

Mean Vacancy Duration Rose to 29.2 Working Days in August, Larger Employers Take Longer to Fill Open Jobs

This edition of *DHI Hiring Indicators* reports new and updated statistics on vacancy durations and recruiting intensity per vacancy for the U.S. economy with breakdowns by industry, establishment size and firm size.

Section I contains highlights. Section II draws on the **Job Openings and Labor Turnover Survey (JOLTS)** to present statistics on vacancy durations and recruiting intensity per vacancy, as well as other indicators of labor market tightness. Section III provides additional information about the *DHI Hiring Indicators* and DHI Group, Inc. A separate Excel file contains monthly time-series data for statistics discussed in this report and a large set of additional statistics.

I. Highlights

1. The **DHI-DFH Mean Vacancy Duration Measure** for the U.S. economy rose to 29.2 working days in August 2017, 0.3 days above the revised value for July.
2. Larger employers take longer than smaller ones to fill open job positions, according to JOLTS data for the U.S. economy.
3. Establishments with 5,000 or more employees took an average of 63 working days to fill open jobs in 2017. That's 2-3 times longer than establishments with fewer than 1,000 employees.
4. Firms with 500 or more employees took an average of 31.8 working days to fill open jobs in 2016, the most recent year with JOLTS data by firm size. By way of comparisons, firms with 1-49 employees took an average of 23.4 days to fill open jobs.

"Vacancy durations remain near historic highs for the U.S. economy, reinforcing an impression of tight labor market conditions," said Dr. Steven Davis, Professor of Economics at the Chicago Booth School of Business and Senior Fellow at the Hoover Institution. "Larger employers experience especially long lags in filling open jobs." Davis is a co-developer of the DHI Database and co-creator of the DHI-DFH Mean Vacancy Duration Measure and new skill-level measures of labor market tightness.

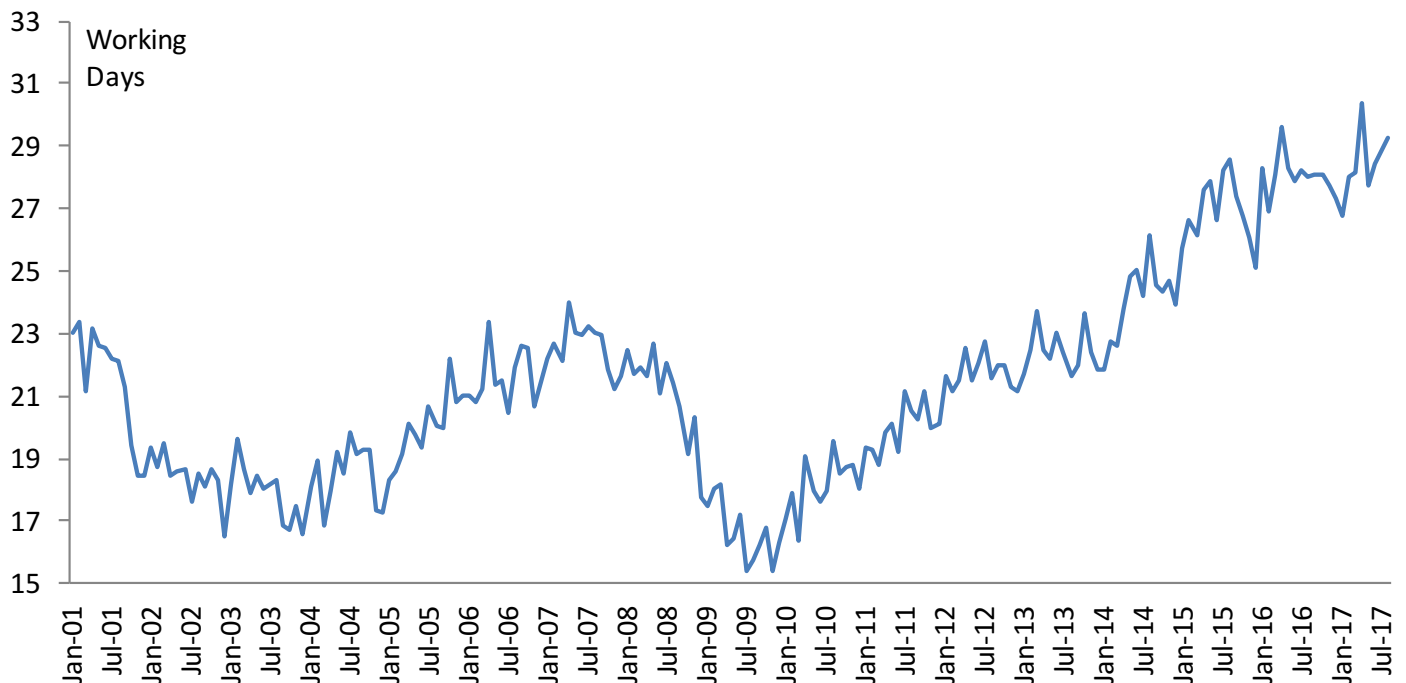
"Employers of all sizes struggle to attract highly in demand tech talent. The advantage the big, well-established firms have is strong brand recognition," said Michael Durney, President and CEO of DHI Group, Inc. "A lot of tech pros today want a sense of belonging in a company and know they can grow their career in a culture they identify with. Large or small, employers who think about the career path of their employees will better attract and ultimately push ahead of competitors as a result."

II. Results Based on the Job Openings and Labor Turnover Survey

The **DHI-DFH Mean Vacancy Duration Measure** rose to 29.2 working days in August, 0.3 days above its revised value for July and 1.1 days below the historical peak in April 2017. Figure II.1 shows the evolution of the mean vacancy duration in the United States since 2001. This duration measure reflects the vacancy concept in the Job Openings and Labor Turnover Survey (JOLTS). Specifically, a job opening gets “filled” according to JOLTS when a job offer for the open position is accepted. Thus, the duration statistic refers to the average length of time required to fill open positions. Typically, there is also a lag between the fill date and the new hire's start date on the new job.

Figure II.2 displays four other indicators of labor market slack alongside the mean vacancy duration. All five measures show a pronounced tightening of U.S. labor markets since 2009. Three of the measures – mean vacancy duration, the vacancy-unemployment ratio, and the ratio of vacancies to the number of persons unemployed for 26 weeks or less – now exceed their peak values prior to the recession of 2008-2009. The post-recession rise in the mean vacancy duration is especially pronounced.

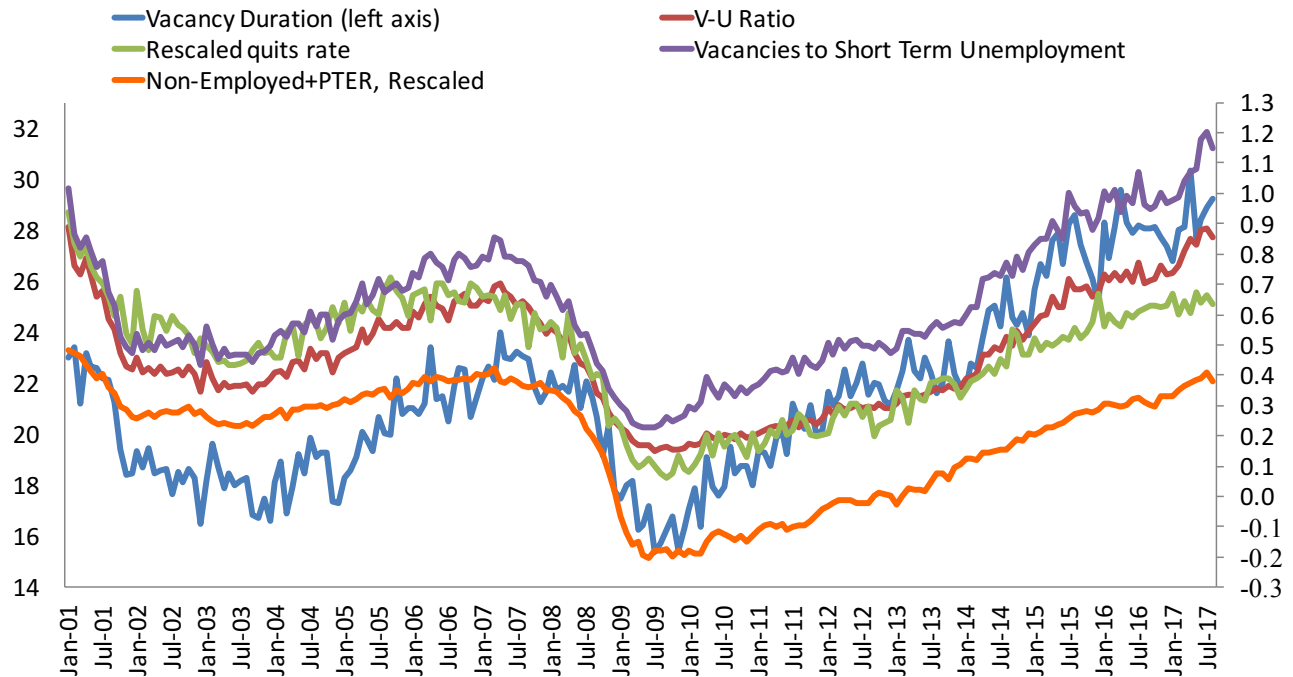
Figure II.1. DHI-DFH Measure of National Mean Vacancy Duration, January 2001 to August 2017



The **DHI-DFH Recruiting Intensity Index**, plotted in Figure II.3, is little changed from the July value of 1.05.

Tables II.1 to II.6 report statistics on mean vacancy duration and recruiting intensity per vacancy by industry, establishment size and firm size. JOLTS data by establishment size are available through May 2017, and JOLTS data by firm size are available through December 2016.

Figure II.2. National Labor Market Slackness Measures, January 2001 to August 2017



Notes: Short Term Unemployment is the number of persons unemployed 26 weeks or less. The Quit Rate is rescaled to have the same mean and variance as the Vacancy-Unemployment Ratio from January 2001 to date. Non-Employment + PTER, an index developed by Hornstein, Kudlyak and Lange, reflects all persons who are not employed (weighted by labor force attachment) plus persons working part time for economic reasons who would prefer full-time work full. Here, their index is multiplied by minus one and then rescaled to have the standard deviation as the Vacancy-Unemployment Ratio from January 2001 to date.

Figure II.3. DHI-DFH Index of Recruiting Intensity per Vacancy, January 2001 to August 2017

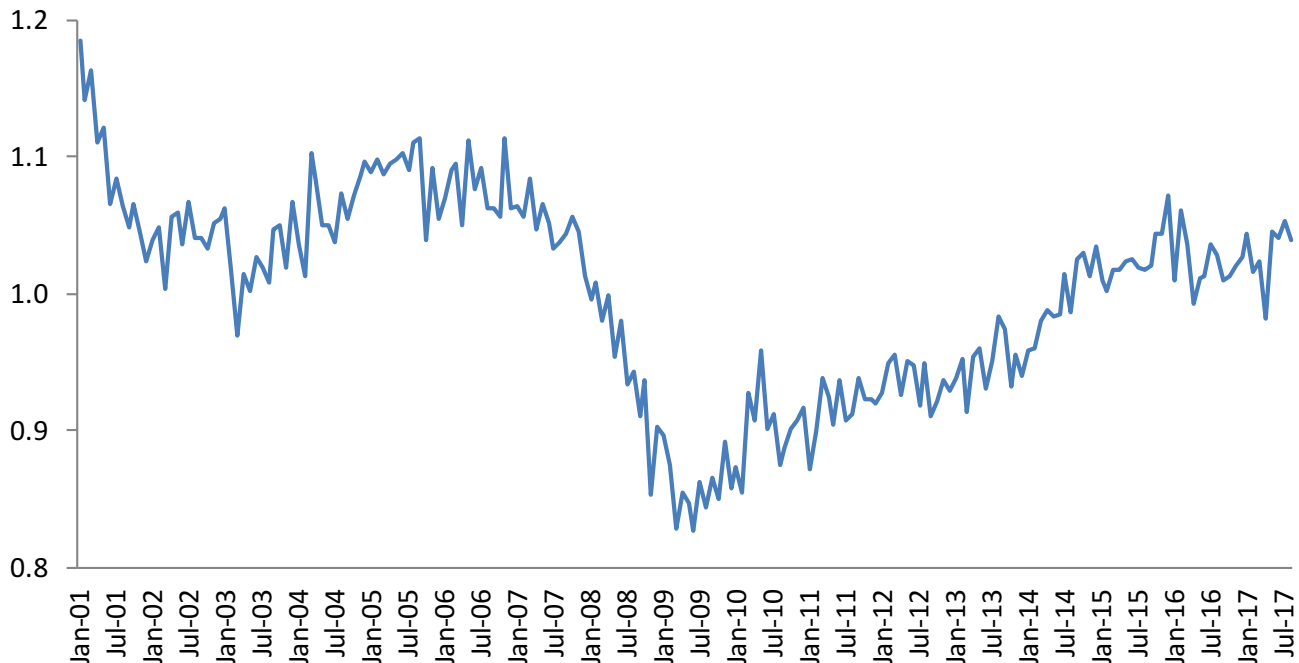


Table II.1. DHI-DFH Measure of Mean Vacancy Duration by Industry and Time Period, No. of Working Days, January 2001 to August 2017

	2001 to 2003	2004 to 2006	2008	2009	2010 to 2012	2013	2014	2015	2016	Jan.-Aug. 2017
Resources	12.0	14.0	18.1	13.5	18.7	17.5	22.5	17.5	13.0	17.2
Construction	7.9	8.8	7.3	4.3	6.1	9.5	10.9	11.4	14.9	13.3
Manufacturing	17.4	20.9	21.6	13.8	23.4	28.4	29.2	30.4	32.1	30.6
Wholesale and Retail Trade	14.2	15.8	15.5	13.1	15.9	19.8	18.6	21.0	24.1	24.9
Warehouse, Trans. & Utilities	18.6	17.0	20.6	11.3	18.2	22.5	23.9	29.1	27.3	25.1
Information	25.8	36.0	34.5	23.4	40.9	36.4	36.8	35.6	29.1	32.8
Financial Services	28.0	32.1	27.6	25.7	33.4	36.2	37.1	43.2	44.7	44.3
Professional and Business Services	18.3	19.9	21.3	16.6	18.8	19.6	22.0	27.0	26.3	25.1
Education	21.3	25.0	22.0	18.5	21.1	23.7	26.6	29.9	28.8	29.9
Health Services	39.1	35.8	36.4	29.8	33.5	34.6	38.4	44.6	47.7	48.9
Leisure and Hospitality	13.7	14.8	14.9	10.4	13.3	16.6	19.3	19.6	19.7	20.8
Other Services	22.5	18.6	25.2	16.9	18.9	20.1	21.1	22.3	30.2	30.9
Government	33.2	30.7	35.7	32.2	33.0	35.9	37.7	37.8	37.8	40.8
Non-Farm	19.3	20.0	21.1	16.6	20.0	22.5	24.1	26.9	28.0	28.4

Table II.2. DHI-DFH Recruiting Intensity Index by Industry and Time Period, January 2001 to August 2017

	2001 to 2003	2004 to 2006	2008	2009	2010 to 2012	2013	2014	2015	2016	Jan.-Aug. 2017
Resources	0.99	1.06	1.05	0.70	1.00	0.98	1.04	0.89	1.03	1.30
Construction	1.07	1.04	0.89	0.90	1.01	0.94	0.89	0.88	0.87	0.92
Manufacturing	1.02	1.09	0.95	0.85	0.94	0.88	0.92	0.93	0.96	1.08
Wholesale and Retail Trade	1.05	1.10	0.96	0.84	0.89	0.94	1.04	1.04	1.00	0.98
Warehouse, Trans. & Utilities	0.96	1.13	0.94	0.92	0.96	1.01	1.11	1.12	1.09	1.07
Information	1.10	1.08	0.87	0.83	0.91	1.06	1.11	1.16	1.12	1.08
Financial Services	1.06	1.09	0.99	0.84	0.87	0.99	0.95	0.95	0.92	0.97
Professional and Business Services	1.08	1.07	0.90	0.83	0.94	0.96	1.00	1.01	1.03	1.02
Education	1.00	0.99	1.04	0.96	0.99	0.95	1.00	1.07	1.07	1.03
Health Services	1.08	1.04	1.01	0.93	0.89	0.92	0.97	1.01	1.00	1.02
Leisure and Hospitality	1.08	1.08	0.97	0.84	0.88	0.92	0.96	1.01	1.01	0.99
Other Services	1.02	1.07	0.94	0.96	0.95	0.98	0.96	1.04	0.93	1.09
Government	1.05	1.05	0.94	0.87	0.93	0.93	0.99	1.10	1.13	1.06
Non-Farm	1.05	1.08	0.95	0.86	0.92	0.95	1.00	1.03	1.02	1.03

Table II.3. DHI-DFH Measure of Mean Vacancy Duration by Establishment Size, No. of Working Days, January 2001 to May 2017

Class Size	2001 to 2003	2004 to 2005	2006	2008	2009	2010 to 2012	2013	2014	2015	Jan.-May. 2017
1-9	19.4	18.2	17.2	19.9	13.3	16.8	19.2	23.2	27.6	27.8
10-49	15.2	14.9	17.4	16.5	12.9	15.7	19.0	20.7	23.1	24.8
50-249	15.7	17.0	19.3	18.2	15.1	17.9	21.0	21.1	23.1	25.1
250-999	21.0	21.5	25.4	24.8	17.7	24.4	24.0	26.6	29.6	31.2
1000-4999	36.3	34.8	44.2	35.8	30.8	34.5	37.2	36.7	39.8	38.3
5000+	48.8	44.3	39.4	39.9	40.8	55.8	56.6	57.4	58.4	63.0

Table II.4. DHI-DFH Measure of Recruiting Intensity by Establishment Size, No. of Working Days, January 2001 to May 2017

Class Size	2001 to 2003	2004 to 2005	2006	2008	2009	2010 to 2012	2013	2014	2015	Jan.-May. 2017
1-9	0.98	1.10	1.06	0.98	0.96	0.95	0.93	0.90	0.97	1.0
10-49	1.05	1.10	1.07	0.95	0.89	0.90	0.94	0.95	0.99	1.0
50-249	1.09	1.07	1.08	0.94	0.81	0.90	0.92	1.02	1.01	1.0
250-999	1.06	1.07	1.07	0.91	0.84	0.94	1.00	1.05	1.06	1.0
1000-4999	1.05	1.06	0.99	1.04	0.84	0.94	0.97	1.09	1.13	1.2
5000+	0.97	1.11	1.35	1.12	0.78	0.79	0.83	0.89	1.01	1.0

Table II.5. DHI-DFH Measure of Mean Vacancy Duration by Firm Size, No. of Working Days, January 2001 to December 2016

Firm Size	2001 to 2003	2004 to 2005	2006	2008	2009	2010 to 2012	2013	2014	2015	2016	% chg. 2009 - 2016
All Firm Sizes (Private)	18.3	18.6	21.0	20.2	15.6	19.2	21.8	23.4	26.3	27.7	77%
1-49	15.2	14.3	15.9	14.7	11.2	13.9	16.5	18.9	21.5	23.4	110%
50-499	16.2	16.6	18.8	19.1	15.2	17.7	19.9	21.9	24.2	24.5	61%
500+	19.0	23.1	26.0	24.5	19.8	23.7	26.1	26.7	30.1	31.8	61%

Table II.6. DHI-DFH Measure of Recruiting Intensity by Firm Size, No. of Working Days, January 2001 to December 2016

Firm Size	2001 to 2003	2004 to 2005	2006	2008	2009	2010 to 2012	2013	2014	2015	2016	% chg. 2009 - 2016
All Firm Sizes (Private)	1.06	1.08	1.08	0.95	0.85	0.91	0.95	0.99	1.02	1.0	18%
1-49	1.02	1.08	1.04	0.92	0.95	0.91	0.89	0.88	0.94	0.9	-3%
50-499	1.06	1.08	1.08	0.94	0.82	0.90	0.91	0.96	0.98	1.0	20%
500+	1.02	1.02	1.04	0.91	0.76	0.87	0.95	1.02	1.04	1.0	36%

III. About the DHI Hiring Indicators

The **DHI-DFH Recruiting Intensity Index** quantifies the effective intensity of recruiting efforts per vacancy by employers with vacant job positions. The index is normalized to an average value of 1.0 for the period from January 2001 to December 2012. It complements the monthly [Job Openings Rate](#) produced by the U.S. Bureau of Labor Statistics (BLS) from the [Job Openings and Labor Turnover Survey](#).

The pace of new hires in the economy depends on the number and types of job seekers, the number and types of job vacancies, and employer actions that affect how quickly vacant jobs are filled. These actions include the choice of recruiting methods, expenditures on help-wanted ads, how rapidly employers screen job applicants, hiring standards, and the attractiveness of compensation packages offered to prospective new hires. The BLS Job Openings Rate captures the availability of job vacancies in the economy, while the **DHI-DFH Recruiting Intensity Index** captures the intensity of employer efforts to fill those vacancies. The index is available at the national, regional and industry levels and by establishment size class (number of employees).

The index construction follows the method developed by Steven J. Davis, R. Jason Faberman and John Haltiwanger (DFH) in "[The Establishment-Level Behavior of Vacancies and Hiring](#)," published in the May 2013 issue of the *Quarterly Journal of Economics*, and extended to industry and regional indices in "[Recruiting Intensity during and after the Great Recession: National and Industry Evidence](#)," published in the May 2012 issue of the *American Economic Review*.

The **DHI-DFH Vacancy Duration Measure** quantifies the average number of working days taken to fill vacant job positions. It supplements other measures often used to assess the tightness of labor market conditions such as the ratio of vacant jobs to unemployed workers.

Vacancy durations depend on the relative numbers of job seekers and job vacancies, the recruiting and search methods available to employers and job seekers, employer recruiting intensity per vacancy, the search intensity of job seekers, and the degree to which the requirements of jobs on offer match the skills, locations and preferences of job seekers. Other things equal, a larger ratio of job vacancies to job seekers yields longer vacancy durations.

The **DHI-DFH Vacancy Duration Measure** follows the method developed by Steven J. Davis, R. Jason Faberman and John Haltiwanger (DFH) in "[The Establishment-Level Behavior of Vacancies and Hiring](#)," published in the May 2013 issue of the *Quarterly Journal of Economics*. That method combines a simple model of hiring dynamics with data on hires and vacancies from the [Job Openings and Labor Turnover Survey](#) (JOLTS) conducted by the U.S. Bureau of Labor Statistics. Using their model and the JOLTS data, DFH estimate an average daily job-filling rate for vacant job positions in each month. Taking the reciprocal of the daily job-filling rate yields the **DHI-DFH Vacancy Duration Measure**, which is available at the national, regional and industry levels and by establishment size class.

The average daily job-filling rate is closely related to the "vacancy yield," the ratio of hires during the month to the stock of vacancies on the last business day of the previous month. Unlike the vacancy yield, however, the daily job-filling rate (and the **DHI-DFH Vacancy Duration Measure**) adjusts for job vacancies that are posted and filled within the month. Working days are defined as Mondays through Saturdays, excluding major national holidays.

The **Skill-Level Slackness Measures** reported in the Excel file use the daily flow of applications per posting to analyze relative labor market tightness. These measures recognize that job characteristics, such as skill requirements, affect the applications received by each posting, and control for this by grouping vacancies based on the first skill mentioned in the job description. Rising (falling) values for this measure for a particular skill indicate that average daily application flows have increased (decreased), and hence, that labor market tightness fell (rose) for postings that require the skill. Our data on application flows per vacancy posting are from the **DHI Vacancy and Application Flow Database**. For more information about this database and the skill-level tightness measures, see "Application Flows" by Steven J. Davis and Brenda Samaniego de la Parra.

About DHI Group, Inc.

DHI Group, Inc. (NYSE: DHX) is a leading provider of data, insights and connections through our specialized services for professional communities including technology and security clearance, financial services, energy, healthcare and hospitality. Our mission is to empower professionals and organizations to compete and win through expert insights and relevant employment connections. Employers and recruiters use our websites and services to source and hire the most qualified professionals in select and highly-skilled occupations, while professionals use our websites and services to find the best employment opportunities in and the most timely news and information about their respective areas of expertise. For over 25 years, we have built our company on providing employers and recruiters with efficient access to high-quality, unique professional communities, and offering the professionals in those communities access to highly-relevant career opportunities, news, tools and information. Today, we serve multiple markets located throughout North America, Europe, the Middle East and the Asia Pacific region.

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