

Fall 2021 Instruction Methods

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Meet the Team



Natalie



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Lucie



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Samantha



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Jihee



DATA SCIENCE & APPLIED MATH

MOTIVATION

Students are looking forward to in-person class, but after seeing the devastating effects of the pandemic, we were worried if reopening in the fall would be a good idea.

How did we break down what to consider?



**Case
Predictions**



**Student
Sentiment**



**Administrative
Concerns**

How are we making a decision?

OPTION 1

Case Predictions	0.5
Student Sentiment	0.3
Administrative Aspects	0.2

OPTION 2

Case Predictions	0.3
Student Sentiment	0.2
Administrative Aspects	0.5

OPTION 3

Case Predictions	0.2
Student Sentiment	0.5
Administrative Aspects	0.3

Lower Score



Change to In Person

Higher Score



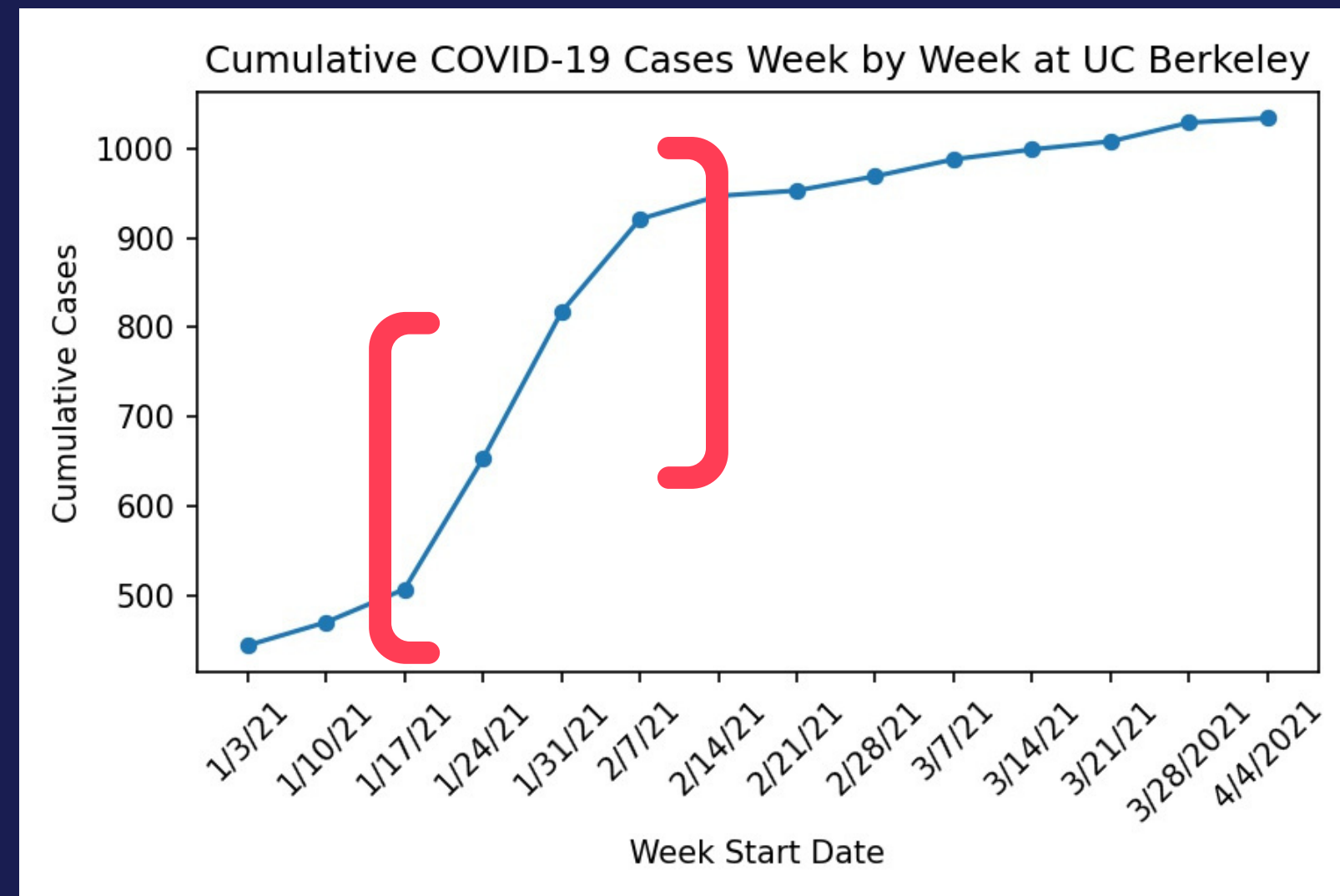
Remain Online

Preliminary Data Analysis

Significant increase in case numbers when students returned to campus for the spring 2021 semester.
Since then, cases have slowed down a lot.

1/24/21

SPRING
SEMESTER
STARTS



3/7/21

VACCINE
AVAILABILITY
INCREASES

What
happened
at other
colleges
that have
already
reopened?

METHODS

Scale trends at other colleges to predict what would happen if UC Berkeley were to reopen

LACK OF DATA

Very few colleges have extensive data on case numbers prior to reopening.

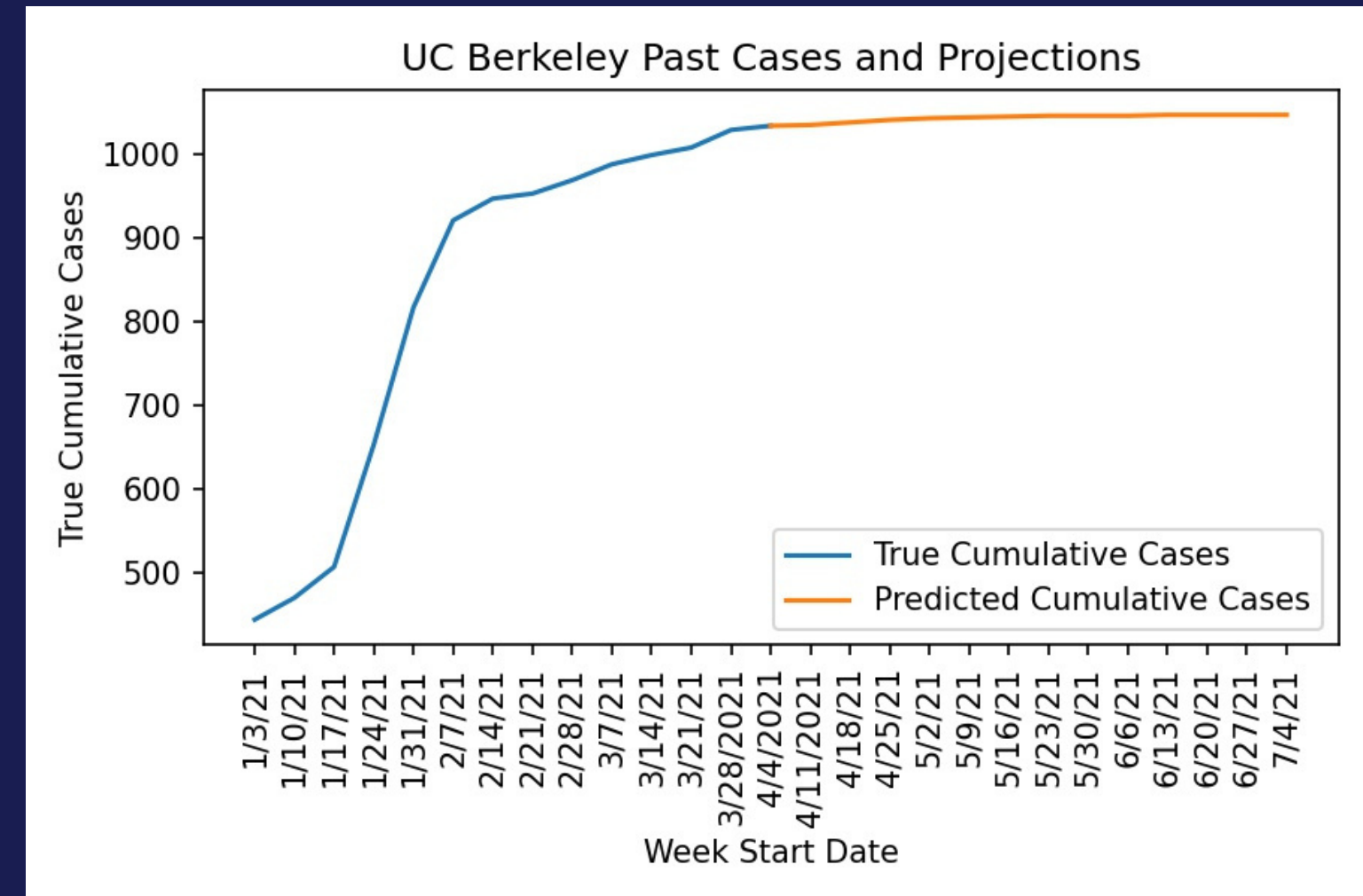
Case numbers at a college tend to reflect case numbers in their local region. Almost no colleges in CA have reopened.

What is the projection on case numbers?

SEIR Modeling

References MIT Operations Research Lab's DELPHI Model

LINK





Scoring: Case Predictions

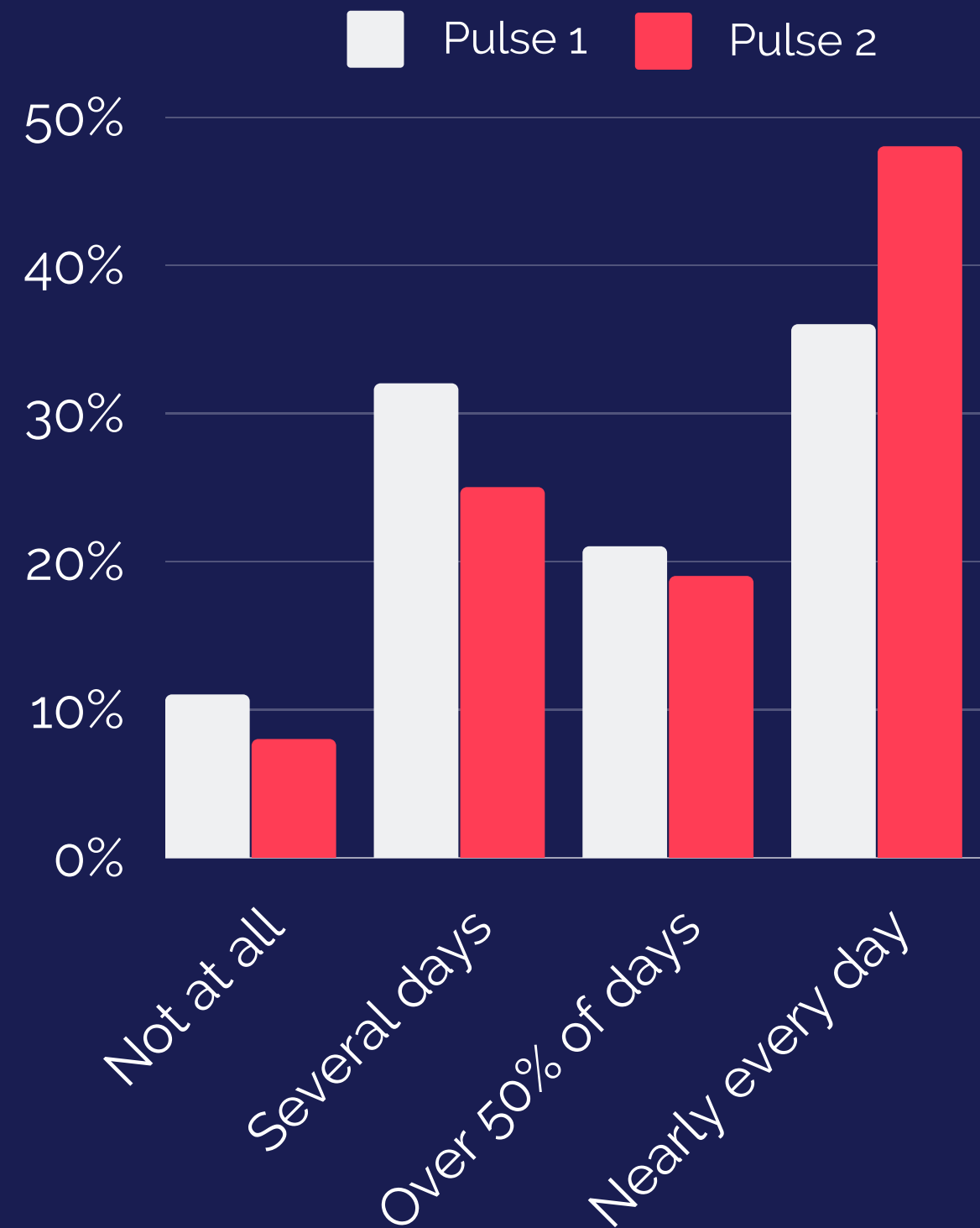
Lower score means in person, higher score: keep things as is. Total points possible is 45.



How do students feel?

IND ENG 166 FINAL PROJECT

ZOOM BURNOUT AMONG UNDERGRADUATES



ANXIETY

Over 40% of undergraduates are experiencing anxiety and over 30% are experiencing depression

During the Fall 2020 semester anxiety and depression levels increased

ZOOM BURNOUT

The majority of undergraduate and graduate students are experiencing at least some form of zoom burnout

Almost 50% of undergrads report feeling burnout every day

BASIC NEEDS

Undergraduates expressed concern over paying bills and rent

Drop in enrollment for both undergrad and grad students in the spring 2021 semester



Scoring: Student Sentiment

Lower score means in person, higher score: keep things as is. Total points possible is 45.



What administrative concerns are there?

RESEARCH

Projects restricted due to limited funding

FINANCES

Unprecedented \$34M deficit

ACADEMIC DISHONESTY

Students are concerned over cheating

ATHLETICS

Reduced income from televised athletics



Scoring: Administrative Aspects

Lower score means in person, higher score: keep things as is. Total points possible is 45.



Scoring & Final Decision



Weights

Case Projections: 0.5
Student Sentiment: 0.3
Administrative Aspects: 0.2



Decision Score Bands

Fully remote: 31 - 45
Hybrid: 16 - 30
Mainly in person: 0 - 15



Final Score & Decision

Case Projection = 0.5(5)



Student Sentiment = 0.3(18)



Admin Aspects = 0.2(15)

Total Score:  **10.9**

THANKS FOR LISTENING!

WORKS CITED

DELPHI Model: <https://www.covidanalytics.io/projections>

UC Berkeley Covid Data: <https://coronavirus.berkeley.edu/dashboard/>

UC Berkeley Pulse Survey Data: <https://ucbsurveys.berkeley.edu/surveyresults/Pulse/>

COVID Impact on UC Berkeley Research: <https://cshe.berkeley.edu/file/1612>

COVID Impact on UC Berkeley Finances: <https://news.berkeley.edu/2020/07/15/update-on-budget-expense-reduction-measures/>

Examining College Decisions to Reopen During COVID:
<https://journals.sagepub.com/doi/full/10.1177/2378023120988203>

FEEL FREE TO EMAIL US WITH ANY QUESTIONS!

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