

Studying the mode effect in Quality of work life survey

Katja Löytynoja

Statistics Finland, Finland, katja.loytynoja@stat.fi

Miika Honkala

Statistics Finland, Finland, miika.honkala@stat.fi

Oona Pentala-Nikulainen

Statistics Finland, Finland, oon.pentala-nikulainen@stat.fi

Mixed mode surveys have been around for decades and lately the use of mixed modes has been increasing also among official statistics in order to reduce nonresponse and cut costs. Especially web surveys are now considered as a cost-effective alternative to face-to-face or telephone interviews. Using different modes introduces also some challenges to the data quality such as mode effect (De Leeuw 2005).

In 2017 Statistics Finland started a new development project in order to implement mixed modes and especially web mode in the official surveys by the year 2020. As a part of this project the 2018 Quality of work life survey had a new pilot sample besides the traditional face-to-face sample. The pilot sample consisted of 3200 people who were asked to respond via web and the traditional sample of 6153 people who were interviewed face to face or via telephone. The quality of work life survey is an extensive personal interview survey conducted since 1977 to monitor employees' working conditions and changes in them (Official Statistics of Finland (OSF): Quality of work life).

The response rate varied between these two samples (face-to-face 67 %, web 48 %) and the respondent characteristics differed when considering age, gender, education and socioeconomic status. Both datasets were weighted using calibrated weighting adjustment to account for different sampling designs and nonresponse. After weighting there were clear differences in certain opinion variables between the web respondents and the interviewed respondents which is quite usual in surveys containing opinions or sensitive questions (Pew Research Center 2015, Laaksonen & Heiskanen 2014). The combined results also differed from the previous survey years.

In this paper we examine the persistence of mode effect in opinion variables and study the possible effect on long term trends. Our methods include e.g. ANCOVA modelling and drawing new reference sample from face-to-face respondents with matching characteristics to web respondents based on auxiliary variables. We also discuss some suggestions for correcting the mode effect in long term trends.

References

De Leeuw, E. D. 2005. To Mix or Not Mix Data Collection Modes in Surveys. *Journal of Official Statistics* 2/2005.

Laaksonen S. and Heiskanen M. Comparison of three modes for a crime victimization survey. *Journal of Survey Statistics and Methodology*, Volume 2, Issue 4, December 2014, Pages 459–483, <https://doi.org/10.1093/jssam/smu018>

Official Statistics of Finland (OSF): Quality of work life [e-publication]. ISSN=2342-2890. Helsinki: Statistics Finland [referred: 5.4.2019]. Access method: http://www.stat.fi/til/tyoolot/index_en.html

Pew Research Center: From Telephone to the Web: The Challenge of Mode of Interview Effects in Public Opinion Polls. 2015. <https://www.pewresearch.org/methods/2015/05/13/from-telephone-to-the-web-the-challenge-of-mode-of-interview-effects-in-public-opinion-polls/> [referred 13.3.2019]