

CRIME COST KINDS AND THEIR ASSESSING METHODS

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Abstract

Emil Durkheim assumes crime as a natural phenomenon. Not for its being disorder but for its being normal and always exist in human communities. So it can be said that crime is a natural and unpleasant event because its occurrence cost too much. This study is survey about the costs of crimes in different levels and an effort to establish instructions to assessing and returning that crimes to money. But assessing the crimes cost in certain place and time using statistics and data and establishing efficient criminal policies and using other functions of this subject will be next stages of the study.

Keywords: Criminal act costs, community reaction costs, assessing crime costs methods, prevention costs

Introduction

One of the main arguments in criminal sciences is crimes costs. Crime cost idea firstly and in an elementary way was presented as a report by Smith in 1901 to international prison commission dependent to US congress. Subject of the report was assessing the general costs of preventing crimes (Smith, 1901). At first assessing techniques were based merely on calculating objective and tangible costs like: value of destroyed or stolen properties, police costs, judicial costs, medical maintenance cost and etc. but then it revealed that this is not a comprehensive approach. Especially when these methods calculated the robbery costs more than murderer, this problem became obvious. In next year methods to calculate the costs more comprehensively and satisfactory were invented but overall literature of this argument is not so rich.

Some think that calculating the crime cost is impossible and unpractical (Zimring and Hawkins, 1995: 4). For example how it can be calculated the costs of rape or fraud or even murderer? How it is practical to calculate the life of a person value? Is it possible to change to money the spiritual harms resulting of a crime? Against this approach most of writers tried to invent methods to calculate the certain amount of a crime. But the common point of these two approaches is that both think counting and classifying the costs and their analysis is a useful action.

In this paper, firstly we will discuss about the advantages of assessing crime costs in different branches of criminal sciences, then methods of doing such a work and worth to mention that this work is the first one in its level.

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1. Benefits and functions of the estimated cost of crime

If we can calculate the cost of any crime in the community, its first benefit is that we understand the crime phenomenon importance and proportion comparing other social issues (Rudy Haapanen et al, 2009: 2).

Second function of assessing crime cost determining is the authorities' priority in confronting with the crime (ibid). All of the resources and organs working about crimes from legislation authority which works on crime writing and decriminalization, determination of kind and amount of crimes, determining general policies for combating with crimes and budget allocation to judicial organs which are involved in pursue, research, investigation and performing punishment to organs involved in prevention of crimes, all and all in a period of time have put emphasis on one of the crimes. For example in Iran, legislation organ priority was crimes against ethics and social norms and reinforced this crime punishment. Or judicial organ made combating with political crimes as its priority and in other period combating with economic crimes, or police in a period of time combated with improper clothing and in other period combating with bullies and hooligans as its priority.

But how these priorities are determined? And how should be done? Unfortunately in most of the countries liable organs priority is not determined with scientific criterion but due to some events randomly occurring in community are their causes or authority's commands which were focused on by media were it roots. These traits are obvious in mentioned examples. But scientifically the priorities should be set according to computation of crimes cost. In other words, any crime which causes the most cost should be the priority to combat with.

Other function of determining the crime cost is in codification of efficient and the most useful criminal policy (Dossetor, 2011: 4). When a program is performed we can calculate the crime cost during its performing and by comparing to previous periods, the decrease rate of crime can be found out and by comparing the amount of saving with performing costs of the program we can find out its efficiency. Through this method, we can choose the best program to combat with crimes and have a criminal policy with the best applicability. Other function of assessment of crime cost is in punishment theories. In deserve theory it is said that person is deserved to be punished due to committing a crime, in other words, because he has done a bad act, so he would see its bad consequences. But the answer to the question that how much badness he has done and how much badness he deserves are calculated by assessing crime cost.

In fact the severity of the crime should be found out firstly, and then we would be able to calculate the punishment equivalent to it. In benefit theories however the crime severity is important because in these theories it is intended to determine the suitable punishments in order to meet the prevention goal. So in both theories severity of the crime is important and one of the ways to determine the crime severity is its cost assessment. So legislator following any of the mentioned theories, in composing the patterns of crimes punishment and determination of kind and scale of punishment of a crime are in need to refer to people views and assessing crime costs in their own societies for classifying the crimes according to the importance and severity (Czabansky, 2008: 57-97).

But reaching to these benefits and using these functions need to pass through a certain paths which in next chapters we will mention them.

2. Methods and procedure of crime cost assessment

First step is classifying the crime costs. We should try to present a comprehensive classification as it is possible which consist all the cost a crime may have. In fact we are going to find out if a crime wouldn't exist in community, which costs wouldn't be paid by the people. In this step the intention is that no cost be omitted.

Next step is inverting every cost to money. As much as it is easy in assessing tangible costs, it is hard for assessing intangible costs like moral and emotional harms, fear of being misused again and etc. some believe that just objective and tangible costs should be taken and calculated because intangible costs are not able to be inverted to money (Dorr and Simpson, 1931: 71). But in answer it should be noted that omitting these costs from assessing crime costs, is omitting all the traits of the crime which made it unpleasant, so there is no way except inverting both tangible and intangible costs to money because only in this way we can have a criterion which is exact, tangible and ability to compare and it can be provided functions by which assessing cost can be done properly and scientifically.

In third step, by providing exact information and data from committed crimes and their costs in community, according to the provided list of costs in previous step, it should be tried to calculate the crime costs of the crimes in certain periods of time and place separately. For example costs of crimes like robbery or murder or ... during a year in Iran or Tehran city or ..., in this route it is necessary the availability of data related to committed crimes statistics, black rate of crime and information about the exact costs any organ has done about certain crimes. Also methods for calculating crime costs is exists that for example for calculating a murder crime cost it didn't go to details but using some mechanisms determines a number as a cost of every crime.

After determining the crimes costs in detail and overall amount in a given period of time and place, conditions for applying given functions about calculating the crime costs is provided and determined ends are met. Here we mention searches about the subject and their findings, these all are done in accord to composing useful and efficient criminal policies.

Levitt in 1996 proved that keeping a professional criminal in jails reduces near 15 crimes a year and it is too profitable to sentence them to long term imprisonments (Levitt, 1996: 331). Cohen in 1998 proved that if we manage to rehabilitate a young criminal in order to not committing a crime in future, we have saved 1.7 to 2.3 million dollars a year (Cohen, 1998: 18). Farrington and Welsh in 2002 proved that using surveillance cameras in crime prone and high risky areas is completely affordable so that it cost to profit proportion is 1 to 5 (Farrington and Welsh, 2002: 268). Gill and Spriggs also in a scientific research in 2005 proved that placing surveillance cameras in closed areas and especially for preventing car robbery is affordable (Gill and Spriggs, 2005: 314).

3) Classification of crime costs:

As mentioned before, first in calculating the crime costs argument it was paid merely to the objective and tangible costs and with this justification that intangible costs cannot inverted to money, they excluded from the costs and crime costs classifications naturally were based on objective and tangible ones. Such approach is seen in Smith report to international prison commission dependent to US congress in 1901. This report focused on general costs of crime prevention (Smith, 1901).

Dorr and Simpson 1931 in their report to national commission paid to the imposed costs to the victim of crime but again their focus was on objective and tangible costs (Dorr and Simpson, 1931: 88). This objection was seen in researches about the calculating the crime costs for years, including the report of the commission of law enforcement and justice of president office

(President commission, 1967: 88) and Joel and Gary research (Gary and Joel, 1979: 15). From early 1980 on the idea of calculating the intangible costs in crime costs was appeared. And methods for it calculating were presented which we will pay to them in next chapters.

Anderson was one of those who paid to this argument in details. He in his classification about crime costs with mentioning to the 30 item tried to cite all the crime costs but this crucial objection also was in his works that he never paid to intangible costs of crimes (Anderson, 1999: table 3.4 p. 630). A year later a research was done by Brand and Price (Brand and Price, 2000) which was revised by Debourg and et al in 2005. In the study there was exact and complete division about crime costs which included intangible costs too. This classification was our basis in this research. In this research crime costs are divided to three main groups: 1.criminal act costs, 2.community reaction costs and 3.preventional costs from being victim of crime (Debourg et al, 2005: 34). We will analyze all the three groups in details.

4. The costs of criminal act

This group of crime costs includes those costs which are spent to the crime victims and their families or as English people says to whom are living with him in a home and to some extent for a community in which crime victim is living in, and of course tangible and intangible costs like mental harms and being a crime victim again.

In a more exacter division these group of crime costs can be divided in five subordinate groups: 1.direct financial loss like stolen, destroyed and or harmd properties, 2.missing time due to the occurred crime, 3. Crime medical care costs 4. Mental harms and pains and suffers from a crime and 5. Secondary costs resulted from the crimes of white collars.

As mentioned before, these costs are related to the crime victims but as it is obvious in some of the above cases crime victim or other members of the community are sharing these losses, for example some of the medical care may costs of the crime victims are paid by the insurances, so in these cases costs are imposed to the all of the community people or all of the insured people. Imagine the crime victim cannot be able to be present at his work, here the factory where he works should substitute him with another one which is time consuming and expensive. Also here all the community people and at least all the employees and stock holders of the factory should pay some costs.

4.1. Direct financial losses

Assessment method in these group of crime costs are self- reported (Webber, 2010: 3). These groups of crime costs have no problem inverting to money because they are tangible and objective. Of these kinds of costs we can mention to harmd or destroyed properties in destruction crimes, stolen properties in fraud crime and malversation and stolen property in robbery crime.

Some believe that buying narcotics and alcoholic drinking in order to have illegitimate sexual relationship is of direct financial costs (Anderson, 1999: table 3.4, p 630). But this approach doesn't seem to be exact because in such occasions People spend money willingly and exchanging money is by satisfaction. It is true that narcotics, alcohol and prostitution create too harms and are harmful for people's health but many of the human behaviors like smoking tobacco and eating chips and soft drinks have such characteristics.

From economics point of view, when a person spend money for getting goods or services even illegal one it shows that the goods or service is valuable for the person. It seems that in these cases it can be noted to the social costs assessment and social and family results and also costs spent in order to prevent this improper and abnormal phenomenon (Phillips and Votey, 1981: 55-56). The other argument here is that when a thief robs a property from a crime victim, the

community losses nothing but some property is transferred from a person to the other one, so this is controversial whether we should account the stolen property values as a crime costs or not? This debate has a long history (Dorr and Simpson, 1931: 35).

Though there is difference between the voluntary transfer of property (i.e. what happening in market place) and involuntary transfer (theft), but some like Brand, Price and Cohen propose that we should differentiate between social costs of crimes and their apparent costs. Apparent costs in their definition are those which are imposed to certain person but social costs are those decreased from the community profits and properties. For example they say that the value of stolen property are of apparent costs of crime and are important only for the victim of crime but burned and destroyed properties are of social costs of a crime because these are decreased from the community properties (Brand and Price, 2005:58), (Cohen, 2005:14).

But this approach don seems correct. Let's imagine theft is simply handling stolen property without the consent of the property owner and is not harmful to community, is ultimate shortsightedness and improvidence. When the theft rate increases in a community, the costs for prevention from it would be increased too and more time is spent for prevention which could be used for other useful things in community. Besides, when the possibility of theft of our property increases, proportionally our motivation to work and to acquire more assets will be reduced. So the community cannot be indifferent to the unwilling handling of properties in the community and assume it neutral and separate its costs as social costs from the crime victim costs as apparent cost.

As noted here that despite some author's opinion, community cannot be neutral about the costs of stolen properties and briefly proved that the values of stolen properties should be calculated in the crime costs assessment. But next question is whether the offender's own costs and profits should be calculated in cost-profit analysis or not?

Some authors approach is that the offender is also a community member and his profits and costs should be considered in cost-profit analysis. They argue that the profit which offender earns during a crime is equivalent reward for his spending time and efforts (Cook, 1983: 11), (Bentham, 1982 [1789]: 158). In this case, efforts, spent time and actions of the offender are calculated in the set of costs and property values of earned property in profit set. In other words, once the value of stolen properties should be considered in victim's costs set and once in the profit set of the offender. This latter phrase is the same view of the above argument, the differentiation of apparent costs and social costs.

But also this approach seems wrong. First reason for refusing this approach is that in many cases the value of stolen properties are not same for the original owner, the theft and the one who buys stolen properties, so it cannot be claimed that a property is transferred from one person to the other (Posner, 1985:1195). Other objection is that the profits for the offender is not his equivalent reward for his efforts and spent time and this analysis which is going to legitimate these profits and justifying their calculation in cost- profit analysis, is not acceptable because the profit earned from the crime for the offender is for taking the risk of being punished (Blumstein and Cohen, 1980: 235).

But the main reason for refusal of this approach is that we cannot consider the offenders criminal actions as legitimate and calculate it. In fact making profit from a crime is the only thing we are gathered to fight with, so we cannot legitimate it and calculate it so it's legitimating means legitimating crime and criminal actions. In other words, in costs-profit analysis, we cannot account the profits which their equivalent is not provided because the other side's satisfaction is not taken and the profit is illegitimate.

Although it must be admitted that there are differences in the state property is stolen and harm or burned and in second condition more severe harm has occurred but not mentioning the stolen properties values in crime costs set or mentioning the stolen property value as profit of the offender referring to the above reasons is not acceptable.

Also a same argument is presented about the punishment that whether suffers and pains of tolerating punishment must be calculated in the assessment of crime costs or not? The harms that offender family takes are of crime costs which are created by community reaction to the crime are definitely of crime costs. But pains and suffers taken by the offender himself are not included in crime costs because the pain and suffers are not same for all offenders so that they may take no suffer or pain for their committing crimes and secondly according to any theory of punishment we accept, punishment is a legitimate action which the offender must take so the pains and suffers resulting from it cannot be taken as crime costs.

4.2. Time loss due to the crime

Victim loses some of his time due to the crime which is material or moral. For example victim spends some of his time for criminal justice system reference. Also victim due to the victim may be mentally ill like depression illness and stay home for a while. The value of the times the victim loses must be calculated in crime costs. When victim dies resulting from the crime this value is equal to the life of a human value.

The most common method for assessing the cost relating to this case of crime costs is the lost productivity. In this method the number of hours the victim had lost is calculated and inverted to the days then we calculate the work time a day he may work and the amount of every hour of his work time is calculated (Martin, 1964: 595).

Of course there are some objections to this approach. First is that the value of lost times is calculated from the other one view not the victim himself point of view (Freeman, 2003: 302). For example, if a person works an hour less a day in order to have one hour more leisure time don't mean his one work day value is less than others on the contrary, it means that the value of one more hour of leisure time is valuable to him than one more hour of work time income. And in other words his time is more valuable to himself. As cited, personal assessment is not regarded and only the time value is calculated from others point of view. The minimal thing to do here is that we calculate the normal work hours for these people.

The other problem this approach is faced is that of determination of the value of the time of the people who have no jobs like: students, the youth searching work, housekeeper womenin order to removing this problem Dolan et al proposed a new method. In this method which is named lost output it proposed that for calculating a lost day value for every member of community, average income of the community people should be considered (Dolan et al, 2005: 995).

This approach is politically proper and reminds the equality of community people principle but economically is not proper, because firstly, the income of the community members is not in a same range, but this approach assumes that the victims are selected randomly from community members, but it seems that Dolan et al view is acceptable for the people having no job, of course with accepting this fake presupposition that the value of every member of the community is equal.

4.2.1. The value of human life

For assessing the crime costs in which a human life is lost, the first approach is lost productivity. In this approach according to individual job, daily work time and monthly income till his life end, an amount is determined as lifetime value of the dead person.

A newer approach is willingness to pay. Here it is necessary to mention that our goal isn't determining a human life value but the goal is determination of the value of preserving a human life or in other words, determination of the value of saving a human life (Gould and Thaler, 1980: 11).

A method using this approach argues that all humans in their daily life are facing dangers when driving, working or resting They always in order to reduce the risks spend some costs. If they are intended to spend a dollar for a risk with one in one million possibility of occurrence, for example an alert machine for fume existing when firing, this means that according to statistics and their opinion, a human life value is one million dollar (Viscusi and Aldy, 2003: 22). This method is seen in Cohen and Anderson writings. Cohen using this approach estimated a human life saving value about 2 millions dollars (Cohen, 1988: 554). Anderson also used this method and estimated to save the life of a human being worth \$ 2 million (Anderson, 1999: 644).

Another method based on willingness to pay approach about the value of saving a human life is questioning from community people directly. It was firstly presented by Schelling (Schelling, 1968: 129). Researches show that in this method higher rates of numbers are achieved. For example, Cohen using this method estimated saving value of a human life about 9.7 millions dollars (Cohen et al, 2004: 130).

If we put our emphasis on the willingness to pay theory, the most important and as a result the most expensive crime would be murder. Some objected to this issue that here in assessing the crime costs and inverting it to the money which is tangible issue, it is considered to the intangible issues (Diamond and Hausman, 1994: 50). In response it can be said that in all the assessments which are the governments basis for decision making, these values (life, freedom, welfare and etc.) are considered from the subjective dimension and people point of views and maximum attention is paid to these values and there is no reason for issues related to the penal justice to be exception here.

According to what is said, the Dorr and Simpson report to national commission on law observance and enforcement of America 1931 is not based on science not just for improving the methods of crime cost calculation but assessment of crime costs with tangible and objective methods will veil the real importance of crimes and their real severity regarding to each other and cause of not observe the real tendencies of the people properly and assess the real crime costs and real request of people for security less than the real amount.

4.3. Medical care costs and returning health

Some of the crimes cause injuries and illnesses which need to medical care. The costs of these services are of apparent costs of crime. Here it is necessary to mention that medical care and returning the victim health is not equivalent to the injury own harms. For example, when a person remains alive in an accident, his medical care, rehabilitation and etc. need a huge amount of money. But if he dies, he won't need to such expenses. Here we see that in first scenario the medical care costs and in the second one harm costs is more. In this group merely medical care costs and returning health to the victim is of importance and costs of mental harms, pains and suffers come in the next group of costs.

4.4. Mental harms and pains and suffers resulting from crime

After occurring a crime, the victim and his family face too much suffers and pains. For example anxiety, moral confusion, physical pains, sense of weakness and losing confidence, losing life quality and etc. researches show that the victims of crimes for a couple of months fear of being a crime victim again and are exposed to the stress of being victim again (Cohen, 2005:54).

In these groups of crime costs, unlike the medical care costs which their value is clear, the financial value of costs are not clear. Although some expenses can be done for relieving or removing some of the mental harms and pains and suffers, for example referring to a psychologist and etc. but these costs never can be equal to the mental harms costs. From the other hand there is no clear way for assessing and computing the costs of a mental harm and while this group of costs are very important and can be said the most important costs of crimes (Cohen, 2005: 57). Finally it is proposed that we must use direct questioning from the people (willingness to pay) so that according to community members understanding from severity of mental harm, pains and suffering of every crime, financial assessment of every crime be determined.

Here mentioning a point is necessary that in direct questioning method the value of harms of a crime is not questioned but value of prevention of occurring a crime and reducing a crime is asked. For example it is asked from people; from your point of view for reducing 10 percent from rape crime which is annually 1200 cases, how much money is worth to cost? Of course the person himself like every member of community is considered to be exposed to that crime. This question is asked from people about other crimes too. People considering both financial and non-financial costs of a crime answered to the questions and determined the severity of crimes compared to each other. So in this method without entering to the trivial costs created by every crime, by questioning from people we determine a number for every crime as its costs. For example we say that the cost of rape crime in US is about 4.5 million dollars without entering to the trivial costs of rape crime in the country.

Another method is quality of life adjusted for a year (QLAY) in which we use willingness to pay method in it. In this method through arrange of number we determine 1 for alive and 0 for dead person. So when a negative event occurs for mental and physical health of a person, he loses a certain rate of his QLAY. For example if a person is injured in an accident and for a year time his life quality is 80 percent and for the second year in which he is retrieving his strength it increases to 90 percent, he has loses 0.3 of his QLAY due to the injuries. Determining the quality rate of lost life of a person must be done by expert physicians and psychotrapists. Dolan the founder of this theory using a method based on willingness to pay theory proposes 120000 dollars for suitable QLAY. In shush a condition the above mentioned person is deserved to get 36000 dollars (Dolan et al, 2005: 965).

4.5. Secondary costs of crimes of white collars

About the costs of criminal act Sutherland says these crimes also have secondary effects. He says these crimes will ruin confidence in economics atmosphere, weakens social ethics and also destroys social confidence morality which is a huge fortune in order to progress of community goals (Moore and Mills, 1990: 418).for example people won't trust to great companies and invest in them. From the other hand, when people see that general authorities have financial abuses and are not able to pursue the influential white collar criminals and prevent from their abuse, lose their trust to the authorities and government. From other hand influential general authorities and people namely white collars of the community commit abuse and crimes, you cannot expect from the youth and people to be honest and do legally.

As said before the followings are the effects of white collar offenders' crimes which in fact impose a great amount of costs to the community; 1. Decrease in internal and external investments 2. Government income decrease 3. People's less motivation to reach to expertness 4. Ethics and social confidence being weak 5. Weakening of people trust to authorities and government and increase in the costs of public services.

5. Community reaction costs

The community reaction to the crime is of well known group of crime costs. As Smith in his 1901 report to commission of prisons dependent to US congress paid to these groups of costs and in researches about crime costs after him also these costs were considered. These groups of costs include completely clear and obvious items like; costs of police, prosecutors, criminal courts, agencies and institutions responsible for enforcing sentences of imprisonment, care after leaving prison. In developed countries used costs in every institution are clear and are announced annually.

Another important point is that sometimes community reaction to the crime is mixed with other actions. For example, forest guards in the protected areas are as executive officers, even though they have other duties like guiding visitors and collecting data about the condition of protected areas and help to maintain and preserving it. Chain store staffs put goods in the shelves, help customers and control them on order to prevent robbery, or firefighting organization in case of deliberate firing should pay costs even though it is not the organization main duty. So the costs of police agencies, prosecutors, courts, and criminal, penalties and enforcement agencies after leaving prison health care institutions are not the only costs incurred by society in response to crime.

Moreover to what is said even if the costs of other institutions which use public tax resources and sometimes spend costs in reaction to the crime be calculated exactly, again our calculation is not the whole of what exists because the tax collection itself is an expensive process and cause other crimes like tax evasion. Also the process of getting tax imbalances the economy from its natural condition and damage it. These are direct effects of crime which of course in any of the researches haven't calculated exactly (Stuart, 1984:412).

6. Prevention costs for avoiding of being victim

What is came in the discussion of community reaction costs were costs which spent from public budget but apart from these costs people themselves spend some costs in order to enhancing their life security. Here is two discussable points; first some researchers think that personal costs for reducing crimes don't reduce the crimes but change the victim. Mikos is disagreeing with this opinion. He argues that when the crime occurrence is transferred from more sensitive victim to less sensitive victim, that crime domain and effects reduces (Mikos, 2006:319). Other discussion is that it has been said that when public costs for reducing crimes increases probably people do spend less personal costs which one of its effects is not reducing the crime rate to what is expected (Mikos, 2006: 322).

All the people knew that they can be a victim so they do actions in order to not to be a victim. For example, they prepare equipment and security devices such as locking, alarm, CCTV camera or spend some time for locking or opening the doors or maintaining it. Anderson in a study claimed that every adult person spend two minutes for shutting or opening locks and daily he spends two minutes searching for his keys (Anderson, 1999: 632). Also he avoids of some people, some places and some actions because he cannot trust easily. For example a person do not walk in the park at night because of fear of being robbed or due to the fear of being a bullying victim do not go to a recreational place and or from the fear of fraud people do not invest in an economic activity.

Some of these expenses like buying security equipments' are not easily computable. some are n the frame of lost times but some like avoiding from some people, places and activities which lead to lowering life level are not easily inverted to the money and computable .

Theory of willingness to pay also consist costs people want to be expensed from public budget in order to reduce a crime and we using this method can calculate the severity, importance and value of overall costs which a crime creates from people point of views but this amount is apart from the amounts may people want to spend for their personal protection so using this method also cannot be the key to calculate the crime costs.

7. Conclusion

Discussion about the crime costs is a fundamental one which has functions in variety of criminal sciences branches. Crime costs can be divided to criminal act costs, community reaction costs and prevention costs. Also criminal act costs are divided to direct losses, lost times, medical care costs, mental harm costs and pains and suffering due to the crime and secondary cost resulting from white collar crimes and costs of community reaction to the costs of pursue, research, investigation and punishment and prevention costs to material and non-material costs. In every kind of crime costs there are exact and delicate discussions which we paid to them and presented ideas about them.

About computing every kind of crime costs and methods for inverting them to the money also presented exact discussions. In some cases which costs were material this work is done easily but in non-material ones willingness to pay and life quality in a year are more scientific compared to other approaches? In next steps crime costs in certain place and time should be computed and according to obtained data an efficient criminal policies should be composed and use from other functions of this discussion

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