

Purchasing and performing undeclared work in Sweden

Part 1: Results from various studies

Report 2006:4B

* **Skatteverket**

Authors' foreword to the English version

This report deals with undeclared income from work, i.e. income that should be taxed in Sweden but is not. Undeclared work is thus productive economic activities which are legal and taxable and as such should be included in the national accounts.

Undeclared work leads to less income tax, payroll tax, VAT etc. In this report however we do not deal with possibly lost taxes. We try to map out and measure different kind of unreported income from work, its distribution among different parts of the population and try to identify causal connections.

Income from work can be earned in two forms.

- It can be payment from an employer to an employed person. In Sweden a limited company with one owner, the company can be the employer of the owner. In general an employer has the responsibility to withhold and pay preliminary tax and payroll taxes. Typically an employed person has a notice of tax assessment called A-tax (A-skattsedel). The employer at the end of the year has to send in a statement of earnings.
- It can be income an individual earns as self-employed. A self-employed person is himself responsible for the paying of all taxes associated with income from work. Typically a self-employed person has a notice of tax assessment called F-tax (F-skattsedel).

Undeclared income thus can be attained in two ways:

1. Information of remuneration for work for employed persons is not forwarded to the Swedish Tax Agency thus leading to too low income for the employed.
- 2a. The income for the self-employed is too low due to leaving out remuneration for work done, services rendered or the gain of goods sold (business income-side) or
- 2b. The income for the self-employed is too low due to expenses for cost of living has been entered in the books reducing the business net profit (business cost-side).

In the Swedish version of this report the Swedish word “svartarbete” (black work) is used to summarise this undeclared or “hidden” income. In popular speech “svartarbete” (black work) is a common used word understood by all native Swedes (and other Scandinavians) but the purport is limited to the cases 1 and 2a above. In that context typically “svartarbete” (black work) is a verbal agreement in which it is spoken out or implied that the work is “svart” (black). In this report we pay special attention to the purchasers of black work.

In the report we use the expressions (undeclared income, black work etc.) stated above as to grasp the Swedish meaning of the words since we consider other words like black activities, black economy, shadow economy, tax evasion are not well fitting.

A direct translation of black work (svartarbete) into German is “Schwarzarbeit” and there even is a “Law against Schwarzarbeit“ aiming to prevent working without paying taxes or social-security contributions, failure by social-security recipients to report to the authorities if they get a job, and working, supplying services, or running a business without proper registration. This report is dealing with black work in this essence.

The report in Swedish is very voluminous so for cost reasons, only the abstracts of some Appendices have been translated into English. We have however decided to include the total Swedish versions of these appendices to facilitate for readers who want to dig deeper into the studies and who do not hesitate to face the Swedish language.

The following Appendices of interest are only in English:

- a study on under-declared income based on comparisons of food consumption made by researchers at the University of Uppsala (the Pissarides-Weber method, Appendix 12)
- the questionnaire and technical report used in a large interview survey on the extent of black work (at the end of Appendix 14)
- a summary of a forthcoming study on cash use in recorded- and non-recorded economic activities in Sweden made by the Swedish Central Bank (Appendix 16)

The last appendix was not available at the time of printing the Swedish version so there are no comments on it in the main text. The main finding in the report just mentioned is that between the years 1990 and 2004 the size of the shadow economy is estimated to have increased. It must be noticed that the shadow economy unlike our study include a broad range of illegal activities.

Solna, October 2006

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Foreword

This report deals with income from work that should be taxed but is not. Such untaxed income from work is derived from what in this report is called “black work”.

By its very nature black work is concealed from the authorities, who are therefore unable to acquire definite knowledge about what people are trying to hide. However it is possible to gain some knowledge about this. Increased knowledge is important, because black work not only concerns payment of tax and the division of the tax burden. In a black economy production is less efficient, which hampers economic growth. With a black income, individuals are able to receive too many benefits. At its extreme, black work involves faith in one’s fellowmen, the welfare society, social institutions and that the regulations are perceived as reasonable and just.

By means of its checking procedures, the Swedish Tax Agency acquires knowledge about black work. However, this knowledge depends on what is being checked. The Swedish Tax Agency needs greater knowledge for its risk analysis and to assist in simplifying and modernising the rules and regulations.

The Swedish Tax Agency analysis unit has mapped out the extent of black work. Several studies have been carried out in order to provide information for the mapping process. The aim is to get a more general view of the extent and scope of black work in Sweden today, the reasons for it and get a basis for ideas of what can be done to counteract black work.

The description of the situation in Sweden includes many partial studies. Although some of them were determined in advance, the complete mapping process has been performed in such a way that the results achieved have suggested new complementary surveys.

The results of the mapping process will be documented in two reports. The analysts Annika Persson and Håkan Malmer are themselves responsible for the contents and conclusions.

In this first report the investigators review the various partial studies carried out. The main contents of this reports is to review results and so provide a picture of the extent and scope of black work. In connection with the analysed results is a description of how the investigations proceeded.

In a second report various methods and what they measure will discussed, along with a review of the investigators’ conclusions concerning the reasons for black work, and what can be done to counteract it.

Solna, June 2006

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Facts on Sweden

Total population: 9 millions

Population aged 20-64 : 5,3 millions

Employment rate (population, age 20-64): About 77%

Top marginal tax rate of labour income: 57%

Compulsory social security contributions: 32%

VAT normal tax rate: 25%

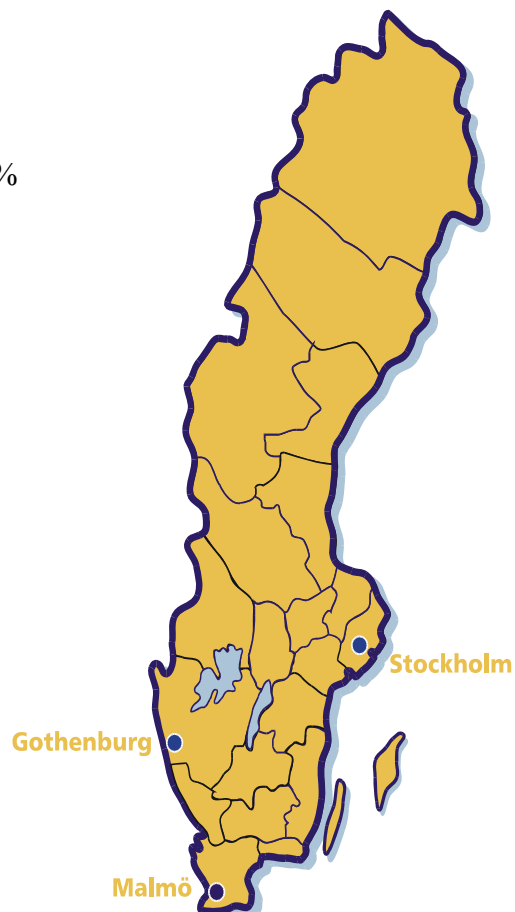
Taxes in percent of GDP (2005): 51%

Currency: kronor - SEK

Rate of exchange: 1 EUR \approx 9 SEK

The Swedish Tax Agency is responsible for administration of all taxes, national as well as local with some minor exceptions.

- 10,500 employees
- Head Office in Solna (Stockholm),
- 7 Tax Regions
- 1 Large Companies Tax Office



Summary

“Black work” refers to income from work on which tax should be paid in Sweden but is not.

According to Swedish tax legislation virtually all legal income should be taxed, from the first Swedish crown onwards, and no group of people is expressly exempted. There is a clear imbalance between the tax legislation and the view of the citizens on what should be taxed. We also consider the regulations to be unnecessarily awkward.

Working black or purchasing services without paying tax on them is regarded as a minor infraction, whilst it is seen as a serious offence to enter incorrect information in one’s declaration of income.

There is however a major difference in acceptance when it comes to employing a close relative for black work, compared with someone who is receiving unemployment benefit, sick pay or social services benefits.

Those who work black or receive black services motivate their actions by a variety of arguments. One argument that is often advanced is that people in leadership positions break society’s rules.

Citizens are well aware that working black is wrong, but society’s arguments are too weak to influence acting in this way.

A number of surveys indicate that in comparison with other countries, the purchase of black work is relatively common in Sweden and tax morality is sinking.

In the national accounts, there is a discrepancy between income and household consumption. It indicates black work to the tune of SEK 115-120 billion. In fiscal terms this amount can be described as too low or undeclared pay (employed), or too low or undeclared income from business (self-employed).

Theoretically one should be able in tax audits using prevailing checking methods (auditing method) to prove about SEK 71 billion of this concealed income from work. A very large proportion of this amount would in that case be detected in small companies. This result receives confirmation from three other surveys.

1. Established self-employed business owners compared with employees in the same sector have considerably lower "white" declared incomes.
2. Other living standard indicators, including home size and car ownership show that entrepreneurs have a standard of living that is commensurate with a considerably higher income than is officially declared.
3. An estimate of the true income in an entrepreneur household, compared with that for a wage earner based on food-stuff consumption, provides results in respect of under-declaration among business owners that is comparable with the auditing method.

Summary

A special investigation into such zero-taxed people who do not appear to be economically active did not reveal any extensive errors in their taxation, but did on the other hand show up as errors in civil registration. As many as a quarter were deemed not to be resident in Sweden.

In an interview survey aimed at the general public, the Swedish Tax Agency has made separate assessments of the extent of black work carried out and of the purchase of black services. In respect of goods, a separate investigation was carried out concerning the purchase of untaxed goods. The surveys recently performed were the most detailed carried out anywhere in Scandinavia.

Interview surveys of this type only reveal a smaller part of the total black work, namely that part of which ordinary private individuals are aware and that is based on both purchaser and vendor agreeing that a price shall be black. The extent of the black work that was revealed by the surveys is estimated to be SEK 15 billion, of which SEK 10 billion is black work carried out for households, and SEK 5 billion for companies. Seen as a whole, the amount of black work caught by the interviews with the public accounted for 1.7% of the total working time in Sweden.

From the number of people who admitted that they had worked black, it is estimated by projection that there are about 800 000 altogether, and that this black work is the equivalent of 66 000 complete fulltime jobs, of which 25 000 is for companies. In respect of working for households, black work on the homes represents a total of about 21 000 complete fulltime jobs of work, and for other household services 20 000 complete fulltime jobs of work.

There is a considerable difference, e.g. depending on occupation, whether one has worked black during the previous year. Among students and national service soldiers the proportion is highest, at 25% compared to the general population (aged 18-74) where the proportion is 13%. The largest category which has worked black is trade workers, equivalent to an estimated total of 266 000 people. In general it can be said that among those who perform black work, there is a higher proportion of younger people, and those on a low income, while the purchase of black services is over-represented by people with higher incomes and those who own their own homes.

Much of the black work is carried out by relatives, neighbours and friends. About half of the compensation for black work in the household sector is provided in other ways than with money. Cash payment is more common in city areas. The degree of cash payment varies a great deal. For example looking after pets pays about SEK 7 per hour, cleaning SEK 69 per hour and construction work SEK 135 per hour. On average a person who works black and is paid in cash gets about SEK 19 000 per year, but when working for a company this rises to 29 000 in cash per year.

Every fifth household has bought black services in recent years, and paid cash. On average a household has paid SEK 7 000, but for half the households the purchase sum amounts to less than SEK 3 000. When we compared the extent of black work that was paid for in cash there was a difference between those who did the work and those who bought it. If we discount looking after pets, the volume of the purchased work was about 15% greater than that carried out. There are several possible explanations for this. One is that when we asked about black work performed, this was limited to people aged between 18 and 74 who are resident in

Sweden. The purchasers, on the other hand, answered with the extent of all their purchases, regardless of who had done the work.

In 1997 the then Swedish National Audit Office carried out a comprehensive study of black work etc. in Sweden. In that study there was a similar survey among households. In comparison with that survey, working black is more widespread now; 13% in 2005, compared with 11% in 1997. If one looks at the volume of black work as the number of worked hours, this is adjudged to have increased, since there are more people working black. Black working has increased among young people and among white-collar workers. Over and above this, there are a number of other observations that also indicate an increase in black work.

Of the discrepancy in the national accounts, mentioned above, that indicates a black sector amounting to SEK 115-120 billion, we consider that we can account for SEK 90 billion, i.e. we can “explain” 75%. However we cannot say that the discrepancy in the national accounts is at an incorrect level. On the one hand there is a general uncertainty in the estimates we have made. And on the other hand, there are in our opinion a number of reasons why there ought to be an unexplained remainder, of which the primary ones are:

- not everything is brought out in interviews
- not everything can be revealed in tax audits
- some people don't know what can be classed as black work.

If the completed investigation had been able to explain the entire discrepancy, the conclusion thus would be that the national accounting probably under-estimated the concealed income or that there was a fault in our investigations.

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1 Background and aims

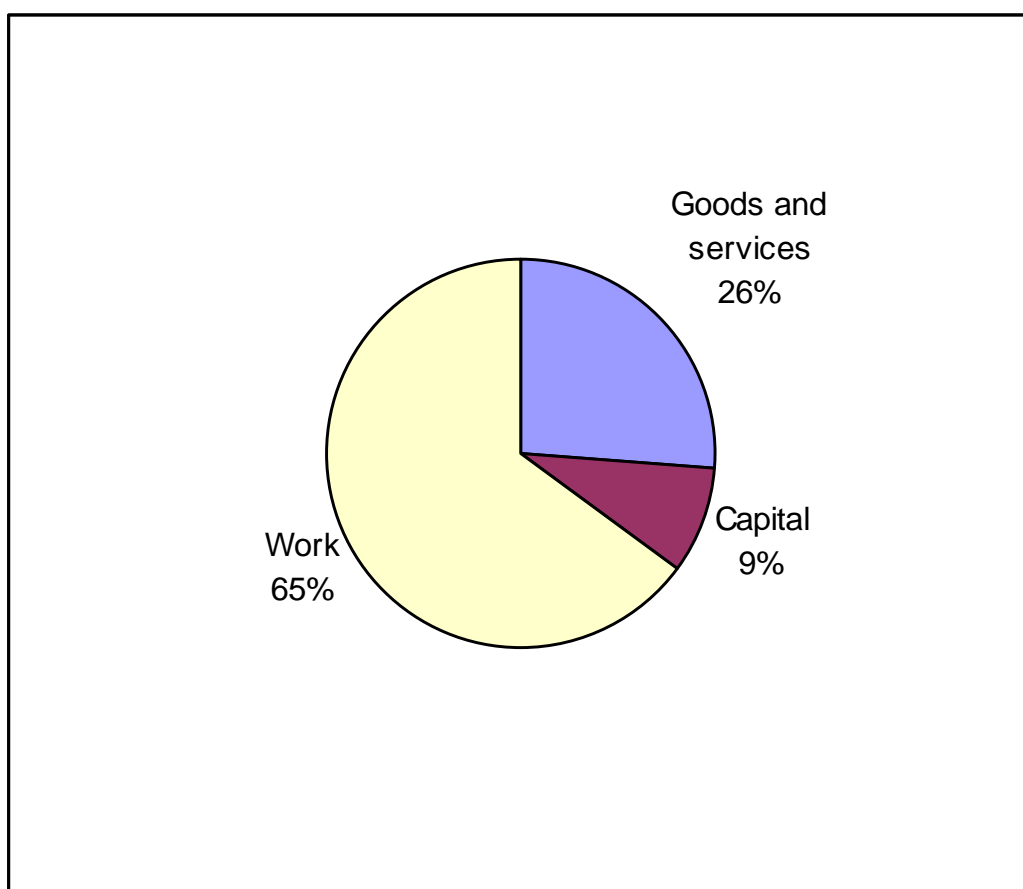
1.1 Background

Sweden has the world's highest taxation in respect of tax related to gross domestic product (51%). Taxes on work represent almost two-thirds of all revenue from taxes in Sweden.

1. Diagram

Swedish tax revenue on work compared to other tax bases

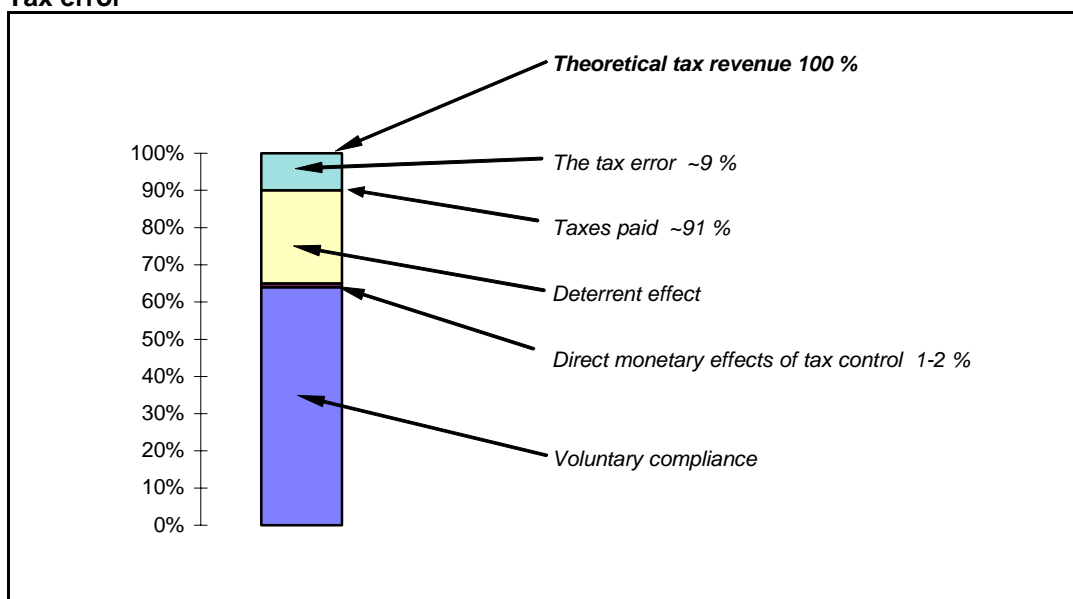
Tax on work comprises individual income tax, employers' and own social services contributions



In Sweden the Swedish Tax Agency has coined the expression “tax error”. In that context, tax error means all deviations in relation to the theoretically calculated tax strictly due by law, such deviations being due to either intentional miscalculation or unintentional errors. The Swedish Tax Agency estimates¹ that the total tax error in 2002 amounted to approximately SEK 100 billion, which represented almost 5% of the gross domestic product (GDP) and 9% of the theoretically calculated tax.

¹ Taxes in Sweden, p. 233 et seq.

2. Diagram Tax error



Of the total tax error it is estimated that undeclared income from work accounts for about two-thirds.

This report deals only with income from work that should be taxed in Sweden but is not. Such untaxed income from work is derived from what in this report is called “black work”.

Increased knowledge is important, because black work not only concerns payment of tax and the division of the tax burden. In a black economy production is less efficient, which hampers economic growth. Much of the income from tax is returned to citizens in the form of transfers and allowances that are based on the declared (white) income from work. With a black income, individuals are able to receive too many benefits. At its extreme, black work therefore involves faith in one’s fellowmen, the welfare society, social institutions and that the rules and regulations are perceived as reasonable and just.

By its very nature black work is concealed from the authorities, who are therefore unable to acquire definite knowledge about what it is that people are trying to hide. However, it is possible to get more knowledge concerning black work and the way people regard the tax rules.

1.2 Purpose and reporting

Mainly by means of its checking procedures, the Swedish Tax Agency acquires quite a lot of knowledge about black work. However, this knowledge depends on what is being checked. The Swedish Tax Agency needs more knowledge in order to be able to make relevant checks, to prevent errors arising and to assist in simplifying and modernising tax legislation.

The Swedish Tax Agency analysis unit has during 2005 and 2006 mapped out the extent of black work. This has been a wide-ranging attempt to look at all aspects of black work. The aim was to get a more general view of the extent and scope of black work in Sweden today,

the attitudes and reasons for black work, and get a basis for ideas of what can be done to counteract black work.

Several studies have been carried out and reports compiled in order to provide information for the mapping process, see the list of appendices.

The results of the mapping process will be documented in two reports. In the first report we review the various partial studies that were carried out. The main thrust of this report is to review such results that provide a picture of the extent and scope of black work, and people's attitudes to it.

In connection with the analysed results is a description of how the investigations proceeded.

In the second report will be discussed different methods and what they are measuring. The collated results will be analysed and we will review our conclusions concerning the reasons for black work, and what can be done to counteract it.

In April 1997 the then Swedish National Audit Office (RRV) received special funds from the government to finance a survey and analysis of black work performed by employees and companies. RRV was also charged with proposing measures to counteract this undesirable behaviour.

During 1997-1998 RRV produced four reports in Swedish, namely: Black work 1: Measures, (RRV 1997:59), Black work 2: Extent, (RRV 1998:28), Black work 3: Structure, (1998:29) Black work 4: Proposals, (1998:36) as well as a concise report in English namely "Illicit work in Sweden – a report on a welfare state dilemma" (RRV 1998:61).

The main purpose of the RRV black work project was to provide a comprehensive picture of the problem, which thus far had not been available in Sweden. The idea was not to look closely into individual problems and propose concrete solutions. The RRV reports should therefore be viewed as discussion of the principles involved, complemented by illustrative examples and reasoning. The RRV reports led to the intended discussion, but without detailed investigations and concrete proposals they did not result in the desired measures being taken against black work.

One aim of the Swedish Tax Agency is to compare the results with those obtained by RRV, e.g. in respect of the extent and reasons for black work. Another aim is, through detailed investigation and analysis, to come up with more concrete proposals that could lead to specific measures to counteract black work.

2 The disposition and layout of the study on black work

By its very nature, black work is concealed. No-one can therefore say anything for certain about it. No individual survey can give answers concerning the extent and structure of black work.

The idea behind the appraisal made by the Swedish Tax Agency is to use different methods and try to piece the puzzle together from the results. We used a number of different methods, inspired by the OECD handbook “Measuring the Non-Observed Economy” and Appendix 8 “The black economy” in the Swedish report² “Development and Improvement of Financial Statistics”.

We tried to select the ideas that we thought were practically possible to implement with the existing official statistics, or from special investigations. Our ambition for this appraisal was to cover:

- attitudes to black work
- structure
- scope

And we tried to look at black work from two viewpoints:

- those who perform black work
- those who purchase black work

We have a broad definition of what would be counted as black work (untaxed income from work). In the next section we shall return to a more precise definition, but it should already be said that we count as black work all concealed (untaxed) income from productive work that should be taxed in Sweden. Hence black work is considered to cover both cases, where the purchaser and worker have agreed that a particular job shall be done black – based on a lower price by keeping the Swedish Tax Agency out of it – and also where only the vendor him/herself is aware that the income from work that is declared is lower than the true amount.

As mentioned earlier, a number of partial studies have been carried out, which are presented here as appendices. The following sections deal partly with a systemic summary of the partial studies, and partly with aspects that were not covered by the partial studies, but are needed in order to understand and evaluate the investigation results. Those sections immediately following deal with:

- Section 3: The definition of black work/undeclared income and the design of tax legislation.
- Section 4: Attitudes, knowledge of and reasons for black work, along with views concerning tax legislation.

² Swedish title: Utveckling och förbättring av den ekonomiska statistiken” (SOU 2002:118)

Disposition

- Section 5: The extent and structure of black work among purchasers and performers, and whether black work has increased or decreased.
- Section 6: How little (“white”) private individuals report to the Swedish Tax Agency when purchasing services.
- Section 7: Descriptions of the methods used in various studies and the data (statistics/information) that was used or collected.

3 Definition – untaxed income from work

3.1 The use of language

By black work we mean that a person in their income tax return shows a lower *income from work* than prescribed by law. In fiscal terms this is a matter of a too low or undeclared income from employment, or a too low or undeclared income from personal business by self-employed. In some cases it can obviously be more understandable to speak of concealed income rather than “black work”. Concealed income from work is of course understood by many as having a wider meaning than black work. On this aspect we do not have a unified terminology, but speak where it is most applicable of black work or concealed income. Those with a more narrow view of black work usually say that concealed income consists partly of black work (something that both parties are aware of) and an addition for “own tax cheating”, i.e. such tax reduction that only the person doing the work is aware of. Such a division can be used to describe the type of black income that can be captured by questionnaires. Otherwise this division is problematical to the extent that it is difficult to know what others know and do not know.

The first examples that the man in the street talks about concerning working black is a craftsman who does a job for a private individual “without a receipt”, or when a business owner repays someone outside of proper work, e.g. someone who does temporary work in a restaurant. Income from black work therefore exists both among those who run their own businesses and among employees.

In the cases mentioned above those who purchase black work and those who perform black work both understand that the income from this work will not be declared to the tax authorities. But there are naturally also instances of black work where the company issues a receipt in the correct manner, but later neglects to enter this income into the bookkeeping e.g. the money goes “in his own pockets”. If the business owner or the employee receives compensation in another form than money, for example with goods or the use of the purchaser’s summer cottage, that doesn’t matter. Such compensation should also be taxed.

3.2 Definitions

When in the following text we speak of black work, this is only in respect of payment for work done, i.e. income from capital is not counted at all, that is to say taxable profits from shares or property deals. Another condition is that this relates to income from work that should be taxed in Sweden.

We therefore mean by black income from work:

- Payment for work carried out,
- that should be subjected to tax in Sweden
- but has not been declared to the Swedish Tax Agency

Definitions

and the black incomes can, as mentioned above be divided into:

- Undeclared income from employment (pay or benefits)
- Undeclared business income for self-employed

3.3 Undeclared income from work in different types of companies

The way that an undeclared transaction should be taxed depends on the type of company. Some practical examples can explain this:

Suppose that a wage earner who works as a sales person in a company that sells television sets receives weekly pay in the form of a TV set, and the value of the TV set is not declared to the Swedish Tax Agency. In this case it is black income from work for the employee.

If a person who owns a limited company personally receives an income that should have been an income for the company, this is a question of black salary (black income from work) since the owner of the company is counted as a wage earner of the company.

On the other hand, a self-employed person is taxed on the profit from the business and does not have the right to deduct for a salary for him/herself. If the owner in this case does not enter the withdrawal (of the TV-set for personal use) in the bookkeeping, this is a matter of an undeclared (black) income from the business.

If a self-employed business owner wishes to take his/her family to the Canary Islands on holiday and neglects to enter an income of SEK 20 000 from a private individual in the accounts, the income from the business will be SEK 20 000 lower than it otherwise would be – this is black income of SEK 20 000.

But the result will be the same – i.e. SEK 20 000 lower than by rights it should have been – if all income has been entered in the bookkeeping but the cost of the holiday has been deducted.

Private expenses that are entered in the books so that they are deducted from the company's declared income from business are therefore a concealed income from work (black work).

3. Illustration

Private costs on the “company” = concealed income from work



Text in the illustration:

Dagens Nyheter (Swedish broadsheet) 30 March 2006

On the bus

Two teenage girls are clicking their mobile phones:

“Do your parents pay your mobile phone bill?”

“My Dad does, he puts it on the company.”

“How much is your mobile phone bill, then?”

Click, click

“Twelve thousand”

“Aha”

(Overheard on bus number 4 by Gunnel Berggren)

In principle income from work is either assignable to income from employment (work or assignments) or income from business activity³. The criteria for drawing the line is usually said to be that business operations are characterised by permanency, independence and the profit motive. In practice taxation is guided by the existence for those who perform a task of a registered firm/company and the possession of an “F-tax card” (notice of tax assessment for businesses).

In terms of the Swedish tax law it is very important whether an income from work is classed as income from employment or rendered from business operations. This affects, among other things, whether employers’ social contributions are to be paid, whether VAT is to be debited and whether preliminary tax should be withheld.

In our study it doesn’t really matter whether undeclared income from work represents income from employment or from business activity. Our view is that if a person, who has normal

³ Income from physical labour and temporary work have historically always been assigned to income from employment. The expression “temporary gainful work”, which was scientific, literary or artistic work or temporary assignments, disappeared in the 1990/91 tax reform.

Definitions

employment, outside of that performs work for other people with whom he/she has made contact, by mutual agreement, it is for him not a question of a black work from different employers, but rather it is a question of black income from business for a self-employed person, usually unregistered.

3.4 Schematic definition of black work

The various examples given above can in principle be divided in a way shown by the schematic diagram below:

4. Schematic diagram.

Employment and business income: Pattern of black income from work

BLACK WORK (concealed income from work)	The transaction normally not entered into the books. Often this is "cash without receipt"	The original expense is entered as a cost in the business accounts
	Column 1	Column 2
Employee / income from employment	Undeclared pay in money or in kind	The employer pays the employee's private expenses – goods, travel, loan of equipment, etc. not recorded as a salary benefit
Businessman / income from business for a self-employed	Undeclared compensation for work	Business account is loaded with private expenses reducing business profit
	Undeclared sales of goods ¹⁾	Receipt of goods, travel or use of manpower, machinery or dwelling for private use do not increase business income

¹⁾ Added value of sale if purchase is not entered into the bookkeeping. If purchase is entered into the books the whole sales amount is counted.

The darker grey area of column 1 is the one that people generally associate with black work. Both parties often understand or agree that payment shall not be revealed to the Swedish Tax Agency. In the lighter grey area there are certainly two parties, but it is not always certain that one realises that this is a question of payment for black work. In respect of the uncoloured areas in column 2 it is the business practitioner him/herself who decides whether and how the information in the bookkeeping is to be declared to the Swedish Tax Agency.

What does this mean for peoples' understanding of what black work consists of? Yes, that's what makes it difficult to ask people, for example, how much they have purchased or worked black. In general one can expect a significant level of under-estimation by those who have been questioned, for two reasons, namely:

- That one has a too narrow definition of the expression "black work"
- That one does not realise that one has received black remuneration.

However, there is also a risk of over-estimation. It is only payment for the work done that shall be counted. If one asks people how much they have paid for black work there is a risk that many say the whole amount, even though some of it refers to such items as goods and material.

We have in the foregoing dealt with what is meant by black (concealed) income from work and what ordinary people mean by the expression "black work". The basis is that it is a

question of income from work that should but has not been taxed. This naturally brings up the question of how taxation is designed – which work should be taxed and what exceptions there may be.

3.5 Taxation of income from work in accordance with the tax legislation

3.5.1 What kind of work is taxed?

The outer framework for what is considered black work is determined by the tax legislation regulations. In Sweden there are very few exceptions where payment for work done will not be taxed. Examples of exceptions are picking mushrooms, berries or pine cones, blood-, milk- or organ donations, rewards for found items, payments to people who have saved lives or been in danger, or contributed to preventing or revealing crimes or criminals, and payment in the form of deductions from ordinary rent or fees to a lodger who performs simple maintenance tasks.

Illegal work means such work or activity that the business itself is forbidden or requires authorisation. By common practice, illegal work is not taxed. However this is not a rule without exceptions.

3.5.2 Which people are taxed?

There is no expressed exception made in Swedish legislation for certain groups of people, e.g. close relatives or people living in the same household. It is probable that payment for work done by people where there is a duty of maintenance in accordance with the marriage and parental laws, is not liable for tax. The kind of case meant here is duty of maintenance between a married couple and parental maintenance liability for children up to 18 or 21 years old, if they are studying in primary school or upper secondary school.

However there are nowadays several different forms of cohabiting between people who are not equal to a married couple in terms of taxation.

The question of payment for work done in a household where maintenance liability does not exist has, it seems, been tested in the courts in Denmark. A man who was in a relationship with a woman where they were living at separate addresses and had no children, was injured in an accident and needed comprehensive care. The woman gave up her job and moved in with the man to take care of him. She was taxed on free board and lodging. It is not unlikely that the result would have been the same if the question had been placed before the Swedish courts.

3.5.3 What amount is taxed?

For pay or other remuneration for work paid by a legal entity or in the course of business, the limit for the liability to inform the Swedish Tax Agency is SEK 100. For pay or other remuneration between private individuals, it applies as a rule that information liability is set for sums of SEK 1000 or more. (The liability is executed by sending in a statement of earnings and deductions).

However even though a statement of earnings and deductions is not required for sums below these limits, it applies in both cases that the recipient is liable to tax for the payment. Those who for example contribute to a survey and receive a lottery ticket for their trouble should enter the value of the lottery ticket in their income tax return, although the company conducting the survey does not need to issue a statement of earnings and deductions in respect of the ticket.

In other words – income tax applies from the first Swedish crown for work done.

4 Attitudes, spread and reasons

4.1 The aim of attitude surveys

As part of the mapping of black work, a number of investigations took place into the attitudes of people to black work and the tax regulations. These were both qualitative and quantitative. The surveys were carried out by external market survey companies on behalf of the Swedish Tax Agency.

The qualitative attitude surveys had various aims:

- to acquire knowledge concerning performed and purchased black work – what and how
- to acquire knowledge concerning the motives and reasons for black work
- to acquire knowledge concerning how common one perceives black purchasing and black working to be
- to acquire knowledge concerning which words and expressions are used
- to understand how people think, feel, communicate and discuss their own black work and that of others.
- to acquire knowledge concerning what people know about the regulations and how to deal with a number of typical situations
- to acquire knowledge concerning how people assess the risk of discovery and its consequences
- to bring up important questions for the quantitative surveys
- to deepen the knowledge about black work performed by young people

The quantitative surveys were intended to obtain data on specific questions in order to be able to compare, for example, business owners and the general public's views of black work – in particular the purchase of black work in the household sector, along with what people know about and think of the regulations. Also how people judge, among other things, the risk of discovery by the Swedish Tax Agency that black work had been performed.

4.2 Implemented attitude surveys

In order to understand how people think, feel, communicate and discuss black work performed by themselves and others, the Swedish Tax Agency asked for interviews in depth with four focus groups of private individuals who had purchased black, and business owners representing industries where there is a great deal of black work. The surveys are reported in Appendix 3.

Focus group surveys were also part of the preparations for carrying out a comprehensive quantitative investigation reported in Appendix 5.

The survey of the scope and structure of black work, in Appendix 14, included attitude questions concerning the risk of discovery. The answers from young people to these questions and the wide extent of their relatively widespread black work raised new questions concerning the attitude of young people to black work. The Swedish Tax Agency therefore asked for in-depth interviews in two focus group surveys among young students, with the results presented in Appendix 4.

Over and above the surveys mentioned here, there was interest in looking at certain results from surveys that had been carried out in other contexts.

- Biennially, the Swedish Tax Agency carries out a major attitude survey among the general public, and another such survey among companies. These surveys contain questions concerning black work.
- In one of the projects financed by the EU, every second year the differences and altered patterns in values, attitudes and behaviour among the inhabitants of 20 European countries are examined in the [European Social Survey](#). Comparable survey results for countries in respect of black purchasing and benefits fraud have been compiled and analysed.

The results from the above surveys are summarised below.

4.3 Knowledge of the tax regulations and its effect on the black work

Without going into detail, one can say that for private individuals who have had work performed, the following mainly applies:

- If the recipient of payment has an F-tax card (notice of tax assessment for business income) the payee does not have to give any information to the Swedish Tax Agency regardless of the amount concerned.
- If the recipient of payment does not have an F-tax card the payee does not need to give any information, providing the amount in one year is less than SEK 1 000. However if the payment exceeds SEK 1 000, a statement of earnings and deductions must be issued, and if the payment exceeds SEK 10 000, the payee must also pay employers' social contributions.

In order to facilitate accounting and the declaration of information in respect of preliminary tax and employers' social contributions to the Swedish Tax Agency, there is a simplified tax return that can be used when someone employs a worker. This simplified tax return is intended for use when one purchases a service in the capacity of a private person. This is unlike the pay, tax and charges for a wage earner, for example in a company, which should be declared in a "normal" tax return.

There is very little use of the simplified tax return for services purchased by private individuals, which could be due to lack of knowledge. Among other things, to find out what knowledge private individuals have of their duty to provide information, and in particular what they know about the simplified tax return, the Swedish Tax Agency commissioned a telephone survey, see Appendix 1. The low use of the simplified tax return may also be due to a preference by citizens to do things "on the black". As part of the Swedish Tax Agency appraisal of black work, the surveys also asked some questions concerning black work.

It is concluded that the general public knows very little about the duty to provide information, and the availability of the simplified tax return. This is perhaps not surprising since black work is widespread, and no-one that the respondents knew had sent in a simplified tax return. Private individuals simply see no reason to acquire this knowledge.

On this subject it should perhaps be mentioned that the Swedish Tax Agency has not issued a special information brochure concerning the provision by private individuals of statements of earnings and deductions. The information that does exist is very hard to find. How a private individual should complete a statement of earnings and deductions is in the middle of the 40-page "Statement of earnings and deductions brochure"⁴ which includes a 50 word long sentence.

5. Illustration

Skattepliktiga ersättningar som ligger till grund för egenavgifter (ruta 25 och 67)
(Gäller inte grön kontrolluppgift.)

I ruta 25 (med specifikation i ruta 67 på lönekontrolluppgiften) redovisar du framför allt skattepliktiga ersättningar till personer, som utan att vara näringsidkare ändå ska betala egenavgifter. Här följer några exempel.

Ersättning under 10 000 kr från annan än näringsidkare

Om du som privatperson eller för ett svenskt dödsbos räkning betalar ut ersättning för arbete till en person med A-skatt och beloppet (inklusive eventuella förmåner) är lägre än 10 000 kr, ska du redovisa ersättningen i ruta 25 på lönekontrolluppgiften och den gula kontrolluppgiften, i ruta 11 och 12 (och eventuellt 13 och 18) på den gröna. Ersättningen får inte vara en utgift i utbetalarens näringsverksamhet. Om ersättningen uppgår till 10 000 kr eller mer ska du i regel redovisa hela beloppet i ruta 11.

Text in the illustration:

Taxable remunerations which form the basis of self-employed person's social security contributions (fields 25 and 67)

(Does not apply to the green statement of earnings and tax deductions)

In field 25 (with a specification in field 67 of the remuneration checking information) show above all taxable remuneration paid to people who, although they are not running a business, should anyway pay their own contributions. Here below are some examples.

Payments of less than SEK 10 000 from other than businesses

If you as a private person or on behalf of a Swedish estate pay, for work done, to a person with A-tax (i.e. not a company owner) and the amount (including any benefits) is less than SEK 10 000, you must declare this payment in field 25 of the remuneration checking information and in the yellow checking information, in fields 11 and 12 (and where appropriate 13 and 18) in the green form. The payment must not be an expense in the payee's business. If the payment amounts to SEK 10 000 or more you must as a rule declare the amount in field 11.

⁴ Statement of earning and deductions – pay, benefits, etc. SKV 304

The survey revealed that those who responded that they knew that information should be sent in to the Swedish Tax Agency were more likely to be prepared to provide this information. This can be interpreted to mean that those who know about the regulations are not so readily inclined to buy or perform black work themselves.

One conclusion is that attitudes are linked to knowledge, but we don't know how. Can information about the rules lead to more people doing what they should? Or is it that the people who want to do the right thing obtain the necessary knowledge?

Another conclusion from the survey is that those who act as purchasers on the black market are also those who could consider working black themselves.

In our opinion, it is not possible to effectively counteract black work by just trying to influence the attitudes of those who work black. It is just as important to try to influence the purchasers' attitudes to get them to realise that they too have some responsibility. It can be mentioned that Denmark⁵ has a goal-oriented programme to alter the citizens' attitude to black work. Part of the campaign is to establish a point of view such that people cannot blame others. Those who buy services at low prices *participate* and thereby contribute to breaking down the common values on which society is based.

4.4 Attitudes to black work

4.4.1 The grey zone – neither black nor white

In Sweden – and in other Nordic countries – it is understood that black work is work that should be taxed but is not. However the line between what is black and what is white is unclear to many people – particularly young people.

From the qualitative survey, in Appendix 3, the following is apparent:

- In common parlance, black work is synonymous with “no receipt”. And in turn “no receipt” means cheaper – a deal that both parties benefit from – the purchaser pays less and the performer receives payment that is not taxed. Exchange of services is not seen as really being black work.
- There's a difference between one kind of black work and another. The argument goes that as a purchaser one would rather feel that one is buying “grey” than black services.
- Household services. There is a low-key attitude to these. This type of service is almost seen as part of the economy and it is more or less taken for granted that it is purchased grey.

⁵ Fairplay – focus on conduct. Government, October 2004

6. Table

The perception of those interviewed concerning those who buy certain services black

Type of service	Service that is usually bought black?	Who buys the service?
Repairs (e.g. on cars)	Yes	All
Artisan work (painting, floor-laying, carpentry)	Yes	All
Childminding	Yes	All
Plumbing and/or electrical work	Yes and no	Those who dare and/or have no alternative (no guarantee)
Cleaning	Yes and no	People with high incomes

Source: Demoskop (business intelligence company) focus group survey, Appendix 3

- The purchase of household services is to a large extent a highly individual focus. There is virtually no social aspect to it. The choice is not between black and white, rather between black or not at all.
- The conscience of those who buy these services black is hardly affected at all. Instead a large majority of them are happy to have done good business. This is naturally one of the reasons why those who have purchased to a greater extent than others pass the word on to their friends and to anyone else.

7. Table

If you had purchased a service black, what do you think you should have done afterwards?

Proportion who answered "yes" to the question:	All	Purchased more than SEK 5000	
		Purchased black	black
Had a bad conscience?	24	6-	4-
Told family?	41	44	55+
Told friends?	26	28	33
Talked openly about it to anyone?	6	8	11+
Felt happy about doing good business?	43	61+	69+
Would think there was no difference from making any other purchase?	32	42+	46+

Source: Demoskop (business intelligence company) panel survey, Appendix 5

- It is not considered reasonable to need to set the entire administrative apparatus in motion – VAT, employers' social contributions, income declaration – when individuals exchange household services with each other.
- Black work in an organised form is the kind of behaviour that is upsetting. The exploitation and taking advantage that accompanies black work is seen as a very negative part of the economy.

The limit of what is black work and what instead is seen as "grey" work depends on:

- *Who is performing the service.* Help from family and relatives is not black work. Purchase of household services from someone you know is purchase of black work but "light black" compared with organised black work, which is "dark black".
- *Frequency.* Occasional payment is not regarded as serious. On the other hand it becomes serious if the services are implemented in a systematic way.
- *When the job is done.* If the work is done in the performer's spare time, the purchase is more likely to be regarded as a favour than as a real purchase of black work.
- *Amount.* The higher the amount paid, the greater the tendency to regard a service as being black work.

From the survey among young students, in Appendix 4, the following is apparent:

- The attitudes and values are that it is acceptable to work black when studying and young, and that no-one cares as long as it is young people and students that are doing black work.
- When young, one has no knowledge of the tax system or of what rights one has as a wage earner. One therefore is unaware of working black. It is also considered that the trade unions have a large and important role in supplying information and checking.
- There is indecision about what black work is and where the boundary lies between white and black work. People want a clear definition.
- Black work is not something one talks about with others. Not because it is wrong, but rather because it is of no interest. It is taken for granted that certain services/jobs are black, e.g. when “helping” someone you know, and do the job for a private person, or if the job is associated with a particular sector (the restaurant industry).

4.4.2 The view of what should be taxed

Since the general acceptance level of black work can be considered as high, it is interesting to look in greater detail at what people think should be free of tax.

8. Table

Proportion (%) who think that payment should be free of tax in a number of typical cases.

Typical case:	All	NOT purchased black	Purchased black	Purchased more than SEK 5000 black
A grandmother looks after her grandchildren and gets SEK 8000 per year for this work	93	91-	97+	100+
A son rebuilds his parents' summer cottage and gets SEK 25000 for the work	74	69-	84+	89+
A technician receives SEK 600 from his neighbour for installing a computer	81	78-	89+	90+
A person receiving sick benefit looks after a neighbour's dog every day and gets SEK 8000 per year for it	80	77-	87+	89+
A waitress gets SEK 8000 in tips each year	64	62	69+	74+
A bricklayer (not self-employed) helps 3 neighbours to install cellar windows and gets SEK 8000 for the work.	55	50-	65+	73+
An electrician (not self-employed) moonlights by installing electrical heating in a new house and gets SEK 8000 for the work.	39	34-	49+	56+
A builder (self-employed) changes the windows for a neighbour and gets SEK 8000 for the work.	32	29-	40+	55+
A builder, a carpenter and a bricklayer build 3 houses together. The houses are to be used as dwellings for their own families. The value of the work done on each house is SEK 1 million.	35	32	40+	49+

Source: Demoskop (business intelligence company) panel survey, Appendix 5

Decisive to the view of not paying tax is not just who is employed but also the amount of money involved. Almost everyone (93%) consider that a grandmother looking after her

grandchildren and getting SEK 8 000 for it per year should not be called upon to pay tax on this money.

There is also a clear majority who consider that tax should not be paid by:

- a technician receiving SEK 600 for installing a computer
- a person receiving sick benefit getting SEK 8 000 per year for looking after a neighbour's dog every day
- a son rebuilding his parents' summer cottage and getting SEK 25 000 for the work
- a waitress getting SEK 8 000 in tips each year

In respect of a bricklayer (not self-employed) helping three neighbours to install cellar windows and getting SEK 8 000 for the work, opinions differ. About half think it should not be subject to tax, but almost the same proportion believe that he should be taxed.

Services that a majority think should be taxed are:

- An electrician (not self-employed) moonlighting by installing electrical heating in a new house and getting SEK 8 000 for the work
- A builder, a carpenter and a bricklayer building 3 houses together for their own use.
- A builder (self-employed) changing the windows for a neighbour and getting SEK 8 000 for the work.

There are however relatively many who think that even these services should be free of tax. It can therefore be said that there is in general a high level of acceptance for the exchange of services and that work done for a limited cost should not be taxed. It is also interesting to bear in mind that the relationship between those who perform the work and those who pay for it play a part in the assessment of taxation – compare between grandmother, neighbour and son, and waitress, bricklayer and electrician. There is also a difference between persons who are moonlighting and one who runs a business, where a clear majority think that a business owner should pay tax for his work.

Those who have acquired experience of working black consider to a greater extent than others that services should not be taxed.

We can also conclude that the legislation is not thought to be reasonable and fair when it comes to taxing work carried out for family members outside one's own household and where small amounts are concerned. This means that infringement on the tax legislation is common and that the grandmother who would declare the payment for looking after her grandchildren would be thought to be stupid.

The Demoskop results show that in the perception of black work there is at present a clear imbalance between the public sense of justice and the tax legislation. Those examples where there is a general agreement among people that the work should not be taxed probably contribute to the fact that a general denouncement of black work as a phenomenon is not more clearly defined.

According to Demoskop, in order to change people's attitudes and behaviour, the rules need to be reviewed in respect of amount limits and context. Certain limited and household services should probably be freed from tax. Such measures would also clarify the borders between what the general public perceives as criminal and what is seen as part of everyday life.

4.4.3 Differing attitudes to various kinds of black work

On behalf of the Swedish Tax Agency, Demoskop, in Appendix 5, asked questions about black work.

Questions were asked in the survey concerning whether one considered certain misdemeanours as minor or serious, with the answers on a 7-step scale. The answers have been ranked in the following table, according to the perceived seriousness of the crime. Employing black workers and performing black work are generally considered minor offences (average value less than 4).

9. Table
How minor or serious do you think the following are?

Minor or serious?	Employing black workers	Per-forming black work	Bringing more than the permitted amount of alcohol into Sweden	Civil disobedience – participating in illegal demonstrations	Speeding in a vehicle	Giving false information to the tax authority	Giving false information to the Social Services	Beating someone you dislike	Drunk driving
Minor (1+2+3)	47	46	44	37	33	8	6	1	1
Either/or (4)	22	21	25	24	16	10	9	1	1
Serious (5+6+7)	29	33	31	39	50	81	85	96	98
Average	3,51	3,67	3,59	4,07	4,4	5,83	6	6,79	6,87

Source: Demoskop (business intelligence company) panel survey, Appendix 5

47% of individuals think that it is a minor offence to employ black workers. A further 22% do not see it as either minor or serious. Respondents thought it was more serious to give false information to the tax authorities than to work black – although concealing income according to the view of the authorities is the same as providing false information. But the respondents obviously did not see it in same light.

Purchasing black work and performing black work involve, for the man in the street, keeping quiet about certain facts, and this reticence is not considered to be at all as serious as providing false information.

4.4.4 Employing a benefits claimant for black work is completely unacceptable

Although a minority consider it to be a minor offence to work black or to purchase such services, there are differences. The question was put to the Demoskop panel, how acceptable is it to employ people with various characteristics? The respondents were to answer on a scale of 7 where 7 was considered “completely acceptable”.

10. Table

How acceptable do you think it is to employ each of the following for black work?

Proportion who thought it was “completely acceptable” to employ (= 7 on a scale of 7)	All	Purchased	
		black	more than SEK 5000 black
A close relative	49	67+	75+
A person who has a job but works black in their own time	16	28+	46+
A business person who works without giving receipts	8	14+	30+
A person who does not have a Swedish work or residence permit	4	5	11+
A refugee who gets daily benefit payments	4	5	10+
A person who is receiving unemployment compensation	4	4	5
A person who is receiving sick benefit	3	3	3
A person who is receiving social services benefit	3	3	3

Source: Demoskop (business intelligence company) panel survey, Appendix 5

There is a major difference in acceptance between employing a close relative, compared to for example someone who is receiving unemployment compensation, sick pay or social services benefits.

It can also be seen from the table that if one has purchased black work, and in particular if one has paid more than SEK 5 000, the more acceptable one thinks it is to employ someone for black work.

In respect of people who are at the same time receiving payment from National Insurance for illness, unemployment compensation or social services benefits, a clear majority of the respondents feel that this is “completely unacceptable” (= 1 on the scale of 7) to employ such a person for black work. The conclusion should therefore be drawn that among citizens there would be support for measures to counteract the combination of black work and benefits fraud.

4.4.5 What people expect society to do about black work

From the qualitative survey, in Appendix 3, it is apparent among other things that people's expectations of commitment from society is linked to the actual kind of black work in question.

- Expressed expectation that society will take action in respect of black labour.
- No acceptance of social commitment in the form of punishment when purchasing household services. On the other hand there is an interest that society makes it possible for the ordinary person to be able to afford household services in white form. Anyway, it would perhaps feel better to purchase white services.

4.4.6 The core of black purchasing and the social carriers

In its statistical analysis Demoskop has grouped the answers on the basis of attitude and actual actions in respect of the purchase of black services, compare in Appendix 5. With the aim of facilitating the further descriptions of these four groups, each of them has been assigned a name.

People who have purchased black work during the previous year and do not have a moral objection to black services – **Black purchasing core**

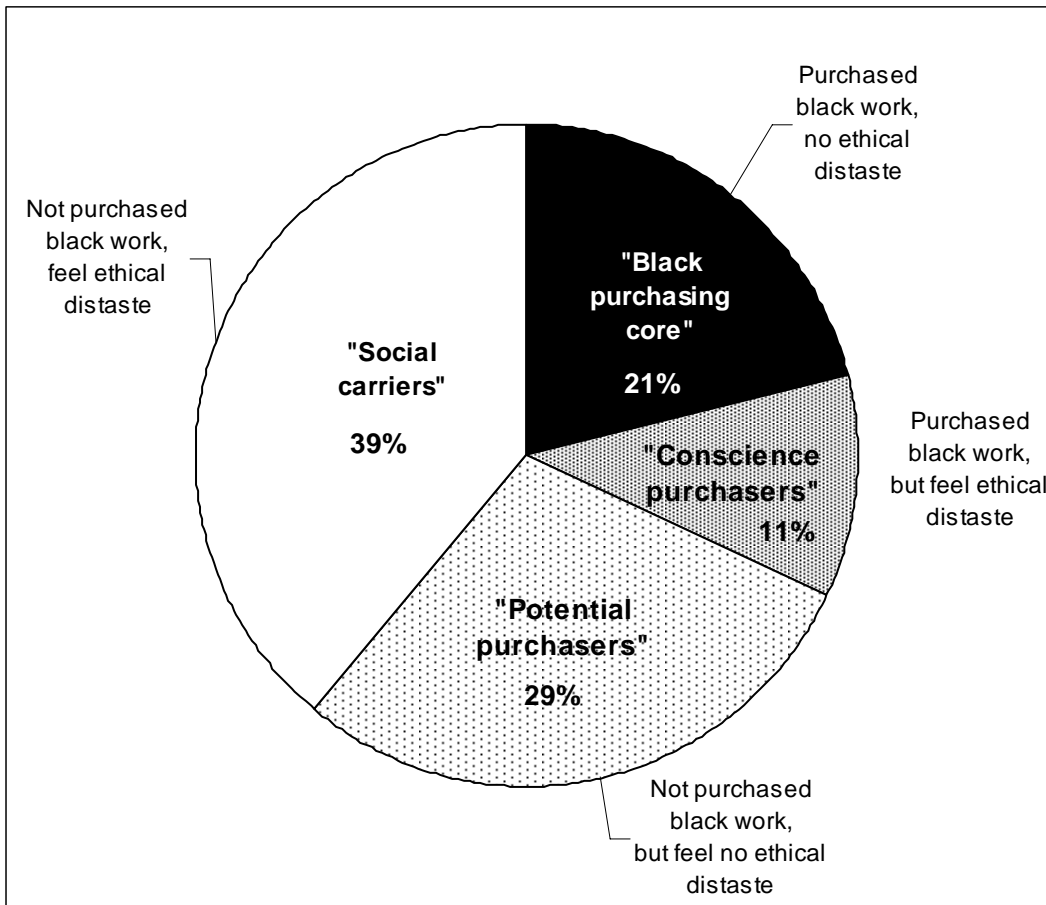
People who have purchased black work during the previous year but do have a moral objection to black services – **Conscience purchasers**

People who have not purchased black work during the previous year and do not have a moral objection to black services – **Potential purchasers**

People who have not purchased black work during the previous year and do have a moral objection to black services – **Social carriers**

In short, the appraisal that has been carried out of attitudes to black purchasing points to a wide acceptance of this trait, but also some tension between the various groups. Those who do not purchase, and feel moral distaste for black purchasing have a predominance of people who are less well off, while a greater number of those who have purchased black have more resources.

11. Diagram Groups with different opinions concerning black work



The largest individual group (39%) comprises those under the heading “Social carriers” and consists of people who have not bought black work during the previous year and who feel a moral objection to buying black. The other three categories (totalling 61%) are open to buying black in thought and deed. The black purchasing core, i.e. people who have purchased black work during the previous year and do not have a moral objection to purchasing black work, make up 21%.

All levels of society are represented by those who have purchased black, regardless of age and political affiliation. There are certain differences between groups in the divisions defined by Demoskop. The four groups are large, wide categories and on average they are of about the same age, which means that the differences are limited. Those differences that can be noted may be attributable to gender imbalances, but perhaps most of all to political views, where those who had bought black services on a larger scale had middle class values and were critical of society.

If we first look at the groups which actually purchase black work, it can be noted that in the black purchasing core, those who run their own businesses are clearly over-represented, and there is also a certain amount of over-representation among employees in the private sector. In general what characterises those who purchase black work, i.e. those belonging to the

Attitudes

black purchasing core and conscience purchasers, is that to a large extent they are male, married, have large families, own a house (rather than a flat), are of active work age, have a higher education and income, and middle class values. Among the black purchasing core Skåne (southern Sweden) residents are over-represented, while Norrland residents (far north of Sweden) are over-represented among the conscience purchasers.

Among those who have not purchased black work it can be noted that the social carriers to a large extent consist of the low paid, the poorly educated, females, single households, students or pensioners, and have socialist leanings. Among the potential purchasers, younger people and those with upper secondary education are over-represented.

The social carriers thus has a predominance of people who do not have the means to purchase black work, have less need to do so (less of them live in their own houses) and for these people it is no sacrifice to have “the high moral ground” in respect of black purchasing.

4.4.7 Proof of the connection between the risk of discovery and actual behaviour?

Preventive effect and prevention level

Tax checking is intended to have a *preventive effect*, i.e. to make those liable for tax assess the risk of discovery and the consequences as being so great that they abstain from evading tax, e.g. by performing black work. This preventive effect only has a practical result when people do decide not to work black.

In attitude surveys one can ask the people being interviewed about their assessment of the risk and consequences. A combined yardstick of the answers to such interview questions is what we call the *prevention level*. The question now is whether the prevention level and the reluctance, for example, to work black are related, or in other words is there a connection between actual behaviour and the prevention level?

In the large interview survey, reported in Appendix 14, the respondents have said whether, for example, they work black or purchase black work. They also answered questions concerning what they believe is the risk of the tax authorities discovering black work. There is also the possibility at an individual level to analyse the prevention level in relation to actual behaviour.

An established connection

If we look at the actual behaviour, males and younger people are more inclined to work black than females and older people. Men, younger and middle-aged people along with well paid people have a greater incidence of buying black work than women and older people.

Gender, annual income and previous purchasing are factors that are of great importance to how individuals set a value on (answer questions about) the risk of discovery and its consequences. Age on the other hand has no great effect, which is something that also RRV found out in its 1997 survey.

The prevention level, as has been said, is a combined yardstick of the answers to questions concerning the risk of discovery and its consequences. The higher the numerical value, the greater one deems the risk of discovery, etc. The table below shows the values for the named variables, partly for all respondents, and partly for those who have acted on the black market and for those with a high income.

12. Table

Risk of discovery, consequences and prevention level for black purchasing, performing black work and tax evasion depending on actual behaviour and high annual income.

The average values for the risk of discovery and consequences on a scale of 7 (where the median is 4). The value of the prevention level can take a figure between 1 and 8.5 (with a mean value of 4.2)

	All	Buying black for more than SEK 5000	Working black	Annual income above SEK 400 000
Risk of discovery	2,7	2,1	2,1	1,9
Consequences	4,9	4,6	4,8	4,3
Prevention level, purchasing black work	4,2	3,8	3,9	3,4
Risk of discovery	3,2	2,3	2,7	2,4
Consequences	5,2	4,8	5,2	4,5
Prevention level, performing black work	4,7	4,0	4,5	3,8
Risk of discovery	4,8	4,3	4,5	4,1
Consequences	5,6	5,4	5,6	4,9
Prevention level, tax evasion	6,0	5,5	5,8	5,0

Source: Appendix 7.

There is a connection between the prevention level and the actual behaviour, in that the groups who purchase and perform black work have lower values for the prevention level than those who do not. The prevention level in respect of black work is also low among all high income earners, among whom there are many who buy black services.

Otherwise, in general, the prevention level is lower for black purchasing than for black work. Our assessment is that if one is to successfully prevent black work this must therefore also be counteracted from the demand side – either with incitements to do the right thing, or to introduce into legislation some form of sanctions against black purchasing, which can raise the prevention level.

There are apart from those mentioned above, other – less important – variables that indicate differences in prevention levels. Of these it is apparent that the prevention level in respect of black work is relatively lower:

- in Norrland (northern Sweden)
- in large conurbations
- among employees in the private sector
- among people in the transport and taxi industry.

Prevention levels and young people

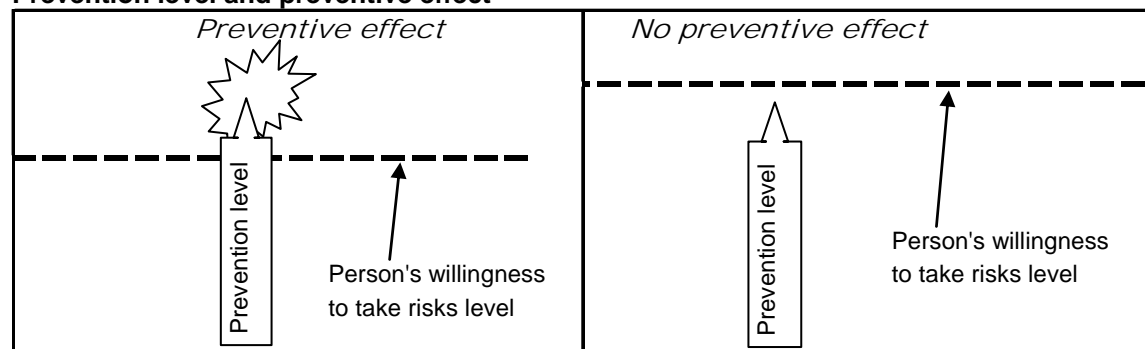
As mentioned above, younger people work black to a much greater extent than older people. There is however in neither the RRV survey nor ours a difference in prevention levels that can explain this. Provided that the interviewees responded truthfully, there must therefore be something more than the prevention level to explain actual behaviour.

The Swedish Tax Agency requested, for this reason among others, a special focus group survey of students (Appendix 4). During this survey the young people in the focus group did not discuss whether the tax authorities would discover their black work. When this question at times was brought up, the risk was deemed very small. Our assessment is that younger people are more willing to take risks in taxation matters than older people.

The prevention level as defined here is in respect of tax checks and subsequent consequences, but there is much else that can affect behaviour, such as people's financial situation, personal ethics and the social context. The willingness to take risks as far as taxation is concerned, the level of risk willingness in the figure below, is assumed to depend on these other factors. The preventive effect therefore arises first when the prevention level reaches or exceeds the person's level of willingness to take the risk.

13. Illustration

Prevention level and preventive effect



4.4.8 Concerning explanations and excuses for black work

Introduction

From the qualitative survey, in Appendix 3, the following is apparent:

- A laxity in social morality - fiddling, golden parachutes and astronomically high wages – is becoming more and more widespread. It is assumed that this brings with it less inhibition about purchasing black work.
- Black work is equally a moral, legal and financial question. Both the purchaser and the performer of black work know that they are doing wrong but justify their deeds with such arguments as:
 - the amount is usually quite low
 - one is far from the immoral behaviour shown by many high level managers
 - in the long run one is doing the right thing considering all the tax that is being paid
 - that no particular individual is suffering

- There is a conception that a certain type of black work – household services – will always exist. It is also conceived that there is no direct incitement to buy white services instead of those which are black (or grey).

Compliance with legislation is greater when those subject to the regulations feel a moral duty to follow the law. If we look at the attitude to driving while drunk, 93% considered this to be a very serious offence, and 90% said that they absolutely would not consider doing it, even if they knew that they could get away with it. When it comes to purchasing black work, the respective figures were 6% and 10%.

Korsell and Nilsson have published a handbook⁶ with methods for preventing errors and cheating in the financial area. They assert in the section on normative motivation that:

1. Legislation and checks that are perceived as reasonable and fair increase compliance with the law.
2. If others break the rules, one is less likely oneself to comply with the law.

We have in the previous section touched on the fact that those who have bought black work, and in particular those who have done so to a value of more than SEK 5 000 per year, believe more than most others that this is a minor misdemeanour, and to a larger extent think that it is acceptable to employ a person who is doing extra work black, and business owners who do work "cash in hand" without a receipt.

Those who breach norms like to have access to rationalisations that justify their own behaviour – in this case purchasing black work. Black purchasers may think like this:

I actually need to purchase black work to solve a problem with my limited financial resources – I just don't have the means to purchase white. No individual person suffers because tax is not paid; it is the recipient's responsibility to manage taxation. Everyone else buys black, and anyway it's just not possible to find a craftsman who will do jobs white. Black work is needed to keep Sweden going.

Let us see if this rationalisation agrees with the behaviour of those who do a lot of black purchasing, where the self-employed are the one group that relatively buys most black work. For three of these assertions, a certain amount of insight can be gained among the answers to certain questions in the Demoskop panel survey.

I can't afford not to!

With rising incomes, the consumption capability rises, even among private household services. This also applies to the purchase of black services. It can be seen from the following table that it is those with higher incomes who mainly purchase black services.

⁶ Korsell L. E. and Nilsson M. *Att förebygga fel och fusk (Preventing errors and cheating)*. Methods of regulating and checking. Nordstedts Juridik 2003.

14. Table

Those with the means to purchase “white” but actually purchased black, percentage

SEK, thousands	All	Income range			
		-200	200-300	300-400	400-
Assertion: I can afford to buy the help I need white. Proportion who agree.	45	44	46	49	48
Question: Have you bought black work during the last year? Proportion of “Yes” respondents	32	26-	35	39+	37

Source: Demoskop (business intelligence company) panel survey, Appendix 5, 7-step scale with 4 as the average; agree = steps 5-7

The higher the income the more people agree to the assertion that they can afford to buy the help they need on the white. However the differences between the income groups are surprisingly small.

With the same income range, those who have bought black replied to a considerably greater extent that they could not afford otherwise – they are justifying their actions by saying that their income is insufficient. However the differences are reduced as income gets higher, which is natural considering that they really can afford increased consumption.

15. Table

I can afford to buy the help I need white. Proportion (as a percentage) who agree with or do not agree with this assertion in three separate income ranges.

Income range	SEK 0 to SEK 99,999			SEK 200000 to SEK 299999			SEK 400000 or more		
	Not purchased black	Purchased black, less than SEK 5000	Purchased black, more than SEK 5000	Not purchased black	Purchased black, less than SEK 5000	Purchased black, more than SEK 5000	Not purchased black	Purchased black < 5000	Purchased black > 5000
Agree	42 %	22 %	29 %	54 %	27 %	25 %	62 %	57 %	56 %
Disagree	34 %	52 %	71 %	29 %	45 %	51 %	19 %	29 %	22 %
Difference	7 %	-30 %	-43 %	25 %	-17 %	-26 %	44 %	29 %	34 %

Source: Demoskop (business intelligence company) panel survey, Appendix 5, 7-step scale with 4 as the average agree = steps 5-7, disagree = steps 1-3

Everyone purchases black!

How do Swedish people perceive the behaviour of others when it comes to purchasing black? This is an interesting question. If one believes that everyone else is cheating, this according to our theory increases the chances that one will also cheat. If one is informed about the extent of cheating, the amount of cheating would increase if people think that cheating is less prevalent than it actually is. And the converse – if cheating is less widespread than people think it is – the information that this is not so widespread would influence people to cheat less themselves.

16. Table

How large a proportion of Swedish households do you think buy black services in a year?

Share of households (percentage)	All	Purchased more than SEK 5000		
		Purchased black	Purchased black	Own business
-10	6	3-	1-	0-
10-25	25	17-	11-	17
26-50	31	31+	27	27
51-75	23	25	31+	26
76-90	11	18+	21+	20+
91-	3	6+	8+	8+
Don't know	1	0-	1	0

Source: Demoskop (business intelligence company) panel survey, Appendix 5.

Among those who made black purchases amounting to more than SEK 5 000 in the last year, 60% believed that more than half of all households bought black work during that year. Among the business owners, the equivalent percentage was 54.

It would be safe to conclude that citizens feel that the level of cheating is greater than it actually is, which in turn means that information on the actual position – if the theory is correct – would be able to reduce the amount of cheating.

Black work is needed to keep Sweden going!

Those who have purchased black work have not done so to benefit Sweden as a country. However those who use the black market naturally for themselves, and for others want to motivate their actions by saying that what they have done is actually good in some way.

17. Table

Black work is needed to keep Sweden going, proportion as a percentage.

Statement: Black work is necessary.... ?	All	Purchased more than SEK 5000		
		Purchased black	Purchased black	Own business
Disagree	50	33	26	20
Either/or (4)	27	33+	28	33
Agree	22	32	45	46
Don't know	1	1	0	0
Average	3,17	3, 86+	4, 20+	4, 55+

Source: Demoskop (business intelligence company) panel survey, Appendix 5, 7-step scale with 4 as the average agree = steps 5-7, disagree = steps 1-3

An important question is to what extent one with increased knowledge of the actual situation could get people to realise that their justification is not based on facts.

Power and its ethics as a justification factor

If one can be sure that others are paying their legally determined taxes, this trust generates a greater degree of faith in the tax system, as well as a reduced interest in withholding tax for oneself. It can clearly be seen from the survey that not only do Swedish people purchase black work to a great extent, but also that people know about the purchase and implementation of black work by others, and that moreover its extent is overestimated. Taken altogether, this reduces faith in the tax system.

The focus group survey by Demoskop points to a further rationalisation factor, namely that a weakening in social morality - fiddling, golden parachutes and astronomically high wages – is becoming more and more widespread. It is the people who are the leaders of society and who have the power, that are being referred to. It is assumed that this possibly reduces inhibitions about purchasing black.

We have shown above that there are more people in higher positions than most other groups in society who purchase black work. This can also be taken by others as a sign of deterioration in social ethics among those who have power. Or, expressed otherwise – the group which is supposed to lead others are not setting a good example by abstaining from purchasing black work.

In 1986 Professor Axel Hadenius published⁷ the results of an extensive interview survey – mainly consisting of hour-long personal interviews – investigating the views of the Swedish people on tax and welfare. The investigation had a response rate of over 80% and was financed by the Riksbankens Jubileumsfond (Bank of Sweden Jubilee Fund). Following a comprehensive analysis of various factors, the study concluded⁸ with the following statement:

This, finally, brings us back to the variable which is probably the most strategic in this connection: the lack of confidence in politicians – and in particular the discontent with power. This characteristic is not only the most active as regards aversion to pay – it also appears in an expansive direction on the expenditure side and thus gives expression to – with regard to the explanatory strength – a unique inconsistency. People alienated politically want increased collective welfare but feel no responsibility concerning the cost.

In a questionnaire to the Swedish people the Swedish Tax Agency asked which the principal reasons are for people cheating on tax.

⁷ Hadenius A (1986) *A Crisis of the Welfare State. Opinions About Taxes and Public Expenditure in Sweden*, Almqvist & Wiksell International Stockholm 1984

⁸ Op. cit. page 132

18. Table**Reasons for cheating – proportion who agreed with assertions as a percentage**

The main reason for cheating on tax for one's own benefit is that:	2002	2004
People in positions of authority are breaking the rules of society	59	65+
Tax levels are too high	60	62
There is a low sense of solidarity with society	49	51
Tax money is used for the "wrong" purposes	42	46+
Speculation – one wants to "test" whether a deduction "will work"	42	41
Inadequate sanctions	34	34
The taxation rules are complicated	37	31-
Low risk of being caught	33	31
"Everybody else" cheats	31	31
Other reasons	9	10

Source: Nation-wide investigation among the general public by the Swedish Tax Agency

* = Agreed (4+5) on a scale of 5

As shown by the table, the majority of the respondents agreed with the assertion that "People in positions of authority are breaking the rules of society". The plus and minus signs in the 2004 column show the significant differences between the 2002 and 2004 surveys.

4.4.9 The social argument is too weak

Opinions concerning black work are many and varied. In principle however most people agree that black work deprives the state of tax income. There is also a high degree of acceptance that white pay is more secure than black pay and that black work means that honest people have to pay more tax. A very clear majority also consider that black work has a detrimental effect on genuine companies and that black work is a serious social problem. At a social level it can thus be said that people to a large extent distance themselves from black work.

Despite this, people are not very bothered about the fact that others do black work, on a small scale. If the extent was greater, the condemnation would be considerably greater. For natural reasons there are also clear differences in attitude to black work between those who have bought black services in the previous year and the public in general. Those who have purchased black tend to dismiss the harm to society as an ethical problem, and among them there is a wide opinion that black work is needed to keep Sweden on its feet.

With the aim of getting a deeper understanding of what promotes, respectively hinders the purchase of black services, Demoskop investigated the strength and breadth of the various arguments for and against black services. At the same time as Demoskop is investigating the attitude aspects of purchasing black work, it is pointed out that it is important to remember that demand, in combination with supply, appears to be just as important for the decision whether to buy black or white.

There are few aspects that generate strong arguments against buying black work and that are held by many people. Rather it appears that the connection is such that the arguments against black work held by many are not particularly powerful, and vice versa.

Strong influential arguments against buying black, but held by few people are:

- The purchaser would have a bad conscience
- It is unethical to buy/sell black

Arguments with a weaker influence but held by more people are:

- Black work means that those who are honest have to pay more tax
- Black work tends to harm genuine companies
- Black work is a serious social problem

Arguments that have a weaker influence on black work but that are held by many are:

- Black work means that the state loses tax income
- White services are more secure than black

4.5 Purchasing black in Sweden compared with other countries

In one of the projects financed by the European Union, every second year the differences and altered patterns in values, attitudes and behaviour among the inhabitants of 20 European countries are examined. All the questionnaires are in that country's language and the survey data is made available for researchers, among others, on the <http://www.europeansocialsurvey.org/>. web site.

Appendix 6 shows the results of questions concerning black work and benefits fraud, and the confidence in justice and public servants.

A summary of the results for Sweden in comparison with other countries shows that:

- One out of three Swedes has bought black work without a receipt in order to avoid paying VAT and other taxes at least once in the previous 5 years.
- Sweden is placed high among comparable countries in respect of the frequency of black purchasing.
- The Swedes, in comparison with many other countries, are more aware that it is wrong to purchase black work.
- Only one in twenty of the respondents answered that they think it is not at all wrong to purchase black work.
- For the countries in the survey there is a strong connection between the spread of black purchasing and the taxes on work measured as a proportion of the Gross Domestic Product, GDP. The higher the taxation proportion, the larger the proportion of people who have at some time purchased black work.
- Only one in a hundred have at any time cheated in relation to public benefits, such as social services benefits or other types of benefit.
- In relation to other comparable countries, in respect of benefit fraud the Swedes lie somewhat below the median.
- Swedish people do not have all that much faith in being fairly treated by the judicial system – in this respect Swedes are about in the middle range of the different countries.
- When it comes to belief in being fairly treated by public servants, Sweden ends up much lower than its neighbours Denmark, Norway and Finland.

In a statistical analysis of the results from the Swedish part of the survey one can show that the following groups, to a greater extent than others, responded that they often buy black work:

- Households with higher monthly income (compared to households with lower monthly income). This conclusion can be drawn from the income range SEK 9 400-47 000 per month for inhabitants outside conurbations.
- People who are self-employed (compared with employees)
- People who live on farms and in rural districts (compared with inhabitants in conurbations, suburbs and small towns)
- People who were born in Sweden (compared with those born abroad)

4.6 Lower tax ethics compared with other countries

An important question is whether the attitude to black purchasing and performing black work in Sweden has changed over time. We cannot give a clear answer to this question.

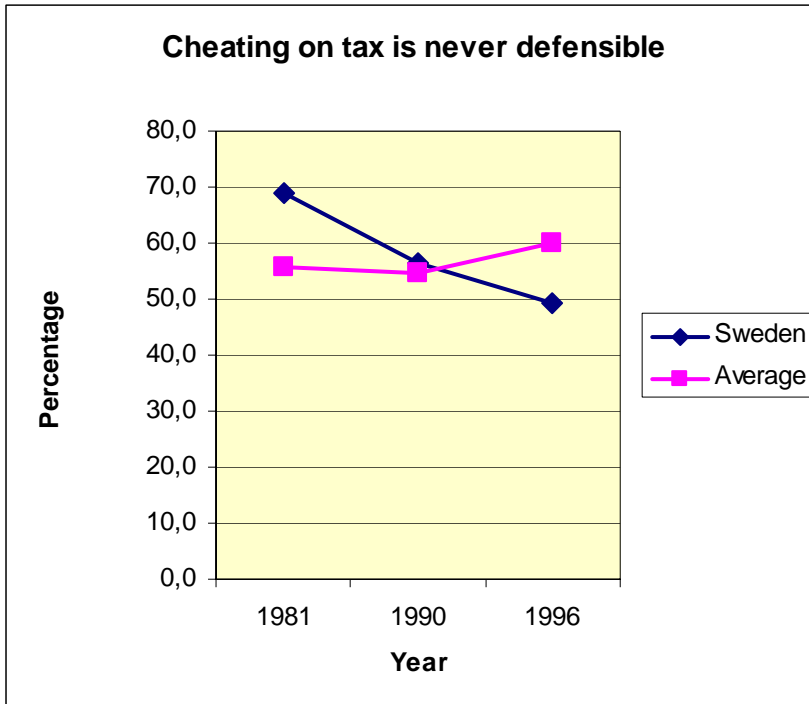
Black work is a form of tax evasion. In a survey⁹ data has been processed¹⁰ from 23 OECD countries concerning three surveys, namely in 1981, 1990 and 1996. The questions were in respect of the attitude to tax evasion in the surveyed countries – whether cheating on tax could be defended.

The results indicate that tax ethics in Sweden in comparison with the surveyed OECD countries are sinking.

⁹ Benno Toglér and Kristina Murphy, Tax Morale in Australia: What factors shape it and has it changed over time, *Journal of Australian Taxation*, August 2004, pp. 336 et seq.

¹⁰ Stated source: World Values Surveys

19. Table
Proportion of the population who responded that cheating on tax is never defensible. Average for the various years computed on 18, 20 and 9 countries respectively



Note. In 1996 Sweden was compared with the averages for the surveyed countries, which in that year consisted of Finland, Sweden, West Germany, Japan, Norway, Spain, Australia, Switzerland and the USA.

5 Extent of under-reported income from work

5.1 The discrepancy in the national accounts

National accounting is, as the name implies, the accounting process for a complete nation. National accounting records what is produced, consumed, invested, exported and imported into the country.

The gross domestic product (GDP) is the value of all the goods and services that are produced in the country for use in consumption, investment and export. GDP should also include concealed production. The most comprehensive estimate of concealed income from work is that which can be obtained indirectly via the national accounts. National accounting namely also includes concealed income from productive work that is sold on the market.

GDP can be measured in three different ways, based on:

1. *production* i.e. production of products measured as the added value in the various industries
2. *expenditures* i.e. the use of the products (consumption, investments, export)
3. *incomes* i.e. income formation in the economy

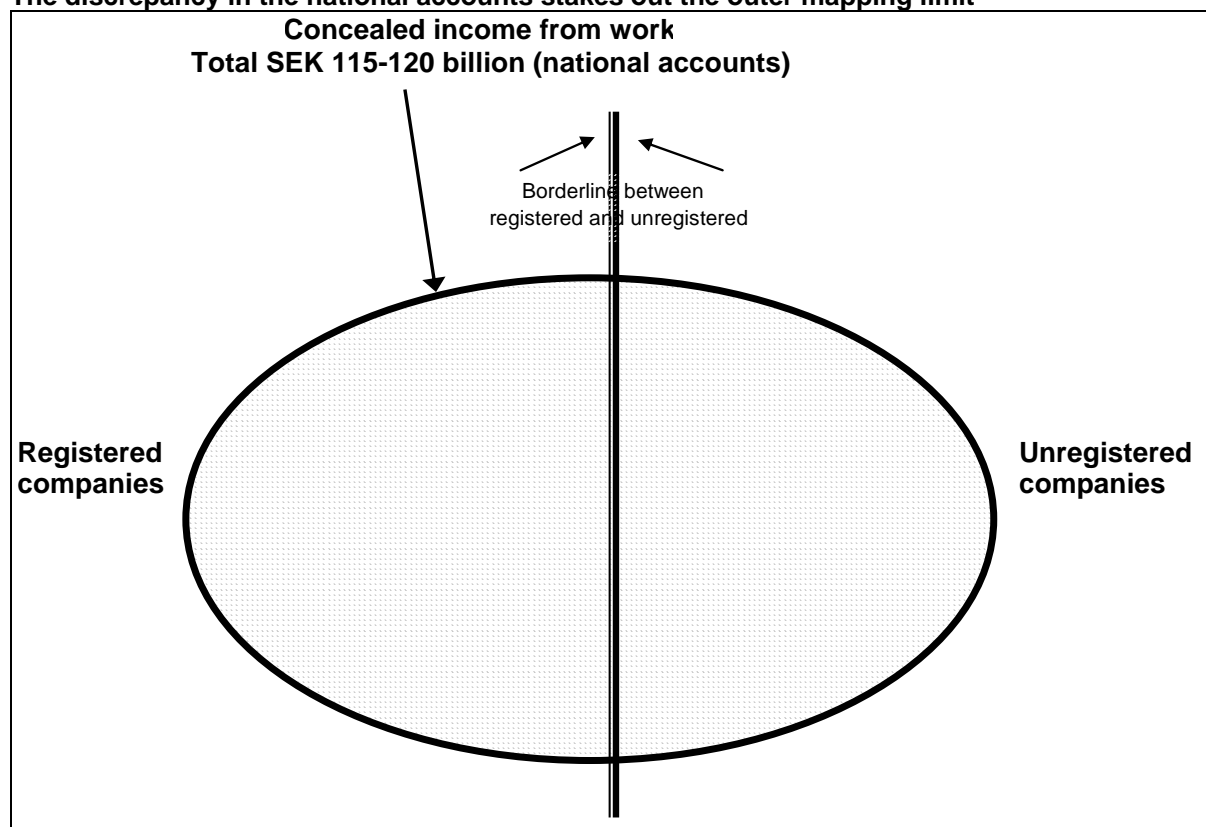
If there was no black work at all and the statistics in general were comprehensive and without any errors, the three ways to measure GDP would give the same results. However this is not the reality – part of the business and part of the income are hidden. There are discrepancies between the different measuring methods. In the Swedish national accounts the main approaches to measuring GDP are taken on the basis of expenditures, where the concealed amounts can be expected to be small. Expenditures are carefully measured by means of well constructed investigations. This establishes the “true” level of GDP. The products being used should equate to those available through production and the income generated in the production process. By using as a basis the difference between what is used and the income that is actually accounted for, conclusions can be drawn concerning how much of the households’ disposable income is “missing” in the official accounting in tax returns and company bookkeeping.

Our starting point in the appraisal of black income is the discrepancy present in national accounting, between the statistics concerning household expenditure (where the level is ensured in the best possible way) and the officially accounted income for the household sector (Appendix 8). This discrepancy catches both the income that is present by cheating in various ways in the bookkeeping, and that which is kept completely outside the bookkeeping. The discrepancy includes both payment to employees (wages) and hidden incomes among people running businesses as self-employed. In Sweden the discrepancy is calculated to be approximately 5% of GDP, which is equivalent to a concealed income (basis) of SEK 115-120 billion (at 2002 values). The concealed incomes represent 10% of total income from work in the economy. If one takes into consideration that black compensation is small in the public sector and in large companies, one can assume that the concealed incomes can be large in certain parts of the economy.

The national accounts give us our first general picture of hidden (“black”) compensation for work. The discrepancy gives us an outer limit for all black income from work that arises in connection with productive business in the country.

20. Figure

The discrepancy in the national accounts stakes out the outer mapping limit



In the illustration it is schematically implied that concealed work income arises in both companies that are registered for taxation at the Swedish Tax Agency and in businesses that are not officially registered. The estimate based on the national accounts shows the extent, but since this is an indirect method based on the comparison between two separate summations for the household sector (household expenditure and household officially accounted income respectively) it does not in addition give any clues as to the structure and the prevalence of concealed income from work in various sizes of company, which industries they are in, and so on.

We can however not be sure that the difference as a whole can be ascribed to under-reported incomes in households – it could also depend on other deficiencies in the statistical basis for the national accounts. It might even be that the national accounts underestimate the discrepancy! By using several different methods for our mapping, we try to find out and explain the sources of the discrepancy.

We shall try to assess whether the estimate of SEK 115-120 billion is reasonable, taking into account the various studies we have done.

5.2 Black work that can be uncovered by means of tax audits

One of the methods used to get an idea of the extent and structure of black work is to take a starting point in the Swedish Tax Agency's audits in respect of income tax (Appendix 9). This method creates a picture of the overall structure of concealed income which can be revealed by means of tax auditing. In order to assemble a large enough number of observations, the results have been used from audits covering a period of 8 years (from 1995 to the spring of 2003). During this period the audits based on income tax detected a concealed income from work amounting on average to SEK 1 billion per year. When we use the statistics of the results from the tax audits we can study what could have been uncovered if one had the resources to audit all companies for one year in the same way.

Since it is black work, i.e. concealed *income from work* that we want to measure, the calculations only cover the changes the audits lead to in respect of *income from employment* and *income from personal business*.¹¹ Tax audits are not random. To offset the effect that the choice of audits is not random, the audited companies are carefully divided into company types (8 groups), company size (3 groups) and industry (25 groups). For the same reason estimates are based on only 90 % of the audits carried out on smaller companies. After sorting the audited companies according to the size of the audit changes, for smaller companies 5% of the largest and 5% of the companies with the smallest changes were removed.

For each of the 200-plus groups that were involved through stratification, we calculated the average change per audited company. The calculations were based on the results of over 20 000 audits. The information of the average change per company in the respective strata was then matched with the total number of companies in the group. The finesse of this method is that the large number of strata (over 200) means that if there are extreme values in one stratum they only have a limited effect on the overall estimation.

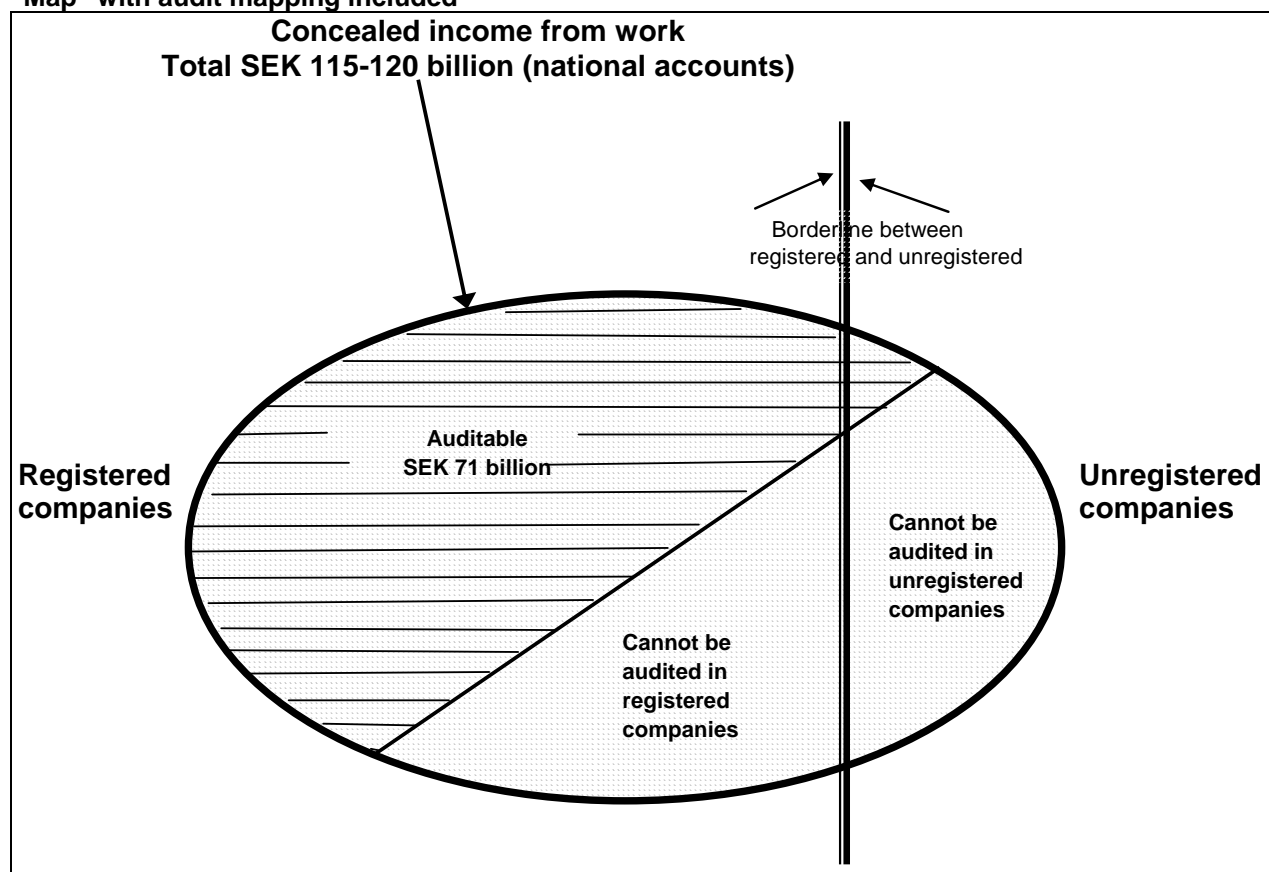
Weighted, the estimation of the concealed income from work represents 770 000 active companies (including the public sector, non-profit organisations, etc.) with a total accounted-for white income from work almost SEK 1 000 billion. Our calculations result in an estimate of the total concealed income from work amounting to about SEK 71 billion.

Estimation of the concealed income from work on the basis of tax audits can be said to give an indication of the concealed income from work that can be supported by the methods and checks that the Swedish Tax Agency uses today. The calculation mainly catches concealed income from work in registered companies, even though a few unregistered companies ought to be included. The audit method explains and provides a structure for about 60% of the total concealed income according to the discrepancy in the national accounts.

We could now redraw our earlier mapping picture like this:

¹¹ By far the largest increase in auditing is in respect of large companies, but they are not of interest here, since it is a question of income that stays there and cannot be consumed by individuals.

21. Figure
 "Map" with audit mapping included



The auditing method has the advantage that it gives some indication of the black work structure, as well as the presence of concealed income from work in various company sizes, industries, etc. Calculations based on tax audits indicate a strong concentration of concealed income from work in small companies.

22. Table
 Overview of calculated concealed income from work according to company size, based on auditing

Category	White income from work		Estimated concealed income from work		Concealed income from work expressed as an addition to white reported income
	SEK billion	proportion	SEK billion	proportion	
Small companies with total wages of less than SEK 1 million	87	9 %	59,8	85 %	69 %
Limited companies with total wages from SEK 1-5 million	100	10 %	7,9	11 %	8 %
Larger limited companies and other sectors	810	81 %	3	4 %	0 %
Total	997	100 %	70,6	100 %	7 %
Ditto excluding public sector, etc.*	687		70,6		10 %

*Excluding the public sector, housing co-operatives and non-profit companies

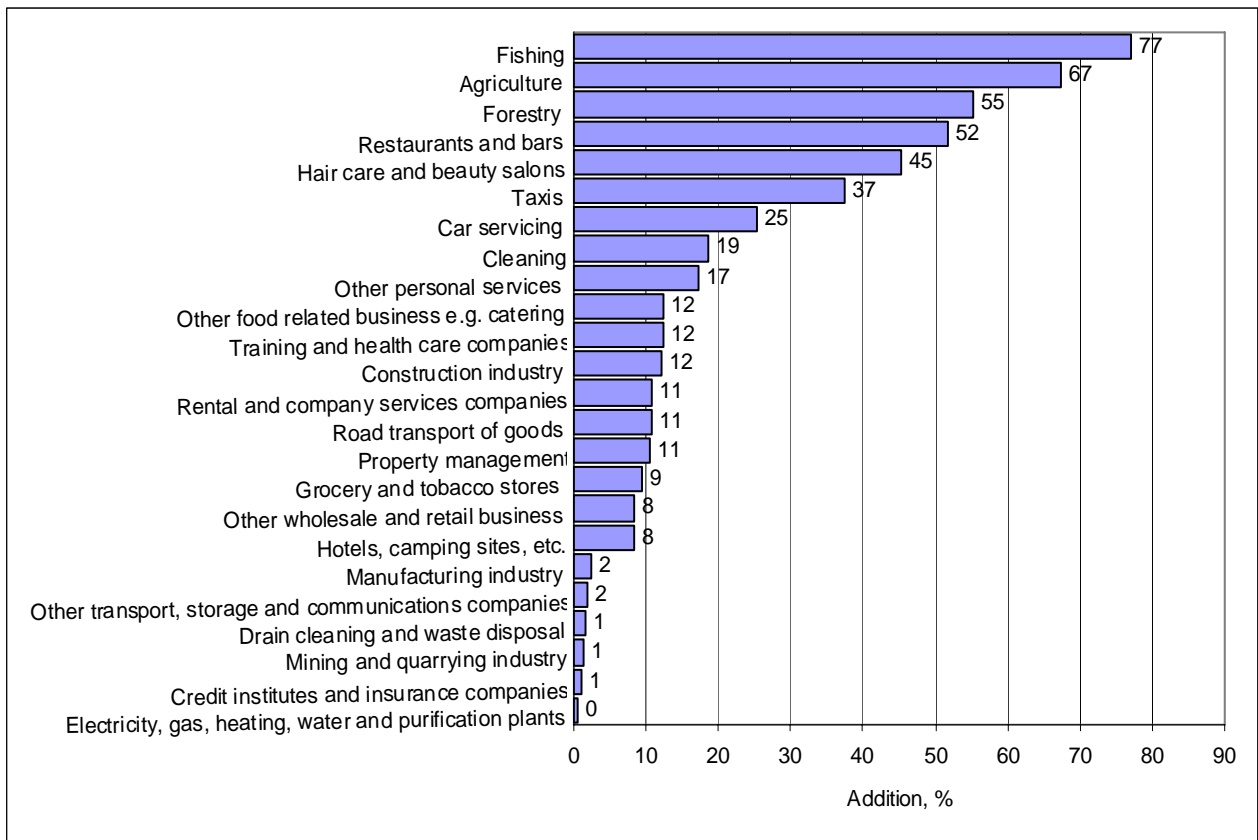
The self-employed and companies with total wages of less than SEK 1 million are responsible for 9% of the white declared income from work, and for a massive 85% of the calculated concealed income from work. The medium size limited companies (with total wages between SEK 1-5 million) are responsible for 10% of the white income from work and for 11% of the

calculated concealed income from work. Limited companies with total wages exceeding SEK 5 million and the other sectors have 81% of the white income from work, and are responsible for 4% of the calculated under-reported income.

We move now to a study of the size of the concealed incomes, seen relatively. Altogether the calculated concealed income from work equates to an addition of 7% on the white income. Excluding the public sector, housing co-operatives and non-profit companies, where the concealed incomes are small according to calculations, the addition is 10%. This is however an average and there are, as shown in the diagram below, large differences between the various industries.

23. Diagram

Calculated concealed income from work in different industries expressed as an addition to the white reported income from work



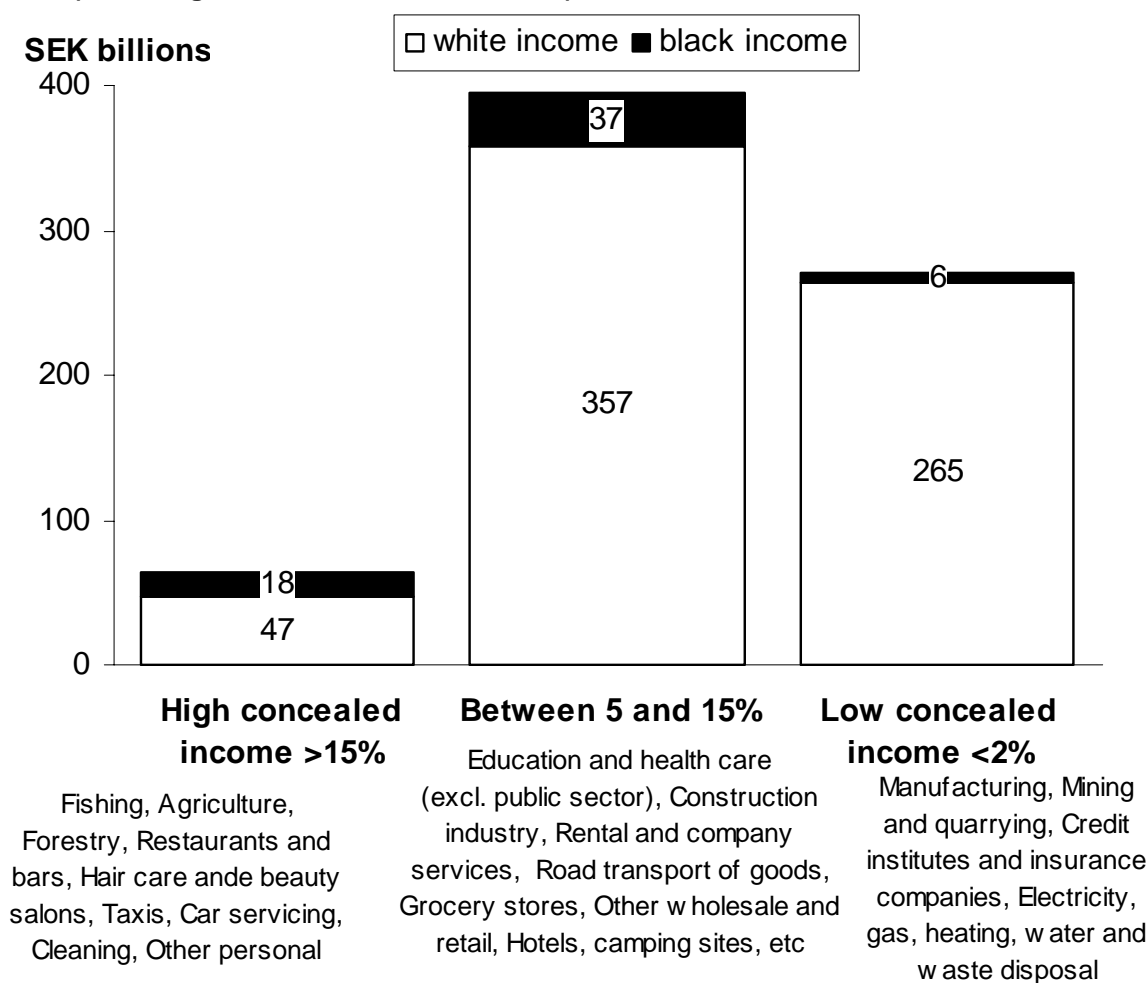
1. At the top, with an addition of over 15% one finds fishing, agriculture, forestry, restaurants, hairdressers, taxis, car servicing, cleaning of business premises and other personal services.
2. In a medium group with additions between 5 and 15% are training, fitness and health care companies (excluding those in the public sector), the construction industry, rental and company services companies, road transport, grocery shops, retailers, hotels and camp sites.
3. A very small addition – of less than 2% - is found in manufacturing industry, mining, credit institutes, waste management, electricity power stations, etc.

The result is interesting in that to a large extent it confirms the general view of cheating in the various industries.

But even if the concealed income from work is *relatively* high in certain industries, this does not mean that they are responsible for the majority of the concealed incomes from work. The diagram below summarises the results by groups (high, medium and low concealed incomes from work) by showing the white and the concealed incomes from work in *absolute* figures, i.e. in billions of Swedish kronor. The concealed incomes from work come to a considerable amount in SEK billions, even for industries where relatively they are low, since the industries in question are so large.

24. Diagram

Declared and concealed income from work in different industries in accordance with the audit method (excluding “line of business unknown”)



With the division of industries that has been used, the greatest amount of concealed income from work in *absolute* figures exists in large sectors, such as rental and company service companies (SEK 13.9 billion), retail stores (SEK 8.1 billion) and the construction industry (SEK 6.2 billion).

It may seem surprising that the addition percentage is much lower for hairdressers (45%) than for agriculture (67%). This actually does not match the existing preconceptions. It needs to be stressed however that what we have studied is the concealed income from work *that it is possible to audit*. In such a sector as agriculture there are many more “clues” in an audit than in the auditing of hairdressers. The hairdressing sector is characterised by the fact that production and consumption take place simultaneously, and it is difficult to find any evidence

afterwards. The results we see for the various industries are just an indication of what the audit instruments can be induced to bring out. What actually happens if you add the concealed income from work, that cannot be identified using normal auditing methods, is that the relationships between the different industries could be offset compared to the above illustration.

We shall provide an illustrative example of how all concealed income from work cannot be discovered by means of audits, and in this case that the audit results underestimate it. Let us study the household expenses for hair, beauty and body care (manicures, etc.). These services are unique since they almost without exception are purchased by private individuals. By asking households how much they pay for these services it is therefore possible to pin down the turnover of the industry in total, i.e. the combined white and black purchases. The national accounting production calculations are based on just what households say they have paid for these services. In comparison with the amounts in the hairdressers' bookkeeping there is something like SEK 2.5 billion missing. The estimate of black production of hair and body care at SEK 2.5 billion (the national accounting calculation) can be compared with the value of SEK 0.8 to 0.9 billion in concealed income from work that we get from extrapolating the results of audits. There is a large degree of uncertainty in both these estimates, but if we in any case pool the results it means that in respect of hair and beauty care one third of the black income can be supported, with the auditing methods that are currently in use. Belonging to this picture is also the fact that when bookkeeping either does not exist or is poorly recorded, after an audit one arrives at an arbitrary assessment that as a rule is a form of minimum estimation.

5.3 Investigations that support the results of the tax audit study

The audit method indicates that concealed income from work is mainly present in small companies. In order to check whether this result is valid we compare it with the results from three different methods based on comparisons between entrepreneurs and employees.

1. comparison of median income from work
2. comparison of standard of living
3. estimate of undisclosed income, based on food consumption

5.3.1 Comparison of median income from work for established self-employed persons and employees in the same industry

Small companies are often run in the form of private firms as self-employed. If self-employed persons have black income and therefore declare less income than a wage earner, it should be possible to show this, if the income for comparable persons in the same sector is lower for the self-employed than for employees. To examine this state of affairs, comparisons have been made by industry between the median income for the established self-employed (who have run profitable businesses for at least 3 years) and employees in the age group 25-60 (Appendix 10). The comparisons are based on processing the Statistics Sweden's register-based labour market statistics (RAMS) for the income year 2002. These statistics do not

differentiate between full-time and part-time work. On the basis of the median values¹² the skew effect of part-time work on the processing is minimised.

The assumptions, when we make this comparison of median incomes, is that considerably lower levels among the self-employed than for employees could be an indication of the presence of concealed income from work.

In comparison with employees, the self-employed have a divergence in industry composition. They are relatively over-represented in agriculture, construction and household-oriented services such as hair care, restaurants and taxis.

The median income for the self-employed in respect of all industries is found to be SEK 137 000, compared with SEK 233 000 for employees. This means that the median income for the self-employed would need to be increased by 70% to reach the same level as employees. The percentage increase is however misleading, since there is such a wide divergence in industry composition between the self-employed and employees. If the industry composition had been the same for employees as for the self-employed, the difference would be smaller. After weighting, taking into account the industry composition of the self-employed, an increase of 51% would be needed to bring the median income of the self-employed up to the employee level.

One aspect that should be borne in mind here is that the comparison has been made with the employees' actual declared income from work. However employees also have a certain amount of concealed income. In the estimations using the auditing method the concealed income from work for employees comprised 5% of salary across all sectors, excluding the public sector, housing co-operatives and non-profit companies. However the industry composition for employees is totally different than that for the self-employed. If the concealed income from work for employees is weighted to equate to the self-employed industry composition, this becomes instead 15% of salary. If the auditing method is correctly reflecting under-reporting by employees, this means that an addition of much more than 51% would be needed for the self-employed to reach the same level as the "actual" income for employees.¹³

In summary, the calculations show that the established self-employed consistently have a much lower median income than comparable employees. Taken together with the picture of concealed income from work for small companies obtained from the tax administration audits, we interpret this to mean that there is considerable under-reporting of income among small business owners.

5.3.2 Comparison of standard of living indicators other than income

It could be that the entrepreneurs really do have a lower income than wage earners and that this is not a sign of concealed income. If there is no concealed income one should expect that people with similar incomes should have relatively similar living conditions.

¹² I.e. income for the individual in the middle after sorting individuals according to size of income.

¹³ Since the addition of 15% for employees is made at a higher income level than that of the self-employed, it becomes a question of 74% extra for the self-employed to come up to the same level as employees.

To find out the situation, the standard for entrepreneurs with a low income was compared with that for employees in the same income range using the standard of living indicators in the Statistics Sweden's Living Conditions Surveys (ULF) for 2002-2003, Appendix 11. The indicators used include standard of accommodation, ownership of material assets (e.g. car) and the ability to deal with a temporary financial crisis. The comparison was restricted to full-time workers aged 25-60. The "entrepreneur" classification was based on information supplied by those interviewed, which included both people running businesses as self-employed and those running close companies. To prevent the comparison being skewed, farmers were excluded since their home is subject to special conditions (in general large dwellings). Within these limitations the ULF calculations at national level is equivalent to 288 000 "entrepreneurs" and 2.6 million employees.

The comparison shows that entrepreneurs with low incomes enjoy a much higher standard of living than wage earners with comparable incomes. It is similar to that of employees with higher incomes. This applies regardless of whether the comparison is made in respect of the entrepreneurs'/employees' own income, or whether it is based on disposable income per consumption unit for the household in which the person lives.

We therefore interpret this to mean that there is considerable under-reporting of income for persons running small businesses.

5.3.3 Under-declared income among entrepreneurs based on the comparison of expenditures for food

A study (Appendix 12) based on the connection between food consumption and disposable income has been carried out by Docent Per Engström and Professor Bertil Holmlund at the Department of Economics at the University of Uppsala. The Uppsala study is based on a method devised in Great Britain by Pissarides-Weber at the end of the 1980s. The angle of approach is to compare expenditures in entrepreneur and employee households. The core variables in the estimation are the connections between *food consumption* and *disposable income*.¹⁴ The key postulations are that:

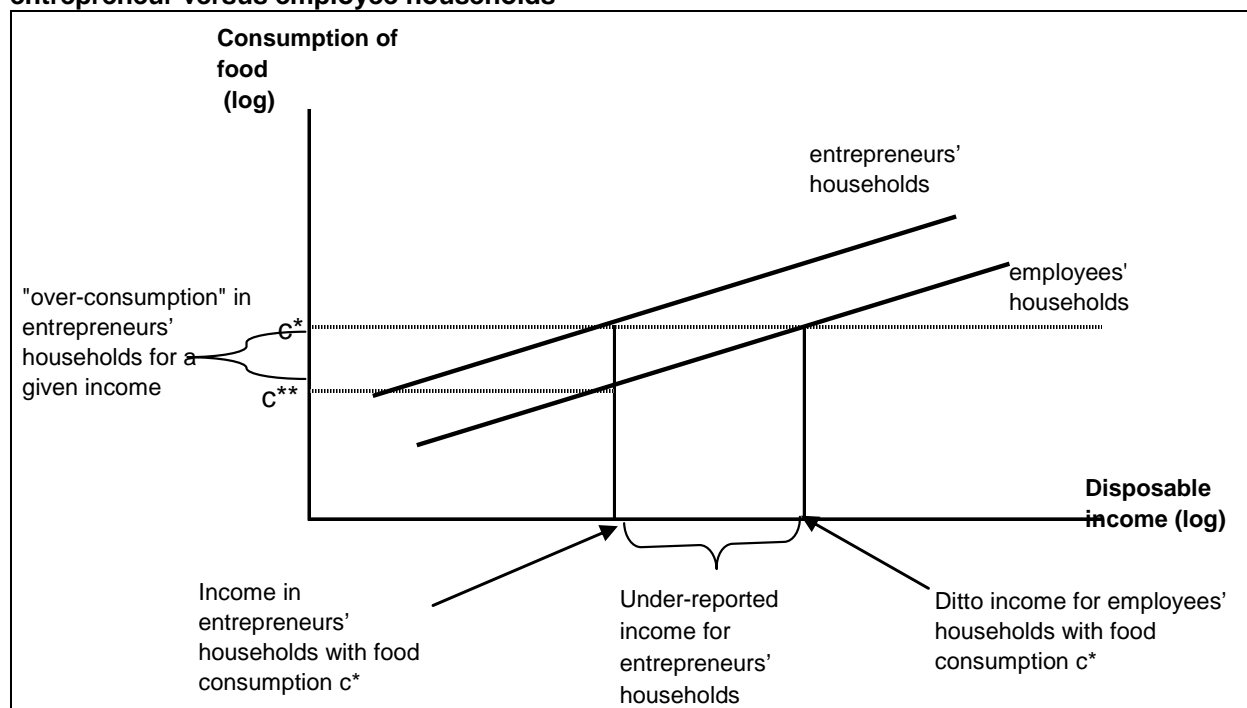
- Entrepreneurs are able to under-report their income, while employees cannot.
- The expenditures for food consumption are assumed to be correctly reported by both employees and entrepreneurs.

The figure below illustrates the main structure of the method. The figure shows two curves, one for the entrepreneurs and the other for employees, to show the connection between food consumption and reported income. Take for example two individuals, one entrepreneur and the other a wage earner, who both state that they have food expenditures at level c^* . At this level the employee declares a higher income than that officially declared by the entrepreneur. By means of this type of comparison one can indirectly calculate the size of under-reported income for entrepreneurs compared to employees.

¹⁴ Farmers have been excluded since they can be assumed to have a different pattern in respect of expenditures for food consumption.

25. Diagram

Illustration of the connection (in principle) between food consumption and income – entrepreneur versus employee households



The estimation use data from Statistics Sweden’s Household Budget Surveys (HUT) for the years 1999-2001 and 2003-2004. Since preliminary analyses showed very similar results for the two time periods, data was pooled from all these years into a common data set consisting of 5 years. Classification into entrepreneur was based on information given by the individuals themselves (i.e. that they considered themselves to be part of that group) in the HUT survey. This means that the entrepreneur group contains both people running business as self-employed and those running close companies.

Estimations based on the HUT data show that food consumption in relation to income is higher for entrepreneur households when one takes into account household size, ages, regions, etc. Entrepreneur households are characterised by spending 5 to 7% more on food than wage earner households with the same declared income. If households have the same consumption preferences (given the “true” income”) one can infer the size of the concealed income for entrepreneur households. The results of the estimations are summarised in the following table.

26. Table**Under-reporting of income in entrepreneur households compared with employee households in accordance with an estimation based on comparison of food consumption**

	Self-employed (business run as a private firm)	Entrepreneurs with business run as close company	All entrepreneurs
"Over-consumption" of food for a stated income	8 - 10 %	2 - 4 %	5 - 7 %
<i>Concealed income expressed as:</i>			
– addition to the household's officially recorded disposable income	40 - 50 %	15 - 20 %	approx. 30%
– addition to the entrepreneur's income	approx. 100%	30 - 35 %	approx. 60%
– share of the entrepreneur's "true" income	approx. 50%	approx. 25%	approx. 35%

Note. "Entrepreneur's income" includes, for self-employed, what in taxation terms is called "income from personal business". For entrepreneurs running business as close companies, the statistics cannot separate earned income from work from the owner's own company from possible earned income from work elsewhere. In these cases we have assumed that the whole earned income derives from the business as a company owner.

Separate estimates of under-reporting have been made for companies operating businesses as self-employed and those who are in close companies. The results clearly imply that self-employed with private firms under-report to a greater extent than those who run close companies.

In households with self-employed persons, the under-reporting is equivalent to 40-50% of the *household's officially recorded disposable income*, compared to around 15-20 % in households where the owner runs a close company. In comparison using other information gleaned from the Swedish Tax Agency's mapping of black work, it is however more appropriate to express the withheld incomes as related to the entrepreneur's income instead of the household's disposable income. For self-employed it is estimated that the under-reported income is equivalent to an addition in the order of 100% of the owner's income, which means that half of the owner's true income is concealed. In the case of owners of limited companies it is calculated that the concealed income is equivalent to an addition of 30-35%, i.e. more like a quarter of the owner's "true" income.

The results of the Engström-Holmlund essay can be compared with the results from processing based on tax audits.

27. Table**Calculated concealed income from work for small companies in accordance with the auditing method**

	Self-employed (business run as a private firm)	Company with salaried staff		
		Less than SEK 1 million	SEK 1-5 million	Over SEK 5 million
Calculated concealed income from work expressed as an addition to white declared income	115 %	36 %	8 %	0,5 %

The results from both methods point in the same direction. The auditing method indicated for the self-employed that there was an addition for concealed income from work of 115% on declared income, which is in the same order of size as in the Engström-Holmlund study. It should be noted that the Engström-Holmlund study is based on a comparison of the officially declared income for employees, who themselves may have undeclared incomes. In the case of

companies, the auditing method has not been able to separate out the part concerning the company owner's income. However if one takes companies with a total salary of less than SEK 1 million (of which the owner's salary is thus included), the under-reporting is calculated to be 36%, i.e. considerably less than for the self-employed. This is the same picture as in the Uppsala study.

The Engström-Holmlund estimate of approximately 30% under-reporting of the entrepreneur households' disposable income can be compared with the results of earlier studies using the same method in Great Britain, Sweden, Canada and Finland:

28. Table
Under-reporting based on food consumption in some countries

Country	Estimates produced by	Estimated under-reporting expressed as an addition to reported disposable income
Great Britain	Pissarides-Weber (1989)	55 %
	Lyssiotou et al. (2002)	(64 to over 100%)*
Sweden	Apel (1994)	approx. 35%
	Engström-Holmlund (2006)	approx. 30%
Finland	Johansson (2000)	27 %
Canada	Schuetze (2002)	11-23 %

* Different method

The Engström-Holmlund estimate is at about the same level as the one by Apel carried out in Sweden in 1994 based on data concerning household expenditures from 1988, and the level is also comparable with the Finnish study.

5.4 Specifically about black income among the automatically zero-taxed

The Swedish Tax Agency's control strategy is based on judging the risks of incorrect tax assessment within various areas. The assessment of these risks requires knowledge of the extent to which concealed income is present within different sectors and for various groups. The control strategy requires finding out what it looks like even within areas that have not traditionally been subject to checking, and that the taxation authorities therefore know little about. Such a group not previously researched consists of people who are not requested to send in a tax return, since the Swedish Tax Agency has no indications that they are economic active, and they are therefore not taxed at all on income. In accordance with the procedures used within the Swedish Tax Agency, these people are internally referred to as "automatically zero-taxed". Where in the following text we refer to "zero-taxed" this means only "automatically zero-taxed" and not people who have themselves declared that they have zero income, e.g. a business owner whose business has made a loss during the year.

In the 2004 assessment year the Swedish Tax Agency therefore set in motion a massive review of automatically zero-taxed people for the first time. Most of these automatically zero-taxed people are in fact children. The group of automatically zero-taxed people who were investigated in the checking project was however aged between 25 and 60, i.e. a group which would normally be expected to be economic active. In the 2004 assessment year there was a total of 146 700 automatically zero-taxed people in this age range. The zero-taxed were the

equivalent of 3.1% of the overall number of people in the studied age group. The proportion of zero-taxed was greater in large cities than elsewhere in the country.

The checks were carried out partly in the traditional way in the form of a “focused” selection, i.e. concentrating on cases where the Swedish Tax Agency had proof or indications showing economic activity. In parallel with this aggressive checking, two completely random selections of the zero-taxed were made so that we could be able to say how maintenance, etc. was arranged for this population as a whole (Appendix 13). The random selection covered 200 people in Greater Stockholm and 200 people in the Halmstad district, in the south-west of Sweden, but outside a large city area.

The checks consisted of collecting and using information that in various ways would indicate whether or not someone was economic active. For example, information concerning the ownership or new registration of rather exclusive cars and boats, information from currency exchange companies, and payments to or from abroad. Even information that could indirectly signal financial activity has been used, such as paid union dues, estate agency diploma fees, members of board of directors, membership of a housing co-operative, etc. In other cases it has been possible by means of student loan information to exclude people who appear to be actually studying.

The appraisal of the random selection provided the following general picture of the zero-taxed.

- The zero-taxed group was dominated by people born outside Sweden (71% of the Stockholm group, 56% of the Halmstad group).
- In $\frac{1}{4}$ of the cases (when extrapolated 25 000- 35 000 people) the absence of income could be explained by the fact that the person in question is no longer resident in Sweden (has emigrated or residence unknown).
- $\frac{3}{4}$ were assumed to be resident in Sweden.
- The proportion with explained maintenance among those resident in Sweden (receiving social security benefits, studying, income from relatives, resident in institutions, etc.)
 - $\frac{2}{3}$ in Stockholm
 - 90% in Halmstad

The random selection pointed to a concealed income for 1 or 2 per cent in those cases where indications from external and internal checking material was relied upon. Out of the focused selection, via risk assessment just over 4% of the zero-taxed became the subject of deeper investigation. In total less than 1% of the zero-taxed had their income raised by a total amount of just over SEK 200 million. Checks on zero-taxed people thus show that undeclared income does exist but that it is unusual.

On the other hand the checks showed that among the zero-taxed there are important errors in population registration as residents in Sweden with possible consequences for benefits being paid or future benefits from society.

5.5 Black income – interviews, etc. in the household sector

5.5.1 Black services – provided and purchased

Scope of the investigation

One way to get some idea of the extent and structure of black work is simply to ask the general public. In the autumn of 2005 the Swedish Tax Agency arranged for a major interview survey on this subject aimed at 18-74 year-olds (Appendix 14).

In the survey, black work was defined as below:

The following questions in this interview are about what is commonly termed “working in the black economy”, i.e. work or services performed in return for payment without the knowledge of the Swedish Tax Agency. It thus concerns activities that both parties profit from as a result of no paying of VAT or other taxes. It is typically when somebody performs some work for cash “without a receipt”. Black work can be paid in money or goods but also through the exchange of services, e.g. between relatives, friends and neighbours outside of one’s own household.

The black incomes that are caught by means of interviews are mainly those seen by private individuals, that are based on the purchaser and performer coming to an agreement that the price will be black, i.e. that the taxation authority will not become involved. This mainly concerns household purchases with a connection to the homes, and other kinds of household-related services. However, a small amount of black work was identified involving companies. What is not revealed is mainly black work within businesses, by concealing of income and, for example, loading private costs onto the company, along with failure to keep proper accounts concerning pay and taxable benefits for employees.

In the investigation, black services were split into 3 categories – work done on the home owned by people, other services purchased directly for the household and work done for companies. In the investigation we asked about both performed and purchased services, and whether the work was compensated by money or by an exchange of services.

29. Table

The extent of the investigation from the performer and purchaser sides

	Performed black work	Purchased black work
<i>Type of work:</i>		
For household of owned home	x	x
Other household-related work	x	x
For a company	x	
<i>Form of compensation:</i>		
Payment in cash	x	x
Exchange of services, in kind	x	

The reason for choosing this approach is to obtain knowledge about structure, both in the case of the performer and the purchaser. Asking purchasers is also a way to indirectly catch black work performed by people who are not part of the interview survey – people who are under 18 or over 74, and people not registered as living in Sweden. It can also be thought that purchasers are more honest than performers, when it comes to reporting the extent. In this way the measurement of black work by questioning both performers and purchasers is one way to assure the quality of the results.

5.5.2 Performed black work

How extensive is black work?

In the Swedish Tax Agency investigation 13% of the people aged between 18 and 74 responded that they had worked black during the last twelve months, which extrapolates to about 800 000 people. The performed black work would be the equivalent of 66 400 fulltime jobs, in other words 1.7% of the total hours worked in Sweden.

30. Table

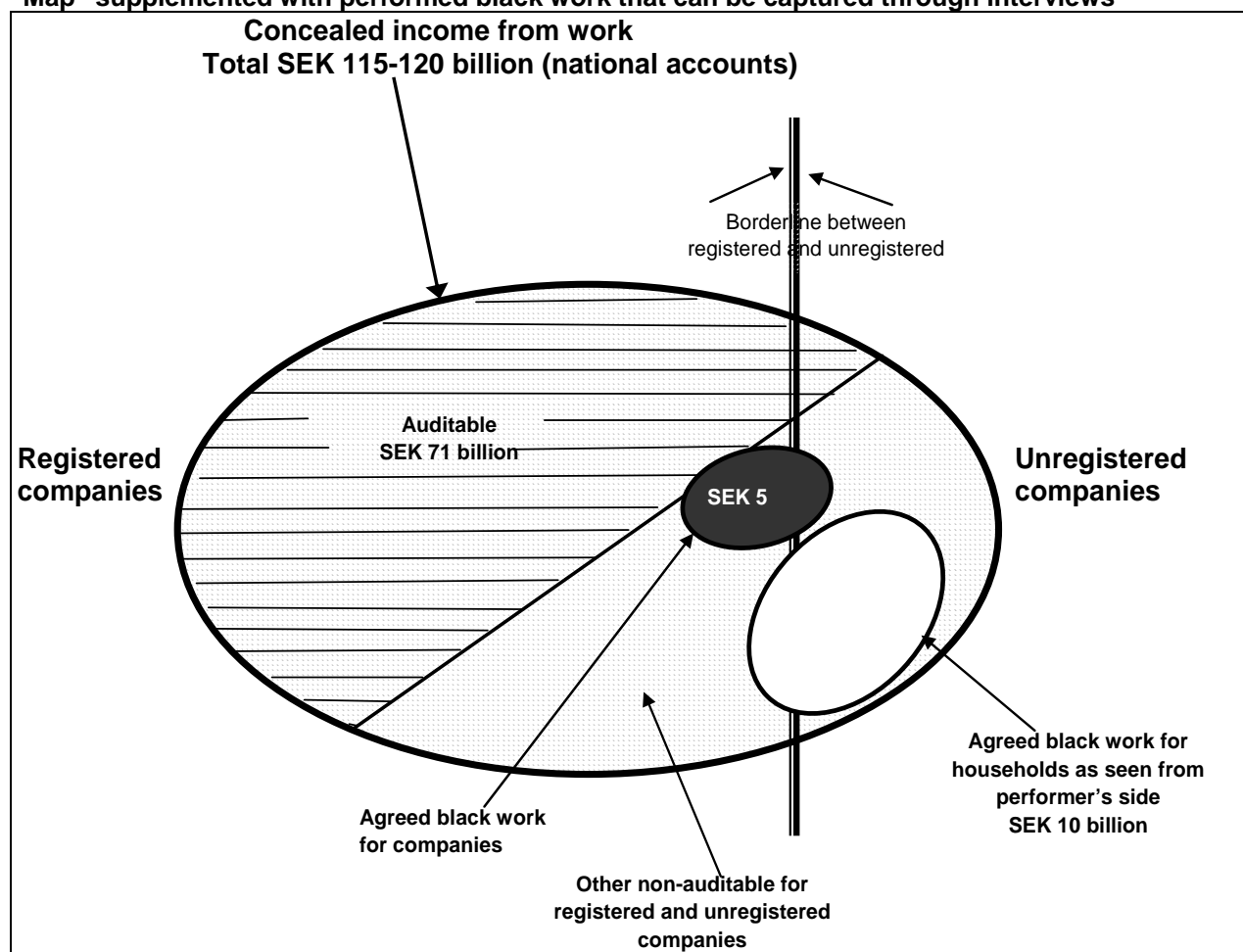
Overall view. Performed black work based upon interview survey measurements in 2005

	Number of performers	Number of full-time jobs	Compensation including value of exchanges
Work on homes*	325 000	21 200	SEK 5.2 billion
Other household work than on homes	456 000	19 700	SEK 4.8 billion
Work for a company	173 000	25 500	SEK 5.1 billion
Total	809 000	66 400	SEK 15.1 billion

*villas, terraced houses, tenant-ownerships, holiday homes, garden

Compensation for performed black work, including the value of reciprocal services amounts to SEK 15 billion, divided into SEK 10 billion for households, i.e. work on the home and other household services, and SEK 5 billion for working for companies. The results from the interview survey thus helped us to pin down 10-15 % of the concealed income from work. In our opinion, this is a question of jobs that the Swedish Tax Agency has difficulty in defining with current review methods and there is very little overlap with income captured using the auditing method.

31. Figure
“Map” supplemented with performed black work that can be captured through interviews



As concerns of the extent of black work carried out for companies – SEK 5 billion – one should bear in mind that this was an interview survey. Those who agree to take part in an interview survey on black work and admit that they have done black work for companies are probably not those who work black in a more organised way, for example in the complex tangle in the construction industry. Those who take part are probably mainly young people or students who are prepared to admit their participation in black work in interviews.

It is our opinion that interview surveys work well in terms of identifying black work for households but are a poor meter in terms of working black for companies. What can be said in respect of working black for companies is that by means of the interviews a lower limit could be arrived at, in accordance with the following summary.

32. Table

Black work for companies in accordance with the 2005 interview survey – “lower limit”

	Number of fulltime jobs
Restaurants, waiting table	7 900
Sales, cashiers, shops	3 400
Construction, plumbing, painting, demolition, heavy work	2 000
Entertainment, music	800
Baking, food preparation	700
Other	10 700
Everyone who in the interview survey admitted that they had worked black for companies	25 500

This lower limit was, for black jobs in restaurants about 8 000 fulltime jobs, in shops just over 3 000 full-time jobs and in the construction sector 2 000 fulltime jobs. It should be noted that the proportion of “Other” is relatively high. This group included such jobs as car repairs, other types of service, computers and web sites, taxis, photography and aerobics instructors. In several cases it was added that this was a matter of “overtime” being compensated for as black income.

Who works black?

If one looks at the normal occupation of people performing black work the largest categories are professionally trained workers (extrapolated to 266 000 people), private white-collar workers (122 000), students (113 000) and unskilled workers (105 000). The proportion of black work is the highest among students (25%). Thereafter appear professional and unskilled workers and business owners, where the proportion is around 15-16%. The smallest proportion is among white-collar workers in the public sector, unemployed people and pensioners. The impression that the unemployed are a group that is over-represented among those who work black is not supported by the survey – quite the opposite.

33. Table

Occupation and black work. Sorted in descending order according to the proportion who perform black work in various occupational categories

Occupation	Proportion (%) of respective category who have done black work	Ditto, number of people extrapolated to the national level
Students, military conscripts	25	113 000
Skilled workers (vocational education), (e.g. hairdressers, car mechanics, etc.)	16	266 000
Unskilled workers (not vocationally educated)	15	105 000
Business owners (private firms or limited companies)	15	34 000
Private sector white-collar workers	13	122 000
Unemployed	9	23 000
On sick leave (= long-term sick, longer than 1 month)	9	11 000
Public sector white-collar workers	8	74 000
Pensioners	5	51 000
Family members helping business owners
Domestic work
Participating in labour market program/training for the unemployed
Total	13	809 000

What characteristics do these people have?

In order to isolate the effect of the various background variables on the implementation of black work, we have performed a logistical regression analysis. By means of this model one can distinguish which of many variables have a significant explanation value for why a person performs black work *given* other variables in the model. Men are more inclined to perform black work than women. The same applies in the case of those of lower age and lower income. These variables are all significant. This means for example that it is statistically proven that low income has an explanation value in addition to those of the variables of gender and age, and that gender has an explanation value in addition to those of age and income. Even the perceived risk of discovery and the general attitude to black work have a significant effect on a person performing black work.

For whom does one work?

Working black is strongly confined to a close circle. Over half of *black work performed for households* is done by relatives or neighbours. If one adds work colleagues and acquaintances, this figure rises to over 80%. Only 10% of the work is done for people who have no close connection.

In respect of *black work for companies*, in about half of the cases it is a matter of knowing the company owner in a private capacity or being related. In just over a quarter of the cases, the people are currently or have previously been employed.

From the perspective of this dominance of a close relationship in a small circle, much of the compensation is seen to be in the form of an exchange of services or in kind.

34. Table**Black work – proportion with compensation in exchange of services or in kind**

	Proportion of time compensated for in exchange for services or in kind
Work on homes (villas, terraced houses, tenant-ownerships, holiday homes, gardens)	51 %
Household work other than on homes	54 %
Work for a company	22 %
Total	41 %

5.5.3 Purchase of black services*How extensive is the purchase of black services?*

We now pass on to study the purchase of black services. Mapping out the purchase of black services for the household only covers cases where *payment for the service is in money*. Every fifth household, which extrapolates to over 800 000 at a national level, admitted that they had bought black services and paid money for them. The stated purchase amounts are equivalent to SEK 6.2 billion.

35. Table**Purchase of black services with payment in money**

	Number of households who bought	Black purchase amount	Number of purchased fulltime jobs
Work on homes (villas, terraced houses, tenant-ownerships, holiday homes, gardens)	287 000	SEK 3.8 billion	12 100
Services for households other than on homes	648 000	SEK 2.4 billion	20 000
Total	826 000	SEK 6.2 billion	32 100

The purchased work volume is equivalent to 32 000 fulltime jobs of work. However one must bear in mind that of this work, over 9 000 fulltime jobs are in respect of looking after pets, and a further 2 000 fulltime jobs are for looking after children, which are jobs with relatively low per-hour payments.

How does the measurement from the purchasers' side agree with measurements from the performers' side, which we just calculated? Comparisons between measurements can be made for the work performed for households and that which has been paid for in money.

36. Table**Purchased and performed work – a comparison**

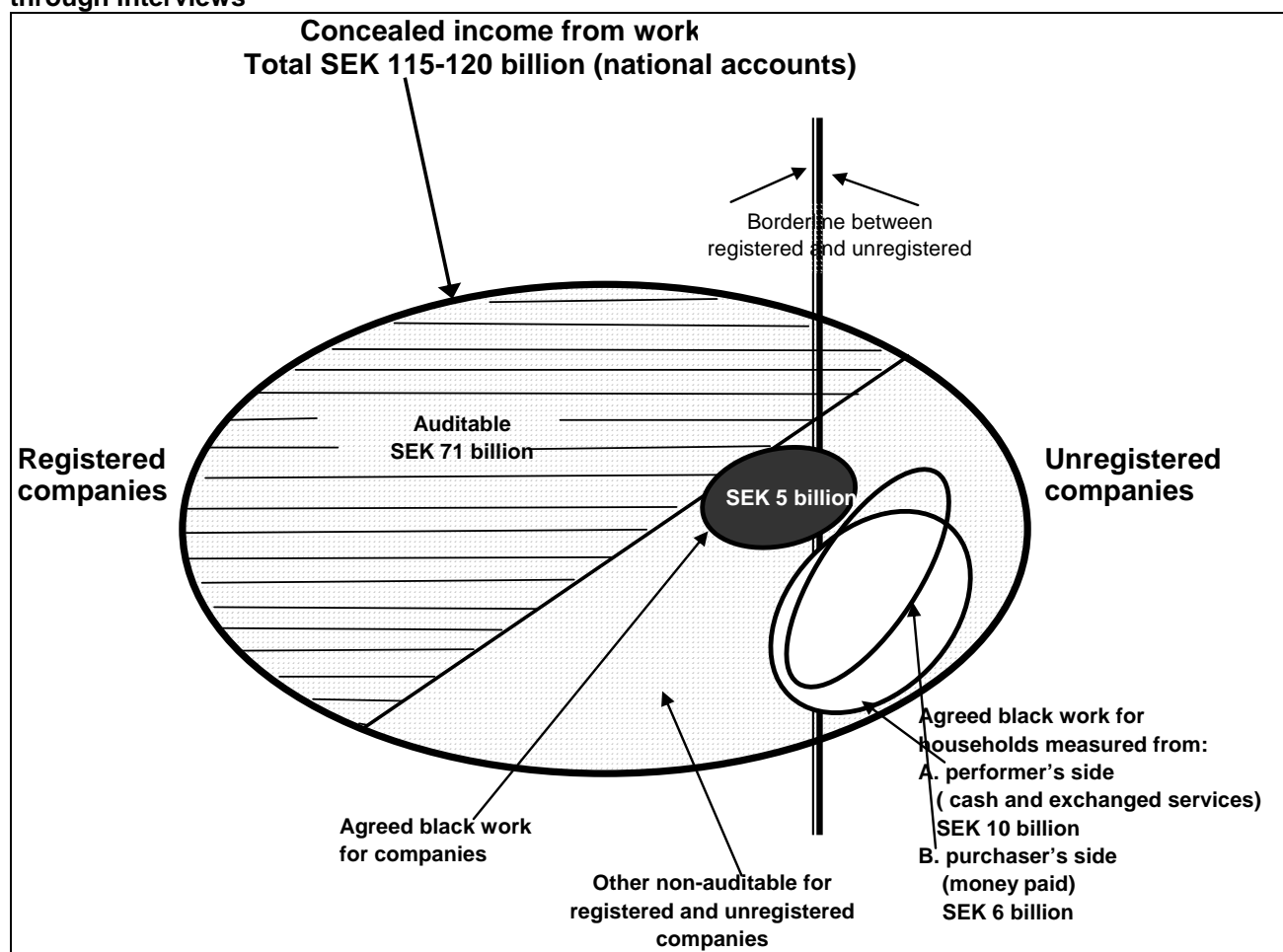
Services for households, paid for in money	Payment	Number of fulltime jobs
Measured from the purchaser's side	SEK 6.2 billion	20 000
Measured from the purchaser's side, excluding looking after pets	SEK 6.1 billion	10 600
Measured from the performer's side	SEK 4.8 billion	9 100

When one asks the purchasers, the compensation for black services is SEK 1.4 billion higher than the amounts admitted by the performers. Also, when estimating the volume of work

done, the estimates from the purchasing side are higher. A general assessment, however, is that if one takes into account the influence of looking after pets, the differences in the measurements between the performer's and the purchaser's sides are on the whole reasonable.

The fact that from the purchasers' side one gets a higher figure, both in monetary compensation and in the number of fulltime jobs, this tallies if one bears in mind that on the purchaser's side this includes work done by children under 18 and people over 74, and that the purchasers side also includes some possible performers who are not registered as resident in Sweden. We can supplement the "map" with measurements of black work from the purchaser's side.

37. Figure
"Map" supplemented with purchased black work (paid for in money) that can be captured through interviews



The households who bought black services for cash paid on average SEK 7 300. For 52% of the households the purchase sum was less than SEK 3 000. 20% spent more than SEK 10 000.

38. Table

Households that purchased black work, grouped according to size of payment

Purchase amount per household SEK thousands	Black work purchasing households grouped (%) according to size of purchase		
	On the home	Other household services	Total
- 1	10	31	25
1 - 3	25	31	27
3 - 5	10	13	12
5 - 10	19	16	16
10 - 50	30	10	17
50 -	6	0	3
Total	100	100	100
Average	SEK 13,200	SEK 3,700	SEK 7300

Of the services paid for in money, 75% of the working hours were performed by relatives, neighbours, work colleagues and acquaintances.

Who purchases black work?

What characterises the purchasers? The variables that can be identified to have a significant explanation value for whether one purchases are that one is a house owner, has a high income and is young. Likewise the assessment of the risk of discovery and the general attitude to black work have significant explanation value for whether one purchases black.

What does one purchase black?

On the basis of volume of hours worked, black work purchases for work on the home are dominated by carpentry, painting, plumbing and heating work. This is the same picture as provided by the measurements from the performer's side.

Purchase of work on the home paid for in money.

Number of fulltime jobs and number of households

Type of work	Quantity full-time jobs	Extrapolated number of household
Carpentry	5 300	137 000
Painting and wallpapering	2 000	85 000
Electricity, water or drainage	1 200	113 000
Floor laying, wet room work	1 100	54 000
Other	2 500	
Total work on homes	12 100	287 000

When we look at other household services, looking after pets emerges as the dominating purchase.

39. Table

Purchase of household services other than those for home maintenance, paid for in money. Number of fulltime jobs and number of households

Type of work	Quantity fulltime jobs	Extrapolated number of households
Looking after pets	9 400	75 000
Looking after children	2 100	92 000
Care of the elderly	100	1 000
Cleaning, window cleaning (mainly)	3 800	129 000
Other household work (shopping, cooking, washing, ironing, washing up, cleaning)	300	18 000
Repairs or help with cars or boats	2 300	269 000
Repairs or help with computers or other home appliances	1 000	161 000
Entertainment, music	300	51 000
Removals	200	66 000
Teaching or help with contact with authorities, banks, insurance companies, etc.	200	27 000
Others	300	21 000
Total, household services other than house maintenance	20 000	648 000

Of the purchased work volume, 9 400 fulltime jobs are attributable to looking after pets, and a further 2 100 to looking after children. Looking after a pet, e.g. a dog, from the purchaser-side counts from leaving to collecting the dog. From the performer-side it is only feeding and taking the dog for a walk that takes time. The large volume of pet-minding also must be regarded from the perspective that half the population of Sweden live in households where there are pets. The number of pets is increasing.

The most common purchase among households who bought other household services was however *repairs or help with car or boat* (extrapolated, 270 000 households), followed by *repairs or help with other household appliances* such as computer, TV, furniture, etc. (161 000 households). The media often focuses on *cleaning black*. The replies to the survey mean that extrapolated to the national level about 150 000 households (slightly more than 3% of the households) have bought cleaning/window cleaning/ironing black in a year and altogether made payments amounting to almost SEK 600 million. In terms of extrapolated volume, black cleaning is the equivalent of 4 100 fulltime jobs.

5.5.4 Pricing

In the type of black work that we have studied, the performer and the purchaser agree on a price based on the fact that they share the profit engendered by keeping the Swedish Tax Agency out of the deal.

Black compensation for work on the home (measured from the performer's side) is SEK 135 per hour, which practically matches the average pay before tax of a worker in the construction industry. This can be interpreted as if the profit by not paying tax is divided in such a way that the performer takes the income tax, while the purchaser takes the social costs and VAT.

40. Table**Black hourly payments compared with white in the construction business**

	Average payment	
	Before tax	After tax
Black work on the home Workers in the construction industry	SEK 135/hour	SEK 135/hour
	SEK 134/hour	SEK 87/hour

Household services other than those on the home is a motley collection of services, and the hourly compensation rate varies from an almost symbolic amount for looking after pets, for example, to high levels of compensation for people with specialist knowledge. Cleaning black costs on average SEK 69/hour.

41. Table**Black hourly rates for other household services**

Looking after pets	SEK 7/hour
Looking after children	SEK 30/hour
Care of the elderly	SEK 9/hour
Cleaning, window cleaning (mainly)	SEK 69/hour
Other work in the household	SEK 190/hour
Repairs or help with cars or boats	SEK 242/hour
Other (including computer repairs/help, removals, entertainment, music, teaching)	SEK 162/hour

5.5.5 Black purchase of goods

The interview survey described above covered *services* purchased black. But *goods* can also be purchased black. To get some idea of the extent, in the autumn of 2005 the Swedish Tax Agency commissioned a survey to investigate “the purchase of goods black” by private individuals (Appendix 15).

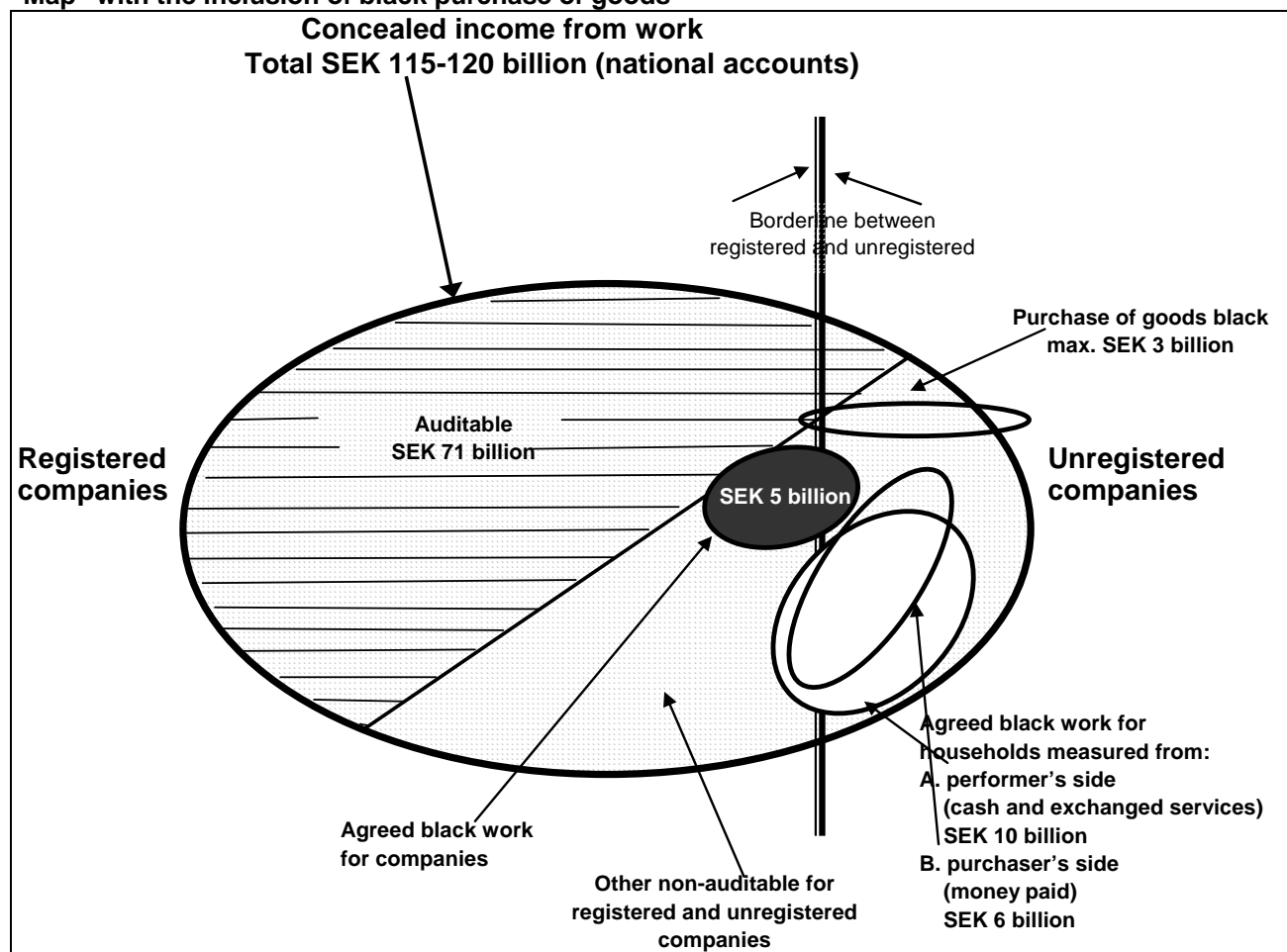
The problem when it comes to buying goods black is that it can be difficult for the purchaser to decide what is black or white, since it is usually up to the vendor to manage the accounting. The Swedish Tax Agency questions were therefore formulated so that the purchaser “had good reason to believe that the sale of the goods was not declared” and the interviewees were asked to respond to a number of different categories of goods, such as beverages, eatable farm products, construction material, forestry products, art objects, etc. 25% of Swedes admitted buying goods black in the previous 12-month period. Those who bought goods black had on average paid SEK 1 900. Nationwide, the purchase of black goods extrapolates in cash paid to about SEK 3.1 billion.

The production and sale of these goods requires, to varying extents, an input of work, and the profit on sales can be seen as black income. Those who sell goods black can be assumed to consist of a mixture of registered and unregistered companies. To the extent that this is a matter of registered companies, in certain cases it is only the sales income that does not appear in the company accounts – the cost of producing the products can be found among the costs in the bookkeeping. In these cases, the black income from work is equivalent to the whole of the selling price. If, on the other hand, it is a matter of buying from an unregistered company or private person, in order to arrive at the black income from work one must deduct the costs of the “input” borne by the seller. The black income from work “surplus” is therefore lower than the sales value of SEK 3.1 billion. Where this lies, we do not know.

When we insert the black purchases of goods into the “map” of concealed income, this overlaps to a certain extent what can be identified by the audit method.

Profit from illegal business – e.g. dealing in drugs – is not taxable. We indicate that there is a certain amount of illegal activities by putting a part of the black purchasing of goods outside the normal mapping diagram.

42. Figure
“Map” with the inclusion of black purchase of goods



5.6 The development of black work

More people are working black – but has the volume of black work increased?

The Swedish Tax Agency interview survey in 2005 can be compared with the results from a comparable survey of black work in 1997 carried out by Riksrevisionsverket (RRV – the Swedish National Audit Office)¹⁵. Both surveys were based on telephone interviews with people aged 18-74 years.

¹⁵ Riksrevisionsverket (The Swedish National Audit Office): Svart arbete. Del 2. Omfattning. (Illicit work in Sweden. Part 2. Extent). RRV 1998:28

According to the RRV survey 11% of people worked black in 1997, compared to 13% in the Swedish Tax Agency survey in 2005. This indicates an increase, but what about the number of hours worked black – has this increased or decreased?

There are certain differences that should be noted in the approach. The RRV questions concerning black work included the number or hours worked, and the sale of goods without receipts. The Swedish Tax Agency survey was clearly restricted to the number of hours worked. In 2005 black purchasing of goods was investigated separately.

Another difference in the way that the surveys were conducted was that in 2005 more detailed questions were asked, to determine whether work done was on the home, other household assistance or working for a company. There was no such division in the RRV survey.

One of the most central questions for assessing how the volume of black work has developed is to determine the number of hours worked black in 1997 and 2005. The total *number of black hours worked*, in the Swedish Tax Agency interview survey in 2005 was 119 million hours ($\approx 1.7\%$ of the total working hours in the country). This is lower than the RRV estimate in 1997, where the number of black hours worked was stated as 160 million hours ($\approx 2.5\%$ of the total working hours in the country). We suggest that from the lower value for 2005 one cannot draw the conclusion that the volume of black work has decreased. The difference is the effect of how the RRV managed the hour figures in cases where there was no response in 1997.

In the RRV survey only 49% of those who had worked black answered the question concerning the number of hours worked, and the average number of working hours was, for those who answered the question, 4.72 hours (4 hours 43 minutes) per week. On extrapolating this to a national level the calculation was based on the assumptions that *the same average number of hours also applied to the 51% who had worked black but were not able to answer the question concerning working time*. The technology used in 1997 was decisive for the high level of working hours that formed the result.

In our opinion, this assumption by RRV was incorrect. In the Swedish Tax Agency survey in 2005 a lot of effort was put into obtaining answers to the question on hours, as the interviewers had been instructed to press the question. If those interviewed were not able to state the average number of hours per week, they were encouraged instead to state the volume in working hours, working days, working weeks or working months.¹⁶ The response rate for those who had worked black was about 95%. The number of hours would thus be lower in the Swedish Tax Agency survey – with an average of 3 hours per week.

Has black work increased or decreased if we calculate on the same basis as RRV?

In the 2005 survey 40% of the performers of black work stated an hourly rate per week and the average hourly rate of 5.57 is higher than in the RRV survey. In the first alternative calculation (Alt.1 in the following table) we will let these hours worked per week apply to all workers, which would result in a total of 234 million hours worked in 2005, i.e. considerably greater than the 160 million arrived at by RRV in 1997.

¹⁶ The different ways of answering were then converted into annual black working time by assuming that a working day was 8 hours, a working week 40 hours and a working month 160 hours.

43. Table

Alternative calculations for 2005 where the RRV method of calculating in 1997 is emulated

	Average number of hours per week for those performing black work	Total number of hours of black work per year, million hours
<u>RRV survey in 1997</u> : Based on weekly working hours stated for 49 % of those who worked black	4.72	160
<u>Swedish Tax Agency survey in 2005</u> : based on used time stated for 96% of those who worked black	About 3 hours	119
Alternative calculations based on information from the Tax Agency survey in 2005 where the RRV method of calculating in 1997 was emulated		
Alt. 1 Calculation based only on the 40% of performers who stated time used as hours per week	5.57	234
Alt. 2 As in Alt. 1 but adding the 9 percentage points of workers with the <i>highest values</i> of time used stated in a different way	5.21	219
Alt. 3 As in Alt. 1 but adding the 9 percentage points of performers with the <i>average</i> time used stated in a different way	4.64	195

To some extent the higher number of hours could be an effect of the fact that RRV got 49% of those who performed black work to state the time in hours per week, i.e. 9 percentage points more than in the 2005 survey, where the proportion was 40%. We therefore do two alternative calculations on the assumption that this further 9 percentage points were people who in the Swedish Tax Agency survey had given the time in hours, days, weeks or months.

In one calculation (Alt.2 in the above table) we assume that it consists of those who had the *longest* time worked among those who stated the time worked in another unit than hours per week. The average weekly time worked would then be 5.21 hours, and the total time worked 219 million. In the other calculation (Alt.3 in the above table) we allotted the 9 percentage points an *average* time for those who had stated the time in another way. The average black weekly time worked then becomes 4.64, i.e. almost exactly the same as in the RRV survey (4.72). The total number of worked hours would then be 195 million. The fact that this is higher than the 160 million for RRV is due to the proportion working black is higher (13%) in the Swedish Tax Agency survey than in the RRV survey (11%).

The conclusion drawn from the alternative calculations is that the number of black work hours in reality is greater and that this is because more people are working black in 2005 than eight years previously. Also the fact that the survey in 2005 did not include sale of goods contributes to the conclusion that black work has increased. Black work seems to have increased among young people and among white-collar workers. The structure of those who perform black work is similar, with a higher proportion of men than women and the proportion falling with increasing age.

To the picture and conclusions of an increase in black work should be added the shift in worked hours from manufacturing to production of services that has taken place in the last decade, see Appendix 9, section 3.5, as well as a general decline in tax ethics, see section 4.6.

5.7 What is explained and not explained by the methods used

Above we have accounted for the results of the studies in terms of the scope and structure of black work as investigated by the Swedish Tax Agency black work appraisal. We have not been able, with the methods used, to explain the total discrepancy in the national accounts.

44. Table

Proven black income from work and the discrepancy in the national accounts

Total discrepancy in the national accounts	SEK 115-120 billion
Auditing method: capable of being revealed by tax audits	SEK 71 billion
General public interview surveys:	
- performed black work for companies	SEK 5 billion
- performed black work for households	SEK 10 billion
- purchased black work for households measured from purchasers' side over and above what was measured from the performers' side	SEK 1 billion
- black purchase of goods	max. SEK 3 billion
Automatically zero-taxed	SEK 0.2 billion
Total "explained" by our studies	SEK 90 billion
National accounting discrepancy awaiting explanation	Approx. SEK 25-30 billion

However we cannot say that the discrepancy in the national accounts is at an incorrect level. On the one hand there is a general uncertainty in the estimates we have made. And on the other hand, there are, in our opinion, a number of reasons why there ought to be an unexplained remainder, of which the primary ones are:

- not everything is brought out in interviews
- not everything can be revealed in tax audits
- some people don't know what can be classified as black (concealed) income from work.

If the investigations carried out had been able to explain the entire discrepancy, the conclusion would be that the national accounts probably under-estimated the concealed income or that there was some fault in our investigations.

Of the discrepancy in the national accounts, mentioned above, that indicates under-reported income from work amounting to SEK 115-120 billion, we believe that we can account for SEK 90 billion, i.e. we have been able to "explain" 75%.

In the second part of the appraisal of black work will be found a deeper discussion of how the results are evaluated and what the "unknown" areas can be considered to comprise of in terms of types of concealed income.

6 How little private individuals disclose as “white”

Everyone knows that private individuals do get help from people they know, to get work done on the house, car, boat or other services for the household. This is also confirmed by the investigation reviewed above.

However, just as we put black income in the company sector in relation to white accounted income, it could be equally interesting to see to what extent private individuals pay “white” payments for purchased services, i.e. reporting correct information concerning work done to the tax authorities? The cases we are talking about are where the recipients have A-tax, i.e. they are not running a business, and when the person wants the job done “privately” (i.e. the expense is not deductible as a business cost).

To find out the extent of white accounting for purchase of services we have made some calculations on the basis of the Swedish Tax Agency registers in respect of 2003 (Appendix 2). This is a question of statistics that have not been presented before.

If we exclude payments to trustees and personal assistants, it is estimated that there are less than 2 000 people a year who declare information on payment for purchased services from about 2 000 agents, and to a value of SEK 50 million. Thus a surprisingly small amount is declared “white” in respect of the purchase of services by private individuals.

This result should be compared with the interview survey results from the general public where it is obvious that black purchasing is widespread. The conclusion is that the legislation is not being applied by citizens, and that most purchases of services by private individuals from people who do not have F-tax (notice of tax assessment for businesses) are black.

7 Methods and statistical basis

This section describes the methods and statistical basis used in the studies that are the core of this report.

7.1 The discrepancy in the national accounts

The most comprehensive estimate of concealed income from work is that which can be obtained indirectly via the national accounts. The national accounts namely also include concealed income from productive work that is sold on the market.

The Gross Domestic Product, GDP, can be measured in different ways. In the Swedish national accounts the main approach is from the expenditure side (i.e. the use of products). The use of various products is carefully quantified by meticulously prepared investigations into consumption, investment and exports. This establishes the “true” level of GDP. The products being used should equate to those available through production and the incomes generated in the production process. By using as a basis the difference between the value of what is used and the income that is actually accounted for, conclusions can be drawn concerning how much of the income that households utilize is “missing” in the official accounting, in tax returns and company bookkeeping.

Calculation of the discrepancy has been carried out by Statistics Sweden, who is responsible for the Swedish national accounts and for income statistics. In the comparison of the national accounts with officially declared incomes, in accordance with the income statistics (which are based on the definitions embodied in tax legislation), certain corrections are made so that the income definitions and delimitations shall agree with the concepts and delimitations that are coherent with the national accounts.

Appendix 8 contains a detailed presentation of the results in accordance with this method, and there is a summary of the results in section 5.1 above.

7.2 Black income from work based on the tax audits

The OECD recommends in a 2002 handbook that countries in their efforts to find estimates of the structures in the hidden economy, could use results from the audits that are performed by the tax administrations. In the first place, this auditing method contributes by acknowledging concealed incomes in registered companies, which can be identified by normal auditing methods.

The auditing method requires basic information in the form of a large number of audits, and that the audit results are codified sufficiently well; in addition that there are good basic statistics for the business structure. In the calculations we have used auditing results from several years and stratified them according to ownership type, company size and industry.

The Swedish business registers are good, even though coding of industry is missing for many of the smallest companies in the Swedish Tax Agency register.

The investigation is based on trawls through the Tax Agency's GIN tax database. This database is a collection of a large amount of information from different tax administration systems. Among other things it contains information concerning the sector, legal entity, total wages, turnover, and tax base and tax payments for all types of taxes. With respect to tax auditing, the database contains information concerning the scope and direction of the audit, and the results of completed audits in the shape of changes to various taxation bases. All information is stored in a micro-database (per taxpayer) which permits great flexibility in processing. The database is used by the Swedish Tax Agency for such work as planning and follow-up.

The larger number of audits on which estimates can be based, the more accurate the results. In a relatively small country like Sweden, several years worth of tax audits are needed in order to obtain a sufficient number of observations. At the same time, it can be imagined that black work changes its character over time. Audits that are too old may not reflect current conditions.

In balancing the desire to have a large basis against what is current, we have chosen to be guided by practical considerations (conformity in the register). We used the results of audits from an 8-year period (audits begun in 1995 or later and ending up to and including 17 April 2003).

The Swedish Tax Agency audits have differing scope. Certain audits cover all kinds of tax, while others may be limited to a single type of tax, such as excise duties or VAT. Since we wanted to look for concealed income from work – i.e. payment for work that should be subject to income tax – we chose to restrict ourselves to audits that involved income tax.

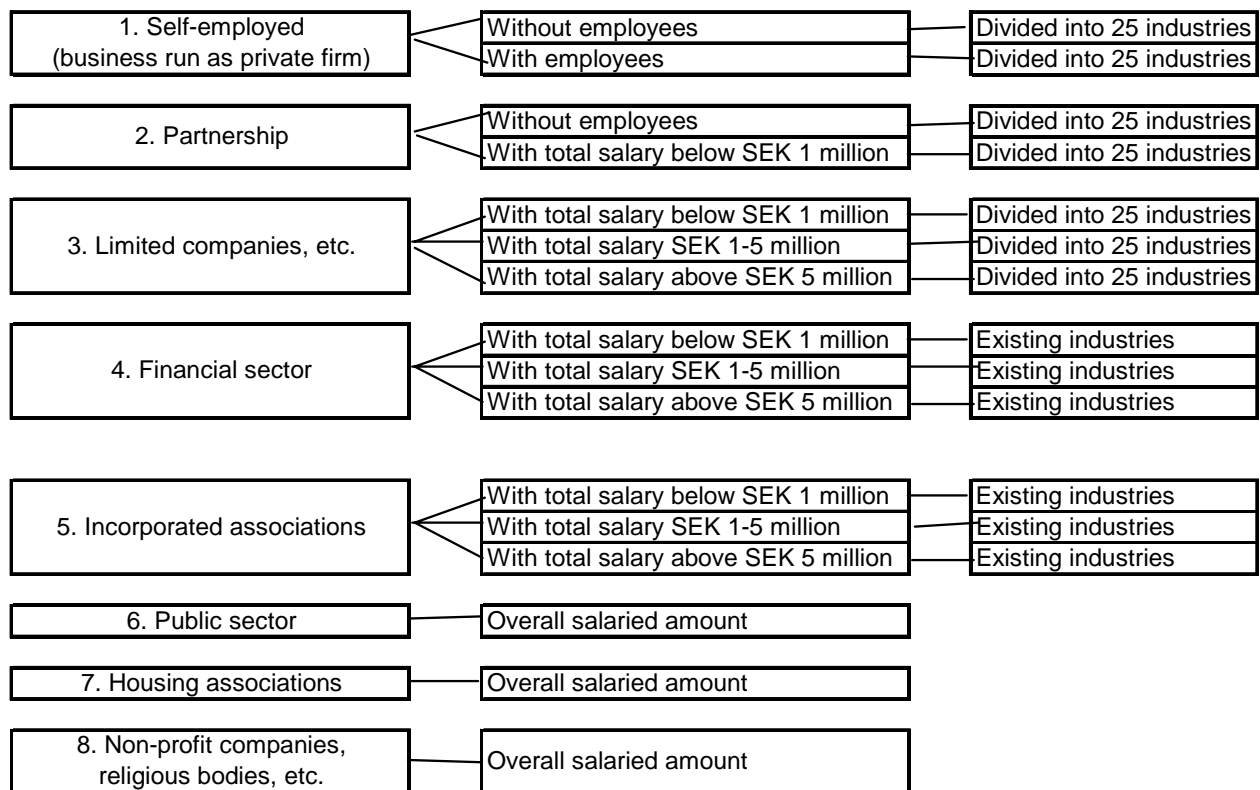
In the course of auditing, a number of different types of changes arise. These can be changes in the valuation of stock, inter-period tax allocations and depreciation. In the calculation of undeclared income from work it is only the material that leads to altered income from work that we are looking for. Income from work arises in two forms:

- income from employment
- income for self-employed (personal business/private firm)

As far as smaller companies are concerned, the selection for audit by the Swedish Tax Agency is based on risk of error. If the Swedish Tax Agency is correct in its risk assessment, this could lead to an overestimation of the concealed income from work (which can be found in tax audits) when extrapolating the audit results for smaller companies to national level. At the same time we know that the Swedish Tax Agency is not able to find all existing concealed income from work by auditing. We try to balance the effect of both these skew effects on our calculations by, for smaller companies, basing the calculations on the 90% of audits that were “in the middle” in respect of changes in amounts. This is how it was done: The audit results (revealed concealed income from work) for companies with salary totals of less than SEK 1 million were first sorted according to the size of the changes. After this, the 5% of the companies with the largest audit results and 5% of the companies with the lowest audit results were removed. After this elimination, the calculations were based on the results of slightly more than 20 000 audits.

Nor are the tax audits randomly distributed among industries, company types and company sizes. It happens that certain observations can weigh too heavily when extrapolating the results to the national level. This problem can be counteracted by grouping the auditing results by company type, company size and industry. Such stratification is also a condition for being able to extract from the results the structure of the concealed income from work. The figure below shows how we decided to proceed.

43. Figure
Calculation structure – grouping of companies by company type, size and industry



We have initially grouped them into 8 types of companies/sectors. Five of these were in turn divided by size measured according to total salary size. After this division by size, the groups self-employed, partnerships and limited companies were split into 25 groups of industries.¹⁷ The public sector, housing associations and non-profit companies were treated in a more standardised way in the calculations, based on the salary totals in the respective sectors.

Estimates are made using simple elementary mathematics. For each principal group of companies, size classification and industry/sector (in practice over 200 groups) was examined how many active companies that existed in the nation. There are about 770 000 active companies in the Swedish Tax Agency register. This information was then matched with the average changes of income from work per audited company in the appropriate group, size and industry. The total number in the nation for each stratum was then multiplied by the average change for the audited companies in the same group.

¹⁷ The number of partnerships with a total salary above SEK 1 million are few (1 189 in all) so they have been handled as limited companies of respective size etc.

By using the average change for the respective stratum in the extrapolation, it did not matter that the audits were not randomly divided by industry, company type and company size. On the other hand, accuracy in the estimates for different strata varied depending on the number of observations (i.e. the number of audits) that formed the basis for the average calculation for respective stratum.

The method described was used throughout, except in the calculations for the public sector, housing co-operatives and non-profit associations. The calculations for these groups were done as a percentage addition related to the size of the total wages.

Appendix 9 contains a detailed presentation of the results in accordance with this method, and there is a summary of the results in section 5.2 above.

7.3 Declared median income and register-based labour market statistics

The analysis of black income from work based on auditing showed a large degree of concealed income from work, primarily among small companies. What about the income from work in small companies? It could even be the case that white incomes for business owners in fact are higher than those of employees.

The idea behind this study was to investigate whether self-employed entrepreneurs declare more or less than wage earners in the same industry. If under-reporting is common, one should be able to demonstrate this by showing that the incomes for comparable people in the same industry are lower for entrepreneurs than for employees. As a basis for the study a special extract was taken from the register-based labour market statistics (RAMS) from Statistics Sweden.

In a comparison of this kind it is more important to have groups that are homogeneous in various respects than to include as many as possible of the gainfully employed. The comparison was restricted to people who in 2002 were aged 25-60. The group of entrepreneurs is established business persons, who run their company as personal business, and who for 3 successive years (2000-2002) only have received income from their companies, i.e. had not in addition received any income from other sources. The income used in the comparisons is the entrepreneurs' reported income from work in the tax return during the last of the 3 years. The entrepreneurs who are included in the processing should this year have overcome the income fluctuations that can arise when a company is getting established. The employees used in the comparisons were of the same age group (25-60) and "stable", meaning that they had been employed for 3 years and worked for the same employer for the complete year; and they had not received any business income.

Ideally we should have been able to separate out people working full-time and only compared the incomes for these. However, in the RAMS statistics there is no information about the length of hours worked. Instead we compared the median incomes of both groups. By using the median values the skew effect of part-time work was reduced.

The grouping of industry used in the study is not the usual one, but a modified version suggested by Statistics Sweden in the discussions we had in connection with the processing ordered by the Swedish Tax Agency. We believe it fits particularly well into a study of

concealed income. For the manufacturing industry it takes into account such variables as capital intensity, and in the services industries is taken into account which purchasing segment the company primarily is aimed at.

For services business this meant that there were three main groups:

- services primarily offered to businesses,
- mixed services (directed at both companies and households) and
- services primarily offered to households.

The household services are then further divided into two sub-groups, namely

- domestic services primarily performed by producers in the private sector and
- public household services, normally produced by the public sector (education, health care, social care).

This type of division meant that industries such as hotels and restaurants appear several times. In respect of company-directed services this includes running conference premises and staff restaurants. The mixed sector includes hotel business not including conferences, while among the household-directed services are such areas as camping, hostels, holiday villages, restaurants and bars. In the same way, transport is represented in all three main groups, depending on whether it is a question of the type of transport that is purchased mainly by companies or by households.

RAMS is an annual overall statistical base that is primarily based on employers' statements of earnings and self-employed persons' income tax returns. Information for RAMS is also collected from Statistic Sweden's Register on Education and Business Register. The total population consists of all people who are registered as resident in Sweden at the end of the year. The statistics contain information about the person (e.g. gender, age, type of dwelling, education, income) as well as information about the company (e.g. line of business, sector, size, location) where the person works.

Appendix 10 contains a detailed presentation of the results in accordance with this method, and there is a summary of the results in section 5.3.1 above.

7.4 Investigation into the standard of living for entrepreneurs and employees

The idea behind this study is that if there is no concealed income one should expect that people with similar incomes should have relatively similar material living conditions. To reveal whether declared incomes are in parity with living standards, we compared full-time working business owners with low incomes, with full-time employees in the same income range. As a basis for the study we carried out special processing of the Statistics Sweden's Living Conditions Surveys (ULF).

The comparison was restricted to full-time workers aged 25-60. The "entrepreneur" classification was based on information supplied by those interviewed, which meant that both people running businesses as self-employed and those running close companies were included. To prevent the comparison being skewed, farmers were excluded since their accommodation is subject to special conditions (in general large dwellings). The comparisons were made with two different income concepts, one being own income from work and the

other being disposable income per consumption unit for the household in which the person was living.

The Statistics Sweden's Living Conditions Surveys consist mainly of visit interviews of a randomly selected group of the population, usually aged 16-84. Between 12 and 13 thousand people are interviewed over a 2-year period. The information we used was for the income year 2002-2003. Amongst the ULF information is included indicators of the standard of living, ownership of other material assets (e.g. car), the ability to deal with a temporary financial crisis, etc.

Appendix 11 contains a detailed presentation of the results in accordance with this method, and there is a summary of the results in section 5.3.2 above.

7.5 Household expenditures and estimation of under-declaration among entrepreneurs

If one has a high income one consumes more. However, consumption can embrace many different things, although everyone regularly needs to consume one, namely food.

The method was devised in Great Britain by Pissarides-Weber at the end of the 1980s. It is based on the comparison between expenditures on food and disposable income among entrepreneurs and employees. The key assumption is that entrepreneurs can under-declare their income whilst employees cannot, and that the expenditures for food consumption are correctly reported by both household groups. People are assumed to have similar consumption preferences, which mean that differences in food consumption could be used as a measure of the concealed income among business owners. Farmers have been excluded.

The Swedish study was carried out by Docent Per Engström and Professor Bertil Holmlund at the Department of Economics at the University of Uppsala. Data for the estimate was taken from Statistics Sweden's Household Budget Survey (HUT). The information from 5 years of HUT surveys (1999-2001, 2003-2004) was combined. Classification into entrepreneurs was based on information given by the individuals themselves (i.e. that they considered themselves to be part of that group) in the HUT survey. This means that the entrepreneur group contains both people running business as self-employed, and those who run limited companies.

HUT is a sample survey. Each year 3 to 4 thousand people are randomly selected in the age group 0-79 years from the population register. The response rate has varied between 50 % and 58%. The selected person together with those who live in his/her household make up a survey unit. Information is collected via telephone interviews and cash records. All household expenditure is recorded for a fortnight. The interview includes questions about expenditures that occur less frequently or at irregular intervals. Income information is acquired from registers.

Appendix 12 contains a detailed presentation of the results in accordance with this method, and there is a summary of the results in section 5.3.3 above.

7.6 Concealed income and incorrect population registration among the automatically zero-taxed

Automatically zero-taxed people are those from whom the Swedish Tax Agency does not demand an income tax return, since they show no signs of having an income or their income is so low that they lie below the limit for sending in a tax return. The investigation tried to find out how such automatically zero-taxed people aged 25-60 (146 700 people) support themselves and whether there are hidden statistics in the form of undeclared income in this group.

The Swedish Tax Agency investigation has involved on the one hand gathering checking material from third parties which would not normally be involved in checking, and where there could be indications that there is income (e.g. the ownership of a luxury car). This information has been used in tax checks so as to select cases where there were indications of income.

Additionally, the Swedish Tax Agency made two random selections of 200 people each (one in a metropolitan area and one outside the metropolitan area) to appraise how support is arranged in the automatically zero-taxed population as a whole. No drop-outs were permitted in the mapping of the random selections.

Appendix 13 contains a detailed presentation of the results in accordance with this method, and there is a summary of the results in section 5.4 above.

7.7 Knowledge of the taxation regulations

The idea behind this survey is to see if there is any connection between knowledge of how the purchase of services should be reported to the tax authorities and the attitude towards supplying correct information.

On behalf of the Swedish Tax Agency this survey was carried out by TNS Gallup, within the framework of the company's comprehensive general public telephone survey. The questions were put to men and women aged 18-74 in weeks 12 and 13 of 2005. Altogether 1 140 people were interviewed. In total 7 questions were asked, of which five were knowledge questions concerning rules and procedures, while the other two dealt with how one would act if faced by the choice in a specifically described situation to perform black work or purchase black.

7.8 Report on white purchased services between private individuals

Everyone knows that private individuals sometimes pay "black" for work that is done for them. The work is often carried out by people who, besides their "day job" moonlight black in their spare time. The thought behind this investigation was to find out how much is actually declared ("white") when private individuals purchase services from others who are not business owners (those who have an A-tax card, i.e. are employees). If a very small amount is declared white, one can draw the inference that the black (undeclared) amount is large.

The investigation was based on our own trawls through the Swedish Tax Agency GIN tax database. This database contains a great deal of information from various tax administration systems. The information is stored in a micro-database (per taxpayer) which permits great flexibility in processing. The database is used by the Swedish Tax Agency for such work as planning and follow-up.

7.9 Focus group survey of black work among employees and business owners

The aim of this survey, carried out by Demoskop, was to obtain an understanding of how people reason and think when choosing to purchase services black, or to perform black work. The survey was also aimed at providing input and gradations for the subsequent quantitative survey, see section 7.11 below.

The qualitative method and data collection took place using four focus groups.

- Two groups of private individuals represented the purchasing side of black services. One group interview took place in Stockholm and the other in Örebro. The private individuals were selected to be an assortment of gender, age, income, profession and the type of service that had been purchased black. 18 people took part.
- Two groups of small business owners, representing industries where black work is known to occur. One group interview took place in Stockholm and the other in Örebro. The selection of business representatives was made on the basis of their industries. The industries selected were engaged in the renovation and repair of buildings, restaurants, hairdressers, cleaners and taxi companies. A total of 14 business people took part.

Recruiting private individuals who had purchased black to the focus group was no problem.

It was different when it came to recruiting business representatives. We started by inviting people to a discussion about black work. Out of about 90 telephone calls, not one was willing to participate. The reasons given were lack of time and/or lack of interest. When the recruiting calls were changed and people were instead invited to a discussion on the subject of the day-to-day running of a small business, the result was quite different. This engendered a willingness to participate.

From this we can draw the conclusion that in certain sectors, small business owners feel singled out where an investigation is dealing with black work. There is also probably some fear that the possible admission of working black would be made known to the authorities.

7.10 Interview survey on attitudes to black work

On behalf of the Swedish Tax Agency, Demoskop, in 2005, certain questions about black work was asked. The questions were mainly devised with the aim of quantitatively shedding light on the *attitudes* towards purchasing work black among people with various characteristics.

The questions aimed at the purchase of black work (services) related to the house, home, garden and belongings (cars, boats, other equipment). On the other hand this did not include possible household purchase of black market meat or similar products. The questions were formulated after we gained access to the results of the focus group surveys in section 7.9 above.

The survey was carried out within the framework of Demoskop's comprehensive people's panel during the period of December 2004 to March 2005, which contained a representative selection of Swedes aged 15-89. Their survey consisted of a total of 1600 questions concerning, among other things, interests, values, consumption, media habits, trade marks, society and politics.

In total 2 312 interviews took place, of which 35% were by post and 64% through the Internet. So that the results would represent Swedes in general the results were weighted in respect of gender, age and education.

7.11 Interview survey concerning the extent of black services

One method of defining the extent and structure of black work is to ask the general public questions in interview surveys. The Swedish Tax Agency survey in 2005 was performed in accordance with a method developed by Rockwool Fondens Forskningsenhed (the Rockwool Fund Research Unit) in Denmark. However, certain modifications were made, including having more detailed questions concerning both purchased and performed black work, and about the relationships between purchasers and performers.

The interview was preceded by three pilot surveys in which tests were performed using three alternative questionnaires (one simpler and one more detailed) and of the effect having sent in advance by post a notification card giving notice of the forthcoming telephone interview concerning black work. After the pilot tests it was decided to use the format with a notification card and detailed questions.

The survey was carried out during October and November 2005 by TNS-Gallup on behalf of the Swedish Tax Agency and involved a random selection of 3 900 aged 18-74, who were interviewed by telephone. Out of this number, after 16 contact attempts 3 065 answered, and 2 232 were interviewed. The survey had, in other words, a response rate of 73% calculated from the net selection. It should be said that among those who were contacted but not interviewed, 55 people could not be interviewed because of language problems.

Drop-outs are a problem in all surveys. In order to find out more about the failures, those who did not want to take part in the survey were asked in any case to answer just one question. This question, that some of the drop-outs were willing to answer, had the characteristic that the replies to it statistically differ between those who work black and those who do not. The

response pattern of the replies to this single question was then compared to how the survey participants replied.

For more details see appendix 14:1 (technical report), 14:2 (analysis) and 14:3 (notification card and questionnaire).

7.12 Interview survey concerning the extent of black purchase of goods

Black work is commonly associated with services. However the sale of goods outside the tax system can provide the vendor with a black income. The survey carried out for the Swedish Tax Agency mentioned in section 7.11 above, was only concerned with performed *services*. The interview survey concerned with black services was therefore supplemented by a separate survey concerning the black purchase of goods. The Swedish Tax Agency survey was in this case only directed at *purchasers*.

In the survey of black purchasing of goods, such purchases were included where the respondent had good reasons to believe that the sale would not be declared. On what grounds the respondent in the individual case was motivated to believe that the sale would not be subjected to tax, we naturally know nothing about. It may have come out while negotiating the price, but it could also be due to the fact that the sale itself was illegal, e.g. the sale of alcohol.

On behalf of the Swedish Tax Agency this survey was carried out by TNS Gallup, within the framework of the company's comprehensive general public telephone survey. The questions were put to men and women aged 18-74 in weeks 46 to 48 of 2005. Altogether 2 051 people were interviewed. Two questions were posed. The first was asking what type of goods was involved. The second asked how much was paid (black) for them.

The questions in the interviews can be found in Appendix 15 English abstract.

7.13 Focus group survey among young people who had worked black

The survey of the extent of black services reviewed above in section 7.11, gave rise to a number of questions in respect of young people's behaviour and attitudes towards black work. 29% of the young people had performed black work, while the national average was 13%. Young people thus worked black to a much greater extent than could be expected considering their corresponding difference in attitude towards black work to that of people on the whole. They seem therefore to be more willing to take risks than people in general.

The Swedish Tax Agency therefore engaged TNS-Gallup to obtain, through focus group surveys, more knowledge about young people's values and attitudes to black work.

The target group for the recent studies was women and men whose main occupation was studying. The participants were aged 18-27 and had performed black work. It was not difficult to recruit young people into the focus groups.

In all two focus groups were investigated in Gothenburg (Göteborg) on 23 February 2006. One group consisted of 7 young women and the other group of 8 young men.