Corrigendum

Article title: Geographical Clusters of Rape in the United States: 2000–2012
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The first paragraph of section 2.1 was incorrect. The corrected paragraph is as follows.

For each county in the contiguous 48 states, data on the number of reported rape cases and the number of rape arrests were obtained from the Uniform Crime Reporting (UCR) through the Inter-University Consortium for Political and Social Research (ICPSR), University of Michigan. Illinois and Florida had missing data in the national UCR program for the period studied; therefore, data for these two states were collected from the state level UCR programs, managed by the Illinois State Police and the Florida Department of Law Enforcement, respectively. Limitation of the study: The accuracy of our results depend on the accuracy of the downloaded data. The UCR Program was founded in 1929 by the International Association of Chiefs of Police to meet the need for reliable uniform crime statistics for the nation. In 1930, the FBI was tasked with collecting, publishing, and archiving those statistics. Current published reports from the UCR are available through 2013, but at the time of this study, data were only available through 2012. Only rape against women was considered in this study. For reported rape cases, we obtained data from 2003 to 2012, and for rape arrests, from 2000 to 2012. Since the revised definition of rape did not take effect until 2013 (FBI 2013) the rapes studied in this article conform to the legacy definition.

In the second paragraph of section 2.1, the number “1878” should appear as “1,878.”

The first paragraph of section 3.1 was incorrect. The corrected paragraph is as follows.

The first round of analyses addresses the first two research questions. In Q1, we used the Poisson model for a purely spatial analysis of reported rape rates, adjusted for age. The scan of high rates resulted in 65 statistically significant clusters with p-values <0.05, implying much higher reported rape rates than in the rest of the contiguous USA. See Figure 1 and Table 1 for results. The first column in Tables 1–4, “Location,” gives the name of the largest city that is located inside the cluster. The counties making up the actual cluster are listed in the second column of Tables 1 and 2, while the second column in Tables 3 and 4 contains the number of counties in the actual cluster. For example, Coudersport, PA is given in Table 1 under the column “Location,” while in the second column, it is clarified that the (actual) corresponding cluster is located in Potter County. Of the 65 clusters found, there were two clusters where women had more than a three-fold excess risk of reported rapes compared to the rest of the country; and there were six clusters where they had more than a two-fold excess risk. The highest rates were found in Potter, PA (RR = 4.20) followed by Pershing, NV (RR = 4.13). All but seven of the clusters had p < 0.0001.

The first sentence of section 3.2 was incorrect. The corrected sentence is as follows.

Rape is an equally serious crime no matter where and to whom it happens; therefore, from a public health perspective one should not adjust the geographical analysis for potential confounders such as poverty.

The second paragraph of section 3.2 was incorrect. The corrected paragraph is as follows.

Figure 2 identifies the reported rape rate clusters after adjustment for both age and poverty (in red and pink). The counties shown in pink are age adjusted reported rape rate clusters that are not associated with poverty rates, while counties colored orange are associated with poverty rates. The dark red colored counties are included in both the age-adjusted reported rape clusters and the age-poverty-adjusted reported rape clusters. Table 2 lists the 20 clusters with the highest Relative Risk after adjusting reported rape rates for age and for poverty. The highest relative risk values were found in Kenedy, TX (RR = 7.99), Potter, PA (RR = 4.16), Minnehaha, NM (RR = 2.68), and Escambia, FL, Okaloosa, FL and Santa Rosa, FL (RR = 2.65). It should be noted that Kenedy, TX is very small with a female population of approximately 200 people per year for the time period we studied which could be a factor in its high relative risk value.

The last paragraph of section 3.3 was incorrect. The corrected paragraph is as follows.

Table 3 identifies the Top 10 clusters with high Relative Risk (RR) in counties having high rape arrest rates relative to reported rape rates, while Table 4 identifies the Top 10 clusters with low Relative Risk in counties having low rape arrest rates relative to reported rape rates. There are four counties in NY (NYBronx, NYKings, NYPark, NYQueens) forming the cluster with the highest proportion (79.5%), while Washington, D.C. forms the cluster with the lowest proportion (2.2%) (see Figure 3).

Tables 1–4 and Figures 1–3 appeared incorrectly. The corrected tables and figures are as follows.
Table 1. Statistically significant clusters of age-adjusted reported rape rates, with a relative risk (RR) greater than or equal to 1.74.

| Location                        | Counties included                      | Reported rapes | Relative risk | p Value |
|---------------------------------|----------------------------------------|----------------|---------------|---------|
| Coudersport, PA                 | PAPotter                               | 223            | 4.20          | <.0001  |
| Lovelock, NV                    | NVPershing                             | 61             | 4.13          | <.0001  |
| Council Bluffs, IA              | IA Pottawattamie                       | 811            | 2.84          | <.0001  |
| Sioux Falls, SD                 | SD Minnehaha                           | 1250           | 2.49          | <.0001  |
| South Alabama and North Florida | AL Coffee, ALConecuh, ALCovington, ALEscambia ALCape Coral FLBay AL Escambia FL Holmes FLKaloosa FL Santa Rosa FL Walton FL Washington | 7075           | 2.22          | <.0001  |
| Galax, VA                       | VAGalax City                           | 48             | 2.19          | .03     |
| Augusta, GA                     | GARichmond                             | 1343           | 2.13          | <.0001  |
| Florida                         | SS Counties                            | 89,616         | 2.07          | <.0001  |
| Charlottesville, VA             | VACarrollottesville City               | 277            | 1.98          | <.0001  |
| Jackson, MS                     | MSHinds, MSWarren                      | 1904           | 1.96          | <.0001  |
| Philadelphia, PA                | PAPhiladelphia                         | 9538           | 1.96          | <.0001  |
| Petersburg, VA                  | VAPetersburg City                      | 205            | 1.94          | <.0001  |
| Columbus, OH                    | OH Franklin                            | 6803           | 1.89          | <.0001  |
| Lower Peninsula, MI             | 43 Counties, see Figure 1              | 26,425         | 1.86          | <.0001  |
| Clearfield, PA                  | PAClearfield                           | 447            | 1.85          | <.0001  |
| Southeastern Coastal Area of Texas | TX Arkansas TX Bee TX Calhoun TX Goliad TX Killeberg TX Nueces TX Refugio TX San Patricio TX Victoria | 3449           | 1.85          | <.0001  |
| Rockford, IL                    | ILO DeKalb ILO Lee ILO Gage ILO Stephens ILO Whiteside ILO Winnebago | 3666           | 1.81          | <.0001  |
| Waterfall, IA                   | IA Black Hawk                          | 714            | 1.76          | <.0001  |
| Snow Hill, NC                   | NC Greene                              | 105            | 1.75          | 0.004   |
| Lock Haven, PA                  | PAClinton                              | 210            | 1.75          | .004    |

Table 2. Statistically significant clusters of reported rate, adjusted for age and poverty, and with a relative risk (RR) greater than or equal to 1.64.

| Location                        | Counties included                      | Reported rapes | Relative risk | p Value |
|---------------------------------|----------------------------------------|----------------|---------------|---------|
| Sarita, TX                      | TX Kenedy                              | 10             | 7.99          | 0.019   |
| Coudersport, PA                 | PAPotter                               | 223            | 4.16          | <.0001  |
| Sioux Falls, SD                 | SD Minnehaha                           | 1250           | 2.68          | <.0001  |
| Pensacola, FL                   | FL Escambia FL Kaloosa                 | 5017           | 2.65          | <.0001  |
| Crescent City, CA               | CADel Norte                            | 230            | 2.57          | <.0001  |
| Florida                         | SS Counties see Figure 2               | 89,616         | 2.07          | <.0001  |
| Rockford, IL                    | ILO DeKalb ILO Lee ILO Gage ILO Stephens ILO Whiteside ILO Winnebago | 2154           | 2.03          | <.0001  |
| Redding, CA                     | CA Hasta                               | 1115           | 1.98          | <.0001  |
| Lower Peninsula, MI             | 43 Counties see Figure 2               |                |               |         |
| Clearfield, PA                  | PAClearfield                           | 447            | 1.82          | <.0001  |
| Ione, CA                        | CA Amador                              | 177            | 1.82          | <.0001  |
| Augusta, GA                     | GARichmond                             | 1343           | 1.82          | <.0001  |
| Charlottesville, VA             | VACarrollottesville City               | 277            | 1.77          | <.0001  |
| Southeastern Coastal Area of Texas | TX Arkansas TX Calhoun TX Goliad TX Nueces TX Refugio TX San Patricio TX Victoria | 3191           | 1.74          | <.0001  |
| Lock Haven, PA                  | PAClinton                              | 210            | 1.72          | <.0001  |
| Petersburg, VA                  | VAPetersburg City                      | 205            | 1.70          | <.0001  |
| Indiana                         | 68 Counties                            | 18265          | 1.69          | <.0001  |
| Jackson, M                      | MSHinds, MSWarren                      | 1904           | 1.68          | <.0001  |
| Manassas City, VA               | VAManassas City                        | 170            | 1.66          | <.0001  |
| Indianapolis, IN               | IN Marion                              | 4901           | 1.64          | <.0001  |
Table 3. Statistically significant clusters with a high proportion of arrests for reported rapes.

| Location                  | Counties | Reported | Arrests | % Arrests | RR  | p Value   |
|---------------------------|---------|----------|---------|-----------|-----|-----------|
| New York, NY              | 4       | 1140     | 8856    | 79.5      | 3.11| <0.0001   |
| Wisconsin                 | 51      | 10686    | 6807    | 63.7      | 2.47| <0.0001   |
| Mansfield, LA             | 5       | 207      | 130     | 62.8      | 2.40| <0.0001   |
| Dixon, IL                 | 2       | 419      | 233     | 55.6      | 2.12| <0.0001   |
| Jacksonville, FL          | 7       | 8488     | 4295    | 50.6      | 1.95| <0.0001   |
| Southern Minnesota        | 24      | 2638     | 1194    | 45.6      | 1.74| <0.0001   |
| Decatur, IL               | 7       | 1235     | 557     | 45.1      | 1.72| <0.0001   |
| NY/VT                     | 9       | 1843     | 798     | 43.3      | 1.66| <0.0001   |
| SE Missouri, NW Tennessee | 16      | 907      | 388     | 42.8      | 1.63| <0.0001   |
| Olympia, WA               | 11      | 4319     | 1814    | 42.0      | 1.61| <0.0001   |

Table 4. Statistically significant clusters with a low proportion of arrests for reported rapes.

| Location                  | Counties | Reported | Arrests | % Arrests | RR  | p Value   |
|---------------------------|---------|----------|---------|-----------|-----|-----------|
| Washington, D.C.          | 1       | 1500     | 3       | 0.2       | 0.01| <0.0001   |
| Sioux Falls, SD           | 7       | 1561     | 89      | 5.7       | 0.22| <0.0001   |
| Liberty, MO               | 2       | 985      | 67      | 6.8       | 0.26| <0.0001   |
| Springfield, IL           | 1       | 1349     | 112     | 8.3       | 0.31| <0.0001   |
| Birmingham, AL            | 1       | 3236     | 343     | 10.6      | 0.40| <0.0001   |
| Lake Charles, LA          | 3       | 2660     | 282     | 10.6      | 0.40| <0.0001   |
| San Antonio, TX           | 9       | 10982    | 1197    | 10.9      | 0.41| <0.0001   |
| Montanna                  | 42      | 2624     | 307     | 11.7      | 0.44| <0.0001   |
| Valparaiso, IN            | 2       | 1457     | 188     | 12.9      | 0.49| <0.0001   |
| Shreveport, LA            | 1       | 1354     | 176     | 13.0      | 0.50| <0.0001   |

Figure 1. Cluster map of the USA for age adjusted reported rape rates.
Figure 2. Statistically significant clusters of reported rape after adjustment for both age and poverty (red and pink). Counties that were part of an age-adjusted cluster, but not an age and poverty adjusted cluster, and are colored orange.

Figure 3. Statistically significant clusters of high (blue) and low (red) proportion of reported rape cases leading to an arrest.

The authors apologize for any inconvenience caused.