

tns gallup

The Swedish Tax Agency

Working on the black – technical report

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Customer manager: Jonas Persson
Project manager: Matz Johansson
Data manager: Jan Lundmark

Org no. 556115-6828

Information on the study

The Swedish Tax Agency is interested in calculating the extent of working on the black in Sweden. The at the time The National Audit Office (state audit authority) conducted a study in the 1990s with this aim and countries including Germany and Denmark have in later years conducted studies that are comparable with each other.

Calculating the extent of working on the black is methodologically difficult. The Swedish Tax Agency has therefore consulted the Rockwool Foundation research unit in Denmark, which has experience of the Danish and German studies, in order to be able to benefit from their experience and increase the possibilities of comparison with the results from Denmark and Germany. The literature also contains a comprehensive documentation of earlier studies with method tests and analyses of the differences in the results that were obtained. The study that TNS Gallup has now conducted on behalf of the Swedish Tax Agency has been designed taking into account this accumulated experience.

Aim of the study

The aim of the study is to quantify the extent of working on the black in Sweden.

The study is not on the lookout for anything criminal but is rather seeking to chart the black market with which practically everybody comes into contact. Activities that are in themselves criminal, such as the receiving of stolen goods, the narcotics trade and professional burglary fall outside of the area of charting.

The study is focused at estimating the extent of all work that is performed by people outside of their own household for which information should but is not given to the Swedish Tax Agency.

Structure of the study

We have conducted telephone interviews with a selection of 4000 private individuals (individual selection, men and women 18-74 years of age) and charted whether and to what extent the individual in question has purchased or performed black work.

The field work was initiated with a pilot study using a selection of 300 individuals of the 4000 individuals included in the study. The pilot study was conducted using two different questionnaires (main form and reserve form). The design of the form and wording of individual questions was carried out by the Swedish Tax Agency and adapted to our procedures. The main form was used for the processing of a total of 200 individuals. We sent half on them a notification card a few days prior to the initiation of the field work. The reserve form was targeted at the remaining 100 individuals (they did not receive any

notification card). The aim of the pilot study was partly to test the design and questioning technique of the questionnaire and partly to analyse the effect of the notification card.

In conjunction with the start of the pilot study we assembled all of the interviewers for a thorough review of both the background to the study and its assumptions and the questionnaire itself. Håkan Malmer and Annika Persson from the Swedish Tax Agency were both involved in this review. Following an initial review of the form the interviewers were given the opportunity to individually test the questionnaire in order to then begin to interview. After approximately 1-1.5 hours they interrupted the field work and assembled in order to go through any problems that arose and to allow for feedback.

After approximately one and a half weeks' field work the decision was taken to initiate the main part of the field work using the remaining part of the selection (3700 individuals). The main form was used for this part of the field work with the notification card (for the outcome of the pilot study see below under "Outcome of the field work" and "Results from the pilot studies").

The field work was conducted between 19 September and 6 November. Up to 16 contact attempts were conducted before a respondent was eliminated as unobtainable. The contact attempts were spread over different days of the week and different times.

The control question 'It is OK that people work black'

The questionnaire asked those who indicated when contacted that they did not wish to take part in the study a single question. The question was worded as a statement ("It is OK that people work black"), which the respondent could consider by answering using a scale of 1 to 7, where 1 means 'do not agree at all' and 7 means 'completely agree'. The same question was asked of the respondents who took part in the whole interview at the end of the interview. Below is given a comparison of the answers to the question for the respondents that did not take part in the whole interview (short) and for those who took part in the whole interview (long).

Question: It is OK that people work black

	Total		Man		Woman	
	<u>Short</u>	<u>Long</u>	<u>Short</u>	<u>Long</u>	<u>Short</u>	<u>Long</u>
Agree	12	21	13	23	12	19
(7) Complete agree	4	6	5	6	3	6
(6)	2	4	2	4	1	3
(5)	7	11	6	12	7	11
(4) Neither nor	16	13	15	14	17	13
(3)	11	13	13	14	9	12
(2)	12	15	14	16	11	13
(1) Do not agree at all	33	37	30	32	37	41
Do not agree	56	65	57	62	56	67
Non answer/no opinion	15	1	15	1	16	1
Average	2.66	2.83	2.74	2.95	2.57	2.70
<u>Balance measure</u>	<u>-44</u>	<u>-43</u>	<u>-44</u>	<u>-39</u>	<u>-44</u>	<u>-47</u>

Comments: The table refers to interviews using the main form. In total 2232 long interviews and 323 short interviews were conducted.

A consistent difference between those who took part in the short and the long interview respectively is that the respondents in the long interview consider the statement to a larger degree and that their agreement is more polarised. It is natural that those who took part in the short interview refrain to a larger degree from answering using an answer scale. These respondents do not want to answer any questions and their 'non answers' must therefore be seen as being refusals.

If we look at the central value as the average and the balance measure we find no significant differences between both of the groups.

Question: It is OK that people work black

Age	18-29		30-39		40-49		50-59		60-74	
	Short	long	short	long	short	long	short	long	short	long
Agree	15	30	22	24	10	18	11	20	8	15
(7) Agree compl.	3	9	7	6	3	6	3	5	4	4
(6)	0	6	3	5	1	3	2	3	4	3
(5)	12	15	12	13	6	9	6	12	3	8
(4) Neither nor	30	15	15	17	19	14	13	10	11	11
(3)	12	16	15	13	15	13	5	15	9	8
(2)	15	14	13	17	15	18	8	12	11	13
(1)	18	26	28	28	22	36	44	41	42	51
Do not agree	45	55	57	58	51	67	57	69	63	72
Refuse	9	1	7	0	19	1	19	1	18	2
Average	3.17	3.32	3.05	3.11	2.85	2.76	2.33	2.67	2.27	2.36
Balance measure	-30	-26	-35	-34	-41	-49	-46	-49	-55	-57

Results of the pilot studies

The pilot study consisted of three parts and was designed partly in order to test the most suitable type of questioning technique to use and partly in order to test of the effects of a notification card.

	Part 1	Part2	Part 3
Questionnaire	Reserve form	Main form	Main form
Questioning technique	Indirect	Direct	Direct
Classification	Extra work	Working on the black	
Notification card	No	Yes	No

A random selection of men and women in the 18 -74 age group was extracted from each of the three parts of the pilot study. The differences in the outcome of the field work itself between the three parts is shown in the table in the section 'Outcome of the field work' (see below). The most tangible difference is that part 2 gave a higher proportion of long interviews than the other two parts.

If we look at the differences in the results in general, we can establish that those who received a notification card state that they work in the black economy to a larger degree than those that did not receive a notification card. With regards to buying in the black economy, we can see that the differences are not significant.

Results from the pilot studies

Base	part 1	part 2	part 3
It is OK that people work black			
Agree (5, 6, 7)	8	16	20
Neither nor (4)	22	20	14
Do not agree (1, 2, 3)	69	66	66
No answer/no opinion	0	0	0
Average	2.35	2.71	2.70
Balance measure	-61	-50	-46
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Has skills that are required on the black market	37	30	34

The following variables were part of the basic data for the assessment of the pilot studies. They are not completely comparable with the calculations that were reported in the attached table report

F1. Purchased something on the black (%) (services other than on owned homes)		17	8
G3. Purchased black work on the home (% of home owners)		27	18
Purchased on the black (NET, F1+G3)	18*	24	16
Performed black work (NET, H1+J1+K1)	8**	26	12

* Net calculated by F3_2 + g3_2 + H1.

** Relates to J1.

Outcome of the field work

	Pilot study			Main job		Total	Total
	Version of form	Reserve	Main		Main	Main	Main
	Classification	Extra work	Black market work		Black market work	Black market work	Black market
Notification card	No	Yes	No	Yes	Yes	Yes/No	
TOTAL SELECTION	100	100	100		3700	3800	3900
Concluded, not interviewed	24	25	29		781	806	835
- Number unavailable tone	1	0	1		18	18	19
- Wrong number/Person not available on number	11	10	8		387	397	405
- Fax or modem	2	0	1		39	39	40
- Language problems	1	2	2		51	53	55
- Not interviewed within the interview period	7	4	4		74	78	82
- IP is sick	1	1	1		37	38	39
- IP not serious	0	1	4		40	41	45
- No contact after 16 attempts	0	0	1		44	44	45
- No answer	1	7	7		86	93	100
- Not a private household	0	0	0		5	5	5
Net selection	76	75	71		2919	2994	3065

Outcome of contact:

Complete interviews	65	70	59	2426	2496	2555
- of which are long interviews	49	66	50	2116	2182	2332
- of which are short interviews	16	4	9	310	314	323
Bookings	0	0	0	0	0	0

Refusals	11	5	12	493	498	510
- IP refusals	6	4	9	493	497	506
- IP refusals due to policy	1	0	0	0	0	0
- Any other refusals for IP	4	1	3	0	1	4

Proportion of answers total	86 %	93 %	83 %	83 %	83 %	83 %
Proportion of answers long	65 %	88 %	70 %	72 %	73 %	73 %
Proportion of answers short	21 %	5 %	13 %	11 %	10 %	11 %

About the tables

Attached is an account of the results of the study in tabular form. In the tables there are significant differences between columns that are attributable to the same question tested against each other (for questions on gender the column for men has therefore been tested against the column for women). A letter after a value in a cell indicates that the value is significantly higher than the value in the corresponding cell for the column indicated by the letter.

In each table head the base for the respective column is given. When the base is lower than 100, this is indicated with an asterisk (*) next to the base. Two asterisks (**) mean that the base is lower than 30 – in this case no significance testing will be carried out in the column.

About weighting of results

The results from this type of study are often weighted in order to better reflect the proportions in the population on which one wishes to comment. By weighting data we can test for any distortions in for example the distribution of gender or age in the material being analysed. Such distortions can arise if the selection is drawn so that one or more groups are over or under represented, for example, or because the willingness to participate has been different in different groups.

In order to simplify the Swedish Tax Agency's future processing of the results the tables that have been provided contain unweighted data. However, a test has been conducted in which the material has been weighted in light of gender, age and region (NUTS 2).

The results of the weighting gives a very small spread between the lowest and highest individual weights (from 0.774253 to 1.573899). The weighting procedure also gives a measure of how well the distributions gender, age and region in the data file agree with known distributions in the population (Rim Weighting Efficiency). This measure can assume values of between 0 and 100. In the test that we conducted the value is 97.6, which is seen as being very high. A weighting of the gathered material in this way affects the results to a small degree. Below is a comparison of the weighted and unweighted results to a number of key questions:

Question	Weighted	Unweighted
B: It is OK that people work black (short interview) (average)	2.68	2.66
L: It is OK that people work black (long interview) (average)	2.68	2.83
Net: Purchased on the black. (OTHER and/or HOME) (percent)	21	21
Net: Purchased OTHER on the black (percent)	16	16
Net: Purchased HOME on the black (percent)	8	8
Net: Purchased both OTHER and HOME on the black (percent)	3	3
Net: Performed black work (percent)	14	13
Net: Both purchased and performed black work (percent)	6	6
<u>Net: Purchased on the b.m. for 5000 SEK or more (percent)</u>	<u>6</u>	<u>6</u>