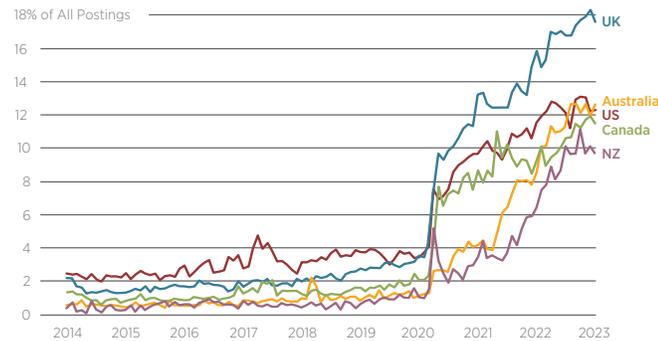


# Remote Work Across Jobs, Companies, and Space

Based on BFI Working Paper 2023-29, “[Remote Work Across Jobs, Companies, and Space](#),” by Nick Bloom, Stanford University; Steven J. Davis, Chicago Booth & Hoover Institution; Stephen Hansen, University College London; Peter John Lambert, London School of Economics; Raffaella Sadun, Harvard University; and Bledi Taska, Lightcast

*From 2019 to early 2023, the share of job postings offering remote work for one or more days per week rose more than three-fold in the United States and by a factor of five or more in Australia, Canada, New Zealand, and the United Kingdom.*

**Figure 1 •** Vacancy Postings that Explicitly Offer Hybrid or Fully Remote Work Rose Sharply in All Five Countries from 2020



Note: This figure shows the percent of vacancy postings that say the job allows one or more remote workdays per week, encompassing both hybrid and fully-remote working arrangements. The authors compute these monthly, country-level shares as the weighted mean of the own-country occupation-level shares, with weights given by the US vacancy distribution in 2019. Their occupation-level granularity is roughly equivalent to six-digit SOC codes. See the working paper for the corresponding raw series and series based on alternative weighting schemes.

The post-pandemic shift to hybrid work has revolutionized working arrangements, with US survey data revealing that one-quarter of full workdays will happen at home or other remote location after the pandemic ends, five times the pre-pandemic rate (see “[Why Working From Home Will Stick](#)”). This phenomenon, in other words, is large and enduring, and also extends beyond the United States.

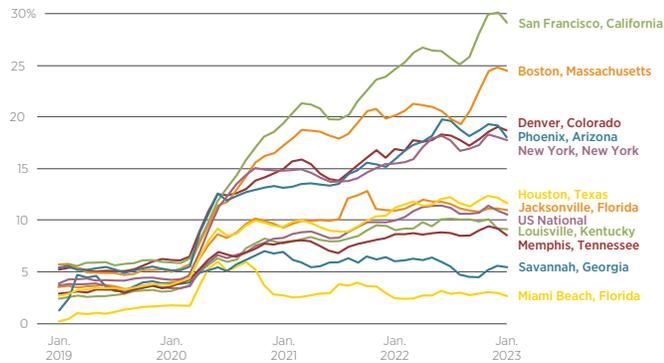
In this new work, the authors shed light on work-from-home (WFH) by studying information contained in the full text of over 250 million job postings in five English-speaking countries. The

authors employ state-of-the-art language-processing methods to determine whether a job allows for remote work, including identification by city, employer, industry, occupation, and other attributes. Data include almost all vacancies posted online by job boards, employer websites, and vacancy aggregators from 2014 to 2022 in Australia, Canada, New Zealand, the United Kingdom, and the United States. Importantly, vacancy postings pertain to the flow of new jobs rather than the stock of existing jobs. This is key because these new jobs entail a commitment—or at least a statement of intent—that extends into the future. (See [WFHmap.com](#) for updated, and available, data.)

The authors’ findings include the following:

- Before the pandemic in 2019, jobs offering remote work were 1% or less of all job ads in Australia, Canada, and New Zealand, about 3% in the United Kingdom, and about 4% in the United States.
- From 2019 to 2022, remote-work share rose more than three-fold in the United States and five-fold or more in the other countries.
- As of January 2023, the remote-work share exceeds 10% of postings in Australia, Canada, the United Kingdom, and the United States, and it appears to be on an upward trajectory in all five countries.

**Figure 2 • Share of Postings Offering Hybrid or Fully Remote Work Vary Across US Cities**



Note: The authors calculate the monthly share of all new job vacancy postings which explicitly advertise remote working arrangements (i.e. both hybrid and fully-remote), by selected cities. Prior to aggregation at the monthly level, they employ a jackknife filter to remove a small number of outlier days (see the working paper for further details). This figure shows the 3-month moving average. Cities chosen above are selected examples to illustrate the wide cross-city spread.

- Remote-work share correlates positively with computer use, education, and earnings, with Finance, Insurance, Information, and Communications sectors having especially high remote-work shares.
- Relatedly, Chicago, London, New York, San Francisco, Toronto, and other cities that function as business service hubs have high remote-work shares, and these differences have widened since the pandemic struck.
- Finally, this work reveals that the shift to remote work is not uniform across same-industry employers, even when they are recruiting in the same occupational category. As a result, workers now have expanded opportunities to find a job with working arrangements that suit their preferences. Importantly, this non-

uniformity result also suggests that remote work is not constrained by technology; rather, it is an outcome of choices about job design and organizational management. In turn, these job design and management choices are influenced by the external environment and subject to shock-induced shifts.

A concluding note on methodology: Large-scale studies like this are not possible without machine-reading technologies that accurately discern relevant information. The authors improve upon existing methods by developing a first-of-its-kind algorithm that they label WHAM, or “Work from Home Algorithmic Measure,” to classify their 250 million job postings. WHAM achieves near-human performance in classification tasks (for example, when answering the question: “Does this text explicitly offer an employee the right to remote-work one or more days a week?”). In doing so, WHAM substantially outperforms existing methods, including the language models that underlie GPT-3 and ChatGPT, and offers future research opportunities to further explore questions surrounding the emerging WFH phenomenon.

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