Real World Graduation: Question 40
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Question 40

In 2007, there were a total of 2,179,140 burglaries in the United States, of which 67.9% were burglaries of residences [1].   There are 3143 counties/parishes (Louisiana)/independent cities (including Baltimore and St. Louis) in the U.S., counting those for which the county governments have been eliminated (Delaware) or are planned for elimination (Massachusetts) [2]. There are 14,166 school districts in the United States (2007 data) [3]. From this data, which statistic indicates the greatest risk that your residence will be burglarized next year?
a)   On average, a residence is burglarized in the U. S. every 21.3 seconds, because no matter where one lives in the country, it is possible that one's home will be burglarized in one of those 21.3 second average intervals.
b)   On average, a residence is burglarized in each state every 17.75 minutes, because no matter where one lives in their state, it is possible that one's home will be burglarized in one of those 17.75 minute average intervals.
c)   On average, a residence is burglarized in each county every 2.61 hours, because no matter where one lives in their county/parish/independent city, it is possible that one's home will be burglarized in one of those 2.61 hour average intervals.
d)   On average, a residence is burglarized in each school district every 3.49 days, because no matter where one lives in their school district, it is possible that one's home will be burglarized in one of those 3.49 day average intervals.
e)   All of the above indicate an equal risk.

[1]   See www.fbi.gov/ucr/cius2007/offenses/property_crimes/burglary.html, which provides data extracted from the FBI Uniform Crime Statistics.
[2]   See n9jig.com/counties/county.html
[3]   See nces.ed.gov/surveys/RuralEd/TablesHTML/06_district_total.asp

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Answer to Question 40

This is a trick question. All of the answers are false because they do not indicate risk per se. In fact, answers a) through d) are simply arithmetic conversions of the burglary rate for different political subdivisions. The total number of residential burglaries is 0.679 times 2,179,140 total burglaries, which comes to 1,479,636 residential burglaries. Given 365 days in a year times 24 hours in a day times 60 minutes in an hour times 60 seconds in a minute, there are 31,536,000 seconds per year. Dividing 31,536,000 seconds by 1,479,636 burglaries leads to the result of one burglary somewhere in the U. S. every 21.3 seconds, as indicated in answer a). Answer b) was derived exactly the same way; except with 50 states, the burglary rate would be (on average) one-fiftieth of the national rate, hence the interval between burglaries at the state level would be 21.3 times 50, which comes to 1065 seconds, which is 17.75 minutes. Answers c) and d) were done the same way (multiplying the 21.3 seconds for the whole U. S. by 3143 and 14166 respectively to obtain average burglary rates for county and school district subdivisions). So, answers a) through d) are identical; they are simply keyed to different geographic areas or political subdivisions. Note, however, they are illogical because they do not take population density into account.

But none of the answers indicate risk per se. The average rates assume that burglaries are entirely random, when in fact burglars are very careful to choose where to break in. Certain areas have higher crime rates than others; especially if there are many people in the area who are desperate for small quantities of money or things to sell in order to feed a drug habit. In those areas, the risk of burglary is higher than average. Likewise, some areas have low burglary rates (as in Texas and Arizona, where burglars often get a free one-way ride to the mortuary if the resident is home during the break-in). So in general, the "average rate" data shown in this question is useless for evaluating the risk to your residence. It is however, very useful for selling home alarm systems ("A burglary is committed every 21 seconds in America, get an alarm and feel safe").

The important thing to remember is not to be deceived by overly broad statistics that probably do not apply to your situation.

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