Exploring Motorcyclist Riding Frequency in the MSF 100

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Installation Locations



- Virginia (Blacksburg)
 - Fall and Winter
 - Two-lane with hills and curves
 - Geographic overlap with automotive studies

- Arizona (Phoenix)
 - Year-round riding
 - Mixed traffic densities
 - High concentration of sport bikes

- California (Irvine)
 - Year-round riding
 - Mixed traffic densities
 - Geographic overlap with past studies

• Florida (Orlando)

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- Conditional helmet law
- Mandatory training
- Flat and straight roads



MSF 100 Participants

N Participants



- **3 Experience Levels**
 - Experienced (76)
 - Returning (5)
 - Novice (19)

- Participant age: 21-79
- 72 Males, 27 Females
- Installed from 2 months to 2 years





People use cars and bikes differently 1 of 2

- The average driver logs approximately 13,476 miles per year
- Drives between 38 miles per day
- Takes the fewest trips on Sunday (13%) and the most on Friday (16%)

• How do riders in the MSF 100 Compare?

[1] National Household Travel Survey, 2001-2002

People use cars and bikes differently 2 of 2



- Motorcyclists in the MSF 100 tend to take the smallest proportion of their trips on Sunday (11%), but the highest proportion on Thursday (16%).
- Cars and Motorcycles, on average have similar trip durations and speeds.



So why the difference?

• Given a difference in the number of total miles per year, but no difference in the number of miles per day, the primary difference may be in the number of days ridden.

• The number of days ridden, along with the length of breaks between riding days is tied to rider proficiency and experience.

• Riders in the MSF 100 vary greatly in when they take their trips.



What is a Riding Day and why does it matter?

• A Riding Day is any day in which a participant took one or more trips.



Proportion Days Ridden

9/8/2016



Calendar of riding days for different riders

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Consecutive Riding Days



5 0

Average Days in a Row

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Differences by Location



• The maximum number of riding days is nearly identical between Florida and California (406, 413).

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 Virginia has a maximum number of riding days roughly half that of California and Florida (221).

Changes in Latitudes, Changes in Attitude?

Riding Days per Month Florida vs Virginia



Florida Virginia

* Denotes statistical difference



The Weekend Warrior and the MSF 100

- 30 Riders in the MSF 100 have more than 30% of their trips occurring on a Saturday or Sunday
 - Mixed bike type, age range, and experience level

Percent Riding on Weekends (29% if every day has equal chance)





Recap

- Differences in miles between drivers and riders lay predominately in the number of Riding Days per year.
- Riders differ wildly in the number of trips they take, and when they choose to take them
- Riders differ by location in regard to when they take their trips.
- Weekends are not overrepresented in the MSF set.

