

Title:

Are Employer Reviews a Valid Source of Data?

Division:

Research Methods (RM)

Abstract:

Survey research is facing a multitude of challenges to its validity across the social sciences. Online surveys with non-probability, convenience samples are simultaneously seen as part of the problem and a promising solution. One such popular convenient data source is that of employer reviews, especially from online job boards such as Glassdoor and Indeed. Researchers in management (De Neve et al., 2023; Gornall et al., 2024; Ward, 2023), economics (Almeida et al., 2024; Sockin & Sojourner, 2023) and sociology (2023) have produced novel studies with impressive methodologies using this data. Methodological literature argues that researchers should not think of data quality of online surveys in terms of 'good' and 'bad' but in degrees, with a series of recommendations scattered across disciplines for assessing and managing data limitations. We present an evaluation of one source of employer review data: Indeed's Work Wellbeing Score survey (IWWS). IWWS is an ongoing international survey of subjective work wellbeing, with over 20,000,000 responses and growing. In this study we evaluate the UK subsample collected by October 2023 (N = 1,463,503). While a prima facie valuable source of data, the data generation process raises concerns of selection bias and inattentive responses. We evaluate the extent of bias, variation in bias, response rates, internal consistency and employer cluster-level reliability. We then turn to considering what types of research questions a researcher may want to answer with the data, especially unit comparisons at different survey units and inter item relationships. Overall, we suggest that at the individual, employee level, the survey suffers from selection and binary bias in responses, but that at the employer-level IWWS offers a valuable resource to supplement existing random probability surveys of work and wellbeing. In our conclusions we offer practical methodological recommendations for others using Big, online convenience samples like employer reviews. Finally, we provide commentary on the strengths and limitations of the IWWS for ongoing and future research, as well as the value for businesses, jobseekers and policy-makers.

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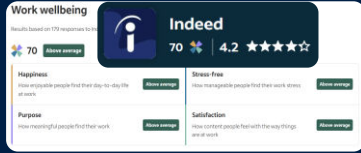
William Fleming, George Ward & Jan-Emmanuel De Neve



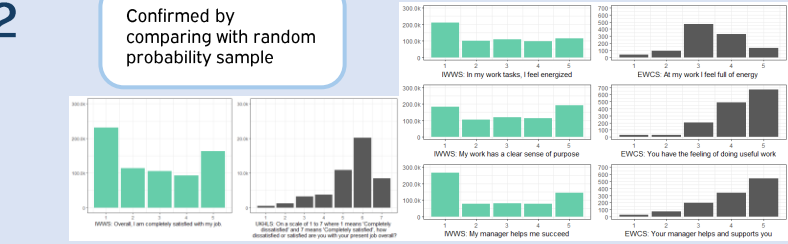
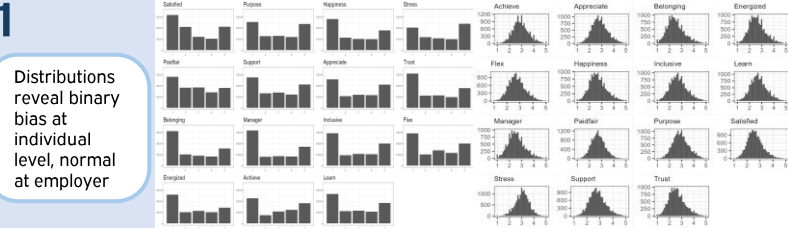
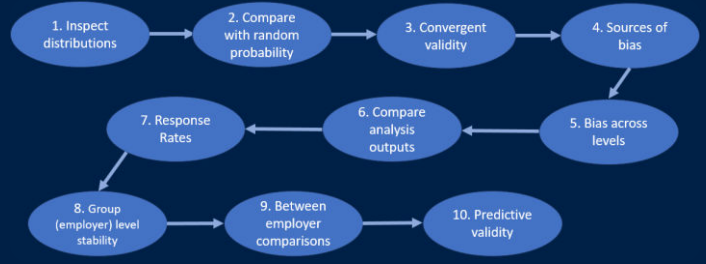
Survey research is in crisis...

Employer reviews (Indeed, Glassdoor) are an increasingly popular data source across the social sciences  
 E.g. Almeida et al (2024); De Neve et al (2023); Gornall et al. (2024); Sockin & Sojourner (2023); Ward (2024); Zhang (2023)

Indeed's Work Wellbeing Score survey  
 N = 20+ million globally  
 UK N = 1,500,000  
[indeed.com/survey/mc/happiness](https://indeed.com/survey/mc/happiness)

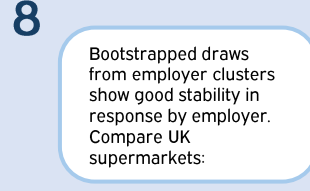
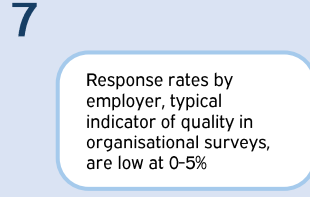


## Analytical strategy: 10 steps to evaluate data quality



Outcome	Level 2 (Employer)	Level 3 (Industry)	Level 4 (Region)
Job satisfaction = 1	0.0376	0.0055	0.0003
Job satisfaction = 5	0.0750	0.0072	0.0004
Employment status = former	0.0389	0.0026	0.0006
Response time = too long   too short	0.0469	0.0011	< 0.0001
Straightliner	0.0026	0.0015	< 0.0001
Stress equal to below and above	0.0075	0.0016	< 0.0001
Incomplete response	0.0496	0.0054	0.0003
Binary poor quality response	0.0308	0.0034	0.0004
Additive measure of poor quality	0.0159	0.0025	0.0003

SES	Model 1 (IWWS)	Full sample	No straightliner	Current employees	2-level model
Values	0.093 (0.015)	0.382 (0.001)	0.384 (0.001)	0.391 (0.002)	0.377 (0.003)
Pay	0.145 (0.012)	0.143 (0.001)	0.143 (0.001)	0.146 (0.001)	0.146 (0.001)
Manager relations	0.170 (0.015)	0.132 (0.001)	0.134 (0.001)	0.127 (0.002)	0.128 (0.001)
Abilities	0.294 (0.017)	0.106 (0.001)	0.105 (0.001)	0.107 (0.001)	0.105 (0.001)
Training	0.103 (0.015)	0.124 (0.001)	0.124 (0.001)	0.124 (0.002)	0.125 (0.001)
Friendliness	0.103 (0.019)	0.123 (0.001)	0.121 (0.001)	0.112 (0.002)	0.125 (0.001)
N	2,767	636,132	569,879	264,250	484,038
R <sup>2</sup>	0.50	0.80	0.77	0.77	-



IWWS item	CSPS item	Spearman rank	Pearson correlation
Fair Pay	'I feel that my pay adequately reflects my performance'	0.355	0.287
Manager	'My manager motivates me to be more effective in my job'	0.198	0.225
Learning	'There are opportunities for me to develop my career in [my organisation]'	0.141	0.327
Trust	'I am trusted to carry out my job effectively'	-0.005	0.005
Flex	'I have a choice in deciding how I do my work'	0.325	0.356
Inclusive	'My organisation is committed to creating a diverse and inclusive workplace'	0.281	0.278



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## Conclusions

- Considerable selection bias
- But - bias consistent across levels (employer, industry, region)
- Large but comparable numbers of inattentive responses
- Exclusion criteria make little difference to distributions but provide more reliable sample
- Metadata incomplete
- Correction techniques not appropriate
- Appropriate and effective for comparisons at employer level and analysis at this level generally
- Researchers must consider target population - total workforce or jobseekers?
- Researchers must do more to assess validity
- Need to carefully consider commensurate & appropriate RQs
- Limited for academic research but important publicly
- Data quality comes in degrees!