## CHAPTER 16

## A METHOD FOR DETERMINING THE SIZE OF THE UNDERGROUND CASH ECONOMY FOR COMMERCIAL SEX IN SEVEN US CITIES

BILAL KHAN, MITCH DOWNEY, MEREDITH DANK,
AND KIRK DOMBROWSKI

In this chapter, we seek to (1) derive a more rigorous estimate of the underground commercial sex economy (UCSE) in seven major US cities and (2) provide an understanding of the structure of this underground economy. To estimate the size of the UCSE accurately, we had to produce simultaneous estimates in each city of the size of the cash-based trade in both illegal drugs and illegal firearms. Ordinarily, estimates for each of these are independent of one another and often for a single locale at a single time. Our approach goes in the opposite direction. The operating assumption of the estimation process that follows is that estimates of the size of various domains of the underground economy (UE) are more accurate when comparative data across time and across different locations are taken into account and when estimates of the size of

¹ This research was supported by Award No. 2010-IJ-CX-1674 from the National Institute of Justice, Office of Justice Programs, US Department of Justice. The opinions, findings, conclusions, and recommendations expressed in this document are those of the authors and do not necessarily reflect those of the Department of Justice or of the Urban Institute, its trustees, or its funders. Elements of this chapter were reported to the National Institute of Justice in the form of a final technical report as per grant obligations. The authors would like to thank (1) final technical report coauthors Cybele Kotonias, Debbie Mayer, Colleen Owens, Laura Pacifici, and Lilly Yu and (2) the National Institute of Justice and Janine Zweig, senior fellow at the Urban Institute's Justice Policy Center, for their careful review of these findings.

## REFERENCES

- Berkelaar, Michel, Jeroen Dirks, Kjell Eikland, and Peter Notebaert. 2014. *Lp\_solve Reference Guide*. http://lpsolve.sourceforge.net/5.5/. Accessed May 1.
- Cagan, Phillip. 1958. "The Demand for Currency Relative to the Total Money Supply." *Journal of Political Economy* 66, no. 4: 303–328.
- Dank, Meredith, Bilal Khan, Mitch Downey, Cybele Kotonias, Deborah Mayer, Colleen Owens, Laura Pacifici, and Lilly Yu. 2014. Estimating the Size and Structure of the Underground Commercial Sex Economy in Eight Major US Cities. Final report submitted to the National Institute of Justice.
- Dantzig, George B. 1949. "Programming of Interdependent Activities: II Mathematical Model." *Econometrica* 17, no. 3: 200–211.
- Feige, Edgar L. 1979. "How Big Is the Irregular Economy?" Challenge 22, no. 1: 5-13.
- Kaufmann, Daniel, and Aleksander Kaliberda. 1996. "Integrating the Unofficial Economy into the Dynamics of Post-Socialist Economies." *Economic Transition in Russia and the New States of Eurasia* 8: 81.
- Newton, Phyllis J., Timothy M. Mulcahy, and Susan E. Martin. 2008. *Finding Victims of Human Trafficking*. Washington, DC: National Institute of Justice.
- Schneider, Friedrich, ed. 2011. *Handbook on the Shadow Economy*. Cheltenham, UK: Edward Elgar.
- Schneider, Friedrich, and Dominik H. Enste. 2000. "Shadow Economies: Size, Causes, and Consequences." *Journal of Economic Literature* 38, no. 1: 77–114.
- Tanzi, Vito. 1983. "The Underground Economy in the United States: Annual Estimates, 1930–80. Staff Papers—International Monetary Fund 30, no. 2: 283–305.
- Tanzi, Vito. 1999. "Uses and Abuses of Estimates of the Underground Economy." *Economic Journal* 109, no. 456: 338-347.