

## **ROUNABOUT ROULETTE**

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Highway 1 through Moss Beach and Montara is soon to get up to five controversial traffic roundabouts, and there is widespread speculation that these projects are staging for a giant future roundabout at highways 1 and 92 in Half Moon Bay.

The disastrous rollout of a Rowan County, Kentucky roundabout (<https://www.youtube.com/watch?v=bDaQZUzJCNM>) at the intersection of Route 60 and Route 801 has sparked some discussion on how San Mateo County residents might safely navigate the new roundabouts here on the Midcoast.

While there's little modeling for this kind of analysis, based on the video it's likely that drivers unfamiliar with navigating roundabouts act as lemmings mimicking drivers in front of them. More and better signage, signals, and intuitive design will be key.

In light of better understanding why Midcoast might be better equipped to tackle roundabouts than rural Kentucky, let's take a look at some relevant data, some of which may overlap.

### **SAFETY: California wins**

Fatalities per hundred thousand miles might indicate driver safety and California (2.55) has only only 61% of the average fatalities that Kentucky suffers. (Despite this, actuary analysis of the worst driver skills seems to favor Kentucky (#39) over California (#1).

### **TEST SCORES: Kentucky wins**

Driver intelligence may factor in, and while Kentucky (1207 SAT) stomps California (1049 SAT), and while their low participation rate (4% KY vs. 67% CA) might suggest that only smart kids take the ACT in Kentucky, but their 100% participation rate in the ACT showed averages scores of 19.5 vs. California's 23.3 with a 19% participation rate likely also favors Kentucky.

### **PREVIOUS ROUNABOUT EXPERIENCE: Tie (draw).**

International travel might indicate more previous familiarity with roundabouts, and while passport ownership rates show California (60%) clearly edges Kentucky (25%), roundabouts are primarily found in European countries, with France and the U.K. containing the majority. While good data is hard to find, the

U.K. is the only European country given as top destination of both states' residents.

### **ROUNABOUT DESIGN: Kentucky fails**

While there are some indications from the video that this may be an evolving or semi-completed roundabout, Kentucky's roundabouts have relatively small diameter center islands, 90-degree entry points that apparently drop entering traffic speeds to near-standstill and very little compliance with intended direction.

### **CONCLUSION:**

Comparing Kentucky vs. California driver statistics don't make it obvious that San Mateo County roundabout adoption will be significantly different, and there are some indications it will be very similar. Intuitive design and directional signage will probably be the most important factors here. The California Avenue at Highway 1 intersection is probably most similar to the problems that roundabouts typically resolve most often.

### **DATA:**

#### **Fatalities (per 100M) by major collector road category in every state (2014)**

Kentucky 4.15

California 2.55

<https://www.fhwa.dot.gov/policyinformation/statistics/2014/fi30.cfm>

#### **ACT composite scores (participation rate) by state (2020)**

California 23.3 (19% participation)

Kentucky 19.5 (100% participation)

National 20.6 (49% participation)

<https://www.act.org/content/dam/act/unsecured/documents/2020/2020-Average-ACT-Scores-by-State.pdf>

#### **SAT composite scores (participation rate) by state (2020)**

Minnesota (4% participation) 1257

Kentucky (4% participation) 1207

California (67% participation) 1049

<https://blog.prepscholar.com/average-sat-scores-by-state-most-recent>

#### **Passport ownership by state (2011)**

California (60%)

Kentucky (25%)

Median income correlation(.81)

<https://www.theatlantic.com/national/archive/2011/03/americas-great-passport-divide/72399/>

**Driver skill ranked worst to best by state (in reverse order)**

#1 California

#39 Kentucky

<https://quotewizard.com/news/posts/best-and-worst-drivers-by-state-2017>

**Related Kentucky news story:**

<https://www.wkyt.com/2021/04/07/first-roundabout-in-northeastern-ky-to-soon-be-constructed-in-rowan-county/>