

Frequently Asked Questions

The S&P 500[®] LinkUp Jobs Indices

- 1. What are the S&P 500 LinkUp Jobs Indices?** The S&P 500 LinkUp Jobs Indices are economic indicators of labor demand. Updated weekly, they are designed to measure changes in the global job listings posted by companies in the S&P 500 and its sectors, including subsidiaries.

The series includes the following indices:

Headline:

- [S&P 500 LinkUp Jobs Index](#)

Sectors:

- S&P 500 LinkUp Jobs Energy Index
- S&P 500 LinkUp Jobs Materials Index
- S&P 500 LinkUp Jobs Industrials Index
- S&P 500 LinkUp Jobs Consumer Discretionary Index
- S&P 500 LinkUp Jobs Consumer Staples Index
- S&P 500 LinkUp Jobs Health Care Index
- S&P 500 LinkUp Jobs Financials Index
- S&P 500 LinkUp Jobs Information Technology Index
- S&P 500 LinkUp Jobs Communications Services Index
- S&P 500 LinkUp Jobs Utilities Index
- S&P 500 LinkUp Jobs Real Estate Index

- 2. Who is LinkUp?** LinkUp is a data-driven job search company tracking job openings sourced directly from employer websites. LinkUp aggregates (“scrapes”) data on a daily basis directly from employer websites to track over 3.9 million jobs from over 50,000 companies.

For more information about LinkUp, please refer to their website at <https://www.linkup.com/>.

- 3. How can the S&P 500 LinkUp Jobs Indices be used?** The purpose of these indices is to provide new insights into the S&P 500 and macroeconomic trends in the U.S. and the global market. Institutional and retail investors can use the indices to inform their investment decisions as they use other key economic indicators such as interest rates, gross domestic product, and the unemployment rate.
- 4. How do these indices compare to other publicly available employment measures?** Around a dozen private firms and government agencies provide U.S. labor market data. Some of these companies aggregate underlying job listing data while others develop labor market

analytics through the use of survey or payroll data. The S&P 500 LinkUp Jobs Indices, however, represent a unique and valuable dataset relative to other employment measures.

Payroll and survey data focus on existing (filled) jobs and therefore tend to be backward looking. Other job listing datasets lack consistent, controlled collection and calculation processes and are subject to a range of issues including expired jobs, duplicate listings, and job board “pollution” such as scams, fraud, freelance postings, or expired or stale postings.

LinkUp’s job listings are sourced exclusively from company websites and refreshed daily, which mitigates collection and control issues and results in a more timely, forward-looking indicator than surveys or payrolls.

Index Design and Construction

- 1. What LinkUp data is used in the S&P 500 LinkUp Jobs Index?** On a daily basis, LinkUp delivers open jobs posting data to S&P DJI for the constituents of the S&P 500 LinkUp Jobs Index.
- 2. How does LinkUp collect (“scrape”) jobs data?** LinkUp programmatically sends a series of HTTP requests to the web sites of individual employers, and then uses custom pattern-matching to extract and structure the data that the pages returned. Constituents of the S&P 500 and their subsidiaries are scraped every 24 hours.
- 3. What is a company’s “job count”?** A company’s job count, which determines the weight of a company in the index calculation, is the number of open job postings for a given company on any given day. When a job is no longer listed on a company’s careers page or the page for that specific job no longer exists, it no longer counts towards the company’s current job count.
- 4. Are the open job data seasonally adjusted?** No.
- 5. Does LinkUp check the data for quality?** Yes, LinkUp performs extensive quality checks to confirm the integrity of the data. With full awareness of the potential issues that can interfere with data, LinkUp employs a variety of automated quality control checks, both embedded into the scraping process itself and run on the entire dataset periodically. If an issue arises, the LinkUp development team immediately investigates and resolves the complication by updating the scrape code. Most often a fix is applied within one day.
- 6. How are subsidiaries handled?** LinkUp uses Refinitiv DataScope as its source for organizational hierarchy. This allows for mapping of subsidiary companies to the appropriate S&P 500 constituent parent company.

For more information on how subsidiaries are handled, please refer to the methodology document at www.spdji.com.

- 7. How are the indices calculated?** The indices sum the weekly average job counts of all S&P 500 constituents and subsidiaries. If there is a constituent change, such as an addition to or deletion from the S&P 500, the index divisor will be adjusted to offset and normalize the change in total open job postings of the S&P 500 LinkUp Jobs Index to provide a continuous index measure.

For more information on how the indices are calculated, please refer to the methodology document at www.spdji.com.

- 8. Is there a lag period for the indices?** Yes. The indices measure the weekly average job count of index constituents during the “Current Period,” noted in the Exhibit 1. This is the seven-day period beginning 16 days before the publication date (weekly on Wednesdays) and ending 10 days before the index publication date. The period of seven days between day 8 and day 14 is the “Lag Period.”

| Exhibit 1: Weekly Average Job Count of S&P 500 LinkUp Jobs Index Constituents | | | | | | | |
|---|------------------------|---------|-------------------|----------|--------|----------|--------|
| PERIOD | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY | SUNDAY |
| Current Period | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Lag Period (Jobs Data Averaged Between Day 1 and Day 7) | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| | 15 | 16 | 17 | | | | |
| | Index Calculation Date | | Index Publication | | | | |

Source: S&P Dow Jones Indices LLC. Table is provided for illustrative purposes.

For more information on the lag period, please refer to the methodology document at www.spdji.com.

- 9. Why is there a two-day lag between the index calculation date and the index publication date?** The two-day lag is implemented in order for S&P DJI’s operations team to have ample time to perform the index calculations, validate index levels, receive committee approvals, and prepare client-facing files.

Data & Licensing

- 1. When are the indices published?** The indices are published every week on Wednesday morning. In the event this falls on a holiday, the data will be published at the same time on the following business day.

The S&P 500 LinkUp Jobs Indices follow the holiday schedule of the S&P 500. A complete holiday schedule for the year is available at www.spdji.com.

- 2. What data are available?** Index levels for the S&P 500 LinkUp Jobs Index and the sector indices are available, as are total job count and index weighting for each constituent. For more information on obtaining these data, please contact index_services@spglobal.com.
- 3. How much history is available for these indices?** History for these indices dates back to Jan. 23, 2012.
- 4. What additional data do these indices offer, and how can I get access to these data?** LinkUp aggregates a vast amount of job and company data, including but not limited to job titles, job descriptions, geographic location, URLs, posted and closed dates, and occupational classifications. For more information on LinkUp’s full data offering, please contact data@linkup.com.

5. **Where can I obtain more information about the indices?** Current weekly index values, a factsheet, and index methodology are available at <https://spindices.com/indices/indicators/sp-500-linkup-jobs-index>.
6. **Do I need a license from S&P DJI in order to receive and use the indices?** Yes, in order to receive, use, or distribute the indices, you will be required to enter into a subscription or license agreement with S&P DJI. Questions regarding licensing the indices can be addressed to index_services@spglobal.com.
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8. **How much do the indices cost for subscription and usage?** Pricing information requests can be addressed to index_services@spglobal.com.
9. **Will S&P DJI calculate customized versions of the indices that are not broadly published by S&P DJI?** LinkUp's job market data includes a broad range of data elements that allow for highly customizable indices. Custom index requests can be addressed to index_services@spglobal.com.

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