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Crime and Violence

Rowena Gray

Crime is a relatively recent concept, a construction of an era that focuses more on the legality of a person's actions than their morality, as the focus may have been centuries ago. The economics of crime has emerged as an area of study in the period since the Industrial Revolution where violence has been on a long-run decline¹ and global wealth and income have been rising. The latter has meant that there is simply more to steal or expropriate, which has stimulated a proliferation of new laws and property rights which need to be enforced and policed and led to larger governments and police forces charged with protecting citizens and enforcing the state's will. In a world where life expectancy is extended, children are valued in their quality rather than their quantity, leisure time is more available (in short societies with more middle-class values and riches), and limiting social problems is an important function of government.

Economists have come late to the game in terms of addressing questions of why crime occurs, who commits crimes and how to reduce it. Interest in this subfield was sparked by Gary Becker's seminal work of 1968 in which he developed an economic model of the determinants of crime. He modelled individuals as considering work in both the legitimate and illegitimate sectors and theorised that they will choose whichever sector has the highest

¹Clark (2007: 160) describes how homicides in England had already fallen substantially from the thirteenth century to the early modern period, and violence has continued a general downward trend since then.

expected returns, given the risk of apprehension and harshness of punishment. In general, this model performs well when estimated on property crimes. But the economic model of crime performs poorly when trying to explain violent crimes, such as homicides, assaults and rape, where there is more scope for sociological explanations.² One aspect which economic theory struggles to explain is that most crime is committed by men in their late teens and twenties.

Overcoming the Data Challenges

Economic historians have only recently become interested in crime. Initially, data on prisoners and convicts were utilised as a source in studies of heights of the general population, which proxy for nutrition and living standards in the absence of series on incomes.³ The prisoners themselves were uninteresting; they were a means to an end. Bodenhorn et al. (2012) were among the first to utilise this information to analyse the economics of crime. They showed that shorter individuals entered the illegal labour market at an earlier age than their taller counterparts, possibly because they faced worse prospects in the legal labour market.

The dearth of economic history work on crime is perhaps because of a lack of "clean" and comprehensive data sources for the era prior to the US Federal Bureau of Investigation's Uniform Crime Reports, which were collected from 1930 onwards and are the main source of information for modern studies of the US. Historical research to date has mostly used prison or court records, and criminologists such as Eric Monkkonen (1981) painstakingly compiled arrest data to detail police activity for the urban USA, from sources ranging from police reports to newspaper accounts of criminal activities. New data sources are beginning to be identified, digitised and exploited. Ancestry.com now has records from a number of prisons, including Sing Sing and San Quentin. The US Census also documented the stock of individuals in prisons at each census date, and now 100 per cent databases for most years up to 1940 are available (for use of these data in a study of crime and education, see Campaniello et al. 2016). Gray and Peri (2018) have collected data from annual police reports, at the city level. A remaining challenge for all historical data is that crime is usually measured as a rate, per 100,000 of the population. Historical

² Kelly (2000) summarises the economic, strain and social disorganisation theories of crime in his context of analysing the impact of inequality on American crime rates. He finds that inequality had no effect on property crime, but did increase violent crime, lending weight to the strain and social disorganisation theories.

³ Bodenhorn et al. (2017) discusses and uses many prisoner samples used in this literature.

population data at high frequency can be difficult to obtain and different sources often contain conflicting numbers.

The journal *Business History* ran a special issue on white collar crime in 2018, highlighting case studies as a source of insights into topics in historical crime. Such detailed case analyses also show how the definition of crime has evolved, which is useful for putting the current environment in its historical context. The introductory essay by Berghoff and Spiekermann (2018) discusses how the phrase "white collar crime" was coined in 1939 by the sociologist Edwin Hardin Sutherland. This new type of crime only came to light as information became more easily transmitted and companies became larger, with more scope for malfeasance that could now be legislated against, and as government expanded its regulatory role from the 1930s onwards. Similarly, studies of police forces (such as Lane 1967) show how they have evolved in their functions from nineteenth-century welfare providers, moral guardians and unrest preventers to crime fighters using sophisticated techniques to prevent and detect a wider variety of crimes.

Policy Experiments of History

An early area of interest for economists was in the effects of making products illegal, such as alcohol during 1930s Prohibition in the USA. These types of policies are not uncommon throughout the world and are implemented based on the belief that violent crime is fuelled by substance abuse. This is somewhat born out in studies such as Wong (1995), who argued that decreased alcohol consumption contributed to the decline in crimes in nineteenth-century England, and Mehlum et al. (2006), who look at weather-induced changes in economic activity to show that violent crimes increased in times of prosperity which coincided, they argue, with low beer prices. Jeffrey Miron and Emily Owens are most commonly associated with prohibition studies. In theory, there is a tension between decreased substance consumption—as Dills and Miron (2004) documented for alcohol prohibition—which might be expected to reduce violence, and the emergence of black market activity, which likely increases violence. Miron (1999) prepared time series data on the USA's homicide rate per 100,000 people for the years 1900 to 1995 and found a positive association between that and expenditures on enforcement of drug and alcohol prohibition. Owens (2011) re-examines this question using statelevel variation in prohibition laws which existed before and after Federal prohibition was enacted, from 1920 to 1933. She found that, once demographics are controlled for, prohibition did not increase homicides and concludes that

urbanisation was the key driver of murders before 1940. Jacks et al. (2017) has developed county-level measures of the intensity of prohibition in the years after the 1933 federal repeal. This type of approach might be extended in the future to revisit this question with finer crime data on a broader set of crime outcomes.

An expanding topic for economic historians concerns the impact of immigration on crime. There is a huge role here for economic history to inform the current debate on this topic, which is raging across the developed world in the wake of the recent refugee crisis and relative unpopularity of labour migrants among developed country voters. Countries like the US maintained an open border policy until almost the 1920s and experienced huge inflows of migrants, bringing the share of foreign-born among the working age population very close to current levels. Bodenhorn, Moehling and Piehl have been the main researchers in this area to date. Moehling and Piehl (2009, 2014) were the first to explore differences in incarceration rates for immigrants and natives, describing an initially elevated level for immigrants before a convergence in criminality by 1930—which can mostly be explained by the changing demographics of immigrants, as older groups are less likely to commit crimes. Their work with Bodenhorn in 2010 looked at incarceration rates by nativity for antebellum Pennsylvania. They document again a convergence in behaviour for immigrants—the Irish were the main group at this time and their legal labour market possibilities may have risen over time. These studies have generally used prison data, which measure the stock of individuals in prison at a given time and do not always provide information on the crimes for which they were incarcerated. This will be a growing area of research as other sources are exploited, such as police reports and arrest and commitment records, that detail criminal histories. There remains no clear consensus among economists using modern data on this subject, with recent contributions offering opposing results.4

There are many policy and natural experiments in history that can be exploited. An important question in the crime literature is how income and business cycle shocks affect crime. Wong (1995) and Mehlum et al. (2006), mentioned above, provide insights on this question, focusing on the UK and Germany, respectively. Bignon et al. (2015) find that the phylloxera crisis in the French wine industry in the late 1800s led to increased property crimes but reduced violent crimes in regions that were more intensively affected. Fishback et al. (2010) use the policy experiment of the New Deal legislation

 $^{^4}$ See, for example, Chalfin (2014) who finds that immigrants to the USA do not increase crime, and Spenkuch (2014) who finds the opposite.

in the 1930s to evaluate how keeping household income high in times of distress affected social outcomes including crime. They found that both work relief and welfare payments during the decade reduced property crimes, with the biggest benefits coming from the work replacement side, because people were occupied rather than committing crimes.

Recent newly discovered data sources at a microlevel are facilitating indepth analyses of bias at various levels of policing and the court system, which are of critical concern today. These data may be difficult to come by today, but are available historically—but only after some time effort by the researcher. Bodenhorn (2009) used information on two Pennsylvania courts from 1819 to 1876 to look at the determinants of sentencing. He found that, surprisingly, immigrants tended to receive lighter sentences (the Irish in particular received shorter average sentences, controlling for other factors), and that the wealthier classes received the harshest sentences. This is interpreted as characteristic of the age of the common man, when most cases went to a trial in front of a jury of your peers and the notion of fairness across social groups was paramount. Vickers (2016) constructed data from trial records for England and Wales for 1870-1910 and explores class-based differences in conviction and sentencing. He finds that the early years are characterised by higher status individuals receiving higher sentences for property crimes, but the reverse for violent offences. The property crime effect dissipates by 1910, but for violent offences the result endures. The analysis of these issues prior to the twentieth century is very useful, because since 1900 plea bargaining has become so much more common, meaning that modern analyses of bias among judges and juries may itself be biased by selection into jury trials.

A final new area of focus for economic historians is on the effects of the environment on crime, which follows burgeoning interest in this issue for those using modern data. Feigenbaum and Muller (2016) suggest that cities' use of lead pipework significantly increased homicide rates for the years 1921–1936. It is generally accepted that heavy metals, such as lead, may alter brain functions and behaviour, providing a mechanism for this result. This is the first paper to look at this historically, and with only one outcome (homicide), so more work may be done to explore the broader crime effects in this era.

Summing Up

Teachers and students of economic history may be interested in how historical episodes can inform the current debates about the roles of demographics, business cycles and inequality as drivers of crime rates, and how policy

experiments such as immigration restriction or prohibition of alcohol or drugs affect crime rates. With the cost of data collection decreasing all the time, new sources can facilitate further in-depth analyses of these questions, and the economic historian has the advantage of not having to worry about privacy concerns, ethics committees, or the resistance of law enforcement agencies in reporting their current performance. I expect to see an explosion of historical crime studies and a broadening of topics, using data at both the city/county level, as well as the individual level, making use of criminal careers to examine questions such as what makes a criminal and what causes recidivism.

Reading List

- Becker, Gary. 1968. Crime and Punishment: An Economic Approach. *Journal of Political Economy* 76 (2): 169–217.
- Berghoff, Harmut, and Uwe Spiekermann. 2018. Shady Business: On the History of White-Collar Crime. *Business History* 60 (3): 289–304.
- Bignon, Vincent, Eve Caroli, and Roberto Galbiati. 2015. Stealing to Survive? Crime and Income Shocks in Nineteenth Century France. *Economic Journal* 127: 19–49.
- Bodenhorn, Howard. 2009. Criminal Sentencing in Nineteenth-Century Pennsylvania. *Explorations in Economic History* 46 (3): 287–298.
- Bodenhorn, Howard, Timothy W. Guinnane, and Thomas A. Mroz. 2017. Sample-Selection Biases and the Industrialization Puzzle. *Journal of Economic History* 77 (1): 171–207.
- Bodenhorn, Howard, Carolyn M. Moehling, and Anne Morrison Piehl. 2010. Immigration: America's Nineteenth Century 'Law and Order Problem'. In *Migration and Culture (Frontiers of Economics and Globalization)*, ed. Gil S. Epstein and Ira N. Gang, vol. 8. Bingley: Emerald.
- Bodenhorn, Howard, Carolyn M. Moehling, and Gregory Price. 2012. Short Criminals: Stature and Crime in Early America. *Journal of Law and Economics* 55 (2): 393–419.
- Campaniello, Nadia, Rowena Gray, and Giovanni Mastrobuoni. 2016. Returns to Education in Criminal Organizations: Did Going to College Help Michael Corleone? *Economics of Education Review* 54: 242–258.
- Chalfin, Aaron. 2014. What is the Contribution of Mexican Immigration to U.S. Crime Rates? Evidence from Rainfall Shocks in Mexico. *American Law and Economics Review* 16 (1): 220–268.
- Clark, Gregory. 2007. A Farewell to Alms. Princeton, NJ: Princeton University Press. Dills, Angela, and Jeffrey Miron. 2004. Alcohol Prohibition and Cirrhosis. American Law and Economics Review 62: 285–317.

- Feigenbaum, James J., and Christopher Muller. 2016. Lead Exposure and Violent Crime in the Early Twentieth Century. *Explorations in Economic History* 62: 51–86.
- Fishback, Price, Ryan S. Johnson, and Shawn Kantor. 2010. Striking at the Roots of Crime: The Impact of Social Welfare Spending on Crime during the Great Depression. *Journal of Law and Economics* 53 (4): 715–740.
- Gray, Rowena, and Giovanni Peri. 2018. Importing Crime? The Effect of Immigration on Crime in the United States, 1880–1930. *Working Paper*.
- Jacks, David S., Krishna Pendakur, and Hitoshi Shigeoka. 2017. Infant Mortality and the Repeal of Federal Prohibition. *NBER Working Paper 23372*.
- Kelly, Morgan. 2000. Inequality and Crime. *Review of Economics and Statistics* 82 (4): 530–539.
- Lane, Roger. 1967. *Policing the City: Boston, 1822–1885.* Cambridge, MA: Harvard University Press.
- Mehlum, Halvor, Edward Miguel, and Ragnar Torvik. 2006. Poverty and Crime in 19th Century Germany. *Journal of Urban Economics* 59: 370–388.
- Miron, Jeffrey. 1999. Violence and the U.S. Prohibition of Drugs and Alcohol. *American Law and Economics Review* 11 (2): 78–114.
- Moehling, Carolyn, and Anne Morrison Piehl. 2009. Immigration, Crime, and Incarceration in Early Twentieth-Century America. *Demography* 46 (4): 739–763.
- ——. 2014. Immigrant Assimilation into U.S. Prisons, 1900–1930. *Journal of Population Economics* 27: 173–200.
- Monkkonen, Eric. 1981. *Police in Urban America*, 1860–1920. Cambridge: Cambridge University Press.
- Owens, Emily G. 2011. Are Underground Markets Really More Violent? Evidence from Early 20th Century America. *American Law and Economics Review* 13 (1): 1–44.
- Spenkuch, Jorg L. 2014. Understanding the Impact of Immigration on Crime. *American Law and Economics Review* 16 (1): 177–219.
- Vickers, Chris. 2016. Socioeconomic Status and Judicial Disparities in England and Wales, 1870–1910. *Explorations in Economic History* 61: 32–53.
- Wong, Yue-Chim R. 1995. An Economic Analysis of the Crime Rate in England and Wales, 1857–1892. *Economica* 62 (246): 235–246.