



Ensuring the data collection quality of enterprise and household surveys – an overview and new ways

Group of experts on Business Registers,
Paris 27- 29 September 2017

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Data collection at Statistics Finland

- Statistics Finland produces approximately 200 sets of statistics, whose data are released on the website. Over 600 new releases are made from these statistics each year.
- Statistics Finland collects direct data with inquiries and interviews from enterprises (annually ~50) and individuals (annually ~10) when the necessary data cannot be obtained from the existing registers or elsewhere.
- According to the ESS quality assurance framework QAF data collection should be routinely monitored and revised as required. *A procedure to follow up non-response* is required.

Declining response rates trends 2008 - 2015

- Response rate decreased in annual financial statements inquiry for enterprises from 88 % to 74 %
- Business register inquiry for single-establishment enterprises from 68 % to 56 %
- Business register inquiry for multi-establishment enterprises from 90 % to 78 %

Average nonresponse rate was 22 % in business surveys in 2015.

Response rate trends and data collection overview

- Statistics Finland annually – in even years, **enterprises**, in odd years, **households** – prepares a special **report on response rate** trends and the quality management of direct data collection.
- The focus is on the data collection phase (GSBPM 4).
- An assessment of the statistical survey situation, a short overview of data quality reports, a review of the fieldwork efforts, possible administrative changes in data collection, and a review of new potential data collection tools and innovations.

Ideas how to increase response rate in household surveys

1. **Profiling respondents.**
2. Deep analysis of reasons for nonresponse.
4. Interviewer and respondent feedback from earlier rounds.
5. Solving problem situations rapidly (e.g. IT problems).
6. Easy to log in web surveys.
7. **Re-organize survey mode.**
8. Survey communication plan.
9. Taking into account of holiday periods.
10. Developing and testing survey questions and concepts.
11. Renewal of the advance letters.



Ideas ... in household surveys

- 12. Motivation letter for those who refuse to answer.
- 13. Making a survey leaflet emphasizing usefulness of the survey.
- 14. Respondent incentive or a lottery (or not).
- 15. Train and motivate interviewers.
- 16. Response rate goal for the whole survey and singly interviewer.
- 17. **Making a break in contacting respondents.**
- 18. Separate and power-operative nonresponse work.
- 19. Help desk -services.
- 20. **Adding more available survey languages.**



Ideas how to increase response rate in enterprise surveys

1. **Expand a mandate to collect data for statistics**
2. **Put administrative fixed penalty into operation for refusals**
3. Concentrate data collection know-how experts in the field
4. Harmonization of different surveys
5. **More automatization in business surveys**
6. **Using XBRL-reporting (eXtensible Business Reporting Language)**
7. Unification of business surveys
8. **Special communication work with large enterprises**
9. Collate non-response cases in informant register and analyze it.
10. Develop and improve survey instruments and the possibility to control it.
11. Centralizing electronic data collection (administration).



Ideas...in enterprise surveys

12. **Coordination of sampling**

13. Take advantage of statistical business data system

14. Follow-up the of the effective field work and call-back

15. **Centralize telephone follow-up calls**

16. Special data exchange layer (e-identification) for answering surveys

17. Diversify the data collection service for enterprises

18. Planning and testing questions and questionnaires

19. **Device independent data terminal equipments**

20. **Survey communication plan for data collection**

21. Better advance letters, help-desk numbers and advertising

22. **Put quality marks (Official Statistics) for data collection materials.**





Official Statistics of Finland provides impartial information on society

21.6.2016

Official Statistics of Finland (OSF) are a comprehensive collection of statistics describing the development and state of society. They comprise nearly 300 sets of statistics. You recognise these types of statistics from the logo of the Official Statistics of Finland that has just been updated.

New ways of controlling data collection process

1. Response rate visualization
2. Mobile data collection



The image is a composite of three parts. On the left, a woman with blonde hair, wearing a headset and a colorful scarf, is smiling. To her right, there are two text boxes. The top box has the heading 'ARE YOU RESPONDING TO A DATA COLLECTION?' and the text 'Select the data collection to which you are responding and read more about it.' The bottom box has the heading 'ARE YOU LOOKING FOR A STATISTICS?' and the text 'You can search for a statistics based on the topic or contact the information service.' The background of the right side features large green numbers (8, 1, 2) and a green line graph.

ARE YOU RESPONDING TO A DATA COLLECTION?

Select the data collection to which you are responding and read more about it.

ARE YOU LOOKING FOR A STATISTICS?

You can search for a statistics based on the topic or contact the information service.

1. Response rate visualization

- 1) Response rate and paradata **tables**:

select your variable from PxWeb database

(area, education, gender, age group,), year, quarter / month,

response category (net response rate, overlap, refusal, not contacted)

- 2) Response rate **graphics**: time series by age, sex, education...

- 3) Response rate **maps**: animation by area, age...

- 4) Response rate '**story**' view

- http://pxnet2.stat.fi/explorer/Kato/Kato_sivusto_2016/kato.shtml



1) PxWeb database view (response rate and data collection paradata)

Työvoimatutkimuksen vastanneet ja kato sukupuolen, iän, koulutusasteen, maakunnan ja kadon syyn mukaan, 15-74-vuotiaat 2008-2015

Valitse muuttujat | Tietoja taulukosta

Merkitse valintasi ja valitse esitysmuoto (taulukko ruutuun tai tiedostomuoto). Valintaohje
 *-merkityille muuttujille tarvitaan ainakin yksi arvo

Maakunta 2011 <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Yhteensä 20 Valittu 0 Koko maa Uusimaa Varsinais-Suomi Satakunta Kanta-Häme Pirkanmaa Etsi <input type="text"/> <input type="button" value="➤"/> <input type="checkbox"/> Rivin alusta	Koulutusaste <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Yhteensä 4 Valittu 0 Yhteensä Ei perusasteen jälkeistä koulutusta tai koulutusaste tuntematon Keskiasteen koulutus Korkea-aste yhteensä Etsi <input type="text"/> <input type="button" value="➤"/> <input type="checkbox"/> Rivin alusta	Sukupuoli <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Yhteensä 3 Valittu 0 Sukupuolet yhteensä Miehet Naiset Etsi <input type="text"/> <input type="button" value="➤"/> <input type="checkbox"/> Rivin alusta	Ikä <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Yhteensä 8 Valittu 0 15-74 15-64 15-24 25-34 35-44 45-54 Etsi <input type="text"/> <input type="button" value="➤"/> <input type="checkbox"/> Rivin alusta
Tiedot * <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Yhteensä 13 Valittu 0 Otos Vastanneet Ylipiitto (51-59) Nettokato (11-42) Kieltäytyneet (11-19,41,42) Ei tavoitettu (21-25) Etsi <input type="text"/> <input type="button" value="➤"/> <input type="checkbox"/> Rivin alusta	Vuosi * <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Yhteensä 8 Valittu 0 2008 2009 2010 2011 2012 2013 Etsi <input type="text"/> <input type="button" value="➤"/> <input type="checkbox"/> Rivin alusta	Ajanjakso <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Yhteensä 17 Valittu 0 Koko vuosi I vuosineljännes II vuosineljännes III vuosineljännes IV vuosineljännes Tammikuu Etsi <input type="text"/> <input type="button" value="➤"/> <input type="checkbox"/> Rivin alusta	

Valittuja taulukkosoluja: 0 (enimmäisraja on 1 000 000)
 Selailunäkymä on rajoitettu 1 000 riviin ja 300 sarakkeeseen

Taulukkonäkymä 1

Select variables

Eg.

area

education

gender

age group

response category

(eg. sample, refusal,
not contacted, overlap...)

year

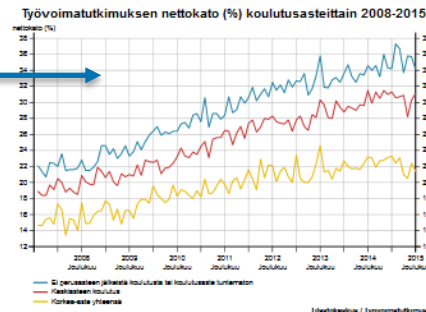
quarter / month

2) Graphics view (response rate and data collection paradata)

PX-Web
PX-Web
Verti
Nettokato
Nettokato (%) 2008-2015
Kato syyn mukaan (% kadosta) 2008-2015
Kato syyn mukaan (henkeä) 2008-2015
Luokittelet
Nettokato (%) sukupuolittain 2008-2015
Nettokato (%) kato syyn mukaan sukupuolittain [Vuosi]
Nettokato (%) koulutusasteittain 2008-2015
Kato syyn mukaan koulutusasteittain [Vuosi]
Nettokato (%) ikäluokittain 2008-2015
Kato syyn mukaan ikäluokittain [Vuosi]
Nettokato (%) maakunnittain [Vuosi]
Nettokato (%) valituissa maakunnissa 2008 ja 2015
Kato syyn mukaan maakunnittain [Vuosi]
Kombinaatiot
Nettokato (%) sukup. ja koulutusast. mukaan [Vuosi]
Nettokato (%) sukup. ja ikäluokan mukaan [Vuosi]
Nettokato (%) koulutusast. ja ikäluokan mukaan [Vuosi]
Nettokato (%) sukup. ja maakunnan mukaan [Vuosi]
Nettokato (%) maakunnittain 2015 [Koulutusaste]
Nettokato (%) maakunnittain 2015 [Ikäluokka]
Nettokato (%) ikäluokittain 2015 [Maakunta]
Verti-kartta
Verti-kartta
Statistics eXplorer
Tarinat
Maakunnittain
Luokittelumuuttujittain
Kartta ja hajonta maakunnittain
Pylväskuvio luokittelum.
Jakaumakuvi luokittelum.

Myös eri koulutusasteiden nettokato on kasvanut suurinpiirtein samaa vauhtia. Koulutusasteiden väliset erot ovat kuitenkin suuria.

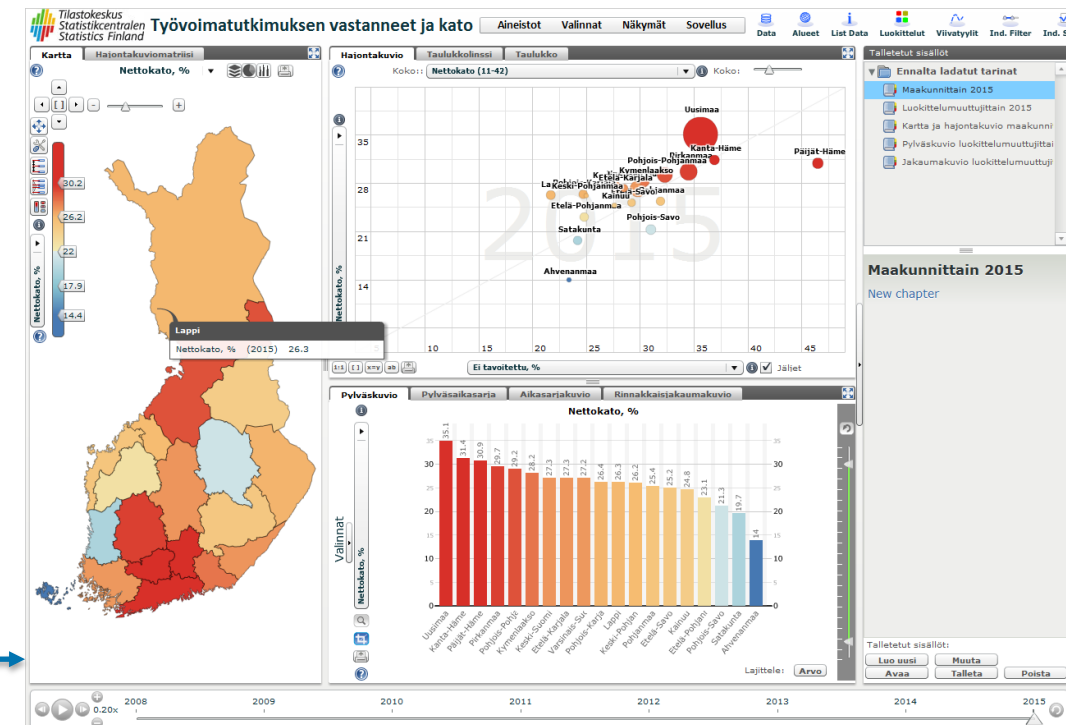
Valitse



higher education
secondary education
basic education

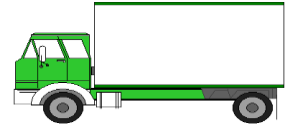
E.g. net response rate by education 2008-2015

Response rate maps, cross tabs and bar charts



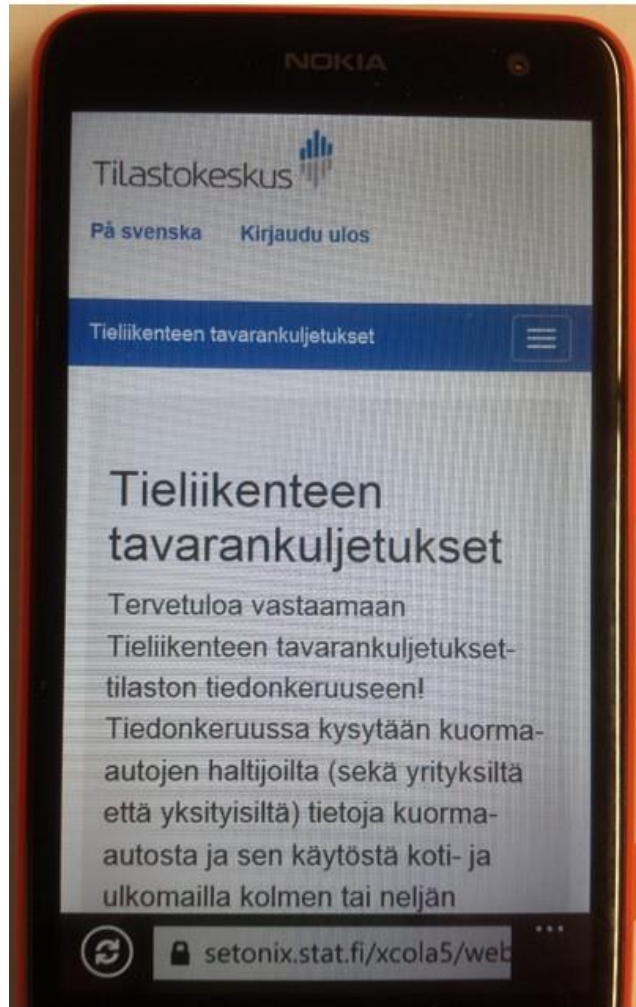
'run animation', You can save the 'story' and send it

2. Mobile data collection in the survey on goods transport by road



- In the collection of data for statistics on goods transport by road, data are requested from owners of lorries (both companies and private owners) on their lorries and on their use in Finland
- New mobile phone friendly questionnaire for drivers
- Reminds if missing or 'false' answers
- Self-adapting screen (mobile, tablet, laptop)
- Drivers can answer when they are on break

Mobile friendly questionnaire in the survey on goods transport by road



Cover letter

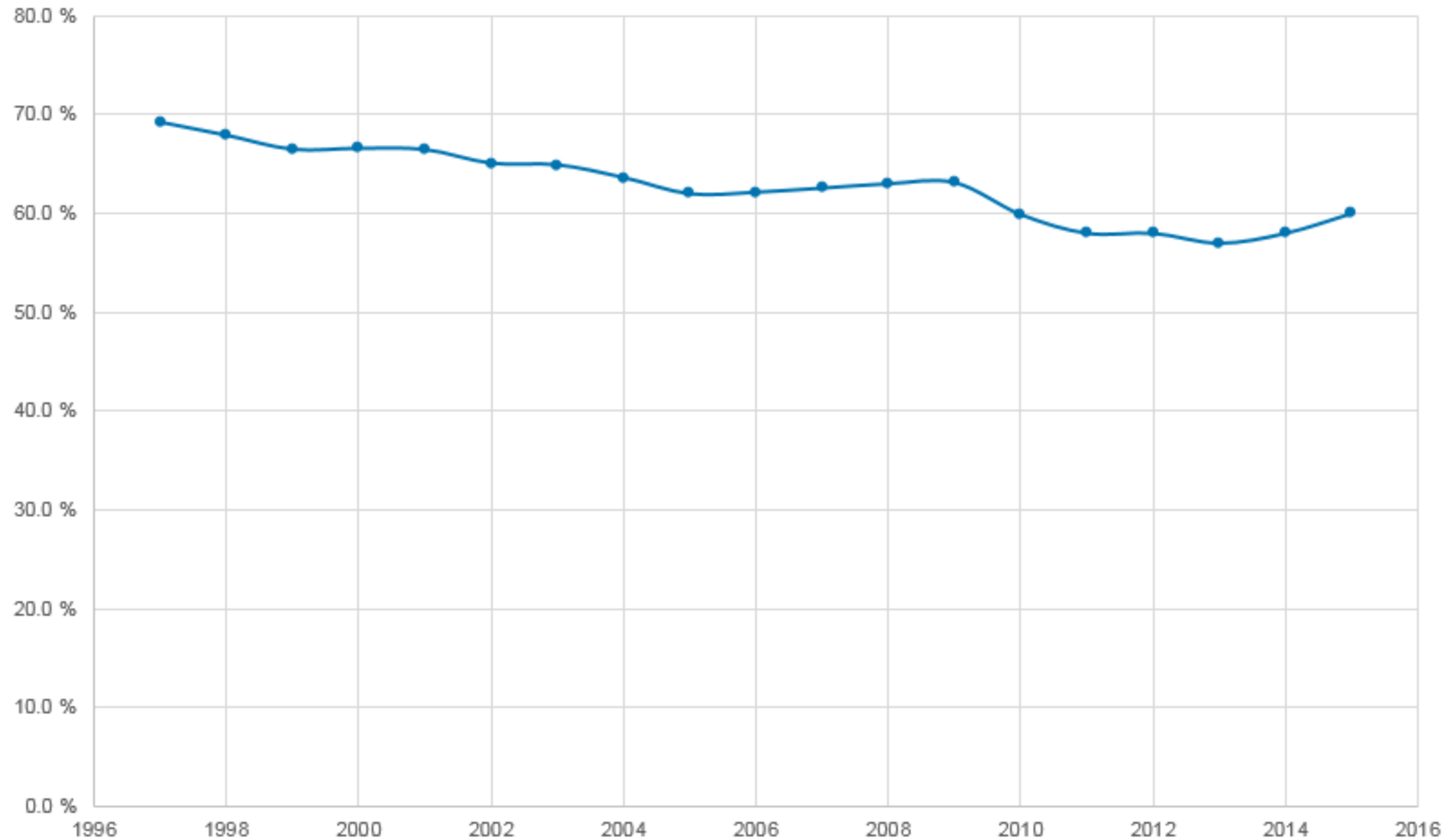
This screenshot displays the 'Kuorma-auton haltijan tiedot' (Truck owner information) section. It contains a list of pre-filled details: 'Nimi' (Name) as 'Kuljetusliike Movelt', 'Osoite' (Address) as 'Varastokatu 13', 'Postinumero' (Postal code) as '99999, KORVATUNTURI', 'Haltijan Y-tunnus' (Owner's Y-tunnus) as '1234567-8', and 'Haltijan toimiala' (Owner's sector) as 'Tieliikenteen tavarankuljetus,'. Below this is the 'Vastaajan yhteystiedot' (Respondent contact information) section, which includes input fields for 'Yhteyshenkilö' (Contact person), 'Puhelinnumero' (Phone number), and 'Sähköposti' (Email address).

Filling in beforehand

This screenshot shows the 'Kuorma-auton tiedot' (Truck information) section. It displays 'HCT-313 - Scania'. A blue information box states: 'Seuraavat kysymykset koskevat aikaväliä 03.01.-05.01.2016 ja kuorma-autoa rekisteritunnus HCT-313, Scania'. Below this are two questions: '1. Oliko yrityksenne kuorma-auton haltija?' (Was your company the truck owner?) with radio button options 'Kyllä' (Yes) and 'Ei' (No), and '2. Ajettiin kuorma-autolla?' (Was the truck driven?) with radio button options 'Kyllä' (Yes) and 'Ei' (No). The bottom of the screen shows the same URL 'setonix.stat.fi/xcola5/web' and a refresh icon.

Self-adapting screen and questions

Response rate in the survey on goods transport by road 1997 - 2015



(Simonaho Mikko)

Results of the project

- More information needed
- Small business slow in the adoption of new technology
- The statistics production process is faster
 - Data faster in database
 - Reminders are sent faster
- Cost savings: Less expenses for printing and postal charges, less human resources needed for manual entry

(Koukkula 2015;
Rouhunkoski &
Godenhjelm 2016)

Extreme measures!





Merja Kemppainen, Statistics Finland
Expert Group meeting on Business Registers, 29.9.2017 Paris