The New Hires Quality Index

Brad Hershbein

W.E. Upjohn Institute for Employment Research

APDU Conference
July 17, 2018
Fed government releases monthly data on number of new jobs

- By industry—not occupation or much else
Fed government releases monthly data on number of new jobs
   By industry—not occupation or much else

Government also releases wage data for workers
   Almost always for incumbents, not new hires
Fed government releases monthly data on *number* of new jobs

- By industry—not occupation or much else

Government also releases wage data for workers

- Almost always for incumbents, *not* new hires

Result is that we don’t know much about the “quality” of new jobs
Motivation

- Crucial to understand characteristics of new jobs and workers in them
  - An important coincident, and perhaps leading, indicator
  - Provides insight into cyclical labor markets
  - Can shed light on structural changes in skill demand

Of new jobs created last month, how “good” were they?

Wage is often a useful summary statistic

Occupation—what you do—matters to wage more than industry–where you do it
Motivation

- Crucial to understand characteristics of new jobs and workers in them
  - An important coincident, and perhaps leading, indicator
  - Provides insight into cyclical labor markets
  - Can shed light on structural changes in skill demand

- Of new jobs created last month, how “good” were they?
  - Wage is often a useful summary statistic
  - Occupation—what you do—matters to wage more than industry—where you do it
Motivation

- Crucial to understand characteristics of new jobs and workers in them
  - An important coincident, and perhaps leading, indicator
  - Provides insight into cyclical labor markets
  - Can shed light on structural changes in skill demand

- Of new jobs created last month, how “good” were they?
  - Wage is often a useful summary statistic
  - Occupation—what you do—matters to wage more than industry–where you do it

- Goal: Create a new index of job hires quality
Most jobs added in Boston since recession called low-paying

By Katie Johnston | GLOBE STAFF SEPTEMBER 22, 2015

Many of the job gains have come in low-paying sectors such as food service, home health care, and janitorial services, while higher-paying fields such as information services, have not grown as rapidly.

The ‘low-wage recovery’ is a myth

To do this, she divided businesses into three groups by their pay. Today’s average hourly pay is $25. Low-paying employment is dominated by restaurant and hotel jobs (2015 average hourly rate: $14.12) and retail jobs ($17.21). Midlevel jobs include manufacturing ($23.90), health care and education ($24.97) and construction ($26.91). Finally, high-paying jobs included professional and business services ($29.59), finance ($31.10) and utilities ($36.02).
Most jobs added in Boston since recession called low-paying

By Katie Johnston | GLOBE STAFF  SEPTEMBER 22, 2015

Many of the job gains have come in low-paying sectors such as food service, home health care, and janitorial services, while higher-paying fields such as information services, have not grown as rapidly.

The ‘low-wage recovery’ is a myth

To do this, she divided businesses into three groups by their pay. Today’s average hourly pay is $25. Low-paying employment is dominated by restaurant and hotel jobs (2015 average hourly rate: $14.12) and retail jobs ($17.21). Midlevel jobs include manufacturing ($23.90), health care and education ($24.97) and construction ($26.91). Finally, high-paying jobs included professional and business services ($29.59), finance ($31.10) and utilities ($36.02).
Most jobs added in Boston since recession called low-paying

By Katie Johnston | GLOBE STAFF SEPTEMBER 22, 2015

Many of the job gains have come in low-paying sectors such as food service, home health care, and janitorial services, while higher-paying fields such as information services, have not grown as rapidly.

The ‘low-wage recovery’ is a myth

To do this, she divided businesses into three groups by their pay. Today’s average hourly pay is $25. Low-paying employment is dominated by restaurant and hotel jobs (2015 average hourly rate: $14.12) and retail jobs ($17.21). Midlevel jobs include manufacturing ($23.90), health care and education ($24.97) and construction ($26.91). Finally, high-paying jobs included professional and business services ($29.59), finance ($31.10) and utilities ($36.02).
Upjohn Institute New Hires Quality Index (NHQI)

- New monthly index tracks “quality” of new job hires (2001 →)

Based on microdata from Current Population Survey (CPS), same source used to track the unemployment rate:
- Identify people switching from non-employment to employment
- Identify people changing employers
- Merge in wage data from Occupational Employment Statistics by occupation
- Resulting index shows change in realized skill demand through changes in occupation mix of new hires
- Adjust for demographics, but not within-occupation skill changes
- Also yields hire volume, and index for many subgroups
New monthly index tracks “quality” of new job hires (2001 →)

Based on microdata from Current Population Survey (CPS), same source used to track the unemployment rate:
- identify people switching from non-employment to employment
- identify people changing employers
New monthly index tracks “quality” of new job hires (2001 →)

Based on microdata from Current Population Survey (CPS), same source used to track the unemployment rate:
- identify people switching from non-employment to employment
- identify people changing employers

Merge in wage data from Occupational Employment Statistics by occupation
New monthly index tracks “quality” of new job hires (2001 →)

Based on microdata from Current Population Survey (CPS), same source used to track the unemployment rate:
- identify people switching from non-employment to employment
- identify people changing employers

Merge in wage data from Occupational Employment Statistics by occupation

Resulting index shows change in realized skill demand through changes in occupation mix of new hires
- Adjust for demographics, but not within-occupation skill changes
Upjohn Institute New Hires Quality Index (NHQI)

- New monthly index tracks “quality” of new job hires (2001 →)

- Based on microdata from Current Population Survey (CPS), same source used to track the unemployment rate:
  - identify people switching from non-employment to employment
  - identify people changing employers

- Merge in wage data from Occupational Employment Statistics by occupation

- Resulting index shows change in realized skill demand through changes in occupation mix of new hires
  - Adjust for demographics, but not within-occupation skill changes

- Also yields hire volume, and index for many subgroups
Hourly wage index is up nearly 5.5 percent from 2005
New Hires Quality Index: Hourly Wages

SOURCE: Upjohn Institute New Hires Quality Index
NOTE: Wage index is based on a 12-month lagged moving average of monthly data.
New Hires Quality Index: Hourly Wages

Source: Upjohn Institute New Hires Quality Index

Note: Wage index is based on a 12-month lagged moving average of monthly data.
Summary of findings

1. Hourly wage index is up nearly 5 percent from 2005

2. Volume of new hires has not recovered; wage bill has just barely; hires/person not at all
New Hires Quality Index: Monthly Volume

Source: Upjohn Institute New Hires Quality Index

Note: Index is based on a 12-month lagged moving average of monthly data.
New Hires Quality Index: Monthly Wage Bill

SOURCE: Upjohn Institute New Hires Quality Index
NOTE: Wage index is based on a 12-month lagged moving average of monthly data

hora wage x New job volume
Index (2005=100)

$ Millions / hour
Hourly wage x New job volume
Index (2005=100)

SOURCE: Upjohn Institute New Hires Quality Index
NOTE: Wage index is based on a 12-month lagged moving average of monthly data
New Hires Quality Index: Hires per capita

SOURCE: Upjohn Institute New Hires Quality Index
NOTE: Index is based on a 12-month lagged moving average of monthly data

SOURCE: Upjohn Institute New Hires Quality Index
NOTE: Index is based on a 12-month lagged moving average of monthly data
Summary of findings

1. Hourly wage index is up nearly 5 percent from 2005

2. Volume of new hires has not recovered; wage bill has just barely; hires/person not at all

3. Women have had a stronger recovery than men
New Hires Quality Index: Women and Men

SOURCE: Upjohn Institute New Hires Quality Index
NOTE: Wage index is based on a 12-month lagged moving average of monthly data
Summary of findings

1. Hourly wage index is up nearly 5 percent from 2005

2. Volume of new hires has not recovered; wage bill has just barely; hires/person not at all

3. Women have had a stronger recovery than men

4. In 2005, college graduates accounted for one-fifth of all hires; in 2017, they accounted for one-fourth
New Hires Quality Index: Volume by education

Source: Upjohn Institute New Hires Quality Index
Note: Index is based on a 12-month lagged moving average of monthly data
Summary of findings

1. Hourly wage index is up nearly 5 percent from 2005

2. Volume of new hires has not recovered; wage bill has just barely; hires/person not at all

3. Women have had a stronger recovery than men

4. In 2005, college graduates accounted for one-fifth of all hires; in 2016, they accounted for one-fourth

5. Wage index gains have been comparable for newly employed and employer changers, but volume growth of former vastly outpaces that of latter
New Hires Quality Index: Index by Hire Type

Source: Upjohn Institute New Hires Quality Index

Note: Wage index is based on a 12-month lagged moving average of monthly data.
New Hires Quality Index: Volume by Hire Type

- Newly employed index (2005=100)
- Employer changer index (2005=100)

**Source:** Upjohn Institute New Hires Quality Index

**Note:** Wage index is based on a 12-month lagged moving average of monthly data.
Index is currently calculated monthly for 37 subgroups

- Sex, age, education, sector, region, hire type, full/part-time, race/ethnicity, native/foreignborn, and metro status
NHQI heterogeneity

- Index is currently calculated monthly for 37 subgroups
  - Sex, age, education, sector, region, hire type, full/part-time, race/ethnicity, native/foreignborn, and metro status

- In each case, available series include (level and time-standardized):
  - wage index
  - volume of hires
  - wage bill
  - hires per-capita
HOW TO USE THIS INDEX

The Upjohn Institute New Hires Quality Index (NHQI) tracks the earnings power of newly hired workers. By matching the occupations of newly hired workers to wages by occupation, the NHQI provides updates each month on the earnings power of new hires in the United States. In the aggregate and for different groups based on age, sex, and education, and other characteristics. Current and past press releases, as well as a technical paper describing the creation of the NHQI can be found below.

The interactive NHQI tool allows the user to chart and download different series of the NHQI.

First, choose what index type you want from the drop-down box in the upper left. There are four types: the wage index itself, the monthly count of new hires, the wage bill (which is the wage index multiplied by the number of new hires), and the number of new hires per capita.

Next, choose the start date and end date for the series; by default, the start date is January 2005 (although the Index goes back to January 2000) and the end date is the most recent month available.

You can then choose up to two groups to compare from the drop-down boxes in the upper right. By default, the first box is set to all new hires.

Finally, you can toggle the checkbox in the top right to switch between the actual value of the series and a version that normalizes the series to a value of 100 in 2005; the latter allows you to easily see percentage changes from that year.

You can download the complete NHQI dataset here.
Conclusion

- The Upjohn Institute New Hires Quality Index provides new and valuable information on job hires each month

- It complements existing measures of employment growth and worker wages

- It should be useful to policymakers, researchers, journalists, businesses, and workers

Full report, methodology, data, and interactive: www.upjohn.org/nhqi

Thank you!