

Working Paper No. 2013-07

**The Lower-Wage Recovery in the Higher-  
Wage Economy of the Washington DC  
Metropolitan Area**

By

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## Executive Summary

This report analyzes the job loss and job growth trends in the Washington DC Metropolitan Area (WMA) during and after the Great Recession. The analysis finds that:

- During the recession, job losses were concentrated in mid-wage occupations, but also occurred in lower-wage occupations. By contrast, higher-wage occupations did not register any net job losses, although they grew at a slower pace during the recession.
- During the recovery, lower-wage occupations registered the largest employment increase, gaining back nearly three times the jobs they lost during the recession. Mid-wage occupations have shown the weakest recovery gaining back less than half the jobs they lost during the recession.
  - *Lower-wage occupations* were 32.9 percent of recession losses, but 49.8 percent of recovery growth.
  - *Mid-wage occupations* were 67.1 percent of recession losses, but 15.0 percent of recovery growth.
  - *Higher-wage occupations* grew by 2.0 percent through the recession and then by 4.2 percent in the recovery, and accounted for 35.2 percent of total recovery growth.
- The WMA's sectoral mix contributed to an unbalanced recovery.
  - Nearly 60 percent of jobs lost during the recession were concentrated in three lower- and mid-wage sectors of construction, retail trade, and administrative support services.
  - Approximately one-third of all job growth during the recovery was in just two higher-wage sectors of professional and business services, and health care and social assistance.
  - The presence of the federal government proved a counter-weight to the recession favoring higher-wage occupations in the region. However, the expected decline in federal procurement may dampen job growth in higher-wage occupations.
- The recession and recovery have contributed to a growing wage inequality in the WMA.
  - The recession disproportionately affected mid-wage jobs.
  - The recovery has remained concentrated in lower-wage occupations.
  - A near tripling of federal procurement in the WMA since 2000 has supported steady job growth for higher-wage occupations through 2010.

However, as federal procurement and federal employment decline the WMA’s heavy reliance on federal contracting may prove a liability for the region’s higher-wage occupations. With the persisting weak recovery of mid-wage jobs and the potential decline in higher-wage employment, the coming decade may see the metro area economy undergoing a shift toward becoming an economy driven by lower-wage job growth.

### Comparative Wages: U.S. and WMA

The following section analyzes wage and employment trends in the WMA across 784 detailed 5-digit standard occupational codes (SOCs) and compares these trends to those of the U.S. national. For this purpose, three (approximately) equal groups, each representing a third of employment in the U.S. and the WMA, were identified for 2008 and tracked for the years following and preceding the recession.

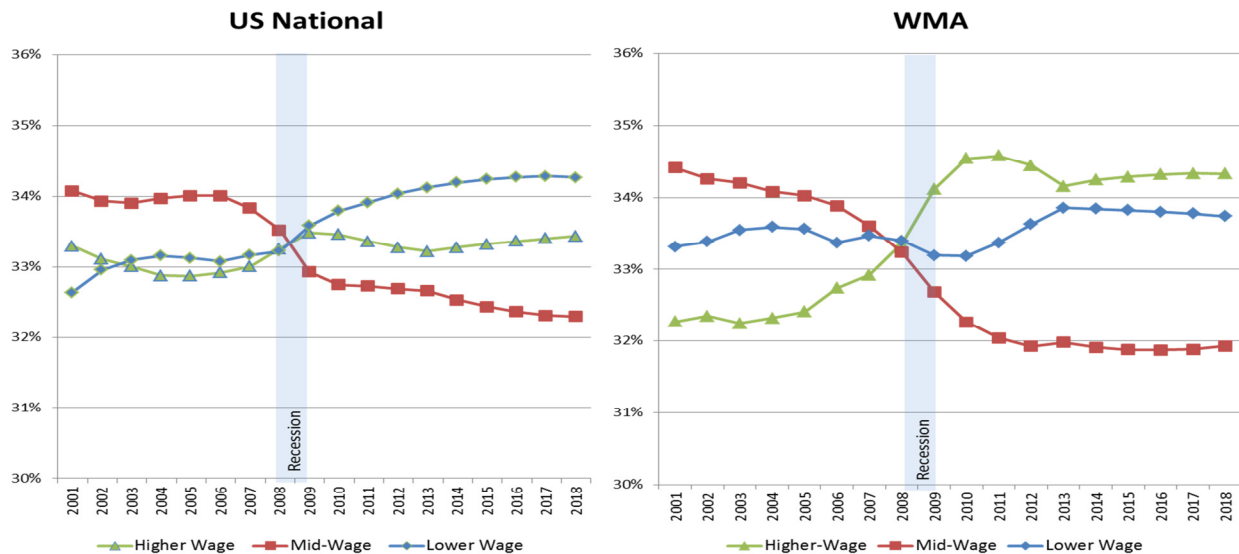
**Table 1**  
**Wage Categories by Median Hourly Earnings**

	Lower-Wage	Mid-Wage	Higher-Wage
U.S.	\$7.70 - \$13.42	\$13.43 - \$21.75	\$21.76 - \$94.31
WMA	\$8.42 - \$17.84	\$17.85 - \$34.55	\$34.56 - \$119.14

Source: Compiled from QCEW Employees & Self-Employed - EMSI 2013.3 Class of Worker  
\*WMA refers to Washington DC Metropolitan Area

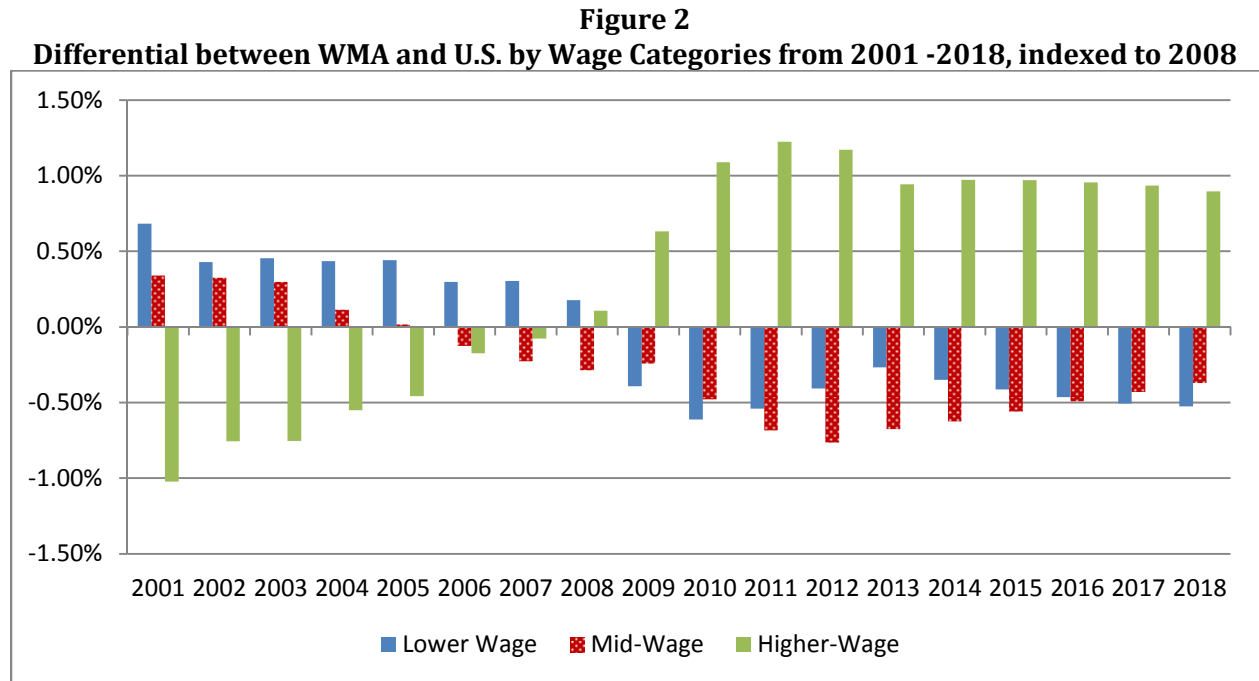
Table 1 shows the wage categories determined for both the U.S. and the WMA. This method allows these wage categories to be compared in spite of differences in living standards between the U.S. and the WMA while maintaining the convenience of interpretation.

**Figure 1**  
**U.S. and WMA by Wage Categories from 2001 -2018, indexed to 2008**



Source: Compiled from QCEW Employees & Self-Employed - EMSI 2013.3 Class of Worker  
\*WMA refers to Washington DC Metropolitan Area

Figure 1 tracks the percent employment in the three wage categories from 2001 to 2018 (including 5-year projections from EMSI) for both the WMA and the U.S. while the differences are plotted in Figure 2. The differences represent the percent of higher-wage jobs in the WMA minus the percent of higher-wage jobs (lower- and mid-wage jobs) in the U.S. for that year. The pattern is striking. It clearly shows the advantage the WMA has achieved through the recession in higher-wage jobs as compared to the nation.



Source: Compiled from QCEW Employees & Self-Employed - EMSI 2013.3 Class of Worker

Figure 2 also shows that, based on equal wage categories determined for 2008, the WMA previously had a larger proportion of lower- and mid-wage jobs than the U.S. It also identifies a trend of increasing higher-wage jobs in the WMA as compared to the U.S. that parallels the increase in federal procurement in the WMA since 2000. The decline in federal procurement in the WMA in 2011 and 2012 is reflected in the decrease in the differential for higher-wage jobs in the region compared to the U.S.

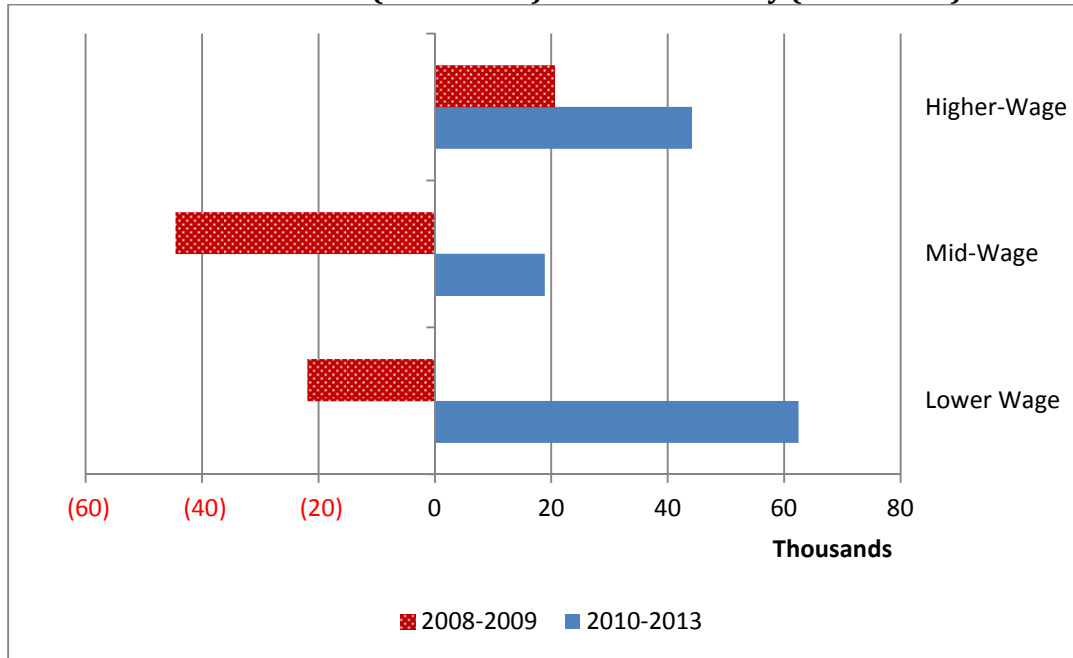
### The Lower-Wage Recovery

During the recession (2008 and 2009) job losses in the WMA occurred in lower- and mid-wage occupations but were concentrated in the mid-wage jobs. In contrast, higher-wage occupations grew at a slower pace during the recession but did not register any net job losses. During the recovery, from 2010 to 2013, lower-wage occupations have registered the largest employment gains followed by higher-wage occupations. Lower wage jobs have gained back nearly three times the jobs they lost during the recession. In comparison, mid-wage occupations have shown the weakest recovery, gaining back less than half the jobs they lost during the recession.

- Lower-wage occupations were 32.9 percent of recession losses, but 49.8 percent of recovery growth.

- Mid-wage occupations were 67.1 percent of recession losses, but only 15.0 percent of recovery growth.
- Higher-wage occupations grew by 2.0 percent through the recession and then gained 4.2 percent during the recovery, accounting for 35.2 percent of total recovery growth.

**Figure 3**  
**WMA Net Job Change by Wage Category**  
**for the Recession (2008-2009) and the Recovery (2010-2013)**



**Source: Compiled from QCEW Employees & Self-Employed - EMSI 2013.3 Class of Worker**  
**\*WMA refers to Washington DC Metropolitan Area**

The net new job growth in the higher-wage category has been greater than that of the lower-wage occupations since 2008. From 2008 to 2013, higher-wage occupations added a net of 64,894 jobs to the regional economy while lower-wage occupations added a net of 40,572 jobs, and mid-wage occupations over this same period contracted by a net of 25,715 jobs. While this addition of net new jobs in the higher- and lower-wage categories brought total employment in the WMA to pre-recessionary levels as early as 2012, the underlying occupational mix of the metro area has changed.

Lower-wage occupations that contracted the most during the recession included retail salespersons, construction laborers, office clerks, janitors and cleaners, hand laborers and freight movers, and cashiers. Lower-wage occupations that added the most jobs during the recovery include food preparation workers, security guards, waiters and waitresses, personal care aides, and janitors and cleaners. Of the lower-wage occupations to shed the most jobs during the recession, only cashiers, and janitors and cleaners have gained more jobs in the recovery than were lost in the recession. Most other lower-wage job-gainers through the recovery registered net gains, or minimal losses, during the recession. These data demonstrate that the lower-wage occupations most affected by the recession did not rebound in the recovery; rather the lower-wage recovery in the WMA has been fueled by underlying shifts in the job mix within the regional economy.

**Table 2**  
**WMA Lower-Wage Recession Losses and Recovery Gains**

<b>Recession Losses</b>	<b>2008-2009</b>	<b>2010-2013</b>
Retail Salespersons	-5,840	1,119
Construction Laborers	-2,479	1,452
Office Clerks, General	-2,105	1,872
Janitors and Cleaners	-1,516	3,249
Hand Laborers & Freight Movers	-1,477	-8
Cashiers	-1,373	2,067
Stock Clerks and Order Fillers	-1,050	386

<b>Recovery Gains</b>	<b>2008-2009</b>	<b>2010-2013</b>
Food Prep & Serving Workers	-388	<b>8,024</b>
Security Guards	294	<b>4,962</b>
Waiters and Waitresses	-519	<b>3,574</b>
Personal Care Aides	1,463	<b>3,411</b>
Janitors and Cleaners	-1,516	<b>3,249</b>
Cooks, Restaurant	-145	<b>2,071</b>
Cashiers	-1,373	<b>2,067</b>

**Source: Compiled from QCEW Employees & Self-Employed - EMSI 2013.3 Class of Worker**  
**\*WMA refers to Washington DC Metropolitan Area**

### **The Decline in Mid-Wage Occupations**

Mid-wage occupations did not experience a strong recovery and have only regained less than one-half of jobs lost during the recession. The mid-wage occupations hit the hardest by the recession include carpenters, secretaries and administrative assistants, first-line supervisors of construction, customer service representatives, and electricians (Table 3).

The mid-wage occupations that added the most jobs in the recovery included market research analysts and marketing specialists, elementary school teachers, and heavy and tractor-trailer truck drivers. Of the mid-wage occupations to register the largest job losses during the recession, only heavy and tractor-trailer truck drivers recovered the lost jobs in the recovery.

Most mid-wage occupations to gain jobs in the recovery were not among the most severely affected by the recession. The bookkeeping, accounting, and auditing clerk occupations, and the customer service representatives' occupations have had strong recoveries, but have not regained the number of jobs lost during the recession. As a result, recovery in the mid-wage jobs category remains weak and significantly lags behind pre-recession employment levels.

**Table 3**  
**WMA Mid-Wage Recession Losses and Recovery Gains**

<b>Recession Losses</b>	<b>2008-2009</b>	<b>2010-2013</b>
Carpenters	-2,709	465
Secretaries and Administrative Assistants	-1,865	96
First-Line Supervisors of Construction	-1,640	412
Customer Service Representatives	-1,626	706
Electricians	-1,252	77
Bookkeeping, Accounting, and Auditing Clerks	-1,199	954
Sales Representatives	-1,128	205
Heavy and Tractor-Trailer Truck Drivers	-1,063	1,113
First-Line Supervisors of Retail Sales Workers	-1,006	178
Sales Representatives, Services, All Other	-854	134
<hr/>		
<b>Recovery Gains</b>	<b>2008-2009</b>	<b>2010-2013</b>
Market Research Analysts	245	<b>2,638</b>
Elementary School Teachers	-91	<b>1,603</b>
Heavy and Tractor-Trailer Truck Drivers	-1,063	<b>1,113</b>
Executive Secretaries & Administrative Assistants	-517	<b>1,070</b>
Bookkeeping, Accounting, and Auditing Clerks	-1,199	<b>954</b>
Maintenance and Repair Workers, General	-628	<b>881</b>
Meeting, Convention, and Event Planners	103	<b>864</b>
First-Line Supervisors of Office & Admin	-813	<b>852</b>
Middle School Teachers	6	<b>748</b>
Customer Service Representatives	-1,626	<b>706</b>

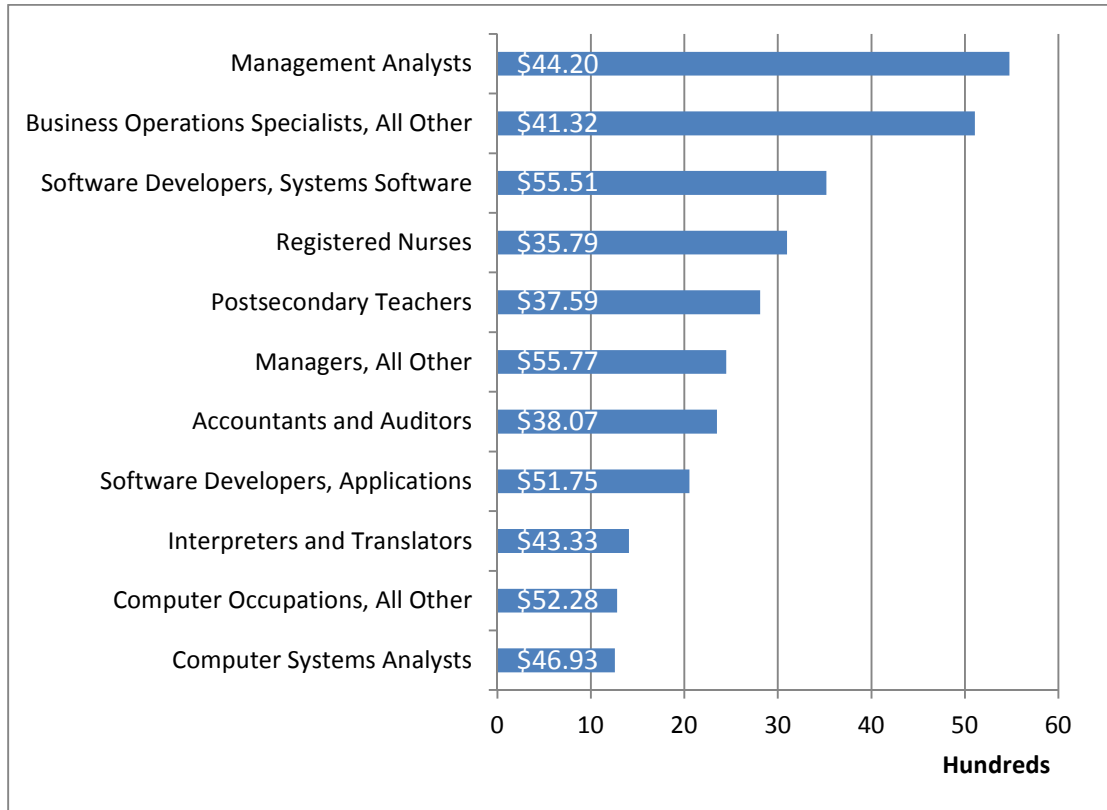
**Source: Compiled from QCEW Employees & Self-Employed - EMSI 2013.3 Class of Worker**  
**\*WMA refers to Washington DC Metropolitan Area**

### **Persistent Growth in Higher-Wage Occupations**

Contrary to the trends in lower- and mid-wage occupations, the net number of jobs in higher-wage occupations in the WMA increased through both the recession and the recovery. The higher-wage occupations that grew the most during the recession include management analysts, business operations specialists, and all other managers. Similarly, the higher-wage occupations that contributed the most to the recovery included postsecondary teachers, accountants and auditors, systems software developers, management analysts, and applications software developers. However, the higher-wage occupations to add the most jobs across both the recession and the recovery are those that grew the most during both

the periods, indicating that growth in these occupations represents a trend distinct from the effects of the recession (Figure 4).

**Figure 4**  
**Higher-Wage Occupations with the Biggest Growth**  
**through the Recession and the Recovery**



Source: Compiled from QCEW Employees & Self-Employed - EMSI 2013.3 Class of Worker  
 \*WMA refers to Washington DC Metropolitan Area

### Federal Procurement and Higher-Wage Job Growth

Many characteristics of this unbalanced recovery may be explained by changes in the underlying sectoral mix of the WMA economy. Notably, the WMA’s economy is closely tied to the federal government and federal spending in the region. Gains in federal employment boosted higher-wage jobs during the recession. Substantial increases in federal procurement outlays in the WMA have had an important long-term effect on the growth of higher-wage employment in the region.

Since 2000 spending on federal contracting has nearly tripled in the region, increasing from under \$30 billion in 2000 and to \$82.5 billion in 2010; federal procurement has now declined for three consecutive years. The number of higher-wage jobs in the region increased by 163,589 jobs from 2001 to 2013, more than the net increase in lower- and mid-wage jobs combined. However, as federal procurement has declined since 2010, as has the regional growth rate of higher-wage jobs, which decreased from 1.6



percent in 2010 to 0.5 percent in 2013. A continued decline in federal procurement spending in the region is expected to have an ongoing negative effect on the region's economy.

## **The Unbalanced Recovery**

Nearly 58 percent of the job losses during the recession occurred in three lower- and mid-wage sectors of construction; retail trade; and the administrative, support, waste management and remediation services. However, during the recovery, 26.7 percent of all job gains occurred in two higher-wage sectors of professional, scientific, and technical services; and the health care and social assistance sectors; and another 23 percent were concentrated in one lower-wage sector of accommodation and food services.

An analysis of the long-term trends of the region's sectors reveals these changes in job growth patterns. Two of the sectors with the largest recession losses; the administrative, support, waste management and remediation services; and, the retail trade sector, have experienced weak growth rates of eight percent and two percent, respectively, from 2001 to 2013. The third sector with large recession job losses - construction - has declined by six percent over the same period. In comparison, the higher-wage sectors of the professional, scientific, and technical services; and the health care and social assistance have grown by 27 percent and 32 percent, respectively, from 2001 to 2013. The lower-wage sector of accommodation and food services also grew by 30 percent over the same period. The recession and recovery amplified long-term trends in the sectoral shifts of the WMA economy.

Finally, the presence of the federal government proved a counter-weight against the recession for higher-wage occupations in the region. The federal influence helped produce a sectoral shift towards the professional, scientific, and technical services; and the health care and social assistance sectors, that solidified higher-wage jobs in the regional economy. While the lower- and mid-wage sectors of construction, retail trade, and the administrative and support; and waste management and remediation services will continue to grow, forecasts suggest that higher-wage jobs will remain a major source of growth in the WMA economy going forward. However, this strength could become a liability as federal spending for payroll and procurement peaked in 2010 and has since been declining with its contribution to the regional economy expected to diminish further over the next few years.

In conclusion,

- The recession of 2008 - 2009 exacerbated the deficit of mid-wage jobs in the WMA economy;
- The recovery has not counteracted the recession but has instead favored long-term shifts in the underlying sectoral structure of the WMA economy;
- Most of the occupations to lose jobs in the recession have not returned to pre-recession employment levels even though total employment in the WMA surpassed pre-recessionary levels in 2012; and,
- Compared to 2008, the share of higher- and lower-wage occupations in the WMA has increased, while the share of mid-wage occupations declined. This trend toward growing inequality will continue into the near future.