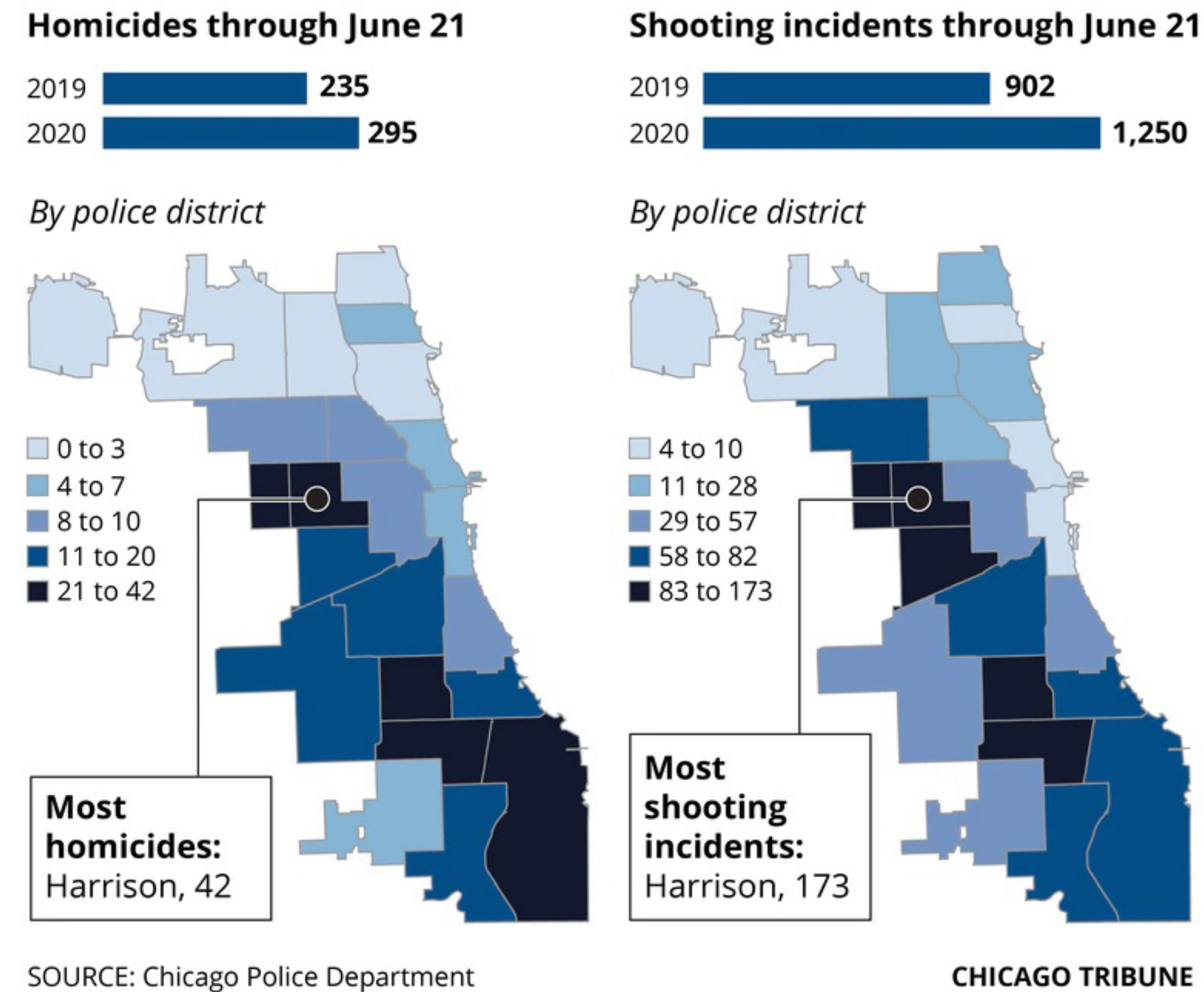


a

ID	$f(x, y, z)$	CP rank	Tucker rank
1	xyz	1	(1, 1, 1)
2	$\frac{1}{1+\exp(-3x^2+3y^2+3z^2))}$	9	(4, 4, 4)
3	$\frac{1}{\exp(\max(x,y,z)+\sqrt{x}+\sqrt{y}+\sqrt{z})}$	≥ 100	(90, 90, 90)

Smooth functions in simulation. We define the numerical CP/Tucker rank as the minimal rank r for which the relative approximation error is below 10^{-4} . The reported rank in the table is estimated from a $100 \times 100 \times 100$ signal tensor generated by (2).

b



c

