

# New survey design

STATISTICS SWEDEN

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# Introduction

- Overview of current surveys
- Merged surveys, new design
- Experiment, new data collection
- Alternative data sources
- Efforts to reduce response burden at Statistics Sweden

# Housing costs (HC), current design

- Main purpose: Describe households' housing costs in different form of tenure, in relation to household income
- Main variables of interest: Housing costs and household income
- Previous calendar year
- Published every two years
- Stratified design, sample of 17 000 households
- Mixed mode data collection, Web and Telephone
- Response rate 2018: just over 40 percent

# Household Budget Survey (HBS), current design

- Main purpose: Expenditures in different household groups and how expenditures are distributed among different goods and services
- Main variables: Expenditure on consumption items following COICOP standard. Reference week and previous 12 months.
- Published every four years
- Stratified design, sample of 7500 households
- Telephone interview, one week diary and telephone interview again
- Diary – food, beverages, clothes, ...
- Telephone interviews – furniture, transport, housing, ...
- Response rate 2012: 38 percent, 2016: 20 percent. Terminated and not published.

# From two surveys to one

- Target populations adjusted to match
- Reference period adjusted in survey of Housing costs – no direct relation to household income for survey of Housing Costs
- Target variables differ slightly between publications, but all can be derived from observation variables
- Too high response burden from all variables combined

# Split questionnaire design

- Block A = Food, beverages, clothing and footwear, dinner out
- Block B = Housing, furnishings, household equipment, maintenance
- Block C = Health and hospital services, transport, leisure time and culture, education, domestic services

# Panel approach

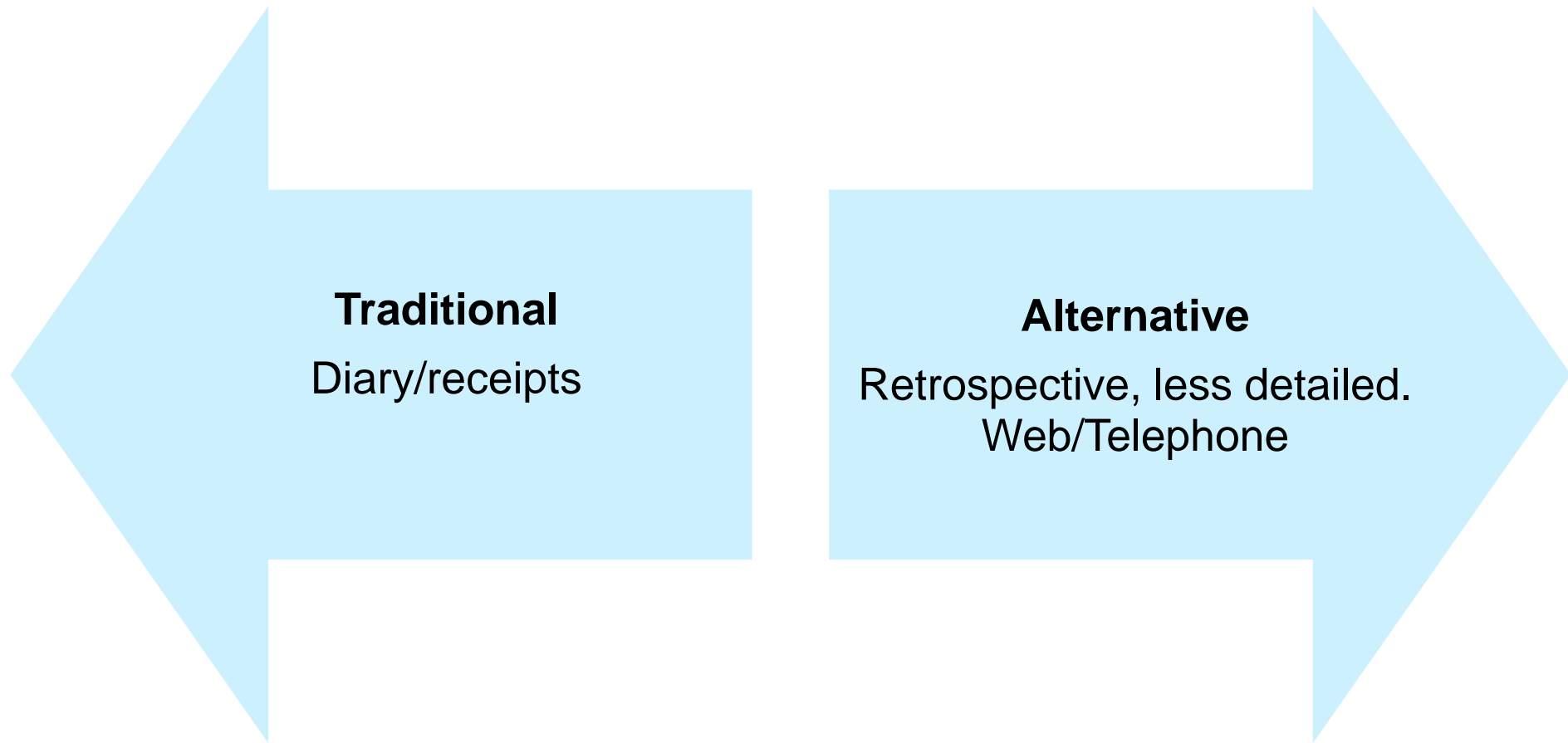
Year	Variable block		
	A	B	C
1	Panel 1	Panel 3	Panel 2
2	Panel 2	Panel 1	Panel 3
3	Panel 3	Panel 2	Panel 1

# Data collection

- Block A – diary and collection of receipts are suitable.  
Alternative to diary being tested!
- Block B – No diary required. Corresponds to current Housing Costs questionnaire. Web / telephone
- Block C – No diary required. Web / telephone



# Experiment with alternative data collection in block A (diary)



# Alternative data source – estimation problem

- Row margin

- Column margin

- Cells

	Single persons		Cohabiting adults		Other coha- bitants	Other	All house- holds
	with children	without children	with children	without children	with children	house- holds	
<b>FOOD PURCHASES</b>	<b>33 740</b> ± 2 220	<b>19 580</b> ± 1 140	<b>52 710</b> ± 3 630	<b>37 090</b> ± 1 600	<b>63 690</b> ± 10 080	<b>43 270</b> ± 3 870	<b>34 570</b> ± 1 100
Bread, cereal products	5 580 ± 450	3 260 ± 230	8 150 ± 680	5 560 ± 350	9 700 ± 1 680	6 640 ± 850	5 400 ± 210
Meat	6 180 ± 680	3 510 ± 330	8 830 ± 850	6 930 ± 480	12 490 ± 2 640	8 010 ± 940	6 200 ± 280
Fish and seafood	1 270 ± 220	1 080 ± 140	2 390 ± 370	2 740 ± 290	3 150 ± 1 270	2 520 ± 620	1 960 ± 130
Milk, cheese and eggs	5 430 ± 420	3 110 ± 220	7 800 ± 600	6 160 ± 300	10 250 ± 1 760	6 920 ± 620	5 460 ± 190
Fruit and berries	2 170 ± 270	1 570 ± 150	3 740 ± 350	3 150 ± 250	4 530 ± 1 640	3 290 ± 500	2 660 ± 130
Vegetables	3 420 ± 320	2 030 ± 180	5 300 ± 540	4 070 ± 260	6 410 ± 1 170	4 430 ± 450	3 600 ± 160
Sweets, sugar	3 340 ± 370	1 840 ± 170	4 290 ± 370	3 120 ± 230	4 650 ± 1 040	3 380 ± 500	2 940 ± 130
Sauces, dressings, condiments	630 ± 100	290 ± 50	830 ± 100	580 ± 70	1 270 ± 400	740 ± 120	550 ± 40
Salt and spices	460 ± 80	230 ± 40	680 ± 100	460 ± 60	850 ± 340	610 ± 110	440 ± 30
Baking Soda, broth, other additives	310 ± 80	200 ± 40	340 ± 60	350 ± 50	360 ± 140	410 ± 110	290 ± 20
Snacks	670 ± 110	250 ± 50	720 ± 90	280 ± 40	1 330 ± 560	480 ± 110	420 ± 30
Unspecified food	3 430 ± 1 430	1 680 ± 790	8 470 ± 2 580	2 600 ± 690	.	4 710 ± 2 300	3 760 ± 680

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Cash registry data

# The respondent should be in control – how, where and when

Mode and being able to switch mode

Way of contact

- Letters or e-mails
- my Messages

Login method

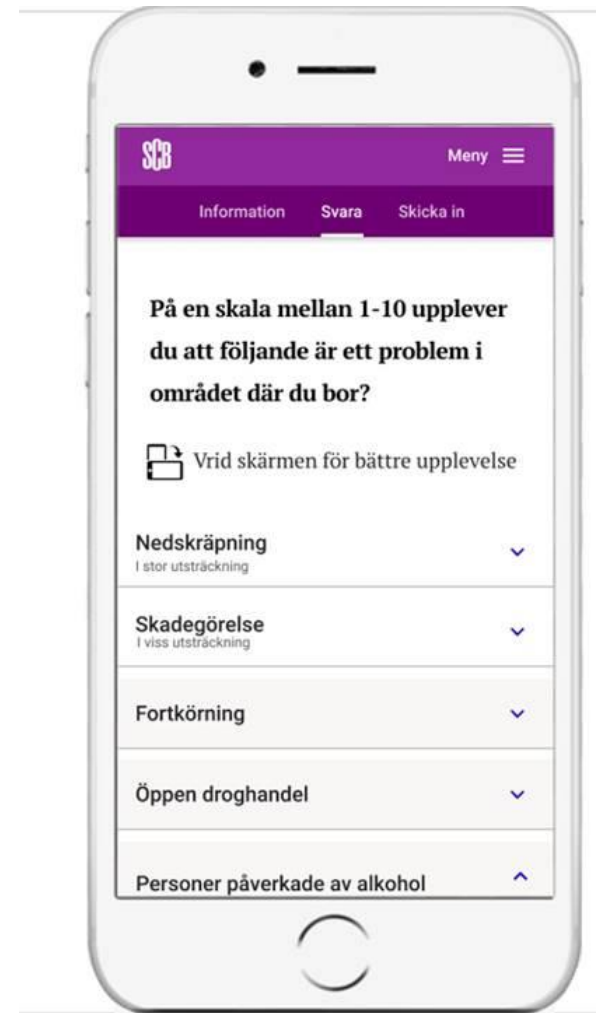
- Username and password
- BankID

Date and time

- Schedule an interview
- Web questionnaire

Device

- Smartphone
- Tablet
- Computer





# Alternative data sources and their use

- Alternative data sources of interest consists of data that's already been captured by someone else, primarily by other governmental agencies and big enterprises within the private sector (e.g. grocery chains)
- Redesign of surveys and of data collection
  - Combine survey data with administrative data (eg. cash register, PAYE Tax Return)
  - Auxiliary information for cut-off purposes (e.g. investments (digital annual reports from enterprises))
- Replace direct data collection

# Work ahead and related challenges

## Work ahead:

- Coordination and coordinated data collection
- Enhanced cooperation between countries, governmental agencies and the business world with respect to sharing data in smart and safe ways
- Considerably reduced direct data collection in business surveys in favor of machine-to-machine solutions

## Challenges:

- Establish contact with our respondents
- Legal obstacles regarding sharing data between governmental agencies
- Knowledge about what data we need and where to find it – what data has already been collected by someone else

# Success factors

- A strong trademark
- Cooperation
- User and respondent needs and requirements
- Both top-down and bottom-up approaches are necessary

# Thank you for your attention

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