A Webinar on the Assessment of the mode effect on official statistics, Inter-Secretariat Working Group on Household Survey and UN-ESCAP, Feb 1, 2021

The Household Finance and Living Conditions Survey operation against Covid-19: Challenges and Implications

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1. Survey challenges under COVID-19

2. Case study
   - Brief of the survey / strategies
   - Results

3. Limitations and lessons
What Happened in Household Surveys, 2020

[ COVID-19 - first hit in March~April, 2020 ]

COVID-19

Household surveys should start or prepare
- Labor force survey
- HFLC survey
- Other social statistics

Concerns on how to control survey fields
- Time sensitive data for policies
- Skip, Delay or Continue

Adopting Mixed modes

Concerns on how to implement mixed modes in the field
- Interviewer training
- Survey instructions for non-contacts
- how to check response quality

Confirmed mode effect & release
- Editing thoroughly
- Using administrative data
- Adjusting process
Objective: To understand the financial stability and economic condition of households

- Measuring household’s incomes, expenditures, assets, liabilities, and other economic situations
- Asking about 180 items from questionnaire

Survey mode: Face to face is preferred due to the survey complexities

Sampling: As an annual survey, using 20,000 sample of households across the nation

- Adopting the five year-rotating panel sampling design
  - consisting of five sub-sample groups to maintain the homogeneity of each group with 20% of samples
  - Each panel group works for five years; one group is replaced by new one each year
- Utilizing administrative on income and non-consumption expenditure
What was the Strategy to Recover COVID-19

- **Background**: The survey fell on the onset of the pandemic

- **Key strategies and stands of actions**:
  - To complete the survey retaining the response rate (90%) to prevent the virus, enumerators and respondents
  - Enhancing communications with RSOs to reflect the local circumstances using mixed-modes to accommodate the preferences of households - F2F + *(self-administration + telephone + internet actively)*

- **Implementation strategies by process**

  **Planning**
  - Contain infection
  - Retain a response rate

  **Preparation**
  - Collective training with small group
  - Fever detection, etc.

  **Field Operation**
  - Contain infection
  - Encourage participation, etc.

  **Quality Control**
  - Strengthened editing
  - Mode effect analysis, etc.
Results 1: Response / Participation rate

- Safely completed the survey against COVID-19 with similar RR and quality to the one 2019
- 90.1% of RR is similar to 90.4% of the 2019
  - Adopting mixed survey modes
  - The limited impact of the pandemic except a few areas (Daegu and Gyeongbuk)

- The share of non-contact mode grew by 18%
  < Participation by survey mode among respondents>

14.1% of respondents with self-administration, 2020

- Contact with F2F, 78.0%
- Telephone or others, 7.9%
Results 2: Participation by non-contact in regions

➢ Higher Participation by non-contact in Daegu and Gyeongbuk: in the special control regions
  - Mild impact areas of the pandemic preferred face to face interview
### Results 3: Household characteristics by survey mode

- Participation through a non-contact mode was higher in households:
  - having 3 or more members / household’s head was younger than 50

<table>
<thead>
<tr>
<th>Classification</th>
<th>Total</th>
<th>Contact</th>
<th>Non-contact</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Age of household head</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Younger than 30</td>
<td>2%</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>In 30s</td>
<td>11%</td>
<td>10%</td>
<td>16%</td>
</tr>
<tr>
<td>In 40s</td>
<td>19%</td>
<td>17%</td>
<td>27%</td>
</tr>
<tr>
<td>In 50s</td>
<td>23%</td>
<td>23%</td>
<td>24%</td>
</tr>
<tr>
<td>60 or older</td>
<td>45%</td>
<td>49%</td>
<td>31%</td>
</tr>
<tr>
<td><strong>Household size</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-person</td>
<td>25%</td>
<td>27%</td>
<td>20%</td>
</tr>
<tr>
<td>2-person</td>
<td>31%</td>
<td>33%</td>
<td>25%</td>
</tr>
<tr>
<td>3-person</td>
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<td>21%</td>
</tr>
<tr>
<td>4-person</td>
<td>19%</td>
<td>17%</td>
<td>27%</td>
</tr>
<tr>
<td>5-person +</td>
<td>5%</td>
<td>5%</td>
<td>8%</td>
</tr>
</tbody>
</table>
Results 4: Household income by survey mode

(Household income based on the filed survey by contact or non-contact households, 2020)

- Income in non-contact households is higher than the others
  - the income gaps between contact and non-contact groups has similar patterns regardless of age groups, regions

- Households in younger age groups or living in urban area tended to select non-contact mode
  - which groups are higher educated, more active in workplace or two-income family than the others
Results 4: Household income by survey mode (con’t)

- Survey results and adjusted results using administrative data has little different patterns
  - 2020 data by mixed modes vs previous years’ data by only f2f

- Incomes for three different modes showed little difference from each other
  → self-administration is a little higher than others: high education and high paid job, or younger group

* Coverage rates(CR) = (field survey results / supplemented results) * 100%
  - the higher CR shows that the field survey results alone can cover better the final result combining administrative data
Summary

◆ The 2020 HFLC administered under COVID-19 using mixed modes
  - maintaining its current response rate (90.1%)
  - couldn’t find critical bias in terms of field responses by modes

◆ Little differences of response results from each mode
  - response error associated with a non-contact mode was mostly eliminated in the process of post checking and editing data
  - a non-contact mode could dispose of the interview effect, provide more time for respondents to complete a questionnaire, which would positively affect the result
limitations in measuring the mode effects

◆ The usage of the non-contact modes was not evenly leveled
  - the regional or age-related biases or the combination of the two have been observed,
    which entails difficulties in discerning the mode effect

◆ Data collected through a non-contact mode were subjected to
  a strengthened editing process whereby their response errors have been corrected

◆ Small sample size to assess the mode effects
  - 22% of respondents selecting non-contact modes
Lessons learned

◆ The use of a non-contact mode will partially be possible in future

Existing panel sample (80%)
- acceptable a non-contact mode
  ➔ Completed the previous year’s survey questionnaire
  - Provided an advance notice of survey participation information delivered by an enumerator and
  - Data editing by means of the use of the previous data to be followed

Newly selected sample (20%)
- might be restricted yet
  ➔ No previous data for these sample
  - validation of missing data/or response errors for data collected through a non-contact mode is not readily available
Lessons learned

➢ Using mixed modes in surveys for official statistics will be an effective way for a future response to a worsening survey environment including crisis like COVID-19

➢ We should care about:

- preparing each survey instructions and training course in advance
- mode effects and interviewer effects occurring simultaneously
- data-cleaning process could be tricky for producing a good quality data
- considering sample and survey characteristics befitting the non-contact modes

➢ Mixed modes might be more acceptable in surveys measuring facts than subjective opinion survey including items with social desirability, socially or economically sensitive to answer