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Blumstein, A. Prisons. 2002. In *Crime,* eds. Wilson, J., and Petersilia, J. San Francisco: ICS Press.
Cook, P., and J. Laub. 1998. The Unprecedented Epidemic in Youth Violence. In *Crime and Justice: A Review of Research,* ed. Tonry, M. Chicago: the University of Chicago Press.
Glaeser, E., B. Sacerdote, and J. Scheinkman. 1996. Crime and social interaction. *The Quarterly Journal of Economics* 111 (May): 507–48.
Goertzel, T., and T. Kahn. 2009. The great São Paulo homicide drop. *Homicide Studies* 13 (4): 398–410.
Goring, C. 1913. *The English Convict.* Montclair: Patterson Smith.
Kahn, T., and A. Zanetic. 2005. O papel dos municípios na segurança pública. *Estudos Criminológicos* 4 (July).
Levitt, S. 1999. The limited role of changing age structure in explaining aggregate crime rates. *Criminology* 37 (3): 581–97.
Wilson, J., and R. Hernstein. 1985. *Crime and human nature.* New York: Simon & Schuster.
Zimring, F. 2007. *The great American crime decline.* Oxford: Oxford University Press.

Comment Lucas Llach

João De Mello and Alexandre Schneider (henceforth, DMS) present and discuss a remarkable social phenomenon: after increasing significantly over the 1990s, homicide rates in the State of São Paulo, Brazil, roughly halved in the first quinquennium of this century. Readers expecting some sort of magic policy formula to produce this fabulous trend would be disappointed. The authors' explanation for the sudden drop in the number of homicides is as far from policy as one can get: they attribute the decline to long-run demographic trends.

The authors argue that a question of timing discards policing innovations as the most likely explanation of the decline, as the majority of the new policies were implemented after the crime rate began to fall. It should be fair to note, however, that while it is true that crime peaked in 1999, most of the decline occurred after 2001: homicides per 100,000 inhabitants were around fifty in 1999, about forty-five in 2001, and close to twenty in 2006 (figure 6.2). The bulk of the decrease either followed or was contemporaneous with most of the policy innovations listed by the authors in table 6.1.

Also, the authors' interpretation of the decrease in the arrest/population ratio—namely, that arresting became more lax or that it just accompanied the decrease in crime rates—is misleading. While the rate of arrests declined just 15 percent after 2001, homicide rates fell around 55 percent. If homi-

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cides are a proxy for crime in general, as the authors argue, then the *probability of arrest*—the relevant measure for crime deterrence—increased by around 90 percent (0.85/0.45 = 1.88). Such an increase in deterrence should appear at least as a serious candidate to account for some of the reduction in crime rates.

One of the reasons why the authors think that something deeper than policy changes has been behind the bewildering fall in crime rates in São Paulo is the supposedly similar crime trend elsewhere in Brazil. These similarities, however, are in the eye of the beholder and in the scaling of the graphs. My own impression is that there is something Paulista about São Paulo: the decline in the homicide rate from the previous peak was 53.5 percent (peaked in 1999), compared to around 18.2 percent in Rio (2002), 4.5 percent in Minas (2004), 2.7 percent in Rio Grande (2005), 9.5 percent in Pernambuco (2001), 8.7 percent in Amazonas (2003) and 4.7 percent in Goiás (2004). There is a very large Paulista specificity going on that demands a Paulista explanation.

De Mello and Schneider contend that the homicide rate rose and fell hand in hand with the percentage of young people in São Paulo's population. The share of the population in the "trouble age" (fifteen to twenty-four) reached a maximum around 2000, as the populous cohort born around 1980 turned twenty; as this numerous "trouble cohort" matured, homicide rates declined.

As a first approach to measure the effect of age structure on homicides, DMS present the murder rates that would have prevailed in each year t if the age-specific homicide rates of a base year are applied to the age structure of that year t. This counterfactual estimate is compared to the actual evolution of homicide rates. The visual effect of this superimposition of curves (figures 6.11 and 6.12) is impressive: actual homicide rates and homicide rates predicted solely by changes in age structure move hand in hand.

The unusual practice of using axes with different scaling for actual and predicted values, however, makes the exercise quite deceptive. A visual correspondence between the trends of predicted and actual homicide rates obtains only when one of the axes (actual rates) varies between 100 and 200 and the other spans only from 100 to 104. With the same age-specific murder rates of 1984, the variation in the age distribution would have accounted for changes in homicide rates from an index of 100 in 1984 to a maximum of around 104 in 1999, and back to around 100 in 2004. The curve of actual homicide rates shows the same inverted U pattern, though with a much wider amplitude. Homicide rates reached almost 190 (1984 = 100) in 1999 and fell to around 150 in 2004.

The bottom line should be that most of the change in overall murder rates has to be accounted for not by variations in age structure but in age-specific crime rates. For the DMS argument to be correct, an increase in the proportion of the "trouble age" group should lead to an increased incidence of crime among youngsters and/or among other age groups. The authors' demographic argument should rest on that peculiar connection, given the weak direct effect of age structure estimated in their counterfactual exercise.

The authors explore econometrically the connections between age and crime across Paulista cities, in panel data exercises covering fifteen years. The estimates come with a steep age elasticity of homicide rates—up to 5 percent in the highest case, implying that a 1 percent increase in the "trouble age" population leads to a 5 percent increase in homicides. Again, such a high number implies a change in age-specific homicide rates as a result of variations in age structure. It is only natural to wonder whether the omission of additional variables is affecting these results. For example, variables related to economic conditions—which are discarded in the abstract but never discussed in the paper—and to security policies—harder to measure—are among the most striking omissions.

While demographic trends can certainly be a source of movement in crime rates in general and homicide rates in particular, changes in age structure normally—for example, in the absence of episodes such as wars or massive migrations—move at low speed. Unless some very powerful externalities and scale effects are at work they are, thus, hardly capable of explaining wide short-run variations in aggregate crime behavior, such as the one observed in São Paulo.