Association Between Social Media on Dietary Change among UC San Diego Students: A Cross-Sectional Study

Yiwei Yun, Jeanne Lee, and Christopher Fructuoso

UC San Diego
HERBERT WERTHEIM
SCHOOL OF PUBLIC HEALTH AND
HUMAN LONGEVITY SCIENCE

BACKGROUND

Approximately 24% of college students were classified as overweight (BMI 25-29.9) and 16% are obese (BMI 30+)[1]

Over 50% of young adults 18-24 show at least one risk of heart diseases, obesity, high-cholesterol, or hypertension[2]. Around 61.9% of students are at intermediate or high risk for developing type 2 diabetes[3]

Carbohydrates make up about 62.69% of daily energy intake among students and surpass the added sugar guidelines [4]

Research mainly focuses on children and adolescents, underrepresenting other demographics [1,2,3,4]

With social media growing in content, platforms, and influencers, research should stay updated to the rapid growth/development.

OBJECTIVE

To determine if there is an association between social media use and dietary change within the UC San Diego undergraduate population.

METHODS

Data collection: An online analytical Cross sectional survey was distributed via Qualtrics across UC San Diego in April 2025. Recruitment methods include in person hands outs and social media posts.

Inclusion criteria: Age 18 years or order, given consent, and currently enrolled at UC San Diego (n = 302).

Outcome: Dietary change
Dietary change was measured by a binary response (Y/N) to the following question: In the last year, have you changed your diet based on food-related content you encountered on social media?

Exposure: Social media usage
Refers to several aspects of an individual's social media use:
Hours spent on social media (categorical), Percentage of time spent on social media related to engaging with food content (categorical), and following food influencer (binary), and methods of verification (categorical).

Analysis: Python and R studio used to conduct descriptive analysis, Chi-square test, and logistic regression.

RESULTS

Table1: Demographics characteristics of respondent (N=302)

Sex	N (%)
Male	125 (41.4%)
Female	176 (58.3%)
Prefer not to say	1 (0.3%)
Living Situation	**N (%)**
On campus	147 (48.7%)
Off campus	155 (51.3%)
Year	**N (%)**
First Year	67 (22.2%)
Second year	59 (19.5%)
Third year	86 (28.5%)
Fourth year	78 (25.8%)
Other	12 (4%)
Age	**N (%)**
18-19	92 (30.5%)
20-21	133 (44.0%)
22-23	61 (20.2%)
24+	16 (5.3%)
Race	**N (%)**
Asian	193 (58.7%)
White	68 (20.7%)
Hispanic/ Latinx	43 (13.1%)
Other	25 (7.6%)

*Percentages do not add up to 100% because participants could select multiple races.

Sample: 359 responses collected; 302 valid UC San Diego student responses analyzed (mean age = 20.8 years; 58.3% female, 58.7% Asian).

Statistical Findings:
There is evidence of statistically significant association between engagement with food-related content on social media and dietary changes (p = 0.017).

Information Verification (Figure 2):
Students mainly verified food content via online reviews (33.8%) and do not verify (31.5%).

Dietary Changes (Figure 3):
Increases: Protein (24.2%), Vegetables (18.9%), Fruits (17.2%)
Decreases: Dairy (15.9%), Grains (14.9%), Processed food (10.3%), Fast food (9.6%)

Table 2: Statistical tests examining the relationship between social media use, demographics, and reported dietary changes

Tested variable	p-value	Test type
Engagement with food-related contents	0.017	Chi-Square test
Time spent on social media	0.8325	
Following influencers	0.8989	
Sex	0.4121	
Living situations	0.9489	
Perceptions on social media and health	0.388	Logistic Regression

Figure 1: Dietary Change by Engagement with Food Content on Social Media
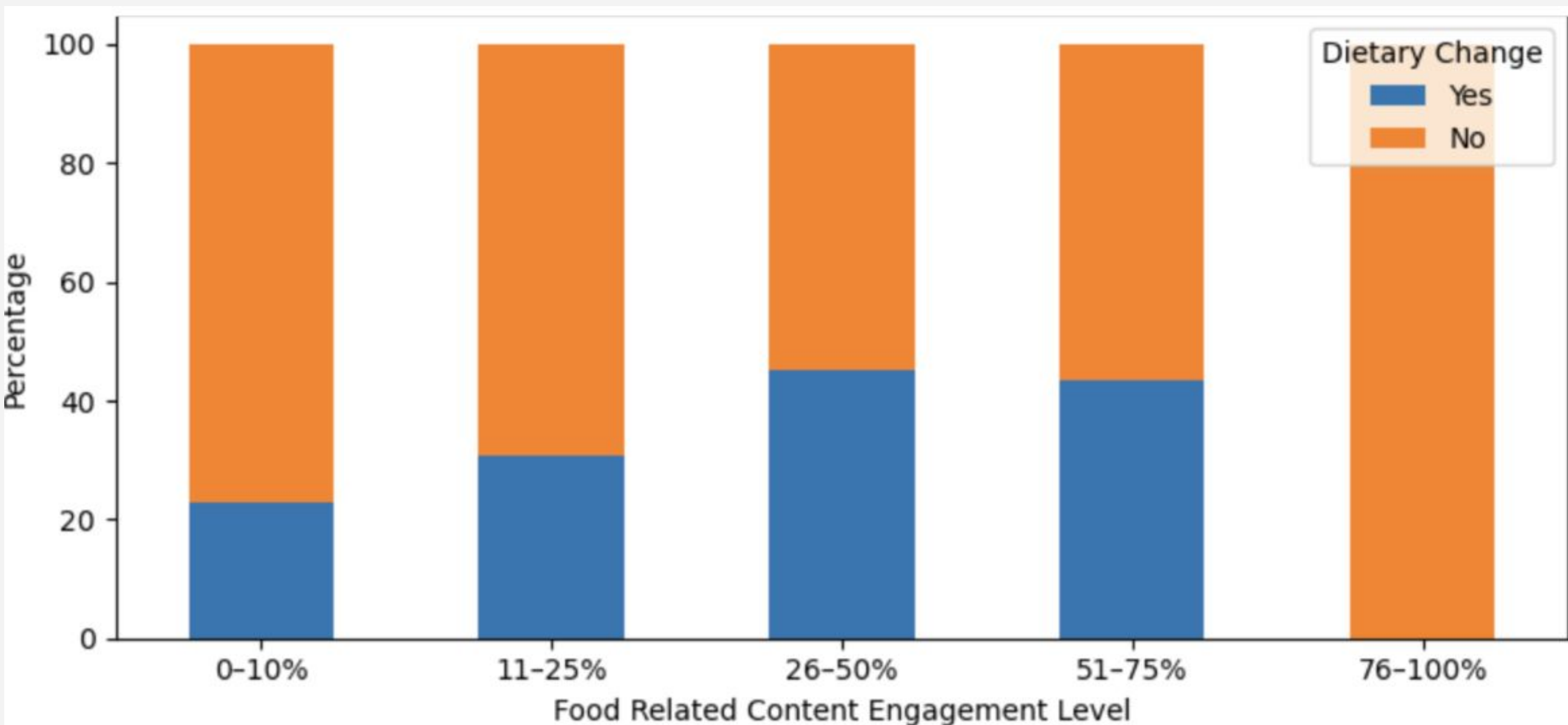

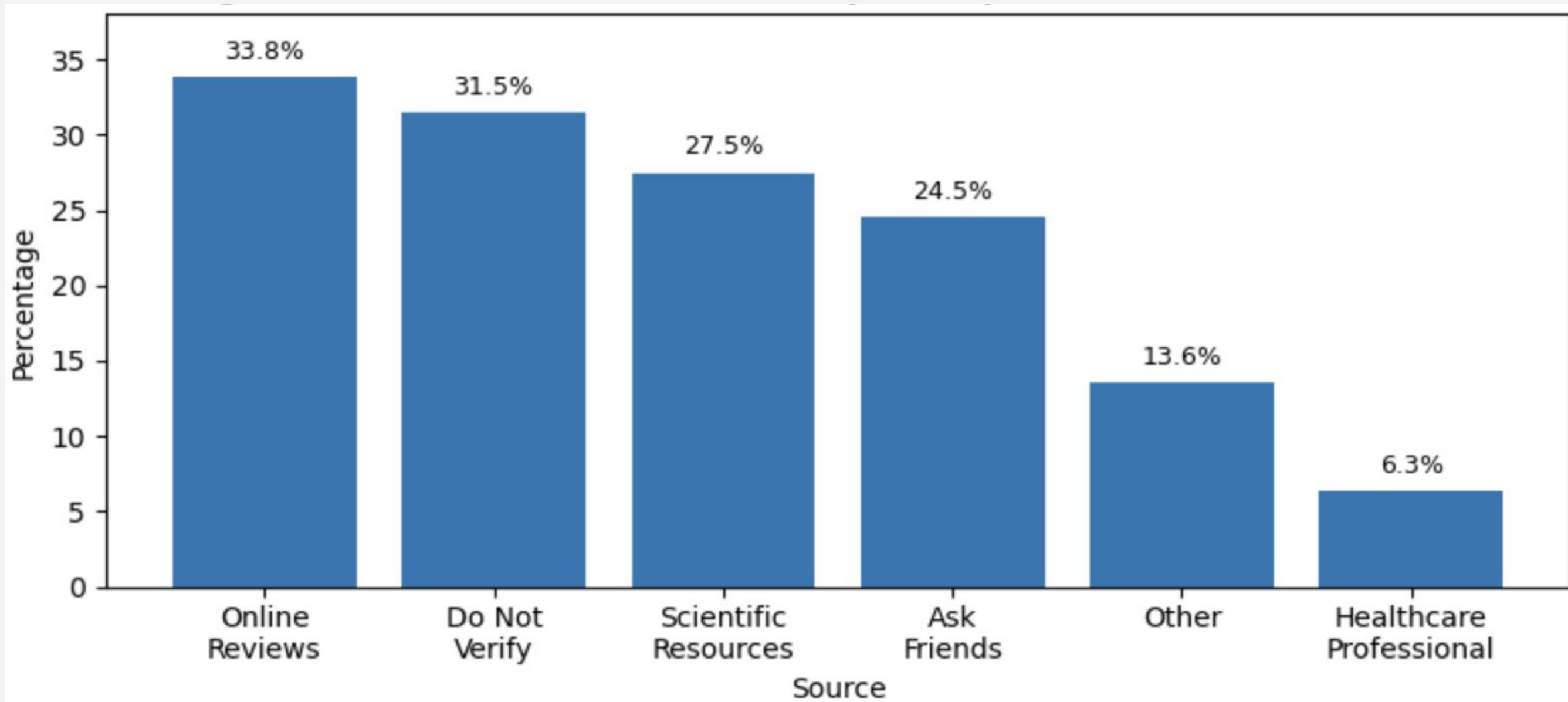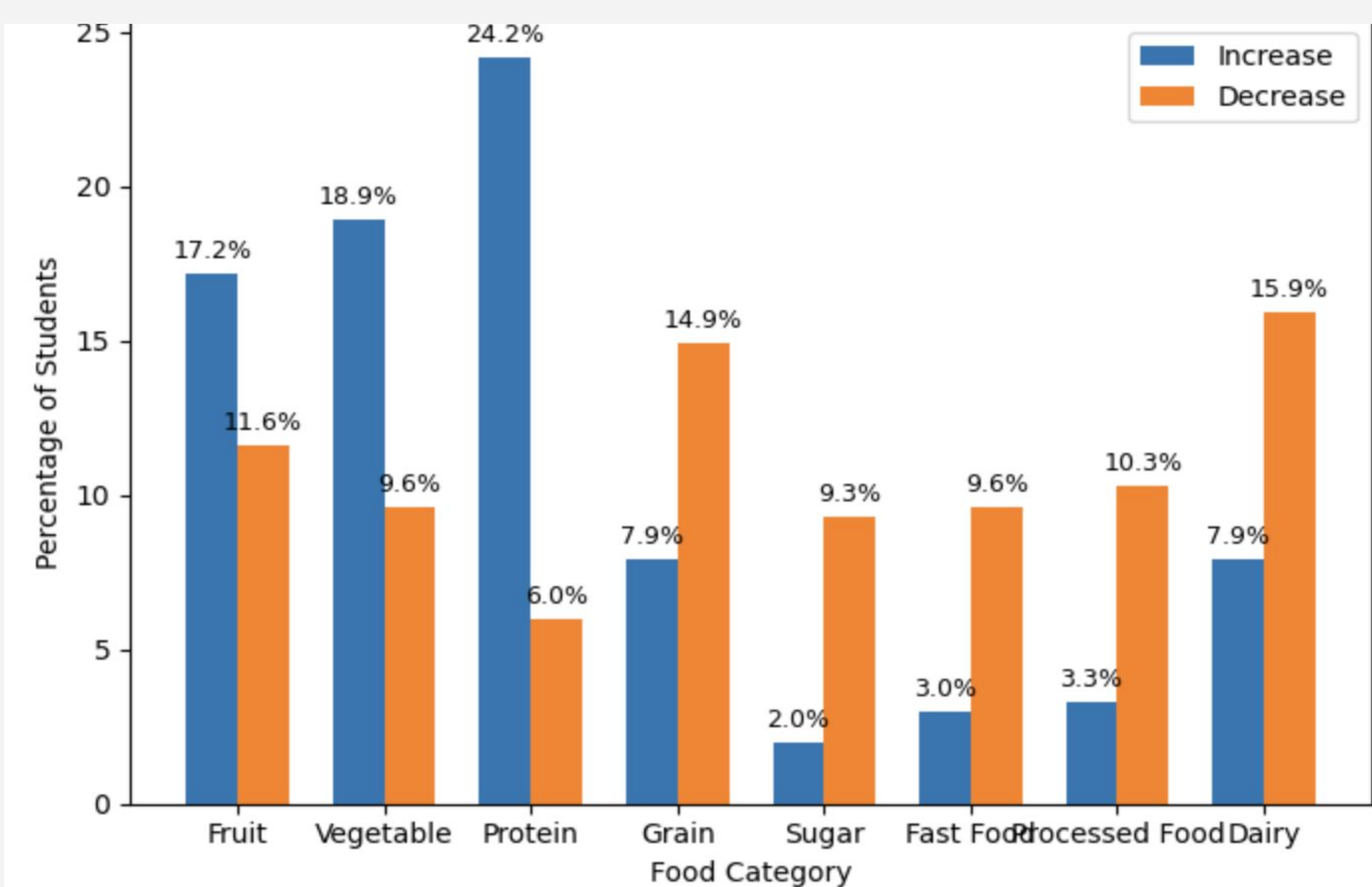**Figure 2: Sources Students Use to Verify Dietary Information**

Figure 3: Reported Increases and Decreases in Specific Food Categories Among Students

CONCLUSION

Limitations
The study only included UC San Diego undergraduates and a majority of students surveyed were also Asian. This may limit the generalizability.

Verification of Food Information
31.5% of participants did not verifying diet trends/information viewed on social media (2nd highest choice), this raises concerns about the accuracy of health decisions influenced by social media.

Significant/Non-Significant Associations
There was significant association between engagements with food related content and dietary change, meaning students who viewed more food content were more likely to change their diet .

However there was **no** significant associations found between dietary change and…
- Time spent on social media, following food influencers, sex, living situation, and perceptions about social

POLICY IMPLICATIONS

Support digital media literacy among students
- Develop interventions aimed at educating students on how to navigate dietary trends found online, and promote the verification of online dietary information.

- (e.g) Partner with Student Health Center to hold online and in-person seminars to promote nutrition education, and tips on navigating trending diets. Partner with campus resources centers marketing teams to promote the verification of online information via social media posts.

REFERENCES/ ACKNOWLEDGMENTS

Survey & References