Statistics Canada's Experiences in Planning, Costing, Managing and Assessing Data Collection of Multi-mode Social Surveys

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Delivering insight through data for a better Canada

Impacting factors (*planning assumptions)*

- Sample size
- Frame
  - EQ and CATI completion rates – and expected response rate
  - Efficiency / Productivity / Hit rate
- Average time by interview
- Average time before the interview for respondents
- Average time for non-response and voids (out-of-scope)

- Survey design and allocation
- Collection strategy
  - Including reminder strategies and length of collection period
- Topics

➢ ***Most planning assumptions interact on each others to impact positively or negatively <u>on response rate for a fix budget</u>***

Budget simplified

EQ respondents	
System time (hours) before CATI interview (all codes except 400 for CATI respondents) **(X)**	System time for CATI interviews (code 400) **(Y)**
System time for nonrespondents and voids **(Z)**	

- *Y = Interview System Time (hours)*
  - *(Expected Average CATI interview time * Expected Number of CATI respondents) / 60*
- *X + Z = Non-interview time by CATI cases (hours)*
  - For Rapid Stats: (Total number of expected CATI cases * 8 minutes) / 60 – Avg. 5 calls
  - For other surveys: (Total number of expected CATI cases * 14.4 minutes) / 60 – Avg. 9 calls
  - On average 1.6 minutes by unsuccessful calls
- *Data Collection Hours*
  - (X+Y+Z) / 60 % (ratio system time / collection hours)

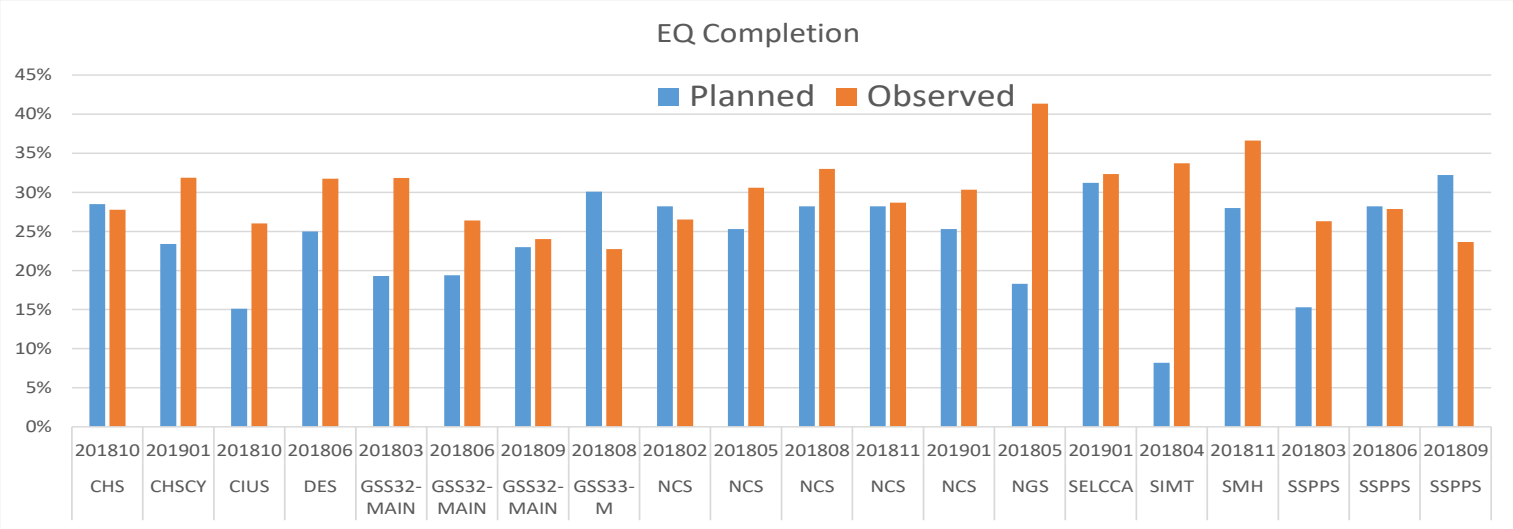
Obtaining Realistic Planning Assumptions

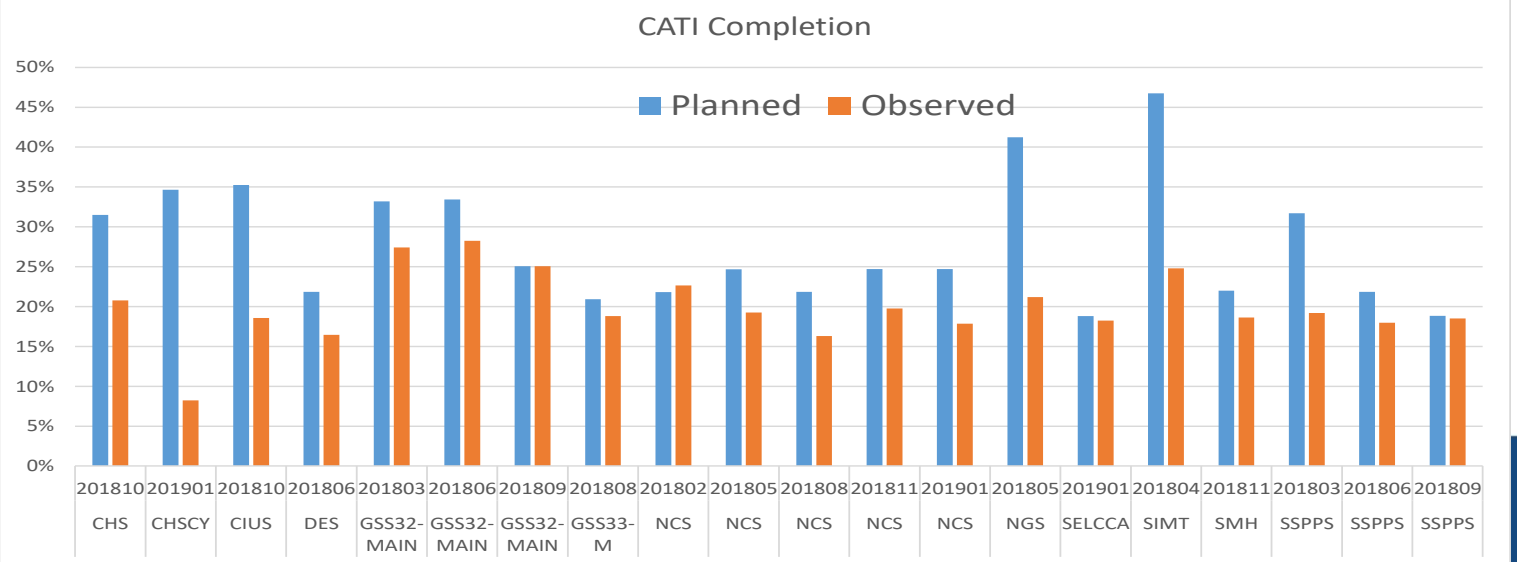
- Budget – Most important planning assumptions
  - Response rate
    - EQ and CATI completion rates
    - *Note: sample allocation strategy might slightly impact sometimes on these rates*
  - Average time by interview
  - Average non-interview time by CATI units
    - Time before the interview for CATI respondents and time for non-response and voids CATI cases
  - Ratio System Time versus Data Collection Hours

- *For All these Planning Assumptions, empirical are objective measures can be derived before (planned) and during (observed) collection*

Obtaining Realistic Planning Assumptions

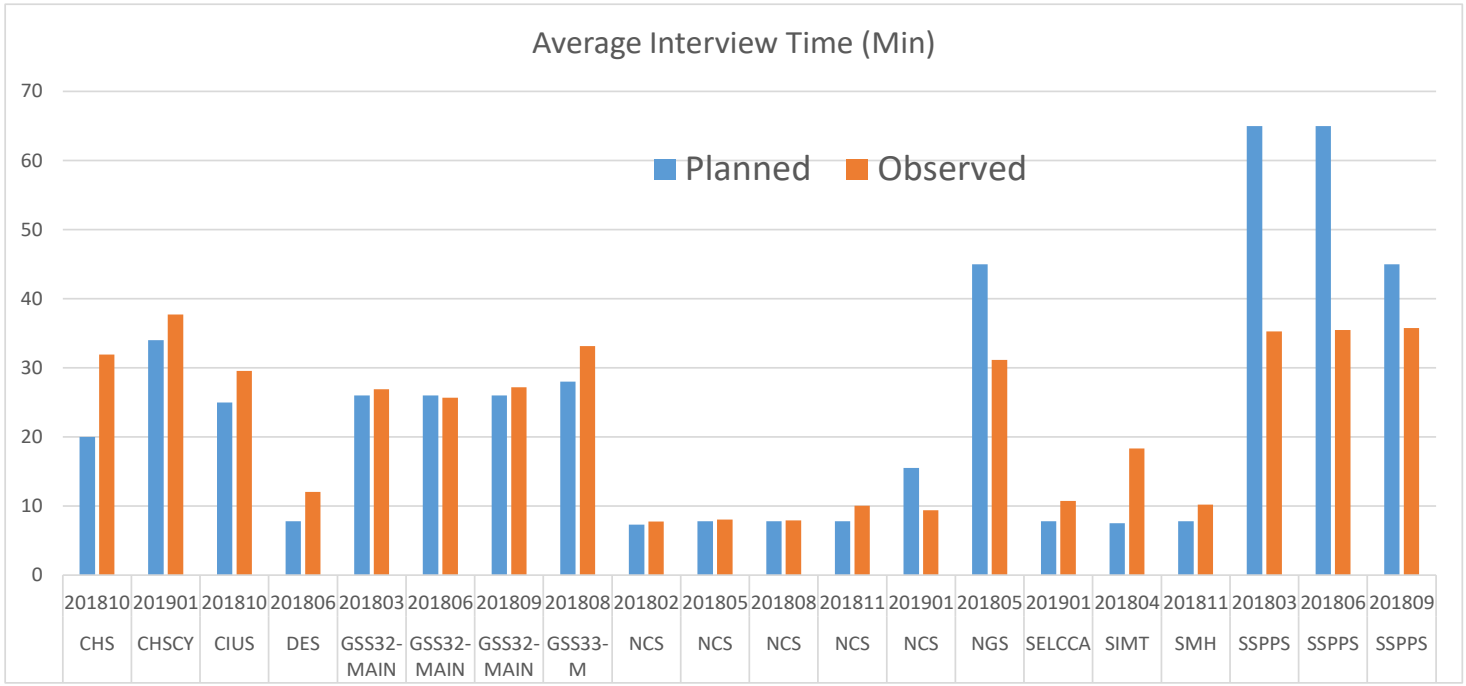
- Generally EQ (Web) completion is higher than expected as opposed to CATI completion
  - Lower CATI sample than expected – more effort on average by CATI cases





Obtaining Realistic Planning Assumptions

- Using lower average time of interview impacts on budget and expected results
- A lot of variation in the average non-interview time by survey, except for Rapid Stats



Observations

- Four categories of surveys: Rapid Stats, RTF(telephone frame), DUF(dwelling frame), and other including surveys (e.g., area frame as LFS) – including survey with tracing
  - Each type has a different budgeting pattern
- The observed average time for interview is often very different than the one planned
  - Under estimated / Over-estimated
  - In general, close for other Rapid Stats
- The observed number of CATI interviews is always lower than expected
- With few exceptions, EQ (Web) completion rates and the number of EQ (Web)respondents is always higher than expected
  - That did help in many instances to reach target response rate within the budget

What we know so far

- Response rate
  - Rapid Stats 48%-52%, Target respondent, 47%-53%, more variation among RTF (45%-55%) – Topic?
- EQ (Web) completion
  - 26%-32%
- CATI completion
  - 18%-22%, higher for some surveys
- Productivity
  - 25%-35%- depends of survey length (duration)
- Observed average non-interview time by CATI cases
  - (Total CATI system time - Interview system time) / total number of CATI cases
  - Vary from 4-6 minutes for rapid stats
  - Vary from 14-16 minutes for other surveys
  - The expected number of calls can also be estimated
- *Ratio system time / collection hours*
  - *For legacy surveys (and current budget template) - ratio is 75%*
  - *For CMP, this ratio is often in the 56%-62% range*

Impact of some planning assumptions on response rate for a fixed budget

- Hit rate
  - Higher hit rate will decrease the response rate (for a fix number of CATI completes)
  - Hit rate is linked to the frame and its quality,
  - Often not able to identify out-of-scope in the field (e.g. no contact cases)

- EQ (Web) completion
  - Lower EQ completion put more pressure on CATI (less effort on average on each cases/more CATI cases)
  - Higher EQ completion put less pressure on CATI (often de case)

- CATI completion
  - Lower CATI completion will decrease response rate if it is not compensate by EQ completion

Impact of some planning assumptions on response rate for a fixed budget

- Average interview time
  - Longer interview will decrease the amount of effort (and then response rate) that can be used to get cooperation before interview or to confirm a non-response or out-of-scope

- Observed average non-interview time by CATI cases
  - On average 1.6 minutes by unsuccessful calls e.g., 6 minutes is ending up with 3.5 calls by CATI cases, which makes sense for 8 collection days (rapid stats)

- Productivity
  - Lower productivity will impact negatively response rate

➢ ***Most planning assumptions interact on each others to impact positively or negatively on response rate for a fix budget***

For more information, please contact

Pour plus d’information, veuillez contacter

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