On-going methodological work to modernize Time-Use Surveys

Mehmet K. Sökeli
Associate Statistician
Social and Gender Statistics Section, UNSD

12th IAEG-GS Meeting
Tokyo, Japan - Nov 13, 2018
Rationale for time-use statistics

Indication 5.4.1

Proportion of time spent on unpaid domestic and care work, by sex, age and location

- Gender
- Well-being
- Unpaid care work
- Unpaid domestic work
- Paid work
- Leisure
- Voluntary work
- Environment
- Health and safety
- Travel
- Energy

How can we produce time-use data more efficiently?

~4 h 25 m

Source: SDGs Report 2017, median values, 2000-2016

~1 h 41 m
The trade-off

Use of data (our goal is to maximize these)
- Data quality
- Data granularity
- Utilization
- Cross-country comparisons

Cost (our goal is to minimize these)
- Economic resources
- Human resources
- Coding complexity
- Respondents’ burden
- Time constraints

Instruments
Modes

12th IAEG-GS Meeting
Instruments

Around 100 countries that have collected time-use data since 2000:

<table>
<thead>
<tr>
<th>Instruments</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time diary</td>
<td>57</td>
</tr>
<tr>
<td>Light-time diary</td>
<td>9</td>
</tr>
<tr>
<td>Stylized questions</td>
<td>22</td>
</tr>
</tbody>
</table>

- Economic resources
- Respondents’ burden
- Coding complexity

Data quality
- Data granularity
- Utilization

12th IAEG-GS Meeting

Tokyo, Japan - Nov 13, 2018
Modes

Recall Interview
- Face to face
- Over the network
  - Leave-behind diary
  - Technology assisted self-interview
  - Experience sampling method

Self-reported
  - Technology assisted self-interview

Observation
- In person observation
- Technology assisted observation
  - Paper diary
  - Mobile app
  - Wearable device
  - Mobile app
  - SMS / Outbound IVR
Modes

Recall Interview
- Face to face
- Over the network

Self-reported
- Leave-behind diary
- Technology assisted self-interview
- Experience sampling method

Data granularity
- Coding complexity
- Respondent’s burden

Sleep
- 9- Self-care and maintenance
  911 – night sleep/essential sleep
  912 – incidental sleep/nap
  913 – sleeplessness
  914 – other sleep and related activities

9- Self-care and maintenance
  91 - Sleep and related activities
  92 - Eating and drinking
  93 - Personal hygiene and care

Cross-country comparisons

12th IAEG-GS Meeting

Tokyo, Japan - Nov 13, 2018
Modes

Around 100 countries that have collected time-use data since 2000:

- Face to face interview
  - 15
- CATI
  - 2
- Self-reported paper diary
  - 31
- Mixed-mode
  - 10
- Not yet identified
  - 47

Disclaimer: The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.
Mixed-mode strategy

Mixed-mode in data collection try to combine the best of all possible worlds by exploiting the advantages of different modes and compensate for their weaknesses at an affordable cost (De Leeuw 2005).

Advantages

- Response rate
- Time constraints
- Cost

Possible limitations

- Data quality (mode effect)
- Coding complexity (data integration from multiple modes)
## Conclusions

<table>
<thead>
<tr>
<th>Modes</th>
<th>Instruments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recall Interview</strong></td>
<td>Full diary</td>
</tr>
<tr>
<td></td>
<td>Face to face</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Over the network</td>
</tr>
<tr>
<td><strong>Self completed</strong></td>
<td>Leave behind</td>
</tr>
<tr>
<td></td>
<td>Technology assisted self interview</td>
</tr>
<tr>
<td></td>
<td>Experience sampling method</td>
</tr>
<tr>
<td><strong>Observation</strong></td>
<td>In person</td>
</tr>
<tr>
<td></td>
<td>Technology assisted (like wearable camera)</td>
</tr>
</tbody>
</table>

- **Profile 1**: High literate urban high-tech working age (concurrent)
- **Profile 2**: High literate urban high-tech working age (Lost trust in tech)
- **Profile 3**: Low literate Rural
Thank you!

United Nations Statistics Division (UNSD) Gender Statistics Portal

https://genderstats.un.org