Research paper

How did the crime rate evolve in Paris from 2000 to 2019 ?
- What are the socio-economic factors influencing this evolution?

"Beware of pickpockets!" is a frequent announcement on line 6 of the Parisian metro. Indeed, the French capital is the second most visited city in the world with 19.10 million visitors per year[1] making it a key place for pickpockets but also for people in search of a better quality of life. Many people believe that the surge in immigrants has led to more crime. The president himself, Emmanuel Macron, announced that 48% of crimes in Paris are committed by foreigners[2]. However, there are many factors which together explain the rise in crime. Throughout the years the crime rate in Paris has increased and decreased sometimes dramatically but what influences these fluctuations and why?

First of all, between 2000 and 2019 the crime rate rapidly decreased from 2008 to 2010 (from 1.64 per 100,000 to 1.27 per 100,000). This was right after the 2008 economic crash. In 2008 the crime rate was quite high as the economy was unstable and job opportunities were scarce. After the crash, France made efforts to recover its economy thus leading to a decrease in the crime rate[3]. Later on, in 2015 the country saw its crime rate drastically increase (from 1.23 per 100,000 in 2014 to 1.57 per 100,000 in 2015)[4]. This can be explained by the rise in terrorist attacks leading to a period of instability and terror which profited criminals[5]. If we look at crime in Paris by area, we can observe differences. Indeed, depending on the neighborhood or arrondissements (in French) the crime rate is not the same. In the 1st arrondissement the crime rate is 33.7 per 1000 compared to 1.7 per 1000 in the 13th arrondissement. Another example is the 8th arrondissement where the crime rate is 18 per 1000 versus the 16th arrondissement where the crime rate is 2 per 1000. Both the 1st and 8th arrondissement are touristic areas including the Louvres, the Tuileries and the Champs Elysées. Tourism is the main cause of the high crime rate in these places as tourists are the key target of pickpockets. Nevertheless, crime rates are also high in less touristic places

such as the 10th arrondissement (9.3 per 1000) and the 18th (8.2 per 1000). So what is influencing these crime rates if not for the presence of tourists?

[https://www.macrotrends.net/countries/FRA/france/crime-rate-statistics?q=paris+crime+rate]

If we look at previous papers on crime and its influences in France we find multiple factors. Although France tries to not make distinctions between people in terms of race and religion, there are certain ethnicities that are much more prominently associated with crime in the country. In *Race, Crime and Criminal Justice*, a paper written by Pamela Irving Jackson from Rhode Island College, USA, she says: "Both the non-citizen and citizen populations in France include members of the racialized Muslim ethnic groups (of Algerian, Moroccan, Tunisian and Turkish backgrounds) that are disproportionately represented at all levels of the French criminal justice system"[6]. In fact, the top two highest crime rates, depending on race and focusing only on foreign nationality, are people from Maghreb (37.6% of immigrants who committed a crime were from Maghreb) and African immigrants (without counting Maghreb, 20.6%). Another research paper, *Income Inequality and Segregation in the Paris Metro Area* by Haley McAvay and Gregory Verdugo provides an explanation to this inequality: "post-colonial immigrants found accommodation primarily in the large public housing projects embedded in the suburbs

of large urban areas (banlieues) near industrial sites where jobs were available. In the wake of deindustrialisation and rising unemployment, the banlieues became explicitly synonymous with socioeconomic disadvantage and implicitly associated with racial minorities"[7]. This brings out another problem which is that disadvantaged minorities (who might be more inclined to a life of crime) are all in one area meaning that crime is unevenly distributed throughout the city. To add to that, crime is also more prevalent within the unemployed as is proven in *Youth Unemployment and Crime in France*, a paper by Denis Fougère, Francis Kramarz and Julien Pouget, researchers from Insee: "And, indeed, our results suggest that increases in youth unemployment may well cause increases in crime, because education or work does not pay enough, in particular for the unskilled or low educated youth"[8]. Through this quote we can also see that crime is indirectly affected by lower education as someone with a lower education will be likely to have difficulties finding a (decent) job. But how exactly are these factors linked and in what ways do they affect the crime rate?

There are a number of factors that influence crime rates in Paris but also throughout the world. Let us look at immigration first. To start off, the percentage of foreign born is greater in the arrondissements with higher crime rates such as the 10th and 18th. The crime rates in these areas respectively are 9.3 per 1000 and 8.2 per 1000 and their percentage of foreign born is 18.175 and 20.4. Whereas in a neighborhood with a lower percentage of foreign born like the 12th arrondissement (10.8%), the crime rate is lower (3.2 per 1000)[9]. This alone does not explain the variations in the crime rate but combined with other components the correlation will become clearer. The educational level is another factor that influences crime rate. The lower the educational level is, the higher the crime rate is. In arrondissements with a high percentage of foreign born such as the 10th and 18th that were previously cited, the percentage of non graduates is particularly high (23% and 27%, respectively). In contrast, in an area with a low percentage of foreign born such as the 12th arrondissement (10.8%), the percentage of non graduates is lower (9%)[10]. Finally, the level of poverty which, in France, is anyone living with less than €1,102 so $1206.40 per month with

financial aid, is another indicator that can have an effect on the crime rate. In Paris, poverty is extremely unequally distributed. For example, the lowest poverty rate in the city is 8.3% in the 7th arrondissement compared to 24.4% in the 19th arrondissement. The poverty rate is higher in areas with higher levels of crime (20.1% in the 18th arrondissement) whereas in areas with lower levels of crime, the poverty is lower (8.2% in the 12th arrondissement)[11]. Now these factors can all be linked. Immigrants usually have low levels of education and are unemployed and therefore leave their homeland in the hopes of finding a job and a better quality of life, only to acquire very low paying jobs if they get any at all. The low wages push them into poverty thus driving a certain amount of them into crime as a means of survival, earning money and potentially being able to afford a better lifestyle.

Population (foreign), % of total (2012)
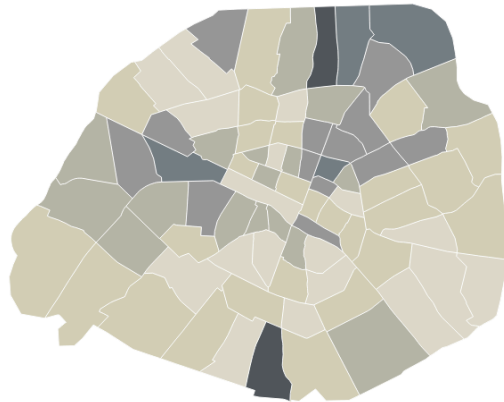
Data by zipParis

| 25 or more | 20 - 25 | 17.5 - 20 | 15 - 17.5 | 12.5 - 15 | 0 - 12.5 |

[https://www.zipparis.com/#!/tellmap/-495585966]

To illustrate the correlation between poverty, immigration, education and crime here is a regression analysis:

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.566802
R Square	0.321264
Adjusted R Squar	0.185517
Standard Error	3.998591
Observations	19

ANOVA

	df	SS	MS	F	Significance F
Regression	3	113.5186	37.83952	2.366637	0.111845
Residual	15	239.8309	15.98873		
Total	18	353.3495			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-10.385	6.441294	-1.61225	0.127744	-24.1143	3.344297	-24.1143	3.344297
mean of %foreig	1.246841	0.503495	2.476375	0.025674	0.173668	2.320015	0.173668	2.320015
%non-graduates	-0.12796	0.296772	-0.43117	0.672479	-0.76051	0.504597	-0.76051	0.504597
%poverty	-0.06009	0.588748	-0.10206	0.920059	-1.31498	1.194797	-1.31498	1.194797

We can observe with this simple regression analysis that there is a significant correlation between the percentage of foreign born and the crime rate in a given Parisian arrondissement, even while controlling for poverty and the percentage of non graduates. The first arrondissement is not counted as it is not representative of this correlation since most of its crime is due to tourism and is carried out by people who live in other arrondissements. Through this regression analysis, the correlation between poverty, education and crime is not shown as the data is not exact and is from different years, however others have observed a clear correlation between the percentage of non graduates and the poverty rate[11]. We can therefore suggest that these four factors are (indirectly) correlated and can partially explain the evolution of the crime rate.

Ultimately, what drives people to live a life of crime or to reject that idea is marginal costs and benefits. This was first formulated by Gary Becker, an American economist, in his paper *Crime and Punishment: An Economic Approach* written in 1968[12]. Marginal is the cost or benefit gained or lost from engaging in the next unit of activity (here crime). Marginal costs and benefits are very different from one person to another. For example, if we compare immigrants from two different countries such as Spain and Sri Lanka their marginal costs to participate in crime will not be the same. An immigrant from Spain will have traveled less than an immigrant from Sri Lanka to arrive in Paris. If a Spanish immigrant were to be

deported for a crime all they would have to do to get back in the country would be to cross the border whereas a Sri Lankan immigrant would have to cross multiple continents and oceans to come back to France. Now if we compare an immigrant and a French native, the marginal costs would also be dissimilar. A French native probably has family so if they do commit a crime then their children will still have someone to take care of them. Whereas an immigrant might not have a family that they can depend on thus increasing the marginal costs. In general, marginal costs for committing a crime vary depending on whether or not the individual has a job, the salary, whether or not they will be deported, the likelihood of getting caught and of course they depend on the marginal benefits. Just like the marginal costs, the marginal benefits are different from one person to the next. For example, if you do not have a job and are very poor, stealing might benefit you in the sense that it will provide food or money to sustain yourself. In contrast, someone with a job might consider theft to have a low marginal benefit as they will gain less money than at their job and will face the possibility of being caught thus losing their job. Essentially, the risk threshold (how much someone is willing to risk) and opportunity costs (job offers, higher salary, etc) are what influence people's view of marginal costs and benefits: someone with lower opportunity costs will have less marginal costs (as they have less to lose) and more marginal benefits making them more prone to engage in criminal activity and vice-versa.

To conclude, there is no single factor that influences the crime rate but rather a multitude of factors which, hand in hand, cause the crime rate to increase or decrease. The criminals may be immigrants but it is not their nationality that pushes them to commit crimes but instead, it is things like their level of education and their level of poverty. People from a similar background do not have the same inclinations to crime either as each individual has a different definition of marginal costs and benefits. Crime is a very complicated subject which intertwines moral, social and economic dilemmas that the government is forever trying to overcome.

[1]Bessadeg, F. "What are the 20 most visited cities in the world?", *Travelness* (2022, November 9), from: [https://travelness.com/most-visited-cities-in-the-world / last accessed: 21 June 2023]

[2]Lesueur, C. "At least half of Paris crime is committed by foreigners", *Le Monde* (2022, November 1), from: [https://www.lemonde.fr/en/les-decodeurs/article/2022/11/01/at-least-half-of-paris-crime-is-committed-by-foreigners-where-does-macron-s-claim-come-from_6002508_8.html / last accessed: 21 June 2023]

[3]Insee - L'économie française, (2010, July 7), from: [https://www.insee.fr/en/statistiques/1372479?sommaire=1372493 / last accessed: 21 June 2023]

[4]Macrotrends - France crime rate and statistics 1990-2023, (n.d), from: [https://www.macrotrends.net/countries/FRA/france/crime-rate-statistics?q=paris+crime+rate / last accessed: 21 June 2023]

[5]Open society - The aftermath of the Paris attacks, (2016, February 29), from: [https://www.opensocietyfoundations.org/podcasts/talking-justice-the-aftermath-of-the-paris-attacks / last accessed: 22 July 2023]

[6]Jackson. P, "Race, Crime and Criminal Justice", *Springerlink* (2010), from: [https://link.springer.com/chapter/10.1057/9780230283954_3 / last accessed: 22 June 2023]

[7]McAvay. H, Verdugo. G, "Income Inequality and Segregation in the Paris Metro Area", (2021, March 30), from: [https://link.springer.com/chapter/10.1007/978-3-030-64569-4_17 / last accessed: 22 June 2023]

[8]Fougère. D, Kramarz. F, Pouget. J, "Youth Unemployment and Crime in France", (2006, April), from: [https://repec.cepr.org/repec/cpr/ceprdp/DP5600.pdf / last accessed: 22 June 2023]

[9]ZipParis - Immigrants and foreigners, (2012), from: [https://www.zipparis.com/#!/tellmap/-495585966 / last accessed: 21 June 2023]

[10]Académie de Paris - La part de non-diplômés, (2011), from: [https://www.education.gouv.fr/media/12488/download / last accessed: 21 June 2023]

[11]Insee - En Île-de-France, (2017, December, 21), from: [https://www.insee.fr/fr/statistiques/3291402#tableau-figure2 / last accessed: 21 June 2023]

[12]Becker. G, "Crime and Punishment: An Economic Approach", (1968, March - April), from: [https://www.jstor.org/stable/1830482 / last accessed: 22 June 2023]