Millennials in the Long Island Job Market: Underpaid and Underemployed

by Gregory DeFreitas

The Millennial Generation now numbers 83 million young Americans, surpassing Baby Boomers by nearly 8 million. Those born in the years 1982 through 2000 are also much more diverse, with some 44 percent racial or ethnic minorities.[1] Not only are they the largest age cohort in the American workforce, but they are as large a share of the voting-age population as Boomers.[2]

And they are unquestionably the future of the New York economy. In this article, I draw upon the largest, most recent Census Bureau survey data sets to investigate how Millennials are faring in the Long Island metropolitan labor market. I focus here on the generation's majority component living in Nassau and Suffolk counties, ages 18 to 29 as of 2014. By doing so, we can best capture the crucial transition process in which most are trying to move from high school to college and/or the full-time job market.

Some notable findings are:

- Long Island Millennials average systematically lower rates of labor force participation than suburban youth nationally.
- 18-to-24 year-olds have the lowest rates of participation in the job market. Their above-average school enrollment rates explain much of this.
- College graduates have consistently higher labor force participation. But even among Long Island college grads, rates of labor force participation are lower than among their counterparts nationwide.
- Racial and ethnic unemployment gaps have narrowed since the recession. But joblessness of most whites, Asians and Hispanics has still not fallen back to pre-recession levels.
- One in six older youth ages 25 to 29 are neither employed nor enrolled in schooling.
- More than two-fifths of employed Millennials on Long Island are underemployed in jobs not requiring 4-year degrees, a rate that has risen since the Great Recession and is above the national average.
- Recent job growth in mostly lower-wage industries has contributed to Millennials' weak wage growth.
- Millennials' earnings have fallen sharply relative to their youth counterparts in 2000. The average 23-year-old college graduate today earns over 20% less (-$5,400 in 2014 dollars) than a Long Islander of the same age and education at the end of the 20th Century.

Figure 1
Young Adults' Share of Population, All US & Long Island, 1950-2014

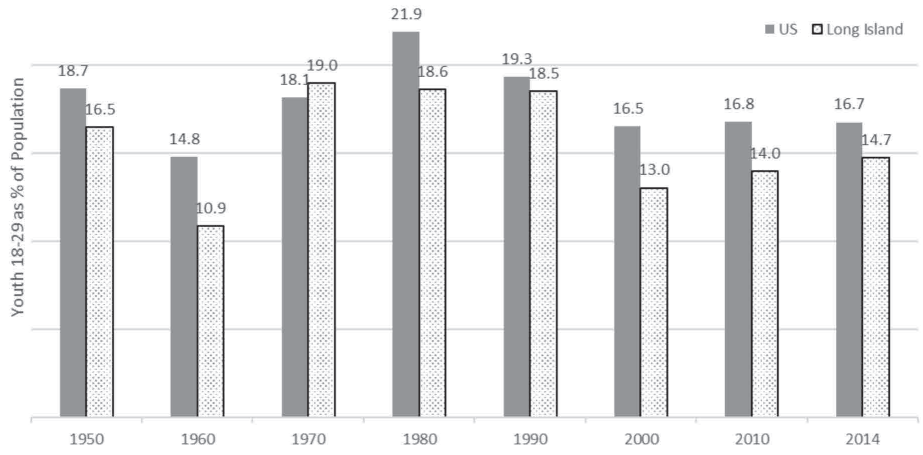


Fig. 1 Source: Author's calculations from decennial census and American Community Survey microdata.

Millennials in an Aging Long Island

Fewer than a million people were living on Long Island in the years just after World War II. But that population exploded with suburbanization and the Baby Boom (1946–64): between the 1950 and 1960 censuses, while the total US population grew 18.5%, Long Island's more than doubled (+107%) to 1.97 million. And it kept growing in the following decade, at double the national growth rate, to hit over 2.5 million by 1970. As the earliest boomers aged into their late teens and early twenties, the number of young adults (ages 18 to 29) more than doubled to 484,000 by 1970 – a peak 19% share of the Island's total population. As shown in Figure 1, at that point Long Island had a young adult population concentration nearly a percentage point above the national average.

As birth rates and the forces behind suburbanization have weakened since then, the Island's population growth has slowed markedly, the youth share has shrunk to below the national average, and the older adult share has correspondingly increased above average. Of the current Long Island population of 2.86 million, 421,494 (14.7%) are between the ages of 18 and 29, a full two percentage points below the youth share nationwide. In sharp contrast, their relatives and neighbors ages 50 and older now account for 37.4% of the Island population (up from just 22% in 1970) – nearly three percentage points greater than elder adults' share in other suburban areas across the country.

It is by now well known that declining birth rates, lengthening life spans, and the outmigration of young people to magnet cities have played important roles in the aging of suburban populations. But Long Island is not unique in this regard, yet it is ahead of most others in the aging process worrisome consequences for its future growth prospects. To what extent might its youth labor market conditions drive young people out of the region in greater numbers than it retains residents or attracts newcomers?

Labor Force Participation

The impact of youth on the job market, and thereby on their own earnings, depends on the likelihood that they find decent employment that makes full use of their skills or that they fruitfully search for it when jobless. It is well-known that women of all ages and regions dramatically increased their job holding over the past half-century. In sharp contrast, the fraction of prime-age American men (25-54) actively in the labor force (employees plus unemployed job searchers) has declined. In fact, it has been falling since its nationwide peak (at 96.7%) in the mid-1950s. But the decline really picked up speed in the mid-'60s, and has deepened in each recession since then. Contrary to some politicians' claims that this 60-year trend must be attributable to labor supply forces like immigration or public assistance benefits, researchers have shown that far more influential factors are education and weak labor demand for the non-college educated.[3] Nearly all the decline has been among men lacking a 4-year degree.

The attention given to older male's participation decline has dwarfed that so far directed at young Millennials. We do know that, nationwide, the labor force participation of teens ages 16-19 plunged from over one-half (52.8%) in 1998 to just 34.2% in 2014.[4] Most of this can be explained by rising school enrollment rates. Across the country, among the youngest Millennials ages 20 to 24, participation rates also fell over this period, though not nearly as steeply. Is this also the case for those in their late twenties, in particular on Long Island?

To investigate youth job market trends on Long Island, I conducted statistical analysis of the largest available Census Bureau survey microdata sets over the years 2000-2014.[5] The findings in Table 2 and Figure 2 show that Long Island youth (ages 18 to 29) have had lower rates of labor force participation in most of the past 15 years than youth nationwide. The 2013 spike reflected the temporary jump in rebuilding jobs in the wake of Superstorm Sandy in October 2012. Long Island job growth over the following 12 months (+2.9%) was the strongest on record since the late 1990s boom. As local growth normalized in 2014, the earlier trend returned: 73% of young Long Islanders had a job or were looking for one in 2014, well below the 74.9% national average.

Is this just a common suburban trend? To answer that, I also calculated participation rates for census samples of all suburbs. I followed the common definition of "suburb" as the sections within each metropolitan area that are outside the central city. From the results presented in Table 2, column 2, it is evident that youth in America's suburbs tend to have higher, not lower labor force participation than in the country as a whole. But suburban Long Islanders have participation rates more than three percentage points below that of the average suburb.

To begin explaining why, we must first understand the different main components of the area's youth population. Do the youngest Millennials, ages 18 to 24, in the earliest post-secondary school years, differ markedly from those in their late twenties? How do young men and women compare in the transition to the work

Figure 2
Youth Labor Force Participation Rates{%), Ages 18-29,
All U.S. & Long Island, 200S-2014

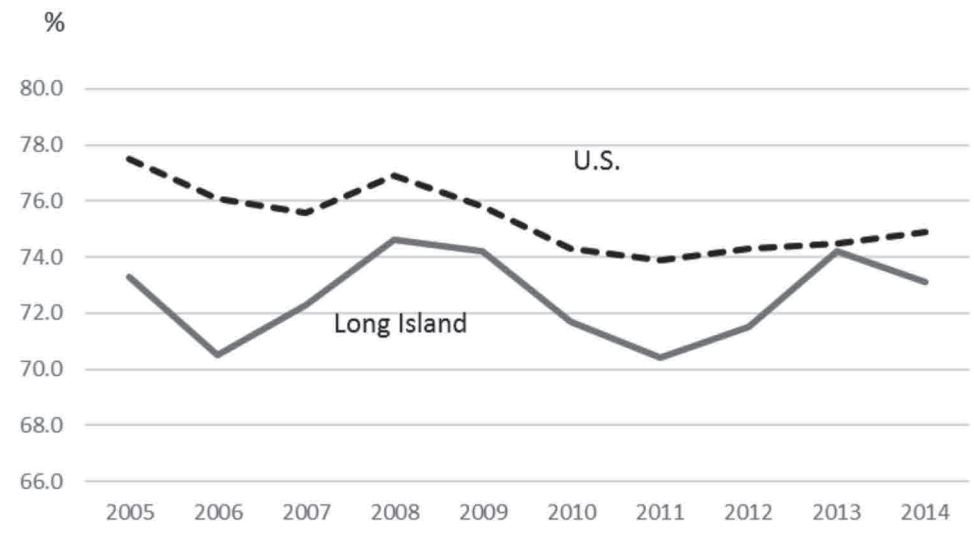


Table 1
Youth Population by Age, Race/Ethnicity & Nativity:
Long Island, 1990-2014

	1990	2000	2014
Age:			
18-24	269,852	206,108	262,920
25-29	212,462	152,559	158,574
18-29	482,314	358,667	421,494
Race/Ethnicity *(% of all youth)*:			
White, non-Hispanic	81.1	66.5	60
Black, non-Hispanic	8.3	11.0	11.8
Asian, non-Hispanic	2.5	4.8	6.6
Hispanic	7.9	17.2	21
Asian Subgroups *(% of all youth)*:			
Chinese	0.8	1.3	1.7
Filipino	0.3	0.5	0.5
Indian	0.6	1.5	1.7
Korean	0.4	0.6	0.8
Hispanic Subgroups *(% of all youth)*:			
Cuban	0.3	0.3	0.6
Dominican	0.5	1.3	2.6
Ecuadoran	0.2	0.7	1.4
Guatemalan	0.3	0.6	1.3
Honduran	0.6	0.7	0.7
Mexican	0.3	1.2	1.1
Puerto Rican	2.8	3.9	4.4
Salvadoran	1.5	3.6	5.9
Nativity *(% of all youth)*:			
All US-born	90.5	81.5	85.4
US born, US-born Parents	83.2	71.1	69.2
US born, Immigrant Parents	7.3	10.4	16.2
Foreign Born	9.5	18.5	14.6

Table 1 Source: Author's calculations from decennial census and American Community Survey microdata.

world? Are there pronounced similarities or differences among youth subdivided by racial, ethnic or immigration characteristics?

The age breakdowns in Table 2 and Figure 3 reveal that Long Island Millennials' lower participation rates are mainly explained by the behavior of those 18-to-24-years old. Since at least the 2000 economic peak, their labor force participation rates have been consistently below national levels. In 2014, though the L.I. rate was up (to 65.7%) from the immediate post-recession months of 2010, it was still nearly five percentage points lower than in the average suburb.

In contrast, the average Long Islander in the 25 to 29 age group has labor force participation at or above the national rate. And the late-twenties L.I. rate rose from 81.6% in 2000 to 85.3% in 2014. This is accounted for by the rising rates among women and the relatively steady rates (near 90%) among men. The fraction of the female population employed or looking increased from 78.8% in 2005 to 87.4% in 2009, then plunged as the recession's full impact hit the area. By 2014, the female rate had partially recovered with the economy, and was up again to 81.2%.

Two-fifths of Long Island youth today identify as black, Asian or Hispanic. And over 30% are foreign born or U.S.-born children of a foreign-born parent (Table 1). How do the largest groups in this increasingly heterogeneous population compare in their relationship to the labor force? The findings in the lower half of Table 2 show that, regardless of race or Spanish origin, Long Island youth have lower labor force participation than their counterparts nationwide. By 2014, 74.7% of white non-Hispanics were employed or seeking work on the Island, compared to an average suburban rate of 78.3%. Non-Hispanic blacks were closer to the national level (73.4%) after rebounding from a recession-era participation drop (63.7% in 2010).

Asian Long Islanders have markedly below-average labor force participation: only 56.1% of Asian Millennials are economically active, a full 10 percentage points below the Asian suburban youth rate nationally and 17 percentage points under the overall Long Island youth rate. In an effort to decompose the all-Asian rate into its major components, I used the large 2010-2014 pooled American Community Survey (ACS) samples to calculate separate findings for the four largest groupings: Chinese, Filipinos, Asian Indians and Koreans, with further distinctions by nativity of respondents and their parents. The results in Table 4 reveal that Asian youth 18 to 24 and women are generally much less likely to participate in the L.I. labor market than their white (65%), black (62.6%) or Hispanic (68.2%) neighbors. Among the youngest Millennials, just 30% of Koreans, and 39.1% of Chinese Long Islanders hold jobs or search for them. First and second generation immigrants tend to have higher labor force participation rates than the native born, but still lag behind non-Asian rates. However, once they reach their late twenties, Asian participation rates jump much closer to all-Island norms. Older Filipino (95%) youth participate at the highest rate of all groups and the older Korean rate (86.7%) is insignificantly different from the average. And once they age into their thirties and forties, Asian men average labor force participation of 90.7%.

School enrollment differences appear to explain much of the gap between young Asian and non-Asian job market activity. Among 18-24 year-olds, Asian Long Islanders average a far higher enrollment rate (79.2%) than their white (61.2%), black (55.6%) or Hispanic (47.9%) neighbors (Table 4). Eighty-eight percent of Korean youth are in school, as are 84.3% of Chinese and 75-77% of Filipinos and Asian Indians. Still, schooling is not the sole demand

Table 2:
Labor Force Participation Rates (%) by Age, Sex & Race:
US, All Suburbs & L.I.: 2000-2014

AGE	Year	All US	All Suburbs	Long Island
Ages 18-29	2000	75.90	77.90	75.90
	2005	77.50	78.20	73.30
	2010	74.30	76.70	71.70
	2014	74.90	76.20	73.10
Ages 18-24	2000	72.5	74.6	69.4
	2005	73.8	74.2	66.2
	2010	67.9	70.2	63.0
	2014	68.4	70.4	65.7
Ages 25-29	2000	80.7	82.1	81.6
	2005	82.6	83.7	83.7
	2010	83.7	85.6	85.3
	2014	83.3	84.7	85.3
SEX				
Males, 18-29	2000	80.6	82.6	80.6
	2005	82.5	83.1	76.9
	2010	77.6	79.8	75.0
	2014	77.4	78.9	74.0
Females, 18-29	2000	71.2	73.2	71.2
	2005	72.4	73.2	69.4
	2010	71.0	73.5	68.1
	2014	71.5	73.4	72.2
RACE/ETHNIC				
White, NonHsp. Ages 18-29	2000	79.6	81.5	76.9
	2005	79.8	80.3	74.1
	2010	76.5	78.9	73.5
	2014	76.5	78.3	74.7
Black, NonHsp. Ages 18-29	2000	71.8	75.4	70.0
	2005	75.0	77.5	71.6
	2010	70.5	75.0	63.7
	2014	73.0	75.2	73.4
Asian, NonHsp. Ages 18-29	2000	65	66.7	58.3
	2005	66.2	66.3	63.1
	2010	63.6	66.2	58.4
	2014	63.3	66.3	56.1
Hispanic Ages 18-29	2000	68.9	70.2	72.8
	2005	75.2	75.9	76.2
	2010	73.7	75.0	74.9
	2014	73.7	74.0	74.3

Table 2 Source: same as Table 1.

on youth's time and cannot fully account for the gender gap. Korean women have enrollment rates as high as men, but just 41.4% are in the labor market – 18 percentage points below the male rate. However, such gaps shrink with age: in their thirties and forties, Asian women are even more likely (78.2%) to be employed or job searching than non-Hispanic white women (76.6%).

Long Island's youth are both more likely to be enrolled in school and more likely to be college graduates than others their age nationwide. As one can see in Table 5, the fraction of 25 to 29 year-olds who have earned a college degree is 43% on the Island, compared to 37.1% across the country and 33.5% in the average suburb. As elsewhere, there are sizeable variations by race and ethnicity. Nearly two-thirds of Asians and 54% of non-Hispanic whites have a 4-year degree or higher, compared to just 27.4% of blacks and 17.2% of Hispanics.

We know from past research that, all else the same, a better-educated population typically has higher labor force participation rates. The secular decline in prime-age male participation rates mentioned above has been concentrated among non-college men. Why then does Long Island, with its above-average fraction of college grad youth, have below-average participation rates? Part of the answer is that, as we saw above, high enrollment rates depress job market activity in the younger segment of Millennials. But more insight can be found by looking at finer details of national and local samples subdivided by sex and educational attainment across the period 2000–2014. The findings in Table 6 reveal that, on two counts, Long Island follows national patterns: 1st, both male and female college grads have participation rates 10 or more percentage points higher than less-educated youth, in recession or expansion years; and 2nd, declines in participation rates have been concentrated among non-college-educated men.

However, among young college grads, both men and women, Long Islanders have lower participation rates than the average grad nationwide. By 2014, the rates gap was 3 percentage points (84.6% on L.I., 87.6% nationally) among men and over 4 percentage points (81.8% to 86%) among women. This indicates that labor demand conditions on the Island may be creating insufficiently attractive job opportunities for even young college grads to persevere in the job market. Both the quantity and quality of available jobs must be part of a fuller explanation.

Unemployment

The Long Island economy was hard hit by the foreclosure crisis and massive job loss of the Great Recession, though its overall unemployment rate never hit the

Figure 3
Youth labor Force Participation Rates {%), Ages 18-29,
All U.S. & Long Island, 2005-2014

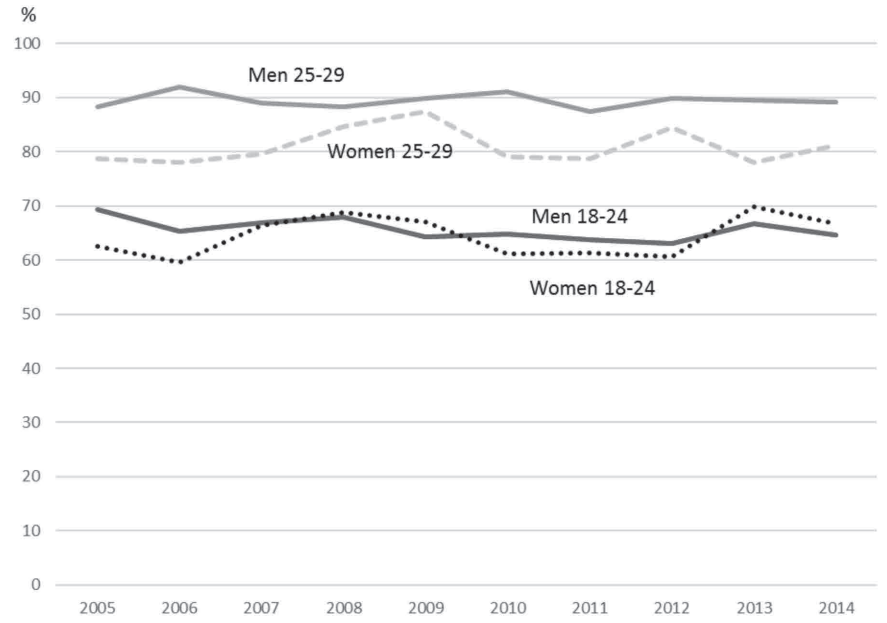
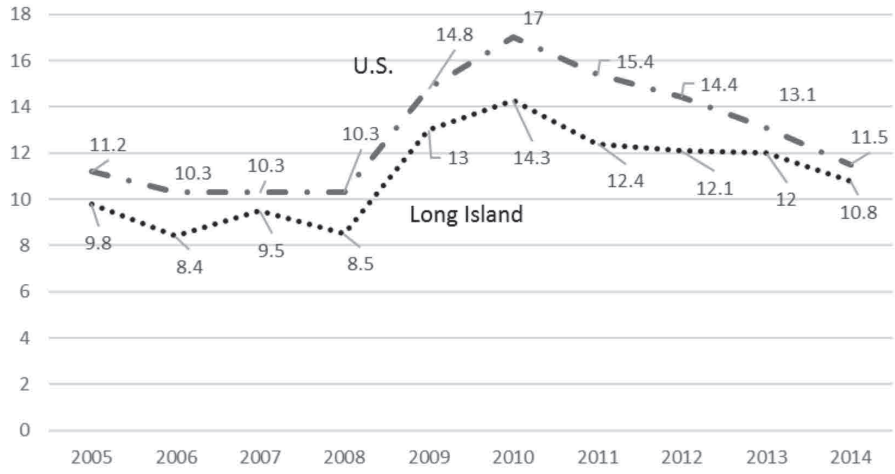


Figure 4
Youth Unemployment Rates {%) by Race/Ethnicity, Long Island,
2005-2014



double-digit levels recorded elsewhere. Just 3.5% of those seeking work were jobless at the start of 2007, but the rate had more than doubled by the first quarter of 2009. It peaked at a seasonally adjusted 7.5% in the last quarter of that year, but its decline since has been slow and painful: it took until August 2013 to creep below the 7% marker. Unemployment was still close to 6% on the Island as late as the first half of 2014.

Unemployment typically lags the onset of recessions, as most employers initially respond by cutting workhours, not workers. And the unemployment rate of youth ages 18 to 29 is commonly about 60% higher than the overall national rate. In 2008, the first year of the last recession, the youth rate nationwide was unchanged from the previous couple of years at 10.3%.[6] On Long Island, unemployment was nearly two percentage points lower than the national average that year. But, as the severity of the recession began devastating the job market the following year, it drove youth joblessness to 17% nationwide and to a 14.3% peak on Long Island by 2010 (Figure 4).

Even in the worst year of the recession, Long Island youth unemployment was slightly below the average in all suburbs (15.1%), as seen in Table 7. It was markedly higher among the youngest labor force entrants, ages 18-24, 17.2% of whom were unemployed on the Island in 2010. Of those ages 25-29, the jobless rate peaked at 10.9%. This trend followed the national pattern, as did the unemployment gender gap opened up by the recession. With building trades employment still male-dominated, the housing-centered recession drove up Long Island's male youth unemployment rate to 15.7% by 2010. Though women had a pre-recession rate nearly identical to that of men, their unemployment peak was over three percentage points lower.

All major racial and ethnic groups suffered sharp increases in unemployment to double-digit levels during the Great Recession (Figure 5). But the black youth unemployment rate leapt to 26.6% on Long Island – 2.3 times above the local white rate (11.7%). Both the Asian (16.2%) and Hispanic rates were a third or more above the white rate.

The economic recovery that started in 2011 has brought youth unemployment down substantially in city and suburb alike. Both the male-female and racial/ethnic rate gaps have narrowed markedly on the Island. The black rate has been more than cut in half to 12.7%. However, by 2014, about 11% of those under age 30 were still counted as unemployed in Long Island and nationwide. And unemployment of white, Asian and Hispanic Long Islanders has still not fallen back to pre-recession levels.

Table 3:
Labor Force Participation Rates of Major Race/Ethnic/Nativity Groups, Ages 18-29, Long Island: 2014

	Age		Sex		Nativity		
	18-24	25-29	Male	Female	Native Born	Foreign Born	US-Born, F-B Parent
ALL	64.1	85	74	70.1	72.1	72.4	69.3
White, NonHsp.	65	87.6	74.5	72.4	73.7	67.7	68
Black, NonHsp.	62.6	84.7	68.5	71.8	69.2	76.2	73.7
Asian, NonHsp.	45.9	74	61.5	53.2	54.1	60.1	61.1
Chinese	39.1	66.4	45.1	50.3	49.1	45.8	56.2
Filipino	55.6	95	72	73	62.9	80.2	58
Indian	52.3	73.8	66.3	57.6	58.3	64.8	65.8
Korean	30.1	86.7	59.5	41.4	50.8	48.2	58.5
Hispanic	68.2	83	79.5	68.7	72	77.6	71.9
Dominican	66.9	80.8	72.9	69.9	70.8	72.6	71.5
Ecuadoran	70.6	75.3	89.6	54.4	71.2	74.6	71.9
Puerto Rican	62.4	84.6	68.4	72.7	70.5	na	71.4
Salvadoran	71.4	83.5	81.5	70.9	77.2	76.3	74.2

Table 4:
School Enrollment Rates of Major Race/Ethnic/Nativity Groups, Ages 18-29, Long Island: 2014

	Age			Sex		Nativity		
	18-29	18-24	25-29	Male	Female	Native Born	Foreign Born	US-Born, F-B Parent
ALL	42.4	58.9	15.9	39.5	45.5	44.8	30.4	53.4
White, NonHsp.	44.2	61.2	16.1	41.3	47.2	44.3	40.7	54.2
Black, NonHsp.	42.4	55.6	17	39.3	45.2	41.5	47.6	53.6
Asian, NonHsp.	57.7	79.2	26.2	59.9	55.6	65.9	50.6	62.1
Chinese	69.5	84.3	36.7	71.3	67.6	71.6	67.0	65.7
Filipino	52.2	76.9	20.9	53.0	51.4	58.2	47.9	65.3
Indian	50.8	74.6	22.1	52.4	49.2	61.4	42.8	55.8
Korean	71.8	88.0	40.9	71.3	72.3	76.3	67.1	70.8
Hispanic	32.9	47.9	12.0	28.5	37.8	44.1	18.1	49.2
Dominican	39.4	50.4	17.2	35.1	44.3	46.8	27.8	42.4
Ecuadoran	30.8	45.2	20.0	28.1	33.8	42.1	23.9	46.4
Puerto Rican	40.0	53.9	16.2	36.3	43.5	40.0	37.7	46.4
Salvadoran	24.9	40.9	3.7	25.2	24.4	44.9	13.4	49.1

Table 4 source: Author's analysis of 2010-14 American Community Survey.

Out of School & Out of Work

The standard unemployment rate is a highly useful, but limited measure of labor market conditions. Only survey respondents who say they don't presently have a job but want one, are now available to work, and have searched for a job within four weeks of the interview are counted as unemployed. Excluded are all those who want and are available to work but have become so discouraged that they last searched five or more weeks before the surveyer called. The most common alternative activity among the young is typically assumed to be schooling. For some, additional schooling may be mostly a temporary haven from a weak job market. But insofar as higher education is valuable to both the student's later job options and to the broader economy and society, high enrollment rates like those on Long Island can be a very healthy community indicator.

However, as higher education has become more costly and as government college aid has shifted from grants to loans since the 1970s, the debt-for-diploma system has put college out of reach for many jobless youth. Those among them who are neither counted in the official unemployment statistics nor in school enrollments are variously described as "disconnected," "idle," "NEET" (not in education, employment or training") or "OSOW" (out of school, out of work) youth.[7]

In the years just before the Great Recession, about 13% of Long Island youth were neither working nor enrolled students, a lower proportion than in the average American suburb (15.8%) or in the country as a whole (17.7%).

Table 5:
Enrollment & College Grad Rates,
U.S., All Suburbs & Long Island, Ages 18-29: 2014

School Enrollment (%)	18-24			25-29		
	U.S.	Suburbs	Long Island	U.S.	Suburbs	Long Island
ALL	52.9	52.6	58.9	17.8	16.9	15.9
White, NonHsp.	55.6	53.9	61.2	17.7	16.5	16.1
Black, NonHsp.	48.8	50.5	55.6	19.9	21	17
Asian, NonHsp.	70.7	69.4	79.2	24.9	22	26.2
Hispanic	45.1	45.7	47.9	13.5	13.6	12.0
BA Degree or Higher (%)						
ALL	11.8	10.7	16.7	37.1	33.5	42.9
White, NonHsp	15.8	13.2	20.3	47.1	39.6	53.7
Black, NonHsp.	6	6.3	9.9	21.5	22.7	27.4
Asian, NonHsp.	21.9	19.9	25	61.4	59.8	65.3
Hispanic	5.1	4.7	7.9	15.3	14.1	17.2

Source: Author's analysis of 2010-14 American Community Survey.

Table 6:
Labor Force Participation Rates by Educational Attainment & Sex,
Ages 18-29: US & Long Island: 2000-2014

AGE	Year	MEN		WOMEN	
		All US	Long Island	All US	Long Island
HS Grad, No College	2000	75.6	72.5	68.9	67.1
	2005	77.7	71.9	70.6	60.8
	2010	73.4	65.6	67.3	59.7
	2014	72.8	71.8	66.9	69.1
Some College, No BA	2000	80.2	75.1	75.5	70.7
	2005	80.5	68.9	75.8	71.6
	2010	74.7	74.1	72.7	70.1
	2014	75.5	68.8	72.9	72.2
College Grad, B.A./B.S.	2000	86.8	85.2	84.6	82.9
	2005	86.5	83.6	84.4	83.2
	2010	87.6	84.4	85.9	80.9
	2014	87.6	84.6	86	81.8

Table 6 Source: same as Table 1.

The recession drove up all those rates, and by 2010 Long Island's rate (16.7%) was almost the same as the all-suburb level. There were sizeable age, sex, race/ethnic, and education gaps in the incidence rates: higher among those in their late twenties (19.2%) than younger Millennials (15.1%); among women (17.4%) than men (16%); among blacks (26.2%), Asians (16.4%), and Hispanics (21%) than non-Hispanic whites (13.1%); and among those with only a high school degree (24.7%) than college grads (11.9%).

After nearly four years of post-recession job growth, by 2014 the fraction of nonemployed nonstudents in the youth population had mostly receded to pre-recession levels nationwide, as on Long Island (Figure 6). Still, the Island's OSOW rate remains in low double-digits overall. And one in every six people in their late twenties is neither employed nor enrolled in further schooling.

Underemployment

If the official measure of unemployment is too limited to fully reflect labor market hardship, so also is the related definition of employment. In published government figures, anyone 16 and older who holds a paying job (even for as little as an hour per week) is counted as "employed," as are unpaid interns, small business family workers, and others willing to labor without pay at least 15 hours weekly. Are young people still reaping a fair job market payoff from their costly, hard-won educations? Are the jobs they can find increasingly full-time with benefits or benefit-free part-time positions? And are they being hired into jobs that fully match their skill levels or are they forced to settle for jobs in which they are overqualified?

To try to answer these questions, I focused on the subset of employed college graduates ages 22 to 29. "Underemployment" is here defined as: working in an occupation in which a bachelor's degree is not considered necessary.[8] I used U.S. Bureau of Labor Statistics information on the typical educational requirements of each occupation to dichotomize "college-level" from "non-college level" jobs. Coupled with the detailed information in the Census microdata on each respondent's

educational attainment and current occupation, we can distinguish those college grads underemployed in non-college-level positions.

More than two-fifths of employed Millennial college grads on Long Island today are underemployed in jobs like cashier, retail clerk and security guard that do not require 4-year degrees. Male college grads (47.3%) are much more likely to be in such jobs than women (38.8%). Hispanic (48.1%) and black grads (45.3%) are more likely have higher underemployment rates than do non-Hispanic whites (42.4%) or Asians (35.5%).

A decade ago, prior to the last recession, one-third of college grads in their twenties on the Island were underemployed – identical to the underemployment rate nationwide (Figure 7). But since the Great Recession, the likelihood of being overqualified for the only jobs many new L.I. college grads can find has risen to 42.6%, well above the national average (37.6%). So also has the likelihood of only finding part-time, benefit-free jobs. Today, 30.8% of the area's underemployed young grads are working part-time, nearly twice the rate among their college-educated counterparts in college-level jobs better-suited to their educations.

Figure 5
Youth Unemployment Rates{%) by Race/Ethnicity,Long Island, 2005, 2010 & 2014

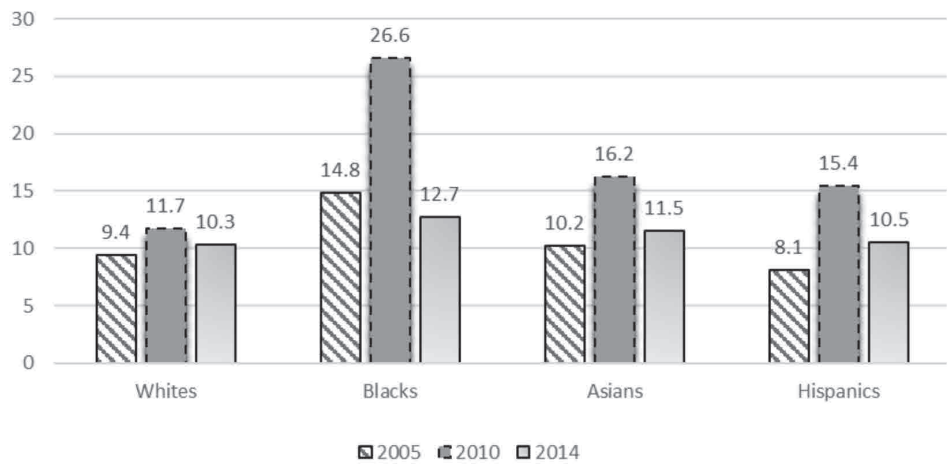
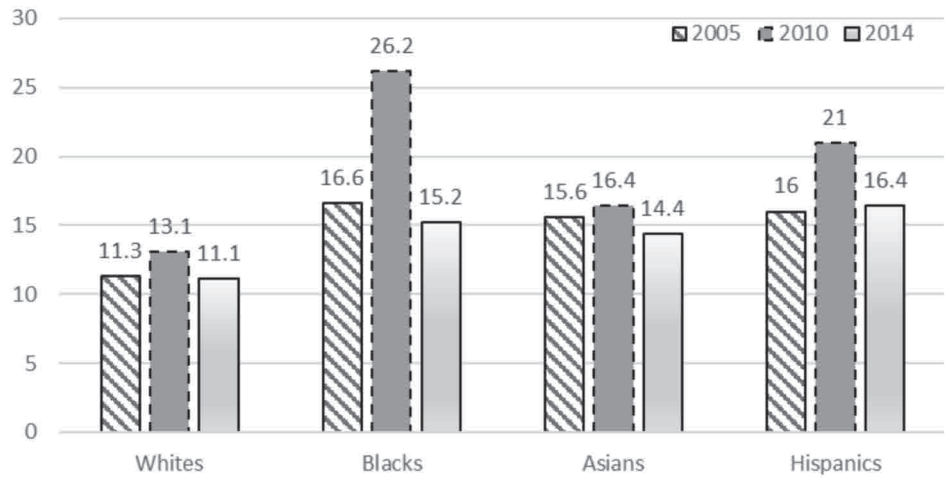


Figure 6
Out-of-School, Out-of-Work Rates (%}, Long Island Youth, by Race/Ethnicity: 2005-2014



My regional findings here are broadly consistent with recent national research by Abel, Dietz and Su at the NY Fed that showed "a clear upward trend" of underemployment, increasingly in part-time jobs, among recent college graduates since at least the 2001 recession.[9]

Where Are the Jobs for Youth?

The rising underemployment of even well-educated Millennials is doubtless closely related to recent job growth trends. A striking characteristic of the national recovery so far has been the concentration of new job growth since 2009 in mostly lower-wage industries. To what extent might this account for the patterns shown above?

Table 8 presents employment figures for the Long Island work force subdivided into three broad industry groupings. Following other recent research, I used 2014 median wage levels of local prime-age workers to categorize detailed industries as either "lower wage" (eg., most food services, gas stations, laundry services, retail sales and cashiers), "middle wage" (eg., most health care jobs, airline occupations, unionized building trades and manufacturing) and "higher wage" (eg., advertising, most professional and management services, computers and telecom, securities and investment jobs).[10] Only the leading six industries in each pay grouping are shown in the table. The 18 industries account for over three-fourths of employed youth each year.

The findings in Table 8 show a clear shift in youth jobs toward mostly lower-

wage industries. Compared to the pre-recession period, the share of Millennial workers in Long Island's main low-wage industries has increased (from 30% in 2000 to 47.5% percent of all employees today). By far the most dramatic change is the jump in youth employment in accommodation and food services, from 8.1% of all Millennial jobs on the Island in 2000 to nearly 21% by 2014. Retail trade's share has risen too, from 13.5% of all jobs in 2000 to 16.8% most recently.

Over the same years, the middle-wage job share declined two percentage point to 28.4 percent, led by a drop in the job shares of construction, manufacturing and wholesale trade. And the post-recession shrinkage of the financial, information and media sectors drove down youth's high-wage job share five percentage points to 10%. The only noticeable increase in a high-wage industry came in accounting, though this still only accounts for 1.3% of Millennials' jobs.

Earnings Patterns

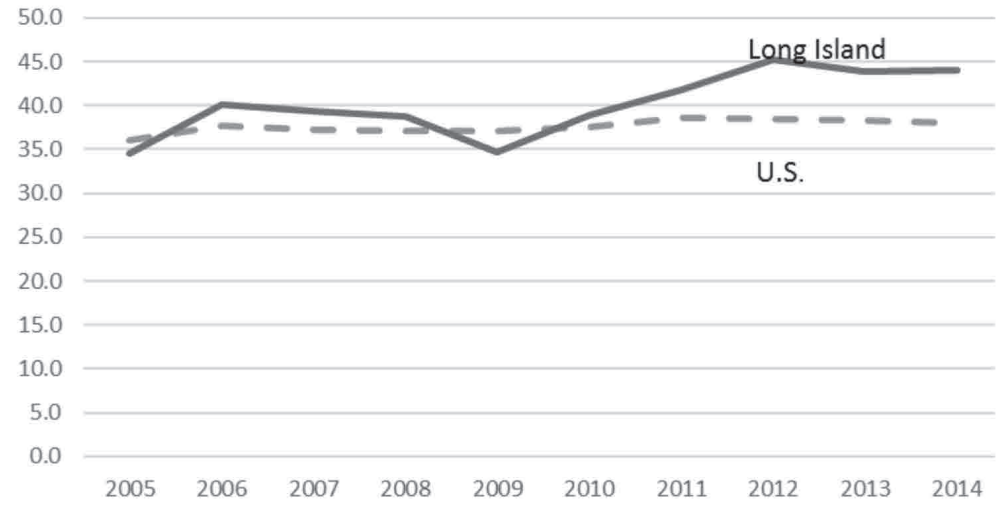
What have the trends discussed above meant for the earnings of Millennials during their early years at work? In a study published last year on hourly wage patterns since the Great Recession, I found that wage stagnation and decline has become as common on Long Island as in far less affluent parts of the country and that young workers have been the hardest hit.[11] Since we have just seen that Millennials are more likely than in the past to only find part-time jobs, it is important to ask what effects limited hours and weeks worked yearly may be having on their total annual earnings. Real, inflation-adjusted earnings in 2014 prices were computed using the CPI-U-RS.

I limited my census samples to only those ages 18-29 who were currently not enrolled in school and were employed in nonfarm jobs who reported nonzero wages and salaries. Self-employed individuals were excluded, as self-employment income is typically noncomparable with strictly wage and salary income. For each single year of age, I report the median earnings rather than mean earnings, as the latter can be skewed by small numbers of extremely low or high earnings cases. The real earnings of this age group in 2014 are compared with those of the same age group in 2000.

Among all employed youth on Long Island, the results indicate that, after adjustment for inflation, Millennials' real earnings have fallen at every age from 19 on, relative to the earlier youth cohort. The relative pay decline is steepest in the youngest years 19 to 22 (averaging -27.3%) before tapering to -21.3% at ages 23-25, and then falling by -12.6% in the late twenties. For example, the average 23-year-old earned about $7,310 less per year in 2014 than her counterpart at that same age did in 2000.

Do these broad earnings trends change once we take into account workers' different levels of education? The findings here clearly show a high college pay premium on Long Island in 2014: by age 29, Millennials with a BA or advanced degree averaged 90% higher annual earnings (+$26,525) than those with no more than a high school degree. Still, once we take a closer look within groups of workers stratified by education level, it becomes clear that, while non-college Millennials have suffered the worst relative pay losses, college grads are not immune from weak pay growth.

Figure 7
Underemployment Rates of Young College Grads,
U.S. & Long Island: 2005-2014



In figure 8, we can see plainly that, from the very start of their work lives throughout their twenties, the real earnings of Millennials with only a high school degree as of 2014 lag behind those of young people of the same age and education in 2000. The relative pay gap widens to a maximum of -31.4% in the 23-25 age group, then narrows to -20.2 in the late twenties. Among college grads on Long Island, the pay gap averages -17.6% for 23-25 year-olds and -12.4% for 26–28 year olds (Figure 9). Finally, by age 29, today's college grads are paid on average 3.1% higher earnings than their 2000 counterparts.

In light of our findings here, it might be expected that more and more Long Island youth would opt for the bright lights and

Table 7:
Unemployment Rates (%) by Age, Sex & Race/Ethnicity,
Ages 18-29, US, All Suburbs & L.I.: 2000-2014

AGE	Year	All US	All Suburbs	Long Island
Ages 18-29	2000	9.4	7.5	9.4
	2005	11.2	9.9	9.8
	2010	17.0	15.1	14.3
	2014	11.5	11.1	10.8
Ages 18-24	2000	12.3	10.0	9.0
	2005	14.0	10.0	13.0
	2010	19.0	18.4	17.2
	2014	14.3	13.8	12.6
Ages 25-29	2000	5.7	4.6	4.6
	2005	7.7	9.7	6.1
	2010	11.7	11.3	10.9
	2014	8.2	7.9	8.5
SEX				
Males, 18-29	2000	9.3	7.6	7.6
	2005	11	10	9.6
	2010	17	16.8	15.7
	2014	12.1	11.9	11.1
Females, 18-29	2000	9.5	7.4	6.2
	2005	11.3	10.1	9.7
	2010	14.2	13.1	12.6
	2014	10.8	10.3	10.5
RACE/ETHNIC				
White, NonHsp. Ages 18-29	2000	7.2	6.0	5.9
	2005	8.9	8.5	9.4
	2010	13.1	13	11.7
	2014	9.3	9.3	10.3
Black, NonHsp. Ages 18-29	2000	18.3	13.8	14.0
	2005	21.7	17.5	14.8
	2010	27.1	24.5	26.6
	2014	20.2	19.2	12.7
Asian, NonHsp. Ages 18-29	2000	8.6	7.6	7.5
	2005	9.7	10.3	10.2
	2010	13.0	12.8	16.2
	2014	9.0	8.6	11.5
Hispanic Ages 18-29	2000	11.2	9.8	6.8
	2005	11.2	9.7	8.1
	2010	16.3	16.3	15.4
	2014	12.0	11.7	10.5

Table 7 source: same as Table 1.

presumably brighter pay prospects of New York City. The city's attractiveness has rarely been greater, as evidenced by its record population growth of late. And since the recession ended in 2009, the number of new jobs in New York has jumped 14.4%, compared to just 11% nationwide and 7.5% on Long Island.

However, a new study by the NYC Comptroller's Office has found: "a dramatic and disturbing reduction in New York City Millennials' real earnings at every age, when the group is compared to the earlier cohort," in 2000 and 2014. In fact, their findings trace an even steeper relative pay decline among those in their early twenties of nearly 35%.[12]

Concluding Remarks

This paper reports new findings from analysis of large Census Bureau survey data sets that reveal some striking positive as well as many worrisome trends in the current employment prospects of Long Island Millennials. A large and diverse young population, they boast school enrollment and college graduation rates well above the national average. Their labor force participation has rebounded since the Great Recession, and their unemployment tends to fall below levels common nationwide.

However, at the same time, they average systematically lower rates of labor force participation than suburban youth nationally. Young 18-to-24 year-olds have the lowest rates of participation in the job market. College graduates have consistently higher labor force participation. But even among Long Island college grads, rates of labor force participation are lower than among their counterparts nationwide.

Racial and ethnic unemployment gaps have narrowed since the recession. But joblessness of most whites, Asians and Hispanics has still not fallen back to pre-recession levels. One in six older youth ages 25 to 29 are neither employed nor enrolled in schooling.

Over two-fifths of employed Millennial college grads on Long Island are underemployed in jobs not requiring 4-year degrees, a rate that has risen since the Great Recession and is above the national average, as has the likelihood of only finding part-time, benefit-free jobs. My regional findings are consistent with recent national research showing

Figure 8
Real Earnings of Young HS Grads on Long Island by Age,
2000 & 2014 (in $2014)

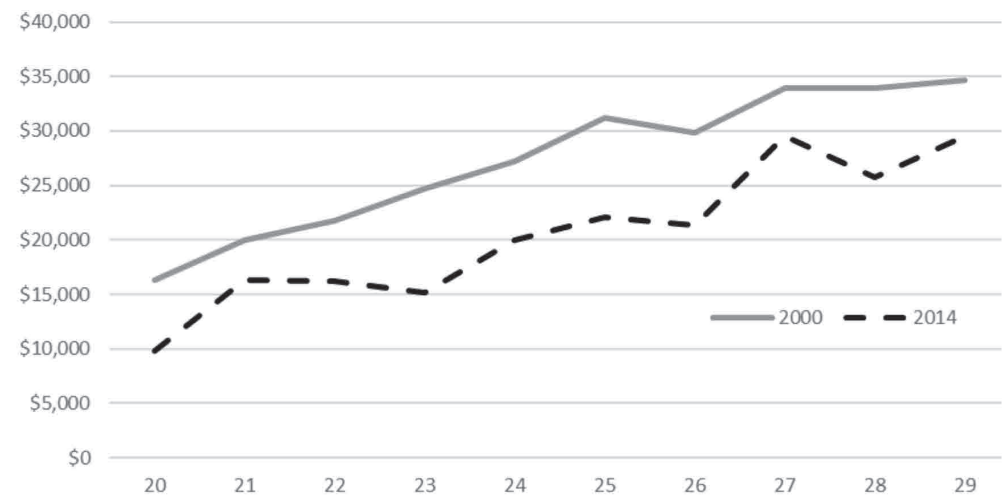
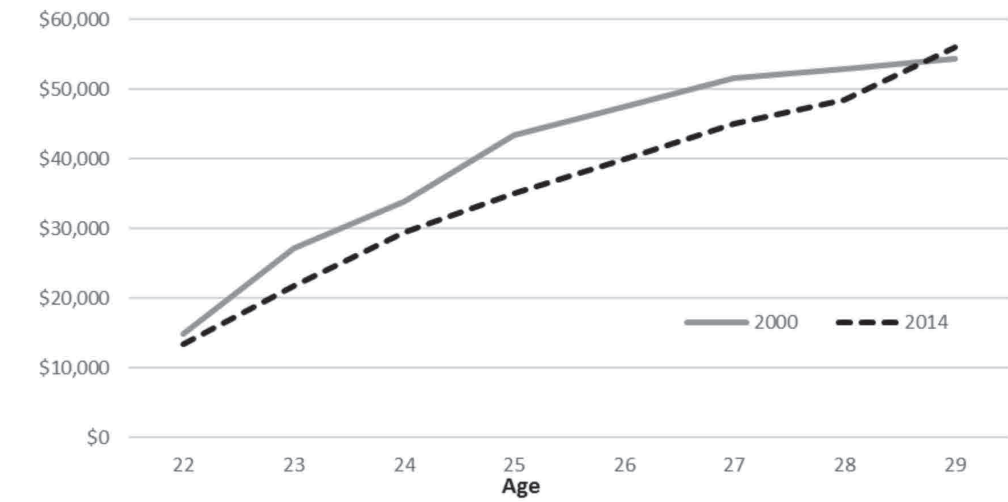


Figure 9
Real Earnings of Young College Grads on Long Island
by Age: 2000 & 2014 (in $2014)



that it is increasingly unlikely for "overqualified" youth to find full-time jobs that actually make use of their educations.

The earnings of young Long Islanders have fallen sharply relative to their youth counterparts in 2000, after adjustment for inflation. The average 23-year-old college graduate today earns over 20% less (-$5,400 in 2014 dollars) than a Long Islander of the same age and education at the end of the 20th Century. Recent job growth in mostly lower-wage industries has contributed to Millennials' weak wage growth. Nearly half now work in just six low-wage industries.

Through no fault of their own, Millennials have been transitioning from school to work during some of the most adverse labor market conditions in decades. Improving their prospects should be a matter of heightened national and local concern, since we now know that newcomers entering the labor force during depressed economic periods often suffer long-term scarring of their career earnings profile.[13]

There is no shortage of proposed strategies for change. At the individual level, no one should be in doubt that a college education still brings significant employment advantages: lower unemployment, higher wages, and faster rates of career earnings growth. Though less pronounced that in years past, the average college grad, particularly those who go on for advanced degrees, still enjoys a significant wage and benefits advantage over those with less than a 4-year degree. Surely college major and target industry matter. Internships and part-time jobs still appear to be promising initial career entry points. And individuals can also improve their job market prospects by deciding at times to organize with other individuals. Recent campaigns like the successful drive for a $15 minimum wage and for union rights in nontraditional service and information technology firms have demonstrated that young people who join in collective action can gain both broader public attention to their job challenges and tangible economic benefits.

Table 8
Youth Employment on Long Island,
Ages 18-29, by Industry Sectors, 2000 & 2014

	2000	2014	Changes
High-Pay	Pct. Of All Youth Jobs	Pct. Of All Youth Jobs	2000-2014 *(Pct. Pts.)*
Computers & Data Srvcs	1.3	0.9	-0.4
Managmt+PR	0.7	0.5	-0.2
Finance, Insur, R.E.	8.1	5	-3.1
Accounting	1.1	1.3	0.2
Info/Media	3.5	1.6	-1.9
Advertising	0.8	0.8	0
	15.5	10.1	
Mid-Pay			
Warehouses & Utilities	2.6	2.1	-0.5
Wholesale	3.7	1.9	-1.8
Other Prof+Sci	2.5	3	0.5
Transportn	1.6	1.5	-0.1
Constrctn & Mfg	11.9	9.8	-2.1
Health Care	8.2	10.1	1.9
	30.5	28.4	
Low-Pay			
Protective Srvcs	0.6	0.5	-0.1
Retail Trade	13.5	16.8	3.3
Social Assistance	2.4	3.4	1
Repair- Bldng-Biz Srvcs	2.8	2.4	-0.4
Accomodn+Food	8.1	20.9	12.8
Persnl+Other Srvcs	2.4	3.5	1.1
	29.8	47.5	

Note: Above industry groupings are set based on annual 2010-14 earnings of prime-age workers [ages 25-54] on Long Island. Non-exhaustive listing.

At the national and state levels, new commitment and new thinking is needed to pivot lawmakers from punishing college-going to encouraging it through expanded grants for student financial aid and debt relief for overburdened college grads. Even without federal action, more and more states like New York and some municipalities have increased their minimum wage floors. Further progress in that direction could be coupled with stepped up enforcement, not only of wage laws but of all labor standards. Recent federal and state cuts in summer youth employment programs could be reversed and such programs expanded on a full-year basis.

Opinion polls regularly find a plurality of Millennial respondents sympathetic to unions or other forms of employee association, though few ever get the opportunity to vote for collective bargaining where they work. Thus, while New York is the country's most unionized state, young working people in their early twenties have long had the lowest rate of union coverage – just 10.5% of L.I. youth.[14] This reflects, in part the nature of the jobs that most youth find and of the firms that hire them. Their jobs are more likely to be entry-level, low-skill and often part-time or temporary positions in small businesses – all characteristics long associated with low union density. Also, large numbers of youth today have little choice but to work for wealthy and notoriously aggressive anti-union employers like Wal-Mart and most fast-food and small retail chains. But these employers also benefit from American labor laws that are far more restrictive of worker rights to organize or negotiate contracts with employers than in any other industrialized nation. As the 70th anniversary of the most anti-union law in U.S. history, Taft-Hartley, approaches in 2017, labor law reform deserves far higher priority.

Finally, the state's and Long Island's governments and economic development agencies could make more communities far more attractive and supportive to young working people. Land use and job incentive policies that promote clustered business, retail and multifamily rental housing near transit hubs have shown promising results in towns and villages in this and other regions.

Improving the job and wage prospects of Millennials is as vital to attracting and retaining talented young people as it is to ensuring the Long Island economy's future vitality and sustainability. Reversing the downward slide of job quality and wages of young employees would bring multiple benefits, not only to their living standards and career prospects, but also to their employers, other local businesses, and the broader community.

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REGIONAL LABOR REVIEW, vol. 19, no. 1 (Fall 2016).
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NOTES:

[1] U.S. Census Bureau. 2015. "Millennials Outnumber Baby Boomers and Are Far More Diverse," *Report CB15-113* (June);

[2] Fry, Richard. 2016. "Millennials Match Boomers As Largest Generation in US Electorate, But Will They Vote?" *Pew Research Report* (5/16).

[3] Council of Economic Advisors. 2016. *The Long-term Decline in Prime-Age Male Labor Force Participation* (June): www.whitehouse.gov/administration/eop/cea

[4] Canon, Maria, et al. 2015. Youth Labor Force Participation Continues to Fall, But It Might Be for a Good Reason," *The Regional Economist* (January): www.stlouisfed.org.

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[6] Note that unemployment estimates from the decennial census and the ACS tend to be slightly higher than the more widely publicized estimates from the monthly Current Population Survey (CPS), due to differences in survey administration and data collection, as well as question wording. For details, see Kromer, K. & David Howard, *Comparison of ACS and CPS Data on Employment Status* (U.S. Census Bureau): http://www.census.gov/hhes/www/laborfor/ACS-CPS_Comparison_Report.pdf; and Kohli, Martin. 2014. "The Persistence of a High Unemployment Rate in New York City During the Recent Recovery," *Beyond The Numbers* (February): www.bls.gov.

[7] See recent U.S. reports: NYC Comptroller's Office. 2016. *New York City's Millennials in Recession and Recovery* (April): www.comptroller.nyc.gov. Burd-Sharps, Sarah & Kristen Lewis, *One in Seven: Ranking Youth Disconnection in the 25 Largest Metro Areas* (NY: SSRC, 2014): www.measureofamerica.org. Gonzalez-Rivera, Christian, *Bridging The Disconnect* (NY: Center for an Urban Future, 9/2014): www.nycfuture.org. Parrott, James & Lazar Treschen, *Barriers To Entry: The Increasing Challenges Faced by Young Adults in the NYC Labor Market* (Good Jobs NY, 2013): www.goodjobsny.org. For international comparisons of OSOW youth, see DeFreitas, Gregory, ed. 2008. *Young Workers in the Global Economy: Job Challenges in North America, Europe and Japan* (Edward Elgar).

[8] This meaning of underemployment does, of course, differ from the widely used U-6 measure in BLS publications. The latter incorporates CPS information on involuntary part-time employment and discouraged labor force dropouts that is mostly unavailable in the ACS.

[9] Abel, Jaison, Richard Deitz & Yaqin Su, "Are Recent College Graduates Finding Good Jobs?" *Current Issues in Economics & Finance*, v. 20, no. 1 (2014): www.newyorkfed.org/research.

[10] National Employment Law Project, "The Low-Wage Recovery: Industry Employment and Wages Four Years Into the Recovery," *NELP Issue Brief* (4/2014): www.nelp.org.

[11] DeFreitas, Gregory, "Pay Patterns on Long Island Since the Great Recession," *Regional Labor Review* (Spring/Summer 2015). On national youth job and pay trends, see: Kroeger, Teresa, Tanyell Cooke & Elise Gould, *The Class of 2016: The Labor Market is Still Far From Ideal for Young Graduates* (4/2016): www.epi.org.

[12] NYC Comptroller's Office. 2016. *Op. cit.*

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[14] DeFreitas, Gregory and Bhaswati Sengupta, "The State of New York Unions 2012," *Regional Labor Review* (Fall 2012).