



Faculty Senate

Faculty Senate

Agenda for meeting of August 5, 2020, 10:00 am – 12:00 pm

Zoom Meeting for Senators and guests:

<https://ucf.zoom.us/j/96402486167?pwd=T2lISlNnb0lZaUIjYURLZlZvUHRrZz09>

Meeting will be recorded and streamed live at: <https://youtu.be/MXLiC5jK0DA>

1. Call to Order
2. Roll Call via Qualtrics: http://ucf.qualtrics.com/jfe/form/SV_80xwx9QmGC4GUe1
3. Approval of Minutes of July 9, 2020
4. Recognition of Guests
5. Announcements
6. Report of the Senate Chair
7. Report of the President
8. Report of the Provost
9. Old Business
 - a) Resolution 2020-2021-1 Faculty Senate Bylaw Change – Resolutions
 - b) Resolution 2020-2021-2 Faculty Senate Bylaw Change – Undergraduate Common Program Oversight Committee
 - c) Resolution 2020-2021-3 Faculty Senate Bylaw Change – Faculty Center for Teaching and Learning Advisory Committee Duties
 - d) Resolution 2020-2021-4 Faculty Senate Bylaw Change – Student Committee Term on Graduate Council Committees
10. New Business
 - a) UCF Pledge
11. Committee Reports
 - a) Ad Hoc Internal Communications – Joseph Harrington
 - b) Ad Hoc Campus Equity, Inclusion and Diversity Actions and Programs – Joseph Harrington
 - c) Ad Hoc Budget and Labor Crisis Response – Reid Oetjen
 - d) Ad Hoc Health and Safety Crisis Response – Stephen King
12. Campus Climate Report – None
13. Other Business

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Minutes for meeting of July 9, 2020, 2:00 – 4:00 pm

Meeting recording available at: https://youtu.be/gen_6y5g208

1. Call to Order at 2:05 pm
2. Roll Call via Qualtrics
3. Approval of Minutes of June 11, 2020
 - a) Motion to approve minutes, second, motion carries, minute are approved
4. Recognition of Guests
 - a) Alexander Cartwright, Office of the President
 - b) Allison Hurtado, Faculty Excellence
 - c) Jana Jasinski, Faculty Excellence
 - d) Joe Adams, Academic Affairs
 - e) Lucretia Cooney, Faculty Excellence
 - f) Maribeth Ehasz, Student Development and Enrollment Services
 - g) Michael Johnson, Office of the Provost
 - h) Paige Borden, Analytics and Integrated Planning
 - i) Paul Jarley, College of Business Administration
 - j) Theodora Berry, College of Undergraduate Studies
 - k) Carly McCarthy, Communications and Marketing
 - l) Kristie Harris, Financial Affairs
 - m) Kent Butler, Diversity and Inclusion
 - n) Sabrina LaRosa, Student Government Association
 - o) Michael Deichen, Student Health Services
 - p) Tracy Slavik, Financial Affairs
 - q) Gordon Chavis, SDES
5. Announcements - None
6. Report of the Senate Chair
 - a) Board of Trustees proclamation (<https://provost.ucf.edu/news/community-engagement/a-special-thank-you-to-ucfs-faculty-and-staff-for-a-heroic-response-to-covid-19/>) is linked on the Faculty Senate website <http://www.facultysenate.ucf.edu/>.
 - b) Working a couple of issues regarding delivery of student financial aid. Had not received their summer money.
 - c) Faculty who raised testing concerns in Garage A and why it was taking so long to get test results.
 - d) We have four faculty representatives who will be on the University Budget Committee – Joe, Fernando Rivera, and working on two others.

7. Report of the President

- a) Thank you for all of the hard work that you have been doing over the past several months. This is an unusual and difficult time and we have had to be creative in how we teach and do research. As we go into the fall we are trying to see how we can have an impact for students.
- b) Launched a new COVID self checker in the UCF mobile app. The supervisor is notified who is cleared and not cleared. Call UCF Health for further actions. Protect individual privacy as much as possible. Dr. Deichen is working on a dashboard for the UCF community. Flexibility is going to be the key to our return.
- c) Will continue to evaluate our plans, especially if we need to continue to move courses online. Would like to promote a culture of following safety rules. Working with student leaders to share these messages and will be sharing the information on the coronavirus website.
- d) The provost and I were disappointed in the changes we're seeing for our international students. Our health guidance is changing and evolving. Are having to manage other changes that were unexpected. Will be taking steps to reach out. Global has been a huge help. Figuring out how to do instruction for the fall for the international students. Working with Graduate Studies, Human Resources and Finance and Accounting to work out a plan. International students, faculty and staff are critical to this university. We will do whatever we can to help them.
- e) We have had a number of changes in the budget. The state budget is finalizing and we are assessing the full impact. BRIDGE was not funded. Will no longer be investing at the previous level but will continue to operate until a new company can take over. Vice President Klonoff will lead this effort. Will ensure we have at least a presence there. Still a possibility of future budget changes. Had to hold back in the budget because we don't know what will come. We are going to be looking at creating a University Budget committee.
- f) Operational excellence has been a main area of focus. Will be making changes in structure in the senior vice president for finance. Will still allow direct supervision while moving forward. Inclusive Excellence in Diversity, Chief Inclusion and Diversity officer will become a Vice President and part of the president's cabinet to keep us accountable. Will also be looking at a review of the process of how to report things that they feel aren't right – discriminatory, etc. Will be doing training and education on implicit bias to know how to properly run a search. Encourage those from underrepresented backgrounds to apply at UCF.
- g) RCHM has been named the number one hospitality management program in the nation.
 - i) A senator asked a question about an email received from HR about faculty members that were away from campus this summer either out of the country or in another state. They are concerned whether they will lose their jobs if they cannot return to campus. Chair Harrington made the president aware of this email and would like the provost to speak more about it. The provost stated that it went to the HR liaisons and wasn't a complete email. There will be another follow up explanation email sent out. He explains that it has to do with the bank accounts and how to pay those that are not in the country.



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Newly hired GRAs and GTAs are what has prompted the email and are trying to work out how to get them into the program successfully.

8. Report of the Provost

- a) You may know soon that BOT Educational programs has a proclamation in support of the faculty and staff for their hard work during the pandemic.
- b) We have plans using different scenarios depending on local conditions. We are a public university and we have a responsibility to our students to provide an education, but we also have a responsibility to the health of our students, faculty and staff. We do not know how we will proceed this fall yet until we see how the virus will be spreading. No matter which scenario comes to pass, it will be a challenge to teach this fall. He strongly encourages everyone who is teaching face-to-face to provide a way for a student to finish the class online if the need arises. He discourages tough attendance policies. He also wants students to have the experience of a robust academic community.
- c) SDES are working hard on plans as to how to provide services when students begin to return to campus. Would like input as to how we can provide this group/community experience for students.
- d) Enrollment still looks good for fall. Budget from state is at last year's level with a 6% hold back. Are in the process to reduce spending across the university. Will help us address potential financial problems. Emphasized the need to reduce spending in administrative areas to redirect the spending into academic areas. New budget committee will be meeting soon and includes faculty representatives.
- e) Will be working with graduate and undergraduate programs to be sure that international students have what the law requires to work on their education.
- f) He was privileged to attend the teach-in last week. He learned a lot and each speaker gave a call to action at the end. He would like to thank all the panelists for putting the session together. There are practical steps that need to be taken to address systemic issues. One step is to overhaul how faculty are hired. The process that has always been used replicates the systemic issues but needs to change the process in order to hire more diverse faculty.
 - i) A senator would like to know if it has been considered to hold classes in exterior spaces. The provost says this has not been considered, but it would need to be decided on by each teacher.
 - ii) Another senator mentioned that he feels that he would like to see a positive statement about how administration has been working toward making changes. Have to listen to people who are the ones who have been directly affected by these problems.
 - iii) A senator asked about the survey from HR that faculty filled out and if there were any results. The provost explained that they were wanting to find out which faculty were at risk so that they would not be assigned face-to-face classes. The HR liaisons collected the information for the colleges.
 - iv) Another senator said he surveyed his students to find out the impact of the closure on the students. He asked his students their learning styles. The majority of them said they had a combination of learning styles. He said they stated they are struggling to complete their education and he is concerned.



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The provost appreciates that face-to-face is the desired learning experience for students.

9. Committee Reports

- a) Ad Hoc Internal Communications – Joseph Harrington
 - i) Discussed internal communications and also how contact information can be disseminated. How to moderate the flow of information. Discussed the move away from email toward another type that people prefer. Discussed the low budget for communications. Main tasks will be to make practical recommendations within the scope of that budget.
- b) Ad Hoc Campus Equity, Inclusion and Diversity Actions and Programs – Joseph Harrington
 - i) Create action plan and create long-term structures. Large number of faculty are interested in this committee. Specific types of actions will be discussed. Possible create a Faculty Senate formal committee. Reach out to Chair Harrington if you are interested in this committee.
- c) Ad Hoc Budget and Labor Crisis Response – Reid Oetjen
 - i) The committee has met once via Zoom and Microsoft Teams. Principles have been created. Has also worked on a survey tool, which faculty will be receiving shortly.
- d) Ad Hoc Health and Safety Crisis Response – Stephen King
 - i) Have been meeting every two weeks. Working on a survey and will be sending out soon for all faculty and staff. Committee is working on and finalizing the Protect UCF pledge, which will be developed for people to have tools how to protect themselves and others. Looking into details on testing on campus from a variety of points. This will be critical now and also at the start of and through the fall semester.

10. Old Business

- a) COVID response/Fall campus reopening – Deichen/Johnson
 - i) There is a surge in the state of Florida in regard to COVID. Orange County reach a peak of 11,000 cases. There have been some hospitalizations and stress on ICUs. There is space to expand these spaces in the hospital. Orders and positive results for COVID testing – 14th week in working with Adventist labs. Started out at 40-50 per week but jumped to 400-500 in the past couple of weeks. Of the 2000 test, about 200 have been positive. None of the positive student cases had any contact with anyone at UCF. There was a software issue that created appointment availability, plus a tremendous surge of requests for appointments. UCF will be working with Adventist Labs to make some changes that will make the process easier. Putting together a dashboard for the UCF community. The app has been rolled out to screen and help people connect with services.
 - (1) A senator asked what the criteria and metrics are being used to determine when classes would need to be moved online. Dr. Deichen agrees that it is a challenge when making these decisions. They are trying to think of all scenarios.
 - (2) Another senator would like to know where we are in the life cycle of the disease. Dr. Deichen explained that we have better testing and improved treatments now than in March. This current surge is catching people's

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attention and will cause them to be more cautious, which will hopefully cause the numbers to go down. Another challenge comes when students come back to campus.

- (3) A senator asked about how every student coming back to campus needing to be tested will be able to be tested. Dr. Deichen acknowledges that there is only so much capacity. It is important that only people who need to be are tested. There will be some prioritization that will need to take place.

11. New Business

- a) New Enterprise Resource Planning (ERP) system – Joseph Trubacz (attachment)
 - i) Board of Trustees approved funding for a new ERP system. He reviews how the ERP is set up currently and points out how some functions are duplicated. He expresses this is an opportunity to restructure our operations and become more efficient. He goes over the timeframe for this project, which will be over the next 24 months.
- b) UCF's new budget model – Paul Jarley, Kristine Harris (attachment)
 - i) They are starting to schedule lunch and learns to give more detailed information. The current budget model is reviewed. After Kristie arrived, she discussed the budget model with current stakeholders. Transparency came up the most. She reviews the goals for redesigning the budget model. She went over the guiding principles for the redesign. The implementation timeline will be rolled out over the next 2-3 years. They will be putting principles in place to transition to the new budget model. Budgets will be running parallel as the transition takes place. Dr. Jarley reviews the redesign framework and opens to questions.
 - (1) A senator asks how the budget will be distributed in terms of the total budget. There are 11 colleges that generate revenue. Distribution will be more transparent. Distributions are still a work in progress.

12. Campus Climate Report

- a) Student Government Association - Sabrina LaRosa
 - i) Thank you to everyone for their commitment to the hard work during this difficult time. Working on gathering information from students and creating a working group for helping to feed students. Care packages for students with COVID. Return to campus module for students. Looking forward to collaborating with the Faculty Senate this fall.
- b) United Faculty of Florida – Yovanna Pineda (handout)
 - i) Marie Leticee introduces the UFF team. Yovanna Pineda presented on behalf of Scott Launier. She reviews the activities that have been going on since March 2020. The union represents over 1700 members. They have been working on a memorandum of understanding regarding COVID 19. Presented on June 30 MOUs for fall and another regarding systemic racism, sexism and hostile work environments. Currently bargaining Article 23 Salaries. They have a food drive for the Picnic Project in Sanford. She reviews the highlights of the MOUs currently being bargained. On July 23, the UFF will be passing Article 23 requesting across-the-board salary increases, as well a promotion increases. They are working on a COVID-19 Action Plan. They are also supportive of an inclusive workplace.



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- (1) A senator would like to know what the percentage that is being requested for the across the board increase. They have not put the proposal on the table yet because they are not ready to go public with the information.

13. Old Business Continued

- a) Motion to move resolutions to next meeting, second, vote taken and motion passes.
 - i) Resolution 2020-2021-1 Faculty Senate Bylaw Change – Resolutions
 - ii) Resolution 2020-2021-2 Faculty Senate Bylaw Change – Undergraduate Common Program Oversight Committee
 - iii) Resolution 2020-2021-3 Faculty Senate Bylaw Change – Faculty Center for Teaching and Learning Advisory Committee Duties
 - iv) Resolution 2020-2021-4 Faculty Senate Bylaw Change – Student Committee Term on Graduate Council Committees

14. Other Business - None

15. Adjournment at 4:07 pm

1 **Resolution 2020-2021-1 Faculty Senate Bylaw Change - Resolutions**

2
3 **Whereas**, when the Faculty Constitution was separated into two separate documents, Faculty
4 Constitution and Bylaws, language regarding the process of adopting Senate resolutions was
5 inadvertently left out of the Bylaws; and

6
7 **Whereas**, Resolution 2016-2017-17 restored the majority of the resolution language except for
8 the right to a final appeal to the Board of Trustees; and

9
10 **Whereas**, the president of the university is accountable to the Board of Trustees in the
11 operation of the university; therefore

12
13 **BE IT RESOLVED** that the Bylaws of the Faculty Constitution be amended as follows:

14
15 **Bylaws, Section IV. Meetings of the Senate**

16
17 I. Resolutions

18 As the elected body of the general faculty, the Faculty Senate may formulate its opinion upon
19 any subject of interest to the university and adopt appropriate resolutions. Resolutions
20 addressing those areas of authority legally reserved to the president and Board of Trustees are
21 advisory. Each resolution adopted by the Faculty Senate is forwarded to the provost and vice
22 president for Academic Affairs who shall act upon the recommendation within 60 days.

23
24 The provost and vice president for Academic Affairs shall have veto power over any resolution
25 by the Senate. The veto with rationale shall be communicated in writing to the Faculty Senate
26 and the chair of the Faculty Senate.

27
28 The Senate, by a two-thirds majority vote, may appeal to the president any resolution vetoed. ~~A~~
29 ~~decision by the president is final.~~ A subsequent veto by the president shall be communicated in
30 writing to the Faculty Senate and to the chair of the Faculty Senate within 60 days.

31
32 The Senate, by a two-thirds majority vote, may appeal to the Board of Trustees any action so
33 vetoed. A decision by the Board of Trustees is final.

1 **Resolution 2020-2021-2 Faculty Senate Bylaw Change – Undergraduate**
2 **Common Program Oversight Committee**

3 **Whereas**, the Undergraduate Common Program Oversight Committee members voted to modify
4 the duties of the committee to represent the work of the committee better; therefore

5 **BE IT RESOLVED** that the name and duties specified in the Bylaws for the Undergraduate
6 Common Program Oversight Committee be amended as follows with automatic updates to the
7 committee description in the Faculty Constitution:

8 General Undergraduate ~~Common Program Oversight Requirements~~ Committee

9 1. Duties and Responsibilities.

- 10 a. To monitor university-wide undergraduate curriculum requirements such as the
11 General Education Program, diversity, Gordon Rule, ~~civic literacy foreign~~
12 ~~language proficiency~~, and to review any changes, additions, or deletions to those
13 curriculum requirements.
14 b. To review, monitor, and make recommendations to the dean of the College of
15 Undergraduate Studies on courses and syllabi submitted to fulfill the university
16 diversity requirement to meet the established definition of diversity.
17 c. To make recommendations to the Undergraduate Policy and Curriculum
18 Committee on changes to the General Education Program, diversity, Gordon
19 Rule, civic literacy, and other state-mandated requirements.
20 d. To make recommendations to the Undergraduate Course Review Committee
21 regarding course proposals related to the General Education Program, diversity,
22 Gordon Rule, civic literacy, and other state-mandated requirements.

23 *Approved by the Undergraduate Common Program Oversight Committee on February 13, 2020.*

1 **Resolution 2020-2021-3 Faculty Senate Bylaw Change – Faculty Center for**
2 **Teaching and Learning Advisory Committee Duties**

3 **Whereas**, the Faculty Center for Teaching and Learning recommends the duties of the
4 committee be modified to represent the work of the committee better; therefore

5 **BE IT RESOLVED** that the name and duties specified in the Bylaws for the Faculty Center for
6 Teaching and Learning Advisory Committee be amended as follows with automatic updates to
7 the committee description in the Faculty Constitution:

8 **Faculty Center for Teaching and Learning Advisory Committee**

9 1. Duties and Responsibilities.

10 To advise the director of the Faculty Center for Teaching and Learning on matters related to
11 the following:

12 a. Supporting and developing faculty professional development in areas of teaching,
13 learning and the scholarship of teaching for all faculty, including full-time, adjunct and
14 graduate teaching assistants.

15 ~~b. Overseeing and administering professional teaching development activities.~~

16 c. Coordinating the nomination, review and selection of faculty fellowships and other
17 awards for ~~creative teaching and the innovative use of technology in~~ teaching and
18 learning.

19 ~~d. Administering and~~ Reviewing an annual assessment of the Faculty Center for Teaching
20 and Learning activities.

21 e. Considering and recommending to the Faculty Senate and administration regarding the
22 needs and activities of the Faculty Center for Teaching and Learning.

1 **Resolution 2020-2021-4 Faculty Senate Bylaw Change – Student Committee**
2 **Term on Graduate Council Committees**

3 **Whereas**, the Graduate Appeals, Graduate Curriculum, and Graduate Policy committees specify
4 that the graduate student representative will be appointed by the chair of the Graduate Council
5 based on recommendations made by the President of the Graduate Student Association; and

6 **Whereas**, the graduate student is required to serve a three-year term; and

7 **Whereas**, it is impossible to know how long a graduate student will remain at UCF beyond the
8 current year; therefore

9 **BE IT RESOLVED** that the Bylaws for the Graduate Appeals, Graduate Curriculum, and
10 Graduate Policy committees be modified as follows:

11 **Graduate Appeals, Graduate Curriculum, and Graduate Policy Membership**

12 Terms of service shall be three years, staggered, with the exception of the student member, who shall
13 serve for one year.



Assessment of SARS-CoV-2 Screening Strategies to Permit the Safe Reopening of College Campuses in the United States

A. David Paltiel, PhD; Amy Zheng, BA; Rochelle P. Walensky, MD, MPH

Abstract

IMPORTANCE The coronavirus disease 2019 (COVID-19) pandemic poses an existential threat to many US residential colleges; either they open their doors to students in September or they risk serious financial consequences.

OBJECTIVE To define severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) screening performance standards that would permit the safe return of students to US residential college campuses for the fall 2020 semester.

DESIGN, SETTING, AND PARTICIPANTS This analytic modeling study included a hypothetical cohort of 4990 students without SARS-CoV-2 infection and 10 with undetected, asymptomatic SARS-CoV-2 infection at the start of the semester. The decision and cost-effectiveness analyses were linked to a compartmental epidemic model to evaluate symptom-based screening and tests of varying frequency (ie, every 1, 2, 3, and 7 days), sensitivity (ie, 70%-99%), specificity (ie, 98%-99.7%), and cost (ie, \$10/test-\$50/test). Reproductive numbers (R_t) were 1.5, 2.5, and 3.5, defining 3 epidemic scenarios, with additional infections imported via exogenous shocks. The model assumed a symptomatic case fatality risk of 0.05% and a 30% probability that infection would eventually lead to observable COVID-19–defining symptoms in the cohort. Model projections were for an 80-day, abbreviated fall 2020 semester. This study adhered to US government guidance for parameterization data.

MAIN OUTCOMES AND MEASURES Cumulative tests, infections, and costs; daily isolation dormitory census; incremental cost-effectiveness; and budget impact.

RESULTS At the start of the semester, the hypothetical cohort of 5000 students included 4990 (99.8%) with no SARS-CoV-2 infection and 10 (0.2%) with SARS-CoV-2 infection. Assuming an R_t of 2.5 and daily screening with 70% sensitivity, a test with 98% specificity yielded 162 cumulative student infections and a mean isolation dormitory daily census of 116, with 21 students (18%) with true-positive results. Screening every 2 days resulted in 243 cumulative infections and a mean daily isolation census of 76, with 28 students (37%) with true-positive results. Screening every 7 days resulted in 1840 cumulative infections and a mean daily isolation census of 121 students, with 108 students (90%) with true-positive results. Across all scenarios, test frequency was more strongly associated with cumulative infection than test sensitivity. This model did not identify symptom-based screening alone as sufficient to contain an outbreak under any of the scenarios we considered. Cost-effectiveness analysis selected screening with a test with 70% sensitivity every 2, 1, or 7 days as the preferred strategy for an R_t of 2.5, 3.5, or 1.5, respectively, implying screening costs of \$470, \$910, or \$120, respectively, per student per semester.

CONCLUSIONS AND RELEVANCE In this analytic modeling study, screening every 2 days using a rapid, inexpensive, and even poorly sensitive (>70%) test, coupled with strict behavioral

(continued)

Key Points

Question What screening and isolation programs for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) will keep students at US residential colleges safe and permit the reopening of campuses?

Findings This analytic modeling study of a hypothetical cohort of 4990 college-age students without SARS-CoV-2 infection and 10 students with undetected asymptomatic cases of SARS-CoV-2 infection suggested that frequent screening (every 2 days) of all students with a low-sensitivity, high-specificity test might be required to control outbreaks with manageable isolation dormitory utilization at a justifiable cost.

Meaning In this modeling study, symptom-based screening alone was not sufficient to contain an outbreak, and the safe reopening of campuses in fall 2020 may require screening every 2 days, uncompromising vigilance, and continuous attention to good prevention practices.

+ Invited Commentary

+ Supplemental content

Author affiliations and article information are listed at the end of this article.

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Abstract (continued)

interventions to keep R_t less than 2.5, is estimated to maintain a controllable number of COVID-19 infections and permit the safe return of students to campus.

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Introduction

Universities across the United States are struggling with the question of whether and how to reopen for the fall 2020 semester.^{1,2} Residential colleges, with communal living arrangements, shared dining spaces, intimate classrooms, and a population of young adults anxious to socialize, pose a particular challenge. In the absence of an effective vaccine, a proven therapy, and/or sufficient herd immunity, the best hope for reopening campuses in the fall is likely to be a robust strategy of behavior-based prevention combined with regular monitoring to rapidly detect, isolate, and contain new severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infections when they occur.³

Evidence on the available monitoring technologies and their performance is limited and rapidly evolving. The US Food and Drug Administration is currently evaluating more than 100 candidate tests that screen for the presence of SARS-CoV-2 infection or antibodies.⁴ There are many uncertainties, including the logistics of deployment; the ease and comfort of sample collection; and the accuracy, scalability, turnaround time, and cost of test kits. After a new coronavirus disease 2019 (COVID-19) case is detected, further questions emerge regarding how to conduct subsequent tracing; how to isolate detected cases in the context of congregate housing arrangements; and how to protect other at-risk populations, including faculty, staff, and members of the surrounding community.⁵ These uncertainties underscore the pressing need for both a generalized assessment of population-wide screening for SARS-CoV-2 and a comprehensive plan for reopening universities.

For many US colleges, COVID-19 poses an existential threat: either they open their doors to students in September or they suffer severe financial consequences.⁶ University administrators struggling with this dilemma must nevertheless keep in mind that their first priority is the safety of the students in their care. We offer specific recommendations on the design of a virologic monitoring program that will keep students safe at an affordable cost. Our specific research objectives were, first, to define the minimum performance attributes of a SARS-CoV-2 monitoring program (eg, frequency, sensitivity, specificity, and cost) that could ensure that college students are kept safe; second, to understand how those minimum performance standards might change under varying assumptions about the severity of the epidemic and the success of behavioral and social distancing interventions; third, to suggest what isolation and treatment capacity would need to be in place; and fourth, to forecast what testing might cost and to help decision-makers understand that information to address the question of a screening and monitoring program's value.

Methods

Study Design

We adapted a simple compartmental epidemic model to capture the essential features of the situation facing university decision-makers that included the epidemiology of SARS-CoV-2; the natural history of COVID-19 illness; and regular mass screening to detect, isolate, and contain the presence of SARS-CoV-2 in a residential college setting (eFigure 1 in the [Supplement](#)). A spreadsheet implementation of the model permitted us to vary critical epidemic parameters and to examine how different test performance attributes (ie, frequency, sensitivity, specificity, and cost) would translate to outcomes. Model input data (**Table 1**)⁷⁻¹⁹ were obtained from a variety of published sources, adhering whenever possible to the data guidance for modelers recently issued by the US Centers for Disease Control and Prevention and the Office of the Assistant Secretary for Preparedness and

Response. We defined 3 increasingly pessimistic epidemic scenarios and estimated both cumulative outcomes (eg, tests administered, number of true-positive and false-positive results, number of new infections, and person-days requiring isolation) and economic performance (eg, cost, incremental cost-effectiveness, and budget impact) during an abbreviated 80-day semester, running from Labor Day through Thanksgiving.² We assumed a medium-sized college setting with a target population of 5000 students, all of them younger than 30 years and nonimmune, living in a congregate setting.^{19,20} We seeded this population with 10 undetected, asymptomatic cases of SARS-CoV-2 infection. A publicly accessible version of the model implementation is available [online](#).

This analysis adheres to the Consolidated Health Economic Evaluation Reporting Standards (CHEERS) reporting guideline, where applicable. Because this study used only aggregate, published data, the institutional review boards of both the Massachusetts General Hospital and the Yale School

Table 1. Model Input Parameters and Scenarios

Model parameter	Input	References
Compartments in initial population, No.		
Noninfected, susceptible	4990	US News and World Report, ¹⁹ 2020
Infected, asymptomatic	10	Assumption
All other compartments	0	Assumption
Time horizon, d	80	Hubler, ² 2020
Disease dynamics		
Mean incubation time, θ	3 d	He et al, ⁸ 2020
Time to recovery, $1/\rho$	14 d	Lauer et al, ¹⁰ 2020; CDC, ¹¹ 2020
Time to false-positive return, $1/\mu$	1 d	Assumption
Probability of symptoms given infection, %	30	Day, ¹² 2020; Yang et al, ¹³ 2020; Ing et al, ¹⁴ 2020
Symptomatic case fatality ratio, %	0.05	CDC, ⁷ 2020
Transmission rate, β	Dependent on R_t	NA
Rate of symptom development, σ	Dependent on R_t	NA
Scenarios		
Effective R_t		
Best	1.5	CDC, ⁷ 2020; Pitzer et al, ¹⁵ 2020; Li et al, ¹⁶ 2020
Base	2.5	
Worst	3.5	
Test specificity, ie, true-negative rate, %		
Best	99.7	Lieberman et al ¹⁷ 2020; Zhen et al, ¹⁸ 2020
Base	98.0	
Worst	98.0	
Exogenous infections per wk, No.		
Best	5	Assumption
Base	10	
Worst	25	
Test characteristics		
Sensitivity, ie, true-positive rate, %		
Test I	70	Assumption
Test II	80	
Test III	90	
Cost per test, \$		
Test I	10	Assumption
Test II	25	
Test III	50	
Time to test result return, h	8	Assumption
Confirmatory test		
Sensitivity, %	100	Assumption
Cost, \$	100	Assumption

Abbreviations: CDC, US Centers for Disease Control and Prevention; NA, not applicable; R_t , reproduction number.

of Medicine determined that this research did not involve human participants and did not require their review or approval.

Compartmental Model

To the basic susceptible-exposed-infected-removed compartmental modeling framework, we added the following: the availability of regular, repeated screening with a test of imperfect sensitivity and specificity; the creation of a new compartment for uninfected persons receiving a false-positive test result; separation of the infected compartment to distinguish between asymptomatic patients with undetected infection, asymptomatic patients with detected infection (ie, true-positives), and observed symptomatic patients; and the importation of additional new infections via exogenous shocks (eg, infections transmitted to students by university employees or members of the surrounding community or during superspreader events, such as parties).

We defined 3 epidemic severity scenarios: a base case with a reproduction number (R_t) of 2.5, test specificity of 98%, and the exogenous introduction of 10 new, undetected infections to the susceptible population each week; a worst case with an R_t of 3.5, test specificity of 98%, and 25 exogenous new infections every week; and a best case with an R_t of 1.5, test specificity of 99.7%, and 5 exogenous new infections each week.

Isolation

We assumed that after a lag of 8 hours, individuals receiving a positive test result (true or false) and those exhibiting COVID-19 symptoms would be moved from the general population to an isolation dormitory, where their infection would be confirmed, where they would receive supportive care, and from which no further transmissions would occur. The lag reflected both test turnaround delays and the time required to locate and isolate identified cases. Students with confirmed (ie, true-positive) results would remain in the isolation dormitory a mean of 14 days to ensure they were not infectious before proceeding to a recovered or immune state.^{10,11} Students with false-positive results would remain isolated for 24 hours, reflecting our assumption that a highly specific confirmatory test could overturn the original diagnosis, permitting them to return to the campus population.

We assumed a mean time from exposure to both infectiousness and screening detectability of 3 days, a symptomatic case fatality risk of 0.05%, and a 30% probability that infection would eventually lead to observable COVID-19–defining symptoms in this young cohort.^{7-9,12-14}

Screening

We sought to evaluate both existing SARS-CoV-2 detection methods and newer technologies that could plausibly be available in the near future. Accordingly, we considered a range of different test sensitivities (ie, 70%-99%), specificities (ie, 98%-99.7%),^{17,18} and per-test costs (ie, \$10-\$50). For each combination of these test characteristics, we considered both symptom-based screening and routine testing every 1, 2, 3, and 7 days. We assumed that a confirmatory test with 100% specificity could distinguish false-positive from true-positive results at a cost of \$100.

Cost-effectiveness

Next, we estimated incremental cost-effectiveness ratios, denominated in screening costs per infection averted. This measure of return on investment in screening was compared with a crude benchmark of value estimated using the following 4 terms: (1) COVID-related mortality (0.05% in persons of college age; 0.4% overall)⁷; (2) survival loss of 60 years per college-age fatality; 20 years overall²¹; (3) societal willingness-to-pay (WTP) threshold of \$100 000 per year of life gained²²; and (4) $R_t + 1$, assuming that each infection averted prevents half the R_t secondary infections among college-age students and half among other adult members of the campus community.^{7,15,16} This method yielded a maximum WTP to avert 1 infection of \$5500 in the best case, \$8500 in the base case, and \$11 600 in the worst case.

Cost-effectiveness analysis identified a preferred screening strategy from among 13 possibilities—3 test sensitivities (70%, 80%, and 90%) and 4 frequencies (1, 2, 3, and 7 times per week) in addition to symptom-based screening—under each epidemic scenario (base, worst, and best cases) already described. We also considered the more restricted case, in which the only available test cost \$25 and had a sensitivity of 80%. Finally, to help decision-makers understand the fiscal consequences of pursuing these preferred strategies, we conducted a budget impact assessment, reporting the cumulative costs for the semester on a per-student basis.

Statistical Analysis

The model was implemented as a spreadsheet. All analyses were conducted in Microsoft Excel. Because no statistical tests were run, no prespecified level of statistical significance was set.

Results

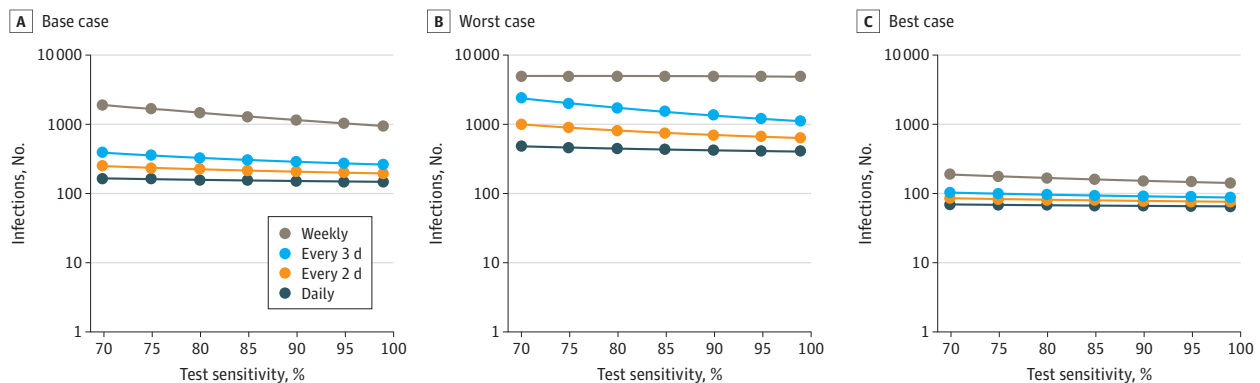
Test Frequency and Sensitivity

At the start of the semester, the hypothetical cohort of 5000 students included 4990 (99.8%) with no SARS-CoV-2 infection and 10 (0.2%) with SARS-CoV-2 infection. During an 80-day semester in the base case (ie, R_t of 2.5 and 10 exogenous infections each week), screening every 1, 2, 3, or 7 days with a 70% sensitive, 98% specific test resulted in 162, 243, 379, and 1840 cumulative infections, respectively. Symptom-based screening yielded 4970 infections. Raising the sensitivity of the test from 70% to 90% reduced total infections (eg, from 162 to 149 for daily screening and from 1840 to 1118 for weekly screening). **Figure 1** shows cumulative infections as a function of test sensitivity and test frequency for the 3 epidemic severity scenarios.

Isolation Dormitory Occupancy

In the base case, daily screening with a 70% sensitive, 98% specific test resulted in a mean isolation dormitory census of 116 occupants, of whom 21 (18%) had true-positive results (**Figure 2A**). With screening every 2 days, mean daily census was reduced to 76, as fewer tests were performed and fewer false-positive results were obtained; however, less frequent testing was also associated with greater transmission of infection and a higher mean proportion of students with true-positive results in isolation (28 students [37%]) (**Figure 2B**). Weekly and symptom-based screening were associated with large increases in the infected occupancy of the isolation dormitory (**Figure 2C** and **Figure 2D**). For example, screening every 7 days resulted in a mean daily isolation census of 121 students, with

Figure 1. Cumulative Infections as a Function of Test Sensitivity and Frequency



During an 80-day horizon, for the base case (R_t of 2.5, test specificity of 98%, and 10 exogenous infections per week) (A), worst case (R_t of 3.5, test specificity of 98%, and 25 exogenous infections per week) (B), and best case (R_t of 1.5, test specificity of 99.7%, and 5 exogenous infections per week) (C), these panels report cumulative infections for tests with sensitivity ranging from 70% to 99%.

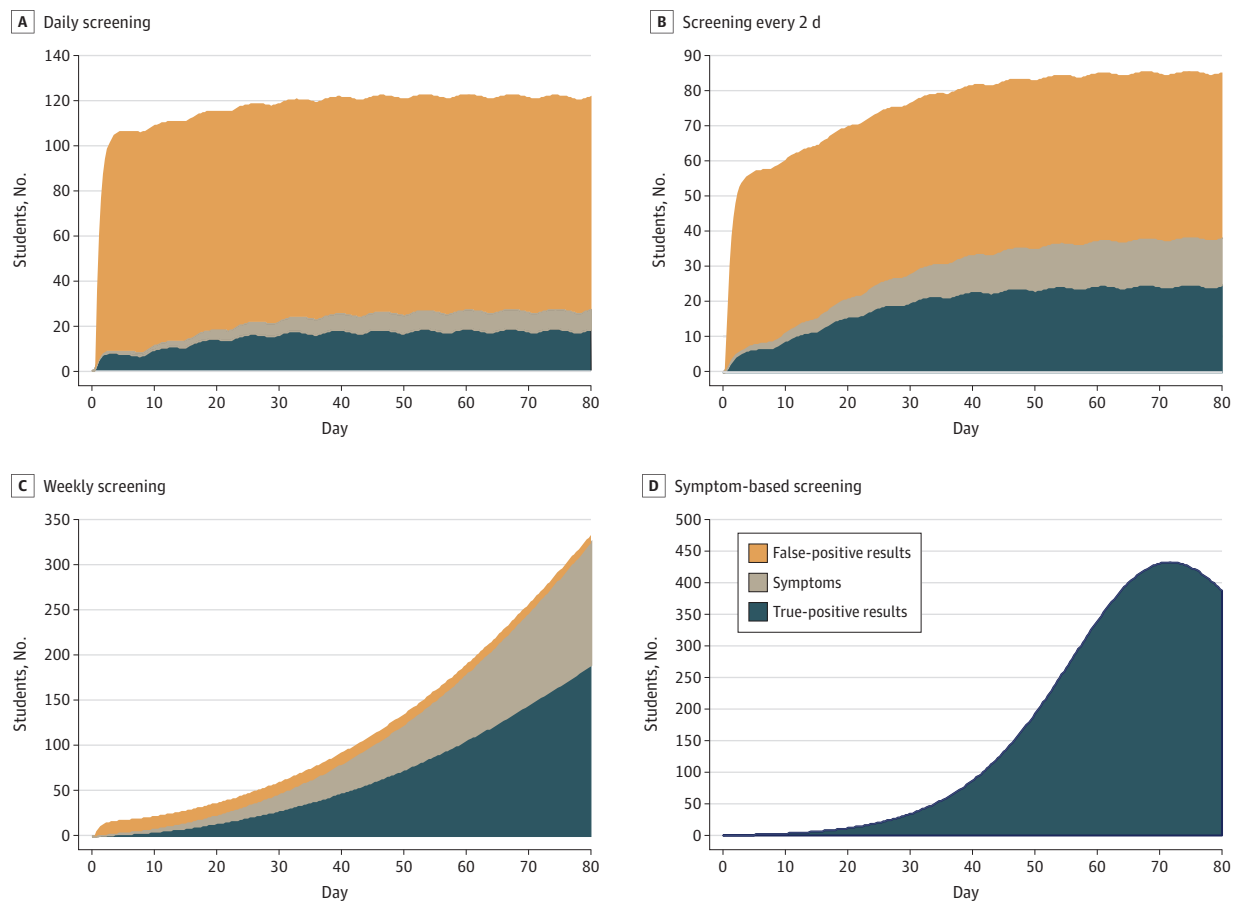
108 (90%) with true-positive results. Sensitivity analysis revealed that the trends evident in Figure 2 extended beyond the 80-day planning horizon (data not shown). Varying the initial number of asymptomatic infections between 0 and 100 did not materially change our findings.

The number of students with false-positive results and the isolation capacity required to accommodate them were reduced in the presence of a more specific test. For example, with daily screening in the base case, increasing the test specificity from 98% to 99.7% was associated with a decrease in the mean daily census of students with false-positive results in isolation from 95 to 15.

Under worst-case assumptions (ie, R_t of 3.5 with 25 exogenous infections every week), daily screening yielded mean isolation dormitory census of 152 students, of whom 60 (39%) had true infections (eFigure 2A in the Supplement). Screening every 2 days produced similar census (151) but a higher proportion (106 [70%]) of true infections (eFigure 2B in the Supplement). With weekly screening or symptom-based screening, nearly the entire student population would be infected before the conclusion of the 80-day semester (eFigure 2C and eFigure 2D in the Supplement).

In the best case (ie, R_t of 1.5 with 5 exogenous shocks each week and a test with 99.7% specificity), mean occupancy of the isolation dormitory was 18 (16 with infection; 2 with false-positive results) with weekly screening and 24 (all true infections) with symptom-based screening (eFigure 3 in the Supplement).

Figure 2. Projecting the Required Size of the Isolation Dormitory



An isolation dormitory needs to be large enough to house students with false-positive results, students with symptoms, and students without symptoms who have received true-positive results. During the 80-day horizon, these panels depict the number of students in the isolation dormitory using a 70% sensitive, 98% specific test under the base case scenario (ie, R_t of 2.5). The effect of exogenous shocks (10 per week) is visible

in the scalloped borders with daily screening and screening every 2 days (A, B); this is less evident with less frequent testing and symptom-based screening (C, D), in which the number of true-positive cases masks the comparatively small effect of exogenous shocks.

Cost-effectiveness and Budget Impact Assessment

In the base case, screening with a less expensive, less sensitive test dominated screening with more expensive, more accurate tests (ie, it cost less and averted greater numbers of infection) for all plausible WTP values. At the benchmark maximum WTP (\$8500 per infection averted), screening every 2 days with a 70% sensitive test was the preferred strategy. For WTP exceeding \$28 400 per infection averted, daily screening with this same test was optimal (**Table 2**). Under worst-case assumptions, daily screening strategies were the only undominated choices for WTP values

Table 2. Results of the Incremental Cost-effectiveness Analysis in the Base-Case, Worst-Case, and Best-Case Scenarios

Frequency	Test sensitivity, %	Cost, \$	Total infections	Incremental cost-effectiveness ratio, \$/infection averted ^a
Base-case scenario^b				
Symptom-based screening	NA	NA	4970	NA
Weekly	70	696 000	1840	200
Weekly	80	1 490 700	1422	Dominated
Every 3 d	70	1 564 500	379	600
Every 2 d	70	2 340 600	243	5700
Weekly	90	2 837 500	1118	Dominated
Every 3 d	80	3 501 800	319	Dominated
Daily	70	4 642 700	162	28 400
Every 2 d	80	5 254 900	219	Dominated
Every 3 d	90	6 740 400	280	Dominated
Every 2 d	90	10 118 700	202	Dominated
Daily	80	10 440 000	154	752 600
Daily	90	20 106 900	149	1 692 900
Worst-case scenario^c				
Symptom-based screening	NA	NA	4991	NA
Weekly	70	673 600	4991	Dominated
Weekly	80	1 274 200	4988	Dominated
Every 3 d	70	1 509 300	2373	Dominated
Every 2 d	70	2 266 400	998	600
Weekly	90	2 310 000	4951	Dominated
Every 3 d	80	3 292 800	1731	Dominated
Daily	70	4 543 900	481	4400
Every 2 d	80	5 063 200	814	Dominated
Every 3 d	90	6 347 900	1335	Dominated
Every 2 d	90	9 764 100	701	Dominated
Daily	80	10 207 500	445	159 700
Daily	90	19 666 200	420	377 500
Best-case scenario^d				
Symptom-based screening	NA	NA	1067	NA
Weekly	70	587 800	188	700
Every 3 d	70	1 364 600	103	9100
Weekly	80	1 432 700	168	Dominated
Every 2 d	70	2 044 500	85	38 800
Weekly	90	2 842 200	152	Dominated
Every 3 d	80	3 343 100	96	Dominated
Daily	70	4 080 900	69	128 100
Every 2 d	80	5 013 900	81	Dominated
Every 3 d	90	6 642 100	91	Dominated
Every 2 d	90	9 964 200	78	Dominated
Daily	80	10 016 800	68	3 156 700
Daily	90	19 911 200	66	6 833 800

Abbreviations: NA, not applicable.

^a Strategies that cost more and result in more infections than some combination of other strategies are labeled *dominated*.

^b Base-case scenario had a reproduction number of 2.5, 10 exogenous shock infections each week, and a maximum willingness-to-pay threshold of \$8500 per infection averted.

^c Worst-case scenario had a reproduction number of 3.5, 25 exogenous shock infections each week, and a maximum willingness-to-pay threshold of \$11 600 per infection averted.

^d Best-case scenario had a reproduction number of 1.5, 5 exogenous shock infections each week, a test with 99.7% specificity, and a maximum willingness-to-pay threshold of \$5500 per infection averted.

exceeding \$4400 per infection averted; at the benchmark maximum WTP (\$11 600 per infection averted), daily screening with the least sensitive (ie, 70%) test was the preferred choice. Under best-case assumptions (with a WTP maximum of \$5500 per infection averted), weekly screening with a 70% sensitive test was optimal. If the only available test cost \$25 and had a sensitivity of 80%, the optimal frequency of screening would be every 7, 3, and 2 days in the best, base, and worst case scenarios, respectively (eAppendix and eTable 1 in the Supplement). If the probability of progressing from infection to symptoms rose from 30% to 65%, screening every day would be optimal in the base case scenario (eTable 2 in the Supplement). During the 80-day semester, the per-student costs of implementing the preferred screening strategy were \$120, \$470, and \$910 in the best, base, and worst case scenarios, respectively (Table 3).

Discussion

The safe return of students to residential colleges demands an effective SARS-CoV-2 monitoring strategy. Results from this modelling study suggest that a highly specific screening test that can easily be administered to each student every 1 to 7 days—and that reports results quickly enough to permit newly detected cases to be isolated within hours—would be required to blunt the further transmission of infection and to control outbreaks at a justifiable cost. We identified no circumstance in this modelling study under which symptom-based screening alone would be sufficient to contain an outbreak.

Of the many uncertain variables driving our assessment of the required frequency of screening, we highlight R_t . This uncertain measure of the transmission potential of infection will depend in part on factors that are within the control of students and university administrators. Strict adherence to handwashing, mandated indoor masking, elimination of buffet dining, limited bathroom sharing with frequent cleaning, dedensifying campuses and classrooms, and other best practices could reduce R_t to best-case levels, rendering containment possible with weekly testing. However, any relaxation of these measures in the residential college setting could easily increase R_t to worst-case levels, requiring daily screening. All members of the university community must understand the fragility of the situation and the ease with which inattention to behavior may propagate infections and precipitate the need once again to shut down campus.

Much depends on the judicious management of positive test results, both true and false. Rapid detection, confirmation, isolation, and treatment of true-positive cases is, of course, essential. We found that frequent screening with a test of modest sensitivity and a turnaround time of 8 hours would be required for this purpose. The greater difficulty lies in managing the overwhelming number of false-positives that will inevitably result from repeated screening for low-prevalence conditions. False-positive results threaten to overwhelm isolation housing capacity, a danger whose gravity increases with screening frequency. The specificity of the initial test will matter far more than its sensitivity. Many current virologic tests report a 99.8% to 100% specificity in the context of use to date for symptomatic testing²³; we examined a value of 99.7% in the best case but used a lower value of 98% in the base-case and worst-case scenarios, given that most virologic tests have yet to be used for the kind of large-scale surveillance described in this model.

Even with a 98% specific screening test, false-positive results will present a challenge. Until a confirmatory test result is obtained, anyone receiving a positive test result will be presumed to be

Table 3. Per-Student Costs for Optimal Policies During an 80-Day Horizon Under Base-Case, Worst-Case, and Best-Case Scenarios

Scenario	Optimal policy	Cost per student, \$
Base case, ie, R_t of 2.5	Screening every 2 d, 70% sensitivity	470
Worst case, ie, R_t of 3.5	Daily screening, 70% sensitivity	910
Best case, ie, R_t of 1.5	Weekly screening, 70% sensitivity	120

Abbreviation: R_t , reproduction number.

infectious and need to be separated from other students. Setting aside the logistic challenges and financial costs, administrators must anticipate the anxiety such separations may provoke among both students and their families. Excessive numbers of false-positive results may fuel panic and undermine confidence in the reliability of the monitoring program. It may be possible to work with test manufacturers to tune test kits under development for use in this setting, sacrificing some small measure of sensitivity in favor of higher specificity.

Obtaining an adequate supply of testing equipment will be a challenge. On a college campus with 5000 enrollees, screening students alone every 2 days will require more than 195 000 test kits during the abbreviated semester. Our analysis assumed per-test costs (including equipment and associated personnel costs) ranging from \$10 to \$50. Lower-cost, self-administered testing modalities may soon be available and could make screening more affordable. Pooling could also facilitate more efficient, higher-volume screening.²⁴ However, pooling introduces its own logistic challenges and could increase the time to definitively identifying and isolating a positive case, resulting in further transmission and provoking anxiety among the many uninfected students notified that they are among the members of an initially positive pool.

We have tried to help decision-makers make sense of the value question by conducting a cost-effectiveness analysis and by comparing our findings with a rough estimate of the societal WTP per infection averted.²⁵ While we have adhered to the broad outlines of recommended practice for the conduct of economic evaluations,²⁵ we urge readers to interpret our results with caution. Most of our assumptions are conservative, ie, they understate the value of more frequent testing. For example, we ignored the clinical harms and attributable costs of COVID-19-related morbidity and treatment. We also ignored the value of infections averted beyond the student population. However, a few assumptions (eg, our failure to account for the economic and quality-of-life effects of false-positive results) may pull in the direction of less testing.

Reopening college campuses imposes risks that extend beyond students to the faculty who teach them, the many university employees (administrative and facilities staff) who come into close daily contact with them, and the countless other members of the surrounding community with whom students come into contact. University presidents have a duty to consider the downstream effect of their reopening decisions on these constituencies. However, their first responsibility is to the safety of the students in their care. While we certainly do not intend to minimize the broader effects of the reopening decision, we have quite deliberately excluded from consideration any transmissions exported off campus.

Limitations

The simple model underlying this analysis has notable limitations. We assumed homogenous mixing without age-dependent transmission. We did not explicitly include the effect of screening on faculty and staff, although these and other nonstudent members of the college community include a higher proportion of older, more medically vulnerable individuals. We assumed that no students arrive on campus with immunity to COVID-19. We excluded the effects of contact tracing. Given its implementation challenges, this is a noteworthy omission. However, our results suggest that with frequent enough screening, contact tracing would not be necessary for epidemic control. While this analysis offers guidance on the frequency of screening, it does not speak to the logistic challenges of deploying testing strategies on large college campuses. Such challenges include the acquisition of supplies; the orchestration of screening at scale; the monitoring of adherence; the development of a strategy for rapid result return, contact, and isolation; and the availability and maintenance of an isolation dormitory with all single rooms and bathrooms.

Conclusions

We believe that there is a safe way for students to return to college in fall 2020. In this study, screening every 2 days using a rapid, inexpensive, and even poorly sensitive (>70%) test, coupled

with strict interventions that keep R_t less than 2.5, was estimated to yield a modest number of containable infections and to be cost-effective. This sets a very high bar—logistically, financially, and behaviorally—that may be beyond the reach of many university administrators and the students in their care.

ARTICLE INFORMATION

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Corresponding Author: A. David Paltiel, PhD, Public Health Modeling Unit, Yale School of Public Health, 60 College St, New Haven, CT 06510 (david.paltiel@yale.edu).

Author Affiliations: Public Health Modeling Unit, Yale School of Public Health, New Haven, Connecticut (Paltiel); Harvard Medical School, Boston, Massachusetts (Zheng, Walensky); Medical Practice Evaluation Center, Division of Infectious Diseases, Massachusetts General Hospital, Boston (Walensky).

Author Contributions: Drs Paltiel and Walensky had full access to all of the data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis.

Concept and design: All authors.

Acquisition, analysis, or interpretation of data: All authors.

Drafting of the manuscript: All authors.

Critical revision of the manuscript for important intellectual content: Paltiel, Walensky.

Statistical analysis: Walensky.

Obtained funding: Paltiel, Walensky.

Administrative, technical, or material support: All authors.

Supervision: Paltiel.

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SUPPLEMENT.

eAppendix. Model Description

eTable 1. Results of the Incremental Cost-effectiveness Analysis in the Base-Case, Worst-Case, and Best-Case Scenarios With a \$25 Test at 80% Sensitivity

eTable 2. Results of the Incremental Cost-effectiveness Analysis in the Base-Case Scenario With Probability of Symptoms at 65%

eFigure 1. Model Schematic and Input Parameters

eFigure 2. Expected Daily Occupancy of the Isolation Dormitory Under Worst-Case Assumptions

eFigure 3. Expected Daily Occupancy of Isolation Dormitory Under Best-Case Assumptions

UCF Faculty Senate Return to Campus Plan Survey

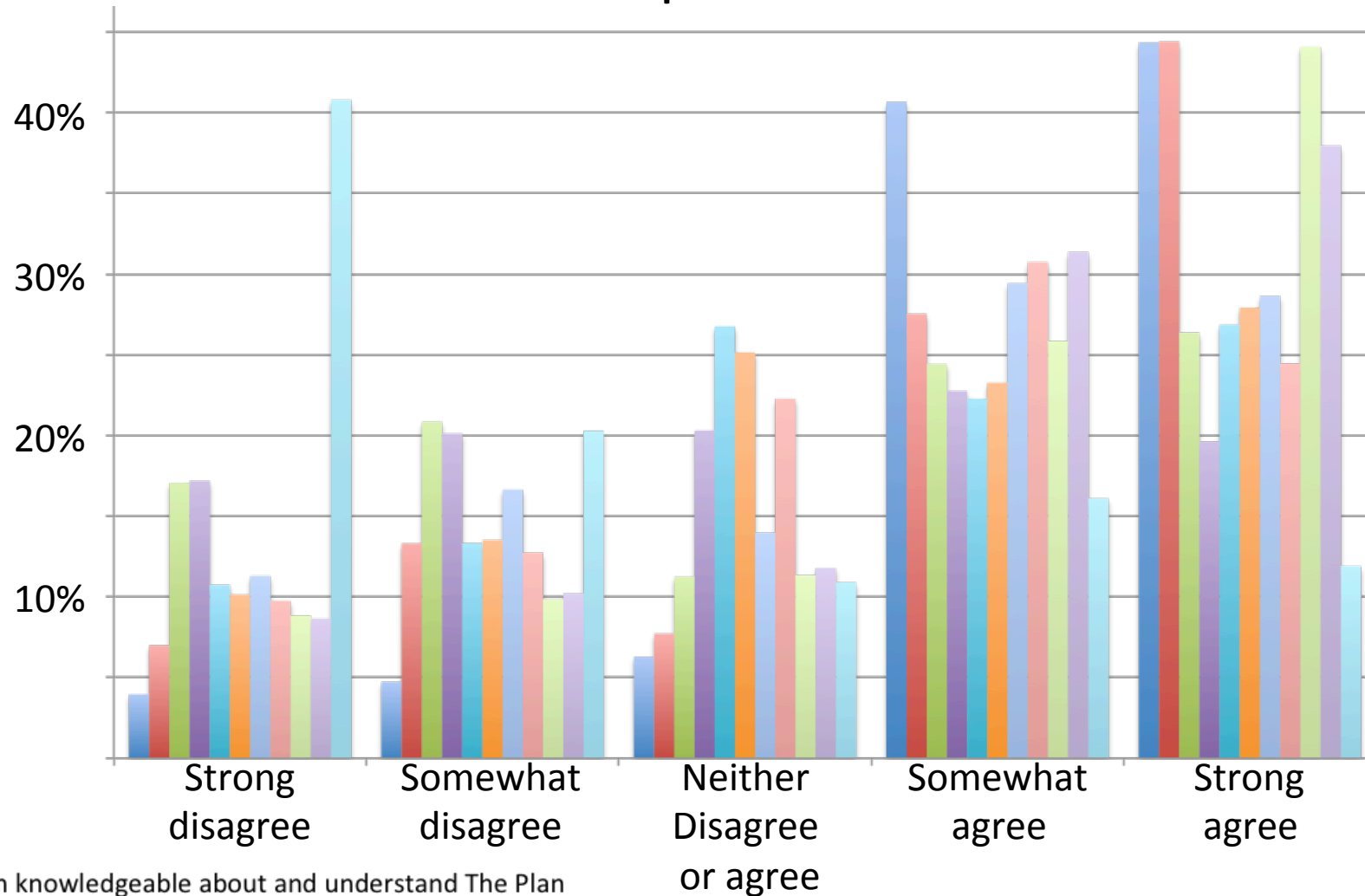
Response rate: $1224 / 1927 = 63.5\%$

	#	% of total
main	930	79.6
Rosen	58	5.0
Downtown	77	6.6
Online	11	0.9
Health Sciences	42	3.6
UCF Connect	25	2.1
Split	26	2.2

Response rate for faculty groups

	#	% return/type
Visiting	22	40.0
Adjunct	114	34.1
Non-tenure-earning	349	78.6
Tenure-earning	136	38.1
Tenured	372	50.5

Return to Campus Plan Questions



■ I am knowledgeable about and understand The Plan

■ I am confident in my ability to follow The Plan in my workspace or classroom (i.e. masks, social distancing)

■ I am confident in my ability to enforce The Plan in my workspace or classroom (i.e. masks, social distancing)

■ The Plan will maintain the health and safety of the UCF community

■ I have received appropriate communication and timely information from my area/department

■ I have received appropriate information from the University

■ I feel comfortable returning to campus this fall

I feel comfortable returning to campus in the fall

	Total	Are you teaching in fall?	
		Yes	No
Strongly disagree	40.8%	36.3%	44.2%
Somewhat disagree	20.3% 61.1%	22.5% 58.8%	18.7% 62.9%
Neither agree nor disagree	10.8%	10.0%	11.4%
Somewhat agree	16.2% 28.1%	17.5% 31.2%	15.2% 25.7%
Strongly agree	11.9%	13.7%	10.5%

I feel comfortable returning to campus in the fall

	Total	Are you teaching in fall?	
		Yes	No
Strongly disagree	40.8%	36.3%	44.2%
Somewhat disagree	20.3% 61.1%	22.5% 58.8%	18.7% 62.9%
Neither agree nor disagree	10.8%	10.0%	11.4%
Somewhat agree	16.2% 28.1%	17.5% 31.2%	15.2% 25.7%
Strongly agree	11.9%	13.7%	10.5%

	Total	Visiting	Adjunct	Non-Tenure Earning	Tenure Earning	Tenured
Strongly disagree	40.6%	45.5%	36.8%	37.9%	43.3%	42.9%
Somewhat disagree	20.6% 61.2%	13.6% 59.1%	18.9% 55.7%	22.4% 60.3%	20.9% 64.2%	19.7% 62.6%
Neither agree nor disagree	10.6%	4.5%	6.6%	11.3%	14.2%	10.2%
Somewhat agree	16.2% 28.2%	18.2% 36.4%	17.9% 37.7%	14.6% 28.4%	11.9% 21.6%	18.6% 27.1%
Strongly agree	12.0%	18.2%	19.8%	13.7%	9.7%	8.6%

I feel comfortable returning to campus in the fall

	Total	Are you teaching in fall?	
		Yes	No
Strongly disagree	40.8%	36.3%	44.2%
Somewhat disagree	20.3% 61.1%	22.5% 58.8%	18.7% 62.9%
Neither agree nor disagree	10.8%	10.0%	11.4%
Somewhat agree	16.2% 28.1%	17.5% 31.2%	15.2% 25.7%
Strongly agree	11.9%	13.7%	10.5%

	Total	Visiting	Adjunct	Non-Tenure Earning	Tenure Earning	Tenured
Strongly disagree	40.6%	45.5%	36.8%	37.9%	43.3%	42.9%
Somewhat disagree	20.6% 61.2%	13.6% 59.1%	18.9% 55.7%	22.4% 60.3%	20.9% 64.2%	19.7% 62.6%
Neither agree nor disagree	10.6%	4.5%	6.6%	11.3%	14.2%	10.2%
Somewhat agree	16.2% 28.2%	18.2% 36.4%	17.9% 37.7%	14.6% 28.4%	11.9% 21.6%	18.6% 27.1%
Strongly agree	12.0%	18.2%	19.8%	13.7%	9.7%	8.6%

	Total	Arts	Business	Com I & E	Engineering	Health
Strongly disagree	41.5%	46.2%	53.3%	35.0%	35.8%	41.1%
Somewhat disagree	20.2% 61.7%	19.2% 65.4%	18.9% 72.2%	20.7% 55.7%	25.9% 61.7%	19.2% 60.3%
Neither agree nor disagree	10.7%	10.0%	7.8%	12.9%	7.4%	8.2%
Somewhat agree	15.7% 27.6%	16.2% 24.6%	12.2% 20.0%	18.6% 31.4%	22.2% 30.9%	11.0% 31.5%
Strongly agree	11.9%	8.5%	7.8%	12.9%	8.6%	20.5%

	Total	Medicine	Nursing	Hospitality	Sciences	Libraries	Other
Strongly disagree	41.5%	21.2%	39.5%	56.0%	43.9%	22.7%	43.1%
Somewhat disagree	20.2% 61.7%	17.3% 38.5%	20.9% 60.5%	8.0% 64.0%	19.9% 63.8%	31.8% 54.5%	26.2% 69.2%
Neither agree nor disagree	10.7%	15.4%	9.3%	10.0%	11.8%	18.2%	9.2%
Somewhat agree	15.7% 27.6%	26.9% 46.2%	4.7% 30.2%	12.0% 26.0%	16.3% 24.4%	18.2% 27.3%	7.7% 21.5%
Strongly agree	11.9%	19.2%	25.6%	14.0%	8.1%	9.1%	13.8%

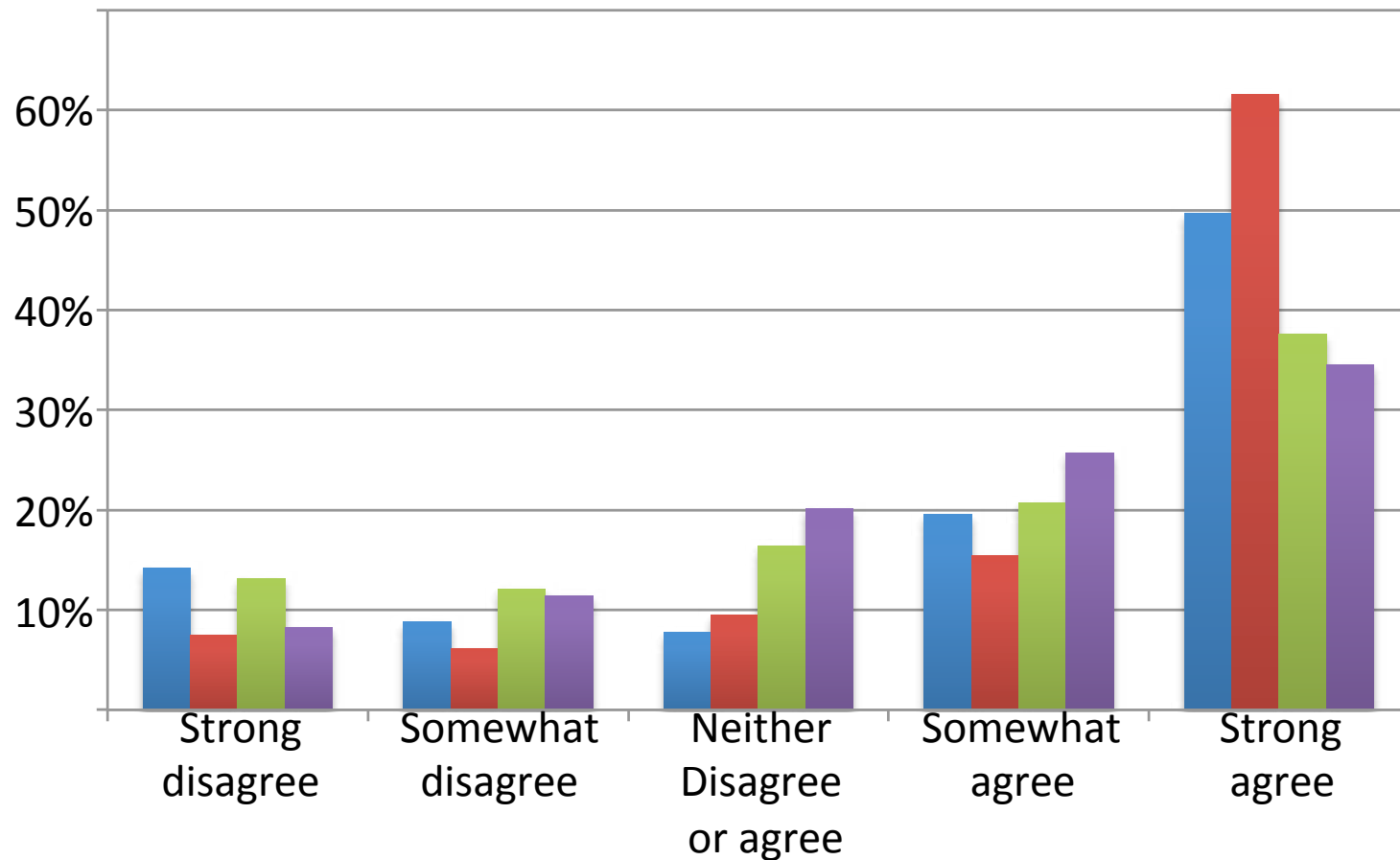
Are any of the following a concern for you?

	All Faculty	Teaching in classroom	Increase?
Getting exposed to COVID-19 while on-campus	72.10%	85.30%	13.20%
Potentially infecting others with COVID-19	41.40%	48.10%	6.70%
Getting exposed to COVID-19 during commute	12.10%	13.30%	1.20%
None of the above	9.40%	11.70%	2.30%
Something else (please specify)	4.50%	5.60%	1.10%

Which of these is important to you for returning safely to campus?

	All Faculty	Teaching in classroom	Increase?
Required face masks	75.90%	87.40%	11.50%
Sanitation supplies available in buildings (hand sanitizers, wipes)	71.20%	83.40%	12.20%
Timely and effective communication	68.80%	82.90%	14.10%
Daily cleaning of classrooms	67.90%	79.00%	11.10%
Reduced class sizes with 6-foot social distancing	65.80%	79.00%	13.20%
UV-C disinfecting mechanism in the ventilation system	64.80%	77.80%	13.00%
Contact tracing	60.90%	69.40%	8.50%
Weekly disinfecting of all buildings	59.40%	67.80%	8.40%
Dashboard updating cases on-campus	51.50%	60.70%	9.20%
Quarantine facilities for students in residence halls	51.10%	59.30%	8.20%
Employer provided masks or face shields	51.00%	59.30%	8.30%
COVID-19 testing of everyone on-campus	48.00%	56.50%	8.50%
Temperature checks before entering buildings	40.90%	48.60%	7.70%
Plexiglass barriers between faculty and students	35.60%	43.00%	7.40%
Required clear face shields	22.20%	29.00%	6.80%
Something else (specify)	12.70%	13.80%	1.10%

Workplace choice questions



■ I have been given a choice about my work location for the Fall (remote versus F2F)

■ My preferences about work location are being respected by my area/department

■ I have been given a choice about which classes I will teach in the fall

■ I can achieve a balance between work and personal life under The Plan

Workplace choice questions

I have been given a choice about my work location for the Fall (remote versus F2F)

	Total	Are you teaching in fall?	
		Yes	No
Strongly disagree	14.30%	20.80%	9.10%
Somewhat disagree	8.80% 23.1%	11.50% 32.3%	6.70% 15.8%
Neither agree nor disagree	7.70%	6.50%	8.70%
Somewhat agree	19.50% 69.2%	20.60% 61.2%	18.60% 75.4%
Strongly agree	49.70%	40.60%	56.80%

Workplace choice questions

I have been given a choice about my work location for the Fall (remote versus F2F)

	Total	Are you teaching in fall?	
		Yes	No
Strongly disagree	14.30%	20.80%	9.10%
Somewhat disagree	8.80% 23.1%	11.50% 32.3%	6.70% 15.8%
Neither agree nor disagree	7.70%	6.50%	8.70%
Somewhat agree	19.50% 69.2%	20.60% 61.2%	18.60% 75.4%
Strongly agree	49.70%	40.60%	56.80%

My preferences about work location are being respected by my area/department

	Total	Are you teaching in fall?	
		Yes	No
Strongly disagree	7.40%	12.10%	4.00%
Somewhat disagree	6.10% 13.5%	10.60% 22.7%	2.90% 6.9%
Neither agree nor disagree	9.50%	10.60%	8.80%
Somewhat agree	15.40% 76.8%	17.50% 66.7%	13.90% 84.4%
Strongly agree	61.40%	49.20%	70.50%

Sense of the Senate

Faculty Choice of Teaching Modality During the COVID-19 Pandemic

Whereas, the UCF Return to Campus Plan relies on several assumptions regarding the ability of UCF and the surrounding community to withstand and adapt to cases of COVID-19 through effective contact tracing, mitigation strategies to stop viral spreading on campus, local hospital capacity, adequate testing to identify and quarantine affected individuals, and low levels of community spread of COVID-19; and

Whereas, a recent study (Paltiel et al 2020) shows that the effective testing regimen to prevent the spread of COVID-19 across a residential university is for weekly or more frequent testing of all residential students with quick test turnaround times; and

Whereas, the current COVID-19 testing capacity and turnaround times for UCF test results will not meet the challenges of the forthcoming surge in campus population that will occur in the Fall semester; and

Whereas, the state of Florida and the Central Florida region have an elevated level of COVID-19 community spread that is amongst the highest in the nation; and

Whereas, the recent UCF Faculty Senate Return to Campus Plan Survey shows that over 60% of campus faculty are uncomfortable to return to campus in the fall semester, that 32% of faculty who will be teaching in the fall were not provided a choice between teaching remotely or teaching face to face, and that 22% of faculty will not be teaching at their preferred location; and

Whereas, the UCF mission to provide Education, Research, and Service to the community is severely diminished if the faculty are struggling to survive the active spread of COVID-19 on campus; and

Whereas, universities, colleges, and K-12 schools throughout the country, following the same guidance as UCF and located in regions with much less community spread, are nonetheless choosing to run online-only in Fall 2020; and

Whereas, some students and a minority of faculty are prepared to face the risks of COVID-19 to learn and teach face-to-face in Fall 2020; therefore

Be it resolved that, as an alternative to moving UCF to all-online instruction, as indicated by science, all faculty shall be given the option to teach remotely, with no adverse consequences based on that choice, to ensure that only those willing to accept the risks of face to face teaching will be forced to do so.

Protect UCF Pledge

As Knights, we all have essential roles to take on campus so that our UCF community can stay healthy during the COVID-19 pandemic. I pledge to take responsibility to protect my own health, to protect others, and to help protect the UCF community from the spread of COVID-19.

1. PROTECT MYSELF

I will monitor myself to determine if I am developing symptoms of COVID-19 by using the UCF COVID-19 self checker app ([insert link](#)). I will contact a medical professional if I show symptoms such as a fever of 100.4 F (38 C) or higher, or other known symptoms of COVID-19 listed by the CDC ([insert website](#)).

I will be vigilant about washing my hands often with soap and water and use hand sanitizer when available.

I will continuously monitor my health, promote self-care, and, if possible, get vaccinated for the flu.

2. PROTECT OTHERS

I will follow UCF guidelines for social distancing and wearing face coverings.

I will stay home to prevent the possible spread of the virus if I feel ill or if I have been exposed to another person who has tested positive for COVID-19.

I will do my best to support others in this difficult time we are all experiencing.

3. PROTECT OUR UCF COMMUNITY

I will follow all health and safety guidelines given by UCF to help limit the spread of COVID-19.

I will take part in any COVID-19 testing and/or contact tracing that I am asked to do.

I will encourage my peers to adhere to the UCF guidelines for their safety and the safety of others.

I will be responsible for maintaining a clean environment in all personal and common spaces I utilize.

Inspired by the "Protect Purdue Pledge"

Sense of the Senate
Faculty Choice of Teaching Modality During the COVID-19 Pandemic

Whereas, the UCF Return to Campus Plan relies on several assumptions regarding the ability of UCF and the surrounding community to withstand and adapt to cases of COVID-19 through effective contact tracing, mitigation strategies to stop viral spreading on campus, local hospital capacity, adequate testing to identify and quarantine affected individuals, and low levels of community spread of COVID-19; and

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Be it resolved that, as an alternative to moving UCF to all-online instruction, all faculty shall be given the option to teach remotely, with no adverse consequences based on that choice, to ensure that only those willing to accept the risks of face to face teaching will be required to do so.

All information that could reasonably be used to identify individuals has been removed in this amended version.

Specifically, the following data was removed:

1. all text and open ended remarks
2. The entire data set from faculty in units or entities with under 15 faculty reporting responses.

Steve King