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# Electronic Questionnaires at Statistics Canada

**QUEST Workshop**  
**April 2015**

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**Questionnaire Design Resource Center**  
**Statistics Canada**



# OUTLINE

- E-Questionnaires (EQ) at Statistics Canada
  - Overview and current surveys
  - EQ design approach, deployment process
- EQ design considerations
- EQ qualitative testing
- Some EQ testing examples
  - Resulting improvements and ongoing challenges
- QDRC role in questionnaire “sign-off”

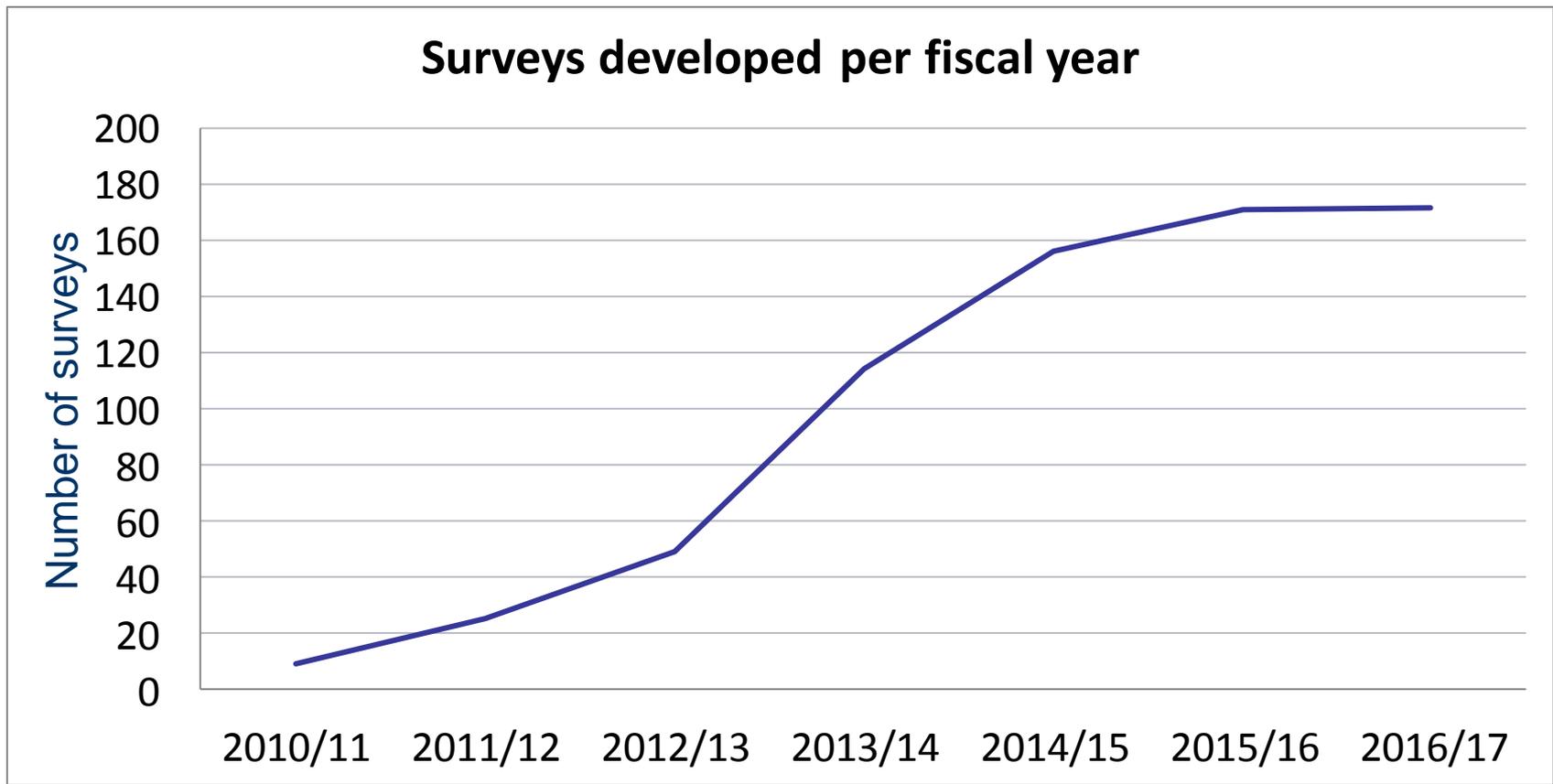


# WHY OFFER E-QUESTIONNAIRE?

- Corporate strategy → E-Questionnaire service should be corporately endorsed and promoted for business and social surveys
- Development of multimodal collection strategies
  - Help to counteract declining response rates
  - Reduce collection costs
  - Improved data quality
  - Address evolving needs of respondents and survey sponsors
- Respondent preferences: Provide Canadians with the capability of responding using the Internet through a secure process



# STATCAN EQ SURVEY DEVELOPMENT





# CURRENT STATCAN EQS

- Just over 80 EQs in production, including:
- Many business/establishment surveys
  - Integrated Business Statistics Program
- Census (2006, 2011, 2016)
- Census of Agriculture (2011, 2016)
- Several social surveys:
  - General Social Survey (4 different cycles)
  - Labour Force Survey
  - International Travel Survey
  - Travel Survey of Residents of Canada
  - Canadian Income Survey



# EQ APPROACH AT STC

- EQ: primary mode in a sequential multi-mode approach
- Design existing questionnaires (paper/CAI) as EQs
- “Best EQ possible” ↔ comparable data
- Policies, guidelines
  - EQ Standards/Guidelines
  - “Common Look & Feel” for government websites
  - Accessibility

# EQ DEVELOPMENT

- Created in-house using EQ generating system (EQGS)
  - System developed in 2008 to standardize approach & ensure accessibility
  - Automatically generates EQs based on specifications
- Many divisions responsible for creating EQs: subject matter, collection planning & management, EQ design team
  - QDRC is not lead, but may be consulted
- Assess → plan → mockups → develop new functionalities → create specs → create application
  - Must work within standards, guidelines, technical limitations of EQGS
- Test the EQ !
  - Application testing, Quality assurance, cognitive interviews



# Collection partners





# CONSIDERATIONS IN EQ DESIGN

- Page breaking – logic-based
- Flows – content and user-experience based
- Instructions – explicit and implicit
- Edits – “Do not require responses to questions unless absolutely necessary for the survey” (Dillman et al. (2009))
- Text of error messages
- Consistency with other modes



# CONSIDERATIONS IN EQ DESIGN

## MULTI-MODE (CATI vs EQ)

- Interviewer Notes and Help Text
- Response categories
- Visual vs. auditory medium
- Amount of information to display on a screen
- New functionalities?
- Possible mode effect





# EQ TESTING: QUALITATIVE TESTING

- Policy to test **new** or **revised** (e.g., mode) questionnaires
- Sequential testing (paper or CATI, then EQ)
  - With different set of test participants (usually)
- End user testing (usability testing) – ability to use EQ
- Changes required for one mode generally applied to other modes too



# GENERAL EQ TEST FINDINGS

- Many respondents used to advanced online tools (tax returns, etc.). Some have little online experience.
  - Recruitment of type of Internet user depends on survey needs
- Generally able to navigate the questionnaire (especially business respondents).
- Often skim the text on screen
- Most think they must enter a value in order to bypass warning messages (a.k.a. soft edits).

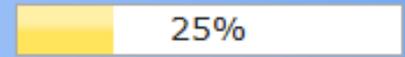
**Total sales of goods and services**  
› Please enter this business's total sales of goods and services. If unsure of exact amount, please enter your best estimate.

-\$  ,000



# BUSINESS EQ TESTING: Fiscal Year

## Annual Survey of Service Industries: Consulting Services Reporting period information



2. For this survey, please report information for this business's most recent **12 month fiscal period** where the **end date is between April 1, 2012 and March 31, 2013.**

[? Help](#)

Please indicate the period covered by this questionnaire.

Refer to **?Help** button for examples of reporting periods.

From

Calendar selection interface showing a dropdown for the month (Mar) and year (2013), with a calendar grid below. A red circle highlights the month dropdown menu.

Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

Stop

< Previous

Next >

Date M

[Top of Page](#)

[Important Notices](#)



# BUSINESS EQ TESTING: Edit messages

From  
> **Please enter a valid date (YYYY-MM-DD).**

← Respondent forgot dashes

2. For this survey, please report information for this business's most recent **12 month fiscal period** where the **end date** is **between April 1, 2012 and March 31, 2013.**

[? Help](#)

Please indicate the period covered by this questionnaire.

Refer to **?Help** button for examples of reporting periods.

> **The fiscal year entered is different than a year. Please verify and correct the fiscal year start and end dates if necessary, then press the Next button.**

← Legitimate in some cases (e.g., newly opened)

From

To

> **Date is out of range. Enter a value between April 1st, 2012 and March 31st, 2013.**

> **The fiscal year's end date entered should be after the start date. Please verify and correct these answers, then press the Next button.**



# FISCAL YEAR - REVISED

- 2. For this survey, please report information for this business's most recent **12 month fiscal period** where the **end date** is **between April 1, 2012** and **March 31, 2013**.

[? Help](#)

Please indicate the period covered by this questionnaire.  
 Refer to **?Help** button for examples of reporting periods.

From

## 2013 Annual Survey of Service Industries: Consulting Services

### Reporting period information

- 1. What are the start and end dates of this business's most recently completed fiscal year?

**Note:** For this survey, the **end date** should fall between April 1, 2013 and March 31, 2014.

Refer to **?Help** button for examples of reporting periods.

Fiscal Year Start date      Fiscal Year-End date

**New version**





# BUSINESS SURVEY: EQ NAICS coding

1. According to our records, this business's **main activity**, which typically generates the **most revenue**, is classified as:

**Motor vehicle plastic parts manufacturing**

Is this correct?

**Note:** For **additional information**, including details on the classification above, please press the **?Help** button.

- Yes**, this is the **main activity**.
- No**, this is a **secondary activity**.
- No**, this is **not applicable**.

Stop & Finish Later

< Previous

Next >



# BUSINESS SURVEY: EQ NAICS coding

The goal of the next few questions is to find the industrial classification code that best corresponds to this business's main activity.

Please provide a **brief but precise description** of this business's **main activity**.

This is the main economic activity (typically **generating the most revenue**).

**e.g.,** Breakfast cereal manufacturing **or** Shoe store **or** Software development.

Men's clothing retail

**Press the Search button below.**

This will search a database for the classification that best matches the description you provided. If desired, you can filter the search results by first selecting this business's activity sector.

Select this business's sector (optional)

Retailer

Search keywords

Men's clothing retail

Search

**Please select an activity**

Men's clothing stores (448110)

[▶ Show Details](#)

All other clothing stores (448199)

[▶ Show Details](#)

Clothing accessories stores (448150)

[▶ Show Details](#)

None of the above - A Statistics Canada representative may call you to confirm this business's main activity.



# PAPER TO EQ vs CATI TO EQ

## ■ Business Surveys

- Paper (self-complete) to EQ (self-complete)
- Generally more familiarity with web-based forms



## ■ Social Surveys

- CATI (interviewer-assisted) to EQ (self-complete)
- Not all the population are avid Internet users





# EQ CHALLENGES

- Evolving platforms (migration)
  - New features introduced with each EQGS release
- Budget and timelines
  - Only so much time, and so many resources available...
- CLF/accessibility
- Planning/implementing usability testing
  - Ability to end-user test in live e-questionnaire environment
  - Adequate time for reporting results and implementing changes
- EQGS/Change Management/Standards



# Thanks!

Questions?

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