was somewhat greater than the national average among non-Latino whites and the "other" group, but not as large among Latinos. The change in the share of households by type was nearly the same in Arizona as the U.S. average among non-Latino whites and Latinos, but there was little shift to nonfamily households in the "other" group in Arizona.

TABLE 17
PERCENTAGE-POINT CHANGE IN THE PROPORTION OF THE POPULATION
FOREIGN BORN BY RACE/ETHNICITY, UNITED STATES, 2010 TO 2018

	Total	White	Latino	Other
Younger Than 18				
TOTAL	-0.4%	0.0%	-2.5%	0.2%
Naturalized Citizen	0.1	-0.1	0.1	0.2
Not a Citizen	-0.5	0.1	-2.6	0.0
18 and Older				
TOTAL	0.9	0.2	-6.3	1.8%
Naturalized Citizen	1.5	0.3	2.2	2.1
Not a Citizen	-0.6	-0.1	-8.5	-0.3

Housing Characteristics

Little change in homeownership occurred between 2010 and 2018 nationally. A slight increase in the share living in apartments occurred in the non-Latino white and "other" groups, but the share of Latinos living in single-family detached houses increased marginally.

Arizona

Relative to the nation, homeownership rates fell a little in Arizona between 2010 and 2018 among Latinos, but rose a bit in the other groups. The shift in housing type in Arizona was similar to the national average except that no increase in the apartment share occurred among non-Latino whites in Arizona.

Other Characteristics

The first year of data from the ACS on computer access was 2013. Over the next five years, the proportion with a computer with broadband access to the Internet rose substantially in each racial/ethnic group nationally.

With the improvement in economic conditions between 2010 and 2018, the share of the population receiving food stamps fell in each racial/ethnic group. The share with health insurance climbed between 2010 and 2018 in each racial/ethnic group, with Latinos experiencing the greatest gain. Increases were substantial among those between the ages of 18 and 34 and much smaller for children and senior citizens, in each racial/ethnic group.

Arizona

The increase between 2013 and 2018 in the share of the population that had a computer with broadband access to the Internet was about the same in Arizona as the national average among non-Latino whites and the "other" group, but Arizona Latinos experienced a greater increase than their national counterparts.

The 2010-to-2018 decline in the share of the population receiving food stamps was considerably greater in Arizona than the nation in each racial/ethnic group. The 2010-to-2018 increase in health insurance coverage in Arizona was about the same as the national average for non-Latino whites and the "other" group. Latinos in Arizona did not have as large an increase as their national counterparts but their gain still exceeded that of the other racial/ethnic groups.

SIMULATING THE ECONOMIC IMPACT OF RAISING THE EDUCATIONAL ATTAINMENT OF LATINOS

The focus of this section is to estimate the economic effects that would result from increasing the share of Latino workers who have earned a bachelor's degree. The increase is assumed to come from an unspecified policy initiative that encourages some Latino workers with some college as their maximum educational attainment to complete a bachelor's degree.

The educational attainment, as well as the earnings, of the Latino workforce are below those of the total workforce, and the differences are even larger when compared to non-Latino whites, as illustrated in Tables 4 and 9.

Educational attainment and earnings are closely correlated. Nationally in 2018, the median earnings of those 25 and older with a bachelor's degree was 49 percent more than those whose maximum attainment was some college. Thus, one part of the economic impact of a policy initiative would be the "direct" effect of the higher wages realized by an individual who completes a bachelor's degree.

A larger benefit results from the "spillover" effects of increasing the percentage of workers with university degrees. The more educated workforce leads to increases in productivity among all workers due to the sharing of knowledge and skills across workers and from shifts in the industrial mix to knowledge-based activities. These productivity gains translate into higher output and earnings for all workers.

The spillover effect is calculated using Enrico Moretti's estimates of the gain in earnings by educational attainment.² Moretti quantified the social return to education (benefits beyond those accruing to individuals who enhance their educational attainment), estimating the effect on the earnings of all workers from increasing the proportion of the workforce with a university degree. According to Moretti, a 1-percentage-point increase in the share of college graduates in the workforce raises wages throughout the workforce, by1.9 percent among those with less than a high school diploma, 1.6 percent among high school graduates, 1.2 percent among those with some college, and 0.4 percent among college graduates.

The total effect from an increase in educational attainment is the sum of the direct effect and the spillover effect.

The effects of the policy simulation increase over time and rely on a series of assumptions. The first assumption is that the most efficient policy would encourage the completion of a university degree among some of the Latino workers with some college as their maximum educational attainment. A second key assumption is the pace at which more university graduates could be produced and retained.

Calendar year 2019 is assumed to be the base year of the simulation, with the first effects of the policy change occurring in 2020. As in previous sections, most of the data presented in this

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² Enrico Moretti, "Estimating the Social Return to Higher Education: Evidence From Longitudinal and Repeated Cross-Sectional Data," Journal of Econometrics, 2004 (accessible from http://economist.asu.edu/p3/education).

section come from the American Community Survey, supplemented with data from the U.S. Bureau of Economic Analysis (BEA) and IHS Markit, a private-sector company that produces economic projections for the nation and for states.

The simulation is run through calendar year 2050 for both the United States and Arizona. Since both educational attainment and earnings of non-Latino whites will continue increasing during this time, it is unrealistic to assume that educational attainment and earnings of Latinos and non-Latino whites will converge during this timeframe; instead, the earnings and educational disparities will be reduced.

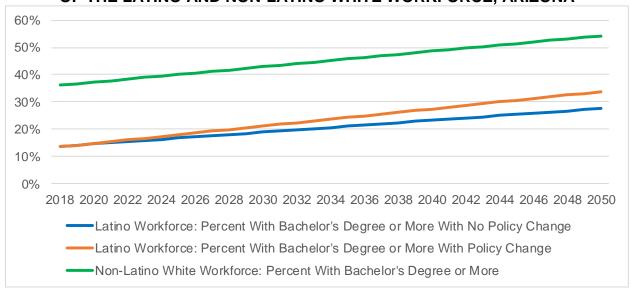
Arizona

Currently (2019), the proportion of Arizona's Latino workforce with at least a bachelor's degree is 22.5 percentage points below the non-Latino white average, with the differential projected to increase with time, as seen in Chart 8.

The simulation assumes that the percentage of Latino workers with a bachelor's degree will increase by one-fifth of 1 percent per year beyond the existing trend increase, which is 0.43 percent per year. Thus, the total increase in the share of Latino workers with at least a bachelor's degree is projected to be 0.63 percent per year, surpassing the trend increase of non-Latino whites (0.57 percent).

With the above policy assumptions, the educational gap between Latinos and non-Latino whites with at least a bachelor's degree, currently at 22.5 percent, would potentially decrease to 21.2 percent in 2039, the 20th year of the simulation, and to 20.5 percent by 2050. Without the policy

CHART 8
CURRENT AND PROJECTED DIFFERENCES IN THE EDUCATIONAL ATTAINMENT
OF THE LATINO AND NON-LATINO WHITE WORKFORCE, ARIZONA



Source: Calculated by authors.

intervention, the differences would have been 25.2 percent in 2039 and 26.7 percent in 2050, as seen in Table 18.

The results of the simulation are highlighted in Table 19, showing the likely effects in the first year (2020), the 20th year (2039), and the last year (2050) of the simulation. Over time, the direct effects become an increasingly larger share of the total effects as the number of people earning bachelor's degrees due to the initiative grows and as the earnings of these individuals increase with the number of years of work experience.

At the end of the simulation in 2050, the number of Latinos earning a bachelor's degree due to the policy initiative exceeds 160,000, accounting for 2.9 percent of the entire workforce. The total impact of the initiative is \$11.7 billion, with an increase in state government general fund revenue of \$613 million. Thus, over the span of 31 years, the general fund cost of the policy initiative could approach \$600 million with the state still experiencing a net gain in revenue.

TABLE 18
SIMULATED EDUCATIONAL ATTAINMENT PROJECTIONS, ARIZONA

	Latino Workforce: Percent With Bachelor's Degree or More With No Policy Change: *	Latino Workforce: Percent With Bachelor's Degree or More With Policy Change	Non-Latino White Workforce: Percent With Bachelor's Degree or More	Latino Educational Attainment Gap Without Policy Change *	Latino Educational Gap With Policy Change *
Baseline (2019)	14.2%	14.2%	36.6%	22.5%	22.5%
Year 1 (2020)	14.6	14.8	37.2	22.6	22.4
Year 20 (2039)	22.8	26.8	48.0	25.2	21.2
Year 31 (2050)	27.6	33.8	54.3	26.7	20.5

^{*} Obtained by subtracting Latino shares from non-Latino white shares.

TABLE 19 SIMULATION RESULTS, ARIZONA

		Effect in Millions in Constant Dollars			
	Number of				General Fund
	Latinos*	Direct	Spillover	Total	Revenue**
Year 1 (2020)	2,346	\$ 21	\$ 86	\$ 107	\$6
Year 20 (2039)	79,482	1,044	3,822	4,866	256
Year 31 (2050)	160,257	2,620	9,038	11,658	613

^{*} Earning a bachelor's degree due to the initiative.

Source (Tables 18 and 19): Calculated by authors

^{**} The source is the Arizona Joint Legislative Budget Committee; revenues as a share of earnings are projected at 5.26 percent based on the recent years' average.

United States

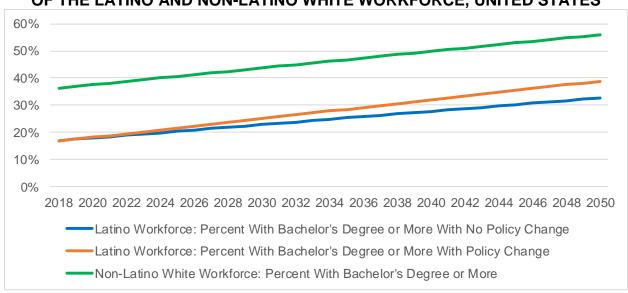
Currently (2019), the proportion of the nation's Latino workforce with at least a bachelor's degree is 19.5 percentage points below the non-Latino white proportion, with the differential projected to increase with time, as seen in Chart 9.

The simulation starts with the same assumption as the Arizona model: that the percentage of Latino workers with a bachelor's degree will increase by one-fifth of 1 percent per year beyond the existing trend increase, which is 0.49 percent per year. Thus, the total increase in the share of Latino workers with at least a bachelor's degree is projected to be 0.69 percent per year, surpassing the trend increase of non-Latino whites (0.62 percent).

The simulation suggests that the educational gap between Latinos and non-Latino whites with at least a bachelor's degree, currently at 19.5 percent, would decrease to 18.0 percent in 2039, the 20th year of the simulation, and to 17.1 percent by 2050. Without the policy intervention, the differences would have been 21.0 percent in 2039 and 23.3 percent in 2050.

The results of the nationwide simulation are highlighted in Table 21, showing the likely effects in the first year (2020), the 20th year (2039), and the last year (2050) of the simulation. At the end of the simulation in 2050, the number of Latinos earning a bachelor's degree due to the policy initiative exceeds 2.5 million, accounting for 1.6 percent of the entire workforce. The total impact of the initiative is \$184 billion, with an increase in federal tax revenue of \$31.7 billion. Thus, over the span of 31 years, the federal cost of the policy initiative could approach \$31 billion with the nation still experiencing a net gain in tax revenue.

CHART 9
CURRENT AND PROJECTED DIFFERENCES IN THE EDUCATIONAL ATTAINMENT
OF THE LATINO AND NON-LATINO WHITE WORKFORCE, UNITED STATES



Source: Calculated by authors.

TABLE 20 SIMULATED EDUCATIONAL ATTAINMENT PROJECTIONS, UNITED STATES

	Latino Workforce: Percent With Bachelor's Degree or More With No Policy Change: *	Latino Workforce: Percent With Bachelor's Degree or More With Policy Change	Non-Latino White Workforce: Percent With Bachelor's Degree or More	Latino Educational Attainment Gap Without Policy Change *	Latino Educational Gap With Policy Change *
Baseline (2019)	17.5%	17.5%	36.9%	19.5%	19.5%
Year 1 (2020)	18.0	18.1	37.2	19.6	19.4
Year 20 (2039)	27.3	31.3	49.2	21.0	18.0
Year 31 (2050)	32.7	38.9	56.0	23.3	17.1

^{*} Obtained by subtracting Latino shares from non-Latino white shares.

TABLE 21 SIMULATION RESULTS, UNITED STATES

Effect in Millions in Constant Dollars

	Number of				Federal Tax
	Latinos*	Direct	Spillover	Total	Revenue**
Year 1 (2020)	56,530	\$ 556	\$ 1,980	\$ 2,536	\$ 436
Year 20 (2039)	1,467,215	21,070	67,254	88,324	15,192
Year 31 (2050)	2,576,515	46,054	137,979	184,033	31,654

^{*} Earning a bachelor's degree due to the initiative.

Source (Tables 20 and 21): Calculated by authors.

^{**} The source is Saez ,Emmanuel and Gabriel Zucman, "The Triumph of Injustice." Federal tax rates are set to 17.2 percent of earnings.