

Concept Note – Commuting time between home and work

Introduction

The *Statistical Framework on Measuring Quality of Employment* is composed of many different indicators that cover various dimensions of quality of employment. One of these dimensions is work-life balance, based on the understanding that the quality of employment is influenced by how it interferes with the worker's personal life quality and the available amount of time for leisure and/or family. One of the factors that reduce personal free time is the *commuting time between home and work*.

Commuting time is an important factor for most employed persons. It influences the work-life balance and must be taken into account when planning one's work and leisure time. Commuting may take considerable time and have economic consequences in terms of transportation costs and influence where businesses and employees choose to settle. It may have different impacts on different groups of employees and, for instance, be particularly important for employees with young children. Commuting may also have legal and economic consequences, for instance in relation to accidents on the way to or from work. At the societal level, commuting plays a key role in urban planning and in the planning of public transport. For Statistical geographical classification: commuting data helps statistical agencies define statistical geographical units, such as functional urban areas and labour market areas.

The growing possibilities to work from distance that comes with technological development allows in some cases employees to work while commuting, e.g. on the train or bus to work. The question is then whether to consider the time spent as commuting time or work time? Hence, new ways of teleworking call for a reconsideration of the concept of commuting time and its measurement.

Suggested activities and outputs

Work on commuting time may include (but are not limited to) the following issues:

1. Review of the current indicator (3c3) on commuting time between home and work, as proposed in the Handbook on Measuring Quality of Employment

The review of the indicator will cover a thorough discussion of the indicator sheet, including the definition of commuting time, recommended disaggregation etc. The output of the review will be in form of suggestions for possible changes of the indicator sheet or preparing additional indicator sheet with one more indicator. See final suggestion of the indicators sheets of the existing indicator on commuting time (3c3) in annex.

2. Disaggregation of the indicator

The current indicator recommends measuring the average daily time for commuting from home to work one way. After reviewing the indicator, different potential breakdowns of commuting time will be examined, as for example:

- Distribution of commuting time by classes
- Share of employed persons traveling to work beyond a certain amount of time (e.g. 30 minutes or more)
- Share of employed persons traveling to work with "long commutes" (e.g. 90 minutes or more)

3. Relation to other indicators

In addition to the previous points, commuting time will be examined regarding its relation to other indicators of quality of employment.

In analysing commuting time in relation to other indicators it would be useful to compare commuting time with other indicators of working time and work-life balance (Dimension 3), e.g. working hours, working time arrangements, flexible work schedules, the possibility to work from home and teleworking possibility (from home or during commuting). Time Use Surveys may provide information that can be used to build a clearer picture of the allocation of time on leisure, commuting and employment.

The analyses should shed light on the role of commuting for employed persons, its distribution and correlation with other indicators of working hours and working time arrangements. Analyses may help to identify useful disaggregation(s) of commuting time for measuring quality of employment and provide insights on the potential use and interpretation of the indicator. Provided that the analyses show the need for additional indicators, this can be a further outcome of this work.

Bibliography

- Room document Draft statistical framework for measuring quality of employment Nineteenth International Conference of Labour Statisticians
- Handbook on Measuring Quality of Employment A Statistical Framework (UNITED NATIONS NEW YORK AND GENEVA, 2015)
- Working anytime, anywhere: The effects on the world of work.

USA

<https://www.census.gov/topics/employment/commuting.html>

<https://www.bts.gov/content/commuting-work>

UK

<https://www.eurofound.europa.eu/observatories/eurwork/comparative-information/national-contributions/united-kingdom/place-of-work-and-working-conditions-uk>

Europe

<https://www.eurofound.europa.eu/data/european-working-conditions-survey-2010>

Canada

<https://www150.statcan.gc.ca/n1/daily-quotidien/171129/dq171129c-eng.htm>

<http://www.newgeography.com/content/005821-commuting-canada-2016-census-report>

Switzerland

<https://www.bfs.admin.ch/bfs/en/home/statistics/work-income.assetdetail.350323.html>

Researches

- <https://www.sciencedirect.com/science/article/pii/S0965856401000234>
- <https://www.sciencedirect.com/science/article/pii/S0094119010000148>
- <https://www.sciencedirect.com/science/article/pii/S0966692311001566>
- https://etd.ohiolink.edu/!etd.send_file?accession=osu1230873662&disposition=inline

Annex – proposal for indicators sheets

Short name	Commuting time (3c3)
Name	Mean duration of commuting time between work and home (one way)
Dimension and sub-dimension	3. Working hours and work-life balance <ol style="list-style-type: none"> a. Working hours b. Working time arrangements c. Work-life balance
Measurement objectives	Being employed not only involves the time spent at the workplace, but may also be associated with considerable time spent commuting. The indicator provides an estimate for the usual time spent to get from home to the place of work.
Formula	<p>The average daily time in minutes employed persons spend commuting from home to work one way.</p> <p>An assessment of commuting time averages, ranges and extreme commuting time values should all be considered for analysis, if available.</p>
Concepts and definitions	<p><i>Employed persons</i> (age 15+): Employment is defined according to the resolution of the 19th ICLS in 2013 (see glossary).</p> <p><i>Usual one way commuting time</i>: Time spent between <i>home</i> and work one way when no productive activity for the <i>job</i> is performed. ‘Usual’ is defined as the commuting time at least half the days worked in a reference period of four weeks preceding the end of the reference week.</p>
Recommended data source(s)	<p>A household-based Labour Force Survey (LFS) is the recommended data source, as it permits one to estimate the number of employed persons and it allows disaggregation by economic activity and demographic variables such as sex, age group, etc.</p> <p>In the absence of Labour Force Survey records, data from Social Surveys could be used or through a mobility survey or other household survey. In particular, Time Use Surveys can be a suitable data source, as they usually provide detailed information on commuting time.</p>
Recommended metadata	For this indicator, it is recommended that, as a minimum, metadata on the source (periodicity, breaks in series, etc.), reference period and population coverage are provided. Breakdowns of the indicator by component groups such as sex, industries, occupational group, and status in employment provides measures by which to evaluate the relative differences in mean duration of commuting time between work and home.
Recommended disaggregation	<ul style="list-style-type: none"> • Region • Degree of urbanisation • Economic activity (ISIC) • Occupation (ISCO) • Status in employment according to the ICSE-93 (particularly self-employed workers vs. employees) • Full-time vs. part-time workers • Sex • Mode of transport

Short name	Commuting time (3c3)
Interpretation guidelines	<p>For people with jobs outside of the home, travel to and from the workplace can extend the working day and shorten leisure and family time. Furthermore, commuting time between work and home can also be stressful, tiring and expensive.</p> <p>If possible, studying the commuting time of people with changing work addresses (e.g., construction workers, salespeople) would also be valuable, as they face similar issues in their commute as people with a fixed workplace. However, trying to determine a usual commuting time may prove difficult.</p> <p>Ideally, questions on what an employed person is doing during their commute will allow for greater assessment of quality of work. For example, is the person performing productive work while commuting (e.g., working on a computer while on a train; making business calls while in a car). However, even if this cannot be identified, the importance of the collecting time spent commuting on assessing work-life balance and overall health remains.</p>
Relation to other indicators	<p>It would be informative to analyse this indicator together with data on GDP, labour force participation rate and unemployment rate.</p> <p>The indicator should also be analysed together with indicators of the Dimension 3 (Working time and work-life balance).</p>
International comparisons	<p>For each indicator to be comparable across time and countries, it is crucial that countries use similar concepts and methods in their calculation.</p>
Recommended calculation in the EU-LFS or other international surveys	<p>The EU-LFS starting to cover commuting time from 2019. A variable on commuting time is included in the ad-hoc module 2019 on work organization and working time arrangements.</p> <p>The variables can be calculated also from EWCS.</p>
Further readings	<p>ONS, 2014: Commuting and Personal Well-being, 2014. Available at: http://www.ons.gov.uk/ons/rel/well-being/measuring-national-well-being/commuting-and-personal-well-being--2014/art-commuting-and-personal-well-being.html</p> <p>Roberts, J, R. Hodgson, and P. Dolan, 2009: It's driving her mad: gender differences in the effects of commuting on psychological well-being. In: Journal of Health Economics 30, pp. 1064-76.</p> <p>Stutzer, A and B. Frey, B., 2008: Stress that doesn't pay: the commuting paradox. In. Scandinavian Journal of Economics 110, pp. 339-366.</p>

Short name	Commuting time – Share of employed person (3c3-1)
Name	Share of employed persons with long commuting time between work and home (one way)
Dimension and sub-dimension	4. Working hours and work-life balance <ul style="list-style-type: none"> a. Working hours b. Working time arrangements c. Work-life balance
Measurement objectives	Being employed not only involves the time spent at the workplace, but may also be associated with considerable time spent commuting. The indicator provides an estimate for the share of employed persons with long commuting time (30 minutes or more) to get from home to the place of work.
Formula	<i>Employed persons</i> with fixed place of work and usual one-way commuting time 30 minutes or more, divided by <i>Employed persons</i> with fixed place of work and usual one-way commuting time more than zero.
Concepts and definitions	<p><i>Employed persons</i> (age 15+): Employment is defined according to the resolution of the 19th ICLS in 2013 (see glossary).</p> <p><i>Usual one way commuting time</i>: Time spent between <i>home</i> and work one way when no productive activity for the <i>job</i> is performed. ‘Usual’ is defined as the commuting time at least half the days worked in a reference period of four weeks preceding the end of the reference week.</p>
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Recommended metadata	For this indicator, it is recommended that, as a minimum, metadata on the source (periodicity, breaks in series, etc.), reference period and population coverage are provided. Breakdowns of the indicator by component groups such as sex, industries, occupational group, and status in employment.
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Further readings	<p>ONS, 2014: Commuting and Personal Well-being, 2014. Available at: http://www.ons.gov.uk/ons/rel/well-being/measuring-national-well-being/commuting-and-personal-well-being--2014/art-commuting-and-personal-well-being.html</p> <p>Roberts, J, R. Hodgson, and P. Dolan, 2009: It's driving her mad: gender differences in the effects of commuting on psychological well-being. In: Journal of Health Economics 30, pp. 1064-76.</p> <p>Stutzer, A and B. Frey, B., 2008: Stress that doesn't pay: the commuting paradox. In. Scandinavian Journal of Economics 110, pp. 339-366.</p>