Commuting time from home to work as a component of work-life balance dimension in the framework of quality of employment indicators – evidence from Israeli Labour Force Survey

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It’s All in the Numbers
Introduction

The issue of work-life balance is very important as dimension in the framework of quality of employment, one of the components of the employed-person’s day is commuting time. This time has to be added to the working time, and misses from the home/leisure time. There are more subjects that commuting time relate to, as, transports areas, urban planning and more.

In Israel LFS new set of questions was added from January 2018.

One of the questions was about commuting time (one-way in minutes)
In the presentation

- The version of the question.
- Analysis of preliminary findings. (the percentages of those who answer “yes” to the matching’s question)
For all employed persons:

4.140

How long, in minutes, does it typically take you to travel to your main workplace?

Approximately 15% answer “not known” or refuse to answer to this question.
Methodology and definitions - commuting time

**Employed persons** - employed persons with commuting time >0, not included absent from work or working from home.

22% of employed persons (not included absent from work) had non-known in almost one of the next variables: commuting time, number of actual working-days or mean hours per day.

5% of employed persons (not included absent from work) worked from home.

The findings based on 73% of employed persons (not included absent from work).

**Commuting time** – A direct question among employed persons, the index is mean duration of commuting time between work and home (one way). Maximum commuting time is 240 min.

**Employed persons with commuting time to work more than one hour** - There is some possible attitudes to decide how long commuting time, absolute and relative. After some checking of the data, we decided to take threshold 60 mins and more - about 15% of the employed persons.
Methodology and definitions – potential leisure time

Introduction:

Following absence of time use survey, we tried to learn about the time use in Israel indirectly. We can divide the day of the worker to 3 main parts: work, sleeping and arrangements and leisure time. The internal division change from individual to other, but it makes sense that we can estimate these parts among common groups.
Methodology and definitions – potential leisure time

Definitions:

$L_w$: Number of potential leisure's hours per week

$L_d$: Number of potential leisure's hours per working days

$WH_w$: actual working hours per week

$CT_d$: commuting time (one way) per day

$NWD_w$: actual working days per week

Constants:

7 days per week

24 hours per day

8 hours for sleeping and other arrangements (based on data from Israeli Social Survey 2017)
Methodology and definitions – potential leisure time

$L_w$: Number of potential leisure's hours per week

\[
L_w: 7 \times 24 - \{WH_w + [CT_d \times 2 \times NW_{Dw}]\} - 8 \times 7
\]

\[
L_w = 112 - \{WH_w + [CT_d \times 2 \times NW_{Dw}]\}
\]

$L_d$: Number of potential leisure's hours per working days

\[
L_d: \frac{(24 \times NW_{Dw}) - [WH_w + (CT_d \times 2 \times NW_{Dw})]}{NW_{Dw}} - 8 \times NW_{Dw}
\]

\[
L_d = 16 - \frac{WH_w + (CT_d \times 2 \times NW_{Dw})}{NW_{Dw}} = 16 - \frac{WH_w}{NW_{Dw}} - CT_d \times 2
\]
Main findings

Commuting time (one way) by population group and sex, 2018

Commuting time of men was higher than women.

Jewish women had higher commuting time than Arabs women.
Main findings

Commuting time (one way) by age and sex, 2018

Youngers (15-17) had less commuting time than elders
Main findings

Commuting time (one way) by usual extent of work and sex, 2018

Employed persons with full-time job had larger commuting time
Main findings

Commuting time (one way) by status of work and sex, 2018

Employers had less commuting time than employees, and women employers had the shorter commuting time (18 mins.)
Main findings

Commuting time (one way) by number of children in household and sex, 2018

Men with children had higher commuting time than men without children
Main findings

Commuting time (one way) by age of youngest child in household and sex, 2018

<table>
<thead>
<tr>
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<th>No children</th>
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<th>2-4</th>
<th>5-9</th>
<th>10-14</th>
<th>15-17</th>
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<td>32</td>
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<td>33</td>
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<td><strong>Women</strong></td>
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<td>25</td>
<td>25</td>
<td>25</td>
<td>26</td>
<td>25</td>
</tr>
</tbody>
</table>

**minutes**
Main findings

Commuting time (one way) by industries

- Construction: 40 minutes
- Information and communication: 39 minutes
- Financial and insurance activities and defence: 38 minutes
- Professional, scientific and technical activities: 35 minutes
- Administrative and support service activities: 34 minutes
- Manufacturing: 31 minutes
- Real estate activities: 31 minutes
- Water supply, sewerage, waste management: 30 minutes
- Human health and social work activities: 30 minutes
- Arts, entertainment and recreation: 28 minutes
- Wholesale and retail trade, repair of motor vehicles and motorcycles: 27 minutes
- Other service activities: 27 minutes
- Activities of households as employers: 26 minutes
- Agriculture, forestry and fishing: 26 minutes
- Accommodation and food service activities: 25 minutes
- Education: 25 minutes
- Other: 23 minutes
- Education: 23 minutes
Main findings

Commuting time (one way) by industries, Gap by sex, 2018

<table>
<thead>
<tr>
<th>Industry</th>
<th>Value positive</th>
<th>Value negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accommodation and food service activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture, forestry and fishing</td>
<td></td>
<td></td>
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<tr>
<td>Education</td>
<td></td>
<td></td>
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<tr>
<td>Activities of households as employers,...</td>
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<tr>
<td>Other service activities</td>
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<td></td>
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<tr>
<td>Wholesale and retail trade; repair of...</td>
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<td></td>
</tr>
<tr>
<td>Arts, entertainment and recreation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human health and social work activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water supply; sewerage, waste...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transportation and storage, postal and...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real estate activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrative and support service activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electricity, gas, steam and air conditioning...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional, scientific and technical...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local administration, public...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial and insurance activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information and communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Value positive= men’s commuting time higher than women.
Value negative=women’s commuting time higher than men.
Managers and professionals had the higher commuting time among employed-persons. The variance among women was lower than among men.
Main findings- international comparison

Commuting time (one way), aged 25-64 (Eurostat, 2015. israel,2018)

Israel is small area country than most of European countries. It can be one of the explanations why in Israel the commuting time is lower than in European countries.
Main findings - Employed persons with commuting time to work more than one hour

Share of employed person with commuting time (one way) more than one hour, by population group and sex, 2018

Among women, there was difference between Jewish and Arabs.
Main findings - Employed persons with commuting time to work more than one hour

Share of employed person with commuting time (one way) more than one hour, by industries, 2018

- Construction: 28%
- Information and communication: 27%
- Financial and insurance activities: 24%
- Professional, scientific and technical activities: 20%
- Local administration, public administration: 20%
- Real estate activities: 18%
- Electricity, gas, steam and air conditioning: 15%
- Administrative and support service activities: 15%
- Activities of households as employers: 15%
- Manufacturing: 14%
- Arts, entertainment and recreation: 14%
- Transportation and storage, postal and courier: 14%
- Water supply; sewerage, waste management: 13%
- Other service activities: 12%
- Human health and social work activities: 11%
- Agriculture, forestry and fishing: 11%
- Wholesale and retail trade; repair of motor vehicles: 11%
- Education: 10%
- Accommodation and food service activities: 9%
Main findings - Employed persons with commuting time to work more than one hour

Share of employed person with commuting time (one way) more than one hour, by occupations, 2018

- Professionals: 18%
- Managers: 18%
- Tradesmen in manufacturing and construction and other tradesmen: 16%
- Elementary occupations: 15%
- Practical engineers, technicians, agents, and associate professionals: 15%
- Clerical support workers: 13%
- Skilled agricultural, forestry and fishery workers: 12%
- Service and sales workers: 9%
Potential leisure time

Introduction
Following absence of time use survey, we tried to learn about the time use in Israel indirectly. We can divide the day of the worker to three main parts: work, sleeping and arrangements and leisure time.

1. Work – based on LFS, combined of working hours and commuting time.
2. Sleeping and arrangements – based on social survey (2017), this time estimated as 8 hours a day.
3. Potential leisure time – rest of the 24 hours a day.
Employed persons (not included absent from work), by time not in work neither sleeping, and other characteristics

<table>
<thead>
<tr>
<th></th>
<th>0-14</th>
<th>15-27</th>
<th>28-55</th>
<th>56-69</th>
<th>70-83</th>
<th>84+</th>
<th>Average hours per week of potential leisure</th>
<th>Average hours per workingdays in a week of potential leisure</th>
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<tbody>
<tr>
<td><strong>Thousand</strong></td>
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<td></td>
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<td><strong>All</strong></td>
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<td>13.4</td>
<td>47.3</td>
<td>21.2</td>
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<td><strong>Men</strong></td>
<td>1330.2</td>
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<td><strong>Women</strong></td>
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<td>13.4</td>
<td>45.7</td>
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<td>11.8</td>
<td>55.7</td>
<td>20.7</td>
<td>11.5</td>
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<tr>
<td><strong>15-17</strong></td>
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<td>100.0</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>8.0</td>
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<td><strong>18-24</strong></td>
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<td>7.3</td>
<td>41.8</td>
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<td>49.9</td>
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<tr>
<td><strong>65+</strong></td>
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<td>..</td>
<td>8.1</td>
<td>33.0</td>
<td>22.3</td>
<td>36.6</td>
</tr>
</tbody>
</table>

Women had more p.l than Men (we can assume that connect to the unequaled responsibility in home/children care).
Aged 35-54 (prime working-aged group) had less p.l than others.
Potential leisure time by extent of work and sex, (p.l per working-day)

The main influence on potential leisure (time not in work neither sleeping) is extent of work.
Questions for future researches

- The effect of salary (income) on commuting time
- Quality of public transportation and commuting time
- Differences between countries: size of countries, different habits in choosing place of resident in context of commuting time
- Other modes of working-places: home, on the way to work, non-fixed…
- Add Questions on: commuting time to place of study, modes of transport…
Thank you for your attention!