A Comparison of Consumer Expenditure Surveys

Brett McBride and Nhien To
Division of Consumer Expenditure Survey
CE Survey Methods Symposium
July 16, 2013
Background

- Input for Consumer Expenditure (CE) Gemini Survey Redesign
- Design features of 35 countries’ household expenditure surveys
- Surveys selected based on the diversity of their characteristics and the extent of information provided
Information Sources

Survey information was collected from:

- Program websites
- Methodology reports
- E-mail correspondence with survey representatives
General Survey Characteristics

For each survey, the following general survey characteristics were collected:

- Country and survey name
- Achieved sample size and year
- Response rate
- Data collection method
- Reference period
Notable Design Features

- Individual Diaries
- Receipts
- Incentives
- Administrative Records
- Technology

Recent Survey Redesigns
General Survey Characteristics: Achieved Sample Size

- Germany had the largest sample size (2008)
  - Conducted every 5 years
  - 81,530 target; 55,110 completes
- U.S.’ CE had second largest (2010)
  - Unique in using two independent samples
  - 72,000 target; 50,442 completes
- Denmark had the smallest (2010)
  - 858 completes
  - Data aggregated across three years
General Survey Characteristics: Response Rates

- Lowest response rate: 18% in Luxembourg
- Highest response rate: 89% in Cyprus
- Average across the (33) surveys was 60%
General Survey Characteristics: Data Collection Method

- Almost all countries used at least two instruments (an interview/questionnaire and a separate diary)
- Some countries used individual diaries in addition to household diaries
- Population registries also used as source of data in some countries
General Survey Characteristics: Reference Period

- Interview: Survey question reference periods either 1, 3, or 12 months
- Diary: Almost all countries had respondents enter purchases over 14-day period
  - Exceptions included periods of 7 days, 1-2 months, or 3 years
Notable Design Features: Individual Diaries

- Age of eligibility to complete individual diaries varied, most commonly 15 years old and older
  - Exception: UK Children’s diary (ages between 7 - 15)
- Only France, Ireland required that all fill out diary for household to be counted as a complete
- Spain had (2-week) diary for the ‘housekeeper’, and separate (1-week) personal expense diaries
  - 75% of recruited households had all diaries filled out

Cyprus, France, Greece, Hong Kong, Ireland, Latvia, Malta, the Netherlands, Norway, Portugal, Slovenia, Spain and the United Kingdom
Notable Design Features: Individual Diaries (cont.)

Write down everything you buy during the next two weeks.

Include everything you buy for yourself or for others using your own money.

For example, chocolate bars, crisps, cans of drinks, sweets, ice cream.

Also other things like pens, clothes, CDs, games, toys, books.

Don’t forget your school meals.
Notable Design Features: Receipts

- Estonia: about 30% of households only provided receipts (2011)
  - 3-5% of receipts had insufficient level of detail
- Ireland asks households to annotate food receipts
  - Weight or volume of food
  - Bought online

Canada, Estonia, France, Hong Kong, Ireland, Romania, Sweden, United States
Notable Design Features: Receipts (cont.)

<table>
<thead>
<tr>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>S/W MED 800g (sliced, standard white bread)</td>
<td>1.49</td>
</tr>
<tr>
<td>WMEAL LOAF 800g (unsliced wheaten meal)</td>
<td>0.95</td>
</tr>
<tr>
<td>4 ROLLS @ 23c each (white bread)</td>
<td>0.92</td>
</tr>
<tr>
<td>WEETABIX x24</td>
<td>1.89</td>
</tr>
<tr>
<td>KERRY LOW LOW (low-fat spread)</td>
<td>2.50</td>
</tr>
<tr>
<td>KERRYGOLD BTR (butter)</td>
<td>0.99</td>
</tr>
<tr>
<td>CHK BRST x4 (chicken - uncooked, fresh)</td>
<td>3.99</td>
</tr>
<tr>
<td>SMALL CHICKEN (frozen, uncooked)</td>
<td></td>
</tr>
<tr>
<td>SWEET 'n' SOUR PORK (chilled, cooked)</td>
<td>5.49</td>
</tr>
<tr>
<td>HAM (cooked, sliced)</td>
<td>1.99</td>
</tr>
<tr>
<td>DENNYS SAUSAGES (pork, fresh)</td>
<td>1.26</td>
</tr>
<tr>
<td>SALMON (filleted, frozen)</td>
<td>2.25</td>
</tr>
<tr>
<td>MONSTER MUNCH (crisps)</td>
<td>3.29</td>
</tr>
<tr>
<td>WHISKAS (cat food)</td>
<td>0.60</td>
</tr>
<tr>
<td>6 EGGS FREE RANGE</td>
<td></td>
</tr>
<tr>
<td>CDR CHEESE (cheddar)</td>
<td>0.99</td>
</tr>
<tr>
<td>MILK 2LTR (own brand, full-fat)</td>
<td>1.99</td>
</tr>
<tr>
<td>MILK 2 LTR (low-fat)</td>
<td>1.65</td>
</tr>
<tr>
<td>HELLO! (magazine)</td>
<td>2.25</td>
</tr>
</tbody>
</table>
Notable Design Features: Incentives

Austria, Belgium, Bulgaria, Denmark, Estonia, Germany, Hong Kong, Ireland, Luxembourg, Malta, the Netherlands, Slovakia, South Korea, Spain and the United Kingdom

- Only two countries structured incentives at the person-level (Ireland, United Kingdom)
- Belgium’s incentives varied by household size: 75€ (1-2 people) to 124€ (6+) (2010)
- Incentives mainly contingent upon survey participation
Monetary incentives varied in amount
- $10 min in South Korea to 124€ max in Belgium

Non-monetary incentives used
- Lottery in Denmark
- Pen and expenditure information in Estonia

South Korea offered incentive contingent on completion AND diary type
- If paper diary - $10
- If web diary - $40
- If web diary linked to account/bank records - $50
Notable Design Features: Administrative Records

- Data taken from administrative records
  - Income (all countries above)
  - Education (Denmark, Finland, Norway)
  - Property tax/taxable benefits (Denmark, Sweden)
  - Housing (Denmark, the Netherlands)

- The Netherlands also used demographic data from population registries for non-response adjustments

Canada, Denmark, Finland, the Netherlands, Norway, Sweden
Notable Design Features: Technology

- Belgium found 15%-20% chose to enter data via the website when given option (vs. paper)
- The Netherlands collected 100% of data online (2012)
  - Developed instructional tutorials
  - Included downloadable diary, online questionnaire
  - Found (still) low response rates, but cost savings
- The Netherlands tutorial (in Dutch):
  https://www-budgetonderzoek.nl/Pagina/Instructiefilmpje
Recent Survey Redesigns

- Various objectives of household expenditure survey redesigns
  - Bolster response rates
  - Minimize respondent burden
  - Boost data quality and update design
  - Reduce costs

Belgium, Canada, Estonia, France, Lithuania, the Netherlands, Spain
Redesign: Estonia

- Concern – declining response rates (65% in 2000 to below 50% in 2007)
  - Limited expenditure entry to one diary
  - Reduced diary reporting period to 2 weeks (from 1 month)
  - Removed income questions
  - Added few additional retrospective questions

- Achieved minor increase in response rates (38% to 42%)
Redesign: France

- Mandatory survey with large respondent burden (three one-hour interviews, a two-week individual diary)
  - Removed one of the interviews
  - Reduced diary reporting period to one week
- Saw 2010-11 response rates return to 2000 levels (above 75%)
Redesign: Spain

- Large-scale restructuring of survey design
  - Moved from quarterly to annual data collection
  - Increased diary reporting period from one to two weeks (household diary)
  - Removed some interview questions
  - Introduced 30€ gift card as incentive

- Response rates ‘at similar levels’ (71%)

- Some drop-off in reporting of expenditures in second week of diary data collection

- Improved overall reporting (more expenditures)
Summary

- Common themes, innovations in others countries’ design characteristics can inform CE Survey program’s redesign efforts.
- CE Survey shares similar data collection methods, but uniquely uses two independent samples.
- Among notable design features, only commonality is CE Survey encouraging respondent use of records and receipts.
Summary (cont.)

- Few common notable design features, but similar intentions moving forward
  - Incorporation of new (online) technologies
  - Data collection at individual-level
  - Motivating respondents through incentives
Applications

- Ongoing research has led to suggestions, many of which are also recommended in the Gemini Design Proposal
  - **Sample size**: explore the use of a single sample
  - **Individual diaries**: identify various ways to encourage individual reporting (Ireland, Spain)
  - **Records/receipts**: encourage use of records and receipts (Canada, Ireland)
  - **Incentives/modes**: boost response rates, respondent use of lower-cost collection modes (South Korea, Estonia, Spain)
Applications (cont.)

▶ **Technology**: learn how web can effectively be implemented (the Netherlands, Belgium, South Korea, Germany)

▶ **Burden**: learn from redesigns that reduced reporting burden (France, Estonia, Canada)

▶ **Administrative records**: consider use of administrative data (Scandinavian countries)
Conclusion

- Survey programs can benefit from communicating best practices for effectively collecting high quality data, and sharing lessons learned from testing new features and implementing new survey designs.
Acknowledgments

The following program staff provided information on their countries’ budget surveys:

Johanna Janecek (Austria); Véronique Renard, Genviève Geenens (Belgium); Nikolay Valkov (Bulgaria); Jean-Louis Tambay, Johanne Tremblay (Canada); Ivana Miličić (Croatia); Henrik Sørensen (Denmark); Aira Veelmaa, Piret Tikva (Estonia); Vincent Leung (Hong Kong); Eva Menesi (Hungary); Christina Moriarty, Jim Linehan (Ireland); Gražina Žiūrienė (Lithuania); May Offermans, Peter Kruiskamp (The Netherlands); Witold Wozniak (Poland); Šedivý Jaroslav, Vladimír Čičmanec (Slovakia); GooHyun Jung (South Korea); María Valverde (Spain); Åsa Karlsson (Sweden); Linda Williams, Carl David (United Kingdom)
Contact Information

Brett McBride
Economist
Division of Consumer Expenditure Surveys
Office of Prices and Living Conditions
www.bls.gov/cex
202-691-5136
mcbride.brett@bls.gov