



University of  
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**WILLINGNESS-TO-PAY FOR CRIME CONTROL PROGRAMS IN NORWAY:**  
Preferences and Attitudes towards Crime and Crime Reduction



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## Abstract

In this pilot study, we use the contingent valuation (CV) method to investigate Norwegians willingness to pay (WTP) for crime control programs. The CV method is well known in the environmental economics literature, and has later also been used to estimate the intangible costs of crime. There is a lack of knowledge about the costs of crime in Norway, and especially about the intangible costs which can be argued to constitute the biggest part of the costs and be the most damaging for the victims.

We explore Norwegians attitudes, preferences and knowledge about crime as well as the willingness to pay to reduce the risk of being a victim of crime. This is done by conducting a survey of 394 respondents. To be more precise, the willingness to pay for crime control programs reducing 30 % of rape- and sexual offences, theft and white-collar crime.

In this thesis, we find that the average Norwegian is willing to pay 1142 NOK to reduce rape, 647 NOK to reduce theft and 614 NOK to reduce white-collar crime each year. This yields an aggregate WTP of 1.373 million NOK per rape, 13 588 NOK per theft and 61 222 NOK per white-collar crime. WTP in general increases with income, consistent with economic theory. Furthermore, 66.49 % of the respondents believe that the general penalty level in Norway is too low and that people in general consider crime policy as an important priority in national budgets.

# Acknowledgements

This thesis represents the final part of a two-year Master's degree program in Business Administration at the University of Stavanger Business School.

Our idea was to write about crime in Norway, as a considerable amount of literature on this subject has been published abroad. This investigation on willingness to pay is of great relevance due to the fact that there has been few previous domestic studies and otherwise rare results on this interesting topic.

We would like to express our gratitude for all help and engagement during our Master's degree, and for the opportunity to apply our competence and knowledge to investigate a theme that is deeply important to us and the Norwegian population. The process has naturally been a demanding one, but filled with excitement and great educational value. We are thrilled to present the final outcome.

It is important to bear in mind that we are responsible for any statements or conclusions. As authors of this thesis, we place an emphasis on the possible bias in these responses.

A special thanks to our mentor, Gorm Kipperberg, Ph.D., for extraordinary passion and dedication for the academia during the survey and the research that was carried out. Thank you also for all the support, motivation and effort that helped making this thesis possible. We are also truly grateful for the input provided by Professor Mark A. Cohen, without your research this thesis would not be the same. Your study of willingness to pay for crime control programs has been highly valued, many thanks for considering our request and subsequently for your help. We would also like to thank Yuko Onozaka and the Department of Law and Business Administration at UiS for comments and advice. Finally, thanks to our families, friends and fellow students, we really appreciate all the support you have given us during this time.

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# 1. Introduction

Feeling safe in our own country in addition to justice of law is one of our major primary needs in a society. In recent years, we have experienced fear of increasing terror, in addition to a more global world that expose us to heinous crimes such as pedophilia and rape.

Security in a society is a good that is difficult to translate into a monetary value, and the same goes for absence of personal injuries. At the same time, the personal costs of crime, such as fear, pain and reduced life quality, are more damaging than the direct costs. This makes it difficult to estimate how much resources it is rational to use to increase people's feeling of security. Norway has little history of examining individuals' attitudes and preferences towards crime and crime reduction. Statistisk Sentralbyrå (SSB) have with uneven intervals asked simple questions about crime when conducting living conditions surveys and there were no national statistics of reported offenses before 1992 (Bakke, 2011).

Olaussen (2010) studied Norwegians preferences and knowledge concerning penalty levels, and Bakke (2011) where the first (and only one as far as we know) to try to estimate the actual costs of crime. Thus, there is a lack of knowledge about the intangible costs of crime in Norway.

However, the intangible costs of crime have been analyzed in other countries. Several contingent valuation surveys have been conducted, especially in the U.S. Cohen, Rust, Steen, and Tidd (2004) did a study on American households willingness to pay (WTP) for crime control programs which got our attention. We decided to follow in their footsteps and do a similar study in Norway, customized to the Norwegian context and structure of a master thesis. Our goal for the master thesis is figuring out what Norwegians perceive as fair sentence for various types of crimes, and how much they are willing to pay to reduce crime. Consequently, identifying the public's preferences for crime control programs is essential.

Norway has one of the lowest recurrence rate for criminals released from prison, where only 20% have recurring sentences. United States as a comparison, has one of the highest where over 76% of released inmates returns within five years (Sterbenz, 2014). However, crimes such as rape and pedophilia are highly relevant, and one can get the feeling that people think offenders of such acts can hardly get a high enough punishment. This makes us wonder if people are willing to pay for crime control programs that will reduce crime. It is especially

three sectors of criminal actions we will investigate; sexual offenses, theft and white-collar crime. Furthermore, it is interesting to analyze which socioeconomic factors affect the respondents' willingness to pay.

Based on the introduction above, the developed research questions are addressed as follows:

1. Are people willing to pay for crime control programs in Norway?
2. Is the willingness to pay for prevention of rape- and sexual offenses, theft and white-collar crime less, equal or greater versus each other?
3. What factors affect the WTP for crime control programs in Norway?

This master thesis is divided into 10 chapters. In Chapter 2, relevant information regarding costs and crime in Norway are presented, and in chapter 3 the thesis offers information about the economics of crime and previous studies on the intangible costs of crime. Further, Chapter 4 describes welfare economics for non-market valuation, in other words the theoretical framework for socioeconomic valuation. The two main methods when estimating the value of non-market goods, focused especially on the CV method, is elaborated in Chapter 5.

Chapter 6 clarifies the design process of the survey and data collection, the CV questionnaire, testing and implementation and descriptive statistics of the sample. Furthermore, descriptive analysis of the respondents' preferences, attitudes and opinions about crime and punishment are described in Chapter 7, in addition to statistics of the respondents WTP answering our research questions 1 and 2. Chapter 8 provides the econometric specification and models, furthermore multiple regression results are used to answer our research question 3.

In Chapter 9, the empirical findings are further discussed, along with research issues of concern when designing CV studies and implications for future work are described. Lastly, in Chapter 10 final conclusions are offered.

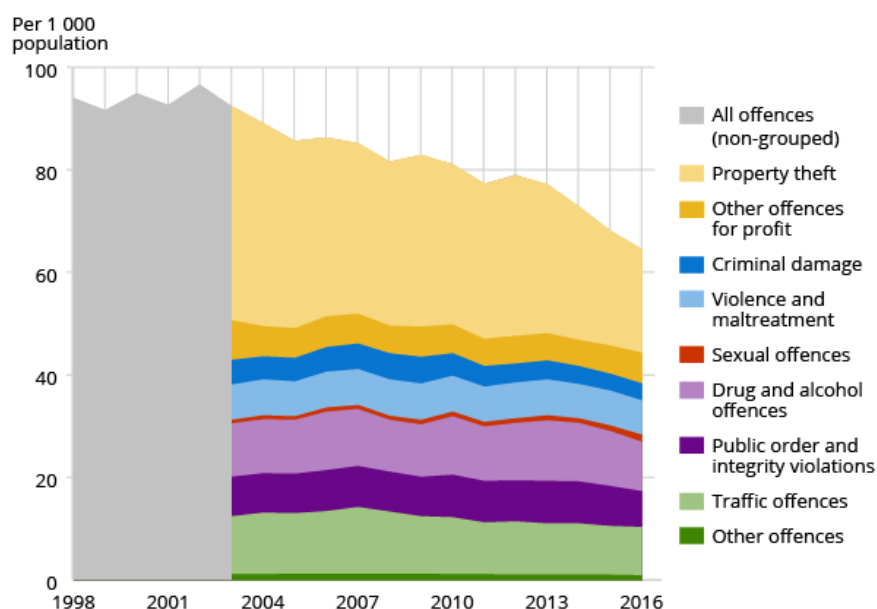
## 2. Background

This chapter is constructed to give an insight of crime and form a basis for why our research questions are interesting and relevant. We start by introducing crime in Norway, what our penalty system is based on and how it works, before proceeding to look at the costs of crime in Norway.

### 2.1 Justice and Crime in Norway

In 2016, 336 500 offences were reported in Norway. From the year before this is a decrease of 4.3 %, and an emphasizing decrease of 9.6 % from reported offences in 2014. Accounting the population growth, the last 24 years, 2016 is clearly the year with lowest reported offences. Per 1000 inhabitants, 64.5 crimes were reported last year (Statistisk sentralbyrå, 2016a).

Figure 1 – Offences reported to the police, by group of offence (2016) (Statistisk sentralbyrå, 2016b)

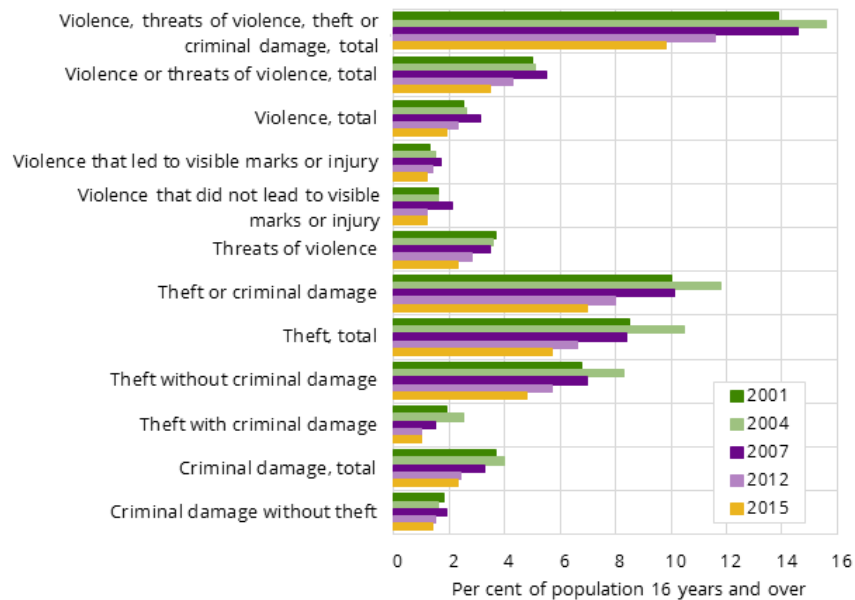


Source: Statbank, table 08484, Statistics Norway.

As shown in Figure 1 above, in the period 2003-2016 property thefts is halved to 20,2 cases annually in a population of 1000 inhabitants. Furthermore, the decrease of notified offences from drug and alcohol the last years does have a considerable effect on the lowest registered statistics of these crimes in 2016. However, more than 7100 sexual offences were reported to the police, which is an increase of 24 % from 2015. Of these were 2235 rape reports.

Approximately 400 000 of the population older than 16 years were exposed to the crimes of damage, theft, threats or violence. This is a smaller share of the Norwegian population reported to be victims of a crime in 2015 compared to living conditions reports in earlier years. Furthermore, inhabitants being exposed to theft is nearly halved in 2015 compared to the reports between the 1990-years and until 2004 (Statistisk sentralbyrå, 2016c).

Figure 2 - Victimization, by type of offence (2015) (Statistisk sentralbyrå, 2015)



Source: Survey of living conditions 2001- 2015, StatBank table 04621, Statistics Norway.

Corrected 24 June 2016

### 2.1.1 Restorative justice (gjenopprettende hensikt)

The basis of The Norwegian sentence system is the idea of restorative justice, which brings the harmed by crime and the offender into repairing communication by involving the community (Restorative Justice Council, 2016). Rather than considering the crime as an offense to the state, the individual or community are seen as the victim. The restorative justice support people to recognize that their actions affects others, and understand the responsibility of their actions and choices. The idea is to help the offender to avoid future offenses (Politiet, 2016).

According to the American criminologist Howard Zehr in his book, *Changing Lenses: A New Focus for Crime and Justice* (Zehr, 2005, p. 217), there are six guiding questions deciding justice and punishment for the harms done, where both offender and victim are in focus.

1. First of all it is necessary to know - who is the victim?
2. What is necessary to be done to help the victim recover?
3. Which obligations is a result of the offenses?
4. What is the reason for breaking the law?
5. Are there any stakeholders to the situation?
6. How much is it necessary to involve stakeholders, and in which situation do one make an effort to make things right?

A traditional criminal justice, in contrast, would rather ask questions regarding law and the state:

1. What are the laws and articles that has been violated?
2. Who committed the crime?
3. What punishment do the offender(s) deserve?

### **2.1.2 The Directorate of Norwegian Correctional Service (Kriminalomsorgen)**

The Directorate is responsible for implementing punishment to criminals on behalf of the society. The purpose of keeping citizens and national community safe, while discouraging punishable behavior, is the principal values and goals for Norwegian Correctional Service.

Human principals and individual facilitation for the convicts and prisoners is regarded as the basic pillars of the sentence system. A balance between requirement of civil safety while at the same time care for the prisoner's option and possibility to return to the society as a future law-abiding citizen is the main goal (Kriminalomsorgen, 2016).

Four pillars ensure achieving the purpose of the penalty:

- a humanistic view of humanity
- the principle of law and equal treatment
- the principle of the convicts re-implemented to society when the sentence has been served
- normality principle (denial of freedom is the punishment)

An important influencing factor for the work at the Directorate of Norwegian Correctional Service is the white papers of punishment and acting – less crime – safer community (Meld. St. nr. 37, 2007-2008).

Over the past years there has been increasing pressure on the Norwegian correctional system caused by the emergence of a growing number of criminals from foreign nations. Other language, religion and culture presents several new challenges for The Directorate of Norwegian Correctional Service and the staff. Some of these prisoners are professional

criminal offenders, which might recruit young offenders, continuing criminal activity and ensuring repeatedly security problems. Rehabilitating facilities for offenders serving their sentence is more or less problematic if they are deported to their home country after serving their sentence (Kriminalomsorgen, 2016).

Psychiatric difficulties, mental health and addiction problems is common for prisoners, but shortage of resources fails to manage all needs. However, mental health problems is planned to be organized by special resource in the future (Kriminalomsorgen, 2016).

### **2.1.3 Law on execution of punishment – Straffegjennomføringsloven (2005)**

The law on execution of punishment regulates how punishment will be distributed and implemented both inside and outside prison (Straffeloven, 2005). The purpose of the law consists of implementing punishment in a way that respects the reason why the prisoner is set in jail, prevent future crimes, reassuring safety for community, and ensure the safety for the other inmates (Kriminalomsorgen, 2016).

### **2.1.4 Organization of imprisonment**

The capacity of Norwegian prison consists of almost 3900 cells distributed in 43 prisons. The largest prison is in Oslo with 392 cells, in contrast to the 13 cells in the smallest Norwegian prison. Two-thirds of the prisons are high-security, which average 70 cells in each prison. Crimes related to genocide, inhumanity and war crimes can give the longest prison sentence which is 21 years, however a maximum sentence of 30-year is possible by the new Penal Code.

90% of sentences are less than a year, 8 months is the average sentence. Further, 60% of the inmates serve sentences up to 3 months. Recently a problem regarding “waiting list” for prisoners has occurred. A possibility of waiting a year before given an opportunity to serve ones sentence has caused extensive measures to be taken, in addition to reducing the list by 25% (Kriminalomsorgen, 2016).

## 2.2 Costs of Crime in Norway

There seems to be a lack of knowledge about the costs of crime in Norway, and especially the costs to victims. As Cohen (1988) pointed out, “*the cost of crime to victims is an important and underestimated component of the social costs of crime*”. In Stortingets budsjettinst. S nr. 4 (2003-2004) it was stated that “*The committee emphasizes the importance of an analysis of which direct and indirect costs crime inflict on society.*” The ministry of Justice and Police published in 2005 a report on the costs of crime to society. Here it was presented and reflected upon identifying the costs of crime, clarifying methodologies and approaches to assess these costs, and how to use cost and benefit assessments when policy measures are to be prioritized, resources applied and effects tested. However, the report defines costs in a broad sense and does not put an actual number on the costs of crime. What it does do is leave no doubt that the cost of crime is extensive and harmful for both individuals and communities (Justis- og politidepartementet, 2005, p. 5). The justice department found in Meld. St. nr. 23 (1991-1992) that the cost of crime to the Norwegian society was NOK 37,9 billion, which in 2017 NOK is 62.5 billion. However, in these numbers the intangible costs of crime, such as fear, pain and reduced life quality, has not been taken into account (Bakke, 2011, p. 13).

Bakke (2011) pursued to determine how much resource it is reasonable to use on crime prevention in Norway. In that case, it is valuable to have knowledge about how much the costs of crime are for both individuals and society. Bakkes model considers costs associated with preventing crime, the crime itself and for the reactions of crime. The costs are estimated based on existing numbers from both Norway and other countries and many are highly hypothetical. Norwegian estimates on a human life and estimates from Home Office 2003/04 are used to estimate the intangible costs. Bakke points out that this type of valuation will give lower estimates on costs than if one use willingness to pay to avoid being victimized. The estimates are then multiplied with number of insults in Norway to find that the costs of personal suffering after violent crime to be 5 billion NOK. Furthermore, he found the total costs of crime in Norway to be NOK 88,067 billion, where 49,509 billion was the costs of crimes alone. Allocating this number to each Norwegian above 16 years of age gives an average cost of NOK 21-22 000 per year per person (Bakke, 2011, pp. 9-13).

### 3. The Economics of Crime

In this chapter, we move on to the economics of crime. The chapter is based on why criminals choose to commit criminal actions, but is nevertheless interesting for us as it lays the foundation for studying the economics of crime, which later evolved to estimating the costs for victims as well. Lastly, we review previous studies done on the intangible costs of crime.

Economics of crime were first branched by the American professor Gary S. Becker in *Crime and Punishment: An Economic Approach* (1968) after Becker had to make a rational choice driving to an oral exam when teaching Ph.D. students at Columbia University. Considering the likelihood of being caught as choosing a parking spot that was closer but illegal, versus the time that would be lost if legally parking further away, Becker branched the idea of all criminals seeking to maximize utility  $E(U)$ . A bit taboo at the time, he argued that criminals behave like all other rational individuals; seeking to maximize utility. If the total payoff of a criminal act, included expected cost of sanctions and other costs, is higher than the legal alternatives, the criminal act is preferred.

By holding individual preferences constant, Becker (1968) used the model to predict how changes in the probability severity of sanctions and in various socio-economic factors may affect the amount of crime. The individual's expected utility  $E(U)$  from committing a crime:

$$E(U) = PU(Y - f) + (1 - P)U(Y)$$

- $U(*)$  is the individual's von Neumanns-Morgenstern utility function
- $P$  is the probability of being caught and convicted
- $Y$  is the monetary psychic income (i.e. the monetary equivalent) from an offence
- $f$  is the monetary equivalent of the punishment

If the expected utility is positive the individual will commit the crime, but not if the utility is negative. According to Becker, the common assumption for generating predictions about responses to various changes in parameters provides a solid foundation. Furthermore, this prevents the analyst from succumbing to the temptation of simply postulating the required shift in preferences to explain all apparent contradictions to his predictions. An increase in *the severity of punishment* or *the probability* might change the expected utility from being positive to negative, according to comparative statics. The two factors influence *the total amount of*



*crime*, which Becker introduces as “supply of offence function” for society as a whole (Becker, 1968).

### 3.1.1 Individual’s initial income position as a point of reference

In contrast to Becker’s model which only consider the income and punishment equivalents of an offence separated from other income, W. W. Brown and Reynolds (1973) emphasizes the individual’s initial income in *Crime and “Punishment”: Risk implications*. The individual’s expected utility  $E(U)$  becomes:

$$E(U) = PU(W - f) + (2 - P)U(W + g)$$

- $W$  is present income
- $g$  is gains for crime

If the expected utility is higher than the utility of the initial income  $W$ , the crime will be committed. Furthermore, Becker demonstrated offenders are *risk lovers* if the elasticity of the expected utility with respect to the probability of punishment exceed the elasticity of the expected utility with the respect to conviction (both in absolute values). Becker’s conclusions regarding optimality conditions for law enforcement and the nature of criminal behavior is assuming that criminals maximize expected utility, a *risk lover* is an offender more deterred by the probability of conviction than the “punishment” of an offense, unlike *risk averse offenders* deterred by that punishment exceeds the probability of conviction.

W. W. Brown and Reynolds (1973) interpret Becker’s (1968) result by a notion of “punishment” or “loss”, furthermore all implications by this model vitiates that criminal risk preferences are based on greater responsiveness to the probability of conviction than to punishment.

### 3.1.2 Newer model

A newer model by Ormerod and Mounfield (2003) is somewhat different from Becker’s and those others mentioned above. In a population, mathematical biological models are used to describe how potential epidemics are spread or contained, likewise to Ormerod’s and Mounfield’s model. By the same token, the amount of crimes committed by others in a person’s environment consequently results in the amount of crime committed by the individual. Different groups of people vary in the probability and severity of punishment because of

committed crime. The influence may indeed move a person from one group to another, hence the amount and flow of committed crime.

### **3.1.3 The benefits and costs of crime**

Included gains and losses in the economic models of criminal behavior have been elaborated in several studies. In addition, all kinds of costs and benefits affecting people's decisions of committing a crime are supposed to be included in the models. When marginal benefits exceed marginal costs, people are assumed to allocate time to criminal activity. Nevertheless, law-abiding individuals will probably always consider marginal costs higher than marginal benefits. The average person may commit an offence from time to time, whereas some individuals specialize in breaking the law (Eide, Rubin, & Shepherd, 2006, p. 10).

Different types of crimes such as insurance fraud, monetary crimes, robbery and crimes obtained from theft, equally important as the individual crime committed, are the reason why the gain obtained from a crime vary. Furthermore, psychic crimes may be committed by reason of sense of accomplishment, retribution, “pure” satisfactions of wants (rape), thrill of danger, or peer approval. Another reason, for such as crimes of property, the market prices obtained from the stolen goods may be of importance. Eide et al. (2006) distinguish between *opportunity costs*, *expected punishment costs*, *material costs* (vehicles, guns, equipment) and *psychic costs* (dislike of risk, fear, anxiety, guilt).

Included in the punishment costs regards all formal and informal sanctions, hence the lawsuit costs, which concerns lawyer's fee and lost income. Fines, incarceration in various forms and etcetera are formal sanctions. The costs increase proportionally to the severity of the sanctions. Personal inconveniences regarding conviction, trial and arrest is described as informal sanctions. Furthermore, additionally sanctions caused by being arrested resulting in social stigma as well as formal sanctions. Family, friends and employer's reaction of nuisance as a consequence of appearing in court is estimated to exceed the effect from formal sanctions. Planning, performing and concealing the criminal act and the net benefit (gross benefit minus cost) of a legal act gives the opportunity cost of crime. Hence, a person's low income gives the individual a low opportunity cost of engaging in criminal activity and a person's high income engage high opportunity cost for illegal activity.

Various factors such as education, region, race, sex, IQ, rate of unemployment and age influence how much income it is possible for an individual to earn in legal sector. Low opportunity cost of crime is proportionally to individuals earning low wage, thus the probability of choosing criminal activity over legal income increase. Generally, in a population the

estimates of a criminal tend to be a younger man with minority culture and low-paid wage. To substantiate these criminal statistics, it is necessary to refine more empirical studies.

Benefits and costs is affected by various individual characteristics. It might be hard to understand the consequences from a criminal act whereas the punishment occurs in the future and in a long-time interval, in contrast to the immediately gains occurring right after the act. Furthermore, individual differences of the criminal act such as eluding the police and concealing the offense is the reason why the probability of punishment differ from person to person. Engaging good lawyers, defending oneself in court and attitude toward risk is varying abilities individuals have toward preventing the probability of being caught.

In rational choice model rate toward recidivism is considerable. No changes in legal opportunities for an offender and at the same time if preferences remain the same after a conviction this tend to either keep the criminal activity stable or increase for an individual (Eide et al., 2006).

### **3.2 Previous Literature on Intangible Costs of Crime**

There have previously been several studies trying to estimate the intangible costs of crime. Most of them in the United States, but also in the UK and Portugal. Thaler (1978) and Phillips and Votey (1981) estimated the indirect costs of crime by looking at housing prices and by combining the value of a statistical life with crime seriousness rankings respectively. However, Cohen (1988) was the first to estimate the monetary value of pain, suffering and fear caused by individual crimes (T. R. Miller, Cohen, & Wiersema, 1996, pp. 22-23). He used court awards in personal injury cases to estimate a dollar amount based on actual risk of injury and death confronting victims. This gave an aggregate annual cost of crime to victims of all personal and household crimes to be \$92.6 billion.

Ludwig and Cook (2001) were apparently the first to use contingent valuation (CV) in a crime context. They argued that to identify the optimal amount of enforcement and regulatory activity to reduce violence, a cost-benefit analysis was required which in turn required estimates of the benefit of reducing gun injuries. This estimate was conducted by elicit people's willingness to pay for a program that reduced gun violence by 30 %. They found that reduction in gun violence was worth \$23.8 billion to the American public in 1988 dollars (Ludwig & Cook, 2001, pp. 0-1).

Cohen et al. (2004) did a similar study, but with a wider range of crimes. They asked for the willingness to pay for crime control programs reducing both burglary, serious assault, armed robbery, rape/sexual assault and murder. The respondents were supposed to answer based on their own understanding of crime and therefore did not get any definition of these crimes. Neither were information about prevalence, risk of victimization, average tangible losses or severity of injuries normally associated with the violent offences provided.

The conduction of the survey was by phone, and the respondents were asked if they would be willing to pay a specific amount for a crime control program reducing crime in their community by 10 %. The amounts were randomized between \$25 and \$225. Depending on the first answer, the respondents were then asked if they would be willing to pay \$25 more or less for the same program.

The WTP responses were analyzed to which extent they were consistent with rational economic behavior. Consistent with economic intuition, they found a demand curve that was downward sloping, responsive to price and relatively inelastic. They also found that those with the most to gain from the program were willing to pay more, but the income effect dominated the risk effect. However, the income effect was cancelled out by the risk effect in the case of rape and sexual assault.

Cohen et al. (2004) argued that previous studies had ignored the social costs of crime. These CV findings were 2 to 10 times higher than estimates of victim costs in previous studies. This fact showed that valuing nonmarket goods with the CV method could be applied to the criminal justice arena as well (Cohen et al., 2004, pp. 7-30)

Several estimates of the intangible costs of crime has been done with the CV method in the footprint of Cook & Miller and Cohen et al. Atkinson, Healey, and Mourato (2005) focused on the three levels of offence classified in Kershaw et al. (2000): Common assault, other wounding and serious wounding. They valued the psychological effects of crime by asking respondents in the UK about the benefits of reducing the risk of suffering the health outcomes from a violent assault (Atkinson et al., 2005, pp. 559-562). This was apparently the first CV study in a crime context conducted outside the US.

Another CV study conducted outside of the US is Soeiro and Teixeira (2010) study of higher education students' willingness to pay for violent crime reduction in Portugal. This was especially interesting as the violent crime rates in Portugal are relatively low by international standards. Also, this was apparently the first attempt to apply the CV method to estimate how much a specific group in society would be willing to pay to reduce the likelihood of becoming

a victim of a violent crime. Higher education students' were picked due to the fact that they are relatively prone to becoming a victim of a violent crime (Soeiro & Teixeira, 2010, p. 1).

Starting with Nagin, Piquero, Scott, and Steinberg (2006), the public preferences for rehabilitation versus incarceration of juvenile offenders was estimated using the CV method. The approach was modeled after Cohen et al. (2004) and Ludwig and Cook (2001), and was carried out in Pennsylvania. Half of the sample, randomly selected, were asked what they were willing to pay for a political proposal to increase the amount of rehabilitative services provided to violent juvenile offenders without any increase in their time incarcerated. The other half responded to a proposal to increase the amount of time spent in prison for the juvenile offenders. The question was to pay an additional \$100 in taxes for the proposal. If the answer was yes, the respondents were asked if they would be willing to pay \$200. If no, if they would be willing to pay \$50. In addition to the proposal, respondents were also given a scenario with a childhood prevention program with a question of what they would be willing to pay for this. As the respondents answered to a hypothetical question, Nagin et al. was cautious to place too much weight on their calculations. Nonetheless, they believed that their cost-benefit analysis was informative (Nagin et al., 2006, pp. 633-638).

As the first study of rehabilitation versus incarceration only was conducted in Pennsylvania, Piquero and Steinberg (2010) replicated the study in 2007 in Pennsylvania, Illinois, Louisiana and Washington. These states was picked due to the fact that they varied considerably in demographics, political orientations, and juvenile crime problems (Piquero & Steinberg, 2010, p. 1).

Earlier CV studies has mostly looked at street crime. Cohen (2015) explicitly studied the willingness to pay to reduce white-collar and corporate crime; consumer fraud, financial fraud, corporate crime, and corporate financial crime. The existence of such offenses can cause non-victims to take costly precautions as well as victims financial hardship. Even pain, suffering and reduced life quality can be a result of financial crimes (Cohen, 2015).

All of the studies mentioned above has shown a positive willingness to pay for reduction in crime as well as benefits that exceeds the costs for programs reducing crime. Stickle (2015), on the other hand, found negative attitudes toward paying out-of-pocket for burglary prevention. The primary causes for this was a lack of knowledge of the topic, high taxes, government mistrust and inability to financially support the program.

*Table 1 - Summary table of previous studies on the intangible costs of crime*

<b>AUTHORS</b>	<b>YEAR</b>	<b>COUNTRY</b>	<b>TOPIC</b>
<b>Cohen</b>	1988	USA	Pioneering work to estimate the intangible costs of crime
<b>Miller et al.</b>	1996	USA	Pioneering work to estimate the intangible costs of crime
<b>Cook &amp; Ludwig</b>	2001	USA	First CV study in a crime context
<b>Cohen et al.</b>	2004	USA	WTP for crime control programs
<b>Atkinson et al.</b>	2005	UK	WTP to reduce violent crimes
<b>Nagin et al.</b>	2006	USA	WTP for rehabilitation versus incarceration of juvenile offenders
<b>Soeiro &amp; Teixeira</b>	2010	Portugal	Higher education students' WTP for violent crime reduction
<b>Piquero &amp; Steinberg</b>	2010	USA	WTP for rehabilitation versus incarceration of juvenile offenders
<b>Cohen et al.</b>	2015	USA	WTP to reduce white-collar and corporate crime
<b>Stickle</b>	2015	USA	WTP for burglary prevention

## **4. Welfare Economics for Non-Market Valuation**

To be able to carry out a cost-benefit analysis based on a contingent valuation study, it is essential to obtain an accurate estimate of the benefits brought by the change in the level of the public good in question. The survey does not just have to meet the methodological imperatives of survey research; it also must satisfy the requirements of economic theory. To do so, the survey must have an appropriate hypothetical market setting to obtain the correct benefit measures for the relevant good (Mitchell & Carson, 1989, p. 17).

The assumptions in welfare economics is that an increase in individuals' well-being is the main purpose of economic activity. Welfare depends on the quantities and qualities individuals receive from non-market goods, as well as private and public goods and services (Freeman III, Herriges, & Kling, 2014b, p. 7). Furthermore, welfare economics is based on two major assumptions; (1) when individuals are confronted with two or more bundles of goods, they have preferences for one bundle over the other, and (2) individuals try to maximize their overall level of satisfaction or utility. Individuals trade goods back and forth until they reach their maximized utility. The value of a good is then the most one individual is willing to give up for the good and what another individual is willing to accept in return. As a result of this, consumer sovereignty is an important part of cost-benefit analysis; each individual is the best judge of what gives him the most utility (Mitchell & Carson, 1989, pp. 20-21).

### **4.1 Utility Maximization with (exogenous) Public Good**

Rational behavior is an important assumption in economic theory. The three axioms of rational choice are the foundation of the rational consumer. First, completeness refers to individuals always completely knowing their desire between two possibilities. Either "A is preferred to B," "B is preferred to A," or "A and B are equally attractive." Second is transitivity; individuals' choices are internally consistent. If "A is preferred to B" and "B is preferred to C," then "A is preferred to C". Third, continuity is a technical assumption that is required when analyzing small changes in prices and income; If "A is preferred to B" then situations suitably "close to" A must also be preferred to B. When these three axioms are met, it is possible to rank all possible situations. This ranking is called utility (U) (Nicholson & Snyder, 2011, pp. 85-86).

An individual's' consumption of various market commodities, both private and public, makes up the individual's utility. This is expressed by the utility function

$$U = U(\mathbf{x}, \mathbf{q}) \quad (1)$$

where  $\mathbf{x} = (x_1, x_2, \dots, x_n)$  is the vector of private goods available at market prices and  $\mathbf{q} = (q_1, q_2, \dots, q_n)$  represents the exogenous vector of public goods. In this case,  $\mathbf{q}$  represents better life quality due to less crime. Thus, higher values of  $\mathbf{q}$  show improved life quality.

The individual's' problem is to choose the bundle that is both affordable and maximizes utility. If a bundle is affordable is dependent on the budget constraint which first of all is the money income,  $I$ . The utility-maximizing problem is therefore stated as

$$\text{Max } U(\mathbf{x}, \mathbf{p}) \text{ subject to } \mathbf{p}\mathbf{x} \leq I \quad (2)$$

where  $\mathbf{p} = (p_1, p_2, \dots, p_n)$  is the price vector for  $\mathbf{x}$ . Solving this function gives a set of ordinary Marshallian demand functions which shows the consumer surplus. Consumer surplus holds income constant while measuring the individual benefits.

$$\mathbf{x}^* = \mathbf{x}(\mathbf{p}, \mathbf{q}, I) \quad (3)$$

This demand function shows combinations of  $\mathbf{p}$ ,  $\mathbf{q}$  and  $I$  that give the optimal quantity of a marked good,  $\mathbf{x}^*$ .

## **4.2 Indirect utility of discrete choice alternatives with attribute vectors**

A problem with the traditional Marshallian measure of consumer surplus is that it only holds income constant, not the level of utility or satisfaction. When seeking to derive the utility associated with a change in a public good, the Hicksian welfare measure is thus more suitable. The Hicksian consumer surplus can be thought of as Marshallian consumer surplus calculated from demand curves where total utility is held constant at different specified levels (Mitchell & Carson, 1989, p. 23). By substituting equation (3) into equation (1) we can derive an indirect utility function which shows the Hicksian welfare measure.

$$V(\mathbf{p}, \mathbf{q}, I) \equiv U(\mathbf{x}(\mathbf{p}, \mathbf{q}, I), \mathbf{q}) \quad (4)$$



Many constrained maximum problems have associated “dual” constrained minimum problems as well. This is also true for indirect utility and is called individual's expenditure minimizing problem

$$\text{Min } e = \mathbf{p}\mathbf{x} \text{ subject to } U(\mathbf{x}, \mathbf{q}) \geq \tilde{U} \quad (5)$$

To achieve this given utility level  $\tilde{U}$ , it is required to minimize expenditures. The Hicksian demand function is the solution to this problem

$$\mathbf{x}^c = \mathbf{h}(\mathbf{p}, \mathbf{q}, \tilde{U}) \quad (6)$$

Even though both Marshallian and Hicksian welfare measures are valuable when estimating consumer surplus, the Hicksian demand function is commonly used in the contingent valuation method (Freeman III et al., 2014b, p. 386). Utility is held constant while using the indirect utility function or expenditure function. This makes it possible to derive exact welfare measures when there is changes in  $\mathbf{p}$  (price) and  $\mathbf{q}$  (life quality) which is relevant for this research.

### 4.3 Theoretical welfare measures

The indirect utility function and expenditure function can be narrowed down to the two compensating surplus measures; Compensating Surplus (CS) and Equivalent Surplus (ES) for changes in  $\mathbf{q}$ , Compensating Variation (CV) and Equivalent Variation (EV) for changes in  $\mathbf{p}$ . CS measures the individual's maximum willingness to pay to maintain his initial level of utility ( $u^0$ ) while gaining an increase in quantity. ES on the other hand, gives a measure of the minimum amount of compensation the individual is willing to accept to have the same level of utility without the increase in quantity (Mitchell & Carson, 1989, p. 25). Changes in quantity-constrained goods can be presented in several ways with compensating and equivalent surplus. The first way is from a “primal” perspective with the indirect utility function. The solution with CS

$$u^0 \equiv v^0 = V(\mathbf{p}, \mathbf{q}^0, I) = V(\mathbf{p}, \mathbf{q}^1, I + CS) \quad (7)$$

and the solution with ES

$$u^1 \equiv v^1 = V(\mathbf{p}, \mathbf{q}^1, I) = V(\mathbf{p}, \mathbf{q}^0, I - ES) \quad (8)$$

Second, it can be shown from a “dual” perspective with the expenditure function. For a change in  $\mathbf{q}$ , CS and ES are respectively

$$CS = e(\mathbf{p}, u^0, \mathbf{q}^0) - e(\mathbf{p}, u^0, \mathbf{q}^1) > 0 \quad (9)$$

and

$$ES = e(\mathbf{p}, u^1, \mathbf{q}^0) - e(\mathbf{p}, u^1, \mathbf{q}^1) > 0 \quad (10)$$

$u^0$  and  $\mathbf{q}^0$  represent the initial level of utility and quantity,  $\mathbf{q}^1$  and  $u^1$  represent some subsequent level. In equation (7), CS shows the additional payment required to maintain the initial level of utility as before the decline in  $\mathbf{q}$ , while in function (8) ES represents the individual's' maximum willingness to pay to avoid the decline in  $\mathbf{q}$ . For an increase in  $\mathbf{q}$ , the CS measure is the maximum willingness-to-pay (WTP) to achieve an improvement and ES the minimum willingness to accept (WTA) for not having an improvement. Also, for a decrease in  $\mathbf{q}$ , CS is the WTA compensation needed to accept the increase in crime, and ES the WTP to avoid it.

In a crime context, the aim is to measure the intangible costs of crime such as pain, suffering and decreased life quality to review how much money governments should use on crime prevention. Thus, CS is the willingness-to-pay to decrease the probability of becoming a victim of a criminal action and therefore have a better life quality, or the willingness-to-accept compensation needed for living with the same risk. Our analysis uses CS to find the WTP to reduce the risk of victimization and increase life quality (Mitchell & Carson, 1989, pp. 25-27).

In addition to these use values, there are so called nonuse or “passive use” values. Such values are not associated with actual use, but gives value to people simply by existing (Freeman III et al., 2014b, p. 13). This can be that people in Stavanger value less crime in Oslo because they might move there someday, or that they want a safer community in the future for their grandchildren.

Figure 3 - ES and CS (Freeman III, Herriges, & Kling, 2014a)

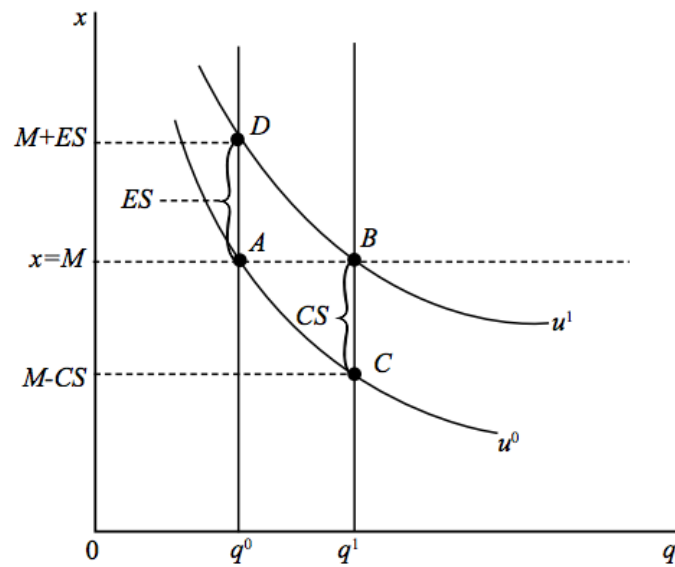


Figure 3 shows ES and CS graphically. If income increase by the ES value and  $q$  is constant, the individual will reach  $u^1$ . The distance between A and D is the ES. If  $q^0$  increase to  $q^1$ , the individual will also reach  $u^1$ . Thus, the distance between N and C is the CS (Freeman, 2014, p. 67).

When public decision-makers decide which policies to invest in and implement, the cost-benefit analysis is helpful and commonly used. This tool is based on the theoretical welfare measures explained above. For the policy to be implemented, the Total Social Benefits (TSB) of the policy must exceed the Total Social Costs (TSC). This is found by aggregating benefits and costs for all individuals' valuations, including all relevant opportunity benefits and costs as well.

Valuing crime policies involves putting a value on non-market goods and costs for increases and decreases in  $q$ . The focus is on measuring public goods and negative externalities that there is no market for. This is the benefits of living in a community with less crime and the intangible costs of being exposed to crime. In the next chapter, we discuss various valuation methods to be used on such non-market goods.

## **5. Classification of Valuation Methods**

There are two main methods when estimating the value of non-market goods. Which one to use depends on the source of the data. The data can be observed from people's actual actions, or it can be hypothetical (Mitchell & Carson, 1989, pp. 74-75). This is commonly referred to as revealed preference and stated preference methods (Freeman III et al., 2014b, p. 24).

### **5.1 Revealed Preference Methods (RP)**

RP methods rely on consumers' actual actions in an actual market reflecting utility maximization. The nonmarket good does not have a price itself, but sometimes it can affect the behavior against another good, as either a substitute or a complement. By using market data from a good with a linkage to the nonmarket good, it is possible to estimate the value of the nonmarket good (Mitchell & Carson, 1989, p. 78).

The most commonly used RP methods is the Travel Cost Method (TCM) and Hedonic Pricing (HP). The essence of the Travel Cost Method is that people react to travel costs in the same way as to prices. The concept was first proposed by Hotelling (1949) and later formalized by Clawson (1959). By asking visitors their costs of traveling to a recreational site, it is possible to evaluate the area (Asafu-Adjaye, 2005, p. 121). However, several reasons make TCM problematic. Some of them being that it generally ignores the fact that consumers easily can substitute one site for another and that it is hard to handle the role of time (Mitchell & Carson, 1989, p. 79).

In Hedonic Pricing, the assumption is that the value of a non-market good is based on a function of its characteristics. Housing prices are often used to value a non-market good. The difference in housing prices from a high crime neighborhood and a low crime neighborhood can be used to estimate the value of being less exposed to a crime. This can be problematic however, as housing prices naturally depends on several other factors as well (Mitchell & Carson, 1989, p. 78).

Many economists would preferably use RP methods to value non-market goods, but passive use values are frequently not linked to consumption of market goods. If there is a linkage, the assumptions of the methods are often not sufficiently enough to allow application of the method (Champ, 2003, pp. 99-100).

## **5.2 Stated Preference Methods (SP)**

Where RP methods count on actual data, SP methods use data based on decision-making in hypothetical choice situations. Using constructed scenarios, it is possible to reveal people's preferences and valuation of goods that has no actual market. The most commonly used SP methods are contingent valuation, contingent behavior and choice experiments. In choice experiments, respondents are given hypothetical alternatives where they must choose the one they prefer the most, and often rank or rate them. From this, it is possible to determine the marginal rates of substitution between the alternatives and compute the willingness to pay for the attributes in question (Freeman III et al., 2014b, pp. 383-384).

### **5.2.1 Contingent Valuation**

Contingent valuation (CV) elicit a direct monetary value to a specified good. By constructing scenarios with different possible government actions, and make the respondents state their preference about those actions, it is possible to find the willingness to pay (WTP) for a non-market good. The WTP is found by offering the respondents a binary choice between status quo policy and a policy with a higher cost (e.g. increased taxes) (Carson, 2000, p. 1413). The survey normally consists of three parts: “(1) A detailed description of the good(s) being valued and the hypothetical circumstances under which it is made available to the respondent. (2) Questions which elicit the respondents’ willingness to pay for the good(s) being valued, and (3) questions about respondents’ characteristics, their preferences relevant for the good(s) being valued, and their use of the good(s)” (Mitchell & Carson, 1989, p. 3).

In addition to the WTP, the CV method can also elicit willingness to accept (WTA) by asking how much compensation is needed to give up a good. Both WTP and WTA are Hicksian consumer surplus measures and which one to use depends on the property right to the good. If the individual in question has a legal entitlement to the good, WTA is the correct procedure to use. If not, WTP is the correct property right (Carson, 2000, p. 1413).

There are several reasons for not using WTA in a crime context. One could in theory ask victims how much compensation it would take to accept the injury, but it is hard to believe that such a survey would give meaningful responses (Cohen, 1988). Furthermore, there is a concern that the “victim cost” method will overestimate the cost of crime when using WTA, as the amount of money required to accept a crime generally will be higher than the amount of money people are willing to pay to avoid it (Cohen et al., 2004). Finally, some crimes are not

possible to accept. Anyone who has lost a parent, child or spouse would probably say that no amount of money could compensate for his or her loss (Ludwig, 2010, p. 308).

In 1952, the resource economist Ciriacy-Wantrup (1947) suggested that value of natural resources should be measured with the use of “direct interview method”. However, it was with Davis (1963a, 1963b, 1964) in the 1960s that the CV method was first used to estimate the benefits of outdoor recreation in a Maine backwoods area. Later, several other economists were influenced by Davis use of the CV method. Ridker (1967) in valuing air pollution benefits, and both Brown and Hammack (1974), Cicchetti and Smith (1973, 1976), Darling (1973) and Acton (1973) to value various recreational amenities. Randall, Ives, and Eastman (1974) are considered to be the most influential of the earlier CV studies. Their article was brought to a broad audience with its publication in *Journal of Environmental Economics and Management*, and their thorough valuation of a good which could not be valued by alternative methods such as hedonic pricing and travel cost was well received.

The contingent valuation approach has since then been used to value a variety of public and non-market goods such as water quality (Gramlich, 1977), hunting (Cocheba & Langford, 1978), decreased mortality risk from a nuclear power plant accident (Mulligan, 1978), aesthetic and health benefits of air quality (Brookshire, d'Arge, Schulze, & Thayer, 1979), construction of a geothermal power plant (Thayer, 1981), recreation (Walsh, Miller, & Gilliam, 1983), benefits of government support for the arts (Throsby, 1984), and toxic waste dumps (Smith & Desvousges, 1985) (Mitchell & Carson, 1989, pp. 9-12). From the 1990s, contingent valuation was also used to estimate the intangible costs of crime as mentioned in chapter 2.4.

There are several attributions to how one should develop and conduct a CV survey. After great controversy around the CV technique, the National Oceanic and Atmospheric Administration (NOAA) appointed a panel to consider questions like if the respondents do understand what it is they are being asked to value and if they fail to take the CV questions seriously. Furthermore, they considered if the CV technique can provide reliable information about lost existence or other passive-use values. The panel then provided guidelines and goals for designing successful CV surveys (Arrow et al., 1993, p. 5). These guidelines are however very detailed and strict.

Bateman et al. (2002) developed a best practice with three stages for designing CV surveys. First, one should formulate the valuation problem. To do so it must be clear what the policy change being valued is, the valuation scenarios must be constructed and the monetary values must be elicited. Second, there should be additional questions with debriefing and follow-up questions. It should also be questions about attitudes, opinions, knowledge and uses

as well as demographic questions. The questionnaire structure is important. Third, the questionnaire should be pre-tested with focus groups, one-to-one interviews, verbal protocols and pilot surveys (Bateman et al., 2002, p. 117).

Furthermore, both Mitchell and Carson (1989) and Cummings, Brookshire, Bishop, and Arrow (1986) has made valuable and important contributions to the development of the contingent valuation methodology. More recently, Carson (2012) has an interesting discussion about the use of contingent valuation.

Even with the hard work to validate and quality assuring the CV methodology, there are several critics and issues yet to be solved. J. A. Hausman (1993) has been one of the biggest opponents with his first book *Contingent Valuation: A Critical Assessment* (1993) and later several articles questioning the use of contingent valuation surveys. In *Contingent Valuation: From Dubious to Hopeless* (2012) he states that over the last 20 years he had gone from dubious but somewhat optimistic to believing that contingent valuation is hopeless. There are especially three problems he discusses: (1) hypothetical bias and upward-biased results, (2) difference between WTP and WTA and (3) scope and embedding. The embedding effect was first explored by Kahneman and Knetsch (1992) and demonstrates that there are no preferences in a contingent valuation setting. It is closely related to the scope effect. When respondents are asked about their willingness to pay for scenarios that are identical except their scale, there has been a tendency towards no difference in the WTP. Hypothetical bias arises when people act different from what they say they will do when asked a hypothetical question. This can lead to upward bias; people saying they are willing to pay more than what they actually would be willing to pay (J. Hausman, 2012, pp. 43-47). An example of this is the “Warm Glow” effect (Arrow et al., 1993, p. 17).

Furthermore, the validity and reliability of the CV method has been debated. The validity of a method is to which degree it correctly measures the estimate intended. In the context of CV, this estimate is, if the appropriate market for the public good existed, the maximum amount of money the respondent would be willing to pay. It can be divided into four concepts; criterion, convergent, construct and content. Criterion validity tests if the CV estimates match real payments, and is in many ways the most central and salient. Convergent validity refers to how well the CV estimates correlate with other measures of the same economic value, such as revealed preference estimates. Moreover, it is important that the CV estimates are consistent with theoretical predictions. This is construct validity. Lastly, the content validity is if best practice is being followed. The CV method has become standardized and there are several books and articles on how to conduct contingent valuation surveys and

other stated preference methods (Kling, Phaneuf, & Zhao, 2012, pp. 13-20; Mitchell & Carson, 1989, p. 190).

The reliability of a CV survey is dependent on how much random sources or noise affects the amounts respondents are willing to pay. There are three principal factors that affects the variance in the results of a survey: (1) the true variation for the good in the population. (2) The survey itself; the concept, wording and presentation. (3) Only a sample of the population has answered the survey. There are techniques to measure the variance given by the two last factors. Test-retest methods can be used to find variance due to the instrument. However, such procedures are very expensive to carry out and although high reliability is desirable, it does not give any information about the study's absence of bias or its validity (Mitchell & Carson, 1989, pp. 211-212). Furthermore, reliability exercises are not considered to be reasonable for individual studies because such exercises require repetition of the studies at different points in time (Bateman et al., p. 340).



## **6. Survey and Data Collection**

Our survey design follows in the footsteps of (Cohen et al., 2004), and therefore use the CV method. We replicated the information about the crime control programs, but otherwise adapted the survey to the Norwegian context as well as the form of a master thesis.

### **6.1 Designing the CV questionnaire**

Most good CV studies are structured in a specific order and contain an introductory section, valuation section and final section. In the introductory section, the general context for the decision to be made are set. There is typically a briefing about what the survey is generally about and some questions to identify behavior, attitudes and opinions. Next, the valuation section gives a detailed description of the good that will be offered to the respondent and in which institutional setting the good will be provided, as well as how the good will be paid for. The willingness to pay questions will be asked along with debriefing questions to determine why the respondents answered as they did. Lastly, the final section consists of questions detecting the respondents characteristics such as attitudes and demographic information (Carson & Hanemann, 2005, p. 898).

#### **6.1.1 The introductory section**

In the introduction of the survey the theme was stated with a description of the questionnaire and its purpose. The respondents were told that their opinions were important and that it was crucial that they answered as honest and thorough as possible. Further, it was pointed out that there was no right or wrong answers. It was also stated that all answers would be handled confidentially and that it was possible to choose to be anonymous.

The first twelve questions were designed to define the respondents preferences, attitudes and opinions about crime and punishment, in line with best practice to design CV studies (Bateman et al., 2002; Mitchell & Carson, 1989). To avoid habituation, the questionnaire varied between multiple choice and matrix/rating scale. The alternatives on question one, six and seven were randomized to avert potential order bias.

### **6.1.2 The valuation section**

As we wanted to examine individuals' preferences for punishments for certain crimes as well as the willingness to pay, the valuation section was divided in two parts. First, the respondents were presented with four different scenarios; theft, cybercrime, rape and white-collar crime respectively. Each scenario carefully described the criminal act and how it had been carried out, followed by a question asking which penalty the respondent thought was suitable for the offender. Twenty alternatives of different Norwegian penalties were offered. These penalties were replicated from Olaussen (2010).

Before the actual valuation questions, the next section was carefully described to the respondents. They were presented with three crime control programs; rape and other sexual offences, theft and white-collar crime, and were told that they would be asked to answer how much they would be willing to pay for each program. It was pointed out that the programs were independent, but that the last question would ask them to consider what they would be willing to pay for all the programs. It was stressed that the amount they were willing to pay for the program could otherwise be used on their own food, clothes etc. and other public goods and services.

There was not given any information about the crimes the programs would reduce as the respondents were supposed to answer based on their own definition of the crimes. However, the previous scenarios gave a background for the valuation questions. These questions were replicated from Cohen et al. (2004), which as mentioned above, did a survey on willingness to pay for crime control programs in the US. We also chose to add information about how many offenses that were reported in 2016, and how many the programs would have prevented. These numbers were obtained from Statistisk sentralbyrå (SSB) to give the respondents a better understanding of how much the programs would reduce crime. At the same time, it simply showed the difference between status quo and the proposed policy (Carson & Hanemann, 2005, p. 898).

Single-bounded dichotomous choice is commonly used in CV surveys. The respondents are presented with an amount and asked if they are willing to pay this sum for the policy in question. This amount is randomized across the sample. Dependent on if the respondents answer yes or no to the initial amount they are asked if they would be willing to pay a higher or lower amount (Carson, 2000, p. 1413). However, due to our time frame and budget, we chose to use payment cards. For each crime control program the respondents got twenty three payment alternatives ranging from NOK 0,- to 3375,- or more. The alternatives had intervals

of 25, 50, 100 and 300. We did not use round numbers like 500, 1000, 1400 etc. as it can make respondents choose these easy numbers without thinking much about it. After each WTP question the respondents were asked why or why not they were willing to pay for the program. This was to be able to cancel out protest voters. In the fourth and last valuation question, there were twenty-nine payment alternatives, ranging from NOK 0,- to 5175. This question asked for the total WTP for all three programs, and therefore had more and higher alternatives.

### **6.1.3 The final section**

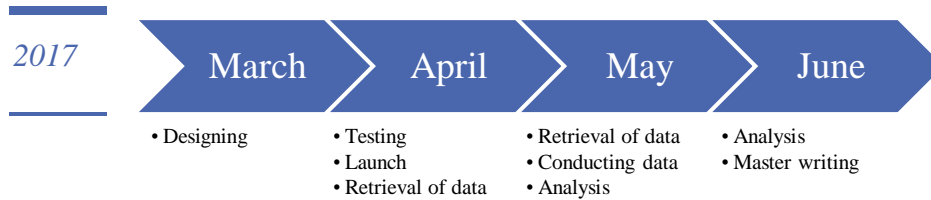
The most important reason for the demographic question is to help us see what factors affect the willingness to pay. It indicates the relationship between factors such as age, gender, education, income etc. and preferences for crime policy. These questions can also say something about the representativeness of the survey, and make it possible to compare the sample with the Norwegian population.

## **6.2 Testing and Implementation**

As pointed out by both the NOAA panel (1993) and Bateman (2002), CV studies should be pre-tested before implementation. Three individuals with different socio-demographic backgrounds tested our survey while being observed. After finishing the survey, we discussed their opinions and feedback. They expressed that some of the questions were unclear and some had too many alternatives. The relevant questions were then reviewed and adapted to the extent that it was possible. Furthermore, two law professors considered the scenarios and the penalties.

When the necessary adjustments from the pre-testing were finished, the survey was ready for implementation. We used two different links to send out invitations. The first was a social media link. We posted this link on Facebook and LinkedIn, and got help to share it from family and friends. The sharing of the link made it possible to reach out to a broader public with different sociodemographic backgrounds. The second link was a web link that was sent to staff and students at the University of Stavanger.

Figure 4 - Timeline for survey and analysis



### 6.3 Descriptive statistics of sample

A total of 394 respondents participated in the survey, with a completion rate of 76 percent. Most of the respondents who did not finish the survey fell off before the willingness to pay questions. As the first questions were meant to provide a foundation of the public opinions about crime, this did hopefully not affect the reliance of the WTP questions. The socio-economic demographic questions were last, thus those who answered the WTP questions answered most of the factors important for the regression analysis. As this survey was a pilot study, the point was to try the CV method in a Norwegian context. Even though it is not representative for the population, it can give a first look about the opinions and preferences in Norway.

Table 2 – Sample Characteristics

Answer Choices	Sample
<b>Gender</b>	
Male	42.81 %
Female	57.19 %
<b>Age</b>	
Below 18	00.33 %
18 – 21	04.35 %
22 – 25	23.08 %
26 – 29	11.37 %
30 – 39	11.71 %
40 – 49	23.75 %
50 – 59	19.06 %
60 – 69	05.35 %
70 – 79	01.00 %
Above 18	00.00 %
<b>Relationship</b>	
Married	43.14 %
Cohabitation	23.08 %
Divorced	04.35 %
In a relationship	06.69 %
Single	22.41 %
Widow	00.33 %
<b>Children in household</b>	
0	62.08 %
1	16.44 %
2	16.11 %
3	05.03 %
4	00.34 %
<b>Education</b>	
Elementary School	01.34 %
High School	11.07 %
Certificate/Vocational School	10.07 %
University/College 1-3 years	30.20 %
University/College 3-5 years	31.54 %
University/College above 5 years	15.77 %

As shown in Table 2, 57.19 % of the respondents are females. Most of the respondents are distributed between 22 and 59 years of age. The majority are married or lives in a cohabitation, followed by singles. However, 62.08 % lives in a household with no children. University educated individuals are overrepresented in this study with 61.74 % having studied 1-5 years. Also, 15.77 % have studied more than 5 years. Full-time workers and students make up the largest group of the respondents. Students are divided in two to make it possible to differentiate between individuals with income in addition to scholarship and loan.

The oil and gas industry is also overrepresented, followed by individuals working in retail, sale and services, bank and finance and healthcare. The rest of the sectors are evenly distributed. 12.08 % of the respondents have a household income between 100 001 and 300 000 NOK. This is probably due to the high percentage of students participating in the survey. 61.07 % of the respondents are evenly distributed between 300 001 to 1 500 000 NOK in household income, and 6.71 % have an income over 2 000 000 NOK.

Table 3 - Sample Characteristics continued

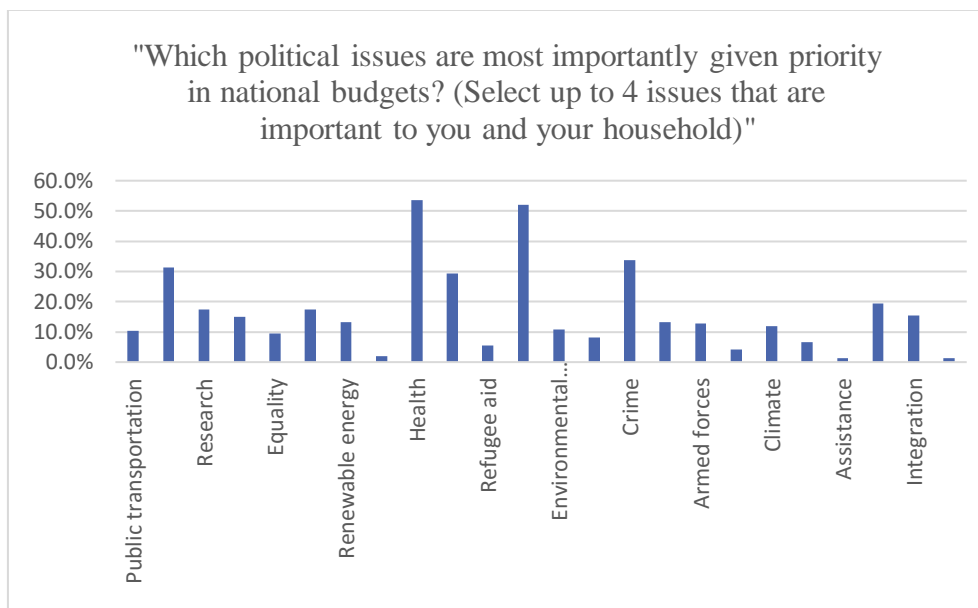
Answer Choices	Sample
<b>Occupation</b>	
Work full-time	55.03 %
Work part-time	03.36 %
Not working	03.32 %
Retired	03.02 %
Homemaker	00.34 %
Student	13.42 %
Student with work on the side	18.12 %
Maternity leave	01.34 %
Other	02.34 %
<b>Sector of occupation</b>	
Oil and gas	23.49 %
Retail, sail and services	14.33 %
Bank and finance	11.41 %
Construction	05.70 %
Renewable energy	01.01 %
Public administration	06.71 %
Other industry	04.03 %
Education and research	07.38 %
Healthcare	11.41 %
Fishing, agriculture and forestry	01.01 %
Farming	01.34 %
IT, communication and telecommunication	04.36 %
Other	07.72 %
<b>Household income</b>	
Below 100 000 NOK	05.37 %
100 001 – 300 000 NOK	12.08 %
300 001 – 500 000 NOK	10.07 %
500 001 – 700 000 NOK	10.40 %
700 001 – 900 000 NOK	10.74 %
900 001 – 1 000 000 NOK	10.40 %
1 000 001 – 1 300 000 NOK	09.73 %
1 300 001 – 1 500 000 NOK	09.73 %
1 500 001 – 1 700 000 NOK	06.71 %
1 700 001 – 1 900 000 NOK	04.36 %
1 900 001 – 2 000 000 NOK	03.69 %
Above 2 000 000 NOK	06.71 %

# 7. Descriptive Analysis

## 7.1 Crime Attitudes and Punishment Preferences

As mentioned in chapter 5.1.1, the first questions of the survey examine the respondents' preferences, attitudes and opinions about crime and punishment. The first question shows respondents' preferences for crime policy in the public budget. As shown in Figure 5, health and education have the highest turnout with 53.55 % and 52 % respectively, followed by crime. 33.76 % chose crime as one of the four most important political issues to give priority in national budgets.

Figure 5 - Question 1



Question 2 shows that the principals behind the penalty system has support from the respondents. When ranging the principals from 1 to 5, 4 and 5 has the highest respondent rate. The next question investigates how important crime policy is for the respondents' household. As shown in figure 2, the majority answered 3 followed by 4.

Figure 6 - Question 3

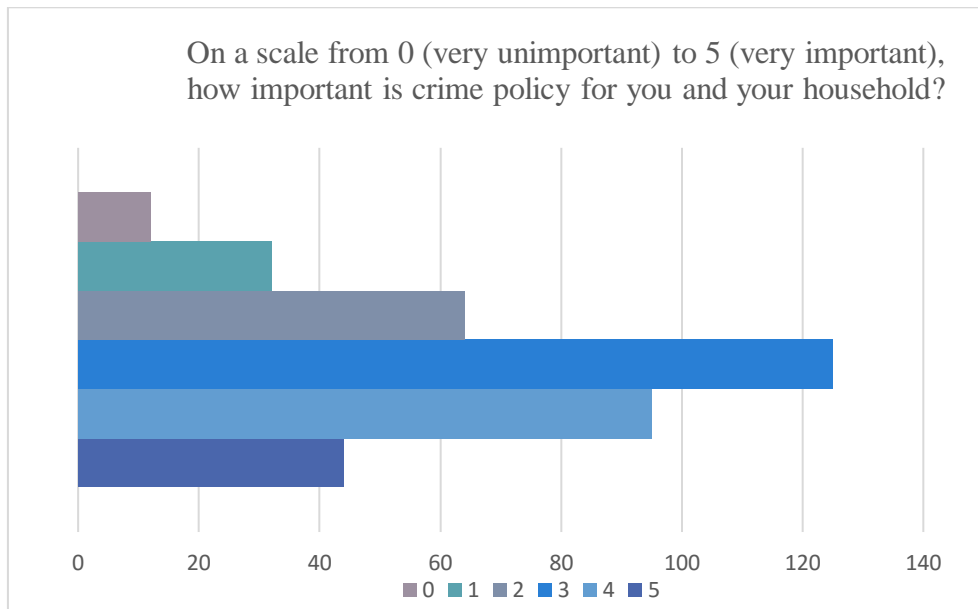
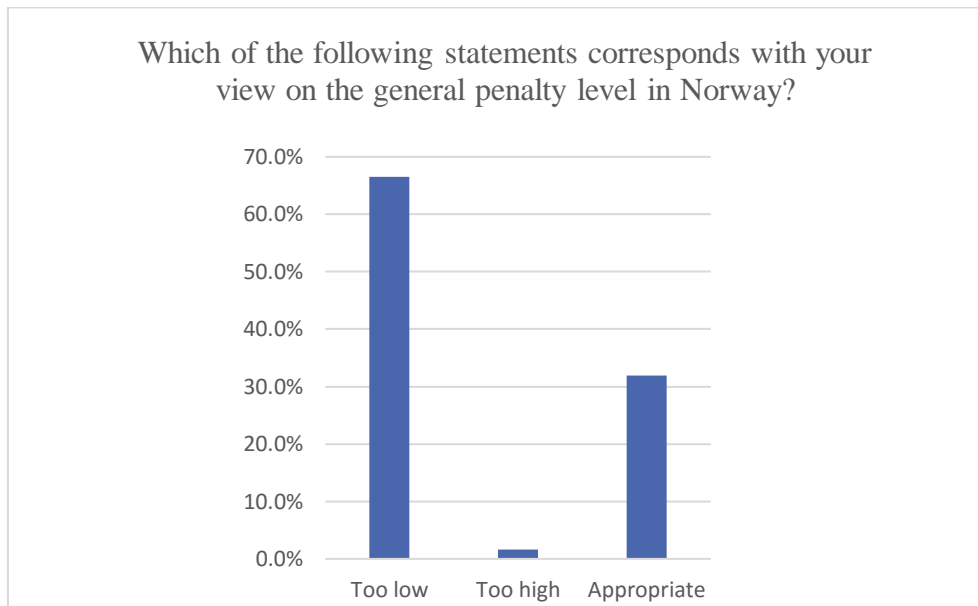


Figure 7 - Question 4

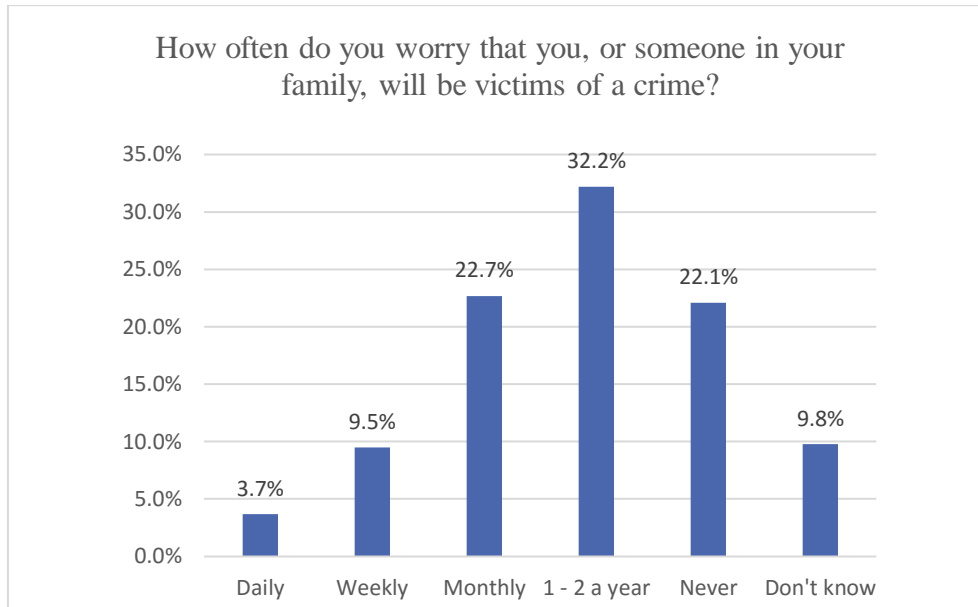


With a support rate of 66.49 %, question 4 shows that the view on the general penalty level in Norway is that it is too low. Like the second question, question 5 examines attitudes towards the penalty system in Norway. Especially prevention of repeating offenses and to prevent others of committing violations, to keep criminals of the street and the justice in making criminals take responsibility for their actions has broad unity among the respondents. When asked about the most important priority areas in crime policy, rehabilitation in prison, imprisonment in the home country of the convicted, focus on preventive measures and increased punishment for



violent crimes stands out as the most important. Question 8 asked the interesting question how often the respondents worry of him/her, or anyone in the family, being victims of a crime. 32.18 % answered 1-2 a year, followed by 22.70 % answering monthly and 22.23 % answering never.

Figure 8 - Question 8



When it comes to the penalty for the different types of crimes in the scenarios, there are no wide consensus among the respondents for theft and fraud. For the theft scenario, community service got the highest respondent rate, but only with 18.24 %. All the alternatives had two or more respondents. In the fraud scenario, 28.70 % voted for a fine, followed by community service with 16.67 %. The rest were evenly distributed between the alternatives. 74.08 % voted for unconditional imprisonment for the white-collar crime scenario. However, how long the imprisonment should be varied. Lastly, 79.88 % thought rape should be punished with unconditional imprisonment, where 23.78 % voted for 5 years or more. For the interested reader, look at appendix B p. 115.

One of the last questions asked if the respondents had ever been victim of a crime. Table 4 report that 58.29 % had been victimized.

Table 4 - Have you ever been victim of a crime

Answer Choices	Sample
<b>Ever been victim of a crime</b>	
Yes, a coarse criminal act	08.05 %
Yes, a serious criminal act	07.62 %
Yes, a mild criminal act	42.62 %
No	37.25 %
Don't know/Don't want to answer	04.36 %

## 7.2 WTP Statistics

The purpose of this section is to investigate our hypothesis regarding research question 1 and 2. In Table 5, the main statistical hypotheses are presented. The first hypothesis I are labeled research question 1, hence hypothesis II, III and IIII labels research question 2. The hypothesis regarding research question 3 is provided by the explanatory variables formulated in chapter 7.

Table 5 - Hypothesis tested with core models

Hypothesis	Description
I	WTP for crime control programs is higher than 0
II	WTP is higher for sexual offenses compared to theft
III	WTP is higher for sexual offenses compared to white-collar crime
IIII	WTP for theft is different from WTP for white-collar crime

Accordingly, the first hypothesis implies that Norwegian households prefer to pay for crime control programs over no implementation of crime control programs. To begin with, a general consensus regarding safety for self and your closest family and friends make us believe that peoples rational thinking increase the likelihood that people prefer crime reduction rather than no actions against crime reduction. Previous studies of WTP for crime control programs in other countries (as mentioned in section 2.4 *Previous Literature on Intangible Cost of Crime*) has shown positive WTP results among inhabitants in USA, UK and Portugal. Hence, we have no reason to believe the result will differ among Norwegian inhabitants. Next, an increase of sexual offences has been reported the latest years in contrast to general decrease in criminal activity (as stated above in section 2.2 *Justice and Crime in Norway*). In the period 2010 - 2013 crime control programs were implemented in the capital, which reduced residential burglaries, pickpockets and robbery significantly (Politiet, 2014). As follows, previous literature, study and practice of crime control program gives us a reason to believe that people are willing to pay for crime reduction in Norway.

Hypothesis II and III implies that WTP for sexual offences are higher than WTP for theft and white-collar crime. The argument for this hypothesis is that sexual offences have increased, in contrast to theft which has decreased activity (as stated above in section 2.2 *Justice and Crime in Norway*). Furthermore, criminal activity with a human target is seen as more serious damaging, both physical and mental, over compensable materialistically targets as theft and white-collar crime. Because of these arguments, we predict that the likelihood of

Norwegian households WTP for sexual offences are higher than WTP for theft and white-collar crime.

Finally, hypothesis III is that WTP for theft is different from WTP for white-collar crime. The statistical likelihood for variables being different from each other is set to be higher than that the variables are the same.

### **7.2.1 Implementing filter**

In the survey, the respondents were asked why they would be willing to pay for the crime control program(s) if they answered a positive amount or why they did not if they answered 0 willingness to pay. This was to identify protest voters (recall “5.1.2 *The Valuation Section*”). Protest voters are respondents who for some reason respond 0 or an unrealistic high value instead of their genuine WTP (Bateman et al., 2002, p. 177). Because of this, a filter was implemented to recognize potentially protest voters among respondents with both a positive and 0 WTP.

For positive WTP, the three following alternatives were designed to flag protest voters; (1) I feel a commitment to pay since all other households will contribute, (2) I do not think this tax will be claimed anyway, and (3) I feel it is expected from me by the design of the survey. For 0 WTP, the protest answers were (1) the tax level is already high enough, and (2) the government should pay for such a program with existing tax funds. The questionnaire expected only one reason for each respondent, and therefore it was only necessary with one filter.

### **7.2.2 WTP for Crime Control Programs in Norway**

Hypothesis 1 appears to be correct as shown in Table 6 and Table 7. Mean and median are positive for both aggregate WTP and the stated WTP for all programs, as well as for each of the programs. This indicates that people are willing to pay for crime control programs in Norway. However, a small proportion have answered a 0 willingness to pay. Hence, not everyone is positive to such programs.

Table 6 shows that the mean for the stated total WTP is 1717 NOK and the median 1175. Thus, this is the amount the respondents stated they were willing to pay for implementing all three programs. However, the aggregate WTP for the programs has a mean of 2186 NOK and the median respondent is willing to pay 1275 NOK. The aggregate WTP also has a higher percent voting 0 willingness to pay. One explanation for this might be that some individuals do not like one of the programs (e.g. theft) and therefore state a lower WTP for the package of all programs than their sum WTP for all three. It is also possible that their budget constraint makes

it impossible to finance all three programs even though they would pay much for each of the programs.

*Table 6 - Overall WTP*

	<b>WTP TOT</b>	<b>WTP AGG</b>
<b>N</b>	297	907
<b>% WTP 0</b>	9	39.6
<b>Mean WTP</b>	1717	<b>2186</b>
<b>Std. error of mean</b>	95.21	146.05
<b>Median WTP</b>	1175	<b>1275</b>
<b>Std. deviation</b>	1641	2553.82

### **7.2.3 WTP for Programs Reducing Rape, Theft and White-collar Crime**

The differences in the willingness to pay for the three programs are reported in Table 7. As expected, the program reducing rape has a higher WTP than both theft and white-collar crime with at mean of 1059 NOK and median 675 NOK. Theft and white-collar have a more similar WTP, with mean 589 and 538 NOK, and median 325 and 275 NOK respectively. Thus, theft has a higher willingness to pay than white-collar crime. Consistent with hypothesis IIII, the WTP for theft and white-collar crime are different from each other. Furthermore, the percentage stating no willingness to pay has a relationship with mean and median WTP. Rape, with the highest WTP has the lowest percentage of 0 WTP, followed by theft with 13 % and white-collar crime with 18.7 %.

Using a filter which exclude protest voters, all three programs yields a higher WTP. The average respondent then has a WTP of 1142 NOK and median 775 NOK for a program reducing rape. Theft and white-collar crime have a mean of 647 and 614 NOK, and median 425 and 325 NOK. The percentage of 0 WTP are reduced to 5.1, 10.9 and 16.8. Thus, there are no difference in the preferences for the programs when implementing the filter.

Table 7 - WTP comparison Rape, Theft and White-collar Crime

	<b>RAPE</b>	<b>THEFT</b>	<b>WHITE-COLLAR</b>
		<i>Unfiltered</i>	
<b>N</b>	310	299	298
<b>% WTP 0</b>	7.9	13	18.7
<b>Mean WTP</b>	<b>1059</b>	589	538
<b>Std. error of mean</b>	59.53	43.07	43.45
<b>Median WTP</b>	<b>675</b>	325	275
<b>Std. deviation</b>	1048	755.83	749.99
		<i>Filtered</i>	
<b>N</b>	273	265	240
<b>% WTP 0</b>	5.1	10.9	16.8
<b>Mean WTP</b>	<b>1142</b>	647	614
<b>Std. error of mean</b>	65.01	48.81	51.93
<b>Median WTP</b>	<b>775</b>	425	325
<b>Std. deviation</b>	1074.20	781.09	804.43

## 8. Regression Analysis

As stated in section 6.1.2., the survey investigated the respondents WTP for three crime control programs; rape- and sexual offenses, theft and white-collar crime. Each of them are interpreted as a dependent variable in multiple regression, in addition to “WTP<sub>tot</sub>” for all three programs in total, addressing research question three (refer 1. Introduction); what factors affect the WTP for crime control programs in Norway?

### 8.1 Econometric Specification and Models

The preferences and willingness to pay for the three different crime control programs, as well as the WTP for all programs are treated as dependent variables. These four models will help to examine the two first research questions.

Table 8 - Dependent Variables

Y-variables	Description	Scale
WTPwcc	Stated WTP for program preventing white-collar crime	0 – 3 375
WTPtheft	Stated WTP for program preventing theft	0 – 3 375
WTPrape	Stated WTP for program preventing sexual offenses	0 – 3 375
WTPtot	Stated WTP for all crime control programs	0 – 5 175

To investigate the research questions, fifteen explanatory variables were constructed (Table 2). Variables  $X_1$  and  $X_2$  shows how preferences for crime policy and concern of being a victim of a crime affects the WTP. In addition,  $X_{15}$  is a dummy reflecting if the respondents previously have been victim or exposed to any type of crime, mild or egregious level. Socio-economic demographic effects are reflected in  $X_3$  to  $X_{13}$

Table 9 - Explanatory variables

	<b>X-variables</b>	<b>Description</b>	<b>Scale</b>
$X_1$	DUMCrime	Respondents' chose crime as one of the most important political issues	If 1, else 0
$X_2$	DUMWorry	Respondents' daily, weekly or monthly about crime	If 1, else 0
$X_3$	DUMFemale	Respondent is female	If 1, else 0
$X_4$	Age	Respondents' age	
$X_5$	DUMMarried	Respondents' shares household with partner	If 1, else 0
$X_6$	Children	# of children in the household	
$X_7$	Education	Respondents' # of years of education	
$X_8$	DUMEconomyt	Respondents' are trained within economy	If 1, else 0
$X_9$	DUMLaw	Respondents' are trained within law	If 1, else 0
$X_{10}$	DUMHealtht	Respondents' are trained within health and care	If 1, else 0
$X_{11}$	DUMEconomy	Respondents' work within economy	If 1, else 0
$X_{12}$	DUMHealth	Respondents' work within health and care	If 1, else 0
$X_{13}$	DUMStudent	Respondents' are students	If 1, else 0
$X_{14}$	Income	Respondents' income	
$X_{15}$	DUMVictim	Respondents' have been victim of a crime	If 1, else 0

### 8.1.1 Multiple linear OLS regression and hypothesis

By using the statistical software SPSS, linear OLS regressions are run to estimate the parameters of the linear regression, consequently to analyze how WTP results are influenced by the independent variables. OLS is the best linear unbiased estimators to observe correlation between the error and the independent variables (Wooldridge, 2014, p. xii). Addressing the general specification of a random sampling for a multiple OLS regression is:

$$\gamma_i = \beta_0 + \beta_1 x_i + u_i, \quad i = 1, 2, \dots, n$$

The dependent variable  $Y_i$  states an individual's estimated WTP for a specific crime control program, where the independent variable  $x_i$  with respect to the regression coefficient  $\beta$  measures the change in  $Y$  holding other factors fixed (Wooldridge, 2014, p.57). Furthermore,  $Y_i$  is moreover affected by unobservables for observation  $i$ , regarded in the error  $u_i$ . The error (or disturbance)  $u_i$  for observation  $i$  (individual  $i$ ) is expected to be valued zero for all values of the explanatory variables normally distributed with zero variance  $\sigma^2$  and mean. Hence, the dependent variables are as followed

$$Y = WTP_{wcc}, WTP_{theft}, WTP_{rape}, WTP_{tot}$$

and summarized the explanatory independent variables are

$$X = (x_1, x_2, \dots, x_{15})$$

The general model estimating WTP may be provided as

$$WTP_{ij} = \beta_{0j} + \beta_{1j}x_{1i} + \beta_{2j}x_{2i} + \beta_{3j}x_{3i} + \dots + \beta_{15j}x_{15i} + \varepsilon_{ij}$$

$i = individual, j = program$

How the explanatory variables are expected to imply on WTP for theft, sexual offences and white-collar crime are listed as hypothesis in

Table 10. Research question 1 regards if people are willing to pay for crime control programs in Norway. We expect heterogeneous preferences among crime control programs, furthermore different effects than zero is expected.

Hypothesis  $X_1$  and  $X_2$  regards respondents' preferences and attitudes towards crime and fear of being exposed to criminal acts. The argument for these hypothesis is that people may be more willing to pay for crime control programs if they worry for their family or themselves being exposed to criminal activity. Next, hypothesis regarding socio-economic and demographic variables are listed in  $X_3$  to  $X_{14}$ . This is based on economic intuition and previous empirical findings, for instance it is more likely that women have a positive WTP than men.

In the variables  $X_7$  to  $X_{13}$  hypothesis regarding sector of education and work as well as if the respondents' study is tested to have an impact on the result of WTP. It is supposed to have a significantly effect on the outcome WTP if the respondents work in the health-sector or in economic-sector, where health-orientated employed have a positive impact in contrast to economic employed which is expected to have a negative impact. Furthermore, differences in income and if an individual have been exposed to criminal activity results in effects different than zero in variables  $X_{14}$  and  $X_{15}$ .

The purpose of addressing these hypothesis is to assess the effects on WTP from the general crime control program beliefs and attitudes of the respondents of our pilot study. As an example, female respondents and respondents with higher income is assumed to positively affect WTP for crime control programs reducing rape- and sexual offenses.



Table 10 - Hypothesis' for explanatory variables

	<b>X-variables</b>	<b>Rape</b>	<b>Theft</b>	<b>White-collar crime</b>
$X_1$	DUMCrime	> 0	> 0	> 0
$X_2$	DUMWorry	> 0	> 0	> 0
$X_3$	DUMFemale	> 0	> 0	> 0
$X_4$	Age	> 0	> 0	> 0
$X_5$	DUMMarried	> 0	> 0	> 0
$X_6$	Children	> 0	> 0	> 0
$X_7$	Education	> 0	> 0	> 0
$X_8$	DUMEconomyt	< 0	< 0	< 0
$X_9$	DUMLaw	≠ 0	≠ 0	≠ 0
$X_{10}$	DUMHealtht	> 0	> 0	> 0
$X_{11}$	DUMEconomy	< 0	< 0	< 0
$X_{12}$	DUMHealth	> 0	> 0	> 0
$X_{13}$	DUMStudent	< 0	< 0	< 0
$X_{14}$	Income	> 0	> 0	> 0
$X_{15}$	DUMVictim	> 0	> 0	> 0

### 8.1.2 Regression with Backward Elimination

To be able to identify the independent predictors in our regressions, we used backwards elimination. This is a method done by SPSS where variables are deleted one at a time from the original regression. With a pre-specified p-value that cannot be exceeded, the first variable to be deleted is the one with highest p-value. This procedure continues until there are only variables with  $p \leq$  threshold value left, or all but one variable has been deleted (Hocking, 1976; Xu & Zhang, 2001).

Using this method is no guarantee for finding the best fitting predictors. Explanatory variables identified as independent predictors can in reality be spuriously noise in the regression. Studies on backward elimination has shown that the number of variables are inversely proportional with the probability of identifying predictors correctly. Furthermore, increasing the number of variables in the regression also increases noise variables. The significance level and standard errors of the estimated coefficients are biased low due to downward bias in the  $R^2$ . At the same time, the goodness-of-fit can be too optimistic. However, the studies finding these problems have had sample sizes under 100. Using bigger samples, such as ours, this is not the case as the estimation of  $R^2$  improve with the sample size (Austin, 2008; A. J. Miller, 1984).

SPSS is preset with p-value at 0.10 when using backwards elimination. It is possible to modify this value in order to force all variables to be included. We decided to use the default value as our goal was to look at the differences when selecting only the significant coefficients.

## 8.2 Multiple Regression Results

In addition to addressing the hypothesis, the regressions task is to highlight research question 3; which factors influence WTP. When looking at the average change in the dependent variable for a change in the explanatory variable, holding all other variables constant, all else equal estimation of the explanatory variables is practiced in the multiple regressions results.

To analyze the four dependent variables presented in Table 8, a total of 34 multiple regressions were run in SPSS. Listed in Table 11 to Table 19 below, four regressions are designed for each dependent variable, using the same structure and design. To estimate which factors that affect the respondents' choice of WTP, each of the programs were divided into three dependent variables. The first model of each program (model 1, 4 and 7) is regressions using all respondents' WTP responses. In the second model (model 2, 5 and 8), the respondents with zero WTP are given the value 0 and all respondents with positive WTP are given the value 1. This is to be able to see if there are any differences between the factors affecting the willingness to pay when the respondents with zero WTP are cancelled out. The last model of each program (model 3, 6 and 9) holds regressions with the different levels of positive WTP. Furthermore, all tables are divided into two sections, unfiltered and filtered (no protest voters). Equally important are the explanatory variables listed in the left column. Correspondingly, each section is further divided into two parts, all respondents exhibiting the full regression and with the backwards elimination method.

The coefficient estimates and the t-statistics presents the multiple regression results. In conclusion, note that the tables report the coefficient estimates in NOK. Another key point is that the overall model fit, the F-statistics, number of observations (N),  $R^2$  and  $R^2$  adjusted are listed in the bottom at each table. To summarize the backward elimination regressions, the number of regressions that run in advance to find the best result and design the final model by SPSS, are listed in the last row.

Table 11 - Model 1

**Model 1 – Rape**

All respondents

	Unfiltered Regressions				Filtered Regressions			
	All variables included		Backward elimination		All variables included		Backward elimination	
Explanatory variables	$\beta$	t	$\beta$	t	$\beta$	t	$\beta$	t
(Constant)	5.103	1.819	8.133	8.169	5.695	2.041	8.600	8.431
DUMCrime	.674	.807			.879	1.011		
DUMWorry	1.453	1.654	1.625	1.933	1.666	1.820	1.836	2.122
DUMFemale	3.133	3.377	2.624	3.077	2.792	2.893	2.471	2.754
Age	.348	.913			.339	.851		
DUMMarried	-2.637	-2.233	-2.090	-2.241	-3.023	-2.411	-2.421	-2.424
Children	.574	1.207			.449	.906		
Education	-.090	-.266			-.067	-.190		
DUMEconomyt	-1.631	-1.693			-1.118	-1.101		
DUMLaw	.148	.055			-.498	-.187		
DUMHealtht	-2.415	-1.233			-1.523	-.731		
DUMEconomy	3.666	2.432	2.732	2.011	3.202	2.057	2.551	1.831
DUMHealth	1.035	.589			.721	.394		
DUMStudent	2.516	1.620			2.102	1.311		
Income	.644	3.668	.562	3.783	.679	3.612	.624	4.003
DUMVictim	-.086	-.104			.325	.373		
	N	391	N	391	N	354	N	354
	$R^2$	.108	$R^2$	.082	$R^2$	.109	$R^2$	.034
	$R^{2Adj}$	.060	$R^{2Adj}$	.066	$R^{2Adj}$	.054	$R^{2Adj}$	.027
	F	2.264***	F	5.180***	F	1.999	F	4.602**
			Model	11			Model	14

\*Significant at 10% \*\*Significant at 5% \*\*\*Significant at 1%

Table 12 - Model 2

### Model 2 - Rape

Respondents with zero WTP given the value 0, positive WTP given the value 1

	Unfiltered Regressions				Filtered Regressions			
	All variables included		Backward elimination		All variables included		Backward elimination	
Explanatory variables	$\beta$	t	$\beta$	t	$\beta$	t	$\beta$	t
(Constant)	4.859	1.688	7.983	7.818	5.562	1.956	8.493	8.168
DUMCrime	.676	.790			.899	1.014		
DUMWorry	1.484	1.646	1.653	1.917	1.708	1.830	1.879	2.130
DUMFemale	3.252	3.416	2.747	3.141	2.896	2.944	2.579	2.820
Age	.356	.910			.327	.806		
DUMMarried	-2.710	-2.238	-2.139	-2.236	-3.071	-2.403	-2.462	-2.419
Children	.603	1.237			.478	.947		
Education	-.100	-.289			-.066	-.184		
DUMEconomyt	-1.655	-1.675			-1.121	-1.082		
DUMLaw	.055	.020			-.617	-.227		
DUMHealtht	-2.420	-1.204			-1.523	-.717		
DUMEconomy	3.765	2.435	2.814	2.020	3.228	2.035	2.584	1.820
DUMHealth	1.086	.602			.756	.406		
DUMStudent	2.656	1.667			2.149	1.315		
Income	.654	3.628	.562	3.694	.683	3.565	.623	3.925
DUMVictim	-.121	-.143			.311	.350		
	N	391	N	391	N	354	N	354
	$R^2$	.108	$R^2$	.081	$R^2$	.108	$R^2$	.090
	$R^{2Adj}$	.060	$R^{2Adj}$	.066	$R^{2Adj}$	.054	$R^{2Adj}$	.072
	F	2.252***	F	5.139***	F	1.982**	F	5.041***
			Model	11			Model	11

\*Significant at 10% \*\*Significant at 5% \*\*\*Significant at 1%

Table 13 - Model 3

### Model 3 - Rape

Different levels of positive WTP

	Unfiltered Regressions				Filtered Regressions			
	All variables included		Backward elimination		All variables included		Backward elimination	
Explanatory variables	$\beta$	t	$\beta$	t	$\beta$	t	$\beta$	t
(Constant)	.088	.766	.075	3.076	.004	.040	-.064	-1.560
DUMCrime	-.007	-.216			-.021	-.701		
DUMWorry	-.017	-.467			-.026	-.837		
DUMFemale	-.069	-1.812	-.073	-2.261	-.059	-1.782		
Age	.004	.248			.021	1.509	.023	2.969
DUMMarried	.072	1.495	.071	2.223	.034	.787		
Children	-.022	-1.105			-.022	-1.279		
Education	.010	.685			-.002	-.147		
DUMEconomyt	.034	.860			.012	.349		
DUMLaw	.092	.830			.107	1.165		
DUMHealtht	.007	.093			.002	.027		
DUMEconomy	-.072	-1.167			-.012	-.231		
DUMHealth	-.035	-.485			-.020	-.324		
DUMStudent	-.074	-1.164			.005	.083		
Income	-.007	-.964			-.001	-.129		
DUMVictim	.051	1.488			.027	.888		
	N	360	N	360	N	324	N	324
	$R^2$	.056	$R^2$	.027	$R^2$	.065	$R^2$	.033
	$R^{2Adj}$	.006	$R^{2Adj}$	.021	$R^{2Adj}$	.007	$R^{2Adj}$	.029
	F	1.117	F	4.119**	F	1.127	F	8.812***
			Model	14			Model	15

\*Significant at 10% \*\*Significant at 5% \*\*\*Significant at 1%

Table 14 - Model 4

**Model 4 – Theft**

All respondents

	Unfiltered Regressions				Filtered Regressions			
	All variables included		Backward elimination		All variables included		Backward elimination	
Explanatory variables	$\beta$	t	$\beta$	t	$\beta$	t	$\beta$	t
(Constant)	5.589	2.154	7.140	9.258	5.506	1.987	7.460	9.090
DUMCrime	.683	.885			.871	1.009		
DUMWorry	.536	.659			.817	.911		
DUMFemale	1.130	1.317			.978	1.036		
Age	.254	.722			.257	.672		
DUMMarried	-.897	-.822			-.988	-.810		
Children	.063	.144			.380	.776		
Education	-.167	-.531			-.142	-.398		
DUMEconomyt	-1.020	-1.145			-.586	-.585		
DUMLaw	.787	.316			.328	.127		
DUMHealtht	-2.832	-1.563			-2.954	-1.418		
DUMEconomy	3.633	2.606	2.572	2.052	3.666	2.446	2.571	1.913
DUMHealth	2.187	1.345			2.750	1.525		
DUMStudent	.931	.648			.529	.340		
Income	.418	2.574	.273	2.417	.409	2.305	.318	2.628
DUMVictim	-1.050	-1.372			-1.103	-1.294		
	N	391	N	391	N	348	N	348
	$R^2$	0.64	$R^2$	.030	$R^2$	.074	$R^2$	.038
	$R^{2Adj}$	0.14	$R^{2Adj}$	.024	$R^{2Adj}$	.016	$R^{2Adj}$	.030
	F	1.281	F	4.583**	F	1.272	F	4.893**
			Model	14			Model	14

\*Significant at 10% \*\*Significant at 5% \*\*\*Significant at 1%

Table 15 - Model 5

**Model 5 - Theft**

Respondents with zero WTP given the value 0, positive WTP given the value 1

	Unfiltered Regressions				Filtered Regressions			
	All variables included		Backward elimination		All variables included		Backward elimination	
Explanatory variables	$\beta$	t	$\beta$	t	$\beta$	t	$\beta$	t
(Constant)	5.562	2.065	7.040	8.785	5.547	1.933	7.373	8.669
DUMCrime	.743	.926			.960	1.074		
DUMWorry	.555	.658			.853	.918		
DUMFemale	1.205	1.352			1.025	1.049		
Age	.239	.653			.221	.559		
DUMMarried	-.852	-.751			-.904	-.715		
Children	.059	.130			.387	.762		
Education	-.189	-.581			-.152	-.411		
DUMEconomyt	-1.146	-1.239			-.685	-.660		
DUMLaw	.745	.288			.288	.107		
DUMHealtht	-2.954	-1.570			-3.148	-1.459		
DUMEconomy	3.821	2.640	2.699	2.072	3.820	2.461	2.670	1.917
DUMHealth	2.273	1.346			2.929	1.568		
DUMStudent	1.019	.683			.515	.320		
Income	.417	2.475	.259	2.208	.403	2.196	.306	2.440
DUMVictim	-1.130	-1.422			-1.170	-1.326		
	N	391	N	391	N	348	N	348
	$R^2$	.063	$R^2$	.028	$R^2$	.072	$R^2$	.034
	$R^{2Adj}$	.013	$R^{2Adj}$	.021	$R^{2Adj}$	.014	$R^{2Adj}$	.072
	F	1.265	F	4.176**	F	1.236	F	4.451**
			Model	14			Model	14

\*Significant at 10% \*\*Significant at 5% \*\*\*Significant at 1%

Table 16 - Model 6

**Model 6 – Theft**

Different levels of positive WTP

	Unfiltered Regressions				Filtered Regressions			
	All variables included		Backward elimination		All variables included		Backward elimination	
Explanatory variables	$\beta$	t	$\beta$	t	$\beta$	t	$\beta$	t
(Constant)	-.187	-1.335	-.192	-2.317	-.227	-1.642	-.099	-1.570
DUMCrime	-.054	-1.296			-.075	-1.750	-.080	-1.932
DUMWorry	-.007	-.167			-.019	-.423		
DUMFemale	-.010	-.212			.011	.232		
Age	.029	1.548	.027	2.443	.045	2.344	.035	3.139
DUMMarried	-.007	-.115			-.043	-.705		
Children	.010	.404			.001	.026		
Education	.021	1.262	.027	1.699	.010	.583		
DUMEconomyt	.130	2.696	.119	2.696	.101	2.016	.080	1.874
DUMLaw	.062	.461			.052	.402		
DUMHealtht	.116	1.182			.183	1.759		
DUMEconomy	-.134	-1.778	-.137	-1.888	-.102	-1.365		
DUMHealth	-.057	-.653			-.146	-1.625		
DUMStudent	.005	.066			.086	1.103		
Income	.002	.172			.005	.594		
DUMVictim	.104	2.522	.104	2.715	.093	2.200	.085	2.156
	N	340	N	340	N	306	N	306
	$R^2$	.103	$R^2$	.091	$R^2$	.104	$R^2$	.074
	$R^{2Adj}$	.055	$R^{2Adj}$	.075	$R^{2Adj}$	.048	$R^{2Adj}$	.059
	F	2.135***	F	5.796***	F	1.841**	F	4.982***
			Model	11			Model	12

\*Significant at 10% \*\*Significant at 5% \*\*\*Significant at 1%



Table 17 - Model 7

**Model 7 – White-collar Crime**

All respondents

	Unfiltered Regressions				Filtered Regressions			
	All variables included		Backward elimination		All variables included		Backward elimination	
Explanatory variables	$\beta$	t	$\beta$	t	$\beta$	t	$\beta$	t
(Constant)	4.195	1.543	11.642	9.704	2.580	.847	7.390	8.375
DUMCrime	.654	.808			1.113	1.186		
DUMWorry	-.030	-.035			.498	.501		
DUMFemale	1.092	1.215	2.424	2.504	1.325	1.279		
Age	.346	.938			.530	1.240		
DUMMarried	-1.729	-1.511			-2.847	-2.026		
Children	-.209	-.453			-.226	-.421		
Education	.072	.220			.153	.381		
DUMEconomyt	-.611	-.655	-2.704	-2.486	.010	.009		
DUMLaw	1.114	.427			1.621	.546		
DUMHealtht	-2.539	-1.338			-2.521	-1.103		
DUMEconomy	2.442	1.672	5.029	2.866	1.636	1.000		
DUMHealth	1.255	.737			1.603	.803		
DUMStudent	1.131	.751			1.537	.854		
Income	.362	2.127	.440	2.889	.493	2.323	.243	1.807
DUMVictim	-.099	-.124			.295	.309		
	N	391	N	391	N	333	N	333
	$R^2$	0.42	$R^2$	.000	$R^2$	.060	$R^2$	.014
	$R^{2Adj}$	-0.10	$R^{2Adj}$	.000	$R^{2Adj}$	-.004	$R^{2Adj}$	.009
	F	.813	F	.000	F	.945	F	3.264*
			Model	16			Model	15

Table 18 - Model 8

**Model 8 – White-collar Crime**

Respondents with zero WTP given the value 0, positive WTP given the value 1

	Unfiltered Regressions				Filtered Regressions			
	All variables included		Backward elimination		All variables included		Backward elimination	
Explanatory variables	$\beta$	t	$\beta$	t	$\beta$	t	$\beta$	t
(Constant)	4.103	1.443	7.856	20.429	2.541	.797	8.558	19.422
DUMCrime	.720	.851			1.225	1.247		
DUMWorry	-.078	-.088			.489	.469		
DUMFemale	1.167	1.241			1.391	1.282		
Age	.330	.854			.494	1.104		
DUMMarried	-1.715	-1.433			-2.760	-1.876		
Children	-.222	-.461			-.250	-.444		
Education	.056	.162			.167	.399		
DUMEconomyt	-.721	-.739			-.096	-.085		
DUMLaw	1.037	.380			1.659	.534		
DUMHealtht	-2.675	-1.347			-2.725	-1.139		
DUMEconomy	2.547	1.667			1.685	.984		
DUMHealth	1.369	.769			1.718	.822		
DUMStudent	1.190	.756			1.472	.781		
Income	.359	2.017			.475	2.136		
DUMVictim	-.083	-.099			.321	.322		
	N	391	N	391	N	333	N	333
	$R^2$	.039	$R^2$	.000	$R^2$	.055	$R^2$	.000
	$R^{2Adj}$	-.012	$R^{2Adj}$	.000	$R^{2Adj}$	-.009	$R^{2Adj}$	.000
	F	.765	F	.000	F	.859	F	.000
			<b>Model</b>	16			<b>Model</b>	16

\*Significant at 10% \*\*Significant at 5% \*\*\*Significant at 1%

Table 19 - Model 9

**Model 9 – White-collar Crime**

Different levels of positive WTP

	Unfiltered Regressions				Filtered Regressions			
	All variables included		Backward elimination		All variables included		Backward elimination	
Explanatory variables	$\beta$	t	$\beta$	t	$\beta$	t	$\beta$	t
(Constant)	-.215	-1.310	.091	.728	-.262	-1.530	-.190	-1.635
DUMCrime	-.063	-1.285			-.095	-1.802	-.087	-1.721
DUMWorry	.049	.947			.019	.341		
DUMFemale	.008	.155	.131	2.908	.018	.302		
Age	.037	1.658			.053	2.224	.044	2.229
DUMMarried	.033	.475			-.037	-.464		
Children	.021	.743			.027	.903		
Education	.016	.808			-.010	-.443		
DUMEconomyt	.129	2.289	.098	1.996	.124	2.026	.110	2.045
DUMLaw	.105	.667			.003	.020		
DUMHealtht	.135	1.180			.190	1.476		
DUMEconomy	-.052	-.595			.002	.023		
DUMHealth	-.072	-.704			-.069	-.614		
DUMStudent	.060	.660			.167	1.645	.149	1.756
Income	.003	.331			.016	1.378	.017	1.781
DUMVictim	.050	1.040			.047	.874		
	<b>N</b>	318	<b>N</b>	318	<b>N</b>	286	<b>N</b>	286
	<b>R<sup>2</sup></b>	.083	<b>R<sup>2</sup></b>	.027	<b>R<sup>2</sup></b>	.097	<b>R<sup>2</sup></b>	.079
	<b>R<sup>2Adj</sup></b>	.034	<b>R<sup>2Adj</sup></b>	.021	<b>R<sup>2Adj</sup></b>	.037	<b>R<sup>2Adj</sup></b>	.059
	<b>F</b>	1.699*	<b>F</b>	7.353***	<b>F</b>	1.601*	<b>F</b>	3.984***
			<b>Model</b>	14			<b>Model</b>	11

\*Significant at 10% \*\*Significant at 5% \*\*\*Significant at 1%

### **8.2.1 General observations**

Overall, most of the regressions are statistically significant at 10 % and eleven of them at 1 % level. The regressions examining WTP for reducing rape have in general the highest significance while the regression for white-collar crime are less so. Furthermore, the models addressing positive WTP for theft and white-collar crime have all regressions significant. For rape on the other hand, the regressions examining only respondents with positive WTP have high significance. The  $R^2$  is relatively low for all regressions, indicating that the explanatory variables do not explain the regressions very well.

Using the backwards elimination method excludes many of the explanatory variables, but with some variation between the filtered and unfiltered regressions as well as the different dependent variables. The number of variables varies mostly from two to five. An exception are the regressions addressing zero WTP for white-collar crime where no predictors were left after the elimination. Before ending up with the significant predictors, the method executed on average around fourteen regressions.

### **8.2.2 WTP to reduce rape- and sexual offenses**

The general result shown in model 1 and 2 is that DUMworry, DUMFemale, DUMEconomy and Income has a positive effect on WTP, whereas being married has a negative effect. A reason for that can be that married people feel more protected and less exposed to the risks of the singles scene. In contrast, model 3 presents exclusively all respondents only typing positive WTP, whereas DUMFemale has a negative impact on the WTP (in contrast to model 1 and 2). This can be explained by the fact that females generally have a lower income than their male counterparts. Hence, Age and DUMMarried have positive effect on the WTP in model 3.

Presented in Model 1, three regressions are significant at 5% level and two regressions at 1% level. Hence, 10.8%, 8.2% and 3.4% of the regressions are explained by the variables. It is important to remember that only DUMFemale and income are significant at a 1% level for all respondents in the unfiltered regression. Additionally, DUMMarried and DUMEconomy are significant at a 5% level. In the unfiltered regression, run with backward elimination, all the coefficient estimates mentioned above are significant at a 5% level.

In Model 2, all four regressions are significant; both unfiltered and filtered with backwards elimination at 1%, and filtered with all variables at 5% level. This is the dependent variable with highest amount of significant multiple regressions. In contrast, explanatory power of the regressions is rather poor by 10.8 % for both unfiltered regression and unfiltered with

backward elimination and 9 % for the filtered regression using backward elimination. DUMEconomy has the strongest effect on all the regressions, with DUMFemale as the second strongest. Corresponding to Model 1, DUMMarried has a negative effect on the WTP in model 2. Both DUMFemale and Income are significant at 1 % both in the unfiltered and the filtered regression, using backward elimination. DUMWorry are significant at a 5% level using regressions unfiltered and filtered, by backward elimination. Furthermore, at 5% DUMMarried and DUMEconomy are significant when running the regressions unfiltered and unfiltered with backward elimination. Finally, Income is significant at a 5% level in unfiltered regression with backward elimination. Same goes for DUMMarried at the same level in filtered regression using backward elimination.

Lastly, the two regressions with backwards elimination are significant in Model 3; unfiltered at 5 % and filtered at 1 %. Only 2.7% and 3.3 % of the regressions are explained by the independent variables. The only coefficient estimate significant at a 1% level is age, which has a slightly positive effect on the WTP.

### **8.2.3 WTP to reduce theft**

Table 14 shows that for all respondents the regressions with backwards elimination are significant, and this at a 5 % level. However, only 3 and 3.8 % of the regressions are explained by the variables. Most of the coefficients have the predicted effect, but there are some surprises. DUMMarried, education, DUMHealtht and DUMVictim all have a negative impact on the WTP. DUMEconomy on the other hand have a positive effect. However, only DUMEconomy and income are significant at 5 %.

Also for model 5 the regressions with backward elimination are significant, but with a low  $R^2$ . Furthermore, the coefficients have the same effect on WTP and once again DUMEconomy and income are the only significant coefficients at 5 % level, and only income in the filtered regression with backward elimination.

In the model for positive WTP on the other hand, all regressions are significant. The filtered regression with all variables at 5 % and the rest at 1 %. At the same time, there are even more unpredicted effects of the coefficients. Here DUMCrime, DUMWorry, DUMFemale, DUMMarried and DUMHealth have a negative effect on the WTP. However, none of these are significant. Age and victim are significant for the unfiltered regression with backward elimination and both the filtered regressions. For the unfiltered regression only DUMVictim is significant.

#### **8.2.4 WTP to reduce white-collar crime**

In model 7 only the filtered regression with backward elimination is statistically significant, but with little explanation from the variables as shown in Table 17.  $R^2$  for the unfiltered regression shows that 42 % of the regression is explained by the variables, but the regression is not significant. DUMEconomy has an unexpected positive effect on the WTP, while the variables DUMWorry, DUMMarried, children, DUMHealtht and DUMVictim have an unpredicted negative effect. Of these, only DUMMarried is significant at 5 % level and just in the filtered regression. Not surprisingly income affect the WTP positively and is significant for the unfiltered regression.

For the model examining the factors affecting respondents when zero WTP is cancelled out, none of the regressions are significant. Furthermore, SPSS were not able to compute F when using backward eliminations. DUMCrime, age, DUMEconomyt, DUMStudent and income are the variables in the filtered regression with backward elimination. However, none of them are significant. Income is the only significant variable in the regressions without elimination.

Lastly, all the regressions in model 9 are statistically significant. With backwards elimination at 1 % and with all variables at 10 %. However,  $R^2$  is only between 2 and 10 %. For the unfiltered regressions, almost all coefficients have a positive impact on the WTP except DUMEconomy, DUMCrime and DUMStudent, the two later rather surprisingly. The same goes for the filtered regressions where DUMCrime, DUMMarried, education and DUMHealth are unexpectedly negative. DUMEconomyt is a variable in both the regressions with backwards elimination, but that is the only similarity. For the unfiltered regression, DUMFemale is the only other variable. In the filtered on the other hand, DUMCrime, age, DUMStudent and income are predictors as well. However, only DUMEconomyt and age are significant at 5 %. Age is also significant for the other filtered regression in addition to DUMEconomy. For the unfiltered regressions, DUMEconomyt is significant. Additionally, DUMMarried is significant in the unfiltered regression with backward elimination.

#### **8.2.5 Some last remarks on the regressions**

The explanatory variables are not always consistent with our predictions shown in Table 10. Respondents living in cohabitation does often have a negative effect on the WTP, as well as those who have been trained within healthcare and previously victims of crimes. Surprisingly also education, number of children and worrying about crime monthly or more often, does in

some of the models have a negative impact. The same goes for respondents' believing that crime should be a priority in national budgets and number of years of education. Working within bank and finance and being a student on the other hand, which we thought could have a negative effect, are most of the time positive predictors of the WTP. Income has a positive effect as assumed in all but one regression. This tells us that the income effect is robust; higher income leads to higher willingness to pay. Age is surprisingly the only coefficients which have a positive sign in all the regressions. However, it should be mentioned that many of the variables with a different impact than expected often are insignificant.

We did not look closely at the problem of multicollinearity, but did however run multicollinearity tests in the regressions. A quick look shows us that all coefficients in all regressions have a tolerance above 0.1 and variance inflation factor (VIF) under 5 which indicates that multicollinearity should not be a problem.

## 9. Discussion

### 9.1 Summary of main results

In this section, the purpose is to address the three main research questions. First, we wanted to investigate if Norwegians were willing to pay for crime control programs in Norway. Secondly, to examine if the WTP for the three crime control programs of rape- and sexual offenses, theft and white-collar crime are less, equal or greater versus each other. Third, we wanted to explore which factors affect the willingness to pay for crime control programs.

By narrowing the analysis and to delineate filtered WTP data, we focus on the findings with the greatest significant fit.

The main result for research question 1 shows that people are willing to pay for the crime control programs, where rape not surprisingly has the most significant and highest WTP. Addressed in the WTP comparison in Table 6, the main result for research question 1 is shown by the mean WTP and median WTP; people are willing to pay for crime control programs. This evidence suggests that Hypothesis 1 in Table 4 (section 6.2) can be accepted. It is noteworthy that the overall WTP for rape is significantly higher than both WTP for theft and white-collar crime. This indicates a general need and support for crime control programs against rape – and sexual offences. Hypothesis 1 is based on the idea that people are afraid of being exposed to rape, and further a possible explanation for the result is that people think this program is needed to decrease the number of rape committed every year.

Discussing research question 2, the overall WTP results for the three crime control programs were independent from each other. As expected, the overall WTP for rape is significantly higher than WTP for theft and white-collar crime. Hence, hypothesis II and III are accepted. By general consensus, rape and sexual offences are among the worst physical crimes compared to theft and white-collar crime. This is mainly because of the mental and physical pain inflicted by the offense, not comparable to the often easy replaceable damages conflicted by theft and white-collar crimes. However, theft and white-collar crime might also inflict mental damaging effects, but generally believed to a smaller degree compared to rape. Another idea for this hypothesis refers to the SSB reports in section “*2.1 Justice and Crime in Norway*” “presenting an increase of 24 % in 2016 compared to 2015, in contrast to theft which is halved in 2015 compared to the same reports between the 1990-years and until 2004. This may also be an explanation why WTP rape is significantly higher than WTP theft and WTP white-collar



crime. Further, results in Table 7 reports a small difference between WTP theft and WTP white-collar crime. Furthermore, Hypothesis III are accepted under small margins. An explanation for the small margins might be a correlation to SSB report in section “2.1 Justice and Crime in Norway” which show a general decrease of theft and white-collar crime. Regarding research question 3; knowledge, beliefs, socio-economic characteristics and attitudes of the respondents are all factors that affect the WTP and can explain the variation of WTP among the three crime control programs. Because of better  $R^2$  adjusted and significance level of the regressions (F-variable), filtered and filtered backward elimination regressions are used as evidence for the results of research question 3. For rape, the significant variables that effect WTP positively are being female, employment in bank and finance-sector, and if you worry about being exposed to criminal actions. In contrast and a bit surprisingly - being married has a negative impact on WTP rape. Furthermore, for theft, age, income and previously been victim of a criminal act have the strongest positive and significant effect on the WTP. Equally important, the WTP for white-collar crime is affected positively by age, and negatively by marriage.

On these conditions, the main result of the Hypothesis in Table 9 are generally predicted and accepted, in contrast to hypothesis of the explanatory variables DUMEconomy (significant), DUMStudent (significant), DUMMarried (significant), and DUMHealth (not significant) which are rejected. The hypothesis for the explanatory variable  $X_{11}$  DUMEconomy were predicted to have a negative effect on WTP as a reason as economic sector is of a common sense of not being ethical and moral interested, in contrast to  $X_{12}$  DUMHealth. A possible explanation of the resulting positive and significant effect on WTP from  $X_{11}$  DUMEconomy can be the income-effect presented by Cohen et al. (2004). Hence, low income might be the reason why  $X_{10}$  DUMHealth are rejected because of negative effect on WTP.

In contrast, the positive effect from  $X_3$  DUMFemale can be explained by Cohen et al. (2004) as the risk effect. Higher likelihood of being exposed to rape and sexual offences increase the gain of the crime control program, thus these respondents are willing to pay more. Furthermore, it is noteworthy that income is positive and significant for all regressions. This is a robust result and expected according to economic theory. It is also an argument against the contingent valuation critique. Computing the income elasticities shows us that the programs are normal goods and with elasticities above 1 that they are not necessities.

## 9.2 Interesting aspect of survey

Maybe one of the most interesting aspect in this thesis is the actual willingness to pay for crime control programs in Norway, reported in table Table 6 and Table 7. As of January 1<sup>st</sup> 2017, the population in Norway was 5.3 million (Statistisk sentralbyrå, 2017). Multiplying all inhabitants over 20 years of age to our overall mean WTP yields a WTP at NOK 6.860 billion. In other words, the three programs have a benefit to the Norwegian population of 6.860 billion. In Table 20 we compare the benefits of the programs to the costs on the same types of crimes presented by Bakke (2011). The costs are converted into 2017-value, and the mean WTP when filtered for protest voters are used to estimate the benefits.

Table 20 - Benefits and costs reported in billion NOK

	<b>BENEFIT</b>	<b>COST</b>
<b>RAPE</b>	4.563	2.784
<b>THEFT</b>	2.585	6.588
<b>WHITE-COLLAR CRIME</b>	2.150	7.827
<b>TOTAL</b>	6.860	
<b>AGGREGATE</b>	9.298	17.199

Crime control program reducing rape- and sexual offences has clearly the highest WTP, with a mean of 1142 NOK. This gives a total WTP of NOK 4.563 billion, and the benefits of reducing rape by 30 % is almost the double of the costs of such a crime. Theft and white-collar crime on the other hand, has a lower benefit and higher cost. Thus, the benefits do not exceed the costs. However, these costs are direct and does not consider the intangible costs such as pain, suffering and reduced life quality. Such costs are in no doubt a bigger part of rape- and sexual offenses than theft and white-collar crime.

Another way to analyze this is to look at our WTP estimates as estimates on indirect (intangible) costs of crime, and add these to Bakke's' direct costs. This yields total costs of 7.347 billion for rape, 9.173 billion for theft and 9.977 billion for white-collar crime. The costs of rape are then closer to theft and white-collar crime. Theft and white-collar crime have logically higher direct costs as there are more reported offenses of these crimes than rape.

Table 21 - Indirect, direct and total costs reported in billion NOK

	INDIRECT COSTS	DIRECT COSTS	TOTAL COSTS
<b>RAPE</b>	4.563	2.784	7.347
<b>THEFT</b>	2.585	6.588	9.173
<b>WHITE-COLLAR CRIME</b>	2.150	7.827	9.977
<b>TOTAL</b>	6.860		
<b>AGGREGATE</b>	9.298	17.199	26.497

Dividing our estimates of WTP on number of offenses reported in 2016 gives more interesting results. The aggregate willingness to pay is 1.373 million NOK per rape, 13 588 NOK per theft and 61 222 NOK per white-collar crime. This shows that the intangible costs associated to rape- and sexual offenses are much higher than the two other types of crime.

Table 22 - Intangible costs of crime reported in billion NOK

	IN TOTAL	PER OFFENSE
<b>RAPE</b>	4.563 billion	1.373 million
<b>THEFT</b>	2.585 billion	13 588
<b>WHITE-COLLAR CRIME</b>	2.150 billion	61 222

Compared to the per rape estimates of Cohen et al. (2004), our number is somewhat low. They found the willingness to pay to be \$275 000 per rape- and sexual offense. In 2017-value, this is about 3.122 million NOK. However, the U.S. has had a higher crime rate than Norway (Einarsen, 2010). It is therefore natural to believe that people living with a higher risk of victimization will have a higher willingness to pay to reduce this risk.

When it comes to preferences towards crime policy, there is a consensus that this is an issue that needs priority and is important to the respondents. The 66.49 % thinking that the general penalty level in Norway is too low corresponds with the findings of Olaussen (2010) where 68 % answered that the penalties are too mild. However, Olaussen also found that the average Norwegian did not know the actual penalty level in Norway, which can also be the case in this study.

### **9.3 Research issues of concern**

Most good CV studies are structured in a specific order (Cohen et al., 2004). Issues regarding structure and design are prevented, however with respect to the research the further points are worth mentioning due to time aspect and limited framework.

One critical factor is that CV studies are normally developed and finished gathering data within 6 months to 1 year. Presented in section 5.2 Testing and Implementation, this survey was designed, tested, launched, and data were conducted within three months due to time constraints.

By carefully follow a specific design and control of CV studies, the recommendations of the NOAA panel, difficulties can be prevented and the economic values accurate elicit. One of the most important recommendations is personal interviews when conducting the survey. Further, an interesting aspect of this thesis would be evaluating the research findings by utilize a control group testing reliability of the survey results.

Furthermore, our results are affected by having a non-representative sample. Women are overrepresented, and as being female in many cases affect the WTP positively this can give an unrealistically high estimate. At the same time, mean income is lower and probably pushes the WTP estimates downwards as the income effect is in play.

### **9.4 Implications for future work**

In our opinion, this pilot study has shown that there indeed is a need for closer examining of the intangible costs of crime in Norway. It would be very interesting to conduct a similar study that would be representative for the population and give even more realistic numbers.

Cohen et al. (2004) suggested that the different criminal actions could be explained more closely, and the impact of this could be analyzed. This is still a valid point as we chose to follow Cohen et al. (2004) with no explanation of the crimes. We did however take their advice to inform of the baseline risk of each crime.

Furthermore, which factors that influences the willingness to pay could absolutely be more carefully explored as we primarily focused on the descriptive analysis. This would also probably be easier with a representative sample of the population.

Lastly, we think it could be interesting to conduct a survey examining how much Norwegians are willing to pay to keep criminals off the streets (or in prison) as this was our initial idea.

## 10. Conclusion

In this thesis, Norwegians preference for crime control programs and further what Norwegian adults are willing to pay to reduce crime have been designed and examined by a valuation survey. Analytical results from 373 respondents' presents a support rate of 66.49 % which shows that the perception on the general penalty level in Norway is that it is too low, and where 58.29 % have previously been victims of a crime. Furthermore, crime is ranked as the third most important political issue to be given priority in national budgets. The CV study were conducted to elicit WTP for three crime control programs to reduce rape- and sexual offences, theft and white-collar crime by 30 %. Only a small share of the respondents were not willing to pay for the crime reduction programs. Rape has a higher mean WTP of 1142 NOK than theft with mean 647 NOK and white-collar crime 614 NOK. Overall 91 % of the respondents were willing to pay for all three programs in total. These estimates on mean WTP can be translated into aggregate WTP per offense, which are 1.373 million NOK, 13 588 NOK and 61 222 NOK per rape, theft and white-collar crime respectively.

Factors positively affecting the willingness to pay for crime control program reducing rape are being female, employment in bank and finance sector and worrying about becoming a victim of a crime. Living in cohabitation on the other hand, affect WTP negatively. For theft; age, income and previously being exposed to a criminal act all have a positive effect, while working within healthcare affect the WTP negatively. The program reducing white-collar crime is positively affected by age and negatively by people living in cohabitation. The risk of victimization is somewhat reflected in the willingness to pay, and WTP generally increases with income. This is in line with rational behavior and economic theory.

These estimates provide important results to domestic policy-makers as Norway has little historical examination of the populations' preferences and attitudes towards crime and crime reduction.

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# Appendices

## Appendix A – The CV Questionnaire



### Om denne undersøkelsen

#### **Din mening er viktig!**

Takk for at du hjelper oss med denne undersøkelsen som er en del av den samfunnsøkonomiske forskningen ved Universitetet i Stavanger. Spørreundersøkelsen omfatter temaet kriminalpolitikk, som i stadig større grad blir en gjenstand for offentlig oppmerksomhet og debatt.

Svarene du gir oss på denne undersøkelsen kan hjelpe myndigheter og offentlige forvaltningsorganer med å få økt forståelse for folks holdninger og preferanser, og dermed bidra til utforming av en best mulig kriminalpolitikk i Norge.

**Vi er kun interessert i dine meninger.** Det er viktig at alle som får invitasjon til å delta, både de som er interessert og de som ikke er interessert i temaet, svarer så ærlig og fullstendig på undersøkelsen som mulig. **Det finnes ingen riktige eller gale svar.**

Svarene du gir vil behandles konfidensielt og som deltaker kan du velge å være helt anonym. Vi er hovedsakelig interessert i sammenfatningen av svarene fra alle deltakerne. Det vil ta omtrent 10-15 minutter å gjennomføre hele undersøkelsen.

**Som takk for din deltakelse** vil du ha anledning til å være med i trekningen av et **VISA gavekort pålydende 1000 kr.**

Skulle du ha problemer med å fylle ut skjemaet eller ha spørsmål angående undersøkelsen kan du kontakte oss på epost eller telefon.

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TAKK FOR DIN DELTAKELSE

\* 1. Hvilke politiske saker synes du det er viktigst å prioritere i offentlige budsjetter? (Velg inntil 4 saker som er viktige for deg og din husholdning.)

- Kollektivtransport
- Eldreomsorg
- Forskning
- Fattigdomsbekjempelse
- Likestilling
- Veinett
- Fornybar energi
- Fredsmekling
- Helse
- Sysselsetting
- Flyktninghjelp
- Utdanning
- Miljøvern
- Landbruk
- Kriminalitetsbekjempelse
- Familie
- Forsvar(et)
- Kultur
- Klima
- Idrett
- Bistand
- Økonomi
- Integrering
- Annet (spesifiser)



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\* 2. På en skala fra **1 (helt uenig)** til **5 (helt enig)**, i hvilken grad er du **enig** eller **uenig** i følgende påstander om kriminalitet?

	1	2	3	4	5
En fengselsstraff skal være berøvelse eller innskrenkning av frihet og ikke tap av andre grunnleggende menneskerettigheter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Kriminalpolitikken

bygger på humanitet, rettssikkerhet og likebehandling	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
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Fengselsstraff innebærer tap av frihet, men den som er innsatt i fengsel har bortsett fra frihetsberøvelse de samme rettighetene som alle andre i Norge.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
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\* 3. På en skala fra **0 (svært uviktig)** til **5 (svært viktig)**, hvor viktig er kriminalpolitikk for deg og din husholdning?

	0	1	2	3	4	5
Velg 0-5	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

\* 4. Hvilket av utsagnene nedenfor samsvarer best med **ditt syn på det generelle straffenivået i Norge?**

- Straffenivået i Norge er for lavt
- Straffenivået i Norge er for høyt
- Straffenivået i Norge er akkurat passe



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\* 5. På en skala fra **1 (helt uenig)** til **5 (helt enig)**, i hvilken grad er du enig eller uenig i følgende **grunner for straff av kriminelle handlinger?**

	1	2	3	4	5
For å gjenoppretter «likevekten» i forholdet mellom gjerningsmann og offer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vi må erkjenne behovet offeret og samfunnet har for hevn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
For å forhindre at den som blir straffet gjentar lovbruddet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
For å forebygge at andre begår lovbrudd	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
For å holde kriminelle borte fra samfunnet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Det er rettferdig at den kriminelle må ta ansvar for sine handlinger	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



\* 6. Hva synes du burde være de **viktigste kriminalpolitiske satsningsområdene?** (Velg inntil 2 saker som er viktige for deg og din husholdning)

- Internasjonal strafferett
- Redusert bruk av fengselsstraff
- Økt bruk av fengselsstraff
- Fokus på alternativ behandling av de straffedømte
- Rehabilitering i fengsel
- Utvidelse av forvaring
- Soning av fengselsstraff i den dømtes hjemland
- Øke antall plasser i høysikkerhetsfengsel
- Øke antall fengselsplasser
- (Fokusere på) forebyggende tiltak
- Narkotikapolitikk
- Strafferabatt

Økt straff for voldsforbrytelser

Datalagring



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## 7. Kryss av for de straffesakene nedenfor som **du har hørt om eller kjenner til.**

- Munch-ranet 2004
- Nokas-ranet 2004
- Baneheia-saken 2000
- Liland-saken 1969
- Orderud-saken 1999
- Massedrapet på Utøya 2011
- Treholt-saken 1985
- Lommemann-saken 2006
- Tina-saken 2000
- Cannabis-saken 2008
- Birgitte-saken 1995
- Acta-saken 2008
- Bryggen i Bergen-saken 2000
- Yara-saken 2014
- Røde Kors-saken 2004
- Statoil-saken 2004
- UNICEF-saken 2002
- Banksjef dømt for å ha mottatt bestikklser 2009

Vannverks-saken 2007

Operasjon Dark Room 2016

Voldtekstbølgen 2007



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\* 8. Hvor ofte vil du si du **bekymrer deg** for at **du, eller noen i din familie**, skal bli utsatt for en kriminell handling?

- Daglig
- Ukentlig
- Månedlig
- 1-2 ganger i året
- Aldri
- Vet ikke

## Straffereaksjon

Du vil nå få presentert ulike scenarier av forskjellige typer lovbrudd hvor du blir bedt om hvilket straffenivå **du** synes er passende.

## Scenario 1 - Tyveri

Ali, som kom til Norge som 14-åring, har som mange andre mistet jobben etter olje-nedturen i 2014. Han er svært intelligent og har sivilingeniør-utdanning fra NTNU. Ali har kone og to barn på 3 og 5 år. Den økonomiske situasjonen er svært krevende for familien.

Alis tidligere sjef har en årslønn på 2,3 millioner. Ali føler at en viktig grunn til at han var en av de som måtte gå var på grunn av at sjefen ikke liker hans utenlandske opprinnelse.

Ali er i en presset situasjon, og en natt tar han seg inn i sjefens garasje, og stjeler to Bros Magic XTR sykler til en verdi av ca kr 100 000,-.

*Ubetinget fengsel: straff må sones i fengsel*

*Betinget fengsel: slipper å sone i fengsel, forutsatt at visse betingelser oppfylles*

### \* 9. Hva synes du straffen for Alis lovbrudd bør være?

Bot

Betinget fengsel – under 2 måneder

Betinget fengsel – 2 til 5 måneder

Betinget fengsel – 6 til 11 måneder

Betinget fengsel – 1 til 2 år

Betinget fengsel – 2 til 3 år

Betinget fengsel – 3 til 4 år

Betinget fengsel – 5 år eller mer

Konfliktråd

Samfunnsstraff – 25 til 250 timer

Hjemmesoning med elektronisk fotlenke – under 2 måneder

Hjemmesoning med elektronisk fotlenke – 2 til 3 måneder

Hjemmesoning med elektronisk fotlenke – over 3 måneder

Ubetinget fengsel – under 2 måneder

Ubetinget fengsel – 2 til 5 måneder

Ubetinget fengsel – 6 til 11 måneder

Ubetinget fengsel – 1 til 2 år

Ubetinget fengsel – 2 til 3 år

Ubetinget fengsel – Ubetinget fengsel 3 til 4 år

Ubetinget fengsel – 5 år eller mer



## Scenario 2 - Datakriminalitet

Du mottar en e-post fra banken din der det står at din BankID må fornyes. Ifølge e-posten bør du trykke på en vedlagt lenke for å gjenopprette avtalen. Du trykker på linken og identifiserer deg med BankID. Alt ser normalt ut, helt til du får en blank side med feilkode "HTTP Error" etter du har logget deg inn. Du blir mistenkelig, og sjekker e-posten igjen. Det viser seg at mailadressen ikke er helt identisk med bankens navn, og når du holder musepilen over linken stemmer ikke adressen du videresendes til. Dette virker merkelig, men du tenker ikke så mye over det før du snakker med en kollega om hendelsen. Kollegaen din blir overrasket og sier at dette høres ut som et forsøk på datasvindel. Når du ringer banken din har lønns- og sparekontoene dine allerede blitt tappet for til sammen kr 185 000,-.

*Ubetinget fengsel: straff må sones i fengsel*

*Betinget fengsel: slipper å sone i fengsel, forutsatt at visse betingelser oppfylles*

### \* 10. Hva synes du straffen for personen(e) som utførte svindelen bør være?

Bot

Betinget fengsel – under 2 måneder

Betinget fengsel – 2 til 5 måneder

Betinget fengsel – 6 til 11 måneder

Betinget fengsel – 1 til 2 år

Betinget fengsel – 2 til 3 år

Betinget fengsel – 3 til 4 år

Betinget fengsel – 5 år eller mer

Konfliktråd

Samfunnsstraff – 25 til 250 timer

Hjemmesoning med elektronisk fotlenke – under 2 måneder

Hjemmesoning med elektronisk fotlenke – 2 til 3 måneder

Hjemmesoning med elektronisk fotlenke – over 3 måneder

Ubetinget fengsel – under 2 måneder

Ubetinget fengsel – 2 til 5 måneder

Ubetinget fengsel – 6 til 11 måneder

Ubetinget fengsel – 1 til 2 år

Ubetinget fengsel – 2 til 3 år

Ubetinget fengsel – Ubetinget fengsel 3 til 4 år

Ubetinget fengsel – 5 år eller mer



### Scenario 3 - Voldtekts- og seksualforbrytelser

Charlotte på 19 år er på fest en lørdagskveld. Hun er kledd i et kort skjørt og topp med dyp utringning. Charlotte er forelsket i Erik, som også er på festen, og prøver stadig å få hans oppmerksomhet. Utpå kvelden oppdager hun at Erik står i gangen og kliner med en av Charlottes venninner. Charlotte er på dette tidspunktet svært beruset, og blir veldig lei seg. Hun løper inn på et soverom, og en av de andre guttene på festen følger etter. Han trøster Charlotte, og etter hvert begynner han å beføle henne. Charlotte liker det i starten, men etter hvert som han blir stadig mer hardhendt og pågående prøver hun å dytte ham bort. Han lar seg imidlertid ikke stoppe og gjennomfører et kortvarig seksuelt samleie med makt.

*Ubetinget fengsel: straff må sones i fengsel*

*Betinget fengsel: slipper å sone i fengsel, forutsatt at visse betingelser oppfylles*

#### \* 11. Hvilken straff synes du gutten som voldtok Charlotte burde få?

Bot

Betinget fengsel – under 2 måneder

Betinget fengsel – 2 til 5 måneder

Betinget fengsel – 6 til 11 måneder

Betinget fengsel – 1 til 2 år

Betinget fengsel – 2 til 3 år

Betinget fengsel – 3 til 4 år

Betinget fengsel – 5 år eller mer

Konfliktråd

Samfunnsstraff – 25 til 250 timer

Hjemmesoning med elektronisk fotlenke – under 2 måneder

Hjemmesoning med elektronisk fotlenke – 2 til 3 måneder

Hjemmesoning med elektronisk fotlenke – over 3 måneder

Ubetinget fengsel – under 2 måneder

Ubetinget fengsel – 2 til 5 måneder

Ubetinget fengsel – 6 til 11 måneder

Ubetinget fengsel – 1 til 2 år

Ubetinget fengsel – 2 til 3 år

Ubetinget fengsel – Ubetinget fengsel 3 til 4 år

Ubetinget fengsel – 5 år eller mer





## Scenario 4 - Økonomisk kriminalitet

June har bodd i Oslo sentrum samtidig som hun studerte på UiO, men på grunn av de høye leieprisene i hovedstaden velger hun å flytte hjem til foreldrene i utkanten av byen for å slippe leieutgifter på 5500kr i måneden. June har selvfølgelig vært borteboer og mottatt 40 000 kr i stipend per år fra omgjøringslånet hos Lånekassen. Hun flytter hjem rett etter sommeren 2016. Ved ny søknad hos Lånekassen januar 2017 oppdager hun at hun har vært registrert som borteboer hele høsten 2016, selv om hun bodde hjemme. Først får hun en dårlig følelse for å ikke ha informert om flyttingen, men etter en liten stund går følelsen over og hun blir bevisst på hvor lett det er å utnytte systemet. June registrerer seg som borteboer også i de neste semestrene, selv om hun er hjemmeboer. Til sammen svindler hun Statens Lånekasse for 120 000 kr.

*Ubetinget fengsel: straff må sones i fengsel*

*Betinget fengsel: slipper å sone i fengsel, forutsatt at visse betingelser oppfylles*

### \* 12. Hva synes du straffen for Junes lovbrudd bør være?

Bot

Betinget fengsel – under 2 måneder

Betinget fengsel – 2 til 5 måneder

Betinget fengsel – 6 til 11 måneder

Betinget fengsel – 1 til 2 år

Betinget fengsel – 2 til 3 år

Betinget fengsel – 3 til 4 år

Betinget fengsel – 5 år eller mer

Konfliktråd

Samfunnsstraff – 25 til 250 timer

Hjemmesoning med elektronisk fotlenke – under 2 måneder

Hjemmesoning med elektronisk fotlenke – 2 til 3 måneder

Hjemmesoning med elektronisk fotlenke – over 3 måneder

Ubetinget fengsel – under 2 måneder

Ubetinget fengsel – 2 til 5 måneder

Ubetinget fengsel – 6 til 11 måneder

Ubetinget fengsel – 1 til 2 år

Ubetinget fengsel – 2 til 3 år

Ubetinget fengsel – Ubetinget fengsel 3 til 4 år

Ubetinget fengsel – 5 år eller mer

Nå vil vi spørre deg om **hvor mye du er villig til å betale i ekstra skatt** for å redusere bestemte kriminelle handlinger. Du vil få presentert tre programmer for bekjempelse av kriminalitet som reduserer henholdsvis 1) voldtekts- og seksualforbrytelser, 2) tyveri og 3) økonomisk kriminalitet med 30 %.

Under har vi listet opp en rekke kronebeløp. Du vil bli spurt om hvilket av disse beløpene som ligger nærmest det **din husholdning maksimalt er villig til å betale** ekstra i skatt per år for å finansiere disse programmene for bekjempelse av forskjellige former for kriminalitet.

Programmene for de forskjellige lovbruddene er **uavhengige av hverandre**. Det vil si at for hvert beløp du sier deg villig til å betale for et program, skal du **se bort fra tidligere beløp** du har sagt deg villig til å betale for et annet program. **Til slutt** vil vi be deg vurdere hva du er villig til å betale for å finansiere **alle tre programmene samtidig**.

**Påminnelse:**

Husk at det beløpet du er villig til å bruke på forebygging av kriminalitet er dine egne penger som du ellers kunne brukt på mat, klær eller hva du ellers måtte trenge. Det finnes kanskje også andre offentlige goder og tjenester som din husstand mener det er viktigere å finansiere gjennom økt skatt, som for eksempel utdanning, helse, eldreomsorg og så videre.

\* **13. Har du forstått denne informasjonen?**

Ja

## Bekjempelse av voldtekt og andre seksualforbrytelser

I fjor ble det gjennomført et program for bekjempelse av kriminalitet i enkelte kommuner i Norge. Dette programmet forhindre 3 av 10 voldtekter og andre seksualforbrytelser i disse kommunene. Programmet regnes som en suksess og kan utvides til resten av landet gjennom en økt skatt.

Det ble anmeldt mer enn 7 000 seksuallovbrudd i 2016 (Kilde: Statistisk sentralbyrå). Programmet ville dermed kunne ha redusert antall lovbrudd med 2 000 tilfeller.

\* 14. Hva ville du og din husholdning vært villig til å betale per år i økt skatt for innføring av et slikt program på nasjonalt plan, inkludert i ditt nærområde?

Kr 0  Kr 25  Kr 75  Kr 125  Kr 175  Kr 225  Kr 275  Kr 325  Kr 375  Kr 425

Kr 475  Kr 575  Kr 675  Kr 775  Kr 875  Kr 1175  Kr 1475  Kr 1775  Kr 2175

Kr 2575  Kr 2975  Kr 3375  Mer enn kr 3375

## Bekjempelse av voldtekt og andre seksualforbrytelser

### \* 15. Hva er den viktigste grunnen til at din husstand er villig til å betale for innføring av et slikt program?

- Jeg ønsker et slikt program
- Jeg føler en forpliktelse til å betale fordi alle andre husstander også skal bidra
- Jeg tror ikke at denne skatten ville ha blitt innkrevd uansett
- Jeg er opptatt av å bevare sikkerheten
- Jeg føler at det er forventet av meg slik denne undersøkelsen er konstruert
- Jeg er villig til å betale fordi beløpet er på størrelse med det min husstand pleier å gi til veldedighet i løpet av et år
- For meg og min husholdning er det beskrevne programmet verdt det beløpet jeg oppga
- Annet (vennligst spesifiser)

\* 16. Hva er den viktigste grunnen til at din husstand ikke er villig til å betale for innføring av et slikt program?

- Effekten av programmet er for liten til at det er verdt å betale
- Jeg er skeptisk til et slikt program
- Dette programmet vil ikke ha den ønskede virkningen i kampen mot kriminalitet
- Skattenivået er allerede høyt nok
- Myndighetene bør betale for et slikt program med eksisterende skattemidler
- Min husstandsinntekt er for lav
- Jeg stoler ikke på at pengene vil gå til det riktige formålet
- Jeg foretrekker en annen type kriminalpolitikk
- Annet (vennligst spesifiser)

## Bekjempelse av tyveri

Se nå bort fra det forrige programmet for å forhindre kriminalitet.

I fjor ble det gjennomført et kriminalitetsbekjempelsesprogram i enkelte kommuner i Norge. Dette programmet forhindre 3 av 10 tyveri i disse kommunene. Programmet regnes som en suksess og kan utvides til resten av landet gjennom en økt skatt.

Det ble anmeldt mer enn 105 000 tyverier i 2016 (Kilde: Statistisk sentralbyrå). Programmet ville dermed kunne ha redusert antall lovbrudd med 31 500 tilfeller.

\* 17. Hva ville du og din husholdning ha vært villig til å betale per år i økt skatt for innføring av et slikt program på nasjonalt plan, inkludert i ditt nærområde?

Kr 0  Kr 25  Kr 75  Kr 125  Kr 175  Kr 225  Kr 275  Kr 325  Kr 375  Kr 425

Kr 475  Kr 575  Kr 675  Kr 775  Kr 875  Kr 1175  Kr 1475  Kr 1775  Kr 2175

Kr 2575  Kr 2975  Kr 3375  Mer enn kr 3375

## Bekjempelse av tyveri

### \* 18. Hva er den viktigste grunnen til at din husstand er villig til å betale for innføring av et slikt program?

- Jeg ønsker et slikt program
- Jeg føler en forpliktelse til å betale fordi alle andre husstander også skal bidra
- Jeg tror ikke at denne skatten ville ha blitt innkrevd uansett
- Jeg er opptatt av å bevare sikkerheten
- Jeg føler at det er forventet av meg slik denne undersøkelsen er konstruert
- Jeg er villig til å betale fordi beløpet er på størrelse med det min husstand pleier å gi til veldedighet i løpet av et år
- For meg og min husholdning er det beskrevne programmet verdt det beløpet jeg oppga
- Annet (vennligst spesifiser)

## Bekjempelse av tyveri

### \* 19. Hva er den viktigste grunnen til at din husstand ikke er villig til å betale for innføring av et slikt program?

- Effekten av programmet er for liten til at det er verdt å betale
- Jeg er skeptisk til et slikt program
- Dette programmet vil ikke bidra i tilstrekkelig grad i kampen mot kriminalitet
- Skattenivået er allerede høyt nok
- Myndighetene bør betale for et slikt program med eksisterende skattemidler
- Min husstandsinntekt er for lav
- Jeg stoler ikke på at pengene vil gå til det riktige formålet
- Jeg foretrekker en annen type kriminalpolitikk
- Annet (vennligst spesifiser)



## Bekjempelse av økonomisk kriminalitet

Se nå bort fra det forrige programmet for å forhindre kriminalitet.

I fjor ble det gjennomført et program i enkelte kommuner i Norge for å bekjempe økonomisk kriminalitet (hvitvasking, bedrageri, underslag, korrupsjon, etc). Dette programmet forhindre 3 av 10 tilfeller av økonomisk kriminalitet i disse kommunene. Programmet regnes som en suksess og kan utvides til resten av landet gjennom en økt skatt.

Det ble anmeldt mer enn 31 000 tilfeller av økonomisk kriminalitet i 2016 (Kilde: Statistisk sentralbyrå). Programmet ville dermed kunne ha redusert antall lovbrudd med 9 300 tilfeller.

\* 20. Hva ville du og din husholdning vært villig til å betale per år i økt skatt for innføring av et slikt program på nasjonalt plan, inkludert i ditt nærområde?

Kr 0  Kr 25  Kr 75  Kr 125  Kr 175  Kr 225  Kr 275  Kr 325  Kr 375  Kr 425

Kr 475  Kr 575  Kr 675  Kr 775  Kr 875  Kr 1175  Kr 1475  Kr 1775  Kr 2175

Kr 2575  Kr 2975  Kr 3375  Mer enn kr 3375

\* 21. Hva er den viktigste grunnen til at din husstand er villig til å betale for innføring av et slikt program?

- Jeg ønsker et slikt program
- Jeg føler en forpliktelse til å betale fordi alle andre husstander også skal bidra
- Jeg tror ikke at denne skatten ville ha blitt innkrevd uansett
- Jeg er opptatt av å bevare sikkerheten
- Jeg føler at det er forventet av meg slik denne undersøkelsen er konstruert
- Jeg er villig til å betale fordi beløpet er på størrelse med det min husstand pleier å gi til veldedighet i løpet av et år
- For meg og min husholdning er det beskrevne programmet verdt det beløpet jeg oppga
- Annet (vennligst spesifiser)

\* 22. Hva er den viktigste grunnen til at din husstand ikke er villig til å betale for innføring av et slikt program?

- Effekten av programmet er for liten til at det er verdt å betale
- Jeg er skeptisk til et slikt program
- Dette programmet vil ikke bidra i tilstrekkelig grad i kampen mot kriminalitet
- Skattnivået er allerede høyt nok
- Myndighetene bør betale for et slikt program med eksisterende skattemidler
- Min husstandsinntekt er for lav
- Jeg stoler ikke på at pengene vil gå til det riktige formålet
- Jeg foretrekker en annen type kriminalpolitikk
- Annet (vennligst spesifiser)

## Bekjempelse av kriminalitet

Vi har til nå bedt deg vurdere hvert program hver for seg. Nå vil vi imidlertid be deg om å tenke på hva du er villig til å betale for innføring av alle tre programmene.

Det ble i 2016 anmeldt til sammen 143 287 tilfeller av de tre formene for kriminalitet vi tidligere har nevnt (voldtekt og andre seksualforbrytelser, tyverier og økonomisk kriminalitet). Programmene kunne dermed ha redusert antall lovbrudd med i alt 42 986 tilfeller.

\* 23. Hva ville du og din husholdning vært villig til å betale per år i økt skatt for innføring av alle tre program på nasjonalt plan, inkludert i ditt nærområde?

Kr 0  Kr 25  Kr 75  Kr 125  Kr 175  Kr 225  Kr 275  Kr 325  Kr 375  Kr 425

Kr 475  Kr 575  Kr 675  Kr 775  Kr 875  Kr 1175  Kr 1475  Kr 1775  Kr 2175

Kr 2575  Kr 2975  Kr 3375  Kr 3675  Kr 3975  Kr 4275  Kr 4575  Kr 4875

Kr 5175  Mer enn kr 5175

## Demografiske spørsmål

I denne siste delen av undersøkelsen ønsker vi å vite mer om deg og din husstand.

*Dette er for å klassifisere og sikre at utvalget av respondenter i spørreundersøkelsen er representativ for den norske befolkningen.*

*Vi minner om at du som deltaker i denne undersøkelsen er helt anonym og at alle dine svar vil bli behandlet konfidensielt.*

### \* 24. Er du

Mann

Kvinne



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## Demografiske spørsmål

### \* 25. Hva er din alder?

- Under 18 år
- 18 - 21 år
- 22 - 25 år
- 26 - 29 år
- 30 - 39 år
- 40 - 49 år
- 50 - 59 år
- 60 - 69 år
- 70 - 79 år
- Over 80 år



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## Demografiske spørsmål

### \* 26. Hva er din sivilstatus?

- Gift/forlovet
- Samboer
- Skilt/separert
- I et parforhold
- Enslig
- Enke/enkemann

## Demografiske spørsmål

\* 27. Hvor mange personer er det i din husstand, inkludert deg selv?

1

2

3

4

5

6

Mer enn 6 (vennligst spesifiser)



Demografiske spørsmål

\* 28. Hva er ditt postnummer?



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## Demografiske spørsmål

\* 29. Hvor mange barn (under 18 år) er det i din husholdning?

0

1

2

3

4

5

6

Mer enn 6 (vennligst spesifiser)



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## Demografiske spørsmål

### \* 30. Hva er ditt høyeste fullførte utdanningsnivå?

- Grunnskolenivå
- Videregående skole
- Fagbrev/Fagskole
- Universitets- og høghskolenivå, 1-3 år
- Universitets- og høghskolenivå, 3-5 år
- Universitets- og høghskolenivå, mer enn 5 år



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## Demografiske spørsmål

\* 31. Hvilken av de følgende kategoriene beskriver best det fagfeltet du er utdannet eller opplært i?

- Økonomi, administrasjon og ledelse
- Lærer, lektor og pedagogikk
- Jordbruk
- Språk og litteratur
- Mediefag og kommunikasjon
- Restaurant- og matfag
- Idrettsfag
- Historie, religion og kultur
- Håndverker (snekker, elektriker, rørlegger, maler osv.)
- Hotell og reiseliv
- Samfunnsfag og psykologi
- Estetiske fag (kunst- og musikkfag)
- Juridiske fag
- Medisin, helse- og sosialfag
- Realfag, ingeniør, arkitekt
- Fiskeri og oppdrett
- Annet (vennligst spesifiser)



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## Demografiske spørsmål

### \* 32. Hvilke alternativ beskriver best din nåværende arbeidssituasjon?

- Arbeider fulltid
- Arbeider deltid
- Arbeidsledig
- Pensjonert
- Hjemmeværende
- Student
- Student med jobb
- Svangerskapspermisjon (midlertidig permisjon)
- Annet (vennligst spesifiser)

## Demografiske spørsmål

\* 33. Hvilken av de følgende kategoriene beskriver best næringen eller sektoren du arbeider eller har arbeidet i?

- Olje- og gass
- Butikk, salg og servicenæring
- Bank og finans
- Bygg og anlegg
- Fornybar energi
- Offentlig forvaltning
- Annen industri
- Utdanning og forskning
- Helse- og omsorg
- Fiske, havbruk og skogbruk
- Jordbruk
- IT, kommunikasjon og telekommunikasjon
- Annet (vennligst spesifiser)



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\* 34. Vennligst oppgi omtrentlig brutto inntekt i din husstand. Det vil si samlet inntekt i husstanden før skatt er trukket fra.

Mindre enn 100 000 kr

700 001 - 900 000 kr

1 500 001 - 1 700 000 kr

100 001 - 300 000 kr

900 001 - 1 100 000 kr

1 700 001 - 1 900 000 kr

300 001 - 500 000 kr

1 100 001 - 1 300 000 kr

1 900 001 - 2 000 000 kr

500 001 - 700 000 kr

1 300 001 - 1 500 000 kr

Mer enn 2 000 000 kr



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## Demografiske spørsmål

\* 35. Hvilket politisk parti ville du ha stemt på hvis det var stortingsvalg i dag?

- Arbeiderpartiet (Ap)
- Partiet de kristne
- Demokratene i Norge
- Det Liberale Folkepartiet (Dif)
- Fremskrittspartiet (Frp)
- Høyre (H)
- Kristelig Folkeparti (KrF)
- Kristent Samlingsparti (KSP)
- Kystpartiet (KP)
- Miljøpartiet De Grønne (MDG)
- Norges Kommunistiske Parti (NKP)
- Pensjonistpartiet (PP)
- Piratpartiet
- Rødt
- Samefolkets parti (Sámeálbmot Bellodat)



- Samfunnspartiet
- Senterpartiet (Sp)
- Sosialistisk Venstreparti (SV)
- Tverrpolitisk Folkevalgte
- Venstre (V)
- Vet ikke/Ikke politisk interessert
- Ønsker ikke å svare
- Annet



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\* 36. Til slutt: har **du**, eller **noen i din husholdning**, blitt utsatt for en kriminell handling?

- Ja, blitt utsatt for en grov kriminell handling
- Ja, blitt utsatt for en alvorlig kriminell handling
- Ja, blitt utsatt for en mild kriminell handling
- Nei
- Vet ikke/vil ikke svare

Takk for at du deltok i denne undersøkelsen!

37. Hvis du har kommentarer til denne undersøkelsen er du velkommen til å benytte kommentarboksen under.

38. For å være med i trekningen av et VISA gavekort trenger vi ditt telefonnummer eller din mailadresse for å kunne kontakte deg.

## Appendix B – Panel Report Data

These numbers might not be completely the same as the ones used in our analysis, as we conducted our results before the survey was closed.

### KRIMINALITETSBEKJEMPELSE

1. Hvilke politiske saker synes du det er viktigst å prioritere i offentlige budsjetter? (Velg inntil 4 saker som er viktige for deg og din husholdning.)		
Answer Options	Response Percent	Response Count
Kollektivtransport	10,3%	41
Eldreomsorg	31,2%	124
Forskning	17,3%	69
Fattigdomsbekjempelse	15,3%	61
Likestilling	9,5%	38
Veinett	17,3%	69
Fornybar energi	13,1%	52
Fredsmekling	2,0%	8
Helse	53,5%	213
Syssetsetting	29,6%	118
Flyktningshjelp	5,5%	22
Utdanning	51,8%	206
Miljøvern	10,8%	43
Landbruk	8,0%	32
Kriminalitetsbekjempelse	33,7%	134
Familie	13,3%	53
Forsvar(et)	12,8%	51
Kultur	4,3%	17
Klima	11,8%	47
Idrett	6,8%	27
Bistand	1,3%	5
Økonomi	19,3%	77
Integrering	15,3%	61
Annet (spesifiser)	1,3%	5
	<i>answered question</i>	<b>398</b>
	<i>skipped question</i>	<b>0</b>

**2. På en skala fra 1 (helt uenig) til 5 (helt enig), i hvilken grad er du enig eller uenig i følgende påstander om kriminalitet?**

Answer Options	1	2	3	4	5	Response Count
En fengselsstraff skal være berøvelse eller innskrenkning av frihet og ikke tap av andre grunnleggende menneskerettigheter.	9	28	68	94	180	379
Kriminalpolitikken bygger på humanitet, rettssikkerhet og likebehandling	9	13	79	134	144	379
Fengselsstraff innebærer tap av frihet, men den som er innsatt i fengsel har bortsett fra frihetsberøvelse de samme rettighetene som alle andre i Norge.	18	58	100	112	91	379
<i>answered question</i>						379
<i>skipped question</i>						19

**3. På en skala fra 0 (svært uviktig) til 5 (svært viktig), hvor viktig er kriminalpolitikk for deg og din husholdning?**

Answer Options	0	1	2	3	4	5	Response Count
Velg 0-5	12	32	66	125	96	45	376
<i>answered question</i>							376
<i>skipped question</i>							22

**4. Hvilket av utsagnene nedenfor samsvarer best med ditt syn på det generelle straffnivået i Norge?**

Answer Options	Response Percent	Response Count
Straffnivået i Norge er for lavt	66,0%	247
Straffnivået i Norge er for høyt	1,6%	6
Straffnivået i Norge er akkurat passe	32,4%	121
<i>answered question</i>		374
<i>skipped question</i>		24

**5. På en skala fra 1 (helt uenig) til 5 (helt enig), i hvilken grad er du enig eller uenig i følgende grunner for straff av kriminelle handlinger?**

Answer Options	1	2	3	4	5	Response Count
For å gjenoppretter «likevekten» i forholdet mellom gjerningsmann og offer	45	63	117	83	47	355
Vi må erkjenne behovet offeret og samfunnet har for hevn	89	96	70	68	32	355
For å forhindre at den som blir straffet gjentar lovbruddet	5	3	24	77	246	355
For å forebygge at andre begår lovbrudd	2	6	33	83	231	355
For å holde kriminelle borte fra samfunnet	12	37	65	100	141	355
Det er rettferdig at den kriminelle må ta ansvar for sine handlinger	2	0	13	62	278	355
<i>answered question</i>						<b>355</b>
<i>skipped question</i>						<b>43</b>

**6. Hva synes du burde være de viktigste kriminalpolitiske satsningsområdene? (Velg inntil 2 saker som er viktige for deg og din husholdning)**

Answer Options	Response Percent	Response Count
Internasjonal strafferett	2,0%	7
Redusert bruk av fengselsstraff	2,0%	7
Økt bruk av fengselsstraff	4,5%	16
Fokus på alternativ behandling av de straffedømte	12,2%	43
Rehabilitering i fengsel	37,5%	132
Utvidelse av forvaring	3,4%	12
Soning av fengselsstraff i den dømtes hjemland	34,7%	122
Øke antall plasser i høysikkerhetsfengsel	2,8%	10
Øke antall fengselsplasser	8,2%	29
(Fokusere på) forebyggende tiltak	41,8%	147
Narkotikapolitikk	11,1%	39
Strafferabatt	0,3%	1
Økt straff for voldsforbrytelser	35,8%	126
Datalagring	2,0%	7
<i>answered question</i>		<b>352</b>
<i>skipped question</i>		<b>46</b>

7. Kryss av for de straffesakene nedenfor som du har hørt om eller kjenner til.

Answer Options	Response Percent	Response Count
Munch-ranet 2004	86,0%	301
Nokas-ranet 2004	95,7%	335
Baneheia-saken 2000	78,3%	274
Liland-saken 1969	42,0%	147
Orderud-saken 1999	76,6%	268
Massedrapet på Utøya 2011	98,6%	345
Treholt-saken 1985	75,7%	265
Lommemann-saken 2006	87,4%	306
Tina-saken 2000	83,7%	293
Cannabis-saken 2008	12,3%	43
Birgitte-saken 1995	82,9%	290
Acta-saken 2008	48,3%	169
Bryggen i Bergen-saken 2000	9,1%	32
Yara-saken 2014	46,9%	164
Røde Kors-saken 2004	8,0%	28
Statoil-saken 2004	29,4%	103
UNICEF-saken 2002	4,0%	14
Banksjef dømt for å ha mottatt bestikklser 2009	14,3%	50
Vannverks-saken 2007	26,0%	91
Operasjon Dark Room 2016	61,7%	216
Voldtektbølgen 2007	29,7%	104
<i>answered question</i>		<b>350</b>
<i>skipped question</i>		<b>48</b>

8. Hvor ofte vil du si du bekymrer deg for at du, eller noen i din familie, skal bli utsatt for en kriminell handling?

Answer Options	Response Percent	Response Count
Daglig	3,7%	13
Ukentlig	9,4%	33
Månedlig	22,5%	79
1-2 ganger i året	32,5%	114
Aldri	22,2%	78
Vet ikke	9,7%	34
<i>answered question</i>		<b>351</b>
<i>skipped question</i>		<b>47</b>

### 9. Hva synes du straffen for Alis lovbrudd bør være?

Answer Options	Response Percent	Response Count
Bot	5,8%	20
Betinget fengsel - under 2 måneder	7,9%	27
Betinget fengsel - 2 til 5 måneder	9,3%	32
Betinget fengsel - 6 til 11 måneder	7,0%	24
Betinget fengsel - 1 til 2 år	4,7%	16
Betinget fengsel - 2 til 3 år	3,2%	11
Betinget fengsel - 3 til 4 år	1,2%	4
Betinget fengsel - 5 år eller mer	0,9%	3
Konfliktråd	6,4%	22
Samfunnsstraff - 25 til 250 timer	18,1%	62
Hjemmesoning med elektronisk fotlenke - under 2 måneder	1,5%	5
Hjemmesoning med elektronisk fotlenke - 2 til 3 måneder	4,7%	16
Hjemmesoning med elektronisk fotlenke - over 3 måneder	3,8%	13
Ubetinget fengsel - under 2 måneder	3,5%	12
Ubetinget fengsel - 2 til 5 måneder	9,9%	34
Ubetinget fengsel - 6 til 11 måneder	5,5%	19
Ubetinget fengsel - 1 til 2 år	3,8%	13
Ubetinget fengsel - 2 til 3 år	0,9%	3
Ubetinget fengsel - 3 til 4 år	0,6%	2
Ubetinget fengsel - 5 år eller mer	1,5%	5
	<i>answered question</i>	<b>343</b>
	<i>skipped question</i>	<b>55</b>



10. Hva synes du straffen for personen(e) som utførte svindelen bør være?

Answer Options	Response Percent	Response Count
Bot	2,1%	7
Betinget fengsel - under 2 måneder	1,2%	4
Betinget fengsel - 2 til 5 måneder	2,4%	8
Betinget fengsel - 6 til 11 måneder	2,4%	8
Betinget fengsel - 1 til 2 år	3,3%	11
Betinget fengsel - 2 til 3 år	3,3%	11
Betinget fengsel - 3 til 4 år	3,0%	10
Betinget fengsel - 5 år eller mer	4,2%	14
Konfliktråd	1,2%	4
Samfunnsstraff - 25 til 250 timer	1,8%	6
Hjemmesoning med elektronisk fotlenke - under 2 måneder	0,0%	0
Hjemmesoning med elektronisk fotlenke - 2 til 3 måneder	0,0%	0
Hjemmesoning med elektronisk fotlenke - over 3 måneder	1,5%	5
Ubetinget fengsel - under 2 måneder	1,2%	4
Ubetinget fengsel - 2 til 5 måneder	12,5%	42
Ubetinget fengsel - 6 til 11 måneder	12,5%	42
Ubetinget fengsel - 1 til 2 år	18,5%	62
Ubetinget fengsel - 2 til 3 år	7,8%	26
Ubetinget fengsel - 3 til 4 år	7,8%	26
Ubetinget fengsel - 5 år eller mer	13,4%	45
<i>answered question</i>		<b>335</b>
<i>skipped question</i>		<b>63</b>

### 11. Hvilken straff synes du gutten som voldtok Charlotte burde få?

Answer Options	Response Percent	Response Count
Bot	0,3%	1
Betinget fengsel - under 2 måneder	0,6%	2
Betinget fengsel - 2 til 5 måneder	0,9%	3
Betinget fengsel - 6 til 11 måneder	1,8%	6
Betinget fengsel - 1 til 2 år	3,9%	13
Betinget fengsel - 2 til 3 år	3,3%	11
Betinget fengsel - 3 til 4 år	2,1%	7
Betinget fengsel - 5 år eller mer	3,3%	11
Konfliktråd	0,0%	0
Samfunnsstraff - 25 til 250 timer	1,2%	4
Hjemmesoning med elektronisk fotlenke - under 2 måneder	0,3%	1
Hjemmesoning med elektronisk fotlenke - 2 til 3 måneder	0,0%	0
Hjemmesoning med elektronisk fotlenke - over 3 måneder	2,4%	8
Ubetinget fengsel - under 2 måneder	0,6%	2
Ubetinget fengsel - 2 til 5 måneder	4,5%	15
Ubetinget fengsel - 6 til 11 måneder	10,3%	34
Ubetinget fengsel - 1 til 2 år	15,4%	51
Ubetinget fengsel - 2 til 3 år	14,8%	49
Ubetinget fengsel - 3 til 4 år	10,3%	34
Ubetinget fengsel - 5 år eller mer	23,9%	79
	<i>answered question</i>	<b>331</b>
	<i>skipped question</i>	<b>67</b>

## 12. Hva synes du straffen for Junes lovbrudd bør være?

Answer Options	Response Percent	Response Count
Bot	28,7%	94
Betinget fengsel - under 2 måneder	2,8%	9
Betinget fengsel - 2 til 5 måneder	6,7%	22
Betinget fengsel - 6 til 11 måneder	8,3%	27
Betinget fengsel - 1 til 2 år	6,4%	21
Betinget fengsel - 2 til 3 år	1,2%	4
Betinget fengsel - 3 til 4 år	1,5%	5
Betinget fengsel - 5 år eller mer	0,3%	1
Konfliktråd	1,5%	5
Samfunnsstraff - 25 til 250 timer	16,5%	54
Elektronisk fotlenke - under 2 måneder	0,6%	2
Elektronisk fotlenke - 2 til 3 måneder	3,1%	10
Elektronisk fotlenke - over 3 måneder	2,8%	9
Ubetinget fengsel - under 2 måneder	2,8%	9
Ubetinget fengsel - 2 til 5 måneder	7,0%	23
Ubetinget fengsel - 6 til 11 måneder	5,2%	17
Ubetinget fengsel - 1 til 2 år	1,8%	6
Ubetinget fengsel - 2 til 3 år	0,9%	3
Ubetinget fengsel - 3 til 4 år	1,5%	5
Ubetinget fengsel - 5 år eller mer	0,3%	1
	<i>answered question</i>	<b>327</b>
	<i>skipped question</i>	<b>71</b>

13. Har du forstått denne informasjonen?

Answer Options	Response Percent	Response Count
Ja	100,0%	318
<i>answered question</i>		<b>318</b>
<i>skipped question</i>		<b>80</b>

14. Hva ville du og din husholdning vært villig til å betale per år i økt skatt for innføring av et slikt program på nasjonalt plan, inkludert i ditt nærområde?

Answer Options	Response Percent	Response Count
Kr 0	9,8%	31
Kr 25	2,9%	9
Kr 75	1,9%	6
Kr 125	3,8%	12
Kr 175	1,9%	6
Kr 225	5,7%	18
Kr 275	3,2%	10
Kr 325	2,9%	9
Kr 375	1,0%	3
Kr 425	1,6%	5
Kr 475	4,4%	14
Kr 575	7,6%	24
Kr 675	3,8%	12
Kr 775	2,9%	9
Kr 875	7,0%	22
Kr 1175	14,0%	44
Kr 1475	4,1%	13
Kr 1775	2,2%	7
Kr 2175	4,4%	14
Kr 2575	2,9%	9
Kr 2975	1,6%	5
Kr 3375	2,2%	7
Mer enn kr 3375	8,3%	26
<i>answered question</i>		<b>315</b>
<i>skipped question</i>		<b>83</b>

**15. Hva er den viktigste grunnen til at din husstand er villig til å betale for innføring av et slikt program?**

Answer Options	Response Percent	Response Count
Jeg ønsker et slikt program	17,0%	48
Jeg føler en forpliktelse til å betale fordi alle andre husstander også skal bidra	5,0%	14
Jeg tror ikke at denne skatten ville ha blitt innkrevd uansett	2,1%	6
Jeg er opptatt av å bevare sikkerheten	25,2%	71
Jeg føler at det er forventet av meg slik denne undersøkelsen er konstruert	2,5%	7
Jeg er villig til å betale fordi beløpet er på størrelse med det min husstand pleier å gi til veldedighet i løpet av et år	2,8%	8
For meg og min husholdning er det beskrevne programmet verdt det beløpet jeg oppga	40,8%	115
Annet (vennligst spesifiser)	4,6%	13
<i>answered question</i>		<b>282</b>
<i>skipped question</i>		<b>116</b>

**16. Hva er den viktigste grunnen til at din husstand ikke er villig til å betale for innføring av et slikt program?**

Answer Options	Response Percent	Response Count
Effekten av programmet er for liten til at det er verdt å betale	0,0%	0
Jeg er skeptisk til et slikt program	3,3%	1
Dette programmet vil ikke ha den ønskede virkningen i kampen mot kriminalitet	6,7%	2
Skattenivået er allerede høyt nok	33,3%	10
Myndighetene bør betale for et slikt program med eksisterende skattemidler	46,7%	14
Min husstandsinntekt er for lav	0,0%	0
Jeg stoler ikke på at pengene vil gå til det riktige formålet	6,7%	2
Jeg foretrekker en annen type kriminalpolitikk	0,0%	0
Annet (vennligst spesifiser)	3,3%	1
<i>answered question</i>		<b>30</b>
<i>skipped question</i>		<b>368</b>

**17. Hva ville du og din husholdning ha vært villig til å betale per år i økt skatt for innføring av et slikt program på nasjonalt plan, inkludert i ditt nærområde?**

Answer Options	Response Percent	Response Count
Kr 0	16,8%	51
Kr 25	3,3%	10
Kr 75	3,6%	11
Kr 125	5,3%	16
Kr 175	4,6%	14
Kr 225	7,6%	23
Kr 275	5,6%	17
Kr 325	3,9%	12
Kr 375	2,6%	8
Kr 425	3,0%	9
Kr 475	5,3%	16
Kr 575	9,5%	29
Kr 675	2,6%	8
Kr 775	1,6%	5
Kr 875	7,2%	22
Kr 1175	6,3%	19
Kr 1475	2,6%	8
Kr 1775	1,6%	5
Kr 2175	2,0%	6
Kr 2575	1,6%	5
Kr 2975	0,3%	1
Kr 3375	0,7%	2
Mer enn kr 3375	2,3%	7
<i>answered question</i>		<b>304</b>
<i>skipped question</i>		<b>94</b>

**18. Hva er den viktigste grunnen til at din husstand er villig til å betale for innføring av et slikt program?**

Answer Options	Response Percent	Response Count
Jeg ønsker et slikt program	13,0%	33
Jeg føler en forpliktelse til å betale fordi alle andre husstander også skal bidra	8,3%	21
Jeg tror ikke at denne skatten ville ha blitt innkrevd uansett	2,0%	5
Jeg er opptatt av å bevare sikkerheten	34,6%	88
Jeg føler at det er forventet av meg slik denne undersøkelsen er konstruert	2,0%	5
Jeg er villig til å betale fordi beløpet er på størrelse med det min husstand pleier å gi til veldedighet i løpet av et år	2,8%	7
For meg og min husholdning er det beskrevne programmet verdt det beløpet jeg oppga	33,5%	85
Annet (vennligst spesifiser)	3,9%	10
<i>answered question</i>		<b>254</b>
<i>skipped question</i>		<b>144</b>

**19. Hva er den viktigste grunnen til at din husstand ikke er villig til å betale for innføring av et slikt program?**

Answer Options	Response Percent	Response Count
Effekten av programmet er for liten til at det er verdt å betale	7,8%	4
Jeg er skeptisk til et slikt program	2,0%	1
Dette programmet vil ikke bidra i tilstrekkelig grad i kampen mot kriminalitet	5,9%	3
Skattenivået er allerede høyt nok	19,6%	10
Myndighetene bør betale for et slikt program med eksisterende skattemidler	43,1%	22
Min husstandsinnkomst er for lav	2,0%	1
Jeg stoler ikke på at pengene vil gå til det riktige formålet	3,9%	2
Jeg foretrekker en annen type kriminalpolitikk	3,9%	2
Annet (vennligst spesifiser)	11,8%	6
	<i>answered question</i>	<b>51</b>
	<i>skipped question</i>	<b>347</b>

**20. Hva ville du og din husholdning vært villig til å betale per år i økt skatt for innføring av et slikt program på nasjonalt plan, inkludert i ditt nærområde?**

Answer Options	Response Percent	Response Count
Kr 0	24,1%	73
Kr 25	2,6%	8
Kr 75	6,3%	19
Kr 125	6,6%	20
Kr 175	2,6%	8
Kr 225	5,3%	16
Kr 275	3,6%	11
Kr 325	5,0%	15
Kr 375	3,0%	9
Kr 425	2,3%	7
Kr 475	5,3%	16
Kr 575	8,6%	26
Kr 675	2,6%	8
Kr 775	1,3%	4
Kr 875	3,3%	10
Kr 1175	5,6%	17
Kr 1475	3,0%	9
Kr 1775	2,0%	6
Kr 2175	2,0%	6
Kr 2575	2,3%	7
Kr 2975	0,0%	0
Kr 3375	0,7%	2
Mer enn kr 3375	2,0%	6
	<i>answered question</i>	<b>303</b>
	<i>skipped question</i>	<b>95</b>

**21. Hva er den viktigste grunnen til at din husstand er villig til å betale for innføring av et slikt program?**

Answer Options	Response Percent	Response Count
Jeg ønsker et slikt program	16,0%	37
Jeg føler en forpliktelse til å betale fordi alle andre husstander også skal bidra	12,6%	29
Jeg tror ikke at denne skatten ville ha blitt innkrevd uansett	5,2%	12
Jeg er opptatt av å bevare sikkerheten	26,0%	60
Jeg føler at det er forventet av meg slik denne undersøkelsen er konstruert	0,4%	1
Jeg er villig til å betale fordi beløpet er på størrelse med det min husstand pleier å gi til veldedighet i løpet av et år	2,6%	6
For meg og min husholdning er det beskrevne programmet verdt det beløpet jeg oppga	34,2%	79
Annet (vennligst spesifiser)	3,0%	7
<i>answered question</i>		<b>231</b>
<i>skipped question</i>		<b>167</b>

**22. Hva er den viktigste grunnen til at din husstand ikke er villig til å betale for innføring av et slikt program?**

Answer Options	Response Percent	Response Count
Effekten av programmet er for liten til at det er verdt å betale	2,7%	2
Jeg er skeptisk til et slikt program	8,2%	6
Dette programmet vil ikke bidra i tilstrekkelig grad i kampen mot kriminalitet	2,7%	2
Skattenivået er allerede høyt nok	20,5%	15
Myndighetene bør betale for et slikt program med eksisterende skattemidler	42,5%	31
Min husstandsinntekt er for lav	0,0%	0
Jeg stoler ikke på at pengene vil gå til det riktige formålet	5,5%	4
Jeg foretrekker en annen type kriminalpolitikk	9,6%	7
Annet (vennligst spesifiser)	8,2%	6
<i>answered question</i>		<b>73</b>
<i>skipped question</i>		<b>325</b>



**23. Hva ville du og din husholdning vært villig til å betale per år i økt skatt for innføring av alle tre program på nasjonalt plan, inkludert i ditt nærrområde?**

Answer Options	Response Percent	Response Count
Kr 0	11,6%	35
Kr 25	1,0%	3
Kr 75	1,0%	3
Kr 125	1,3%	4
Kr 175	2,3%	7
Kr 225	2,0%	6
Kr 275	2,6%	8
Kr 325	1,7%	5
Kr 375	2,3%	7
Kr 425	3,0%	9
Kr 475	3,3%	10
Kr 575	3,3%	10
Kr 675	4,0%	12
Kr 775	0,7%	2
Kr 875	3,6%	11
Kr 1175	8,9%	27
Kr 1475	7,3%	22
Kr 1775	5,3%	16
Kr 2175	6,3%	19
Kr 2575	3,6%	11
Kr 2975	4,6%	14
Kr 3375	3,6%	11
Kr 3675	1,7%	5
Kr 3975	2,3%	7
Kr 4275	1,7%	5
Kr 4575	0,7%	2
Kr 4875	0,7%	2
Kr 5175	3,6%	11
Mer enn kr 5175	6,0%	18
<i>answered question</i>		<b>302</b>
<i>skipped question</i>		<b>96</b>

**24. Er du**

Answer Options	Response Percent	Response Count
Mann	43,0%	130
Kvinne	57,0%	172
<i>answered question</i>		<b>302</b>
<i>skipped question</i>		<b>96</b>

**25. Hva er din alder?**

Answer Options	Response Percent	Response Count
Under 18 år	0,3%	1
18 - 21 år	4,3%	13
22 - 25 år	23,2%	70
26 - 29 år	11,6%	35
30 - 39 år	11,9%	36
40 - 49 år	23,5%	71
50 - 59 år	18,9%	57
60 - 69 år	5,3%	16
70 - 79 år	1,0%	3
Over 80 år	0,0%	0
<i>answered question</i>		<b>302</b>
<i>skipped question</i>		<b>96</b>

**26. Hva er din sivilstatus?**

Answer Options	Response Percent	Response Count
Gift/forlovet	42,7%	129
Samboer	22,8%	69
Skilt/separent	4,3%	13
I et parforhold	7,0%	21
Enslig	22,8%	69
Enke/enkemann	0,3%	1
<i>answered question</i>		<b>302</b>
<i>skipped question</i>		<b>96</b>

**27. Hvor mange personer er det i din husstand, inkludert deg selv?**

Answer Options	Response Percent	Response Count
1	17,5%	53
2	33,1%	100
3	16,9%	51
4	22,5%	68
5	8,6%	26
6	1,3%	4
Mer enn 6 (vennligst spesifiser)	0,0%	0
<i>answered question</i>		<b>302</b>
<i>skipped question</i>		<b>96</b>

**28. Hva er ditt postnummer?**

Answer Options	Response Count
	301
<i>answered question</i>	<b>301</b>
<i>skipped question</i>	<b>97</b>

**29. Hvor mange barn (under 18 år) er det i din husholdning?**

Answer Options	Response Percent	Response Count
0	61,8%	186
1	16,3%	49
2	16,3%	49
3	5,0%	15
4	0,3%	1
5	0,3%	1
6	0,0%	0
Mer enn 6 (vennligst spesifiser)	0,0%	0
	<i>answered question</i>	<b>301</b>
	<i>skipped question</i>	<b>97</b>

**30. Hva er ditt høyeste fullførte utdanningsnivå?**

Answer Options	Response Percent	Response Count
Grunnskolenivå	1,3%	4
Videregående skole	11,3%	34
Fagbrev/Fagskole	10,0%	30
Universitets- og høghskolenivå, 1-3 år	29,9%	90
Universitets- og høghskolenivå, 3-5 år	31,6%	95
Universitets- og høghskolenivå, mer enn 5 år	15,9%	48
	<i>answered question</i>	<b>301</b>
	<i>skipped question</i>	<b>97</b>

**31. Hvilken av de følgende kategoriene beskriver best det fagfeltet du er utdannet eller opplært i?**

Answer Options	Response Percent	Response Count
Økonomi, administrasjon og ledelse	39,2%	118
Lærer, lektor og pedagogikk	5,6%	17
Jordbruk	0,7%	2
Språk og litteratur	0,7%	2
Mediefag og kommunikasjon	3,0%	9
Restaurant- og matfag	0,3%	1
Idrettsfag	0,7%	2
Historie, religion og kultur	0,0%	0
Håndverker (snekker, elektriker, rørlegger, maler osv.)	2,7%	8
Hotell og reiseliv	2,7%	8
Samfunnsfag og psykologi	7,0%	21
Estetiske fag (kunst- og musikkfag)	1,0%	3
Juridiske fag	3,7%	11
Medisin, helse- og sosialfag	9,0%	27
Realfag, ingeniør, arkitekt	17,9%	54
Fiskeri og oppdrett	0,0%	0
Annet (vennligst spesifiser)	6,0%	18
<i>answered question</i>		<b>301</b>
<i>skipped question</i>		<b>97</b>

**32. Hvilke alternativ beskriver best din nåværende arbeidssituasjon?**

Answer Options	Response Percent	Response Count
Arbeider fulltid	54,8%	165
Arbeider deltid	3,3%	10
Arbeidsledig	3,0%	9
Pensjonert	3,3%	10
Hjemmeværende	0,3%	1
Student	13,6%	41
Student med jobb	17,9%	54
Svangerskapspermisjon (midlertidig permisjon)	1,3%	4
Annet (vennligst spesifiser)	2,3%	7
<i>answered question</i>		<b>301</b>
<i>skipped question</i>		<b>97</b>

**33. Hvilken av de følgende kategoriene beskriver best næringen eller sektoren du arbeider eller har arbeidet i?**

Answer Options	Response Percent	Response Count
Olje- og gass	23,3%	70
Butikk, salg og servicenæring	14,3%	43
Bank og finans	12,0%	36
Bygg og anlegg	5,6%	17
Fornybar energi	1,0%	3
Offentlig forvaltning	6,6%	20
Annen industri	4,0%	12
Utdanning og forskning	7,3%	22
Helse- og omsorg	11,6%	35
Fiske, havbruk og skogbruk	1,0%	3
Jordbruk	1,3%	4
IT, kommunikasjon og telekommunikasjon	4,3%	13
Annet (vennligst spesifiser)	7,6%	23
<i>answered question</i>		<b>301</b>
<i>skipped question</i>		<b>97</b>

**34. Vennligst oppgi omtrentlig brutto inntekt i din husstand. Det vil si samlet inntekt i husstanden før skatt er trukket fra.**

Answer Options	Response Percent	Response Count
Mindre enn 100 000 kr	5,3%	16
100 001 - 300 000 kr	12,3%	37
300 001 - 500 000 kr	10,0%	30
500 001 - 700 000 kr	10,3%	31
700 001 - 900 000 kr	10,6%	32
900 001 - 1 100 000 kr	10,6%	32
1 100 001 - 1 300 000 kr	9,6%	29
1 300 001 - 1 500 000 kr	9,6%	29
1 500 001 - 1 700 000 kr	6,6%	20
1 700 001 - 1 900 000 kr	4,3%	13
1 900 001 - 2 000 000 kr	3,7%	11
Mer enn 2 000 000 kr	7,0%	21
<i>answered question</i>		<b>301</b>
<i>skipped question</i>		<b>97</b>

### 35. Hvilket politisk parti ville du ha stemt på hvis det var stortingsvalg i dag?

Answer Options	Response Percent	Response Count
Arbeiderpartiet (Ap)	21,9%	66
Partiet de kristne	0,0%	0
Demokratene i Norge	0,3%	1
Det Liberale Folkepartiet (Dif)	0,7%	2
Fremskrittspartiet (Frp)	8,6%	26
Høyre (H)	31,9%	96
Kristelig Folkeparti (KrF)	1,7%	5
Kristent Samlingsparti (KSP)	0,0%	0
Kystpartiet (KP)	0,0%	0
Miljøpartiet De Grønne (MDG)	1,0%	3
Norges Kommunistiske Parti (NKP)	0,0%	0
Pensjonistpartiet (PP)	1,0%	3
Piratpartiet	0,3%	1
Rødt	1,0%	3
Samefolkets parti (Sámeálbmot Bellodat)	0,3%	1
Samfunnspartiet	0,0%	0
Senterpartiet (Sp)	4,3%	13
Sosialistisk Venstreparti (SV)	3,0%	9
Tverrpolitisk Folkevalgte	0,0%	0
Venstre (V)	6,3%	19
Vet ikke/Ikke politisk interessert	8,6%	26
Ønsker ikke å svare	7,6%	23
Annet	1,3%	4
<i>answered question</i>		<b>301</b>
<i>skipped question</i>		<b>97</b>

### 36. Til slutt: har du, eller noen i din husholdning, blitt utsatt for en kriminell handling?

Answer Options	Response Percent	Response Count
Ja, blitt utsatt for en grov kriminell handling	8,3%	25
Ja, blitt utsatt for en alvorlig kriminell handling	8,0%	24
Ja, blitt utsatt for en mild kriminell handling	42,5%	128
Nei	36,9%	111
Vet ikke/vil ikke svare	4,3%	13
<i>answered question</i>		<b>301</b>
<i>skipped question</i>		<b>97</b>

37. Hvis du har kommentarer til denne undersøgelsen er du velkommen til å benytte kommentarboksen under.

Answer Options	Response Count
	18
<i>answered question</i>	18
<i>skipped question</i>	380

38. For å være med i trekningen av et VISA gavekort trenger vi ditt telefonnummer eller din mailadresse for å kunne kontakte deg.

Answer Options	Response Count
	207
<i>answered question</i>	207
<i>skipped question</i>	191