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Comment

Catherine Rodriguez

The objective of the chapter "Crime Displacement and Police Interventions: Evidence from London's 'Operation Theseus'" is to present evidence on the casual impact of police presence on crime rates and investigate its indirect effects through potential crime displacement. Using weekly data of crime and police force in London for the period between January 1, 2004, to December 31, 2005, the authors find an elasticity of crime with respect to police of approximately –0.3. In contrast with this clear direct effect, the authors do not find any evidence of significant spatial or intertemporal displacement in crime during or after the intervention took place.

Without a doubt, the question that the authors are interested in is of extreme importance. Previous work, such as Levitt (1997), Di Tella and Schargrodsky (2004), and Klick and Taborrak (2005), have established the direct effect of police force in crime reduction. However, as the authors men-

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tion, less attention has been given to the potential indirect effects these policies might bring. Understanding the possible indirect effects that increases in police deployment could bring to criminal behavior is important in practical terms. If there is indeed criminal displacement, either temporal or spatial, the effectiveness of transitory deterrence interventions previously found in the literature could be very limited, and its application should hence be carefully evaluated.

The classical and most difficult problem to solve in studies of the effect of deterrence measures on crime is the endogeneity between both variables. In order to tackle with it, the authors follow the idea of previous work in which terrorist attacks allow the emergence of a quasi-experiment. Specifically, they used the fact that after the July 2005 London terrorist attacks, the police force in the center of the city increased by more than 30 percent for a consecutive period of six weeks. Such an increase, referred to by the police force as Operation Theseus, can be cataloged as an exogenous change in police force that was not related to the crime rate in the area. Moreover, as explained by the authors, this change in deployment was achieved using extra hours of work and, hence, no reduction of police force in other sectors of the city was necessary. It is precisely this last aspect of the policy that allows the authors to study any displacement effect.

Under such a scenario, the authors employ an instrumental variable (IV) estimation methodology that directly tries to identify the casual impact of the number of police deployed on crime rates. In the first stage, they estimate changes in police deployment using Operation Theseus as the instrumental variable. This clear and powerful exogenous variation of police force allows the authors in the second stage to estimate an elasticity of crime of –0.3. To analyze the possible displacement effects, the authors define different dummy variables measuring either time or location. Specifically, to analyze spatial displacement, the authors use as pseudo-treatment boroughs those immediately around the actual treated ones. To analyze intertemporal displacement, they define two treatment periods: one during the six weeks of operation Theseus and the second one with the remaining weeks of 2005 after the operation took place. In none of these alternative specifications are the authors able to reject the hypothesis that there are no significant spatial or intertemporal displacement effects of crime caused by Operation Theseus.

I believe the article clearly provides further evidence on the causal relationship of police on crime rates. It uses a clever idea of a quasi-experiment, is very well written, and, indeed, convinces the reader on the issues dealt. Furthermore, as previously mentioned, it deals with a question that has been understudied in the economics literature. However, there are some small comments that should be kept in mind related to the estimations presented and future research that, in my opinion, could in principle be a very interesting agenda.

The first comment relates to the policy implications of the study. From the IV estimates, we find that a 10 percent increase in police force could reduce crime rates by almost 3 percent. This effect is large and, hence, provides further evidence in favor of the convenience of having larger police forces in cities suffering from high crime rates. In addition, no evidence is found on possible negative effects on crime displacement and, hence, the estimate of elasticity previously mentioned should be accurate. However, it is important to have a cost-benefit analysis of these six weeks. Before any policy decision is taken, it is imperative to understand whether the costs associated with a bigger police force are compensated by the reduction in crime. This is probably not a difficult exercise to carry out, and it is certainly a very informative one.

The second comment relates to the spatial displacement analysis. The authors implicitly assume that displacement will occur only in adjacent boroughs but will not occur in further away places. It is reasonable to assume just the opposite. Given that a greater amount of policemen were deployed in central London, thieves, burglars, and other criminals would rather move to further apart areas that are relatively less protected than to displace their criminal activities to adjacent areas. It would be interesting to see whether any difference in the coefficients is obtained using as pseudo-treatment boroughs from outer London instead of using only boroughs located in the center of the city as it is done in the present chapter.

A similar suggestion can be raised with the temporal displacement of crime exercises. As mentioned, the authors define two treatment periods. The first one is the six weeks in which Operation Theseus was in place, while the second one is encompassed by the remaining weeks of 2005. It would be interesting to have a third alternative, namely the six weeks immediately after Operation Theseus was in place. Even though there was no change in police deployment compared to the previous year, the reduction in police force during these six weeks must have been evident for citizens and, hence, a change in criminal behavior could have taken place. This exercise could also shed light on an alternative view in which there is an inertial behavior of crime.

The last comment is related to the type of crimes analyzed by the authors in this and in their companion paper.[1] In the present paper, the analysis evolves around what the authors call "susceptible crimes." Although it is explained in more detail in Draka, Machin, and Witt (2008), according to the authors, this group is made up by violence and sexual offenses, theft, and robbery. Nonsusceptible crimes, on the other hand, are burglary and criminal damage. The results in their first paper show that while police deployment could indeed reduce the incidence of "susceptible crimes," it had no effect on burglary or criminal damage. Unfortunately, in this displacement

1. See Draca, Machin, and Witt (2008).

paper, the authors do not present any evidence on the possibility of different types of crime displacement among boroughs. Is it the case that after the increase in police deployment in the treated areas, different types of crimes increased in other areas? It would be very interesting to see this exercise in the future.

Moreover, I believe that an alternative analysis among the different types of crimes will not demand such an ad hoc division between them. In Draca, Machin, and Witt (2008), the authors' main argument to justify the division between susceptible and nonsusceptible crimes is that burglary and criminal damage are more prevalent in residential areas or frequently occur at night. In my opinion, it is difficult to foresee why a burglar will not be deterred if more police are visible while a rapist (that one would think are precisely the crimes that occur at night) or common thief will be. Moreover, the results in the first paper suggest that crimes against people were affected, while crimes against property were not. This actually could go against what the authors would like to prove in their first paper with respect to the nonexistence of any uncorrelated shocks after the attacks took place. The number of houses or amount of property did not change, and no effect was found there. The number of people traveling in the Tube in central London was reduced, and crimes against people also were reduced.

Perhaps a much cleaner division to study whether displacement in the types of crime took place would be to compare the effect on crimes that occur during the day versus those that took place at night, irrespective of their type. Probably during the day not only is the higher security more evident but also the vision of policemen is higher. At night, neither the criminals nor the policemen can see each other and, hence, it will be expected that the crime rates cannot be reduced as much. I believe that such an analysis of types of crimes committed will greatly enrich what already is an excellent chapter and will show the reader a third possibility of displacement that is often studied in the criminologist literature as stated by Jacob, Lefgren, and Moretti (2007).

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