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Maine Center for Workforce Research and Information

Ruth E. Pease

Maine Department of Labor

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A Look at Job Vacancies by Sector

Job vacancies in September 2014 were reported by firms across all industries, but, as noted in the previous blog posted February 13, 2015, five sectors account for more than three quarters of unfilled jobs: healthcare and social assistance, retail trade, administrative and waste services, accommodation and food services, and construction. In this blog, we delve deeper into an evaluation of vacancies by sector, first examining distinguishing characteristics, and second, providing a comparative evaluation of vacancies by average wages and relative demand for new hires.

The following table shows the number and characteristics of vacant positions by sector. Each had varying proportions of vacancies that were full-time, seasonal, or with education or prior work experience requirements.
• In accommodation and food services, private education, retail trade, arts and entertainment, and other services, fewer than half of unfilled jobs were full time, well below the all-industries average of 62 percent. These sectors typically employ an above-average share of part-time workers. Though more likely to be part time, vacancies in these industries were no more likely than others to be seasonal or temporary.

• The highest shares of seasonal or temporary positions were in natural resources (farming, fishing, forestry and mining), construction, administrative and waste services (includes temporary help services) and wholesale trade.

• Not all unfilled openings specified an educational requirement. Among those that did, about one-third required education or training beyond high school. Three sectors far exceeded this standard. Vacancies in professional, scientific and technical services; private education; and other services were most likely to require post-secondary education/training (90%, 89% and 85%, respectively). On the other end of the spectrum, accommodation and food services, retail trade, transportation and warehousing, and construction had fewer than one in five vacancies that required post-secondary education/training.

• Among vacancies that made any specification, more than half indicated that some level of previous experience was required. More than 90 percent of vacancies in private education; information; and professional, scientific and technical services required previous experience, while fewer than half in arts and entertainment, retail trade, and accommodation and food service did so.

• Difficult-to-fill status was reported for 70 percent of all vacancies. This status was not necessarily associated with openings requiring higher education and/or experience. The highest share of vacancies identified as difficult to fill was in natural resources – a sector distinguished by a particularly high share of seasonal positions. Vacancies in arts and entertainment were least likely to be identified as difficult to fill. A future blog will examine difficult-to-fill vacancies and reasons provided by employers.

**Evaluating Relative Demand for New Hires**

Number and characteristics of job vacancies describe the stock of unfilled jobs; however, to assess relative demand for new hires, vacancies are evaluated in proportion to existing employment. Vacancy rate – calculated by dividing vacancies by the sum of vacancies plus existing jobs – is commonly used to indicate demand. Survey results indicate an overall job vacancy rate in September 2014 of four percent.

To assess relative demand for new hires by sector, we employ an alternate measure, comparing the share of vacancies to the share of jobs. The resulting ratio is assessed relative to the all-industries benchmark value of one (1). A value less than one indicates a sector with below-average concentration of vacancies; this we interpret as lower demand for new hires compared to all industries. A value greater than one indicates above-average concentration of vacancies, or higher demand for new hires compared to all industries.

The following chart shows sectors plotted by relative demand, average weekly wage and estimated number of vacant positions. The chart is divided into quadrants: vertically bisected at the value 1, signifying lower or higher demand for new hires (left and right, respectively), and horizontally bisected at the value $746 – the average weekly wage for all industries in 2013 – signifying below- or above-average wages. A sector’s average wage is a function of total wages paid and the average number of reported jobs; it can be affected by factors besides pay rate, such as: the proportion of full-time to part-time jobs, bonus pay and prevalence of overtime. More part-time jobs will tend to lower a sector’s average weekly wage, while bonuses and over-time pay will tend to raise it.
The size of each sector’s bubble reflects the number of job vacancies.
**X values < 1**
Share of job vacancies < share of jobs

Example: manufacturing accounts for 6% of job vacancies and 10% of private jobs

**X values > 1**
Share of job vacancies > share of jobs

Example: construction accounts for 10% of job vacancies and 5% of private jobs

**Benchmark X = 1**
Equal shares of job vacancies and jobs.

Example: accommodation & food services accounts for 13% of total vacancies and 13% of private jobs

= average demand for new hires
**Demand by Wages**

**How to read this chart:**
- **X-axis:** Relative Demand for New Hires (1-average)
- **Y-axis:** Average Weekly Wage (DCEW)
- **Quadrants:**
  - **Y values > $746**
    - Average weekly wage higher than all industries average
    - Higher wages
  - **Y values < $746**
    - Average weekly wage lower than all industries average
    - Lower wages

**Benchmark**

$Y = $746$

- Average weekly wage for all industries
- Average wage

**Note:** Average weekly wages are from 2013 Quarterly Census of Employment and Wages, derived from dividing total annual payroll by average annual employment by 52 weeks. Because average employment includes both full-time and part-time jobs, industries with higher shares of part-time jobs will have lower average weekly wages than those with equal hourly pay rates but fewer part-time jobs.
In the upper left quadrant are sectors with higher wages and lower demand for new hires. These sectors had an above-average weekly wage and a share of total vacancies less than the sector share of total jobs. They are: manufacturing; professional, scientific and technical services; wholesale trade; financial services; information; and management of companies. Together these sectors accounted for 2,651 unfilled jobs, or 12 percent of total vacancies.

Between the upper left and upper right quadrants is private education with a weekly wage just above the all-industry average. The share of job vacancies (2%) was roughly equal to the share of jobs (2%) indicating demand for new hires was neither higher nor lower than the all-industries benchmark. Vacancies in this sector numbered 519.

In the upper right quadrant are sectors with higher wages and higher demand for new hires, in which the average weekly wage exceeded the all-industries average, and the share of total vacancies was greater than the share of total jobs. These industries are: heath care and social assistance; construction; and transportation, warehousing and utilities. Together, these industries accounted for 8,857 job vacancies,
or 41 percent of the total.

In the lower right quadrant are sectors with lower wages and higher demand for new hires. Only one industry inhabits this quadrant: administrative and waste services; its average weekly wage is below the all-industries average, and its share of vacancies (13%) was greater than the share of jobs (6%). Job vacancies in this sector numbered 2,878.

Between the lower right and lower left quadrants is accommodation and food services, in which the weekly wage is below average and shares of vacancies and jobs were roughly equal. Demand for new hires was neither higher nor lower than the all-industries benchmark. Job vacancies at firms in this sector numbered 2,838, or 13 percent of the total.

In the lower left quadrant are sectors with lower wages and lower demand for new hires, with a below-average weekly wage, and share of job vacancies less than the share of jobs. These industries are: retail trade, other services, arts and entertainment, and natural resources, which accounted for 3,776 vacancies, or 18 percent of the total.

This distribution indicates that more than half of total vacancies (56%) were located at firms in sectors with above-average weekly pay though relatively few were at firms in the highest paying industries (those plotted towards top of the chart).

Industries are composed of firms employing workers in a wide range of occupations. The next blog will examine job vacancies by occupation.