

The Characteristics of Civilian Labor Force Participants in the City of Long Beach the Greater Long Beach Area and California

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Introduction

A fundamental constraint on the capacity of an economy to grow and prosper is the availability of labor supply. The resource that has become most scarce in the American economy is not natural resources like oil and minerals or capital associated with plants and equipment; it is labor supply. The quantity and quality of labor supply is the essential source of economic growth. A growing, well-educated population sets the stage for prosperity and continued future gains in material well-being for the entire population.¹

A strong economy is characterized by a growing working age population that: engages intensively in the labor market; and that has well-developed literacy and numeracy skills; strong occupational proficiencies developed through educational programs and work experiences; effective social skills, especially those focused in persuasion and negotiation; and the building blocks of labor market success, which are fundamentally sound character/behavioral traits including reliability, dependability, self-control, respect for customers and co-workers and ethical behavior.²

In this paper we examine both demographic and socioeconomic characteristics of the labor force in the city as well as measures of labor force participation in Long Beach, the Greater Long Beach region, and California using data from the American Community Survey public use micro-data sample (PUMS) data files. These files contain de-identified individual household survey responses that when properly weighted and analyzed can shed important insight into the pattern of labor force growth and change. The data and analysis included in the first section of this paper are used as important inputs into our labor force projections report available as a separate part of this overall analysis of the Long Beach and environs labor market

In the second half of this paper we examine the employment and unemployment status of residents of the city across demographic and socioeconomic groups. The findings of this analysis are largely restricted to the 16- to 64-year-old population exclusive of students aged 16 to 24. In this way we include those in the working age population whose primary life activity is expected to focus on work.

¹ Julian Simon, *The Ultimate Resource 2*, Princeton University Press, Princeton, NJ, 1996

² i) Neeta Fogg et.al. *Skills and Earnings in the Full-time Labor Market*, Educational Testing Service, Princeton, NJ, September, 2018, ii) Paul Harrington, *Building Blocks of Labor Market Success*, Commonwealth Corporation, Boston 2015

Gender Composition of the Labor Force

In 2015-16, the numbers of civilian labor force aged 16-64 in Long Beach city was 227,000, accounting for 1.3 percent of California's total civilian labor force aged 16- to 64-years-old. Of the 227,000-person civilian labor force in the city, men accounted for 53.2 percent and the remaining 46.8 percent were women. (Table 1). Over the 2006-07 and 2015-16 period, the female share in Long Beach city's labor force rose from 45.2 percent to 46.8 percent while the male share fell by 1.6 percentage points during the same time period. In the Greater Long Beach area, the male share of labor force in 2015-16 was 53.6 percent and the remaining 46.4 percent were female. In Greater Long Beach area, women also increased their share in the labor force from 45 percent in 2006-07 to 46 percent in 2015-16 while the share of men in the labor

Table 1:
Trends in Gender Composition of the Civilian Labor Force in Long Beach City, Greater Long Beach Area, California, and the U.S., 2006-07, 2010-11, and 2015-16 (Numbers in %, Except Noted)

Area/Gender	2006-07	2010-11	2015-16	Change, 2006-07/2015-16
Long Beach City				
Male	54.8	53.7	53.2	-1.6
Female	45.2	46.3	46.8	1.6
N	209,439	222,205	227,062	17,623
Greater Long Beach Area				
Male	54.9	53.6	53.6	-1.3
Female	45.1	46.4	46.4	1.3
N	634,956	641,767	630,939	-4,017
California				
Male	55.7	54.3	54.4	-1.3
Female	44.3	45.7	45.6	1.3
N	16,329,402	16,953,302	17,623,351	1,293,949
U.S.				
Male	53.8	52.8	52.8	-0.9
Female	46.2	47.2	47.2	0.9
N	136,416,397	140,474,193	143,768,272	7,351,875

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

force declined by 1.3 percentage points over this time. The increase in the female share of labor force was not unique in the Greater Long Beach area. In California and the entire U.S., women

increased their share in the labor force. During these three time periods, the female share of the labor force in California rose from 44 percent in 2006-07 to 46 percent in 2010-11 and 2015-16. In the entire U.S., the female share of the labor force rose from 46 percent in 2006-07 to 47 percent in 2015-16 (Table 1).

Race-Ethnic Composition of the Labor Force

The race-ethnic composition of the civilian labor force was quite different in Long Beach areas in comparisons to those in the state of California and the U.S. In 2015-16, Hispanics in Long Beach city accounted for the highest share of city's civilian labor force (42.7%), followed by White (28.6%), Asian (12.5%), African American (12.1%), and "other" race³ (4%). The Hispanic share in the labor force increased by 6 percentage points over the 2006-07 and 2015-16 period (37.1% in 2006-07 and 42.7% in 2015-16). Asians share in the labor force remained the same in 2006-07 and 2015-16 and "other" race ethnic groups' share rose by 1 percentage points over this time period. In contrast, non-Hispanic White share of the labor force in the Long Beach city declined from 33.8 percent in 2006-07 to 28.6 percent in 2015-16. During the same time period, the share of African Americans in the labor force also declined by 1.8 percentage points.

In the Greater Long Beach area Hispanics also accounted for the highest share of the labor force. In 2015-16, the Hispanic share in the labor force was 45.8 percent followed by 22 percent Whites, 16.7 percent Asians, 12 percent of African Americans, and 3.5 percent "other" races. Hispanics in the Greater Long Beach area increased their share in the labor force by 5.6 percentage points over the 2006-07 and 2015-16 period while non-Hispanic Whites' share declined by 6 percentage points. The share of African Americans in the labor force also declined by 1 percentage point over this time period while the share of Asians and those in the "other" race ethnic group increased slightly under 1 percentage point during 2006-07 and 2015-16 period.

In the entire state of California, the Hispanic share in the labor force increased markedly over the past 10 years. In contrast, the non-Hispanic White share in the state's labor force declined continuously over the years. In 2015-2016, the share of Hispanics and non-Hispanic Whites in the labor force was nearly identical at 38 percent. The White share in the labor force

³ "Other" race-ethnic group includes combined American Indian, Alaska Native, Native Hawaiian and other Pacific Islander, those who reported two or more races, and some other races.

declined from 44.7 percent in 2006-07 to 38.4 percent in 2015-16 while the Hispanic share increased from 34.2 percent to 37.9 percent during the same time period. Asians in California also increased their share by 2.2 percentage points over the 2006-07 and 2015-16 periods. In the entire U.S., Hispanics accounted for 17 percent of the labor force, an increase of nearly 3 percentage points from 2006-07. The non-Hispanic Whites share in the labor force in the entire U.S. declined from 67.8 percent in 2006-07 to 62.3 percent in 2015-16.

Overall, in comparisons to the U.S., Hispanics and Asians were over represented in the labor force in the Long Beach city, Greater Long Beach area, and California. (Table 2).

Table 2:
Trends in Race-Ethnic Composition of the Civilian Labor Force in Long Beach City, Greater Long Beach Area, California, and the U.S., 2006-07, 2010-11, and 2015-16 (Numbers in %)

Area/Race-Ethnic Group	2006-07	2010-11	2015-16	Change, 2006-07/2015-16
Long Beach City				
White	33.8	31.4	28.6	-5.1
African American	13.9	12.9	12.1	-1.8
Asian	12.4	12.0	12.5	0.2
Hispanic	37.1	39.7	42.7	5.6
Other	2.9	4.1	4.0	1.1
Greater Long Beach Area				
White	27.6	25.2	22.0	-5.6
African American	13.1	12.1	12.0	-1.1
Asian	16.2	15.7	16.7	0.5
Hispanic	40.3	43.5	45.8	5.5
Other	2.8	3.6	3.5	0.7
California				
White	44.7	41.5	38.4	-6.3
African American	5.6	5.3	5.4	-0.2
Asian	12.9	14.0	15.1	2.2
Hispanic	34.2	36.3	37.9	3.7
Other	2.6	2.9	3.3	0.6
U.S.				
White	67.8	65.2	62.3	-5.5
African American	11.3	11.6	12.0	0.8
Asian	4.6	5.1	5.8	1.2
Hispanic	14.3	15.8	17.2	2.9
Other	2.0	2.3	2.7	0.7

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

Age Composition of the Labor Force

Table 3 displays mean and median age of civilian labor force (16- to 64-years-old) in Long Beach city, the Greater Long Beach area, California, and the U.S., during the 2006-07, 2010-11, and 2015-16 periods. The mean age of the non-elderly labor force in Long Beach city in 2015-16 was 40-years-old while the median age was 39-years-old. The mean and median age of the labor force increased by 1 year over the 2006-07 and 2015-16 periods. In the Greater Long Beach area, the mean age of labor force in 2015-16 was 41-years-old while the median age as 40-years-old. The mean age in the area increased from 40-years-old in 2006-07 to 41-years-old in 2015-16 while the median age remained the same at 40-years-old. In 2015-16, the mean/median age of non-elderly labor force in Long Beach city was one year lower than in Greater Long Beach area and California. In California and the entire U.S., the mean age of non-elderly labor force in 2015-2016 was 41-years-old while the median age in California was 40-years-old compared to 41-years-old for the entire U.S.

Table 3:
Trends in Mean/Median Age of the Civilian Labor Force in Long Beach City, Greater Long Beach City, California, and the U.S., 2006-07, 2010-11, and 2015-16 (Numbers in %)

Area/Year	Mean Age	Median Age
Long Beach City		
2006-07	39	38
2010-11	40	39
2015-16	40	39
Greater Long Beach Area		
2006-07	40	40
2010-11	40	40
2015-16	41	40
California		
2006-07	40	40
2010-11	41	41
2015-16	41	40
U.S.		
2006-07	41	41
2010-11	41	41
2015-16	41	41

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

Detailed age composition of the non-elderly labor force in Long Beach city, the Greater Long Beach area, California, and the U.S. over the 2006-07 and 2015-16 periods are displayed in Table 4. In 2015-16, the teen (16- to 19-year-olds) share in the labor force accounted for less than 1 percent while older youth (20- to 24-years-old) accounted for nearly 8 percent. Labor force aged 25 to 34 accounted for the highest share of non-elderly labor force (30%) while the share of 35 to 44 and 45- to 54-year-olds in the labor force was 23 percent and 24 percent, respectively. Older workers, 55- to 64-years-old, accounted for only 14.3 percent of the non-elderly labor force. Over the 2006-07 and 2015-16 periods, labor force share of 16- to 19-year-olds, 20- to 24-year-olds, and 35- to 44-year-olds declined by 1 to 4 percentage points while the share increased by 3 percentage points among 25- to 34-year-olds and 55- to 64-year-olds.

Similar findings patterns prevailed in the Greater Long Beach area. The older workers (55 to 64) share in the labor force increased over the 2006-07 period while the share declined by 3 percentage points for 35- to 44-year-olds. The share of 16- to 19-year-olds declined slightly and remained the same for 20- to 24-year-olds. In the entire state of California, with the exception of 25- to 34-year-olds and 55- to 64-year-olds, all other age groups experienced decline in their share in the labor force over the 2006-07 and 2015-16 period. In the entire U.S., only 55- to 64-year-olds increased their share in the labor force, all other age groups experienced either no growth or decline in labor force over this time period.

Table 4:
Trends in Age Composition of the Civilian Labor Force in Long Beach City, Greater Long Beach Area, California, and the U.S., 2006-07, 2010-11, and 2015-16 (Numbers in %)

Area/Age	2006-07	2010-11	2015-16	Change, 2006-07/2015-16
Long Beach City				
16-19	1.7	1.3	0.7	-1.0
20-24	9.1	9.7	7.9	-1.2
25-34	27.2	27.7	30.4	3.2
35-44	26.9	25.8	23.2	-3.7
45-54	23.5	21.7	23.6	0.1
55-64	11.7	13.9	14.3	2.6
Greater Long Beach Area				
16-19	1.7	1.5	1.1	-0.6
20-24	8.8	9.2	8.5	-0.3
25-34	25.1	25.0	26.3	1.2
35-44	26.6	24.9	23.6	-2.9

Area/Age	2006-07	2010-11	2015-16	Change, 2006-07/2015-16
45-54	24.2	24.4	24.9	0.7
55-64	13.6	15.0	15.6	2.0
California				
16-19	1.5	1.2	0.9	-0.6
20-24	8.8	8.4	8.2	-0.6
25-34	25.2	25.4	26.8	1.6
35-44	26.8	24.8	23.8	-3.0
45-54	24.4	24.6	23.4	-1.0
55-64	13.4	15.7	16.9	3.5
U.S.				
16-19	1.4	1.2	1.1	-0.3
20-24	8.4	8.2	8.5	0.1
25-34	23.7	23.8	25.0	1.3
35-44	26.2	24.1	23.3	-2.9
45-54	25.7	25.7	23.9	-1.8
55-64	14.7	17.1	18.4	3.7

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

Nativity Composition of the Labor Force

Among the states in the U.S., California has the highest share of foreign born persons in the labor force. The definition of a “foreign-born” in this report is an individual who was born outside of the 50 states and the District of Columbia.⁴ In 2015-16, the share of foreign-born in the labor force in Long Beach city was 33.5 percent. The share of foreign-born in the labor force in Long Beach city declined over the 2006-07 and 2015-16 period, falling from nearly 37 percent in 2006-07 to 33.8 percent in 2015-16. During the same time period, the share of native-born labor force in Long Beach city increased from 63 percent to 66 percent, a 3 percentage point increase over the period.

Similar findings prevailed for the Greater Long Beach area. Foreign-born persons’ share of the labor force in the Greater Long Beach area was higher than in Long Beach city. Nearly 39 percent of labor force in the Greater Long Beach area was foreign-born in 2015-16; however, the

⁴ Persons born outside the U.S. but to U.S. parents temporarily living abroad are classified as native-born individuals in this report.

share of foreign-born in the labor force declined from nearly 42 percent in 2006-07 to just under 39 percent in 2015-16 period.

In California, close to 36 percent of labor force in 2015-16 was foreign-born - a share that was two times higher than that of the entire U.S. (18.4%). Over the 2006-07 and 2015-16 period, the share of foreign-born in the labor force in California declined slightly, but increased by 1.4 percentage points for the U.S.

Table 5:
Trends in Nativity Composition of the Civilian Labor Force in Long Beach City, Greater Long Beach Area, California, and the U.S., 2006-07, 2010-11, and 2015-16 (Numbers in %)

Area/Nativity Status	2006-07	2010-11	2015-16	Change, 2006-07/2015-16
Long Beach City				
Native-Born	63.1	66.2	66.5	3.4
Foreign-Born	36.9	33.8	33.5	-3.4
Greater Long Beach Area				
Native-Born	58.3	60.0	61.2	2.9
Foreign-Born	41.7	40.0	38.8	-2.9
California				
Native-Born	63.5	63.5	64.4	0.9
Foreign-Born	36.5	36.5	35.6	-0.9
U.S.				
Native-Born	83.0	82.2	81.6	-1.4
Foreign-Born	17.0	17.8	18.4	1.4

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

Educational Composition of the Labor Force

Labor force attachment, including intensity of work among workers, is strongly linked to their educational attainment levels. In comparison to workers with lower levels of educational attainment, workers with higher levels of educational attainment have higher rates of labor force attachment, higher employment rates, lower unemployment rates, higher intensity of employment, and higher annual earnings. Educational characteristics of the labor force in Long Beach city, the Greater Long Beach area, California, and the U.S. are displayed in Table 6. In 2015-16, 17 percent of Long Beach city’s non-elderly labor force was high school dropouts and another 20 percent had high school diploma/GED only. Nearly 1 in 3 (31.4%) Long Beach city’s

labor force had some college, including Associates degree.⁵ In contrast, nearly 1 in 3 non-elderly labor force (31.8%) in Long Beach city had at least a Bachelor's degree. Nearly 21 percent of non-elderly labor force members had a Bachelor's degree, 7.7 percent had a Master's degree, 2.2 percent had a Professional degree, and 1.2 percent had a doctorate degree. The share labor force without high school diploma and those with only a high school diploma declined by 0.6 and 3.5 percentage points, respectively, over the 2006-07 and 2015-16 period. In contrast, the labor force share of Bachelor's or higher degree holders increased from 28.4 percent in 2006-07 to 31.8 percent in 2015-16.

In the Greater Long Beach area, findings on the share of non-elderly labor force without a high school diploma, those with only a high school diploma, and those with some college were very similar to those in Long Beach city. In 2015-16, share of labor force with a Bachelor's or higher degree in the Greater Long Beach area was 28.6 percent- 3 percentage points lower than in Long Beach city. However, the share of non-elderly labor force with at least a Bachelor's degree in the Long Beach area increased by 2.3 percentage points over the 2006-07 and 2015-16 period. In contrast, high school dropouts share in the area remained the same over the 2006-07 and 2015-16 period while the share of labor force with only a high school diploma declined by nearly 5 percentage points.

In both Long Beach city and the Greater Long Beach area, labor force share of those with a Bachelor's or higher degree was lower than in California as a whole. In 2015-16, 35 percent of non-elderly labor force in California had at least a Bachelor's degree. High school dropouts share in labor force in Long Beach city and Greater Long Beach city was higher than in the entire state of California. In 2015-16, California's share of Bachelor's or higher degree holders in the labor force was nearly identical to that of the entire nation (35% versus 34%). High school dropout share in the labor force in both Long Beach city and the Greater Long Beach area was 4-5 percentage points higher than in California and nearly two times higher than in the entire U.S. In both California and the U.S., the share of labor force without any post-secondary education have declined by 5-6 percentage points over the 2006-07 and 2015-16 period while Bachelor's or higher degree holders have increased their share in the labor force by 3-4 percentage points.

⁵ Those with an Associate's degree in this educational attainment category was 8-9 percent. This was true for California and the entire U.S.

Table 7:
Trends in Educational Composition of the Civilian Labor Force in Long Beach City, Greater Long Beach Area, California, and the U.S., 2006-07, 2010-11, and 2015-16 (Numbers in %)

Area/Educational Attainment	2006-07	2010-11	2015-16	Change, 2006-07/2015-16
Long Beach City				
HS Dropouts	17.9	17.8	17.2	-0.6
HS Diploma/GED	23.0	19.2	19.5	-3.5
Some College, incl. Assoc. degree	30.8	33.8	31.4	0.6
Bachelor degree	19.3	20.4	20.7	1.4
Master's degree	6.6	6.0	7.7	1.1
Professional degree	1.7	1.6	2.2	0.5
Doctorate degree	0.7	1.2	1.2	0.5
Greater Long Beach Area				
HS Dropouts	18.5	19.2	18.0	-0.5
HS Diploma/GED	26.6	22.2	22.0	-4.6
Some College, incl. Assoc. degree	28.6	32.6	31.5	2.8
Bachelor degree	18.8	18.7	19.5	0.7
Master's degree	5.5	5.2	6.7	1.1
Professional degree	1.3	1.4	1.5	0.2
Doctorate degree	0.7	0.8	0.9	0.2
California				
HS Dropouts	16.2	15.8	14.1	-2.2
HS Diploma/GED	23.6	21.0	20.8	-2.8
Some College, incl. Assoc. degree	28.8	31.0	30.1	1.3
Bachelor degree	20.5	20.9	22.7	2.2
Master's degree	7.2	7.5	8.5	1.2
Professional degree	2.2	2.3	2.3	0.1
Doctorate degree	1.4	1.4	1.6	0.2
U.S.				
HS Dropouts	11.0	10.2	9.1	-1.9
HS Diploma/GED	29.4	26.9	25.7	-3.7
Some College, incl. Assoc. degree	29.3	31.3	30.9	1.5
Bachelor degree	19.7	20.4	22.0	2.4
Master's degree	7.4	7.8	8.8	1.4
Professional degree	2.1	2.1	2.1	0.1
Doctorate degree	1.1	1.2	1.4	0.2

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

English Speaking Proficiency of the Labor Force

Table 8 displays trends in share of civilian labor force by their English-speaking proficiencies in Long Beach city, the Greater Long Beach area, California, and the U.S. over the 2006-07 and 2015-16 periods. In 2015-16, only 53 percent of the labor force in Long Beach city reported that they spoke only English at home. Those who reported that they spoke other language at home, 27.6 percent reported that they spoke English “very well”, 10 percent reported “well”, 6.9 percent “not well”, and 2.4 percent “not at all”. The share of labor force who spoke only English at home in Long Beach city declined by nearly 3 percentage points over the 2006-07 and 2015-16 periods while those in “very well” category increased their share by 8.2 percentage points. The labor force share in “well”, “not well”, and “not at all” combined categories declined by 6 percentage points over the 2006-07 and 2015-16 period.

Less than half of civilian labor force (45.7%) in the Greater Long Beach area in 2015-16 reported that they only speak English at home. This share was 7.4 percentage points lower than for Long Beach city. Another 30.7 percent of labor force with other languages spoken at home spoke English very well. The share labor force in Greater Long Beach area who reported that they spoke English “well” was 12 percent and another 12 percent combined in “not well” (8.5%) and “not at all” (2.7%) categories. Over the 2006-07 and 2015-16 periods, non-elderly labor force share who reported that they only spoke English at home declined by 4 percentage points while the share increased by 7.6 percentage points among those who reported that that they spoke English “very well”. In “not well” and “not at all” categories combined, the labor force share declined by 4 percentage points.

In California, the share of the labor force in 2015-16 who reported that they only spoke English at home was much lower than across the entire U.S. (53.6% versus 77.3%); however, in both California and the U.S., their share in labor force declined by 2 to 3 percentage over the 2006-07 and 2015-16 period. In contrast, labor force share of those in both California and the U.S. who reported to speak English “well” rose by 5 and 3 percentage points, respectively, over this time period. Labor force share of those in “well”, “not well”, and “not at all” categories declined slightly or did not change over the 2006-07 and 2015-16 period.

Table 8:
Trends in Share of Civilian Labor Force by Their English-Speaking Proficiency Status in Long Beach City, Greater Long Beach Area, California, and the U.S., 2006-07, 2010-11, and 2015-16
 (Numbers in %)

Area/English Proficiency	2006-07	2010-11	2015-16	Change, 2006-07/2015-16
Long Beach City				
Speaks Only English	55.7	54.5	53.1	-2.6
Very Well	19.4	23.8	27.6	8.2
Well	11.1	10.4	10.0	-1.1
Not Well	9.5	8.0	6.9	-2.6
Not at All	4.3	3.3	2.4	-2.0
Greater Long Beach Area				
Speaks Only English	49.7	47.9	45.7	-4.0
Very Well	23.2	26.5	30.7	7.6
Well	12.2	12.5	12.3	0.2
Not Well	10.4	9.3	8.5	-1.9
Not at All	4.5	3.8	2.7	-1.8
California				
Speaks Only English	56.7	54.9	53.6	-3.1
Very Well	21.3	23.4	26.5	5.2
Well	9.4	9.8	9.5	0.1
Not Well	8.4	8.4	7.4	-1.0
Not at All	4.2	3.5	3.0	-1.2
U.S.				
Speaks Only English	79.7	78.5	77.3	-2.4
Very Well	10.7	11.8	13.4	2.6
Well	4.3	4.6	4.7	0.4
Not Well	3.6	3.7	3.4	-0.2
Not at All	1.7	1.4	1.3	-0.4

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

Disability Status of the Labor Force

The American Community Surveys (ACS) asks households to report disability status of members in the household who are 5 years and older.⁶ Findings broken out by disability status of

⁶ There were conceptual changes in the disability questions in American Community Survey starting 2008. The Census Bureau suggest not to compare disability estimates after 2008 with those prior to 2008. For our civilian labor force universe 16- to 64-years-old, we avoided comparing 2006-07 findings with 2010-11 and 2015-16. We have estimated findings for 2008-09 and compared with 2010-11 and 2015-16. For reference on disability questions

non-elderly labor force in Long Beach city, Greater Long Beach area, California, and the U.S. are presented in Table 9. As expected, only a small share of non-elderly civilian labor force reported to have disability in 2015-16. In Long Beach city, 4 percent of non-elderly civilian labor force reported that they had some type of disability and the remaining 96 percent were non-disabled. The share of disabled in the labor force in Long Beach city declined slightly from 5.1 percent in 2008-09 to 4 percent in 2015-16. In the Greater Long Beach area, the share of non-elderly disabled in the labor force was identical to Long Beach city (4%) and also declined by nearly 1 percentage point over the 2008-09 and 2015-16 periods. In the entire state of California, only 4.4 percent of non-elderly civilian reported that they had some type of disability in 2015-16. In all the three time periods- 2008-09, 2010-11, and 2015-16, the share of disabled in California remained around 4.3-4.5 percent. Close to 6 percent of non-elderly members of the labor force across the U.S. in 2015-16 was disabled. In the U.S. also, the share of disabled labor force remained nearly the same over the 2006-07 and 2015-16 time periods.

Table 9:
Trends in Share of Civilian Labor Force by Their Self-Reported Disability Status in Long Beach City, Greater Long Beach Area, California, and the U.S., 2008-09, 2010-11, and 2015-16
(Numbers in %)

Area/Disability Status	2008-09	2010-11	2015-16	Change, 2006-07/2015-16
Long Beach City				
Disabled	5.1	4.7	4.0	-1.1
Not Disabled	94.9	95.3	96.0	1.1
Greater Long Beach Area				
Disabled	4.9	4.4	4.0	-0.9
Not Disabled	95.1	95.6	96.0	0.9
California				
Disabled	4.5	4.3	4.4	-0.1
Not Disabled	95.5	95.7	95.6	0.1
U.S.				
Disabled	5.8	5.6	5.7	-0.1
Not Disabled	94.2	94.4	94.3	0.1

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

changes and its impact, see: Mathew W. Brault, “Review of Change in the Measurement of Disability in the 2008 American Community Surveys”, U.S. Census Bureau, Washington DC, 2009.

Veterans Status of the Labor Force

Households in the American Community Surveys are also asked to report if any household members aged 17 and older served on active duty in the U.S. Armed Forces. Table 10 displays distributions of non-elderly labor force by veteran status in 2006-07, 2010-11, and 2015-16 in Long Beach city, the Greater Long Beach area, California, and the U.S. In 2015-16, the share of veterans in non-elderly civilian labor force was under 3 percent in both Long Beach city and the Greater Long Beach area, which was 2-3 percentage points lower than in 2006-07. The decline in the veteran population is not unique to the Long Beach area. Nationally, there has been continuous decline in the veteran population over the past few decades.⁷ In California, the veteran share in the non-elderly civilian labor force declined from nearly 6 percent in 2006-07 and 4.7 percent in 2010-11, to 3.3 percent in 2015-16. Nationally, non-elderly veterans accounted for 8 percent of non-elderly civilian labor force in 2006-07, but by 2015-16, their share had dropped to 4.9 percent, a drop of 3 percentage points.

Table 10:
Trends in Share of Civilian Labor Force by Veterans Status in Long Beach City, Greater Long Beach Area, California, and the U.S., 2006-07, 2010-11, and 2015-16 (Numbers in %)

Area/Veteran Status	2006-07	2010-11	2015-16	Change, 2006-07/2015-16
Long Beach City				
Veterans	5.6	4.3	2.8	-2.8
Not Veterans	94.4	95.7	97.2	2.8
Greater Long Beach Area				
Veterans	5.1	3.9	2.6	-2.5
Not Veterans	94.9	96.1	97.4	2.5
California				
Veterans	5.9	4.7	3.3	-2.5
Not Veterans	94.1	95.3	96.7	2.5
U.S.				
Veterans	8.0	6.6	4.9	-3.0
Not Veterans	92.0	93.4	95.1	3.0

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

⁷ For reference see: Gretchen Livingston, “Profile of U.S. Veterans is Changing Dramatically as Their Ranks Decline”, Pew Research Center, Washington DC, November 2016.

Civilian Labor Force Participation Rates of Non-Elderly Adults (16- to 64-Years-Old) in Long Beach Areas and California

Labor force growth in the area is directly influenced by labor force participation rates of working-age population. In this section of the report, we examine the labor force participation rates of non-elderly persons 16- to 64-years-old in Long Beach city, the Greater Long Beach area, California, and the U.S. over the 2006-07, 2010-11, and 2015-16 time periods. These findings examine the labor force participation rates before the Great Recession of 2007-2009, at the trough of the Great Recession in 2010-11, and five years after the recovery in 2015-16.

Labor Force Participation Rates by Gender

In Long Beach city in 2015-16, there were 295,000 residents aged 16- to 64-years-old out of which 227,000 participated in the labor force, yielding a labor force participation rate of 77 percent. The labor force participation rate of non-elderly civilian residents in 2015-16 was 1 percentage point lower than the rate prevailing in 2006-07 (77.9%), before the Great Recession of 2007-2009. The labor force participation rate of non-elderly persons rose, but only slightly (0.8 percentage points), over the 2006-07 and 2010-11 periods; however, it declined between 2010-11 and 2015-16 periods by 1.8 percentage points. The decline in the labor force participation rate in this most recent time period is largely attributable to retiring baby boomers and low labor force participation rates among young persons, particularly males without a college degree.⁸ In 2015-16, the labor force participation rate of males in Long Beach city was 15 percentage points higher than their female counterparts (82.6% versus 71.4%). However, labor force participation rates of men declined by 2.7 percentage points over the 2006-07 and 2015-16 periods while women increased their participation rate by 0.9 percentage points.

Very similar findings prevailed for the Greater Long Beach area. The labor force participation rate of non-elderly persons in the Great Long Beach area declined by only slightly (1 percentage point) over the 2006-07 and 2015-16 period, with all of the decline occurring from 2010-11 and 2015-16 period. The labor force participation rate of men declined by 2.1 percentage points while women held their participation rate steady over this time period.

⁸ i) Didem Tuzemen, "Why are Prime-Age Men Vanishing From the Labor Force?" *Economic Review*, Federal Reserve Bank of Kansas City, First Quarter, 2018, ii) Paul Harrington and Ishwar Khatiwada, "US Teens Want to Work," *Communities and Banking*, Federal Reserve Bank of Boston, Spring, 2016

In contrast to findings of Long Beach city and the Greater Long Beach area, overall labor force participation rates of all non-elderly persons in California remained quite stable in 2006-07, 2010-11, and 2015-16. In all of the three time periods in our analysis, the labor force participation rate in California was 77-78 percent. Non-elderly men’s labor force participation rate declined by 1.3 percentage points over the 2006-07 and 2015-16 period; however, women’s labor force participation in the state increased by 1.6 percentage points over this time period. Very similar findings on participation rate prevailed for the entire U.S. over the 2006-07 and 2015-16 time periods.

Table 11:
Trends in Labor Force Participation Rates of Non-Elderly Persons, 16- to 64-years-old, Total and by Gender, in Long Beach City, Greater Long Beach Area, California, and the U.S., 2006-07, 2010-11, and 2015-16 (Numbers in %)

Area/Gender	Civilian Labor Force Participation Rate			Absolute Change		
	2006-07	2010-11	2015-16	2006-07 to 2010-11	2010-11 to 2015-16	2006-07 to 2015-16
Long Beach City						
All	77.9	78.7	76.9	0.8	-1.8	-1.0
Male	85.3	85.6	82.6	0.3	-3.0	-2.7
Female	70.5	72.0	71.4	1.5	-0.6	0.9
Greater Long Beach Area						
All	77.5	77.7	76.5	0.3	-1.2	-1.0
Male	85.7	85.5	83.5	-0.1	-2.0	-2.1
Female	69.4	70.3	69.7	1.0	-0.6	0.3
California						
All	77.3	77.9	77.5	0.6	-0.4	0.2
Male	85.7	85.2	84.7	-0.5	-0.5	-1.0
Female	68.8	70.7	70.4	1.9	-0.3	1.6
U.S.						
All	78.5	78.7	78.3	0.1	-0.3	-0.2
Male	85.5	84.6	84.2	-0.9	-0.4	-1.3
Female	71.8	72.9	72.6	1.1	-0.3	0.9

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

Labor Force Participation Rates by Race-Ethnic Origins

There were variations in the labor force participation rates of non-elderly persons in Long Beach city, Greater Long Beach area, California, and the U.S. by race-ethnic origins. In Long Beach city, labor force participation rate in 2015-16 ranged from lows of 73.8 percent among

Asians and 75 percent among “other” race-ethnic groups to highs in the range of 76.9 percent to 78.3 percent among Hispanics, African Americans, and Whites. Over the 2006-07 and 2015-16 periods, labor force participation rates declined in the range of 1-2 percentage points for all race-ethnic groups, with the exception of Asians.

In the Greater Long Beach area, labor force participation rates in 2015-16 among the major race-ethnic groups were in the range of 76 to 77 percent. Over the 2006-07 and 2015-16 periods, the labor force participation rates declined by 1 and 2 percentage points for Whites and Hispanics, respectively. The labor force participation rates over this time period remained more or less constant among Asians, African Americans, and persons in “other” race-ethnic groups.

In California, the labor force participation rate in 2015-16 among African Americans were the lowest (77.3%) while the participation rates were in 77 to 78 percent range for other race-ethnic groups. Over the 2006-07 and 2015-16 periods, African Americans and Whites experienced decline in their labor force participation rates; however, Asians, Hispanics, and “other” race-ethnic groups increased their labor force participation rates. In the U.S., there were variations in the labor force participation rates among race-ethnic groups. In 2015-16, non-elderly persons from the “other” and African American race-ethnic groups had the lowest labor force participation rates (75% and 76%) while Asian, Hispanics, and Whites had the highest labor force participation rates (77-78%). With the exception of non-Hispanic Whites, the labor force participation rates for remaining other major race-ethnic groups held steady or increased slightly over the 2006-07 and 2015-16 period.

Table 12:
Trends in Labor Force Participation Rates of Non-Elderly Persons, 16- to 64-years-old, by Race-Ethnic Group, in Long Beach City, Greater Long Beach Area, California, and the U.S., 2006-07, 2010-11, and 2015-16 (Numbers in %)

Area/Race-Ethnic Group	Labor Force Participation Rate			Absolute Change		
	2006-07	2010-11	2015-16	2006-07 to 2010-11	2010-11 to 2015-16	2006-07 to 2015-16
Long Beach City						
White	79.6	80.8	78.3	1.2	-2.5	-1.3
African American	79.0	74.3	77.9	-4.8	3.6	-1.2
Asian	70.4	76.6	73.8	6.2	-2.8	3.4
Hispanic	78.8	79.5	76.9	0.7	-2.6	-1.9
Other	76.0	76.7	75.1	0.7	-1.6	-0.9
Greater Long Beach Area						
White	79.1	79.1	77.0	0.0	-2.1	-2.1

Area/Race-Ethnic Group	Labor Force Participation Rate			Absolute Change		
	2006-07	2010-11	2015-16	2006-07 to 2010-11	2010-11 to 2015-16	2006-07 to 2015-16
African American	77.1	74.9	77.1	-2.3	2.2	0.0
Asian	75.4	77.8	76.0	2.5	-1.9	0.6
Hispanic	77.5	77.8	76.4	0.2	-1.4	-1.1
Other	75.1	77.9	75.6	2.8	-2.4	0.5
California						
White	78.5	78.3	77.9	-0.2	-0.4	-0.6
African American	74.7	73.3	73.2	-1.4	-0.1	-1.5
Asian	76.4	78.3	77.8	1.8	-0.4	1.4
Hispanic	76.8	78.2	77.8	1.4	-0.4	1.0
Other	75.3	76.2	77.3	0.9	1.1	2.0
U.S.						
White	79.6	79.5	79.0	-0.1	-0.5	-0.5
African American	75.9	75.8	76.0	-0.2	0.3	0.1
Asian	76.5	78.4	77.7	1.9	-0.7	1.3
Hispanic	77.2	78.1	78.0	0.9	-0.1	0.8
Other	74.3	74.7	75.2	0.4	0.5	0.9

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

Labor Force Participation Rates by Age Group

The labor participation rates of working-age persons vary widely by age groups. The labor force participation rates tend to rise considerably from youth years (16- to 24-years-old) to 30s and mid 40s and then tend decline after that, with a steep decline occurring among 55 and older persons. In Long Beach city, the labor force participation rates in 2015-16 varied widely by age group, ranging from 74.7 percent among 20- to 24-year-olds to 82.4 percent among 25- to 34-year-olds to 80-81 percent among 35- to 55-year-olds. The labor force participation rate was nearly 62 percent among 55- to 64-year-olds. The labor force participation rates declined considerably for young workers under 35 years of age over the 2006-07 and 2015-16 periods, with steep declines occurring among 16- to 19-year-olds⁹ and 20- to 24-year-olds. It is quite puzzling that most of the decline in the labor force participation rates in Long Beach city and the Greater Long Beach area occurred after the labor market began to recover from the Great

⁹ Findings for 16-19 year old in Long Beach city are suppressed due to small ACS sample size of persons used in our analysis. For example, in 2015-16, there were only 58 non-enrolled persons 16-19 year old in ACS PUMS sample.

Recession of 2007-2009. Overall, labor force participation rates among persons in the 20 to 24, 25 to 34, and 55 to 64 age groups declined by 5.4 percentage points, 1.4 percentage points, and 1.8 percentage points, respectively, over the 2006-07 and 2015-16 periods. In contrast, persons in age groups 35 to 44 and 45- to 54-years-old increased their labor force participation rates by 1.1 to 2.3 percentage points. The decline in labor force participation rates among 55-64 year old persons in Long Beach city and Greater Long Beach area was very puzzling as persons in this age group increased their participation rates in California and the U.S. over the 2006-07 and 2015-16 period.

In the Greater Long Beach area, labor force participation rates findings were very similar. In 2015-16, the labor force participation rates were lowest for 16- to 19-year-olds (59.2%) and 55- to 64-year-olds (62.6%) and were highest in the range of 79 percent to 81 percent among 25- to 34-year-olds, 35- to 44-year-olds, and 45- to 54-year-olds. With the exception of 45- to 54-year-olds, labor force participation rates among all other age groups in the Greater Long Beach area declined over the 2006-07 and 2015-16 periods, with most of decline occurring over 2010-11 and 2015-16 periods.

Similar findings pattern on labor force participation rates prevailed for non-elderly persons in California by age groups. In 2015-16, the labor force participation rate was lowest among 16- to 19-year-olds (62.4%) and 55- to 64-year-olds (64.5%). In all other age groups, the labor force participation rate was in the range of 80-82 percent. The labor force participation rate declined for 16- to 19-year-olds and 20- to 24-year-olds by 5 percentage points and 0.7 percentage points, respectively, over the 2006-07 and 2015-16 periods. For persons in other age groups, the labor force participation rate increased by 1.6 percentage points among 25- to 34-year-olds and 1.4 percentage points among 55- to 64-year-old persons. The participation rate increased slightly for persons in 25- to 34-years-old and 45- to 54-years-old age groups. For the entire U.S., only persons in 55- to 64-year-old group increased their labor force participation rates by 2 percentage points over the 2006-07 and 2015-16 periods. The labor force participation rate among 16- to 19-year-olds across the U.S. declined by 2.5 percentage points over this time period. For all other age groups, the labor force participation rates were more less the same in 2006-07 and 2015-16.

Table 13:
Trends in Labor Force Participation Rates of Non-Elderly Persons, 16- to 64-years-old, by Age Group, in Long Beach City, Greater Long Beach Area, California, and the U.S., 2006-07, 2010-11, and 2015-16 (Numbers in %)

Area/Age	Labor Force Participation Rate			Absolute Change		
	2006-07	2010-11	2015-16	2006-07 to 2010-11	2010-11 to 2015-16	2006-07 to 2015-16
Long Beach City						
16-19	70.6	61.7	48.3	-8.9	-13.4	-22.3
20-24	80.1	80.2	74.7	0.1	-5.5	-5.4
25-34	83.9	84.0	82.4	0.2	-1.6	-1.4
35-44	79.2	83.8	80.3	4.6	-3.5	1.1
45-54	78.4	78.9	80.7	0.5	1.8	2.3
55-64	63.7	64.0	61.9	0.3	-2.1	-1.8
Greater Long Beach Area						
16-19	65.0	65.1	59.2	0.1	-5.9	-5.8
20-24	79.0	77.6	76.9	-1.4	-0.8	-2.1
25-34	81.4	82.4	81.3	1.0	-1.2	-0.2
35-44	80.5	82.3	79.5	1.8	-2.8	-1.0
45-54	78.9	79.6	80.8	0.7	1.2	1.9
55-64	65.5	64.6	62.6	-0.9	-2.0	-2.9
California						
16-19	67.4	64.2	62.4	-3.2	-1.8	-5.0
20-24	78.9	77.8	78.3	-1.1	0.5	-0.7
25-34	80.7	82.3	82.3	1.6	0.0	1.6
35-44	81.1	82.3	81.9	1.2	-0.4	0.7
45-54	79.8	80.6	80.0	0.8	-0.5	0.3
55-64	63.1	64.6	64.5	1.5	-0.1	1.4
U.S.						
16-19	69.2	64.5	66.7	-4.6	2.2	-2.5
20-24	81.5	80.2	81.3	-1.3	1.1	-0.2
25-34	83.1	83.6	83.5	0.5	0.0	0.4
35-44	83.2	83.8	83.4	0.7	-0.5	0.2
45-54	81.2	81.5	80.8	0.3	-0.7	-0.3
55-64	62.8	64.7	64.8	1.9	0.1	2.0

Note: Due to insufficient sample size for 16-19 year old in Long Beach city, we have avoided analysis labor market outcomes for 16-to-19 year old.

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

Labor Force Participation Rates by Nativity Status

As mentioned in the previous section, among states California has the highest share of foreign-born persons in the labor force. The labor force participation behaviors of foreign-born

persons are found to be somewhat different than the native-born persons, particularly among women. In Long Beach city, the labor force participation rate of foreign-born person in 2015-16 was 72.6 percent, which was 6.7 percentage points lower than their native-born peers (79.3%). The large discrepancy in the labor force participation rate between foreign-born and native-born persons was entirely attributable to foreign-born women. In 2015-16, foreign-born men’s labor force participation in Long Beach city was 85.8 percent while among women it was only 59.9 percent, a difference of nearly 26 percentage points. In contrast, the labor force participation rate difference between native-born men and women was only 3 percentage points in favor of men (80.9% versus 77.7%). Foreign-born men had a higher labor force participation rate than native-born male counterparts (85.8% versus 80.9%) (Table 15). These findings held equally true in Greater Long Beach area, California, and the U.S.

Table 14:
Trends in Labor Force Participation Rates of Non-Elderly Persons, 16- to 64-years-old, by Nativity Status, in Long Beach City, Greater Long Beach Area, California, and the U.S., 2006-07, 2010-11, and 2015-16 (Numbers in %)

Area/Nativity Status	Labor Force Participation Rate			Absolute Change		
	2006-07	2010-11	2015-16	2006-07 to 2010-11	2010-11 to 2015-16	2006-07 to 2015-16
Long Beach City						
Foreign-Born	73.9	76.4	72.6	2.6	-3.8	-1.2
Native-Born	80.5	79.9	79.3	-0.5	-0.6	-1.2
Greater Long Beach City						
Foreign-Born	75.3	76.0	74.0	0.7	-2.0	-1.3
Native-Born	79.1	79.0	78.2	-0.1	-0.8	-0.9
California						
Foreign-Born	75.4	77.1	76.2	1.7	-0.9	0.8
Native-Born	78.5	78.4	78.3	-0.1	-0.1	-0.2
U.S.						
Foreign-Born	76.6	77.8	77.3	1.1	-0.5	0.6
Native-Born	79.0	78.8	78.5	-0.1	-0.3	-0.4

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

The labor force participation rate declined by 1.2 percentage points for both native-born and foreign-born persons in Long Beach city over the 2006-07 and 2015-16 period, however, among the foreign-born persons, the entire decline occurred over the 2010-11 and 2015-16

period. The labor force participation rate for foreign-born persons increased by 2.6 percentage points over the 2006-07 and 2010-11 period. In the Greater Long Beach area, the findings on the labor force participation rates between native-born and foreign-born persons mirrored findings for Long Beach city. In California and the U.S., labor force participation rates declined slightly among native-born persons, but rose by 0.6 to 0.8 percentage points among foreign-born persons.

Table 15:

Labor Force Participation Rates of Non-Elderly Persons, 16- to 64-years-old, by Nativity Status, in Long Beach City, Greater Long Beach Area, California, and the U.S., 2015-16 (Numbers in %)

Area/Nativity Status	Male	Female	Difference
Long Beach City			
Foreign-Born	85.8	59.9	-25.9
Native-Born	80.9	77.7	-3.1
Greater Long Beach Area			
Foreign-Born	87.0	61.5	-25.5
Native-Born	81.2	75.3	-6.0
California			
Foreign-Born	88.2	64.6	-23.6
Native-Born	82.8	73.8	-9.0

Source: 2015 and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

Labor Force Participation Rates by English Speaking Proficiency

The American Community Surveys (ACS) asks respondents 5 years and older to report their English-speaking proficiencies if they also speak language other than English at home. Respondents were allowed to report one of the four categories of responses on this particular question- very well, well, not well, not at all.¹⁰ For our analysis, we have combined these responses into three categories- English only, very well/well, and not well/not well at all. Previous research has shown strong link between English speaking proficiencies and labor market attachment. Given the above average share of non-elderly adults in the Greater Long Beach area speaking languages other than English at home, it is desirable to examine labor force participation rates by their English-speaking proficiencies. In 2015-16, the labor force participation rates of non-elderly persons in Long Beach city was 78-79 percent among those

¹⁰ Those who were not asked this question were those who only spoke English language at home.

who only spoke English or spoke English very well/well. In fact, in 2006-07 and 2010-11, the labor force participation rate of those who spoke English very well/well was slightly higher than those who only spoke English. In contrast, just under 64 percent of non-elderly adults who reported that they spoke English not well/not at all actively participated in the labor force in the

Table 16:
Trends in Labor Force Participation Rates of Non-Elderly Persons, 16- to 64-years-old, by Disability Status, in Long Beach City, Greater Long Beach Area, California, and the U.S., 2006-07, 2010-11, and 2015-16 (Numbers in %)

Area/English Proficiency	Labor Force Participation Rate			Absolute Change		
	2006-07	2010-11	2015-16	2006-07 to 2010-11	2010-11 to 2015-16	2006-07 to 2015-16
Long Beach City						
English Only	79.6	79.5	78.9	-0.1	-0.6	-0.8
Very Well/Well	81.1	82.0	78.2	0.9	-3.8	-2.9
Not Well/Not At All	66.1	67.2	63.7	1.1	-3.6	-2.4
Greater Long Beach Area						
English Only	78.8	78.4	77.5	-0.4	-1.0	-1.4
Very Well/Well	80.5	81.7	79.4	1.2	-2.4	-1.1
Not Well/Not At All	67.6	66.0	64.4	-1.6	-1.6	-3.2
California						
English Only	78.4	78.4	77.8	0.0	-0.6	-0.6
Very Well/Well	79.7	81.7	80.6	2.0	-1.1	0.9
Not Well/Not At All	68.2	66.0	67.3	-2.2	1.3	-0.9
U.S.						
English Only	79.0	78.9	78.5	-0.1	-0.3	-0.5
Very Well/Well	79.3	80.4	80.3	1.1	-0.2	1.0
Not Well/Not At All	70.1	70.2	68.4	0.1	-1.8	-1.7

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

city in 2015-16. During the 2006-07 and 2010-11 period, the labor force participation rates rose slightly for those in very well/well and not well/not at all English speaking categories, but remained the same for those in the English Only category. For the former two categories, the labor force participation rates over the 2010-11 and 2015-16 declined by nearly 4 percentage points while remaining the same for English Only category. Overall, during the 2006-07 and 2015-16 time period, those in speak English Only category held their labor force participation

rate steady while those in speak English very well/well and not well/not at all categories experienced 2-3 percentage points drop in their labor force participation rate.

In the Greater Long Beach area, those who spoke English very well/well had slightly higher labor force participation rate than those who spoke English only in all the three time periods in our analysis. The labor force participation rate of non-elderly Long Beach area residents over the 2006-07 and 2010-11 period rose by 1.2 percentage points among those who reported that they spoke English very well/well and declined by 1.6 percentage points among those who spoke English not well/not at all. The labor force participation fell in the range of 1-2.4 percentage points over the 2010-11 and 2015-16 period for persons in all the three English speaking categories. By 2015-16, none of the groups had recovered their labor force participation rate that prevailed prior to the Great Recession.

In both California and the U.S., non-elderly adults who spoke English not well/not at all had the lowest labor force participation rate while those who spoke English very well/well had the highest participation rate. By 2015-16, only those who spoke English very well/well had recovered their labor force participation rate that prevailed in 2006-07 before the Great Recession.

Labor Force Participation Rates by Educational Attainment Levels

In a previous section, findings showed that educational attainment of labor force has increased over the 2006-07 and 2015-16 period. There was a decline in the share of labor force participants who were high school dropouts or were only high school graduates and a rise in the share of those with Bachelor's or higher degrees in all areas in our analysis. The labor force participation rate of working-age adults is highly influenced by their educational attainment levels. In comparison to working-age adults with low levels of educational attainment, adults with higher levels of education fare well in labor market outcomes such as higher labor force participation rates, higher employment rates, higher intensity of work such as hours and weeks, and higher wages.

Table 17 displays labor force participation rates of non-elderly adults (16- to 64-years-old) in Long Beach city, the Greater Long Beach area, California, and the U.S. by their educational attainment levels in 2006-07, 2010-11, and 2015-16. As expected, the labor force participation rate of non-elderly adults in Long Beach city varied widely by their educational

attainment levels. In 2015-16, the labor force participation rates of non-elderly persons in Long Beach city was 65.4 percent among high school dropouts, 72.6 percent among high school graduates only, 78.3 percent among those with some college, including Associate's degree, 85.3 percent among Bachelor's degree holders, and nearly 90 percent among Master's or advanced degree holders. The labor force participation rate over the 2006-07 and 2010-11 period declined for high school dropouts and for those with only a high school diploma/GED by 0.8 and 3.9 percentage points, respectively; however, the labor force participation rate rose by 1.4 to 5.9 percentage points for those with some college and Bachelor's or higher degree. Over the 2010-11 and 2015-16 time periods when the labor market recovery from the Great Recession took place, with the exception of Master's or higher degree holders, the labor force participation rates for persons in all other educational attainment categories declined. Overall, during 2006-07 and 2015-16, only persons with Bachelor's or higher degrees increased their labor force participation rates (1.3 percentage points for Bachelor's degree holders and 6.9 percentage points for Master's or higher degree holders). High school dropouts, high school graduates, and those with some college experienced decline in their labor force participation rate over this time period.

Findings for the Greater Long Beach area were very similar to findings for Long Beach city on labor force participation rate measures in 2006-07, 2010-11, and 2015-16 time periods. Very similar labor force participation rates prevailed for non-elderly persons 16- to 64-years-old by educational attainment levels. Labor force participation rates over the 2006-07 and 2010-11 periods declined for those without any post-secondary education and increased for those with some college or more, with larger increases occurring among those with Bachelor's or higher degrees. However, over the 2010-11 and 2015-16 periods, the labor force participation rate declined by 1 to 3 percentage points for all but one educational group. Only Master's or higher degree holders in the Greater Long Beach area experienced 2.4-percentage points growth in their labor force participation rate over the 2010-11 and 2015-16 periods.

In the state of California, similar labor force participation rates findings prevailed across the five educational attainment level groups. High school dropouts in Long Beach city, the Greater Long Beach area, and the entire state of California had higher labor force participation rates than their peers across the U.S. over the 2006-07, 2010-11, and 2015-16 periods. In California, persons with Bachelor's or higher degrees experienced a small increase in their labor force participation rate over the 2006-07 and 2010-11 periods. Persons with educational

attainment levels below Bachelor's degree experienced a decline in their labor force participation rate over the 2006-07 and 2015-16 periods, with most of the decline occurring over the 2010-11 and 2015-16 periods. These findings were very similar for the entire U.S.

Table 17:
Trends in Labor Force Participation Rates of Non-Elderly Persons, 16- to 64-years-old, by Educational Attainment Levels, in Long Beach City, Greater Long Beach Area, California, and - the U.S., 2006-07, 2010-11, and 2015-16 (Numbers in %)

Area/Educational Attainment	Labor Force Participation Rate			Absolute Change		
	2006-07	2010-11	2015-16	2006-07 to 2010-11	2010-11 to 2015-16	2006-07 to 2015-16
Long Beach City						
HS Dropouts	66.3	65.5	65.4	-0.8	0.0	-0.9
HS Diploma/GED	79.1	75.1	72.6	-3.9	-2.5	-6.4
Some College	80.0	81.4	78.3	1.4	-3.1	-1.7
Bachelor's degree	84.0	89.9	85.3	5.9	-4.7	1.3
Master's or higher degree	82.9	87.1	89.9	4.2	2.8	6.9
Greater Long Beach Area						
HS Dropouts	67.0	66.9	65.8	-0.1	-1.1	-1.2
HS Diploma/GED	77.9	75.5	74.0	-2.4	-1.4	-3.9
Some College	78.8	80.7	78.6	1.8	-2.1	-0.3
Bachelor's degree	84.3	86.3	83.3	2.0	-3.1	-1.0
Master's or higher degree	85.7	86.4	88.8	0.7	2.4	3.1
California						
HS Dropouts	66.9	68.2	66.5	1.3	-1.7	-0.4
HS Diploma/GED	75.4	74.8	73.8	-0.6	-1.0	-1.6
Some College	78.8	78.9	78.1	0.1	-0.8	-0.7
Bachelor's degree	83.2	84.1	84.4	1.0	0.2	1.2
Master's or higher degree	86.5	87.1	87.0	0.6	-0.1	0.5
U.S.						
HS Dropouts	63.5	63.4	62.3	-0.1	-1.1	-1.2
HS Diploma/GED	76.6	75.6	74.2	-1.1	-1.4	-2.5
Some College	81.1	80.7	79.9	-0.4	-0.9	-1.2
Bachelor's degree	84.6	85.2	85.3	0.6	0.1	0.7
Master's or higher degree	86.7	87.7	88.0	1.0	0.3	1.4

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

Labor Force Participation Rates by Disability Status

In the American Community Surveys, six types of disability questions are asked to household members (hearing difficulty, vision difficulty, cognitive difficulty, ambulatory difficulty, self-care difficulty, and independent living difficulty). Household members who report

any one of the six disability types are considered disabled.¹¹ Disabled persons are characterized by very low labor force participation rates. In 2015-16, only 36.8 percent of non-elderly disabled persons in Long Beach city were active labor force participants. Among the non-disabled, the labor force participation rate was 80.6 percent, which was 44 percentage points higher than that of the disabled. During the Great Recession of 2007-2009 and its aftermath, disabled persons experienced much higher decline in their labor force participation rate than their non-disabled peers. In fact, among the non-disabled, the labor force participation rate held steady over the 2006-07 and 2010-11 periods, but declined by 1.9 percentage points over the 2010-11 and 2015-16 periods. By 2015-16, the labor force participation rate of disabled persons had declined by 7.1 percentage points in comparisons to only 1.9 percentage points among the non-disabled.

Table 18:
Trends in Labor Force Participation Rates of Non-Elderly Persons, 16-64, by Disability Status, in Long Beach City, Greater Long Beach Area, California, and the U.S., 2006-07, 2010-11, and 2015-16 (Numbers in %)

Area/Disability Status	Labor Force Participation Rate			Absolute Change		
	2006-07	2010-11	2015-16	2006-07 to 2010-11	2010-11 to 2015-16	2006-07 to 2015-16
Long Beach City						
Disabled	43.9	40.8	36.8	-3.1	-4.0	-7.1
Not Disabled	82.5	82.5	80.6	0.0	-1.9	-1.9
Greater Long Beach Area						
Disabled	43.5	40.0	38.7	-3.5	-1.3	-4.8
Not Disabled	81.6	81.3	79.8	-0.3	-1.5	-1.8
California						
Disabled	42.1	40.0	40.1	-2.1	0.1	-1.9
Not Disabled	81.7	81.3	81.0	-0.4	-0.3	-0.6
U.S.						
Disabled	42.7	41.5	40.8	-1.2	-0.8	-2.0
Not Disabled	83.9	83.0	82.9	-0.9	-0.1	-1.0

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

¹¹ Due to conceptual changes in the disability questions in American Community Survey starting 2008, estimates on the numbers of disabled in each category of disabled cannot be strictly compared with those estimates before 2008. However, we do not expect radical differences in the labor force participation rates of disabled persons due to these conceptual changes in disability questions in 2008.

In the Greater Long Beach area, similar findings patterns prevailed on the labor force participation rate measure. In 2015-16, the labor force participation rate among the disabled was 41 percentage points lower than their non-disabled peers. The drop in the labor force participation rate over the 2006-07 and 2015-16 periods in the Greater Long Beach area was much higher among the disabled (-4.8 percentage points) than among the non-disabled (-1.8 percentage points). Findings were very similar in California and the U.S.

Labor Force Participation Rates by Veterans Status

In the American Community Surveys (ACS), households are also asked to report if any household members aged 17 and older¹² served on active duty in the U.S. Armed Forces. Table 19 displays labor force participation rates of persons aged 17 and older by veteran status in 2006-07, 2010-11, and 2015-16 in Long Beach city, the Greater Long Beach area, California, and the U.S. In Long Beach city, veteran's labor force participation in 2015-16 was lower than their non-veteran counterparts. Only 71.3 percent of veterans were active participants in the labor force compared to 77.2 percent for those who were not veterans. After increasing by 2.6 percentage points over the 2006-07 and 2010-11 period, Long Beach city's veteran labor force participation rate declined by 8.6 percentage points over the 2010-11 and 2015-16 periods. Overall, veterans' labor force participation rate in 2015-16 was 6 percentage points lower than in 2006-07 while the participation rate was only slightly lower among the non-veterans during the same time period.

In the Greater Long Beach area, veterans' labor force participation rate in 2015-16 was 74.1 percent in comparison to 77.2 percent among non-veterans. In 2006-07 and 2010-11, veterans had higher labor force participation rates than non-veterans. The decline in the labor force participation rate in the area over the 2006-07 and 2015-16 periods was substantially higher among veterans than among non-veterans (-4 percentage points versus -0.9 percentage points). In California, small differences in the civilian labor force participation rate prevailed between veterans and non-veterans in 2015-16. The decline in the labor force participation rates over the 2006-07 and 2015-16 periods among the veterans across the state was 2.3 percentage points in comparison to 1 percentage point among the non-veterans. Findings were similar for the entire U.S.

¹² Since veteran status is reported only for household members aged 17 and older, we have restricted analysis to 17- to 64-year-old persons.

Table 19:
Trends in Labor Force Participation Rates of Non-Elderly Persons, 17- to 64-years-old, Veterans Status, in Long Beach City, Greater Long Beach Area, California, and the U.S., 2006-07, 2010-11, and 2015-16 (Numbers in %)

Area/Veteran Status	Labor Force Participation Rate			Absolute Change		
	2006-07	2010-11	2015-16	2006-07 to 2010-11	2010-11 to 2015-16	2006-07 to 2015-16
Long Beach City						
Veterans	77.3	79.9	71.3	2.6	-8.6	-6.0
Not Veterans	78.0	78.7	77.2	0.7	-1.5	-0.8
Greater Long Beach Area						
Veterans	78.1	78.7	74.1	0.6	-4.6	-4.0
Not Veterans	77.5	77.7	76.6	0.2	-1.1	-0.9
California						
Veterans	78.6	76.2	76.3	-2.4	0.1	-2.3
Not Veterans	78.6	78.0	77.6	-0.6	-0.4	-1.0
U.S.						
Veterans	78.6	76.2	76.8	-2.4	0.6	-1.8
Not Veterans	78.6	78.9	78.4	0.3	-0.5	-0.2

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

Employment Rates of Non-Elderly Adults (16- to 64-Years-Old) in Long Beach Areas and California

One of the most reliable measures of labor market success of working-age adults is their employment rate (the number of employed over the working-age population). In Long Beach city, 72.7 percent of non-elderly adults were employed during 2015-16. During the Great Recession of 2007-2009, employment prospects for working-age adults deteriorated and their unemployment rate rose sharply. In Long Beach city, the employment rates of non-elderly adults (16- to 64-years-old) declined from 72.5 percent in 2007 to 68.6 percent in 2010-11, a decline of 4 percentage points. After the recovery from the Great Recession of 2007-2009, the employment levels began to rise and consequently the employment rates of non-elderly adults in Long Beach city rose to 72.7 percent in 2015-16, matching pre-Recession period employment rate.

Employment Rate by Gender

There were substantial gender differences in employment rates. Men were more likely than women to be working. In 2015-16, the employment rate of men in Long Beach city was

nearly 11 percentage points higher than women (78.2% versus 67.2%). Over the 2006-07 and 2010-2011 period, men experienced sharper decline in their employment rates than women. Men experienced a 5 percentage point drop in their employment rate compared to a 3 percentage point drop among women during the 2006-07 and 2010-11 periods. The employment rate for men and women increased by 3.8 and 4.5 percentage points, respectively, over the 2010-11 and 2015-16 periods. Even though men in Long Beach city increased their employment rate over the 2010-11 and 2015-16 periods, their employment rate in 2015-16 was 1.2 percentage points lower than in 2006-07. In contrast, women's employment rate over the 2006-07 and 2015-16 periods increased by 1.6 percentage points.

Findings on employment rate measures for the Greater Long Beach area over the 2006-07 and 2015-16 periods were quite similar. The employment rate for non-elderly adults (16- to 64-years-old) dropped from 72.5 percent in 2006-07 to 68.2 percent in 2010-11 and rose to 71.8 percent in 2015-16. The overall employment rate in 2015-16 in the Greater Long Beach area was still lower than in 2006-07. The gender gap in employment rate in 2015-16 in the Greater Long Beach area was 13 percentage points in favor of men. The low employment rate for women was largely attributable to low employment rates among foreign-born women. The employment rate for men and women declined by 5 and 3 percentage points, respectively, over the 2006-07 and 2010-11 periods and rose by 3.5 percentage points over the 2010-11 and 2015-16 periods. Men's employment rate in the Greater Long Beach area in 2015-16 was 1.6 percentage points lower than in 2006-07 while the employment rate for women remained constant at 65 percent in these two time periods.

Findings were similar for California and the U.S. with sharp decline in employment rates among all between 2006-07 and 2010-11 and an increase of 3-4 percentage points in employment rates over the 2010-11 and 2015-16 periods. Large gender gaps in employment rate in both California and the U.S. prevailed, but the size of the gender gap was larger in California than in the entire U.S. The overall employment rates in both areas in 2015-16 were nearly identical to those that prevailed in 2006-07, before the Great Recession; however, the employment rates for men were still below their levels in 2006-07. Women's employment rate in both California and the U.S. increased by 1 percentage point over the 2006-07 and 2010-11 period.

Table 20:

Trends in Employment Rates of Non-Elderly Persons, 16-64, by Gender, in Long Beach City, Greater Long Beach Area, California, and the U.S., 2006-07, 2010-11, and 2015-16 (Numbers in %)

Area/Gender	Employment Rate			Absolute Change		
	2006-07	2010-11	2015-16	2006-07 to 2010-11	2010-11 to 2015-16	2006-07 to 2015-16
Long Beach City						
All	72.5	68.6	72.7	-4.0	4.1	0.2
Male	79.4	74.4	78.2	-4.9	3.8	-1.2
Female	65.7	62.8	67.3	-2.9	4.5	1.6
Greater Long Beach Area						
All	72.5	68.2	71.8	-4.3	3.5	-0.8
Male	80.1	75.0	78.5	-5.1	3.5	-1.6
Female	65.1	61.8	65.3	-3.3	3.5	0.2
California						
All	72.7	68.7	72.6	-4.0	3.9	-0.1
Male	80.7	74.8	79.5	-5.9	4.6	-1.3
Female	64.6	62.6	65.7	-2.0	3.1	1.2
U.S.						
All	74.0	70.8	73.9	-3.2	3.0	-0.1
Male	80.6	75.8	79.3	-4.9	3.5	-1.3
Female	67.6	66.1	68.6	-1.5	2.5	1.0

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

Employment Rates by Major Race-Ethnic Groups

There were variations in employment rates by major race-ethnic groups in Long Beach city and the Greater Long Beach area as well as in California and the U.S. In 2015-16, employment rates in Long Beach city was highest among Whites (74.8%) followed by Hispanics (73%), Asians and Blacks (70-71%), and lowest among persons in “other” race-ethnic group (68.1%). During the 2006-07 and 2010-11 periods, with the exception of Asians, all persons in four major race-ethnic groups experienced decline in their employment rates with African Americans experiencing the largest decline (nearly 12 percentage points). Hispanics also experienced a 4.7 percentage points drop in their employment rate over this time period whereas non-Hispanic Whites experienced the smallest decline (2.1 percentage points). By 2015-16, the employment rates in each of the major race-ethnic group increased from their lows in 2010-11. During the 2010-11 and 2015-16 periods, the largest gain in employment rate was observed among African Americans (10 percentage points), followed by persons in Hispanics and “other”

race-ethnic groups (5-6 percentage points). Asians and non-Hispanic Whites employment rates increased only by 1-2 percentage points over the 2010-11 and 2015-16 periods. Despite the gains in employment rate of non-elderly persons in major race-ethnic groups in Long Beach city over the 2010-11 and 2015-16 time periods, their employment rates in 2015-16 were still lower or flat in comparisons to rates that prevailed in 2006-07. Asians were the only race-ethnic group who experienced an increase (+5.4 percentage points) in their employment rate over the 2006-07 and 2015-16 periods.

The Greater Long Beach area also showed variations in the employment rates across the five major race-ethnic groups; however, these variations were relatively low in comparison to those in Long Beach city. In 2015-16, employment rates in the Greater Long Beach area ranged from a low of 69.7 percent among African Americans to a high of 73 percent among non-Hispanic Whites. The employment rates declined in the 0.7 to 7.6 percentage point range among the major race-ethnic groups during the 2006-07 and 2010-11 period with the largest decline taking place among African Americans (-7.6%), Hispanics, and “other” race-ethnic groups (-5%). By 2015-16, each of the major race-ethnic group raised their employment rates from their lows in 2010-11, with these gains ranging from a low of 1.5 percentage points among Asians to a high of 10 percentage points among African Americans. However, the employment rates in 2015-16 among African Americans and the “other” race-ethnic group was lower than in 2006-07. Asians were the only group that raised their employment rate over the 2006-07 and 2015-16 period. Among Hispanics and Whites, the employment rates in 2015-16 were more or less the same as in 2006-07.

Similarly, in California and the U.S., employment rates in 2015-16 varied widely by race-ethnic groups, with the lowest employment rates prevailing among African Americans and highest employment rates being found among Asians and non-Hispanic Whites. In each of the five major race-ethnic groups, employment rates declined sharply over the 2006-07 and 2010-11 period and then increased over the 2010-11 and 2015-16 periods. In California, the employment rates among Whites and African Americans in 2015-16 were lower than in 2006-07; however, Asian, Hispanics, and persons of “other” race-ethnic origins increased their employment rates. In the entire U.S., the employment rate for Whites in 2015-16 was nearly identical to that of 2006-07 while persons in all other race-ethnic groups raised their employment rates in the range of 0.8 to 1.5 percentage points over this time period.

Table 21:
Trends in Employment Rate of Non-Elderly Persons, 16- to 64-years-old, by Major -Race-Ethnic
Groups, in Long Beach City, Greater Long Beach Area, California, and the U.S., 2006-07, 2010-
11, and 2015-16 (Numbers in %)

Area/Race-Ethnicity	Employment Rate			Absolute Change		
	2006-07	2010-11	2015-16	2006-07 to 2010-11	2010-11 to 2015-16	2006-07 to 2015-16
Long Beach City						
White	75.3	73.2	74.8	-2.1	1.7	-0.5
African American	72.1	60.2	70.2	-11.9	10.0	-2.0
Asian	65.6	69.5	70.9	3.9	1.5	5.4
Hispanic	72.9	68.2	73.0	-4.7	4.7	0.0
Other	71.1	62.3	68.1	-8.7	5.7	-3.0
Greater Long Beach Area						
White	75.1	71.9	72.9	-3.2	1.0	-2.2
African American	69.7	62.1	69.7	-7.6	7.6	-0.1
Asian	71.5	70.8	72.5	-0.7	1.8	1.1
Hispanic	72.4	67.3	71.6	-5.1	4.3	-0.8
Other	70.1	65.1	69.8	-5.0	4.8	-0.2
California						
White	74.6	70.2	73.5	-4.5	3.4	-1.1
African American	66.9	60.2	65.3	-6.7	5.1	-1.7
Asian	72.8	71.1	74.1	-1.7	3.0	1.3
Hispanic	71.5	67.8	72.2	-3.7	4.5	0.8
Other	69.1	64.8	71.0	-4.3	6.2	1.9
U.S.						
White	75.9	72.9	75.4	-3.0	2.5	-0.5
African American	67.5	63.1	68.4	-4.4	5.2	0.8
Asian	73.1	72.4	74.3	-0.7	1.9	1.2
Hispanic	72.0	69.0	73.0	-3.1	4.0	0.9
Other	67.0	64.0	68.5	-3.0	4.5	1.5

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

Employment Rate by Age Groups

The employment rate of non-elderly persons (16- to 64-years-old) by age group in Long Beach city, the Greater Long Beach area, California, and the U.S. are displayed in Table 22. The employment rate increases with age and starts to decline after age 55 as workers approach retirement age. As expected, the employment rate in Long Beach city varied substantially by age. In 2015-16, the employment rate rose continuously with age from 67.2 percent among 20- to 24-year-olds and to 76-78 percent among 25- to 54-years-old, before declining to 59.4 percent

among 55- to 64-years-old. The employment rates declined for persons in every age group over the 2006-07 and 2010-11 periods, with larger declines among 16- to 19-year-olds (-17%) and 20- to 24-year-olds (-9.2%), smaller decline among 45- to 54-year-olds and 55- to 64-year-olds (3.2 to 3.3 percentage points), and no decline among 35- to 44-year-olds. Over the 2010-11 and 2015-16 period of labor market recovery, the employment rates across the age groups increased in the 1.6 to 7.7 percentage points range. In Long Beach city, in comparison to 2006-07, the employment rates in 2015-16 were lower among 20- to 24-year-olds and 55- to 65-year-olds, the same among 25- to 34-year-olds, and higher among 35- to 55-year-olds and 45- to 54-year-olds.

In the Greater Long Beach area, similar patterns were observed on employment rate developments over the 2006-07 and 2015-16 period. Young (16- to 24-year-olds) and older (55- to 64-year-olds) persons in the Greater Long Beach area experienced sharper declines in their employment rates over the 2006-07 to 2010-11 periods. The employment rate decline during this time period among 16- to 24-year-olds was in 10.3-10.5 percentage points range. Among 55- to 64-year-olds also, the employment rate declined by 4.4 percentage points. Persons in 25- to 54-year-old age groups experienced a 2-3 percentage point drop in their employment rate over this time period. Over the 2010-11 and 2015-16 periods, the employment rates increased for each of the age groups, with the largest gains among 16- to 19-year-olds (10 percentage points), 20- to 24-year-olds (7.3 percentage points), and 45- to 54-year-olds and 25- to 34-year-olds (3.9-4.4 percentage points) and gains under 2 percentage points among 35- to 44-year-olds and 55- to 64-year-olds. Overall, in 2015-16, the employment rates in the Greater Long Beach area among 25- to 34-year-olds and 55- to 64-year-olds was 2.8 to 3.2 percentage points lower than in 2006-07. For persons in all other age groups, the employment rates in 2015-16 were the same or only slightly lower than in 2006-07.

Findings for California and the U.S. were also very similar. Over the 2006-07 and 2010-11 periods, every age group experienced drop in their employment rates with a substantial drop among 16- to 24-year-olds. The job market started to improve after 2011 and as a result, employment rates also started to increase. In California, over the 2010-11 and 2015-16 periods, persons in every age group experienced gains in their employment rates ranging from 6-7 percentage points among 16- to 24-year-olds to 3-4 percentage points among 25- to 64-year-old age groups. However, employment rates in 2015-16 among 16- to 19-year-olds and 20- to 24-year-olds in California were lower than in 2006-07. Among the 25- to 34-year-olds, the

employment rate increased by 1.3 percentage points over the 2006-07 and 2015-16 time periods. Among persons in the 35- to 64-year-olds age groups, the employment rates were similar in

Table 22:
Trends in Employment Rate of Non-Elderly Persons, 16- to 64-years-old, by Age Groups, in Long Beach City, Greater Long Beach Area, California, and the U.S., 2006-07, 2010-11, and 2015-16 (Numbers in %)

Area/Age Group	Employment Rate			Absolute Change		
	2006-07	2010-11	2015-16	2006-07 to 2010-11	2010-11 to 2015-16	2006-07 to 2015-16
Long Beach City						
16-19	47.3	30.3	38.0	-17.0	7.7	-9.3
20-24	72.1	62.9	67.2	-9.2	4.3	-4.9
25-34	77.9	72.9	78.0	-5.0	5.1	0.1
35-44	74.7	74.6	76.3	0.0	1.6	1.6
45-54	73.7	70.5	76.6	-3.2	6.1	2.9
55-64	60.9	57.6	59.4	-3.3	1.8	-1.5
Greater Long Beach Area						
16-19	45.0	34.7	44.7	-10.3	10.0	-0.3
20-24	71.1	60.6	67.9	-10.5	7.3	-3.2
25-34	75.6	72.3	76.2	-3.3	3.9	0.6
35-44	76.0	73.6	75.2	-2.4	1.6	-0.8
45-54	75.2	72.0	76.3	-3.2	4.4	1.1
55-64	62.8	58.5	60.0	-4.4	1.6	-2.8
California						
16-19	52.3	41.2	48.1	-11.1	6.9	-4.2
20-24	70.7	62.4	68.8	-8.3	6.4	-1.9
25-34	75.4	72.3	76.7	-3.2	4.5	1.3
35-44	77.0	73.9	77.5	-3.2	3.7	0.5
45-54	75.9	72.2	75.8	-3.7	3.6	-0.1
55-64	60.4	58.1	61.1	-2.3	3.0	0.7
U.S.						
16-19	52.4	42.9	52.1	-9.5	9.2	-0.3
20-24	72.1	65.9	72.2	-6.2	6.3	0.1
25-34	77.8	74.6	78.2	-3.3	3.7	0.4
35-44	79.1	76.6	79.3	-2.5	2.7	0.2
45-54	77.6	74.8	77.3	-2.8	2.5	-0.3
55-64	60.4	59.6	62.2	-0.8	2.6	1.8

Note: Due to insufficient sample size for 16- to 19-year-olds in Long Beach city, we have avoided analysis labor market outcomes for 16 –to 19-year-olds.

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

both 2006-07 and 2015-16 periods. In the entire U.S., the employment rates in 2015-16 among 16- to 54-year-old age groups were more or less the same compared to 2006-07; however, older workers (55- to 64-years-old) experienced a nearly 2 percentage point gain in their employment rate over the 2006-07 and 2015-16 time periods.

Employment Rates by Nativity Status

Given the high share of foreign-born population in Long Beach city, the Greater Long Beach area, and across California, it is desirable to examine their employment behavior and to compare with those in the entire U.S. in recent time periods. In Long Beach city, foreign-born persons worked at a much lower rate than their native-born peers. The lower employment rate among foreign-born persons was attributable to lower employment rates among the foreign-born women. In 2015-16, the employment rate of foreign-born person was 69.7 percent in comparisons to 74.3 percent for their native-born peers- a 4.6 percentage point gap in the favor of native-born. The employment rates of foreign-born persons in Long Beach city remained stable around 68-70 percent over the selected time periods in our analysis. In contrast, employment rates among the native-born persons declined from 74.6 percent in 2006-07 to 68.8 percent in 2010-11 and again rose to 74.3 percent in 2015-16 after the labor market recovery from the Great Recession of 2007-2009. In 2015-16, the employment rates for both native-born and foreign-born persons in Long Beach city were found to be similar to those in 2006-07.

The gap in the employment rate between native-born and foreign-born persons in the Greater Long Beach area in 2015-16 was much smaller in Long Beach city. In 2015-16, the employment rate of non-elderly foreign-born persons in the Greater Long Beach area was 70.6% while the employment rate among the native-born persons was 72.5 percent. The drop in employment rate over the 2006-07 and 2010-11 periods was larger among native-born persons (-4.9 percentage points) than among the foreign-born persons (-3.5 percentage points). In 2015-16, native-born persons employment rate increased by 4.1 percentage points from their lows in 2010-11. During the same time period, foreign-born persons' employment rate increased by 2.7 percentage points. For both native-born and foreign-born persons, the employment rates in 2015-16 was slightly lower than in 2006-07.

In both California and the U.S., the employment rate gap between native-born and foreign-born was much smaller than those in Long Beach city and the Greater Long Beach area.

Over the 2006-07 and 2015-16 time periods, the employment rate of foreign-born persons in both California and the U.S. was 0.8 percentage points higher than in 2006-07. In contrast, native-born persons' employment rate in California in 2015-16 was nearly 1 percentage point lower than in 2006-07 while remaining constant across the U.S. during this time period.

Table 23:
Trends in Employment rate of Non-Elderly Persons, 16- to 64-years-old, by Nativity Status, in Long Beach City, Greater Long Beach Area, California, and the U.S., 2006-07, 2010-11, and 2015-16 (Numbers in %)

Area/Nativity Status	Employment Rate			Absolute Change		
	2006-07	2010-11	2015-16	2006-07 to 2010-11	2010-11 to 2015-16	2006-07 to 2015-16
Long Beach City						
Foreign-Born	69.3	68.2	69.7	-1.2	1.6	0.4
Native-Born	74.6	68.8	74.3	-5.8	5.6	-0.3
Greater Long Beach Area						
Foreign-Born	71.4	68.0	70.6	-3.5	2.7	-0.8
Native-Born	73.4	68.5	72.5	-4.9	4.1	-0.9
California						
Foreign-Born	71.2	68.7	72.0	-2.4	3.3	0.8
Native-Born	73.6	68.7	72.9	-5.0	4.2	-0.7
U.S.						
Foreign-Born	72.5	70.2	73.3	-2.3	3.1	0.8
Native-Born	74.3	71.0	74.0	-3.4	3.0	-0.3

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

Employment Rates by English Speaking Proficiency

English language proficiency of working-age adults is also found to be a strong predictor of labor market outcomes. In the section above, findings revealed that the labor force participation rate of those who spoke English not well/not at all was substantially lower than their peers who spoke English only or spoke it very well/well. The employment rate of non-elderly adults in Long Beach city in 2015-16 who reported that they spoke English not well or not at all was markedly lower than their peers who reported that they only spoke English or spoke very well/well. The employment rates of those who spoke only English or spoke English very well/well was 74 percent while only 60 percent for those who reported that they spoke English not well/not at all, a difference of 14 percentage points. In all the three time periods in

our analysis - 2006-07, 2010-11, and 2015-16 - those who reported that they spoke English well or not at all had 12-14 percentage points lower employment rates than their peers who spoke English only or spoke English well. The employment rate declined in 3-5 percentage points range for all persons in English speaking proficiency groups over the 2006-07 and 2010-11 period and increased in the same range over the 2010-11 and 2015-16 periods. The decline in the employment rate over the 2006-07 and 2015-16 periods was under 1 percentage point for these groups.

In the Greater Long Beach area, the employment rate of non-elderly persons who reported that they spoke English not well/not at all was also lowest among other English speaking groups. Those who reported that they spoke English very well/well had higher employment rate than their peers who only spoke English. In 2015-16, the gap in employment

Table 24:
Trends in Employment Rates of Non-Elderly Persons, 16- to 64-years-old, by English Speaking Proficiency Status, in Long Beach City, Greater Long Beach Area, California, and the U.S., 2006-07, 2010-11, and 2015-16 (Numbers in %)

Area/English Proficiency	Employment Rate			Absolute Change		
	2006-07	2010-11	2015-16	2006-07 to 2010-11	2010-11 to 2015-16	2006-07 to 2015-16
Long Beach City						
English Only	74.6	69.0	74.2	-5.5	5.2	-0.3
Very Well/Well	75.1	72.4	74.4	-2.7	2.0	-0.8
Not Well/Not At All	61.1	57.2	60.2	-4.0	3.1	-0.9
Greater Long Beach Area						
English Only	73.6	68.5	72.3	-5.1	3.8	-1.3
Very Well/Well	75.6	72.4	74.8	-3.2	2.4	-0.8
Not Well/Not At All	63.3	57.2	60.3	-6.1	3.1	-3.0
California						
English Only	73.9	69.0	72.8	-4.9	3.8	-1.1
Very Well/Well	75.2	72.1	75.7	-3.1	3.7	0.5
Not Well/Not At All	62.8	59.6	62.5	-3.3	2.9	-0.4
U.S.						
English Only	74.5	71.2	74.1	-3.3	2.9	-0.4
Very Well/Well	74.8	72.3	75.7	-2.4	3.3	0.9
Not Well/Not At All	65.3	61.6	64.1	-3.7	2.4	-1.3

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

rate between those who spoke English not well/not at all and those who spoke English well/very well or spoke English only was 12-14 percentage points. During the Great Recession of 2007-2009 and its aftermath, persons who said they spoke English not well/not all experienced the largest decline in their employment rate (-6.1 percentage point) in comparison to the other two English speaking groups. Despite gains in employment rate after the recovery from the Great Recession, the employment rate in 2015-16 for adults who said they spoke English not well/not at all in the Greater Long Beach area was 3 percentage points lower than in 2006-07.

In both California and the U.S., adults who reported that they spoke English not well/not at all had the lowest employment rates in comparison to those who only spoke English or spoke English very well/well in all the three time periods in our analysis. Those who spoke English very well/well had a somewhat higher employment rate than their peers who only spoke English. The employment rate dropped for all English speaking proficiency groups in 2-5 percentage points range over the 2006-07 and 2010-11 time period in California and the U.S, and recovered in 2-4 percentage points range over the 2010-11 and 2015-16 time period.

Employment Rate by Educational Attainment Groups

The labor market outcomes of working-age adults (e.g. labor force participation rates, employment rates, and intensity of work) are directly linked to their educational attainment levels. In comparison to persons with higher levels of educational attainment, persons with lower levels of educational attainment levels have lower labor force participation rates, lower employment rates, higher unemployment rates, and lower intensity of work (that is, fewer weeks or hours of work) , resulting in lower annual earnings.

The employment rates of non-elderly workers in Long Beach city varied widely by their educational attainment levels. In 2015-16, the employment rates ranged from lows of 60.3 percent among high school dropouts and 67.6 percent among those with high school/GED to highs of 81.7 percent among Bachelor's degree holders and 88.5 percent among Master's or higher degree holders. During the Great Recession of 2007-2009, those without any post-secondary education experienced the largest decline in their employment rates (7-9 percentage points). In contrast, employment rates for Long Beach city residents with Bachelor's or higher degrees remained relatively steady during the 2006-07 and 2010-11 periods. In Long Beach city, with the exception of Bachelor's degree holders, employment rates by 2015-16 increased from

their lows in 2010-11 in the 3-7 percentage point range. The employment rate among those with high school diploma/GED in Long Beach city in 2015-16 was nearly 5 percentage points lower than in 2006-07 while the rates were identical among high school dropouts and those with some college, including Associate's degrees. Those with Master's or higher degrees in Long Beach city experienced a 7.5 percentage point increase in their employment rate over the 2006-07 and 2015-16 periods. The employment rate gain among Bachelor's degree holders over this time period was 1.2 percentage points.

In the Greater Long Beach area, employment rate findings for non-elderly residents followed very similar patterns, with employment rates increasing steadily with higher levels of educational attainment. The employment rate in 2015-16 among non-elderly residents in the Greater Long Beach area ranged from a low of 60 percent among high school dropouts to a high of 88 percent among Master's or higher degree holders. In all of the five educational attainment groups, employment rates declined over the 2006-07 and 2010-11 period, with a larger decline (-6 to -7 percentage points) among those without any post-secondary schooling and a smaller decline (-1 to -2 percentage points) among those with Bachelor's or higher degrees. When labor market started to recover from the Great Recession of 2007-2009, the employment rates also began to rise. Over the 2010-11 and 2015-16 periods, with the exception of Bachelor's degree holders, the employment rate in all other four educational attainment groups rose in the range of 3-5 percentage points. However, with the exception of Master's or higher degree holders, the employment rates in all other educational attainment groups in 2016-17 was lower than in 2006-07.

The employment rates findings by educational attainment levels in California and the U.S. followed similar patterns, with employment rates rising with educational attainment levels. During the 2006-07 and 2010-11 periods, employment rates among California's residents in the five educational attainment groups declined by 2-6 percentage points. The employment rates rose over the 2010-11 and 2015-16 time periods in each of the five educational attainment level group by 2-4 percentage points; however, employment rates in 2015-16 were lower than in 2006-07 for those with high school diploma/GED only and for those with some college, and the same for high school dropouts and those with Bachelor's or higher degrees. Very similar findings prevailed for the entire U.S. over the 2006-07, 2010-11, and 2015-16 time periods.

Table 25:
Trends in Employment Rate of Non-Elderly Persons, 16- to 64-years-old, by Educational Attainment Levels, in Long Beach City, Greater Long Beach Area, California, and the U.S., 2006-07, 2010-11, and 2015-16 (Numbers in %)

Area/Educational Attainment	Employment Rates			Absolute Change		
	2006-07	2010-11	2015-16	2006-07 to 2010-11	2010-11 to 2015-16	2006-07 to 2015-16
Long Beach City						
HS Dropouts	60.3	53.3	60.3	-7.0	7.0	0.0
HS Diploma/GED	72.5	63.5	67.6	-9.0	4.2	-4.8
Some College	74.0	70.6	73.9	-3.4	3.2	-0.1
Bachelor's degree	80.5	82.7	81.7	2.2	-1.0	1.2
Master's or higher degree	81.0	82.1	88.5	1.0	6.5	7.5
Greater Long Beach Area						
HS Dropouts	61.3	55.4	59.9	-5.9	4.4	-1.4
HS Diploma/GED	71.1	64.6	68.0	-6.6	3.4	-3.2
Some College	74.4	71.0	74.2	-3.4	3.1	-0.3
Bachelor's degree	81.0	79.6	79.6	-1.4	0.0	-1.4
Master's or higher degree	83.9	82.0	87.1	-1.9	5.1	3.2
California						
HS Dropouts	60.5	56.8	60.4	-3.7	3.6	-0.1
HS Diploma/GED	69.5	63.1	67.3	-6.3	4.2	-2.2
Some College	74.5	69.4	73.1	-5.2	3.7	-1.4
Bachelor's degree	80.2	77.7	80.7	-2.5	3.1	0.6
Master's or higher degree	84.4	82.6	84.4	-1.8	1.7	0.0
U.S.						
HS Dropouts	56.1	51.8	55.6	-4.2	3.8	-0.4
HS Diploma/GED	71.0	65.8	68.4	-5.2	2.6	-2.6
Some College	77.0	73.0	75.6	-4.0	2.6	-1.5
Bachelor's degree	82.0	80.4	82.5	-1.6	2.1	0.5
Master's or higher degree	84.8	84.5	86.0	-0.2	1.4	1.2

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

Employment Rate by Disability Status

In the previous section, findings showed that the labor force participation rates of disabled persons were barely half of the labor force participation rates of their non-disabled peers. In comparison to persons without a disability, disabled persons are characterized by extremely low employment rate. Research findings at the national level show that Social Security

Disability Insurance (SSDI) depress the employment rate.¹³ In Long Beach city, only 32 percent of non-elderly disabled persons were employed in 2015-16, while 76.4 percent of persons without any disability were employed. During the Great Recession and its aftermath, the employment rate of disabled persons declined by nearly 7 percentage points in comparison to a

Table 26:
Trends in Employment Rate of Non-Elderly Persons, 16- to 64-years-old, by Educational Attainment Levels, in Long Beach City, Greater Long Beach Area, California, and the U.S., 2006-07, 2010-11, and 2015-16 (Numbers in %)

Area/Disability Status	Employment rate			Absolute Change		
	2006-07	2010-11	2015-16	2006-07 to 2010-11	2010-11 to 2015-16	2006-07 to 2015-16
Long Beach City						
Disabled	37.7	30.8	32.1	-6.9	1.3	-5.6
Not Disabled	77.3	72.3	76.4	-5.0	4.1	-0.9
Greater Long Beach Area						
Disabled	38.2	30.7	33.0	-7.5	2.3	-5.2
Not Disabled	76.7	71.8	75.1	-4.9	3.4	-1.6
California						
Disabled	36.7	31.7	34.3	-5.0	2.6	-2.4
Not Disabled	77.1	72.0	76.1	-5.1	4.1	-1.0
U.S.						
Disabled	37.1	33.3	35.4	-3.8	2.1	-1.7
Not Disabled	79.5	75.2	78.6	-4.3	3.3	-1.0

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

decline of 5 percentage points among the non-disabled. During the labor market recovery that took place after 2011, the employment rate for the disabled in Long Beach city increased only slightly. Over 2010-11 and 2015-16, the employment rate among the disabled increased by only 1.3 percentage points in comparison to the 4.1 percentage points increase among non-disabled persons. In 2015-16, the employment rate of Long Beach city’s disabled persons was 5.6 percentage lower than in 2006-07 while among the non-disabled persons, the employment rate was only 0.9 percentage points lower.

Findings on employment rates among the disabled and the non-disabled persons in the Greater Long Beach area were very similar. Only 1 in 3 non-elderly disabled persons were

¹³ See: Nicole Maestas, Kathleen J. Mullen, and Alexander Strand, "Does Disability Insurance Receipt Discourage Work? Using Examiner Assignment to Estimate Causal Effects of SSDI Receipt", *American Economic Review*

employed in 2015-16 in the Greater Long Beach area while three-quarters of the non-disabled persons were employed. The employment rate of the disabled in 2015-16 was 5.2 percentage points lower than in 2006-07. Among the non-disabled persons in the area, the employment rate in 2015-16 was only 1.6 percentage points lower than in 2006-07. In California and the U.S., the employment rates of non-elderly disabled persons in 2015-16 were only slightly higher than in Long Beach city and the Greater Long Beach area.

Employment Rate by Veterans Status

The trends in the employment rate of 17- to 64-year-old persons over the 2006-07 and 2015-16 period by their veteran status in Long Beach city, the Greater Long Beach area, California, and the U.S. are displayed in Table 27. In Long Beach city, the employment rate of

Table 27:
Trends in Employment Rate of Non-Elderly Persons, 17- to 64-years-old, by Veterans Status, in Long Beach City, Greater Long Beach Area, California, and the U.S., 2006-07, 2010-11, and 2015-16 (Numbers in %)

Area/Veteran Status	Employment Rate			Absolute Change		
	2006-07	2010-11	2015-16	2006-07 to 2010-11	2010-11 to 2015-16	2006-07 to 2015-16
Long Beach City						
Veterans	71.5	69.2	68.5	-2.3	-0.7	-3.0
Not Veterans	72.6	68.5	72.8	-4.1	4.3	0.2
Greater Long Beach Area						
Veterans	73.9	69.8	70.8	-4.2	1.1	-3.1
Not Veterans	72.5	68.2	71.8	-4.3	3.6	-0.7
California						
Veterans	74.4	67.3	71.5	-7.1	4.2	-2.9
Not Veterans	72.6	68.8	72.6	-3.8	3.9	0.0
U.S.						
Veterans	74.0	71.0	73.9	-3.0	2.9	-0.1
Not Veterans	74.7	69.0	73.0	-5.7	4.0	-1.7

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

veterans in 2015-16 was 4 percentage points lower than their peers who were not veterans (68.5 percent versus 72.8 percent). In 2006-07 and 2010-11, the gaps in the employment rate between

veteran and non-veterans were very small. Veterans did not improve their employment rate during the labor market recovery after 2011. The employment rate of veterans in 2015-16 has not recovered from its highs in 2006-07 before the Great Recession. In the Greater Long Beach area, veterans had slightly higher employment rates than non-veterans in 2006-07 and 2010-11; however, the employment rate of veterans in 2015-16 was 3 percentage points lower than in 2006-07 while among the non-veterans, the employment rate was just 1 percentage point lower.

In California, the veteran employment rate in 2015-16 was still lower than in 2006-07 while in the U.S., their employment rate recovered over the 2010-11 and 2015-16 periods was identical to that in 2006-07.

Unemployment Developments of Non-Elderly Workers (16- to 64-Years-Old) in Long Beach Areas and California Over the 2006-07 and 2015-16 Period

In the 1990s, the U.S. achieved the longest economic expansion since the Great Depression of 1930s. The labor market was at its peak and, as a result, the unemployment rate of the labor force in 2000 stood at 4 percent across the U.S. After a brief technology-driven economic recession of 2001, the employment rate of adults declined until after the recovery. Even though new jobs were created, the unemployment rate for U.S. workers remained elevated in comparison to the 4 percent achieved in 2000. The labor market across the U.S. was deeply affected by the Great Recession of 2007-2009, resulting in an unemployment rate of 10 percent in the first few months of 2010 across the US. As the U.S. economy started to create jobs beginning in 2010, the unemployment rate of U.S. workers started to decline and reached 4.4 in 2017 - the lowest since 2000.

Unemployment Rates by Gender

In Long Beach city, the unemployment rate of non-elderly adults in 2006-07 was nearly 7 percent, close to 1 percentage point higher than the unemployment rate across the California. By 2010-11, the unemployment rate in the city had doubled reaching 12.9 percent. With the economic recovery, the unemployment rate continuously declined and reached to 5.5 percent in 2015-16. Long Beach city's unemployment rate of non-elderly workers in 2015-16 was 1.4 percentage points lower than in 2006-07. The unemployment rates of both male and female workers in Long Beach city was very similar in all three time periods - 2006-07, 2010-11, and

2015-16. The unemployment rate for both men and women rose from nearly 7 percent in 2006-07 to 13 percent in 2010-11 and declined to the 5-6 percent range in 2015-16. The unemployment rates of for both men and women in 2015-16 were 1.6 and 1.1 percentage points lower than in 2006-07, respectively.

Table 28:

Trends in the Unemployment Rates of Non-Elderly Workers, 16- to 64-years-old, Total and by Gender, in Long Beach City, Greater Long Beach Area, California, and the U.S., 2006-07, 2010-11, and 2015-16 (Numbers in %)

Area/Gender	Unemployment Rate			Absolute Change		
	2006-07	2010-11	2015-16	2006-07 to 2010-11	2010-11 to 2015-16	2006-07 to 2015-16
Long Beach City						
All	6.9	12.9	5.5	6.1	-7.4	-1.4
Male	6.9	13.0	5.3	6.1	-7.7	-1.6
Female	6.8	12.8	5.7	6.0	-7.1	-1.1
Greater Long Beach Area						
All	6.4	12.2	6.2	5.9	-6.0	-0.1
Male	6.5	12.3	6.1	5.8	-6.2	-0.4
Female	6.2	12.1	6.4	6.0	-5.8	0.2
California						
All	6.0	11.8	6.4	5.9	-5.4	0.4
Male	5.8	12.1	6.2	6.3	-5.9	0.4
Female	6.2	11.5	6.6	5.3	-4.8	0.4
U.S.						
All	5.8	9.9	5.7	4.2	-4.3	-0.1
Male	5.7	10.5	5.8	4.8	-4.7	0.1
Female	5.8	9.4	5.6	3.5	-3.8	-0.3

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

The unemployment rates of non-elderly workers in the Greater Long Beach area was somewhat lower than in Long Beach city in 2006-07. The unemployment rates of workers in the Greater Long Beach area in 2006-07 was 6.4 percent and nearly doubled to 12.2 percent in 2010-11, after the Great Recession. As the economy began to recover in the aftermath of the Great Recession and new job creation gained momentum, the unemployment rates started to fall gradually. By 2015-16, the unemployment rate of workers in the Greater Long Beach area had declined to 6.2 percent, nearly identical to 2006-07 unemployment rates in the area. However,

the unemployment rate in 2015-16 in the Greater Long Beach area was higher than in Long Beach city. Both men and women in the Greater Long Beach area had 6 percent unemployment rate in 2006-07 and their unemployment rates rose to 12 percent in 2010-11, and fell to 6 percent range in 2015-16.

In both California and the U.S., the unemployment rates developments over the 2006-07 and 2015-16 periods followed similar patterns; however, men's unemployment rates in 2010-11 were higher than women's, as men were disproportionately affected by the economic downturn. The unemployment rates fell after the recovery from the Great Recession and, by 2015-16, workers' unemployment rates in both California and the U.S. were in the range of 5-6 percent.

Unemployment Rates by Race-Ethnic Group

Unemployment rates of workers vary considerably across the major race-ethnic groups. These differences in unemployment rates are due to many observable characteristics across the major race-ethnic groups, including human capital characteristics such as levels of education and literacy/numeracy skills, workplace characteristics such as industry and occupation of work, geography of employment, and demographic traits including gender and race-ethnicity.

Unemployment rates of non-elderly workers in Long Beach city in 2015-16 varied widely age groups, ranging from lows of 4-5 percent among Asians, non-Hispanic Whites, and Hispanics to highs of 9-10 percent among African Americans and persons of "other" race-ethnic groups. Workers in African American and "other" race-ethnic groups experienced the sharpest increase in their unemployment rates over the 2006-07 and 2010-11 time periods. In 2010-11, nearly 1 in 5 African Americans workers in Long Beach city were unemployed. Unemployment rate among workers in "other" and African American race-ethnic groups increased by 12.2 and 10.2 percentage points, respectively, over the 2006-07 and 2010-11 time periods. Asian workers experienced an unemployment rate increase of only 2.5 percentage points over this time period. The second lowest unemployment rate increase over the 2006-07 and 2010-11 period was among non-Hispanic White workers (4 percentage points). Hispanic workers experienced a 6.7 percentage point increase in their unemployment rate over this time period. The unemployment rates declined for workers in all race-ethnic groups along with the economic recovery in the 2010-11 and 2015-16 time periods. African American, Hispanic, and workers in the "other" race-ethnic groups experienced a 9 percentage points decline in their unemployment rates over the

2010-11 and 2015-16 time period. Among Asian and non-Hispanic White workers, the unemployment rate over this time period declined by 5 percentage points. Overall, with the exception of workers in the African American and “other” race-ethnic groups, the unemployment rates in 2015-16 among workers in Asian, Hispanic, and non-Hispanic White race-ethnic groups was 1 to 3 percentage points lower than in 2006-07. However, among African American and “other” race-ethnic group workers, the unemployment rate in 2015-16 was 1.1 and 2.9 percentage points higher, respectively, than in 2006-07.

In the Greater Long Beach area, unemployment rates varied fairly widely among the five major race-ethnic groups. In 2015-16, African American and “other” race-ethnic group workers in the area had the highest unemployment rate. Nearly 10 percent of African American workers and 7.6 percent of workers in the “other” race-ethnic group were unemployed in 2015-16. The higher unemployment rates among African American workers was not unique in Long Beach city and the Greater Long Beach area, but was also prevalent in California and across the entire U.S. In 2015-16, only 4-5 percent of Asian and non-Hispanic White workers in the Greater Long Beach area were unemployed. Among the Hispanic workers, the unemployment rate in 2015-16 was 6.3 percent. Over the 2006-07 and 2010-11 time periods, African American, Hispanics, and workers in “other” race-ethnic group experienced 7-10 percentage points increase in their unemployment rates while Asian and non-Hispanic workers’ unemployment rates rose by 4 percentage points. As jobs were created after 2011, unemployment rates workers correspondingly began to fall. In the Greater Long Beach area, the unemployment rates of workers across the five major race-ethnic groups fell by 4-9 percentage points over the 2010-11 and 2015-16 periods. In 2015-16, the unemployment rates of workers across the major race-ethnic group in the Greater Long Beach region were more or less identical to those in 2006-07.

Similar patterns of unemployment rate development across the major race-ethnic took place in California and the U.S. over the 2006-07 and 2015-16 time periods. In 2006-07, California’s Asian and non-Hispanic workers had the lowest unemployment rate (just under 5 percent) while among Hispanics, workers in the “other” race-ethnic group, and African Americans, the unemployment rate was highest (7-10%). By 2010-11, the unemployment rates across the major race-ethnic group had risen sharply. Nearly 18 percent of non-elderly African American workers in California were unemployed in 2010-11. Among Hispanic workers, the unemployment rate rose to 13.4 percent and among non-Hispanic Whites the unemployment rate

was 10.4 percent. Asians were the only workers whose unemployment rate in California was under 10 percent in 2010-11. The unemployment rates for all major race-ethnic groups declined substantially with the improved labor market over the 2010-11 and 2015-16 period. The unemployment rates of non-elderly workers in California in 2015-16 were very identical to those that prevailed in 2006-07, before the Great Recession. Findings for the entire U.S. were very similar.

Table 29:
Trends in the Unemployment Rates of Non-Elderly Workers, 16- to 64-years-old, by Major Race-Ethnic Group, in Long Beach City, Greater Long Beach Area, California, and the U.S., 2006-07, 2010-11, and 2015-16 (Numbers in %)

Area/Race-Ethnic Group	Unemployment Rate			Absolute Change		
	2006-07	2010-11	2015-16	2006-07 to 2010-11	2010-11 to 2015-16	2006-07 to 2015-16
Long Beach City						
White	5.4	9.4	4.5	4.0	-5.0	-1.0
African American	8.7	19.0	9.9	10.2	-9.1	1.1
Asian	6.9	9.3	3.9	2.5	-5.5	-3.0
Hispanic	7.5	14.2	5.1	6.7	-9.1	-2.4
Other	6.5	18.7	9.4	12.2	-9.3	2.9
Greater Long Beach Area						
White	5.1	9.2	5.3	4.1	-3.8	0.3
African American	9.6	17.1	9.7	7.5	-7.4	0.1
Asian	5.2	9.1	4.5	3.9	-4.5	-0.7
Hispanic	6.7	13.4	6.3	6.8	-7.2	-0.4
Other	6.7	16.5	7.6	9.8	-8.9	0.9
California						
White	4.9	10.4	5.6	5.5	-4.8	0.7
African American	10.4	17.9	10.8	7.5	-7.1	0.4
Asian	4.8	9.2	4.8	4.4	-4.4	0.0
Hispanic	7.0	13.4	7.1	6.4	-6.3	0.2
Other	8.3	14.9	8.1	6.6	-6.8	-0.1
U.S.						
White	4.7	8.3	4.6	3.7	-3.7	-0.1
African American	11.1	16.7	10.1	5.6	-6.6	-1.0
Asian	4.5	7.7	4.4	3.2	-3.3	0.0
Hispanic	6.7	11.7	6.4	5.0	-5.3	-0.3
Other	9.8	14.3	8.8	4.4	-5.4	-1.0

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

Unemployment Rates by Age Group

The unemployment rates are sharply higher among young workers in comparison to their older peers, and unemployment rates decline with age. In 2015-16, the unemployment rates of workers in Long Beach city ranged from highs of 10 percent among 20- to 24-year-olds and 5.4 percent among 25- to 34-year-olds to lows 5 percent or lower among 35- to 64-year-old workers. During the Great Recession of 2007-2009 and its aftermath, the unemployment rates increased sharply for workers in all age groups, but the increase was steepest among young workers 20 to 24 years of age. In 2010-11, half of teen workers in Long Beach city were unemployed and another 21 percent of 20- to 24-year-old youth were unemployed. The unemployment rates in 2010-11 ranged 10-13 percentage points among workers in 25- to 64-year-old age group. Over the 2006-07 and 2010-11, the unemployment rates increased by 11.6 percentage points among 20- to 24-year-olds; for all other groups of workers in 25- to 64-year-old age groups, the unemployment rates increased by 5-6 percentage points. For Long Beach city workers in all age groups, the unemployment rates in 2015-16 were lower than in 2006-07.

The unemployment development findings for workers in the Greater Long Beach area followed similar patterns over the 2006-07, 2010-11, and 2015-16 time period. In 2015-16, the unemployment rates of workers in the Greater Long Beach was highest among 16- to 19-year-olds (24.4%) and 20- to 24-year-old (11.7%) and lowest among workers in 35- to 64-year-old age groups (4-5 percent). Unemployment rose very sharply during and in the aftermath of the Great Recession for workers in all age groups. In 2010-11, the unemployment rate reached nearly 47 percent among 16- to 19-year-old workers, 22 percent among 20- to 24-year-old workers, 12 percent among 25- to 34-year-old workers, and 9-10 percent among workers in 35- to 64-year-old age groups. With the economic recovery, the unemployment rates declined sharply over the 2010-11 and 2015-16 period for workers in all age groups, with steep declines among 16- to 19-year-olds (-29.6 percentage points) and 20- to 24-year-olds (-11.5 percentage points) and 5-7 percentage points declines among workers in 25- to 64-year-olds age group. In 2015-16, with the exception among 20- to 24-year-olds, 45- to 54-year-olds, and 55- to 64-year-olds, the unemployment rates of workers in the Greater Long Beach area were lower than those in 2006-07. The unemployment rates in 2015-16 among workers in the 20- to 24-year-old and 45- to 54-year-old age groups had 1.7 and 0.9 percentage points, respectively, higher unemployment rates while those in 2006-07. California and the U.S. unemployment rate trends

among non-elderly workers in six age groups in our analysis over the 2006-07 and 2015-16 time period also were similar.

Table 30:
Trends in the Unemployment Rates of Non-Elderly Workers, 16- to 64-years-old, by Major Age Group, in Long Beach City, Greater Long Beach Area, California, and the U.S., 2006-07, 2010-11, and 2015-16 (Numbers in %)

Area/Age Group	Unemployment Rate			Absolute Change		
	2006-07	2010-11	2015-16	2006-07 to 2010-11	2010-11 to 2015-16	2006-07 to 2015-16
Long Beach City						
16-19	33.0	50.9	21.3	17.9	-29.6	-11.7
20-24	10.0	21.5	10.1	11.6	-11.5	0.1
25-34	7.1	13.2	5.4	6.1	-7.8	-1.7
35-44	5.7	10.9	5.0	5.2	-5.9	-0.7
45-54	6.0	10.6	5.0	4.6	-5.6	-1.0
55-64	4.4	10.1	4.0	5.6	-6.0	-0.4
Greater Long Beach Area						
16-19	30.7	46.7	24.4	16.0	-22.3	-6.3
20-24	10.0	21.9	11.7	11.9	-10.2	1.7
25-34	7.2	12.3	6.3	5.2	-6.0	-0.9
35-44	5.6	10.6	5.4	5.0	-5.2	-0.2
45-54	4.7	9.6	5.5	5.0	-4.1	0.9
55-64	4.0	9.5	4.1	5.5	-5.5	0.0
California						
16-19	22.4	35.9	22.9	13.4	-13.0	0.5
20-24	10.4	19.8	12.1	9.4	-7.7	1.7
25-34	6.5	12.2	6.7	5.7	-5.4	0.3
35-44	5.1	10.3	5.3	5.2	-4.9	0.2
45-54	4.8	10.4	5.3	5.6	-5.1	0.5
55-64	4.3	10.1	5.4	5.8	-4.7	1.1
U.S.						
16-19	24.2	33.5	21.8	9.2	-11.6	-2.4
20-24	11.6	17.9	11.2	6.3	-6.7	-0.4
25-34	6.3	10.8	6.3	4.4	-4.5	0.0
35-44	4.9	8.6	4.8	3.7	-3.7	-0.1
45-54	4.3	8.2	4.4	3.9	-3.8	0.1
55-64	3.8	7.8	4.0	4.0	-3.8	0.2

Note: Due to insufficient sample size for 16- to 19-year-olds in Long Beach city, we have avoided analysis labor market outcomes for 16- to 19-year-olds.

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

Unemployment Rates by Educational Attainment Group

The unemployment rates of workers are directly related to their educational attainment levels. Workers with lower levels of educational attainment face higher incidence of unemployment problems than their peers with higher levels of educational attainment levels. Table 31 displays unemployment rates of non-elderly workers broken out by their educational attainment levels in Long Beach city, the Greater Long Beach area, California, and the U.S. in selected time periods. In 2015-16, high school dropouts in Long Beach city had the highest unemployment rate (7.8%), closely followed by unemployment rates of high school graduates (6.9%) and those with some college (5.7%). In contrast, Bachelor's degree holders in Long Beach city had an unemployment rate of 4.2 percent. Among the Master's or higher degree holders, the unemployment rate was the lowest: 1.5 percent of workers with Master's or higher degree were unemployed in Long Beach city.

The unemployment rates in 2015-16 for workers in five educational attainment group declined sharply from their high in 2010-11. In 2010-11, unemployment problems among those without a college degree worsened. In Long Beach city, unemployment rates among high school dropouts in 2010-11 was nearly 19 percent, more than double what it was in 2006-07, just prior to the onset of the Great Recession. Among workers with a high school diploma or equivalent and those with some college, the unemployment rates in 2010-11 also were nearly doubled in 2010-11 in comparison to 2006-07. Nearly 16 percent of workers with only a high school diploma or equivalent and 13 percent of workers with some college, including Associate's degree, were unemployed in 2010-11. Workers with college degrees were not shielded from unemployment problems that resulted from the Great Recession of 2007-09. In fact, unemployment rates of workers with Bachelor's or higher degree also doubled from 2006-07 to 2010-11. 8 percent of workers in Long Beach city with a Bachelor's degree and another 5.8 percent of workers with Master's or higher degree were unemployed in 2010-11. With the improved job market after 2011, the unemployment rates of workers in the Greater Long Beach area started to decline and, by 2015-16, the unemployment rates were more or less the same as in 2006-07.

The unemployment rates of workers in California overall also were high among those without any post-secondary education and low among those with college degrees. In 2015-16, nearly 1 out of 10 non-elderly workers without post-secondary education were unemployed

Table 31:
Trends in the Unemployment Rates of Non-Elderly Workers, 16- to 64-years-old, by Educational Attainment Levels, in Long Beach City, Greater Long Beach Area, California, and the U.S., 2006-07, 2010-11, and 2015-16 (Numbers in %)

Area/Educational Attainment	Unemployment Rates			Absolute Change		
	2006-07	2010-11	2015-16	2006-07 to 2010-11	2010-11 to 2015-16	2006-07 to 2015-16
Long Beach City						
HS Dropouts	9.0	18.6	7.8	9.6	-10.8	-1.2
HS Diploma/GED	8.4	15.6	6.9	7.2	-8.7	-1.5
Some College	7.5	13.2	5.7	5.7	-7.6	-1.8
Bachelor's Degree	4.2	8.0	4.2	3.8	-3.9	0.0
Master's or Higher Degree	2.3	5.8	1.5	3.5	-4.3	-0.8
Greater Long Beach Area						
HS Dropouts	8.5	17.2	9.0	8.7	-8.2	0.5
HD Diploma/GED	8.7	14.4	8.2	5.8	-6.2	-0.5
Some College	5.6	11.9	5.6	6.3	-6.3	0.0
Bachelor's Degree	3.9	7.8	4.4	3.9	-3.4	0.5
Master's or Higher Degree	2.1	5.1	2.0	3.0	-3.2	-0.2
California						
HS Dropouts	9.6	16.7	9.2	7.1	-7.5	-0.5
HD Diploma/GED	7.8	15.6	8.8	7.7	-6.8	0.9
Some College	5.4	12.1	6.4	6.7	-5.7	1.0
Bachelor's Degree	3.6	7.7	4.3	4.0	-3.4	0.7
Master's or Higher Degree	2.5	5.1	3.1	2.6	-2.0	0.6
U.S.						
HS Dropouts	11.7	18.3	10.7	6.6	-7.6	-1.0
HD Diploma/GED	7.4	13.0	7.8	5.6	-5.2	0.5
Some College	5.0	9.6	5.4	4.6	-4.2	0.4
Bachelor's Degree	3.1	5.6	3.3	2.6	-2.3	0.2
Master's or Higher Degree	2.2	3.6	2.4	1.5	-1.3	0.2

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

while 3-4 percent of workers with Bachelor's or higher degrees were unemployed. The unemployment rates doubled for each of the five educational attainment groups over the 2006-07 and 2010-11 periods. Nearly 16-17 percent of workers who were high school dropouts/high school graduates were unemployed in 2010-11. Among California's workers with some college, the unemployment rate rose to 12 percent in 2010-11. College graduates in the state were also having difficulty obtaining paid employment, resulting in a 7.7 percent unemployment rate

among Bachelor's degree holders, and 5.1 percent among Master's or higher degree holders. In 2015-16, with the exception of workers who were high school dropouts, the unemployment rates in other four educational groups was slightly higher than in 2006-07. The findings are very similar for the U.S.

Unemployment Rates by Nativity Status

The unemployment rates also differ among workers by their nativity status. The unemployment rates of foreign-born workers are found to be lower than the native-born workers. Among males, native-born workers have much higher unemployment rates than their foreign-born counterparts. In California, the unemployment rate among non-elderly men, native-born, workers in 2015-16 is nearly 3 percentage points higher than among their foreign-born counterparts (7.3% versus 4.4%). The unemployment rates among all non-elderly foreign-born workers was lower than among native-born workers in all three time periods in our study. In 2015-16, only 4 percent of non-elderly foreign-born workers residing in Long Beach city were unemployed. Among the native-born in the city, the unemployment rate was 6.3 percent, which was 2 percentage points higher than that of foreign-born workers. Over the 2006-07 and 2010-11 period, unemployment rate increased among native-born workers was higher than among the foreign-born workers (4.7 percentage points versus 6.7 percentage points). In 2010-11, the employment rates among the native-born workers was 14 percent while 10.8 percent among the foreign-born. The unemployment rates in 2015-16 among the foreign-born was 2 percentage points below pre-Recession rates while 1 percentage point below among the native-born.

In the Greater Long Beach area, the unemployment rates among the foreign-born workers were lower than among the native-born workers in all three time periods. In 2015-16, the unemployment rate among the foreign-born workers in the area was only 4.6 percent in comparisons to 7.3 percent among the native-born workers. Between 2006-07 and 2010-11, the unemployment rates rose both foreign-born and native-born workers by 5.4 percentage points and 6.1 percentage points, respectively; however, declined by 6 percentage points for both groups over the 2010-11 and 2015-16 periods. Both groups of workers in the Greater Long Beach area achieved pre-Recession unemployment rates in 2015-16. Very similar findings in the trend on unemployment rates among native-born and foreign-born workers prevailed in California and the U.S. over the 2006-07, 2010-11, and 2015-16 time periods. (Table 32).

Table 32:
Trends in the Unemployment Rates of Non-Elderly Workers, 16- to 64-years-old, by Nativity Status, in Long Beach City, Greater Long Beach Area, California, and the U.S., 2006-07, 2010-11, and 2015-16 (Numbers in %)

Area/Nativity Status	Unemployment Rate			Absolute Change		
	2006-07	2010-11	2015-16	2006-07 to 2010-11	2010-11 to 2015-16	2006-07 to 2015-16
Long Beach City						
Foreign-Born	6.1	10.8	4.0	4.7	-6.8	-2.1
Native-Born	7.3	14.0	6.3	6.7	-7.7	-1.0
Greater Long Beach Area						
Foreign-Born	5.2	10.6	4.6	5.4	-6.0	-0.6
Native-Born	7.2	13.3	7.3	6.1	-6.1	0.0
California						
Foreign-Born	5.6	10.8	5.5	5.2	-5.4	-0.2
Native-Born	6.2	12.4	6.9	6.3	-5.5	0.8
U.S.						
Foreign-Born	5.4	9.7	5.2	4.3	-4.5	-0.2
Native-Born	5.8	10.0	5.8	4.1	-4.2	-0.1

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

Unemployment Rates by English Speaking Proficiency Status

Findings above reveal that persons with better English speaking proficiency had higher labor force participation rates and higher employment rates than their peers with lower degrees of English speaking proficiencies. The unemployment rates findings for non-elderly workers broken out by their self-reported English speaking proficiency status was quite mixed in Long Beach city and the Greater Long Beach area.

In Long Beach city, there were little variations in unemployment rates of workers by their English speaking proficiency status. In 2015-16, Long Beach city workers who reported that they spoke English only had a 5.9 percent unemployment rate whereas those who reported that they did not speak English well/not at all had a 5.4 percent unemployment rate. Among workers in Long Beach city who reported that they spoke English very well/well, the unemployment rate in 2015-16 was 4.9 percent. Even though variations in the unemployment rates were small among English speaking proficiency groups in 2015-16, those who reported that they did not speak English had difficulty in obtaining employment during the labor market downturn during and after the Great Recession of 2007-09. In 2010-11, when the U.S. labor market was at the bottom,

the unemployment rate among those who reported that they spoke English not well or not at all had the highest unemployment rates (15%) while among those who reported that they spoke English only and those who reported that they spoke English very well/well had unemployment rates in the range of 12-13 percent. In 2015-16, the unemployment rates of workers in English speaking category “very well/well” and “not well/not at all” was 2-2.5 percentage lower than in 2006-07. Workers in the speak “English Only” category in Long Beach city experienced only a small drop of 0.5 percentage points in their unemployment rate over the 2006-07 and 2015-16 periods.

The unemployment rates of workers in the Greater Long Beach area in 2015-16 was also characterized by small degrees of variations across the three English speaking proficiency groups. The unemployment rates for workers in “English Only”, “Very Well/Well”, and “Not Well/Not at All” groups in 2015-16 was in the 5.7-6.7 percent range. In 2010-11, when the unemployment problems of U.S. workers was at its worse, the unemployment rates among the

Table 33:
Trends in the Unemployment Rates of Non-Elderly Workers, 16- to 64-years-old, by English Speaking Proficiency Groups, in Long Beach City, Greater Long Beach Area, California, and the U.S., 2006-07, 2010-11, and 2015-16 (Numbers in %)

Area/English Proficiency	Unemployment Rates			Absolute Change		
	2006-07	2010-11	2015-16	2006-07 to 2010-11	2010-11 to 2015-16	2006-07 to 2015-16
Long Beach City						
English Only	6.4	13.2	5.9	6.8	-7.3	-0.5
Very Well/Well	7.4	11.7	4.9	4.3	-6.8	-2.5
Not Well/Not At All	7.5	15.0	5.4	7.4	-9.6	-2.1
Greater Long Beach Area						
English Only	6.6	12.6	6.7	6.0	-6.0	0.0
Very Well/Well	6.0	11.4	5.7	5.4	-5.6	-0.3
Not Well/Not At All	6.3	13.3	6.3	7.0	-7.0	0.0
California						
English Only	5.8	11.7	6.5	6.0	-5.3	0.7
Very Well/Well	5.6	11.4	6.1	5.8	-5.3	0.4
Not Well/Not At All	7.8	13.6	7.2	5.8	-6.4	-0.7
U.S.						
English Only	5.7	9.8	5.6	4.1	-4.1	-0.1
Very Well/Well	5.7	10.1	5.7	4.3	-4.3	0.0
Not Well/Not At All	6.8	12.2	6.3	5.4	-5.9	-0.5

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

Greater Long Beach workers who did not speak English well or did not speak English at all had the highest unemployment rate of 13.3 percent and 12.6 percent, respectively. Those who reported that they spoke English very well/well had slightly lower unemployment rate than the other two groups (11.4%) in 2010-11. In 2015-16, the unemployment rates of workers in the Greater Long Beach area in the three English speaking proficiency groups in our analysis were similar to those in 2006-07.

In California, the unemployment rate among the three English speaking proficiency groups in 2015-16 was highest among those who did not speak English well or did not speak English at all (7.2%) while 6.1-6.5 percent among those in the speak English only or speak English groups. Those with weak English speaking proficiency had the highest unemployment rate in 2010-11 (13.6%) in comparison to the other two groups with strong English speaking proficiencies (11.4-11.7%). In 2015-16, the unemployment rate of California's workers in speak English only and speak English very well/well groups had very slightly higher unemployment rates than in 2006-07. Among the least English speaking proficiency group, the unemployment rate in 2015-16 was 0.7 percentage points lower than in 2006-07.

Unemployment Rates by Disability Status

In the previous sections, findings revealed that disabled persons had substantially lower labor force participation rates and employment rates in comparison to their non-disabled peers. The unemployment problems among the disabled workers are also more pronounced than among the non-disabled workers. Nearly 13 percent of disabled workers in Long Beach city were unemployed in 2015-16 while the unemployment rate among the non-disabled workers was only 5.2 percent. At the midst of the labor market depression in 2010-11, nearly one-quarter of disabled workers were unemployed in Long Beach city. The unemployment also doubled among non-disabled workers in 2010-11, rising to 12.3 percent from 6.3 percent in 2006-07. In normal economic condition, the unemployment rates of disabled workers tend to be higher than non-disabled peers. In 2006-07, the unemployment rates of disabled workers in Long Beach city was 14 percent in comparison to 6.3 percent among non-disabled workers. Both disabled and non-disabled workers unemployment rates fell sharply over the 2010-11 and 2015-16 period. In 2015-16, the employment rates of both disabled and non-disabled workers were lower than in 2006-07, before the Great Recession.

Table 34:
Trends in the Unemployment Rates of Non-Elderly Workers, 16- to 64-years-old, by Disability Status, in Long Beach City, Greater Long Beach Area, California, and the U.S., 2006-07, 2010-11, and 2015-16 (Numbers in %)

Area/Disability Status	Unemployment Rates			Absolute Change		
	2006-07	2010-11	2015-16	2006-07 to 2010-11	2010-11 to 2015-16	2006-07 to 2015-16
Long Beach City						
Disabled	14.0	24.5	12.6	10.5	-11.8	-1.4
Not Disabled	6.3	12.3	5.2	6.0	-7.1	-1.1
Greater Long Beach Area						
Disabled	12.0	23.1	14.7	11.1	-8.4	2.7
Not Disabled	6.0	11.7	5.9	5.7	-5.9	-0.1
California						
Disabled	12.7	21.7	14.4	9.0	-7.3	1.7
Not Disabled	5.6	11.4	6.0	5.9	-5.4	0.5
U.S.						
Disabled	13.2	19.8	13.1	6.6	-6.7	-0.1
Not Disabled	5.2	9.4	5.2	4.2	-4.1	0.0

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

In the Greater Long Beach area, the unemployment rates of both disabled and non-disabled workers were higher than in Long Beach city. Nearly 15 percent of disabled workers were unemployed in 2015-16 while the unemployment rate among the non-disabled workers were only 5.9 percent. The unemployment rate of disabled workers in the Greater Long Beach area in 2015-16 was higher than in 2006-07 by 2.7 percentage points while the unemployment rate was identical for non-disabled workers over this time period. Similar unemployment rates were observed for disabled workers in California over the 2006-07, 2010-11, and 2015-16 time periods. Despite the improved labor market in California, disabled workers had higher unemployment rates in 2015-16 than in 2006-07.

Unemployment Rates by Veterans Status

In Long Beach city and the Greater Long Beach area, the unemployment rates of non-elderly veterans was lower than their non-veterans counterparts. In 2015-16, nearly 4 percent of Long Beach city's veterans were unemployed while the unemployment rate among non-veterans was 5.5 percent. In the aftermath of the Great Recession of 2007-09, the unemployment rate of

veterans also increased sharply, reaching 13.4 percent in 2010-2011 similar to that of non-veterans rate (12.9%). The unemployment rates of veterans and non-veterans started to decline, coinciding with the job creation that begun in 2011.¹⁴ In Long Beach city, the drop in unemployment rate over the 2010-11 and 2015-16 periods was higher among veterans (-9.5 percentage points) than among the non-veterans (-7.3 percentage points). In 2015-16, the unemployment rate of veterans in Long Beach city was 3.6 percentage points lower than in 2006-07 while only 1.3 percentage points lower among the non-veterans.

Table 35:
Trends in the Unemployment Rates of Non-Elderly Workers, 16- to 64-years-old, by Veterans Status, in Long Beach City, Greater Long Beach Area, California, and the U.S., 2006-07, 2010-11, and 2015-16 (Numbers in %)

Area/Veteran Status	Unemployment Rates			Absolute Change		
	2006-07	2010-11	2015-16	2006-07 to 2010-11	2010-11 to 2015-16	2006-07 to 2015-16
Long Beach City						
Veterans	7.5	13.4	3.9	5.9	-9.5	-3.6
Not Veterans	6.8	12.9	5.5	6.1	-7.3	-1.3
Greater Long Beach Area						
Veterans	5.3	11.4	4.4	6.1	-7.0	-0.9
Not Veterans	6.4	12.3	6.3	5.8	-6.0	-0.2
California						
Veterans	5.0	11.7	6.3	6.7	-5.4	1.2
Not Veterans	6.0	11.9	6.4	5.8	-5.4	0.4
U.S.						
Veterans	5.8	10.0	5.7	4.1	-4.3	-0.1
Not Veterans	5.0	9.5	5.0	4.5	-4.5	0.0

Source: 2006, 2007, 2010, 2011, 2015, and 2016 American Community Surveys (ACS), public use files, U.S. Census Bureau, tabulations by authors.

In the Greater Long Beach area non-elderly veterans workers had lower unemployment rate than non-veterans workers. In 2015-16, only 4.4 percent of veterans in the area were unemployed, which was nearly 2 percentage points lower than the unemployment rate of non-veterans (6.3%). In 2010-2011, the unemployment rate among veterans rose to a high 11.4

¹⁴ Despite decline in unemployment rates among veterans in recent years, the under employment problems among veterans are reported to be rising. For reference, see: Natalie Gross, "Despite Decreasing Veteran Unemployment Rate, Underemployment Remains a Problem", Military Times, March 7, 2017, Accessed, <https://www.militarytimes.com/education-transition/2017/03/07/despite-decreasing-veteran-unemployment-rate-underemployment-remains-a-problem/>

percent, slightly lower than among the non-veterans (12.3%). By 2015-16, the unemployment rate declined for both group of workers (6 and 7 percentage points, respectively), lower than in 2010-11. In 2015-16, the unemployment rate among the veterans were nearly 1 percentage point lower than in 2006-07, while the rate was identical among the non-veterans.

In California, the unemployment rate of non-elderly workers in 2015-16 was nearly identical to those who were non-veterans (6.3% versus 6.4%). Unemployment rates for both groups rose to nearly 12 percent in 2010-11, before declining to 6 percent in 2015-16. California's non-elderly veteran workers' unemployment rate in 2015-16 was 1.2 percentage points higher than in 2006-07. In contrast, non-elderly veteran workers across the U.S. in 2015-16 had a slightly higher unemployment rate than their non-veteran peers (5.7% versus 5%). In both 2006-07 and 2010-11 periods, non-elderly veterans across the U.S. had higher unemployment rates in comparison to non-elderly non-veteran workers (Table 35).

Appendix: Data and Methodology

In this report, we have used U.S. Census Bureau's American Community Survey (ACS) Public Use Micro Sample (PUMS) data from 2006, 2007, 2010, 2011, 2015, and 2016 to estimate labor force statistics used in this report. The ACS is a national survey conducted year-round by the U.S. Census Bureau. Nearly 3 million households are randomly surveyed throughout the year. The ACS collects detailed information on demographic and socioeconomic characteristics of household members, including their citizenship status, place of birth, place of work, their educational attainment levels and school enrollment status, college major field of study, labor force status, industry and occupation of jobs, their mean annual earnings, commuting behavior, receipt of various government cash and in-kind transfers, health insurance status, home ownership status, property tax payment etc. Persons weight provided in the PUMS files were used to generate labor force estimates in this report.

Key Definition

Labor force participation rate: the share of civilian persons in a given group who are either working or actively looking for work. The labor force is sum of employed and unemployed persons, i.e., labor force = employed + unemployed.

Employment rate: also referred to as employment to population ratio. It is the numbers of civilian persons employed in a given group as a percentage of non-institutionalized population in that group.

Unemployment rate: the percentage of persons in the civilian labor force who are not working but are actively looking for employment and are available for work.