



How Statistics Canada will be Reducing Respondent Burden for its Economic Surveys

FedCASIC

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Outline

- Statistics Canada's Integrated Business Statistics Program (IBSP).
- Content redesign of questionnaires and tax data for the first “wave” of IBSP surveys.
 - Annual economic surveys - producing Provincial estimates.
- Two phase sampling.
- Active collection management.

The “Integrated” in IBSP

- Methods, concepts, standards, processes and many aspects of business surveys are in fact very similar.
- The IBSP strives to leverage this commonality and develop and reuse generic processes to meet the needs of multiple business survey programs.
- This can not be done in isolation. All potential survey program requirements must be considered when developing an integrated approach.

IBSP objectives

- Replace ageing infrastructure for business surveys.
- Reducing respondent burden through:
 - Develop generic questionnaires and processing systems.

This presentation will focus on methods and tools that have an impact on collection and respondent burden.
 - Intensify use of Tax and other administrative data to reduce reporting burden.
- Create a flexible environment for business surveys.

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Content Redesign of IBSP Questionnaires

- Large scale review and redesign was undertaken
 - Reviewed manufacturing, services, trade, capital expenditure, head office and aquaculture surveys.
- Goal was to create generic (as possible) modular questionnaires.
 - Modules appear or disappear on a frequency basis.
 - Modules can be replaced entirely by administrative data.
 - Quality and “fit for use” were determining factors for inclusion on the questionnaire.
 - Meet needs of internal and external stakeholders.
 - Adhere to standards such as NAPCS and NAICS.



Content Redesign of IBSP Questionnaires

- The quality and relevance of existing content was assessed and dealt with accordingly.
- Generic and survey specific modules were developed.
- New information requirements were identified and included.
- The results were 60 redesigned surveys built on the foundation of 53 individual modules.

Module Break Down

- 12 modules are used across all programs and questionnaires:

Standard cover page	Reporting instructions
Reporting period	Events that effect this business
General information about the business	Respondent comments
Revenue	Expenses
Contact information	Sales by type of customer
Sales by customer location	Purchased Services



Example of a generic module

Revenue	
Note:	
<ul style="list-style-type: none">• These questions are asked of many different industries. Some questions may not apply to your business.• Refer to the Reporting Guide for detailed instructions.• Please report in thousands of Canadian dollars.	
	'000 CAN\$
1. Sales of goods and services (net of shipping charges, discounts, returned sales, excise tax)	<input type="text"/> ,000
2. Rental and leasing revenue	<input type="text"/> ,000
3. Commission revenue	<input type="text"/> ,000
4. Subsidies (including grants, donations and fundraising)	<input type="text"/> ,000
5. Royalties revenue	<input type="text"/> ,000
6. Dividends revenue	<input type="text"/> ,000
7. Interest revenue	<input type="text"/> ,000
8. Other revenue (please specify): <input type="text"/>	<input type="text"/> ,000
9. Total revenue (sum of lines 1 to 8)	<input type="text"/> ,000

Module Break Down

- 26 modules are used by programs to acquire industry specific information.
- The remainder are program based and used across questionnaires in that program.
 - Example: International Transactions Module
Used in 16 of Services industries 32 questionnaires.

Administrative data

- The questionnaire redesign had the effect of:
 - Creating a modular design that has become easier to manage.
 - Reducing and standardizing content across programs.
 - Creating modules that could easily be replaced by administrative tax data.

- Revenue and expense Modules
 - Revenue and expense questions represent a large portion all IBSP questionnaires.
 - After exhaustive review it was decided that Tax data could be used to replace those companies that operate inside of one Province.



Results of the Content Redesign

Program	-% of cells
Manufacturing	-47%
Retail	-6%
Wholesale	5%
Retail Non-Store	-55%
Services	-18%

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Two Phase Sampling Strategy

- Casting a wide net with a small questionnaire.
- The main purpose of a two phase sample is:
 - Enhancing the sample of the actual survey.
 - To clean up the sampling frame prior to selecting the samples of the various surveys frames.
 - To enable surveys to efficiently produce better quality estimates for variables or sub-populations that are not easily identified on the Business Register.



Phase 1 Questionnaire Content and Sample

- Questionnaire Content
 - Validation of industrial activity and status
 - Collect contact information for the surveys
 - Collect basic information on activities, commodities and characteristics
- Global sample for all surveys integrated into the two phase design
 - Sampling at the enterprise level
 - Stratification: Geography, industry and size
- Sample size
 - Large enough to satisfy the needs of all the surveys being selected at the second phase
- Not too large:
 - Limit response burden
 - Balance and control cost of the two phases

How Might this Strategy Reduce Response Burden?

- This will be determined by the effect the process has on the 2nd phase sample.
- The generalized systems are currently being developed for this sampling strategy.
 - We will know the effect it will have on respondent burden in the very near future.

Outline

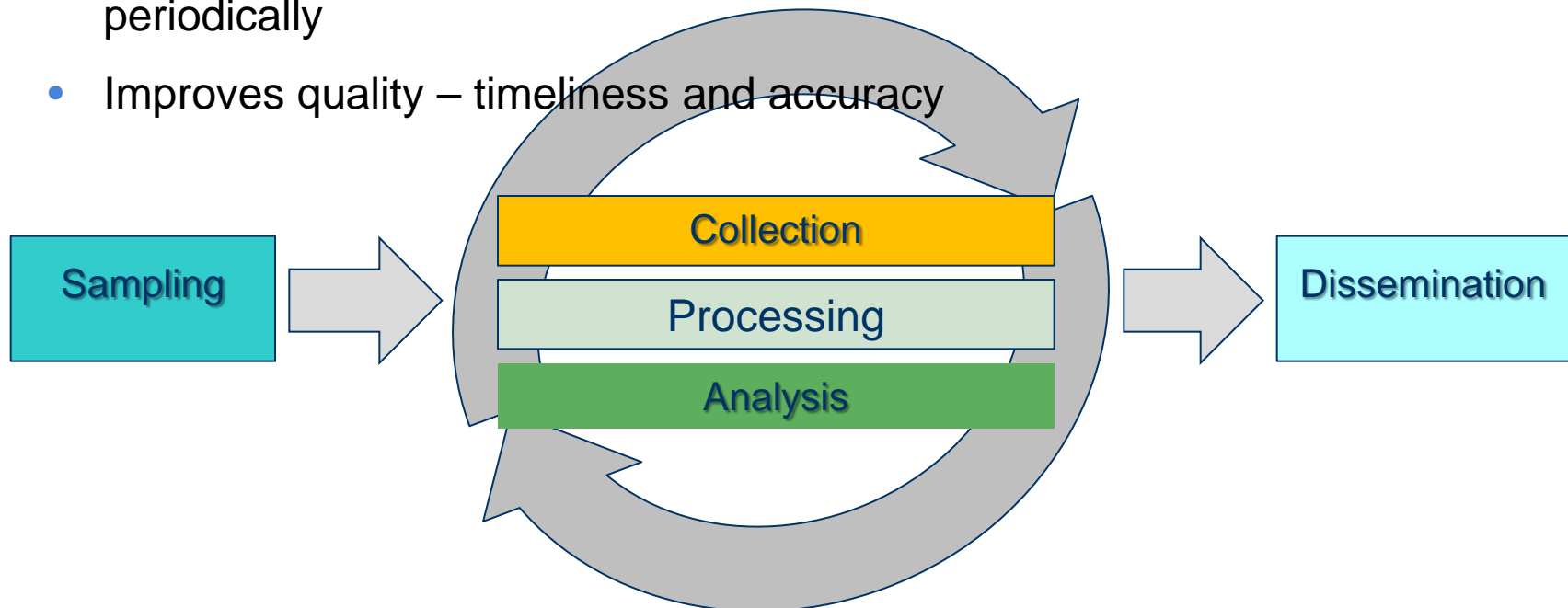
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Active Collection Management

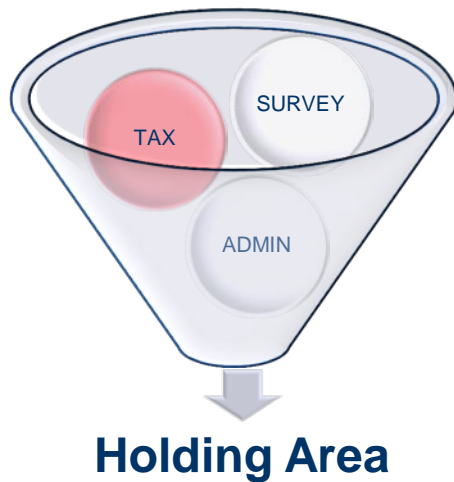
- Respondent burden is the sum of many collection activities. It is not solely the number of questions asked on a questionnaire. It also includes the follow-up for post collection editing and non-response by collection staff.
- The IBSP has developed a method to better manage this activity.
- It is a functionality embedded in our “Rolling Estimates Process”

Rolling Estimates Model

- Combines collection, processing and analysis
- Which dynamically drives follow-up and editing strategies
- Produces estimates, quality indicators and measure of impact scores periodically
- Improves quality – timeliness and accuracy



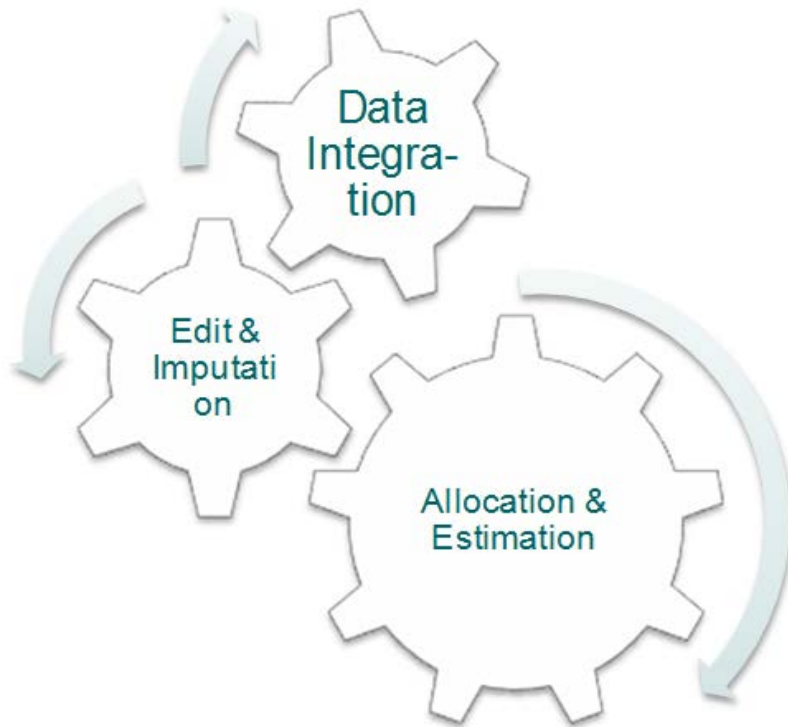
Collection



Data from multiple sources are assembled in a common holding area for processing.

No validation done on collected data

Processing



**Estimates + Quality
Indicators +
Measures of
Impact**

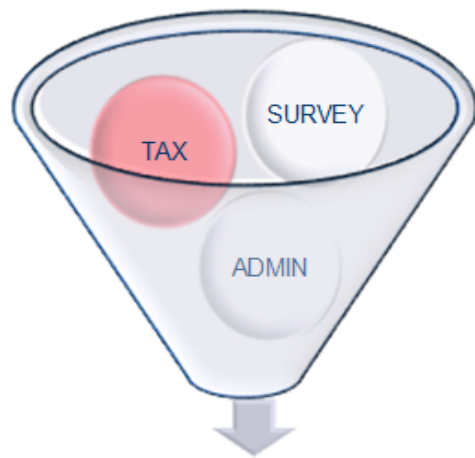
- The collected data from all sources are run through the estimation process.
- Domains of Estimation are accessed.
- Quality indicators are applied to the domains.
- Measure of impact are applied at the record level.



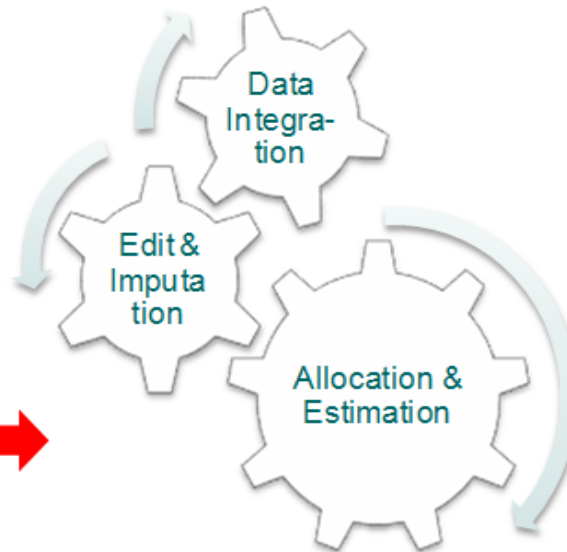
Active Collection Management

Data Extraction Cycle

Rolling Estimate Cycle



Holding Area



Estimates + Quality Indicators + Measures of Impact



Collection



Analysis



Active Collection Management Summary

- Records are prioritized for failed edit and non-response follow-up.
- All active collection stops when Quality indicators by domain of estimation are met.
- Respondent burden for these follow-up activities declines.

- By how much?

The generalized systems for this process are still under development. We will know in the very near future but the assumption is that it will be significant.



Conclusion

- Reduction in respondent burden will be achieved by the application of:
 - New questionnaire design.
 - Two phase sampling strategy.
 - Innovative active collection management strategy.



Questions

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