



# Developing and implementing a survey on Intermediate Consumption (ICS) for the service sector in Sweden

---

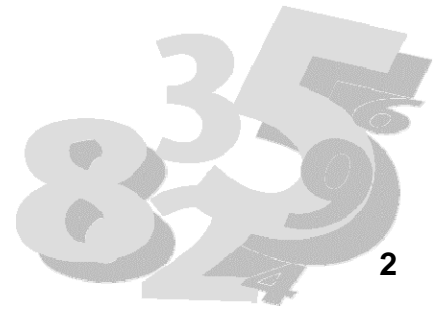
presented by  
Kerstin Forssén  
Statistics Sweden



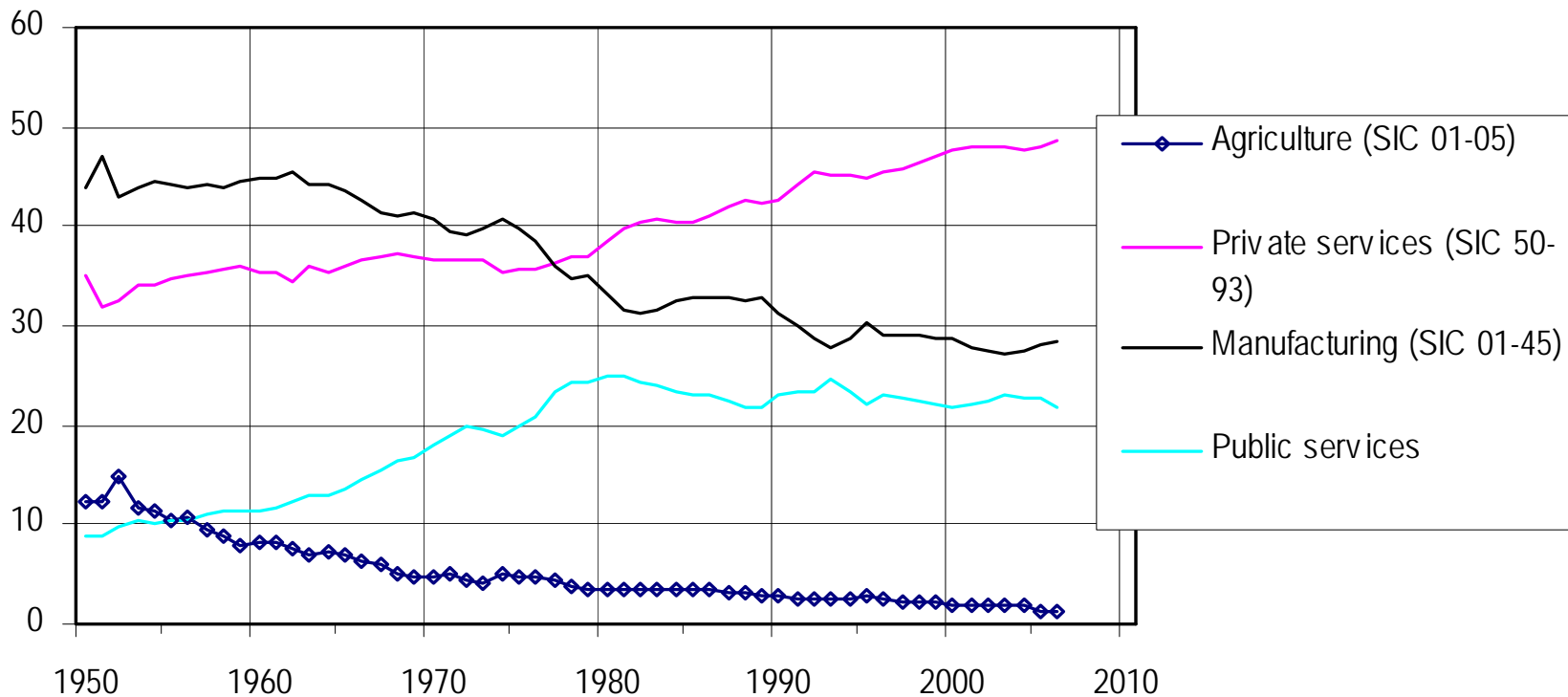
# Disposition

---

1. Background
2. Survey on intermediate consumption 2007 (ICS 2007)
3. Future plans



# 1. Growing service sector – Shares of value added



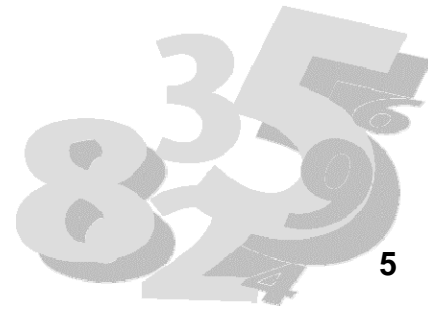
# 1. Official report on Swedish economic statistics 2002

- The users of statistics want more statistics for the growing private service sector
- The users want both yearly and short-term statistics, similar to those in the manufacturing sector.
- Yearly statistics - Production and intermediate consumption broken down on products. Trade margins broken down on products.
- Short term statistics – Production index, new orders, prices, turnover and capacity
- ICS pilot surveys have been performed for the reference years 2005, 2006 and 2007
- In this presentation we will focus on ICS 2007

## 2. Pilot survey on intermediate consumption (ICS 2007) – data within SBS

---

- From the Structural Business Statistics (SBS) we have estimates of total cost specified into:
  - *Expenses for resale*
  - *Expenses of Raw Materials and Consumables*
  - *Other External Expenses*



## 2. Pilot survey

---

- Further specification of the two variables:
  - *Expenses of Raw Materials and Consumables*
  - *Other external expenses*
- Focus on producing estimates of cost distributions instead of producing level estimates
- No double collection – collection within SBS
- Coherence between the new survey and SBS 2006 for the same activities

## 2. Main objectives of the pilot survey for 2007

---

- the possibility to collect the required information
- get feed-back on the questionnaire design
- estimate relative distributions of *Other External Expenses* and *Raw Materials and Consumables* from the pilot survey and compare them with the estimated distributions from the SBS
- get information of costs that are “hidden” under *Raw Materials and Consumables*

## 2. Coverage of activities 2007

---

**60.1:** Railway transport

**60.21:** Other scheduled passenger land transport

**60.22:** Taxi transport

**60.23:** Other transport of passengers

**60.24:** Transport of goods

**72:** Computer and related activities

**74.2-74.3:** Architectural and engineering activities and related technical consultancy

**74.5-74.8:** Other business services

**90:** Sewage and refuse disposal, sanitation and similar activities





## 2. Survey design and data collection

---

- All active enterprises in the Business Register classified into NACE 60, 72, 742-743, 745-748, and 90 Stratification by sector and size
- Other external expenses - A simple random sample was drawn in each stratum (total sample size 2 953 enterprises)
- Raw Material and Consumables – Telephone follow up study 185 enterprises
- Mandatory to participate for the enterprises
- Reminders by postal mail and telephone



## 2. Estimation

---

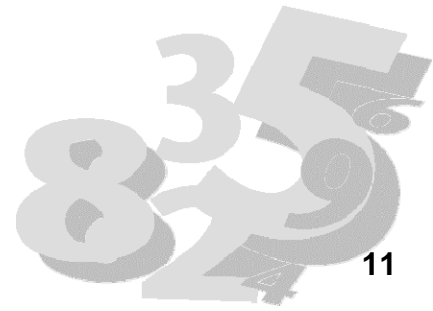
- Relative distributions (proportions) in each sector were estimated by a ratio, where numerator and denominator were estimated separately by a Horvitz-Thompson estimator.
- Non-response is compensated by re-weighting within each stratum (responding enterprises are seen as a simple random sample within each stratum from the surveyed population)



## 2. Questionnaire design

---

- Other external expenses
  - The National Accounts groups of products
  - General chart of account (BAS)
  - Requests from the National Accounts
- Raw materials and consumables
  - Costs collected in follow up study
  - In all activities except for NACE 60 a questionnaire was designed that interviewers could have as help
    - Meetings with branch organisations
    - Different approaches to different sectors
    - Combined Nomenclature (CN)
    - Foreign trade statistics





## 2. Number of responses (other external expenses)

Activity	Sample size	Number of respondents	Unweighted response rate	Weighted response rate
601	11	10	90.9	89
602	610	427	70.0	70
721	169	140	82.8	83
722	391	320	81.8	82
723	43	36	83.7	83
724	66	56	84.8	86
725	15	12	80.0	80
726	35	31	88.6	91
742	854	720	84.3	85
743	21	19	90.5	89
745	86	75	87.2	87
746	24	19	79.2	80
747	208	156	75.0	76
748	346	278	80.3	81
900	74	62	83.8	83
<b>Totalt</b>	<b>2953</b>	<b>2361</b>	<b>80.0</b>	<b>83</b>



# Hired haulage services

---

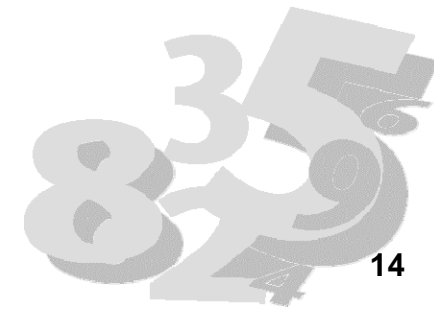




## 2. Distribution of income and costs concerning hired haulage services for Freight transport by road, NACE 60.24, ICS 2007

---

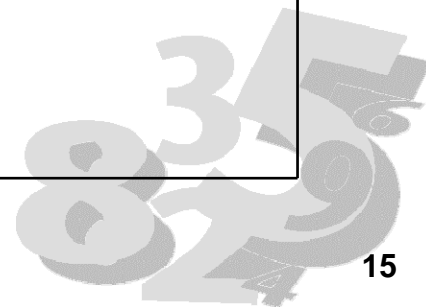
	Income	Costs
1999	5523	4447
2000	6119	5261
2001	7610	6153
2002	4648	3818
2003	5691	6854
2004	2436	2443
2005	1452	1661
2006	1614	1635
2007	9000	8549





## 2. Raw materials and Consumables . NACE 60.21, an example (Phone survey)

Variable	Costs	Share (%)	Comments
			Other external expense
Automotive fuel	340 000	8	
Mobility service	72 833	2	
Costs for tickets	10 049	0	
Arranging of transport by train	50 608	1	Other external expense
Arranging of transport by bus	3 337 259	75	Other external expense
Railway costs	36 727	1	
Station costs	224 945	5	
Maintenance and repair	180 376	4	Other external expense
Other raw material	212 516	4	
<b>Total</b>	<b>4 465 311</b>	<b>100</b>	



## 2. Other external expenses NACE 60.1

	Values			Shares		
	2007	2006	2005	2007	2006	2005
Total	-9 122	-8 452	-7 621	100	100	100
Goods for resale	0	-1	0	0	0	0
Raw materials	-32	-75	-60	0	1	1
Other external costs	-9 090	-8 376	-7 561	100	99	99
Costs for temporary manpower	-84	-70	-68	1	1	1
Costs for dataprogram	-2	-3	-2	0	0	0
Costs for real estate	-347	-237	-260	4	3	3
Costs for purchased services and management fees	-713	-484	-246	8	6	3
Costs for advertising and PR	-187	-144	-19	2	2	0
Other costs	-7 748	-7 430	-6 949	85	88	91
Losses on short term claims	-9	-8	-17	0	0	0
<b>Other</b>	-1 163	-1 513	-1 750	13	18	23





## 2. Proportion of "Other" in Other external expenses in the SBS and in the TFF

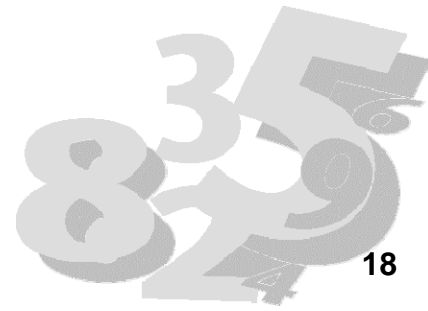
NACE-Group	Unspecified in SBS 2006 (%)	Unspecified in ICS 2007 (%)
60.1	18	2
60.21	14	2
60.22	70	7
60.23	42	1
60.24	24	2
72	48	4
742-743	53	5
745-748	51	6
90	38	7



## 2. Conclusions- ICS pilot 2007

---

- Collecting data on intermediate consumption for the service sector is feasible
- The controls introduced in SBS 2007 have been fruitful
- The use of cost statements have proven to be successful for the variable Other external expenses
- The relative estimated distributions differs between the SBS and the new survey, probably because of measurement problems in SBS





## 3. Future plans

---

- Same approach as 2007 will be used in ICS 2008
- NACE rev 1.1 50.2, 52, 61, 62 and 85.1 will be surveyed (= the rest)
- Evaluate the ICS survey for 2008 that is fully integrated into the SBS
- Unit of cognitive methods at SCB will evaluate the response burden
- Make a “final” decision of how the data will be collected in the future (subsample within SBS?)

