

Introduction:

- **Health Risks:** Researchers found that scooter linked injuries surpassed bicyclist and pedestrian linked injuries during the scooters' first year on the streets¹.
- Drastic increase in hospital injuries resulting from operating E-Scooters including: head injuries (40.2%), fractures (31.7%), and contusions/sprains/lacerations (27.7%)¹.
- **Rationale:** A study by the CDC further confirmed that less than 1% of riders wore helmets².

Objective:

- 1) To determine how the utilization of public motorized scooters at UCSD impacts an individual's physical health.
- 2) To determine if stronger policy implementation and enforcement will increase helmet usage when operating e-scooters.

Methodology:

- A cross-sectional online survey.
- 81 respondents from April 28th-May 18th 2020.
- Surveys were distributed to students aged 17 to 27+, who currently/previiously attended UCSD prior to Spring 2020.
- Modes of distribution involved: social media, text messages, and BSPH undergraduate e-mail forum.
- Students reported their mode of transportation on campus during previous quarters, any injuries they might have sustained while using those modes, and their awareness of safety regulations.

References:

1. Newman K. Scooters: The next public health issue? U.S. News & World Report. <https://www.usnews.com/news/health-news/articles/2019-01-25/study-standing-electric-scooters-may-pose-pending-public-health-issue>. Published January 25, 2019. Accessed February 5, 2020.
2. Carson, Biz. "CDC finds nearly half of E-Scooter injuries are to the head, 'May have been preventable' in new study." *Forbes Innovation*, Forbes.com, 2 May 2019.

Results:

Figure 1: Helmet Use When Riding E-Scooters

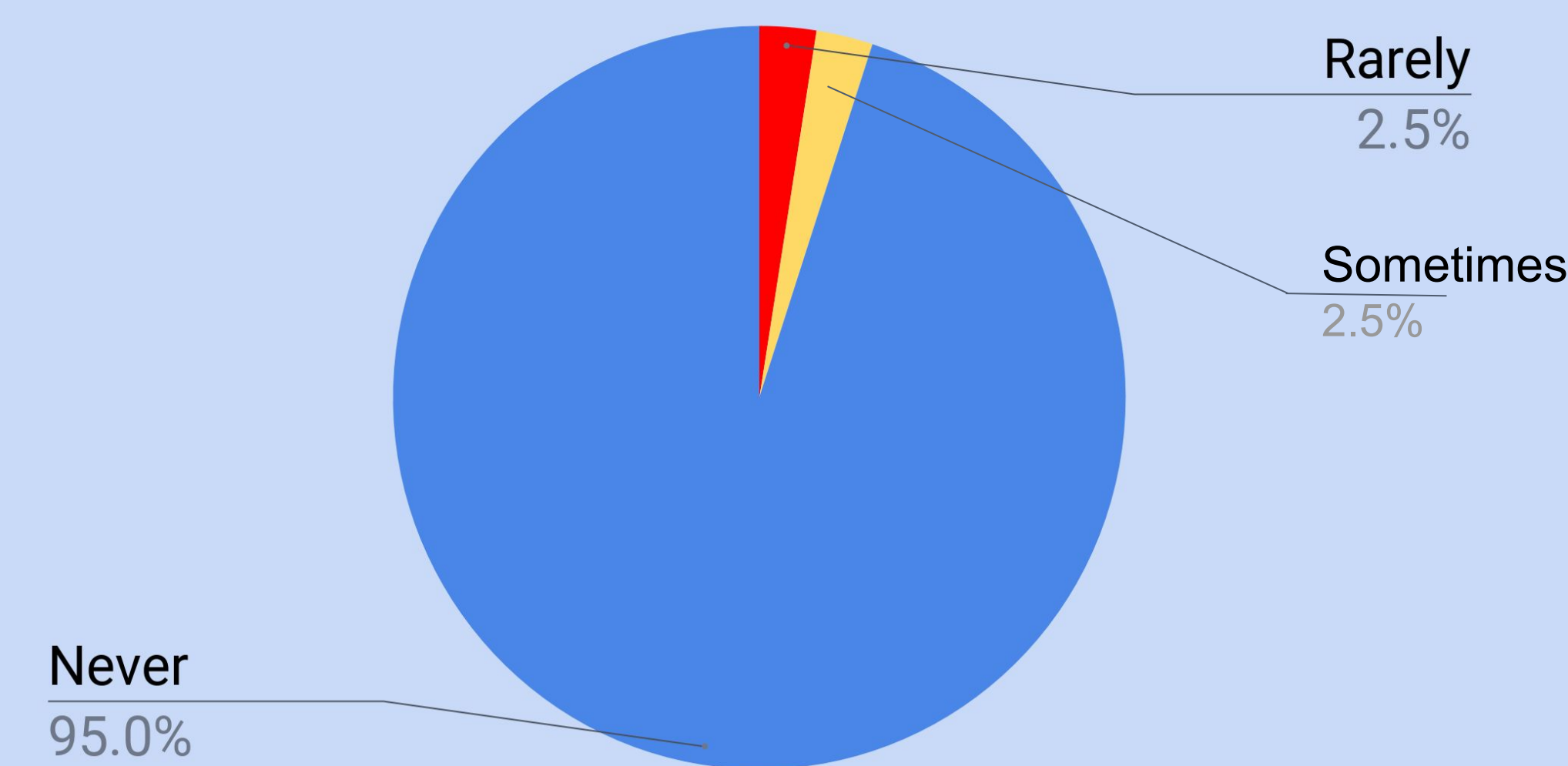


Figure 2: Helmet Use When Riding E-Scooters if Stronger Regulations were Enforced

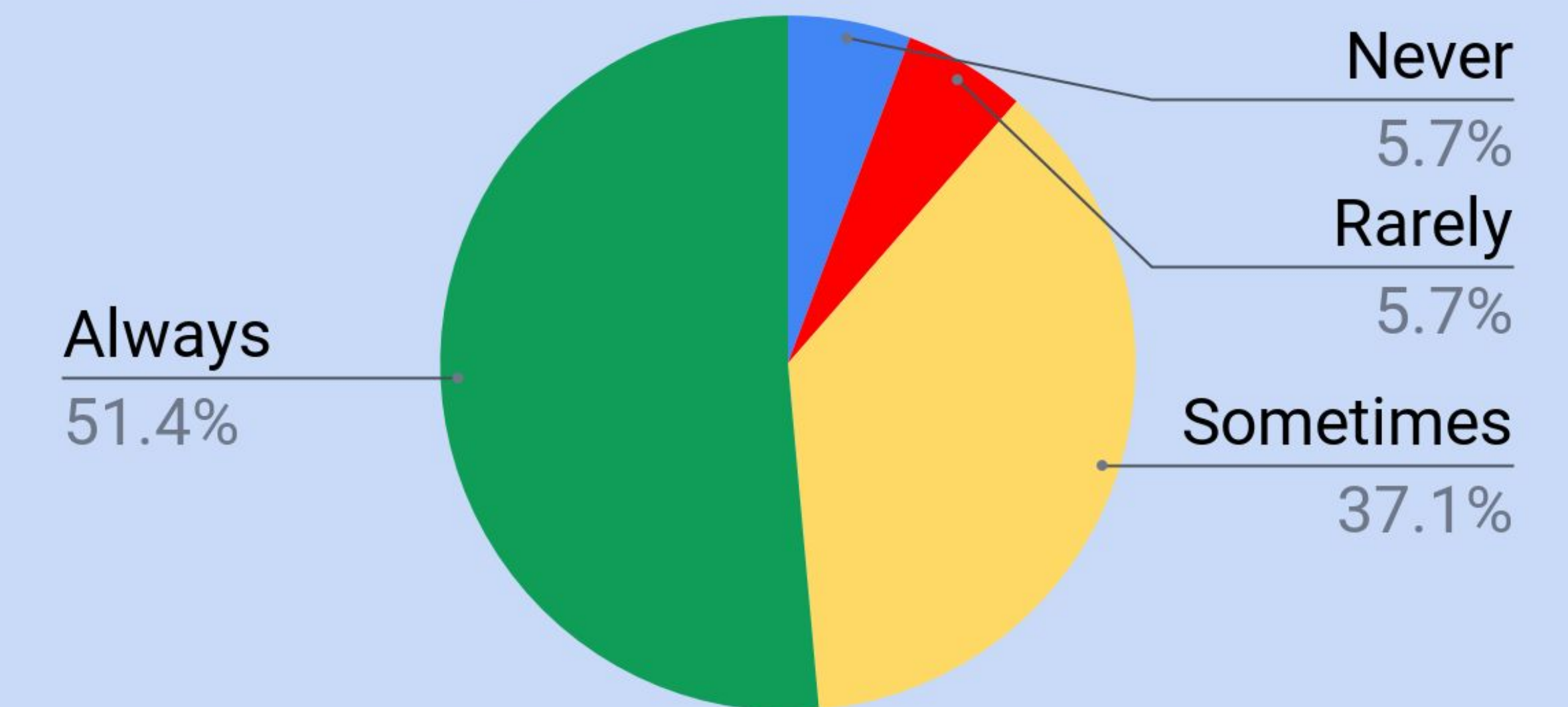


Figure 3: Modes of Transportation and Related Injuries

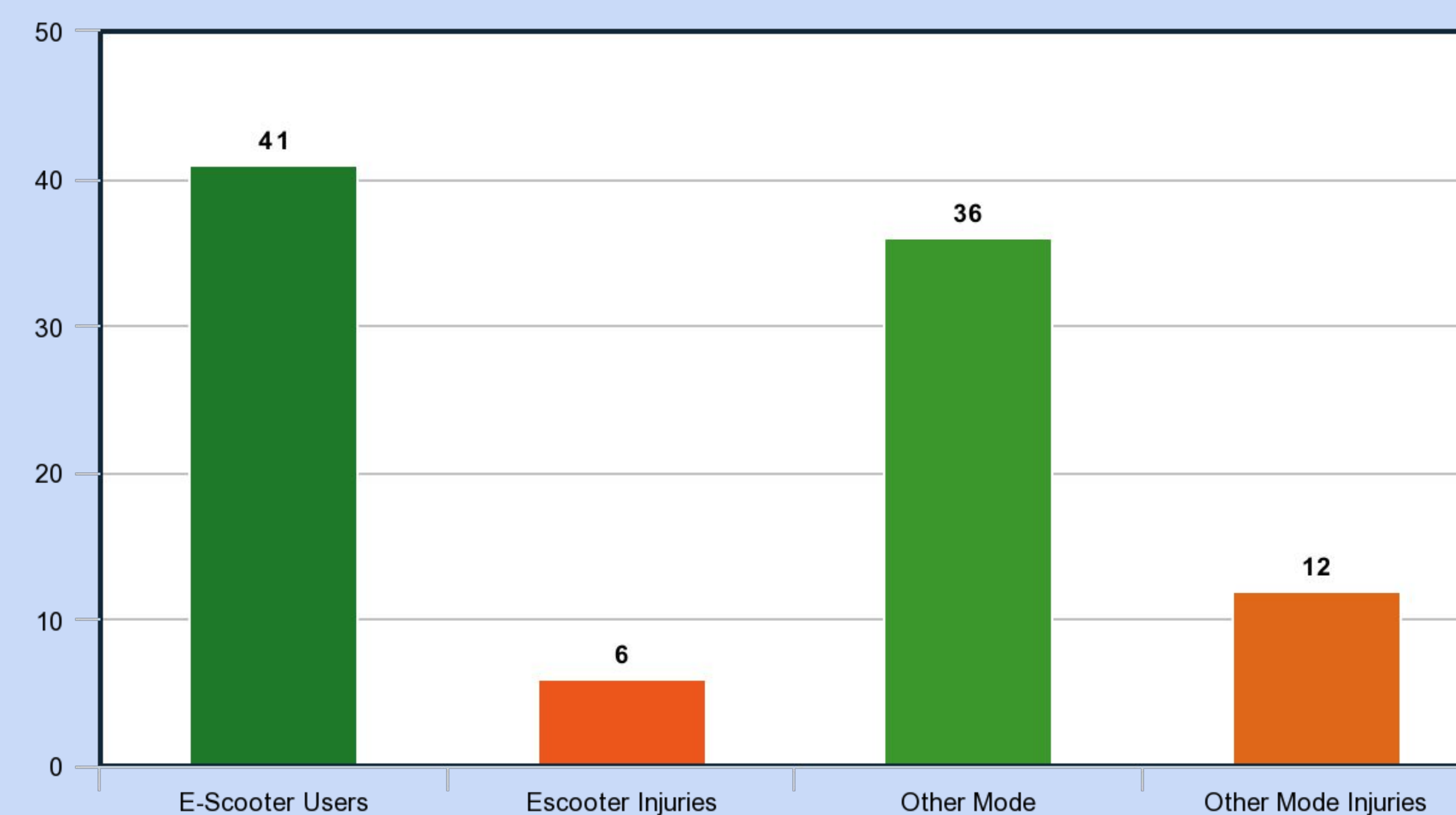


Table 1: Demographic Data (n=81)

Age Range	Percentage	Racial Background	Percentage
<18-19	20.99%	Black	3.37%
20-21	35.81%	Caucasian	12.98%
22-23	33.33%	Native Hawaiian or Other Pacific Islander	1.12%
24-25	3.70%	Other	41.47%
26-27+	6.17%	Prefer not to disclose	3.37%
Gender	Percentage	Asian	32.58%
Male	25.93%		
Female	70.37%		
Prefer not to disclose	1.23%		
Other	2.47%		

Table 2: Cross Tabulation

Have you suffered an injury related to operating an E-Scooter?	Have you operated an E-scooter to transport around campus prior to Spring 2020?		
	Yes	No	Total
Yes	6	0	6
No	34	35	69
Total:	40	35	75

Chi Square Test (P-Value) 0.0169

Conclusion:

- There is statistical evidence (p-value<0.05) that there is a correlation relationship between riding E-scooters and bodily injuries.

Policy Implications:

- Posting increased signage around campus with E-Scooter Regulations.
- Fining all students who do not wear a helmet while operating an E-Scooter or other modes of transportation (besides walking).
- Requiring individuals operating E-scooters or other modes of transportation, ride in designated lanes.

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