

## **The Realities and Patterns of Crime in Kazakhstan: Some Approaches to its Analysis**

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**Abstract:** The crime is one of the important parameters of society. Accurate and detailed information about crime and criminals in the country in general and in the regions is required to ensure the safety of people, to improve the effectiveness of law enforcement and to increase the productivity of governing decisions. Increasing the reliability of the criminal statistics is a topical issue for Kazakhstan. Basing on comparative studies, the research states that the system of official criminal statistics of the Republic of Kazakhstan lacks credibility and needs to be improved. The researchrs recommend the ways to improve the reliability, accuracy of criminal legal statistics and the quality of their analysis.

**Key words:** Dynamics of crime, criminal risks, latency, the “cost” of crime, credibility of the criminal statistics, mathematical tools

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### **INTRODUCTION**

At the beginning of the XIX century, a Belgian professor of Mathematics and Astronomy Lambert Adolphe Jacques Quetelet who conducted the most extensive statistical research, wrote: “There is a budget which we pay with frightful regularity it is that of prisons, dungeons and scaffolds. We might even predict annually, how many individuals will stain their hands with the blood of their fellow-men, how many will be forgers, how many will deal in poison, pretty nearly in the same way as we may foretell the annual births and deaths”.

In reality, things are a bit different. Today, despite the existing crime recording systems, no country in the world knows how many crimes exactly are committed in its territory. The costs of society on the fight against crime are directly proportional to the number of crimes committed in the country which ultimately determines the “cost” of crime. The number of crimes and the “cost” of crime are related parameters, affecting the quality of management decisions. Quite often, the research and analysis on crime in Kazakhstan are superficial and do not meet the requirements of representativeness. This may partly be explained by the paucity and disunity of the research structures in Kazakhstan.

In many cases, the criminologists of Kazakhstan like to rely on the Russian analytical data and even extrapolate them to the Kazakhstani reality. There are some objective reasons to this. The difference in the population between Kazakhstan and Russia amounts 10-8 times in the period from 1990 to date. Kazakhstan is considered the most Russified and mentally close to Russia among the countries of the former USSR.

It is not an indisputable statement. In fact, there are no identical countries, however close they are. This is evidenced by the infamous and continuing Ukrainian-Russian relations. However, it is true that in many ways Kazakhstan resembles its Northern neighbour.

Any criminological comparison between Kazakhstan and Russia can be conceded with certain reservations only. Despite the apparent similarity, the same processes often progress differently in Kazakhstan and Russia and as a result the two neighbouring countries are extremely different in many respects which are not considered by many researchers.

According to the law, the general prosecutor’s office of the Republic of Kazakhstan generates state legal statistics in order to ensure the integrity, objectivity and adequacy of statistical indicators; keeps special records, supervises the implementation of the legislation in legal statistics and special records; coordinates the activities to ensure the rule of law and order and combating crime; reports to the president of the republic on the state of the rule of law in the country and the activities of the prosecutor’s office; analyses the practice of supervision over the implementation of the law, the state of the rule of law in the country.

An analysis of crime conducted by the general prosecutor’s office of the Republic of Kazakhstan, to some extent is informative, it describes the level, dynamics, structure of crime, provides data regarding the perpetrators of the crimes. Also, there are the data on regional crimes, comparing population’s incomes, unemployment and crime rates, etc. At the same time, it

should be noted that this analysis does not give answers to many questions, some questions remain open.

It is well known that official statistics cannot give an objective picture of the crime in any country. Numerous Foreign studies have shown that the media provide an image of the crime opposite to the real: the most frequent crimes are reported less often but the rarest offenses-more often. The primary criterion for the choice of criminal stories to be covered in the media is their appeal to broadcast. This is why, the general public receive highly distorted picture of crime.

Therefore, those who are interested in obtaining more accurate picture turn to different sources in addition to the official statistics. In this connection, the analysis of the crime in Kazakhstan based only on official statistics lacks credibility. Only occasionally the analysts of the Prosecutor's office of Kazakhstan add the results of individual polls in their reports. The representativeness of these surveys is always questionable.

On a large scale, accurate and detailed information about crime and criminals in the whole country and in the regions is needed to ensure the safety of people, enhance the effectiveness of law enforcement and the management decisions. Unfortunately, despite the system of total record of all offenses in Kazakhstan it is difficult to obtain the necessary information about crimes and offenses and persons who committed them.

Some important issues remain ignored such as social and territorial distribution of crime (crime geography and topography, gender, age, ethnic description of offenders, the level and structure of many types of crime (female, juvenile, political, corruption, organized, terrorist, religious, transnational and military as well as offenses of foreigners and crimes against them and so on).

In addition, the data of criminal statistics should be studied in their various (functional, correlation, statistics, etc.) connections to unemployment, poverty, migration, stratification and others. Despite the abundant diversity of literature on crime, there is still no single theory of the crime ontology, its causes and no concretized data of the public danger, the real magnitude and social consequences. The criminological research area is replete with multiple concepts and hypotheses. We found no fundamental research on the crime measurement in many important criminological aspects in Kazakhstan. One of the most urgent issues in this circle is the problem of social consequences, the cost of crime.

The reliability of the criminal statistics and the population's trust in law enforcement agencies, present an actual problem for Kazakhstan. The domestic legal literature provides insufficient studies of the statistics' reliability, the quality of its analysis, the application of mathematical methods in law and criminology. To a great extent, these issues are reflected in the works of Russian and Western scholars as well as in the media.

The purpose of this research is to investigate the crime and security risks and to develop recommendations to improve the quality of the crime analysis and improve the reliability of crime statistics.

## MATERIALS AND METHODS

**The main part:** Today, a system of criminal statistics authorities exists in Kazakhstan, as in any civilized country. Kazakhstan regularly provides statistical data to the UN entities. However, the validity and quality of the crime rates' analysis are doubtful. This is evidenced by sudden changes in the crime dynamics in the past few years. So, in 2011, the crime level surged by 57% compared to the previous year and in 2012 the increase was 39% higher than in 2011; 359844 crimes were registered in the country in 2013 which is 25% more than the previous year. According to the official statistics, the crime increased by 196% from 2009-2013.

In 2014, there were recorded 341291 crimes, 5.2% less compared with 2013 year. However, this decline does not overlap the previous crime leap and stays within statistical error (Fig. 1 and 2).

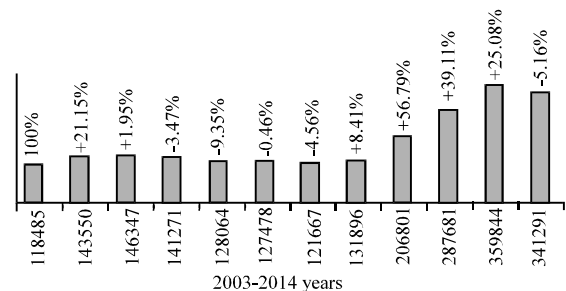


Fig. 1: The dynamics of crime growth in Kazakhstan in 2003-2014 (Compared to each previous year)

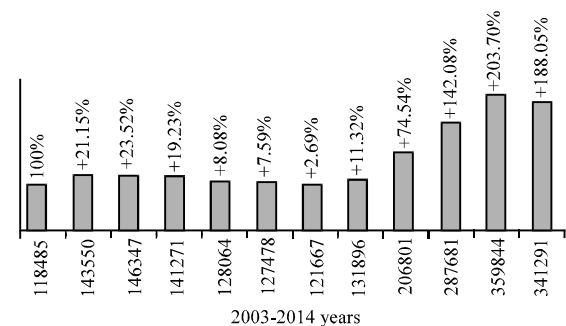


Fig. 2: The dynamics of crime growth in Kazakhstan in 2003-2014 (Compared to the base year of 2003, when the lowest crime rate since independence was recorded)

Table 1: The number of reported crimes in the CIS countries

Places	Total (units)			Population into 100,000	
	2011	2012	2012-2011 (%)	2011	2012
Azerbaijan	24263	21897	90.2	265	236
Armenia	16572	15776	95.2	507	481
Belarus	132052	102127	77.3	1394	1079
Kazakhstan	206801	287681	139.1	1249	1713
Kyrgyzstan	30520	28847	94.5	580	548
Moldova	35124	36615	104.2	987	1029
Russia	2404807	2302168	95.7	1682	1608
Tajikistan	16864	16593	98.4	219	215
Ukraine	520218	-	-	1138	-
Total across the CIS	3387221	3331922	98.4	1244	1220

Table 2: The structure of crime in the CIS countries in 2012

Place	Total recorded crimes	Crimes against property	Grave and especially grave crimes against person	Drug related crimes	Hooliganism	Other types of crime
Azerbaijan	21897	6336	667	2559	1272	11063
Armenia	15776	5221	264	1139	189	8963
Belarus	102127	61651	1536	4230	1748	32962
Kazakhstan	287681	223648	5380	3659	17375	37619
Kyrgyzstan	28847	15640	982	1933	2602	7690
Moldova	36615	17287	908	1575	1284	15561
Russia	2302168	1282892	54842	218974	5155	740305
Tajikistan	16593	6510	252	863	856	8112
Total across the CIS	3331922	1947522	71408	288138	39347	985507
<b>Percentage to the total number of registered crimes</b>						
Azerbaijan	100	29	3	12	6	50
Armenia	100	33	2	7	1	57
Belarus	100	60	1	4	2	33
Kazakhstan	100	78	2	1	6	13
Kyrgyzstan	100	54	3	7	9	27
Moldova	100	47	2	4	4	43
Russia	100	56	2	10	0.2	32
Tajikistan	100	39	2	5	5	49
Total across the CIS	100	58	2	9	1	30

Table 3: The number of reported crimes against property in the CIS countries in 2011-2012 (in units)

Places	Theft		Robbery		Hold-up		Fraud	
	2011	2012	2011	2012	2011	2012	2011	2012
Azerbaijan	5019	4236	306	252	153	132	1588	1716
Armenia	4207	4019	238	247	106	63	737	892
Belarus	73598	56378	3252	2367	389	289	3901	2617
Kazakhstan	121617	178461	18117	20259	1962	1666	15909	23262
Kyrgyzstan	12008	10848	2434	2074	482	414	2018	2304
Moldova	15060	14294	1151	1175	152	167	1574	1651
Russia	1038566	992238	127772	110063	20080	18622	147468	161969
Tajikistan	3669	4155	204	269	84	43	2255	2043
Ukraine	277598	No data	22966	No data	3715	No data	24058	No data
Total across the CIS	1551342	1542227	176440	159672	27123	25111	199508	220512

The country has never known such sharp dynamics! What is behind this data? Whether, it is the actual increase in crime or improved records keeping? The authorities tend to accept second explanation. Is it really true? If so, it turns out that all the years previous to the new records keeping system not only the general public, but experts as well operated invalid data that did not reflect the true reality. In this connection, it is interesting to compare the data of criminal statistics in Kazakhstan and other CIS countries as reflected in Table 1-3. Table 1-3 was compiled basing

on the statistical data analysis, published on the websites of the law enforcement agencies of the CIS countries and Kazakhstan.

Indeed, the data of Kazakhstan's criminal statistics shown in these tables differ from those of its closest neighbours substantially. What does this mean? The increase of crime in general as well as significant increase in the proportion of non-violent crimes against property and decline in the proportion of grave violent crimes separates Kazakhstan from its close neighbours and brings it to the level of developed countries. Is this, only

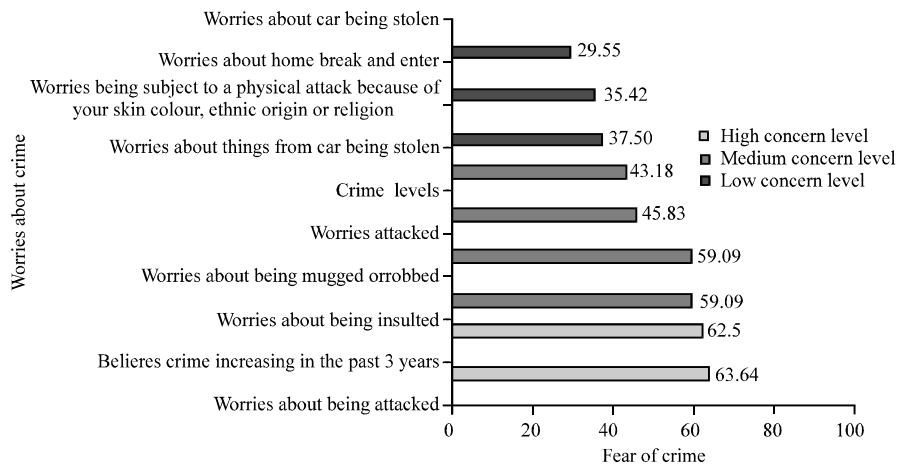


Fig. 3: The perception of the criminal danger by population in Kazakhstan (level of concern)

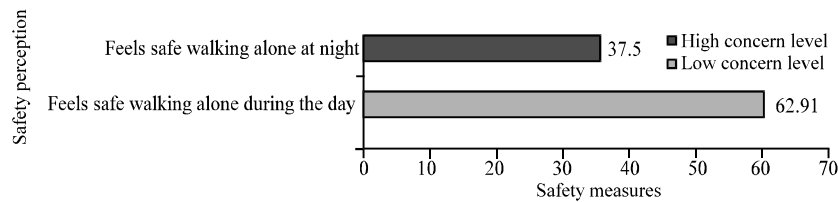


Fig. 4: The population's perception of safety in Kazakhstan

the result of introduction of the crimes electronic registration procedure, i.e., improving crimes recording or a reflection of the socio-economic and other processes occurring in the country?

It is impossible to give detailed answers to all of these questions in one article. This requires a more complex analysis of various parameters of not only crime but also unemployment, poverty, property stratification, migration, drunkenness and alcoholism, drug addiction, prostitution, the legality and legislation and so on.

**Perception of crime by population:** Due to the increase of crime rate in Kazakhstan in the recent years, the attitude of the population, its different strata to this factor attracts interest. It is remarkable that society reacted calmly at the sharp, almost abrupt rise in crime. There was no public panic, a heightened sense of security of the citizens. There were no changes in the attitude of various sensitive sections of the population: children, women and the elderly, taxi drivers, truck drivers, businessmen, etc.

There are examples of security perception level's estimates in Kazakhstan, through an electronic survey of sites' visitors on 100-point scale where the 0 value means that the danger is very low while the value of 100 means very high perceived danger. Thus, according to one of these surveys, most indicators stay within the moderate corridor in Kazakhstan.

These include concerns over violent hate crime (worries being subject to a physical attack because of your skin colour, ethnic origin or religion) 37.5; worries about being attacked 63.64; worries about being insulted 59.09; worries about being mugged or robbed 59.09; worries about car being stolen 29.55; worries about home break and enter 35.42; worries about things from car being stolen 43.18; believes crime increasing in the past 3 years 62.5; crime levels 45.83 (Fig. 3).

Respondents evaluate the safety of walking at night as low at 37.5; and staying at the streets during the day as higher 65.91 (feels safe walking alone at night- 37.5; feels safe walking alone during the day 65.91) (Fig. 4).

The less worrisome (from 29.17-38.16) were assessed such as the risk of car theft (29.17), attack because of skin colour, ethnic origin or religion (31.58), the problems of drug addicts or drug dealers (33.33), the risks of home break and theft of things (34.21), the possibility of violent crimes such as assault and armed robbery (38.16).

According to the respondents' estimates among the most concerning issues are: the level of corruption and bribery (65.28) being on the street at daytime is more or less safe (72.22) but the safety of walking at night is low (35.53). This all is clearly reflected in Fig. 5.

It is well known that a real change in the criminal situation is reflected in the mindset of the population.

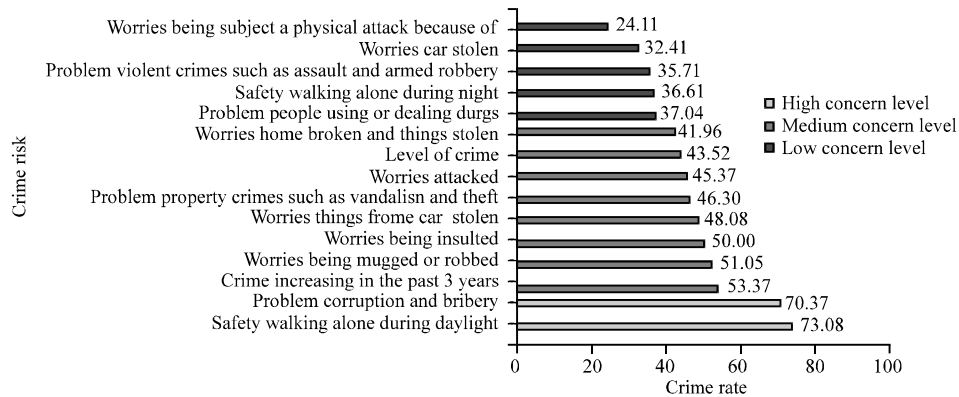


Fig. 5: Crime risks in Kazakhstan

Remember that crime growth in general in the Soviet Union and particularly in Kazakhstan, started in 1989. The crime rate reached its peak in 1993 with 206006 crimes a year. The echo of the terrible criminal atmosphere that prevailed in the towns, streets, roads and public places in the first half of the 90s of the last century, after the collapse of the previous system is still alive in the memory of the majority of the adult population. In that period, society really faced a real overall outburst of crime and in the first place, severe violent crime for the first time in several decades since the war.

Further, the establishment of the new economic and legal system resulted in a gradual drop in crime. A peculiar positive “hole” was reached in 2003 with the number of 118485 crimes. Although, there were some fluctuations in the crime level from 2004-2010 in general statistics drew relatively fine horizontal. And, it is interesting that in general, the public spirit, the citizens’ feeling of safety corresponded to the same line with “well-being”. This was evidenced by a variety of sociological studies. So, you cannot say that the “ominous” statistics in those years hid the real increase in crime.

#### The problem of latency and the “cost” of crime:

According to the corruption perceptions index Kazakhstan ranked 147th in 2013, dropping by 7 degrees compared to the year of 2012. Despite it, official criminal statistics present us a favourable picture of the corruption level in the country. Probably, that’s why the analysis of the general prosecutor’s office does not give an assessment of the corruption level and the society’s corruption potential.

There is no official reliable data on other types of crimes as well. Thus, the degree of the environmental crime detection also does not correspond to the high level of pollution (Mataeva and Mukasheva, 2014) although,

living in many cities of the country is dangerous due to the hazardous contamination. The list of such facts can be continued.

In the crime analysis for 2003-2012, the analysts from the general prosecutor’s office provided results of a poll, commissioned by the RK Agency on Statistics: 3.5% or 12 thousand out of all 356000 respondents admitted becoming crime victims, only 46% of them or 1.6% of the total number of respondents contacted law enforcement agencies. Extrapolating this data to the registered crime rates, the prosecution bodies’ analysts estimate that 446 thousand crimes have been actually committed in the country in 2011, regarding 206 thousand cases of which, citizens contacted law enforcement agencies (206801 crimes were officially registered in 2011). From here, the prosecution bodies’ analysts deduced a very interesting ratio of latent and actual crime in the country of 2:1. As follows from the analysis’ text, they spread this ratio not only on 2011 but also on a number of previous years.

The following chart reflects the volume of crime in the country from 1992-2014 (Fig. 6). Upon looking at that data through the prism of the “law of large numbers” and other statistical patterns we can see the inconsistency of the official Kazakhstan legal statistics and its formal analysis. Even by the most conservative estimates, the ratio of latent and actual crime amounts to a large number. There is a much more dramatic ratio between actual and latent crime than 2:1.

So, Konev evaluates the ratio of common indicators of latent and registered crime as 10:1. The latency of various crimes is extremely high. Taking the reported crimes by type as a unit we can figure out that, the latency in murder can be 2 in rape 6, grievous bodily harm 4.9, hooliganism 27.9, armed assault 33.8, robbery 57.7, theft of personal property 157.7, theft of state property 73.2, larceny of state property 65.6, deception of

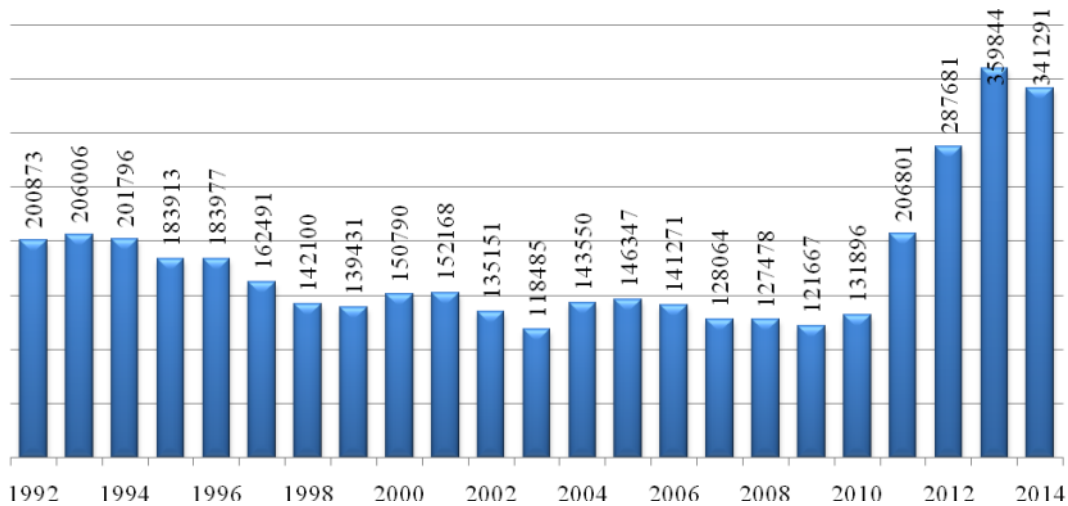


Fig. 6: The dynamics of registered crimes in the country

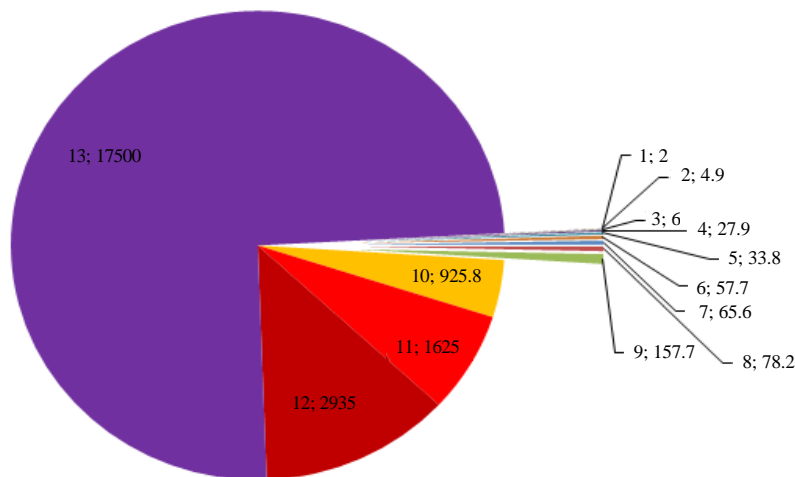


Fig. 7: The ratio of latency and registry of certain crime types: 1; murder, 2; grievous bodily harm, 3; rape, 4; hooliganism, 5; armed assaults, 6; robbery, 7; larceny of state property, 8; theft of state property, 9; theft of personal property, 10; official embezzlement of state property, 11; deception of customers, 12; bribery, 13; extortion)

customers 1625, official embezzlement of state property 925.8, bribery 2935, extortion 17500. These data can be represented in the following way (Fig. 7).

Here, we specifically take the earlier period data when the criminal situation in the former USSR was more or less predictable. The problem of crime indicators' objectification exists not only in Kazakhstan and other former Soviet union countries but it is typical for other countries such as Finland (Pease and Hukkila, 1990; Aromaa, 2008), Japan, the USA and others. However, the western countries take measures to obtain more or less reliable data. So, in the USA, they selectively conduct victimization surveys of citizens and families twice a year, since 1972. And based on these surveys, analysts come

to the conclusion that the actual crime rate is 50-75% higher than the registered (Block and Block, 1984). Such a practice is inherent to Australia, Canada, the UK, Ireland, Israel, the Netherlands, Sweden and other countries. Internationally, such research was conducted twice by the United Nations Interregional Institute (UNICRI) (Del Frate *et al.*, 1993; Zvekic *et al.*, 1996).

According to the UN manual for the development of a system of criminal justice statistics, a system of criminal justice statistics must meet certain requirements. The very idea of a statistics system or programme implies an enormous amount of planning and coordination. A system of criminal justice statistics:

- Must be user-oriented
- Statistics are most useful in context and when related to other statistics
- To be useful, statistical information must be timely
- A statistical programme must be credible. At the same time, individually identifiable data and records must be confidential and the programme must be impartial, objective and technically and substantively sound
- As a criminal justice system itself, so a criminal justice statistics system must be effectively planned and managed. The production of good quality statistics is complex and potentially costly and thus requires effective management of human and fiscal resources

For the time being, the activities of criminal statistics are far from these requirements in Kazakhstan. The analysts of the Kazakhstan's prosecution bodies hardly go beyond the official data of criminal statistics and take special care, particularly, in their judgments about latent crime level. Their analysis looks lopsided because there is no reliance on alternative sources, on the data of sociological surveys of independent organizations that are not affiliated with the authorities and virtually there is no any comparative data analysis from various sources.

Opposite to this, for example, the United States offers free access to the criminal statistics. The Bureau of Justice Statistics (BJS) in US offers methodological research and encourages comments within 60 days prior to February 9, 2015, on the proposed methodological study to support the national survey of crime prosecution.

The problem of the "cost" of crime is directly related to the number of actual crimes committed. In this regard, Golik and Korobeev (2006) pay attention to an interesting phenomenon: the Russian and Foreign literature do not give information on how many crimes (in absolute rather than relative terms) are annually committed in the world in general.

"Each year >100 million crimes are committed around the world, including about 3 million in Russia, according to official data and 10-12, if not all 15 million, according to expert estimates (including latency). The world is becoming more and more criminal" (Golik and Korobeev, 2006).

According to some Russian sources (Golik and Korobeev, 2006), confirmed by various researchers, 200,000 crimes are allegedly committed in the world every hour. Elementary arithmetic calculation shows that 1.7 billion of such crimes could "pile up" in a year.

Thus, according to UN experts, in the present time the number of registered crimes around the world will

reach or exceed 0.5 billion and their actual number (including latency) will be in the range of 1.5-2.5 billion at the total population of >6 billion people (Golik and Karasev, 2005). By the laws of dialectics and the historical patterns, accumulation of quantitative changes leads to the qualitative changes (Nomokonov, 2002).

The data of Vedernikova (2001) shows that crime rate in the UK is about 9000 per 100,000 population, i.e., 4.5 times higher than in Russia. The criminological science today has elaborated a variety of latent crime studying methods (Schneider, 1994). Unfortunately, it must be noted that for various reasons, a proper investigation of latent crime is not carried out in Kazakhstan, neither at national level nor on private initiatives.

In 1947, Foreign researchers of latent crime have determined the fact of total criminalization of the adult population. More than 90% out of several thousand Americans admitted that they have committed certain offenses (including burglary, robbery, theft of cars and other property) but escaped any responsibility because no one knew about the crimes.

They have detected almost total prevalence of the population's ability to commit crimes. Kondratjuk and Ovchinsky (2008) consider it a significant discovery that confirms their concept of the psycho-spiritual "destructiveness code" universality (further we will return this issue).

In contrast, as Dolgova (2003) rightly notes, experienced criminologists and researchers know that people answer these questions, proceeding not from legal notions of crime but from their own everyday concept of "crime". Our research shows that, for example, the polls include into criminal hooliganism the facts of disorderly conduct, a neighbour turning a tape recorder at full volume, rudeness in a conversation and other incidents; under "theft" among other things is understood children's penetration into other people's gardens under the infliction of bodily harm; getting bruises and bumps, in children and youth mutual fights.

In summary, we can conclude that Kazakhstan should make more steps to obtain qualitative data about the registered and latent crime's parameters and get a real assessment of the social costs of crime combating. Even, after the introduction of a new crimes and offences registration system in Kazakhstan, the general state of statistics, its processing and analysis are still far from perfect.

## RESULTS AND DISCUSSION

**The problem of applying mathematical tools in criminological research:** Olkov (2006) fully stands for the

transition of jurisprudence to a common global research language, which he considers the language of mathematics. He believes it is necessary to use mathematical models in jurisprudence, as in economic theory.

Using logical and mathematical techniques, a Russian scientist Li (1997) has analysed statistical data from 1930 to the present time (until about 1997), characterizing the crime in the 27 countries of the world. Moreover, the researcher has had found and analysed the earlier statistics on the number of registered perpetrator. It should be noted that such an analysis had been conducted overseas earlier in the 30s of the last century (Kong, 1932) and by American scientists in the 60s (Bureau Census, 1960), as well as in the 80s of the last century (Cahalan and Parsons, 1987).

According to Li (1997), at the normal functioning of society as a system (this can be a single country, region of the world, the world as a whole), the number of criminals does not exceed 5.6% of the total population. The data of the researcher shows that the number of registered perpetrators is 24% of the total number of alleged offenders and 76% of them are latent part of the criminal contingent.

Basing on the calculations of Li (1997) and extrapolating his data into our reality, the number of criminals in Kazakhstan should range within 952 thousand people. Given that, an average offender has an opportunity to commit two or more crimes before his detention then the number of actually committed crimes in our country should be at least 2-3 million and at maximum, almost 4.5 million.

It should be noted that Dolgova has discovered vulnerability in Li's baseline criminological assumptions and thereupon disputed the correctness of Li's calculations (Dolgova, 2003). In particular, Dolgova criticises that Li (1997) firstly, subjected both the criminals and the crime to statistical analysis, secondly, tried to identify the number of crimes and criminals, ignoring the complex systemic and structural relations between them and third, Li refers to the legislation of a particular State and at the same time, argues that at the crime analysis "the content (of the regulations) does not matter in this case", including criminal legal regulations. The deductions made by Li induced Gorshenkov, etc., to the following conclusion: "Of course, the scientist's findings are of certain interest in scientific cognition of crime and, in particular, its self-determination. However, we believe that these conclusions are based on statistical (correlation) dependencies. But, these dependences are not always able to indicate the patterns of social processes that give birth to a criminal investigation".

Further, her critical gaze touched Luneev (1997), whose conclusions on global trends and patterns of crime are established mainly on crimes' data and specifically recorded offenses. Storublenkova also was fairly criticised for almost mechanistic attempt to use mathematical methods to derive criminological laws (Dolgova, 2003).

These remarks of a respected professor deserve serious attention and suggest the need to comply with certain requirements when using mathematical tools in criminological research. However, our assumption based on Li's calculations, corresponds with the deductions of Kondratjuk and Ovchinsky about 30 million crimes a year in Russia. It must be said that the conceptual position of Kondratjuk and Ovchinsky about the nature of crime is based on the belief that every human being as a result of his psycho-spiritual imperfections, possesses inherent ontological foundations of destructive behaviour, which can be reduced to three patterns (beams) of psycho-spiritual and emotional qualities: aggression, expansion, deception.

The "code of destructiveness" is inherent in every human being and in certain circumstances, is able to "act" in the diverse forms of aggressive, expansive and deceitful (including offensive) behaviour. This implies that each person is at certain risk of becoming a perpetrator of crime and the degree of risk varies for different people (Kondratjuk and Ovchinsky, 2008).

Kondratjuk and Ovchinsky (2008) believe that taking into account the cumulative latency, the number of crimes-criminals is at least 30 million persons, legally able to be recognized as criminals in Russia today. Bearing in mind that at least 80% of these individuals are men, determining the proportion (percentage) of the theoretical probability of committing a crime for the given demographic category by the formula:

$$P_i = \frac{\Pi_i}{N_i} 100\%$$

Where:

$P_i$  = The theoretical probability of committing crimes for the demographic category

$\Pi_i$  = The number of registered and latent (current and cumulative latency) crimes

$N_i$  = The number of  $i$ th demographic group in the country

Substituting the number of adult men in Russia in 2005 (older than 14 and younger than 70 years) into the formula, it is calculated:

$$P_i = \frac{24M_{JIH}}{51M_{JIH}} 100\% = 47\%$$

Thus, with 47% probability, men of active age in Russia may be involved in the commission of an offense (Kondratjuk and Ovchinsky, 2008).

Dolgova warns criminologists from getting carried away with mathematical calculations, which in her opinion are not always suitable for complex social research. For instance, she writes: "Numerous formulae, calculations, charts and subsequent explicit findings, initially hypnotize a criminologist not versed in mathematics. Nevertheless, if we remember common knowledge of crime and compare them with the original positions of the authors, we will be surprised by careless (and perhaps neglectful) attitude to the actual criminological matter; understanding of crime, features of its reflection in the statistics, its variability in space and time, the diversity of its forms and criminological description of the offender.

Well-known mathematicians had been invited to participate in criminological research and modelling of crime and society processes. But, they refused the invitation after learning how criminal statistics are generated and what they are. They referred primarily on highly uncertain database and then to the necessity of developing specific approaches to studying complex social systems such as society and possibly crime. Indeed, those who are poorly informed about crime, boldly write about it; those who are more informed-think and do not jump to explicit conclusions; people who have grasped its problems-often do not know whether to write or to continue deepening their research" (Dolgova, 2003).

Crime as a socio-legal phenomenon, common to all countries, certainly has some common features and characteristics. At the same time, it is specific in every country at a particular time because of geographical, economic, social, political, legal, demographic, spiritual, mental, historical, cultural and many other features of a particular country.

Monitoring of criminogenic and criminal situation in the country should be regular and based on different sources. Otherwise, it is easy to lose touch with reality. Criminogenic situation in a particular country or region can change quickly, depending on various internal and external factors. For example, migration plays a significant criminogenic role in modern conditions. Many recipient countries are under increasing ordeal of foreigners and migrants' crime. In contrast to this, the outflow of men of active working age from the country is also able to push the change of certain crime parameters. This is evidenced by the example of Uzbekistan where the number of crimes committed by women has dramatically increased in recent years.

## CONCLUSION

After examining and comparing these and other data, available from public sources, it is possible to draw the following interim conclusions: There is a big gap between the actual level of criminal risk, safety and crime statistics in Kazakhstan. Despite, the leap in crime statistics of the past few years, the perception of crime risks and safety by the general population remains within moderate range. This suggests that the reality has not changed but the ways of its measurement have changed (methods, tools and so on).

The introduction of a new system of registration of crimes and offences in Kazakhstan does not diminish the problem of the quality of processing, analysis and objective interpretation of the criminal statistics data. Therefore, it is still not possible to confirm that society has access to reliable criminological information. From January 1, 2015 Kazakhstan has introduced a new Criminal Code (CC), along with the new Criminal Procedure Code (CPC) and the Criminal Executive Code (CEC). Since, the new criminal code significantly expands the range of criminal offenses by adding new corpus delicti (crimes and offences) and new chapters, then statistical population, i.e., the object of observation has changed automatically. In this regard, the relevance (comparability) of the parameters under study will decrease naturally and that in turn will hamper the comparative study of crime rates in the periods before and after the introduction of the new criminal legislation. Apparently, a new statistics count will need to be started for the majority of criminal offenses.

Various reforms in the field of criminal policy should not restrict the public access to high-quality statistics which are essential for a reliable assessment of the criminal risks and security. For a more reliable reflection of the actual situation, Kazakhstan on a par with developed countries needs to improve the criminal statistics in order to achieve its reliability, accuracy, accessibility. Today, major criminological information remains inaccessible to researchers of crime problems and therefore it is impossible to deduce many significant indices and indicators of crime.

Crime statistics in Kazakhstan, despite the trend of the last few years, still not quite reliably reflects criminal reality of the country. These speculations can be concluded with the following: reliable statistics explains itself and invalid data need to be explained. Meanwhile, the situation compels us to explain our statistics in some way.

It is necessary to create a comprehensive monitoring system, including a variety of modern methods of

accounting and analysis of criminal offenses in Kazakhstan. It is important to understand that it would be extremely wrong to rely only on official statistics while studying high latency crimes. Therefore, it is important to have alternative sources of information, covering the study of unemployment, poverty, property stratification, migration, drunkenness and alcoholism, drug addiction, prostitution and other background effects. Only basing on objective and comprehensive data it is possible to build a successful strategy of influence on crime. Without this, the government's efforts on investment and tourist attractiveness of the country will not be very successful.

It appears that both government structures and civil society institutions should be able know the real state of crime in the country. Crime rate in all its diversity is an important parameter, permitting to adequately manage the various processes taking place in society. This is all the more actualized in the current globalization context.

#### REFERENCES

- Aromaa, K., 2008. Crime and Criminal Justice Systems in Europe and North America 1995-2004. European Institute for Crime Prevention and Control, Helsinki, Finland, Pages: 199.
- Block, C.R. and R.L. Block, 1984. Crime definition, crime measurement and victim surveys. *J. Soc. Issues*, 40: 137-160.
- Bureau Census, 1960. Historical Statistics of the United States from Colonial Times to 1957. US Department of Commerce, Bureau of the Census, Washington, DC., Pages: 789.
- Cahalan, M.W. and L.A. Parsons, 1987. Historical corrections statistics in the United States, 1850-1984. US Department of Justice, Bureau of Justice Statistics, Washington DC., Pages: 248.
- Del Frate, A., U. Zvekic and J.J. Van Dijk, 1993. Understanding crime: Experiences of crime and crime control. *Unicri*, Rome, 1: 257-270.
- Dolgova, A.I., 2003. Crime, its Organization and Criminal Society. Russian Criminological Association, Moscow, Russia, Pages: 572.
- Golik, Y.V. and A.I. Korobeev, 2006. Crime is a Panetary Problem Findings of XI UN Congress on Crime Prevention and Criminal Justice. Legal Center Press, St. Petersburg, Russia, Pages: 215.
- Golik, Y.V. and V.I. Karasev, 2005. Corruption as a Mechanism of Social Degradation. Legal Center Press, St. Petersburg, Russia, Pages: 329.
- Kondratjuk, L.V. and V.S. Ovchinsky, 2008. Criminological Dimension. Norma, Moscow, Russia, Pages: 272.
- Kong, H., 1932. Historical and Statistical Abstract of the Colony Hong-Kong (1841-1930). Noronha & Company, Russia, Pages: 105.
- Li, D.A., 1997. Crime as a Social Phenomenon. Information Publishing Agency, Moscow, Russia, Pages: 73.
- Luneev, V.V., 1997. Crime of XX century: Global, Regional and Russian Tendencies World Criminological Analysis. Norma, Moscow, Russia, Pages: 525.
- Mataeva, M.H. and N.K. Mukasheva, 2014. Effectiveness of ecological crimes counteraction in Kazakhstan. *Criminology. J. Baikal Nat. Univ. Econ. Law*, 3: 193-199.
- Nomokonov, V.A., 2002. Russia in the Focus of Criminal Globalization. Collective Monograph. Vladivostok, Russia, Pages: 400.
- Olkov, S.G., 2006. Determination of deviant behaviour, modern politics and negative deviance in the context of globalization. *Criminol.*, 1: 62-82.
- Pease, K. and K. Hukkila, 1990. Criminal Justice Systems in Europe and North America. Criminal Justice Press, Monsey, USA., Pages: 267.
- Schneider, H.J., 1994. Criminology, Translation from German. Progress-Univers, Moscow, Russia, Pages: 504.
- Vedernikova, O.N., 2001. Theory and Practice of Combating Crime in the UK. Russian Criminological Association, Moscow, Russia, Pages: 344.
- Zvekic, U., A.A. Del Frate and U. Zvekic, 1996. Criminal Victimisation in the Developing World. DIANE Publishing, USA., Pages: 429.