

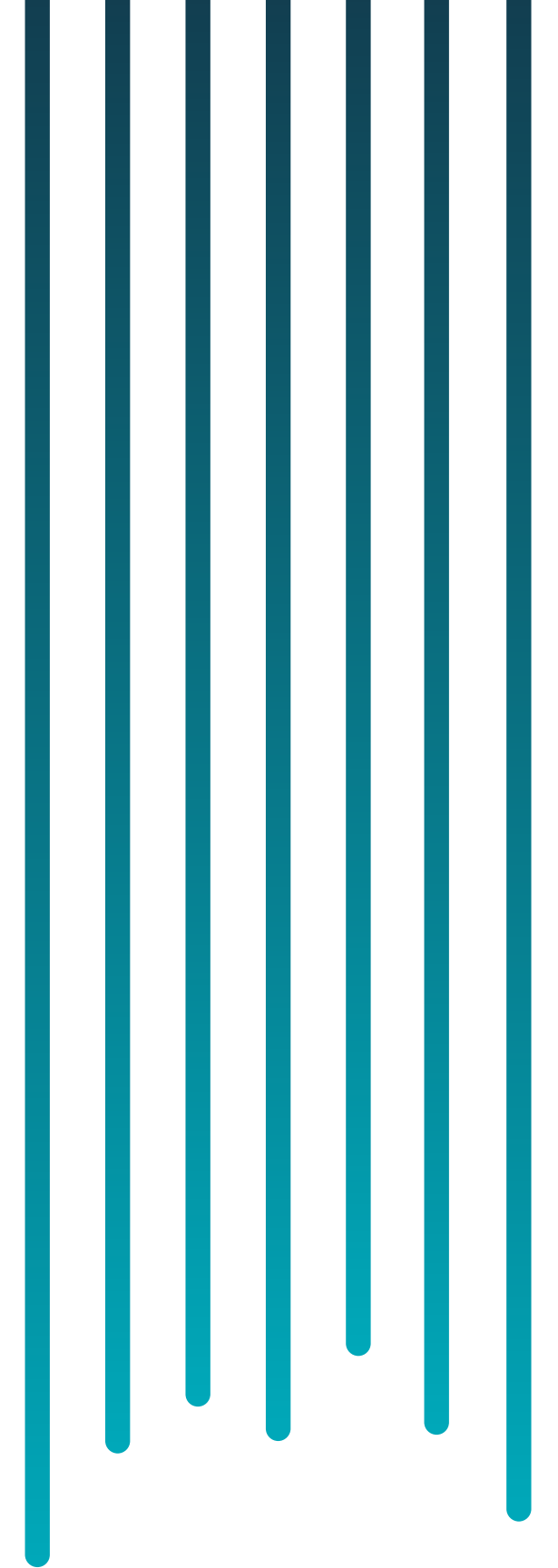


US ACCIDENTS ANALYSIS PROJECT

SDAIA BOOTCAMP
RANEEM ALHUMAIDAN

AGENDA

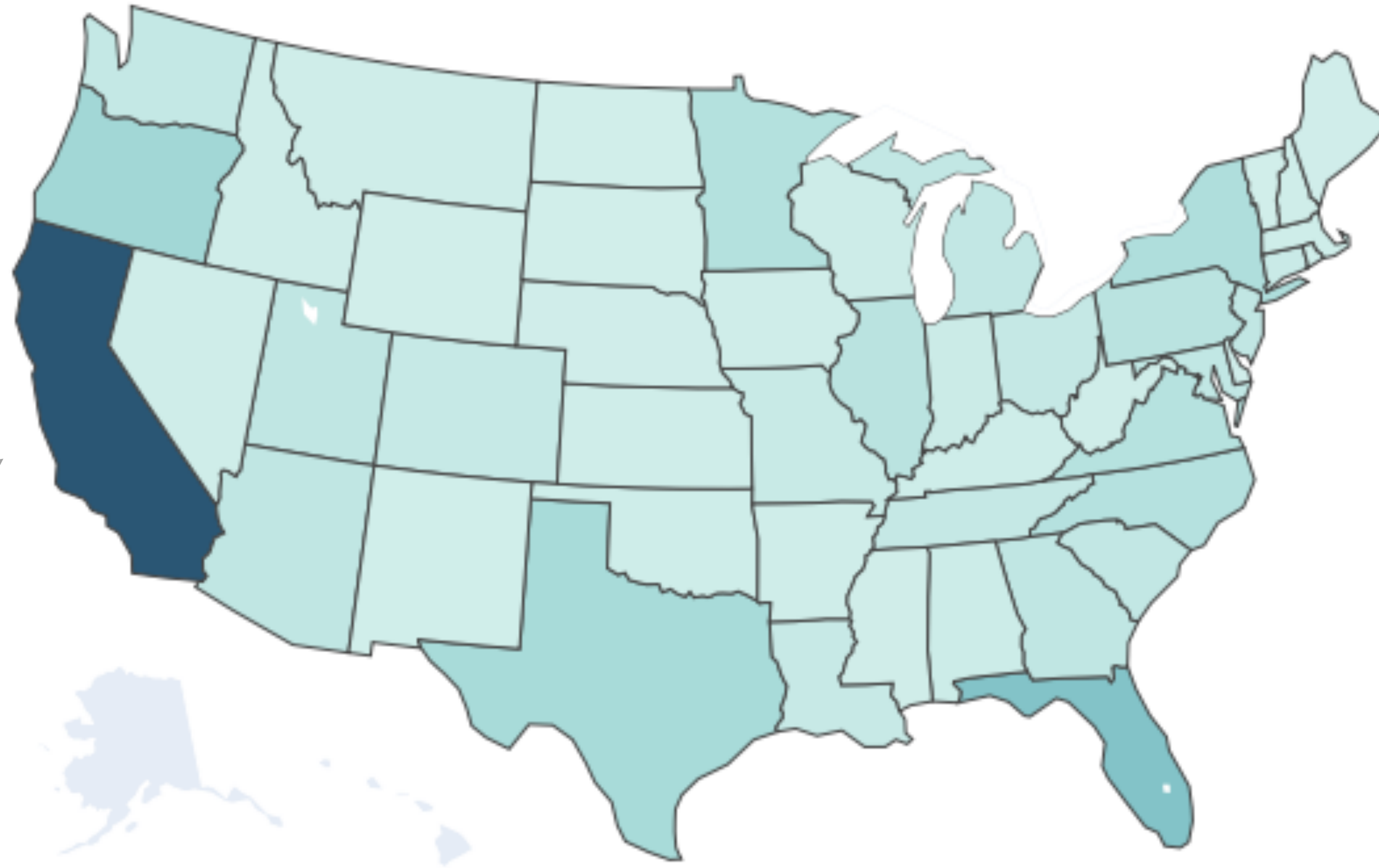
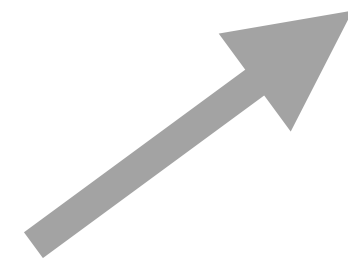
- OVERVIEW
- MAIN FACTORS
- MODEL
- CONCLUSION





OVERVIEW

CALIFORNIA



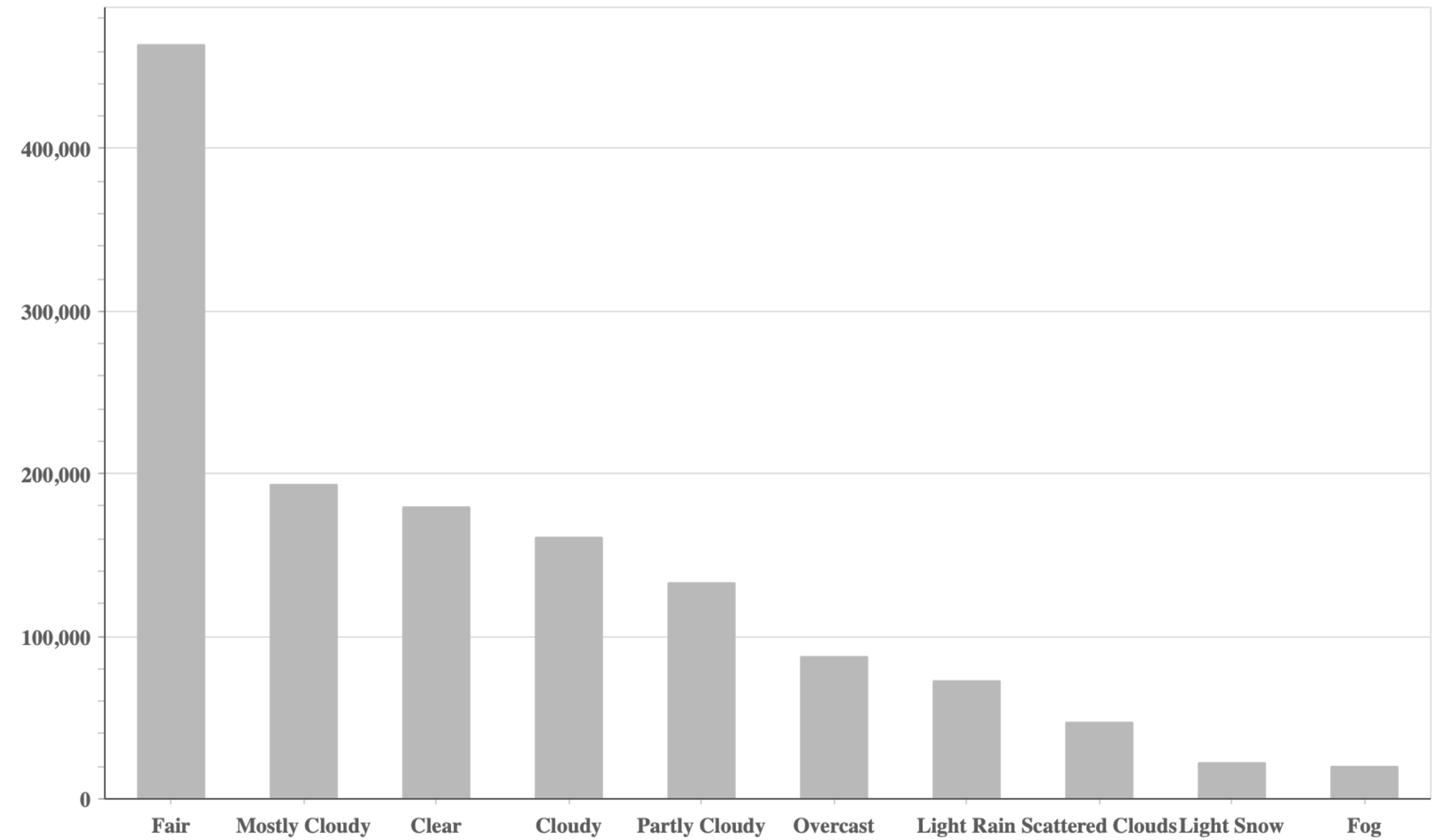
TIME

- Most Accidents occurred in **Day**
- 1:00pm to 6:00pm is the **peak time**
- **Weak-days** has **highest** number of accidents



WEATHER

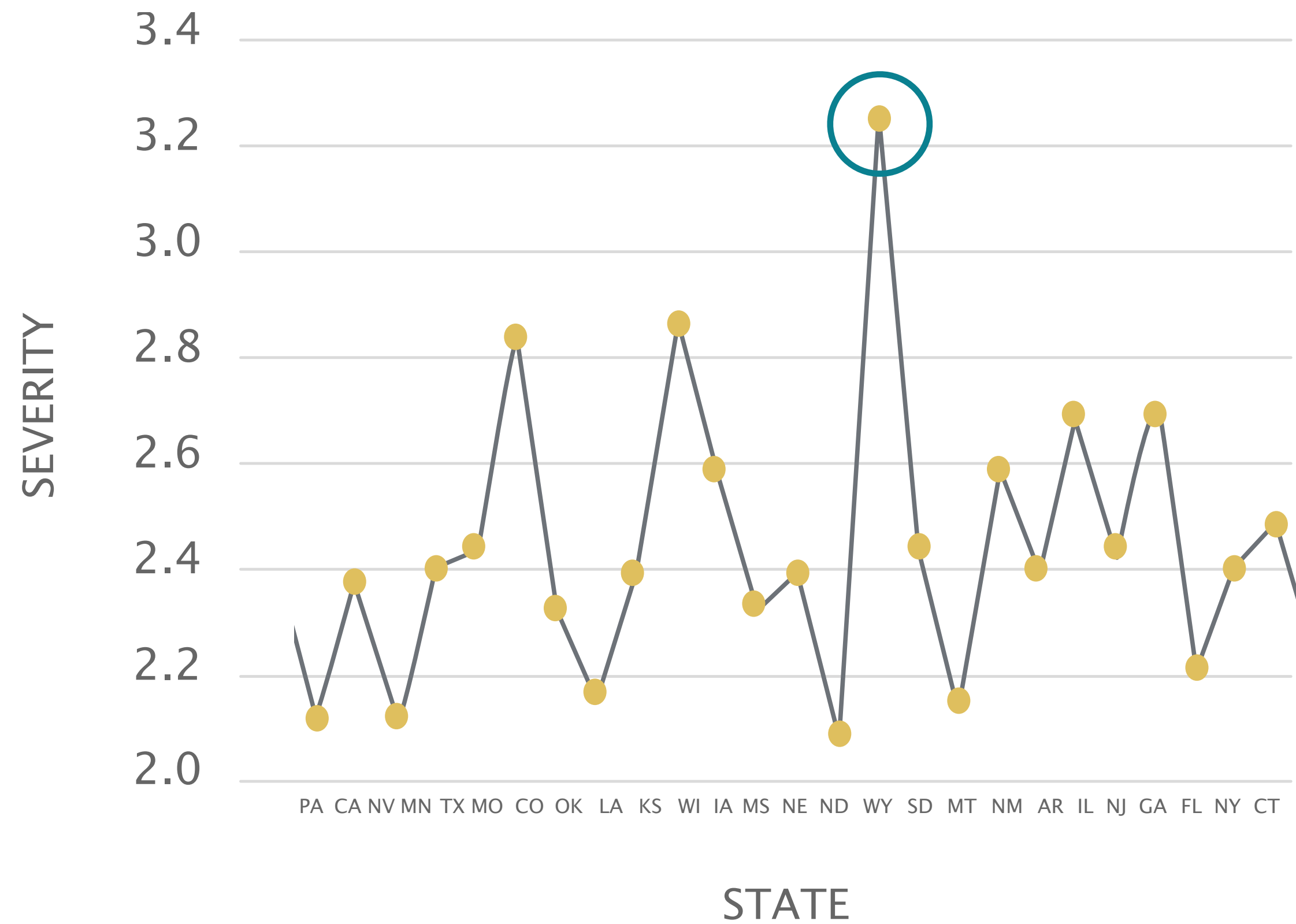
- **Fair** condition has **highest** number on accidents
- **Fog** condition has **Lowest** number on accidents



SEVERITY

- **California** – **436,226** accidents
Average severity ~ **2.4**
- **Wyoming** – **22,682** accidents
average accidents severity = **3.3**

Severity range between 1 - 4
4 → highest Severity
1 → lowest Severity





MODEL



PREDICT SEVERITY

		Logistical Regression	Decision Tree	Random Forest
MACRO AVG	F1	0.25	0.52	0.61
	Recall	0.55	0.49	0.54

		Random Forest [Important Features]
MACRO AVG	F1	0.63
	Recall	0.59

← Little bit better

PREDICT STREET SIDE

		Logistical Regression	Decision Tree	Random Forest
MACRO AVG	F1	0.51	0.51	0.67
	Recall	0.63	0.52	0.63

		Random Forest [Important Features]
MACRO AVG	F1	0.72
	Recall	0.67

← Little bit better

CONCLUSION



More accidents dose
not mean **high severity**



Bad Weather Conditions
has **no high** effect in
number of accidents



Accident Location has
highest effect on **severity**



THANK YOU
AND STAY SAFE

