

# RECIDIVIST CRIMINALITY IN HUNGARY

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## SUMMARY

The paper deals with two surveys made by Hungarian penal authorities in 1983 and in 1998. The aim of the surveys was to study the demographic factors of the imprisoned criminals. Additional object was to measure the characteristics of criminal life-style. In order to this, author calculates indices of homogeneity and the density of recidivism. Both indices are measuring the criminal career, the first of them is measuring the characteristics of the series of committed crimes, the other the dangerousness of the committer.

KEYWORDS: Recidivism; Prison-statistics; Criminal careers.

This paper presents an analysis of criminality in Hungary. In the introductory part I show the long run time series of Hungarian criminality characterised by various index numbers, referring to the distribution of penalties in order to demonstrate the ratio of persons sentenced to imprisonment. The following chapters of the study are based upon the data of two prison statistical surveys. Chapter 2 describes the demographical characteristics of persons held in custody, while Chapters 3 and 4 present methods that serve to measure the whole criminal carriers of offenders. Chapter 5 contains some concluding remarks.

## 1. Main trends of Hungarian criminality

In Hungary there are two sorts of observations on operative criminal statistics: uniform police-prosecution criminal statistics and court statistics. They exist collaterally to and independently from each other. For the previous one the unit of observation is on the one hand the crime discovered and on the other hand the offender of the crime. For the latter one the unit of observation is the convict definitely sentenced.

In the following a table and a graph show the most prominent data of both observations in a nearly thirtyfive-year span (See Table 1, Figure 1).

As it can be seen the growth was slow from 1975 on, but from 1989 there has been a rapid growth as far as the number of crimes are concerned. As for the number of offend

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ers, the growth has been of a smaller degree which indicates that the numbers of unknown offenders and crimes committed by the same person have increased.

Table 1

*The dynamics of delinquency*

Year	Number of the discovered indictable crimes	Number of the discovered indictable crimes for 10 000 inhabitants	Number of offenders of the discovered indictable crimes	Number of offenders of the discovered indictable crimes for 10 000 inhabitants	Number of convicts definitely sentenced	Number of convicts definitely sentenced for 10 000 inhabitants
1965	121 961	120.3	90 713	89.5	61 187	60.4
1970	122 289	118.5	84 863	82.2	46 330	44.9
1975	120 889	115.0	81 045	77.1	59 422	56.5
1980	130 470	121.9	77 154	72.1	56 334	52.6
1985	165 816	155.6	91 216	85.6	58 313	54.7
1990	341 061	328.7	118 046	113.8	46 555	44.9
1991	440 370	425.3	129 641	125.2	64 365	62.2
1992	447 215	432.6	140 405	135.8	76 212	73.7
1993	400 935	388.9	122 621	125.9	73 338	71.1
1994	389 451	379.0	119 494	123.1	78 324	92.3
1995	502 036	490.0	121 121	125.1	85 746	100.6
1996	466 050	456.4	122 226	126.4	83 293	97.9
1997	514 403	505.6	130 966	136.4	88 073	103.7
1998	600 621	592.6	140 083	145.7	97 285	114.8

Source: Tájékoztató a bűnözésről (Information about criminality). Belügyminisztérium, Budapest, 1999.

Figure 1. The dynamics of delinquency

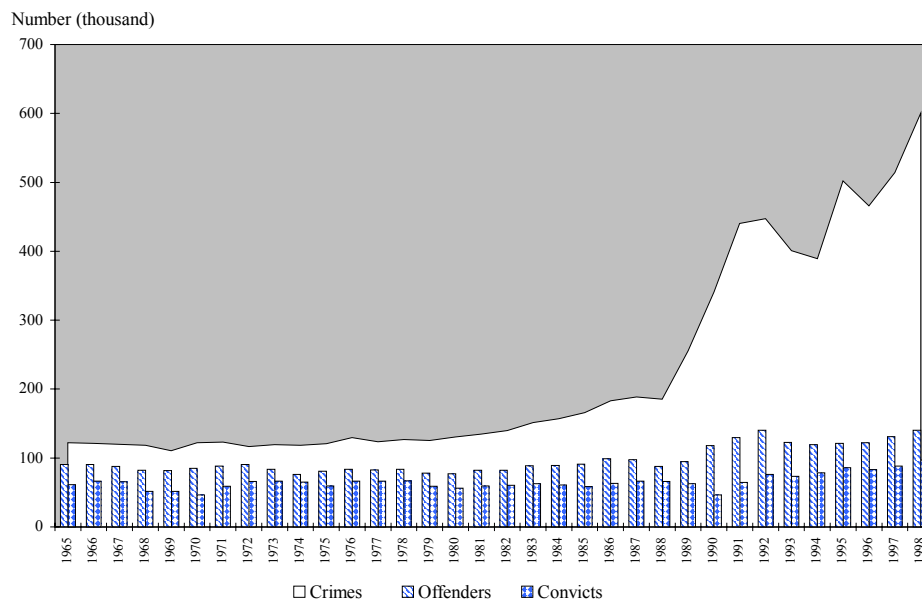


Table 2

*Distribution of the convicts definitely sentenced according to the types of penalties*

Year	Number of convicts definitely sentenced	Percentage share of			Total
		imprisoned	fine	other penalty or measures	
1970	50 978	57.8	26.5	15.7	100.0
1980	59 913	44.4	44.5	11.1	100.0
1986	65 809	46.8	35.7	17.5	100.0
1987	68 591	42.8	39.5	17.7	100.0
1988	68 197	36.5	40.1	23.4	100.0
1989	64 720	33.6	40.7	25.7	100.0
1990	47 694	37.5	39.6	22.9	100.0
1991	65 647	34.4	42.9	22.7	100.0
1992	77 481	32.6	43.8	23.6	100.0
1993	74 481	31.1	45.4	23.5	100.0
1994	78 324	30.2	45.4	24.4	100.0
1995	85 746	29.2	45.4	25.4	100.0
1996	83 293	30.3	43.9	25.8	100.0
1997	88 073	31.3	43.9	24.8	100.0
1998	96 552	32.1	43.9	24.0	100.0

Source: Statistical yearbooks, Central Statistical Office, Budapest.

Table 3

*Number of criminals kept imprisoned*

Year	Number of criminals kept imprisoned	Number of convicts (from the number of criminals kept imprisoned)
1986.12.31.	23 678	16 060
1987.12.31.	22 543	15 950
1988.12.31.	20 821	15 078
1989.12.31.	15 928	12 632
1990.12.31.	12 319	8 819
1991.12.31.	14 810	10 240
1992.12.31.	15 913	11 424
1993.12.31.	13 196	9 390
1994.12.31.	12 697	8 944
1995.12.31.	12 455	8 928
1997.01.01.	12 763	8 986
1998.01.01.	13 405	9 408
1999.01.01.	14 366	10 171

Source: Büntetésvégrehajtás Országos Parancsnoksága (National Headquarters of Penalty Enforcement), Budapest.

I don't want to go into details as far as the characteristics of statistics are concerned about crimes and criminals. Here I would like to mention only one group of questions in the following table which is the division of convicts according to penalties imposed.

From the groups of convicts mentioned before I would like to study here the ones sentenced to imprisonment. As it can be seen from the comprehensive prison statistics,

the number of criminals kept in custody and the number of convicts changed in the following way in the last thirteen years.

The difference of the two columns refers to the criminals confined under remand and others kept in remand of reformatory homes. There is a further number of criminals who are kept under compulsory medical treatment.

In the last years, the number of those kept imprisoned<sup>2</sup> has been continuously decreasing, apart from some insignificant fluctuations, despite the fact that both the number of crimes committed and of those convicted by final judgement have increased. The decrease in the number of criminals kept imprisoned is the result of the reduction of the capacity of facilities.

In order to understand this it should be taken into account that earlier the number of persons that prisons could accommodate was about 20 thousand. Today, though capacity has not changed, that number has been reduced to 12 thousand, in accordance with EU standards. While the number of crimes committed and that of persons legally convicted have increased, the capacity of penal enforcement institutions has been reduced. As a consequence, courts pass relatively fewer sentences of imprisonment. Nevertheless, the waiting time before the penalty is enforced has also increased.

## **2. Demographic factors of convicts**

Further on I would like to report about the two surveys I made at Hungarian penal authorities in 1983 and in 1998.

In the case of the 1983 survey I had a chance to analyse the data of 1000 persons which probably amounted to about 1-2 percent of all persons with a criminal record (that is those who had been held in custody). The selection was made from the records of 13 institutions (out of 32). The criterion of the selection was that all types of institutions (prisons, penitentiaries of different security level) be proportionately represented, namely in proportion to the number of persons it can hold. The selection of persons was random. The data were transferred onto the questionnaires from the official registry sheets, which are kept under strict control. In the 1998 survey I was able to use the data of 520 persons. The selection of this sample was made from the same 13 institutions as in the earlier survey, also in proportion to the size of the institutions. Unfortunately, it was not possible to conduct a longitudinal study of the life-line of the earlier 964 persons, as both 1983 and in 1998 the questionnaires had to be anonymous, in 1983 due to the secrecy of data, in 1998 due to data protection reasons.

The 1983 survey had three main goals:

- preparation for the computer-registration of convicts,
- study of the demographic data of the criminals kept imprisoned,
- study of the recidivists using new methods.

The aim of the 1998 survey was:

- study of the demographic and crime data of the criminals kept imprisoned
- analysis of the changes over 15 years.

<sup>2</sup> Criminals kept imprisoned include not only those convicted by final judgement, but also those held in e.g. pretrial detention.

*Age and sex of criminals*

The 1983 survey encompassed 3645 receptions<sup>3</sup> of 964 persons. From the surveyed persons there were 876 males (90.9%) and 33 females (9.1%). From among the number of the convicts included in my study 298 persons were received for the first time at the age of 14-17, the further 419 persons at the age of 18-24, that is the first reception of the persons observed was before the age of 25 (74.4 percent). Only 25.6 percent of them were received over the age of 25. Supposedly they had already been sentenced to other sorts of penalty before and for most of them the reception was not the result of their first crimes.

These numbers definitely show that criminal career starts at an early age and it points out the importance of prevention among young people. Since this layer of youngsters serves as a supply for the adult delinquency, the repression of juvenile delinquency should be of great importance.

It can clearly be seen from the survey of a criminal way of life that at the first reception (imprisonment) 75 percent of the convicts were less than 24 years old and at the time of the latest reception only 35 percent of them were under this age. (See Table 4) But it remains a future question whether the latest reception will also be their last one, or it is just the reflection of a given period of time. The proportion of those above 40, increased from 2.5 percent up to 17.4 percent between the first and the latest receptions.

The 1998 survey included 520 persons, 118 of which were between 14-17, an 268 between 18-24 years of age at the time of their first admission, meaning that 74.2 percent of the sample were sentenced to enforceable imprisonment before the age of 25. The ratio of juvenile offenders (aged 14-17) has been reduced to 22.7 percent from 30.9 percent over 15 years, while the total ratio of convicted young offenders has increased by 27 percent, which suggests that the ratio of sentences involving imprisonment is decreasing.

Table 4

Order of reception	Age (year)					total
	14-17	18-24	25-29	30-39	40 and above	
1983						
First reception	298	419	121	102	24	964
Last reception	48	285	208	255	168	964
First (percent)	30.9	43.5	12.5	10.6	2.5	100.0
Last (percent)	5.0	29.6	21.6	26.5	17.4	100.0
1998						
First reception	118	268	59	43	32	520
Last reception	14	145	107	164	90	520
First (percent)	22.7	51.5	11.3	8.3	6.2	100.0
Last (percent)	2.7	27.9	20.6	31.5	17.3	100.0

<sup>3</sup> Reception is a legal administrative procedure that criminals go through when entering prison. In the course of this procedure their data are entered into the central database of the institution. The exact date of the received person release is calculated, the sector where they are confined is notified, they undergo a health examination, and they are registered in labour, meal and warehouse (clothes and other articles) records. The number of receptions does not coincide with the number of adjudicated sentences, partly because in the course of one instance detention the serving of several sentences may occur, and, on the other hand, because the received criminal may be set free from pretrial detention, and then admitted again after a final judgement has been passed.

*Marital status of criminals*

There is a striking regularity concerning the change in marital status of criminals. (See Table 5.) In 1983 at the first reception the number of single males and females was 618 (64.1 percent), at the second one it was 488 (54.2 percent) and at the latest the proportion of singles was 39.2 percent. The proportion of married at the first reception was 25.1 percent, it increased till the sixth reception and reached 37.1 percent. At the latest reception it was 33.4 percent. It doesn't mean that the number of receptions was bigger in every case, but there are some cases when the first and the latest receptions mean the same. The number of divorced at the first reception was 75 (7.8%). This proportion increased till the eighth reception up to 41.4 percent and later on it decreased. The number of widows and widowers was very low. After the ninth reception it grew over 5 percent. The proportion of life partner category (not married but live together) was also very low. It fluctuated between 1.8 and 5.7 percent. Possibly these low numbers are the results of the insufficiency of data supply. Supposedly the proportion of this category was considerably bigger. This assumption was supported by the fact that when comparing the marital status and the age, it was obvious that the proportion of single males and females over 18 was bigger than it was in the total population and the proportion of the married was much lower than it was in the total population.

In 1998 I had the opportunity to look at the marital status only at the moment of the last reception. 244 persons were single (46.9%), 103 (19.8%) were married. The number of divorced persons was 66 (12.7%), the number of widow(er)s was insignificant (2.1%), however, the category of those living together but not married increased substantially amounting to 18.5 percent.

Table 5

*The marital status of criminals kept imprisoned according to ages*

Order of reception	Proportion of unmarried of age (year)		
	18–24	25–29	30–39
	from among them (percent)		
	1983		
At 1 <sup>st</sup> reception	76.1	38.0	49.0
2 <sup>nd</sup>	78.2	46.4	49.3
3 <sup>rd</sup>	76.6	51.5	48.6
4 <sup>th</sup>	75.0	64.2	47.2
5 <sup>th</sup>	83.3	65.2	56.5
In the total population of 1 <sup>st</sup> January 1980	56.6	22.8	15.3
	1998		
At the last reception	88.9	70.1	75.6
In the total population of 1 <sup>st</sup> January 1997	82.5	41.6	28.0

The data in Table 5 indicate that a criminal lifestyle goes hand in hand with unsettled family relations. The ratio of single people is higher even among the 18-24 year olds among than the respective share of the total population. This discrepancy increases with

age, even though the share of people has increased in the total population as well over the past 15 years, due to the changes in social customs.

Criminologists say that marriage restrains people from crime, however, my opinion is contrary to their beliefs. I find that criminality holds criminals back from marriage, as the data in Table 5 show. These data support the connection between a criminal-like lifestyle and disorderly family relations.

#### *Education of criminals*

The study of qualifications has provided the following results: qualifications and education of criminals kept imprisoned are very poor especially in comparison with similar age groups in the total of the population. The number of illiterates was at the first reception 58 (6.0%) in 1983, out of this number 23 people had learnt to write and read until the latest reception. In the 1998 sample the number of illiterate people was only 4. The proportion of those who finished their elementary education fell in the survey of 1983 from 42 percent to 20 percent in the order of the receptions. At the latest reception this proportion was over 50 percent. Before the first reception 16 people had taken their final exam of secondary education (GCSE), 9 people had started their secondary studies. Two persons had gone to university or college, one of them was in prison, four times the other one six times. Those who had finished university were not present among the observed criminals.

According to the survey of 1998, 283 finished the eight years of primary school (54.4%), 132 persons graduated from technical, industrial or secondary schools (25.4%), 3 persons had college or university degrees. It must be added that the evaluation of the educational levels registered in the records of the penitentiary institutions is based on the detainees' statements and not on official certificates.

If we compare the age of criminals with the level of their education, it is obvious that at older age the level of education is lower than that of the average. On the basis of the first five receptions, the proportion of the illiterate was 2.8 percent of those at the age of 14-17 and the proportion of those who finished elementary school was 39.9 percent.

In the age group of 18-24, the proportion of the illiterate was 4.6 percent and the proportion of those who finished elementary school was 49.5 percent. The older the people in an age group were the higher the proportion of the illiterate was. In the age group of 40-49, it was already 7.2 percent and the proportion of those who finished elementary education gradually decreased, in the same group it was less than 30 percent.

In 1998 illiteracy was 0 percent in almost every age group, the percentage of those who finished primary school was higher than 50 percent in every age group, except among those under 17 and those over 50. The highest ratio was among those aged between 25 and 29 (65.4%). The percentage of those who finished industrial school is high among the 30-49 year-olds, 28.1 percent, while among those between 18-29 it amounts to only 15.1 percent.

If we compare the proportion of those who finished elementary or higher education at the moment of their latest reception with the appropriate data of the total population we can state that failure to complete one's education is a very important criminological factor. Thus at the prevention of delinquency the most important tasks are the reduction or ceasing of the number of drop-outs and keeping to the rules of compulsory education.

Table 6

*The proportion of those with finished primary or higher education in the various age groups among convicts and the total of the population (percent)*

Age group (year)	Convicts		Population	
	1983	1998	1 <sup>st</sup> January 1980	1 <sup>st</sup> January 1990
14–17	65.5	35.7	84.6	84.8
18–24	67.4	73.1	95.0	96.7
25–29	74.5	86.0	95.6	96.5
30–39	72.1	85.7	91.0	96.3
40–49	54.1	94.0	71.3	93.0

*Employment and qualification of criminals*

The number as well as the proportion of skilled workers was very low in 1983. Their proportion fluctuated between 15 and 25 percent at the time of each reception. From among them the number of those who were skilled in engineering, iron, metal industry and construction was the highest.

The proportion of skilled workers was low mainly at young ages. At higher ages it increased slightly. Based on the data of the first five receptions, the mentioned proportions were the following:

Age-groups (year)	Share of skilled workers (percent)
14–17	2.3
18–24	13.5
over 25	over 25

If compared with the relevant data of the total population we can state that in the total of the population the proportion of skilled workers (from among active manual workers) was 47.1 percent. The remaining 52.9 percent did not have any qualification.

In 1998 the data referring to professional education were somewhat better: 18.3 percent of those aged 18–29, and 35.4 percent of those over 30 had professional training. The highest occurrence is that of industrial training, which amounted to 41.2 percent of those with professional training. The data of the occupation of criminals kept imprisoned were also worth considering.

The number of unemployed, casual and unskilled workers was already very high in 1983. The proportion of the unemployed at each reception was between 25–50 percent. The proportion of casual workers was between 10–30 percent and in case of unskilled workers it was between 10–35 percent, whereas the proportion of semi-skilled and skilled workers was less than 10 percent at each reception. The proportion of non-manual workers was less than 2 percent.

In 1998 the ratio of those without occupation was 61.5 percent; the ratio of occasional hands was 12.7 percent, that of factory hands 4.2 percent, the proportion of self-employed amounted to 2.5 percent, and the percentage of other, white collar workers was 1.3 per

cent. What plays an important role in the increase of the number of persons without occupation is the growth of unemployment. Ex-convicts are more sensitive to it than any other strata of the population, as they have smaller chances of getting a job than their counterparts with a clean criminal record.

I had the possibility to observe the changes in occupation between only two admissions in the 1983 survey. It is worth studying the change of occupations between the receptions. At the second reception 424 out of 900 had the same jobs as before. By the time of the second reception 133 persons had occupations out of the 279 who had been unemployed at the first reception. Out of 93 casual workers 21 became unskilled and 5 skilled workers. Out of 252 unskilled workers 27 became semi-skilled or skilled, 18 became jobless, 7 became casual workers and 9 unskilled.

The occupational level between the first and the last reception remained unchanged in the case of 40.2 percent of the admitted, it rose among 34 percent and decreased among 25.8 percent. In Table 7, the rise, constancy and fall of the level of occupation are shown at the various receptions. We have an increase when an unemployed becomes a worker or when a casual worker becomes unskilled, semi-skilled or skilled, or other manual or non manual worker. In the opposite case we have a decrease.

Table 7

*Changes of the level of occupation (1983)*  
(percent)

Period (between receptions)	Level of occupation			Total number of admitted
	constant	increased	decreased	
1 <sup>st</sup> and 2 <sup>nd</sup>	47.1	26.8	26.1	100.0
2 <sup>nd</sup> and 3 <sup>rd</sup>	43.0	27.5	24.5	100.0
3 <sup>rd</sup> and 4 <sup>th</sup>	47.5	29.2	23.3	100.0
4 <sup>th</sup> and 5 <sup>th</sup>	50.0	27.2	22.8	100.0
1 <sup>st</sup> and latest	40.2	34.0	25.8	100.0

The efficiency of penal authorities is shown in the second column. It shows that the same occupation was kept at almost 50 percent. In the case of 26–30 percent of criminals the level of occupation rose. It implies that some qualifications were either acquired or previously received qualifications were used. The third and fourth columns of the table show the criminological features of the mobility of occupations.

### 3. Measuring the homogeneity of criminal careers

In this section I try to describe the criminal careers. First I group the crime and based on this grouping a new indicator of the homogeneity will be introduced. Using this proposed measure of homogeneity the types of crime-series will be analysed.

#### *Grouping of crimes*

The official criminal statistics divides the groups of convicts according to their most typical and most serious, thus crimes thus focusing only on one crime in each case. I have

made an effort to measure all the crimes committed by the criminals in their criminal careers. I have tried to determine the homogeneity or the inhomogeneity of their careers.

In order to do that first I had to work out a nomenclature of different crime groups, regarding the fact that the nomenclature of the Hungarian Criminal Code would have been too detailed for this study and it would be useless to talk about an inhomogeneous criminal way of life in the case of a criminal who commits fraud and then embezzlement.

When dividing the crimes into groups, I considered the relevant definitions of the Criminal Code which referred to the statement of special recidivism and served as a source for the consideration of similar crimes (Criminal Code Section 166 entry 5<sup>th</sup> and Section 333 paragraph 4<sup>th</sup>). I used the governing principle number 14 of the Supreme Court about the valuation of the repetition of crimes.

On the basis of these two sources of law I formed eight groups of crimes which contain majority of the most typical crimes. I also chose some relatively rare ones apart from these eight categories, like drunk-driving, negligence of alimentation and ruffianism. The reason was that the offenders of these crimes often commit only one crime. Finally, I grouped the crimes according to the main groups given by the Criminal Code. Thus 20 groups have been formed.

*Methodology of measuring homogeneity*

For studying the homogeneity of criminal careers I grouped the criminals on the basis of the occurrence of one, two or more crimes on the list of crimes committed by them.

The homogeneity is obviously 100 percent in the case of those convicts who committed only one kind of crime during their criminal way of life. If  $a_i$  means the frequency of the only crime group:

$$h_1 = \frac{a_i}{a_i} = 100\% \quad (i = 1, 2, \dots, 20).$$

In the case of those criminals who committed two kinds of crimes, I regard the proportion of the frequency of the more frequently occurring crime compared to the whole number of crimes as the degree of homogeneity. That is if  $a_1, a_2, \dots, a_{20}$  mean the frequencies of occurrence at different crime groups in order of their frequency, the degree of homogeneity is

$$h_2 = \frac{a_i}{a_i + a_j},$$

if  $i, j = 1, 2, \dots, 20, i \neq j$  and  $a_i \geq a_j$ .

With those criminals who committed three kinds of crimes, the situation is more complicated, because if I compare the total amount of frequency of the most frequently occurring crime groups with the whole number of the committed crimes  $\frac{a_i + a_j}{a_i + a_j + a_l}$ , I will get the same degree of homogeneity as with those criminals who committed only one kind

of crime. The degree of homogeneity though is obviously not the same. That is why the previous quotient should be multiplied by a correcting factor which means the relative frequency of the more frequently occurring crimes between the two main ones. Thus the degree of homogeneity is:

$$h_3 = \frac{a_i + a_j}{a_i + a_j + a_l} \cdot \frac{a_i}{a_i + a_j + a_l},$$

where  $i, j, l = 1, 2, \dots, 20$ ,  $i \neq j \neq l$  and  $a_i \geq a_j \geq a_l$ .

This method can be continued and the degree of homogeneity could be defined in general for any case where  $k$  ( $k = 1, 2, \dots, m, \dots, 19$ ) is the number of the occurring crimes. In this case:

$$h_m = \prod_{k=1}^m \frac{\sum_{i=1}^k a_i}{\sum_{i=1}^m a_i}$$

If  $k$ , however, is more than 5 or 6, the degree of homogeneity is very low. The index here would be of little importance. I would like to add that in the cases where the survey expands up to more than 1000 persons – to a considerably higher number – it is not worth considering all the crimes that occurred once or twice when calculating the degree of homogeneity.

I have made a survey – with the use of the same method – with nearly 500.000 persons registered by the penal registry<sup>4</sup>. In these cases I found a flood of crimes, so I had to define the dominant ones. I considered those dominant which occurred more than twice during a criminal's career. I ignored those which occurred only once or twice when determining the degree of homogeneity. Even this way the degree of homogeneity was less than 10 percent, that is, a criminal way of life was inhomogeneous if out of the twenty crime groups 5 or 6 were dominant (occurred more than twice).

#### *Analysis of homogeneity indices*

In the prison-statistical samples there was a great number of criminals at each reception who committed only one crime. But how do the proportions change if we consider the whole lifespan of a criminal? Whether they stick to one crime or the circle of crimes expands or they become specialised in a certain field is still a relevant question.

The following table serves as a summary of the number of the types of committed crimes. It cannot be stated that the number of the types of crimes committed would show correlation with the number of receptions. 58.6 percent of the criminals who committed 5 or more types of crimes were received not more than six times and only

<sup>4</sup> The research conducted in the Criminal Registry Office of the Ministry of the Interior refers to the whole population studied. The data were surveyed at the end of the year 1981, and their processing has been carried out by the National Bureau of Data Processing.

one of them was received more than 9 times. As opposed to that, among the criminals who were received 10 or more times 78.9 percent did not commit more than four types of crimes.

Table 8

*Distribution of criminal careers based on the number of the types of crimes committed (1983)*

Number of the types of the committed crimes	At each reception (percent)	During the whole criminal way of life
1	77.6	24.2
2	18.2	34.2
3	3.6	25.1
4	0.5	10.5
5 or more	0.1	6.0
<i>Altogether</i>	<i>100.0</i>	<i>100.0</i>

The next table shows the distribution by the degree of homogeneity.

Table 9

*Distribution of criminals kept imprisoned according to the degree of homogeneity (1983) (percent)*

Degree of homogeneity	Proportion of criminals kept imprisoned
100	24.2
70-99	19.4
40-69	35.6
10-39	18.2
less than 10	2.6
<i>Total</i>	<i>100.0</i>

It is obvious that the homogeneity of those who committed only one crime is 100 percent. For the criminals who committed two crimes it is either 100 or 50 percent. For those who committed three crimes it is 100, 66.6 or 22.2 percent.

With the number of receptions the degree of homogeneity decreases inevitably. While at the first reception the 100 percent homogeneity was 82.8 percent, at the second reception the proportion of entirely homogeneous criminals was only 33.5 percent. At the third and the further receptions the 100 percent homogeneity was only 14.2 percent, but these kinds of criminals also occur among the ones received 12 or more times (12.5%).

It was, however, very rare to have low homogeneity with those criminals who were kept imprisoned many times. Only 16 percent of those who were received more than five times belong to those criminals whose ways of life show less than 10 percent homogeneity.

Consequently frequent recidivists who were received many times were among the specific recidivists.<sup>5</sup>

#### *Types of crime-series*

If we want to analyse the series of crimes not only according to their homogeneity but also their content, a group of 20 crimes seems too numerous, so I tried to form 4 groups out of the 20.

Main types of crimes are

- Crimes against property,
- Crimes of violence,
- Crimes of irresponsible, parasitic lifestyle,
- Crimes against the state, social and economic systems.

On the basis of these four groups a criminal way of life can be placed into the following combined groups. Criminal career contains crimes

- only against property,
- only crimes of violence,
- only crimes of irresponsible, parasitic lifestyle,
- only crimes against the social and economic systems.
- crimes against property and crimes of violence,
- crimes against property and irresponsible, parasitic lifestyle,
- crimes against property and crimes against the social and economic systems,
- crimes of violence and irresponsible, parasitic lifestyle,
- crimes of violence and crimes against the social and economic systems,
- irresponsible, parasitic lifestyle and crimes against the social and economic systems,
- undistinctive (three types, or all four types).

Table 10

*Distribution of crime-series in criminal careers*

Crime types	1983 (persons)	1983 (percent)	1998 (persons)	1998 (percent)
Only against property	223	23.1	56	10.8
Only crimes of violence	188	19.5	149	28.7
Only else	234	24.3	4	0.8
Crimes against property and crimes of violence	68	7.1	172	33.1
Crimes against property and else	101	10.5	43	8.3
Crimes of violence and else	45	4.7	9	1.7
Crimes against property and crimes of violence and else	105	10.8	87	16.7
<i>Total</i>	<i>964</i>	<i>100.0</i>	<i>520</i>	<i>100.0</i>

<sup>5</sup> A *specific recidivist* is one who commits the same or similar crime twice. A *multiple recidivist* is one who is sentenced to imprisonment prior to committing a deliberate crime, and less than 3 years pass even before the person is even be sentenced to imprisonment. The above concepts are penal law categories, while the expression *crime repeater* is a criminal-statistical notion, and refers to a previously convicted person who does not fall into any of the mentioned categories.

The most frequent type of crime is that against private property. In the 1983 survey, 51.5 percent of convicts committed crimes against private property in the course of their lives, while in the 1998 survey that number rose to 68.9 percent. The difference between the two periods can be seen in the fact that in the earlier survey 23.1 percent of detainees committed only crimes against private property, while in 1998 the ratio of this homogeneous group dropped to 10.8 percent, and the proportion of those committing crimes both against private property and violent crimes increased. The ratio of other crimes decreased significantly, due to the fact that now economic crimes, drunk driving and failure to pay child maintenance are only fined, whereas earlier they used to be the most frequent ones crimes. (See Table 10.)

**4. Measuring the danger of criminal careers**

*Police record.* When grouping convicts, criminal record of a convict is an important aspect. The criminal code in effect at present differentiates between the following categories according to criminal record:

- recidivist,
- special recidivist,
- multiple recidivist.

As not all persons with a criminal record correspond to the legal concept of recidivist, criminal statistics uses the term crime repeaters for those who have a criminal record but are not recidivist, and if we analyse the distribution of the criminals by recidivism, the first crime offenders are to be into account.

The distribution by the mentioned categories of the 964 and 520 persons surveyed respectively is illustrated in Table 11.

Table 11

*Categories of recidivists in 1983 and 1998*

Categories of recidivism	1983 (person)	1983 (percent)	1998 (person)	1998 (percent)
First crime criminal	53	5.5	169	32.5
Crime repeater	603	62.5	6	1.2
Recidivist	68	7.1	100	19.2
Special recidivist	215	22.3	98	18.8
Multiple recidivist	25	2.6	147	28.3
<i>Total</i>	<i>964</i>	<i>100.0</i>	<i>520</i>	<i>100.0</i>

The changes in the distribution by categories can be explained by two factors:

- the law providing for the previous grouping was enforced on July 1, 1979. At the time of the 1983 survey the majority of detained convicts were already convicted before the enforcement of the law, therefore no such classification could be present in their criminal sentence;

– the last 15 years have been characterised by the softening of sentences, thus only a tiny proportion of so-called crime repeaters are sentenced to imprisonment. Therefore on the one hand prisons are mostly filled with recidivist, special recidivist and multiple recidivist convicts, on the other hand the proportion of those committing their first crime has also increased, as the growing of criminality has resulted in the broadening of the criminal sphere.

#### *Order of recidivism*

In the foregoing the convicts were grouped according to the fact whether they had previous criminal record or not, or they were regarded as recidivists in legal terms, and if yes, which category of recidivist.

We have not yet analysed the number of penalties of criminals who had already been convicted once, twice, three or several times previously. I call this number the *order of recidivism*. It is to be noted that the order of recidivism is not determined according to the number of penal sentences, but according to the number of admissions which can be either greater or smaller than the number of sentences.

Table 12

#### *Distribution of criminals kept imprisoned according to the number of receptions*

Number of receptions	1983 (person)	1983 (percent)	1998 (person)	1998 (percent)
1	64	6.6	225	43.3
2	260	27.0	47	9.0
3	215	22.3	67	12.9
4	149	15.5	45	8.7
5	98	10.2	48	9.2
6	67	6.9	18	3.5
7	41	4.3	32	6.1
8	30	3.1	14	2.7
9	21	2.2	10	1.9
10	7	0.7	3	0.6
11	2	0.2	3	0.6
12 or more	10	1.0	8	1.5
<i>Total</i>	<i>964</i>	<i>100.0</i>	<i>520</i>	<i>100.0</i>

However, we must add that the number of criminal sentences does not necessarily coincide with the number of receptions, partly because it often happens that a convict serves several sentences in the course of a single reception. For example, in these terms, the distribution of the 520 convicts of the 1998 survey can be seen in Table 13.

Nevertheless, there can be several receptions in the case of one sentence, because e.g. the reception takes place based on the order of pretrial detention, then the criminal kept imprisoned is set free from pretrial detention, and following that, they are received again to serve the given term after the sentence goes into effect. In 1998 for instance, 45 per cent of those received were received 2-4 times.

Table 13

*The distribution of convicts by the number of their criminal sentences (1998)*

Number of criminal sentences	Number of persons	Distribution (percent)
1	263	50.6
2	122	23.5
3	79	15.2
4	33	6.3
5	10	1.9
6-7	10	1.9
8 or more	3	0.6
<i>Total</i>	<i>520</i>	<i>100.0</i>

Comparing the findings of the two surveys it is clear that it is in the case of the first four receptions that significant changes have taken place, the differences between the relative numbers of further receptions are incidental. In the case of 1983 receptions the first receptions were rare (6.6%), a significant part of those received consisted of criminals received 2-4 times (64.8%). In 1998 those received once make up 43.3 percent of those surveyed, while those received 2-4 times represent only some 30.6 percent of the sample. These numbers indicate that there are few prison sentences, and second or further prison sentences are seldom passed, and at the same time, with the dramatic rise in criminality the sphere of criminals is significantly broadening, more and more new perpetrators appear in the statistics.

*Measuring the density of recidivism*

In many statistics the danger of criminal careers is measured by the order of recidivism, that means the number of previous convictions.

Though the order of recidivism is an important index of recidivism, nevertheless, it cannot express the danger which society is exposed to either by the offenders or the offences. This is much better reflected by the punishment meted out. On the one hand, persons with fifteen, twenty, twenty-five previous convictions generally do not commit very heavy crimes, they are given short-term punishments which served in a short time makes it possible for them to be up against the law again and again. On the other hand, others, the offenders of the heaviest crimes, convicted to ten-fifteen-year imprisonment at a time, consequently spending the better part of their lives in prison, do not attain such a great number of sentences.

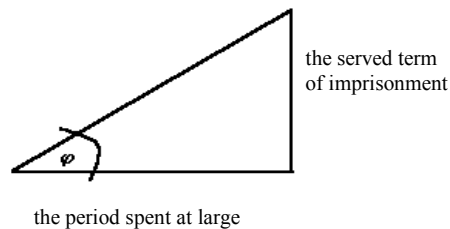
When studying the criminal career, it is necessary to study – along with the order of recidivism – the length of time a person spends at large with previous convictions and with imprisonment. When measuring these periods must be compared by means of the following ratio:

$$\text{tg } \varphi = \frac{\text{THE SERVED TERM OF IMPRISONMENT}}{\text{THE PERIOD SPENT AT LARGE}}$$

If we give a graphic representation of the punishment imposed on the convicted, plotted against the period spent at large, the latter information will be represented by co-ordinate  $X$  and the sum of the terms of imprisonment by co-ordinate  $Y$ .

If the numerator and the denominator of the mentioned quotient are plotted within one system of co-ordinates, the numerator and the denominator of the quotient will be the two perpendicular sides of a right-angled triangle, that is the quotient will be the tangent to the angle at the origin. According to the angle of the frequency of recidivism the offenders can be ranked by the rate of their dangerousness (Figure 2.): the bigger this angle, the more dangerous the corresponding criminal is.

Figure 2. The definition of density of recidivism



By the help of the calculated angles I grouped the offenders into six classes, one class representing a 15° degree angular range. In the two angle-groups of under 30° degrees are placed the less dangerous criminals, who spend at least 1.7 times more time at large than in prison, in the range of 30°-60° we can find criminals, though being up against law but several times between their punishment of shorter and longer terms spending a longer period of time at large and perhaps having employment. Persons belonging to the range up to 45° spend in prison at most as much time as they spend at large. Offenders belonging to the range beyond 60° represent the most dangerous criminals who spend at least 1.7 times more time in prison than at large.<sup>6</sup>

#### *Analysis of the density of recidivism*

According to the data of the mentioned representative sample referring to 964 persons, the distribution of the 900 persons with more than one previous conviction shows the following picture.

If we analyse the density of recidivism compared to any subset of the criminals kept imprisoned and not to the whole of their number, we get a similar distribution to the previous mentioned ones.

In the 1983 survey, data not detailed here show that the categories between 15.0°, 29.9°, 60.0° and 74.9° are the most frequent ones. This refers to the fact that the density of recidivism means a unique aspect of classification not depending on other ones. It reflects the danger of the convicts to the society regardless of the number of convictions and the homogeneity or inhomogeneity of the crimes. In the survey of 1983 the most frequent

<sup>6</sup> It should be stressed that the introduction of angles may be an interpretation but it cannot replace the original figures expressed in forms of ratios.

categories of the criminals received two or three times is below 30° and above 75°. It shows that among the criminals received 2 or 3 times the less dangerous criminals are those who spend a long time at large between their receptions, but there are some of them who spend most their lives in penal institutions as a result of two-three rather serious crimes they committed.

Table 14

*Distribution of the criminals kept imprisoned according to the density of recidivism*

Density of recidivism	Proportion of criminals kept imprisoned (percent)	
	1983	1998
Below 15°	15.3	49.2
15.0°-29.9°	19.7	14.8
30.0°-44.9°	16.6	10.4
45.0°-59.9°	16.3	8.1
60.0°-79.9°	17.1	7.1
Above 75°	15.0	10.4
<i>Total</i>	<i>100.0</i>	<i>100.0</i>

In the case of criminals received twice or 3 times the categories of 15-45° and 60-75° occur regularly. It is in accordance with the experience that the smaller the number of receptions is, the shorter the length of penalty is. The convicts sentenced many times get to court for less serious crimes and they are sentenced to shorter punishments.

It is in the 1998 sample that the ratio of those under 30° is the highest, but the ratio of those under 15° is particularly high, which indicates that the duration of prison terms has significantly decreased in the last years.

**5. Conclusions**

As a result of the two surveys I have outlined here and in my other researches, especially the ones I made in the field of the Penal Registration, I am convinced that for the scientific cognition of delinquency and the study of criminal careers the statistical progress in registration serves as a scientific basis.

Official criminal statistics – as well as police and court ones – describe the delinquency only of a period of one year and they do not show the process of criminality. These statistics are connected with criminal investigation and activities of court administration. They are more of operative statistics and they are not able to study delinquency as a social phenomenon. Since the Penal Registry has been processed on computers, the computerisation of penitentiary operative records has been completed, at least in pending cases, not in archive materials, their elaboration for statistical purposes is only a question of an appropriate computer program.

The establishment of an on-line connection between the two kinds of registrations would serve as a labour-saving device concerning data-collection and it would keep increasing the efficiency of investigation.