Long-Term Unemployment in the New York Metro Area During and After the Great Recession

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As the economy limps towards recovery in fits and starts today, one residual of the Great Recession of 2008-09 still remains: long-term unemployment. At the national level, the recession was so deep that policymakers felt compelled to extend unemployment insurance on a number of occasions to as much as 99 weeks. According to mainstream competitive market theory, unemployment in general is a function of wage rigidity (jobless workers unwilling to accept whatever low wage the market dictates), hence benefit extension can only be expected to exacerbate the problem of long-term unemployment. Were it not for public policy, to this way of thinking, long-term unemployment would be less of an issue for either one of two reasons: either unemployed workers would be forced to accept whatever jobs are available regardless of whether there is a proper fit between available jobs and their skills; or because, after exhausting their unemployment insurance and job search efforts, they give up searching and thus are no longer be counted among the ranks of the unemployed. Typically, unemployed workers are dropped from the official unemployment rolls when they become discouraged from looking for new work, and they self-report to the Bureau of Labor Statistics that they have not engaged in job search in the prior four-week period. Therefore, the issue of long-term unemployment would be moot because the official definition of long-term unemployment begins with a minimum of 27 weeks of unemployment, which cannot exist if one is no longer counted as officially being unemployed. Beyond this, there are two schools of thought to explain the phenomenon of long-term unemployment. One holds long-term unemployment to be a function of structural changes in the economy. With each recession we see evidence of changes in the base of the economy, with jobs that used to pay middle class wages no longer existing. Were a recession merely cyclical, we might expect that jobs that disappeared because of downturns in the business cycle to come back. In a structural recession, those jobs will never return. Another school of thought holds the problem to be much more simple than we recognize -- namely that unemployment generally and long-term unemployment in particular is really the product of the absence of effective demand. Part of the reason for the absence of effective demand may be that workers lack the wherewithal, principally because of stagnant wages, to demand goods and services in the aggregate.

In this article, I look at the demographics of the long-term unemployed specifically in the New York City Metro area. As the recession began with the financial meltdown, one might expect that long-term unemployment in the New York metro area, especially in the financial and related industries, to be worse than elsewhere. I explore data from the Census Bureau's large Current Population Survey (CPS) from 2007, the beginning of the Great Recession, until 2010, a year after the recession formally ended. The question is whether the demographics of the long-term unemployed are noticeably different in the New York area than elsewhere. But another issue is whether there are any identifiable structural elements to the problem of long-term unemployment or whether it is simply a matter of the absence of aggregate demand.

The Great Recession

Since the U.S. economy entered its current recession in December 2007, most demographic groups and industries have seen steep job losses. Job losses have been the steepest in the goods-producing industries — natural resources and mining, construction, and manufacturing. Men often bear the brunt of job losses during recessions. A recession not only causes a drop in employment from the pre-recession level, but it also prevents employment growth that would have occurred. Black women in particular saw the most foregone employment of any of the sex-race categories. A dominant feature of this recession has been a significant collapse of stock prices and a resulting devaluation of many people's retirement savings. The employment change during this recession has been the greatest for those without a high school diploma. Employment for those with some college fell slightly, while it actually increased slightly for those with a bachelor's degree.[1]

The recession that began in 2007 also led to record breaking rates of long-term unemployment. Until the 2007-2009 recession, the most persistent increases in the share of long-term unemployment were those that followed the 1990-91 and 2001 recessions. While the annual unemployment rate in 2009 was 9.3 percent, the average long-term unemployment share was 31.5 percent. In 1983, by contrast, the annual unemployment rate was 9.6 percent and the long-term unemployment share was 23.9 percent. Also in 1983, 20 percent of the labor force had less than a high school degree, and 37 percent had a high school degree but no more. But in the 2007-2009 recession, there was a dramatic 75.8 percent increase in the overall number of long-term unemployed. Although all educational levels appeared to experience increases in long-term unemployed, the degree of increase was actually the lowest among those without a high school degree (4.7 percent), and the highest for those with at least a bachelor's degree(289.2 percent). They also point out that the aging of the workforce was also considerable, with those in the 16-24 age cohort only accounting for 14 percent of the labor force.[2]

The fraction of the unemployed who were unemployed for more than six months exceeded 25 percent in April 2009, and certain industries were affected more than others. Long-term unemployment rates relative to total unemployment rates were above 40 percent in virtually every sector as of June 2012. Those in the long-term unemployment pool are able to exit unemployment in two different ways. They can either find a job or drop out of the labor force altogether. In general, however, those who have been unemployed long-term are more likely to drop out of the labor force than they are to find jobs. The long-term unemployed have been having a particularly difficult time finding work. The reemployment probability, for instance, of those who have been unemployed between 27 to 52 weeks declined from about 20 percent prior to the recession to around 12 percent as of April 2012. And for those with longer durations of unemployment, the probability of reemployment has been even lower.

Table 1
Unemployment Rates by Educational Categories (Percent)

	2007	2008	Change	2009	Change	2010	Change
NYC Metro							
Overall	4.0%	6.8%	+70.0%	8.7%	+27.9%	7.0%	-19.5%
Less than 12 yrs.	8.1	10.2	+29.6	11.8	+15.7	12.7	+7.6
HS Graduate	5.7	7.8	+33.3	9.8	+25.6	9.1	-7.1
Some College	3.4	7.6	+123.5	10.9	+43.4	6.8	-37.6
Assoc. Degree	3.0	6.6	+120.0	7.5	+13.6	4.4	-41.3
BA Degree	2.8	7.3	+160.7	7.3	0	5.9	-19.2
Grad Degree	.5	1.0	+100.0	4.4	+340.0	2.6	-31.8
NY State							
Overall	5.0	7.3	+46.0	8.6	+17.8	7.0	-18.6
Less than 12 yrs	9.9	11.3	+14.1	12.8	+13.7	12.9	+.8
HS Graduate	7.2	9.1	+26.4	10.6	+16.5	8.9	-16.0
Some College	3.9	8.3	+112.8	9.6	+15.7	7.9	-17.7
Assoc. Degree	3.0	4.0	+33.3	5.8	+45.0	3.4	-41.4
BA Degree	3.2	7.6	+137.7	7.0	-7.9	6.0	-14.3
Grad Degree	1.0	1.1	+10.0	4.6	+327.3	2.3	-56.5
United States							
Overall	4.8	8.3	+72.9	9.2	+10.8	8.3	9.8
Less than 12 yrs	10.1	15.4	+50.5	16.0	+3.9	15.2	-5.0
HS Graduate	6.2	10.7	+72.3	12.2	+14.0	11.0	-9.8
Some College	4.5	8.3	+72.9	9.5	+14.5	8.7	-8.4
Assoc. Degree	3.2	6.1	+90.6	6.8	+11.5	6.0	-11.8
BA Degree	2.3	4.6	+100.0	4.9	+6.5	4.6	-6.1
Grad Degree	1.5	2.7	+44.4	2.9	+7.4	2.8	-3.4

Who are the Long-Term Unemployed?

When looking at the long-term unemployed, the obvious question is whether they have characteristics that are different than the short-term unemployed. In other words, what is it about this sub-population that predisposes them to long-term spells? In Australia, for instance, Bruce Chapman found the long-term unemployed to be disproportionately from the least advantaged part of the labor force. The longer one is unemployed, the more disadvantaged one becomes. Given a lack of success in finding a job individuals may reduce their job search activity. As a result, they lose contact with the world of paid work, which means that they may have less information about upcoming jobs. More importantly, rational employers rely on "signals" as to the likely productivity of job applicants and one of those signals is how long that person has been out of work. Long-term unemployment might suggest to employers that a particular job candidate is an inferior worker.[3]

Unemployment concentration could be the result of a relatively few individuals experiencing multiple spells of unemployment over a given period of time. As a result, much of their time is spent unemployed in the process. For instance, a great deal of long-term unemployment was found in seasonal occupations and industries. Long-term unemployment was found to be concentrated among a minority of individuals experiencing extensive periods of time unemployed and periodic unemployment spells.[4]

There seems to be some evidence from Europe that those with high levels of education are less likely to be unemployed and that when they are unemployed their spells are likely to be less as well. Higher levels of education are generally

associated with low levels of unemployment because higher education generally leads to an accumulation of human capital, which in turn is linked with higher productivity. An academic degree acts as a signal of ability. Using data from the European Union's Labor Force Survey (LFS) Matthew Robertson found that those with academic degrees had greater chances than those possessing a medium level of education of being employed. Graduates were less likely to be long-term unemployed than non-graduates. Nevertheless, the impact of higher education on long-term unemployment was more moderate. Higher education did significantly improve the employment prospects of graduates in Europe, as it reduces both the likelihood and duration of unemployment. And yet, those with low-levels of education had a higher chance of being employed than those with a medium education. This anomaly might be accounted for by the positive relationship between education and reservation wages. Because individuals with low educational attainment are more likely to accept any type of work because of their low reservation wages, they are not as likely to remain unemployed as long as those with a medium level of education whose reservation wages might be higher.[5] The long-term unemployed also tend to have a low-skilled profile and face added barriers to employment than simply the duration of unemployment.[6]

Long-term unemployment might also be affected by both marital status and age. The odds of being long-term unemployed for a single individual were 1.4 times greater compared to somebody who was married. Also individuals in the 15 to 24 age cohort had lower odds of being unemployed when compared to the 25 to 34 age cohort. The older a person was, the more likely that person was to be among the long-term unemployed. Long-term unemployment was more affected by personal attributes such as age, gender, marital status, and region of residence; and not necessarily by qualifications. In sum, the literature would seem to suggest that single individuals with less education or skills and those in the 25 to 34 age cohort, perhaps because they earn more, are more likely to be unemployed long-term. While the long-term unemployed appear to come from the least advantaged segments of the labor force, it still is not clear what it means to be among the least advantaged. The least advantaged could refer to skills levels, demographics, or simply having the misfortune to have been employed in certain industries and occupations.[7] Or it could mean having the misfortune of being in a low-income household.

On the basis of this, we might infer that the typical profile of the long-term unemployed is somebody who is less educated, as well as someone who is older. It might stand to reason that the older person with less education is in an even worse position. To the extent that the long-term unemployed is less educated, it might be inferred that s/he is also less skilled to the extent that educational attainment may say anything about one's skill level. It could also be someone from least advantaged circumstances, which, for the purposes of this analysis, is defined as somebody in a household below a certain income threshold. One's circumstances might be disadvantaged because the circumstances of the household do not easily allow one to afford the education and training that would make it possible to advance up the income latter. But one's circumstances could also be disadvantaged because one does not have the abilities (i.e, natural endowments) to move out of essentially a low-wage labor market.

Table 2
Differences in Unemployment and Overall Unemployment Rates by Educational Attainment (Percent)

	2007	2008	Change	2009
NYC Metro				
Less than 12 yrs	102.5>	50.0>	35.6>	81.4>
HS Graduate.	42.5>	14.7>	12.6>	30.0>
Some College	15.0>	11.8>	24.1>	2.9<
Assoc. Degree	25.0>	2.9>	13.8<	34.3<
BA Degree	30.0>	7.4>	19.5<	15.7<
Grad Degree	87.5<	85.3<	49.4<	67.1<
NY State				
Less than 12 yrs	9.9	11.3	+14.1	12.8
HS Graduate	7.2	9.1	+26.4	10.6
Some College	3.9	8.3	+112.8	9.6
Assoc. Degree	3.0	4.0	+33.3	5.8
BA Degree	3.2	7.6	+137.7	7.0
Grad Degree	1.0	1.1	+10.0	4.6
United States				
Less than 12 yrs	10.1	15.4	+50.5	16.0
HS Graduate	6.2	10.7	+72.3	12.2
Some College	4.5	8.3	+72.9	9.5
Assoc. Degree	3.2	6.1	+90.6	6.8
BA Degree	2.3	4.6	+100.0	4.9
Grad Degree	1.5	2.7	+44.4	2.9

Table 2 Note: Each Annual Supplement measures the previous year. These figures are based on surveys of a sample size of 60,000 households nationwide. Overall unemployment figures do differ from monthly figures reported by the media. One reason for this is that the Bureau of Labor Statistics releases monthly averages. The Annual Supplements reflect annual averages. Also the BLS bases its figures on unemployment insurance claims filed. Here we are relying on respondents to answer honestly whether they are unemployed based on whether they have been looking for work in the four weeks prior to the survey.

Data

In the pages that follow I present data on the demographic composition of the unemployed for the years 2007-2010 in an attempt to understand what is happening in the New York City metro area, and whether it is only happening in this metro area. Data is drawn from the Current Population Survey. Because the CPS is individual-level data, it can at best tell us about the demographic attributes of the individual. For example, it can only tell us what type of demographics are to be found in say industries and occupations. It cannot tell us what those industries and occupations require in terms of qualifications and skills, or why certain people, for that matter, may not be hired and others would be. Table 1 shows unemployment rates by educational categories in the New York Metro area, New York State, and the U.S. and Table 2 shows the differences between those rates by category and the overall unemployment rate.

Unemployment obviously rises for everybody during a recession, but unemployment appears to be higher among those with no more than a 12th grade education, High School graduates, and those with only some college. It is lower among those with Associates Degrees, BA degrees, and Graduate and Professional degrees. And yet, New York City Metro does appear to be a bit different than the rest of the state and the U.S. for certain educational categories. In the U.S. as a whole, the percentage increase among those with no more than a 12 grade education was greater than in both New York State and New York City Metro, but the percentage increase was lower among those with college and advanced degrees. On the face of it this might appear to be consistent with the skills mismatch hypothesis Among those with lesser education, unemployment is higher than the national unemployment rates in each year, and it is lower among those with more education. It is certainly consistent with the earlier observation that those with higher levels of education are less likely to be unemployed.[8] But it also appears to deviate from their findings in that those with higher levels of education in the New York City metro area had higher percentage increases in unemployment. In the recession beginning in 2007, unemployment among those who had some college but no degree was higher than the national rate as the recession deepened in 2009 and continued into 2010 after it was over.

In the New York City metro area, the greatest increase in unemployment between 2007 and 2008 was among those with a

Table 3
3 Demographics of Long-Term v. Short-Term Unemployed in New York City Metro Area

	UE	LTUE	UE	LTUE	UE	LTUE	UE	LTUE
	2007		2008		2009		2010	
Education								
Less than 12 yrs	18.6%	13.3%	16.5%	16.1%	10.2%	15.6%	14.5%	14.3%
HS Graduate	51.2	60.0	32.9	29.0	28.4	18.8	21.8	28.6
Some College	14.0	13.3	22.4	29.0	20.5	28.1	18.2	9.5
Assoc. Degree	4.7	6.7	7.1	6.5	8.0	15.6	9.1	14.3
BA Degree	9.3	0	18.8	19.4	22.7	21.9	30.9	33.3
Grad Degree	2.3	6.7	2.4	0	10.2	0	5.5	0
Race								
White	67.4	73.3	57.6	51.6	54.5	50.0	65.5	52.4
Black	23.3	20.0	32.9	32.3	37.5	37.5	25.5	38.1
Age								
16-19	7.0	6.7	4.7	3.2	2.3	6.2		
20-24	30.2	33.3	12.9	22.6	13.6	12.5	14.5	9.5
25-34	23.3	20.0	27.1	29.0	22.7	9.4	30.9	39.1
35-44	11.6	13.3	32.9	29.0	33.0	43.8	20.0	14.3
45-54	20.9	26.7	16.5	12.9	17.0	21.9	14.5	29.6
55-64	4.7	0	5.9	3.2	11.4	6.2	20.0	9.5
65 & over	2.3	0						
Sex								
Male	62.8	46.7	61.2	71.0	58.0	62.5	60.0	57.1
Female	37.2	53.3	38.8	10.6	42.0	37.5	40.0	42.9

BA degree, followed by some college and no degree, and then advanced degrees. This was also true for New York State, except for the growth among those with advanced degrees being minimal. In the U.S. the greatest increase was also among those with a BA degree, but the increase among those with advanced degrees was not nearly as great as it was in the New York City metro area. Then from 2009, which was the height of the Great Recession, the greatest increases in unemployment were among those with advanced degrees (over 300 percent in both New York City metro and New York State compared to only 7.4 percent in the U.S.). And yet, relative to overall unemployment rates in each, those with advanced degrees have lower unemployment, but the degree to which it is less is even less in the New York City metro area. What stands out, then, is those with advanced degrees are more likely to be unemployed in the New York City metro area than elsewhere, which may have something to do with the metro area having a high concentration of those with advanced degrees. It is important to note that increases in unemployment were higher in New York City metro than the rest of the state between 2007 and 2008, although not quite as high as the U.S. Then between 2008 and 2009 the increase in unemployment was higher in the New York City metro area than elsewhere. The question, however, is what are the demographic characteristics of the long-term unemployed in the New York City metro area? Basic demographics can be seen n Table 3.

Table 4
Short-Term v. Long-Term Unemployment by Industry

	UE	LTUE	UE	LTUE	UE	LTUE	UE	LTUE
	2007		2008		2009		2010	
Industry								
Mining							1.8	0
Construction	23.3	6.7	18.8	12.9	12.5	6.2	14.5	9.5
Manufacturing	4.7	6.7	7.1	6.5	6.8	9.4	7.3	0
Wholesale and Retail Trade	16.3	20.0	15.3	16.1	14.8	15.6	20.0	19.0
Transport & Utilities	7.0	13.3	3.5	3.2	3.4	9.4	3.6	9.5
Information			2.4	3.2	1.1	3.1	3.6	4.8
Finance, Insur. & Real Estate	7.0	6.7	9.4	6.5	13.6	18.8	5.5	0
Professional, Scientific, Mgt. & Administrative	11.6	13.3	14.1	12.9	14.8	9.4	14.5	19.0
Education, Health & Social Services	14.0	13.3	14.1	12.9	14.8	9.4	14.5	19.0
Arts, Entertain, Accommodation, & Food Service	2.3	0	8.2	9.7	12.5	13.6	10.9	19.0
Other Services			3.5	6.5			5.5	9.5
Public Administration								
Armed Forces							1.8	4.8

In 2007, the largest concentration of long-term unemployed were in wholesale and resale trade, whereas the largest concentration of unemployed were in construction. While the largest concentration of unemployed continued to be in construction in 2008, the largest concentration of long term unemployed were in Professional, Scientific, Management, and Administrative. This would appear to be consistent with the greater increase in unemployment among the more educated. In 2009, the largest concentrations of unemployed were in Wholesale and Resale Trade and Services, and the largest concentration of the long-term unemployed were in Financial, Insurance, Real Estate, and Rental Leasing, followed by Wholesale and Retail Trade. In 2009, the largest concentration of unemployed are in Wholesale and Retail trade, while the largest concentrations of the long-tem unemployed are in Wholesale and Retail Trade, Services, and Accommodation and Food Service. From 2008 to 2010 long-term unemployment is higher, with it increasing in each year, in Accommodation and Food Service. The other industry where long-term unemployment is consistently higher relative to overall unemployment is Wholesale and Retail Trade.

At the occupational level, the highest concentration of unemployed in 2007 were in Sales and Related, Office and Administrative Support, and Installation and Repair. The highest concentrations of long-term unemployed were in Sales and Related, Office and Administrative Support, and Transportation and Material Moving. And yet, it is interesting to note that relative to the percentage of those unemployed in Installation, Maintenance, and Repair, the percentage of those among the long-term unemployed was relatively low. Perhaps this speaks to a more skilled form of work. In 2009 the greatest concentrations of long-term unemployment were in Buildings and Grounds Cleaning and Maintenance and Office and Administrative Support. By 2009, long-term unemployment in Office and Administrative Support had increased by 45.7 percent. While long-term unemployment in that occupational category decreased by 49.5 percent by 2010, that category had the largest concentration of unemployed. Throughout this four year period, the only occupational category to have more long-term unemployed relative to the overall unemployed was Transportation and Material Moving. It may be that, at least in the New York City metro area, much of the long-term unemployment is related to industries hit the hardest by the Great Recession — the financial industry and the real estate market where the recession began. Therefore, it would come as no surprise to find large concentrations of long-term unemployment in Buildings and General Cleaning and Maintenance, as well as Office and Administrative Support.

Regression Analysis

The real question, however, is whether there are certain characteristics that would predispose one to be among the ranks of the long-term unemployed, and whether those characteristics are different in the New York City metro area than the rest of the country. A logit regression analysis can provide some clues as to whether certain variables are more likely to have an effect for being long-term unemployed. It can also shed light on whether there were differences between lower paying occupations from one period to another that would make long-term unemployment more likely. With long-term unemployment — those being unemployed for more than 26 weeks — as the dependent variable, I test for the effects of having a low educational attainment (less than a high school graduate) being in the 18 to 24 age cohort, being in the 45-54 age cohort, being a black female, working in manufacturing, working in trade, working in finance, working as a production or craftsperson, working as a Transportation and Materials moving person, working in Transportation and Utilities, working in Building and Ground Maintenance, working as an Office or Administrative worker, having a college education, and being in a household earning less than $30,000 a year. Testing for being in a household earning less than $30,000 is intended to capture the effects of being from least advantaged circumstances. I also test for office/administrative workers in households earning less than $30,000 a year and those who are installation and repair persons also in households earning less than $30,000. Again, the purpose of the interaction terms is to capture the effects, if any, of being in certain occupational groupings which are also among the least advantaged circumstances. All variables are set to 1.

On the face of the descriptive statistics, we might conceivably construct the following profile for the long-term unemployed. The typical long-term unemployed person in the New York City metro area has either an Associate Degree or a BA, is either between the ages of 20-24 or 45 to 54, works as either an Office worker/ Administrative support staff or a Transportation and Material Moving worker in the Wholesale and Retail Trade and Accommodation and Food Service industries. This person is also among the least advantaged segment of the labor force. If this is a true profile, it might not necessarily support the notion that long-term unemployment is a function of structural changes, or at least

Table 5
Short-Term v. Long-Term Unemployment by Industry

	UE	LTUE	UE	LTUE	UE	LTUE	UE	LTUE
	2007		2008		2009		2010	
OCCUPATION:								
Management	2.3	0	8.2	6.5	4.5	6.2	7.3	9.5
Business & Financial	2.3	0	1.2	0	1.1	3.1	1.8	0
Computer & Mathematical			3.5	3.2	3.4	3.1	7.3	0
Architecture & Engineering			1.2	0	1.1	0		
Life, Physical & Social Science	2.3	6.7	1.2	3.2	1.1	0		
Community & Social Service			1.2	0	3.4	0	1.8	4.8
Legal			1.2	3.2			1.8	0
Arts, Entertainment, Sports & Media	2.3	0	2.4	3.2	5.7	6.2	3.6	4.8
Healthcare Practitioner & Tech	2.3	6.7			1.1	0	1.8	0
Healthcare Support	4.7	0	4.7	3.2				
Protective Service			1.2	3.2	2.3	0	1.8	0
Food Preparation Service-related	7.0	6.7	2.4	6.5	5.7	3.1	3.6	9.5
Building & Grounds, Maintenance	2.3	0	9.4	16.1	10.2	9.4	5.5	0
Personal Care and Service	2.3	6.7	1.2	3.2	4.5	6.2	5.5	4.8
Sales and Related	18.6	26.7	14.1	9.7	12.5	12.5	9.1	14.3
Office and Admin. Support	18.6	20.0	15.3	12.9	14.8	18.8	20.0	9.5
Construction & Extraction			14.1	9.7	12.5	6.2	14.5	9.5
Installation, Maint. & Repair	18.6	6.7			1.1	0	9.1	9.5
Production	2.3	0	8.2	3.2	3.4	9.4	3.6	4.8
Transportation and Material Moving	7.0	13.3	5.9	9.7	5.7	9.4	3.6	4.8
Armed Forces	2.3	0						

Table 6
Regression Coefficients (Dependent Variable = Long-term Unemployment Status)

	UE	LTUE	UE	LTUE	UE	LTUE	UE	LTUE
	2007		2008		2009		2010	
OCCUPATION:								
EDUC< 12th Grade	.201	.095	.220	.078	.197	-.005	.113	-.050
	(.000)	(.668)	(.000)	(.695)	(.000)	(.979)	(.000)	(.804)
45-54 years old	-.097	-.299	-.099	.020	-.153	-.224	-.167	-.567
	(.007)	(.220)	(.002)	(.924)	(.000)	(.276)	(.000)	(.016)
Manufacturing	.006	.032	.151	.184	.195	-.048	-.102	.443
	(.923)	(.950)	(.008)	(.669)	(.000)	(.926)	(.066)	(.278)
Trade	-.008	-.012	-.020	.309	-.076	.230	-.130	.300
	(.844)	(.967)	(.588)	(.218)	(.043	(.377)	(.001)	(.000)
Finance	.081	.037	.003	.286	-.033	-.091	-.210	.000
	(.204)	(.916)	(.961)	(.376)	(.585)	(.799)	(.001)	(.998)
Management	.412	-.076	.430	.470	-.437	.580	.316	-.171
	(.000)	(.820)	(.000)	(.095)	(.000)	(.024)	(.000)	(.591)
Production/Crafts	.173	-.953	.251	.756	.255	-.306	.352	-.445
	(.010)	(.217)	(.000)	(.096)	(.000)	(.637)	(.000)	(.498)
Transportation & Material Moving (O)	.381	-.030	.418	-.352	.412	.745	.504	.554
	(.000)	(.943)	(.000)	(.428)	(.000)	(.055)	(.000)	(.175)
Transport. & Utils (I)	.013	.500	-.165	-.125	-.209	-.693	-147	.018
	(.859)	(.193)	(.016)	(.793)	(-.209)	(.180)	(.038)	(.967)
Buildings and Ground Maintenance	.011	.476	-.037	-.330	.084	.256	.214	.149
	(.872)	(.188)	(.544)	(.459)	(.138)	(.489)	(.000)	(.723)
Office/Administrative	-.109	-.683	-.320	-1.217	-.469	-.255	-.194	-.044
	(.195)	(.263)	(.000)	(.095)	(.000)	(.564)	(.011)	(.928)
College Degree	-.028	.129	-.071	-.176	-.013	.364	.015	.284
	(.525)	(.620)	(.070)	(.473)	(.733)	(.106)	(.687)	(.211)
18-24 years old	.319	.244	.231	.259	.163	.343	.217	.199
	(.000)	(.332)	(.000)	(.292)	(.000)	(.149)	(.000)	(.391)
Earning < $30,000	1.088	.983	.947	.729	.883	.592	.877	1.039
	(.000)	(.000)	(.000)	(.000)	(.000)	(.592)	(.000)	(.000)
Black Female	-.151	-.179	-.089	.043	-.176	.177	-.167	.043
	(.011)	(.523)	(.091)	(.863)	(.001)	(.457)	(.002)	(.868)
Office/Administrative earning < $30,000	.140	.916	.327	1.609	.440	.132	.332	.733
	(.144)	(.178)	(.000)	(.040)	(.000)	(.823)	(.000)	(.187)
Install/Repair earning < $30,000	.492	.867	.369	.898	.348	1.705	.580	1.424
	(.000)	(.184)	(.000)	(.115)	(.000)	(.017)	(.000)	(.000)
Constant	3.622	3.545	3.231	3.398	3.126	3.364	3.160	3.485
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)

structural changes that occurred since 2007, as opposed to those that have been occurring over the last few decades.

Few variable coefficient estimates, however, are statistically significant in the New York City metro area. The one variable that is consistently statistically significant throughout the four years is being in a household earning less than $30,000 a year. But this variable also seems to have the strongest positive effect for long-term unemployment in the U.S. as well. Otherwise the only variables that are statistically significant in the New York City metro area which appear to have a positive effect for being long-term unemployed are: Management in 2009 (which is the height of the Great Recession), being an Office/Administrative worker in a household earning less than $30,000 in 2009 and being an Installation/Repair person in a household earning less than $30,000 in 2009 and 2010. These interaction variables are particularly interesting because their coefficients are (although positive) not that strong in the U.S. as a whole. The black female variable is also interesting because it is contrary to the observation made earlier that black females suffer the most foregone employment. As to whether they were more likely to be among the ranks of the long-term unemployed, where this variable was statistically significant at the national level, it was also negative.

Perhaps the question that ought to be asked is why are those at the bottom of the income distribution more likely to be among the ranks of the long-term unemployed. To the extent that the household earning below $30,000 captures the least advantaged segment of the labor force, it appears to be consistent with Chapman's observation. It might have been easy to dismiss Chapman's observation on perhaps the incomparability between the Australian and U.S., let alone the New York City Metro, labor markets. These coefficients would seem to suggest that being among the least advantaged is perhaps a universal state. And why specifically are those in this occupational category at the bottom of the income distribution more likely to be among the ranks of the long-term unemployed, especially in the New York City metro area? Does this speak to a subset of low-skilled workers? Installation and repair could encompass a whole range of skills depending on what precisely is being installed and/or repaired. But it might follow that those in households earning less than $30,000 are among the unskilled workers.

It is perhaps worth noting that although not statistically significant being in Transportation and Materials moving in 2009 in the New York City metro area is nonetheless close to being statistically significant, with a strong coefficient. The same is true for Management in 2008, although it is not as close to being statistically significant as Transportation and Materials Moving. That they are close is perhaps consistent with the observation in Table 5 that there was an increase of long-term unemployed in these occupations. The absence of statistical significance in the New York City metro area may actually speak more to the limited sample size in the New York City metro area. But in the U.S. as a whole, however, the variables with strong positive effects for being long-term unemployed are Management and Transportation and Materials Moving. What it does confirm is that the recession was sufficiently deep that its impact wasn't only felt by those at the low-end of the educational spectrum, or among those that we would typically associate with blue-collar work.

If the source of long-term unemployment was structural, we might expect to see some strong positive effects in Manufacturing and among Production/Craftsmen. Though these variables do have some effects at the national level, they don't appear to have the strongest effects. The story of structural change should be one of higher paying and higher skilled jobs, as craftspeople or other production occupations in Manufacturing, disappearing, and ultimately being replaced with low-paying and low-skilled jobs in the service sector. But that does not appear to be what is going on here. What appears to be going on is that those most likely to be among the long-term unemployed are coming from households earning less that $30,000. The obvious question is why. That one is in such a household may speak to an absence of skills. We are still back to the basic question of what it means to be among the least advantaged? It certainly suggests that they are individuals in households at the low-end of the labor market and/or low-wage workers, which generally is unskilled. But that this variable has such a strong effect in the New York City metro area may be particularly worrisome because income inequality in the New York area tends to be higher than in the U.S. Or to state it differently, being among the least advantaged has a greater effect for being long-term unemployed in the New York City Metro area than elsewhere.

In the U.S. there are small positive effects for having less than a 12th grade education. But that does not seem to be the case in the New York City metro area. It could be that those with low educational attainment truly are in the lowest-wage labor market, in which case their reservation wages would certainly be the lowest. Or it may be that those in the occupations with the highest probabilities for long-term unemployment are in industries hit the hardest by the lack of aggregate demand. That is, the recession no doubt began at the top in the financial sector and then the housing market. But as it rippled through the economy the effects were the same as they always were. As demand for goods and services decline, firms laid workers off, thereby resulting in further unemployment as those laid off now found that they too lacked the wherewithal to demand goods and services. If middle class jobs have disappeared and what replaces them are lower paying jobs, the effect will nonetheless be a reduction in aggregate demand because workers with lower incomes do have less to spend, which implies that efforts need to be made to increase effective demand. This might appear to suggest the need for a wage policy that enables workers to increase their effective aggregate demand for goods and services.[9]

It would appear that in the New York City metro area, there are trends which are best suggestive that those in management occupations are more likely to be among the long-term unemployed. But the hub of the New York City metro area economy is Finance, Trade, and Management. It is the epitome of the post-industrial service economy. It would stand to reason, then, that in a deep enough recession, the long-term unemployed would be found among management.

Conclusion

The fact that there appears to be no major new structural shift underway in our economy calls into question much of the standard approach to addressing unemployment. The more traditional approach has been to assume that structural changes have resulted in a skills mismatch for which the obvious solution is job training. But it isn't clear that job training programs really work. Labor market programs and training strategies can play a role in providing a cure, or at least some relief, for long-term unemployment. The three basic types of labor market programs are: wage subsidy schemes, public sector job creation schemes, and training schemes. Wage subsidies work on the basis of providing subsidies for specified periods to employers, and tend to be the least effective during recessions because most employers are actually reducing their workforces rather than expanding them. Public sector job creation schemes can be implemented during severe recessionary conditions when it is difficult to attract employers to participate in wage subsidy schemes. This approach can be quite expensive. Moreover, given the current political polarization in the U.S., there is little probability this will happen anytime soon.

As for assisting the long-term unemployed, the most permanent solution is to create an environment in which there is strong growth in the number of jobs, which would suggest the need to generate greater aggregate demand. Educational and training programs have

assumed that workers would achieve greater purchasing power if their skills were upgraded to enable them to command higher wages.[10] Training programs might even be beneficial for the long-term unemployed because they may offer incentive to employers to employ the long-term unemployed over other people, including the short-term unemployed. This is because employers often tend to assume that the long-term unemployed have lost their job skills and good working habits such as punctuality and perseverance. Still, if what replaces higher paid work is low paid work, the question remains as whether there is necessarily an effective strategy.[11] But it isn't clear that job training programs are effective at all. Rather they satisfy an ideological agenda which effectively places the onus of unemployment – the failure to find suitable jobs – on the workers themselves. If the unemployed cannot find work because they lack sufficient skills, then there is no need for policy to endorse more robust job creation schemes. In evaluating the 1982 Jobs Partnership Training Act (JTPA) Gordon Lafer argues that this was precisely a case where ideology trumped good policy. Conservatives and Republicans embraced the myth of training because they were trying to reduce public commitments to public sector employment. Liberal and Democrats embraced it because they were desperate to find ways to assist the chronically unemployable in a political environment hostile to the poor. And yet, everybody was aware that it was not going to work.[12] Still, the focus on job training assumes a skills mismatch ensuing from structural change. But if we are not seeing a major structural change, this approach is perhaps even more limited.

The absence of structural change would appear to point in the direction of some type of wage policy that would buttress the purchasing power of the middle class. Knut Roed notes that over the last few decades labor markets in most OECD countries have been characterized by rising inequality. There has been a marked deterioration in the relative position of low-skilled workers throughout the OECD. Wage inequality in the U.S. was due to an uneven wage distribution. In the U.S., the poor have become poorer because of lower real wages; in Europe they have become poorer primarily due to higher long-term unemployment. Wages of those at the bottom have not kept up. Arguably the problem of insufficient aggregate demand, which may be at the heart of long-term unemployment, is a consequence of rising income inequality. A tighter labor market would no doubt push up wages.

The neoclassical assumption is that individuals, including low wage workers, negotiate with their employers with their wages in some type of bilateral negotiations. The reality is that wages are offered, and individuals, especially those at the bottom, merely accept or reject them. A more deliberate wage policy that would effectively give workers, especially low-wage workers, voice, and a degree of monopoly power, is perhaps the answer. Roed almost implies a wage policy when he suggests as an alternative to purely bilateral bargaining, which rarely occurs, a centrally determined wage scale negotiated by a national association of employers and employees. One possibility is to have some type of centrally determined wage scale negotiated by national associations of employees and employers.[13] Arguably, for there to be benefit for the New York City Metro area, policy would have to occur at the national level, because the competition between states for investment often results in a race to the bottom, which is contrary to the objectives of wage policy: wages that bolster the middle class.[14]

The source of long-term unemployment during the 2007-2010 period may ultimately be the depths of the recession, which owes more to the absence of aggregate demand. A wage policy that bolstered the middle class might be a means by which individuals could be assured that they will continue to have purchasing power. This idea does have some roots in institutional economics. John R. Commons , in particular, took the view that a decline in prices and wages during recessions and depressions would only aggravate them by reducing purchasing power and in turn leading to bankruptcy. For Commons, the answer lay in redistributing income from profits to wages through collective bargaining agreements. Collective bargaining would both prevent over savings and under-consumption, thereby assisting in maintaining purchasing power and aggregate demand. Although he recognized that unions do have defects that might hinder economic efficiency in various ways, he also believed that in most cases the benefits to society would outweigh their costs.[15] The same argument could easily apply to a more general wage policy, of which unionism is only one component.

If we assume that the 2007-2010 period merely continues trends that were occurring over the past several decades, and that certain jobs will not return, it becomes necessary to take a more grassroots approach to shoring up aggregate demand. A wage policy that would bolster wages and afford workers greater purchasing power is but one means to do so. Elsewhere, I have argued that a wage policy can have welfare benefits for the middle class through wage contour effects.[16] Because income inequality is higher in the New York City Metro area than the rest of the nation, it is even more imperative to have a wage policy.

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