

I express my gratitude to Chairman Alexander, Ranking Member Murray, and members of the Senate HELP Committee for the invitation. On behalf of Purdue University, I thank you for your interest in supporting the ongoing preparations to protect students and employees in the coming fall.

We have learned much in the past few months.

On Feb. 1, watching the outbreak of a new virus in China, our university suspended travel to that country. On Feb. 26, we extended that ban to visiting other countries reporting the infection. On March 10, we decided to close the Purdue University campus for the spring semester and move to remote instruction. On March 17, we canceled our traditional commencement.

At the point when the campus was shut down, if we had needed to decide on our plans for the fall, we would have felt compelled to resume with remote instruction and keep the campus closed. For all we knew, covid-19 posed a danger across all lines of age and health status, and a place as densely populated as our campus would be defenseless against it — operations couldn't be responsibly restarted.

We have all learned a lot since then. What would have been a reckless and scientifically unjustified decision in late March is now plainly the best option from both a scientific and a stewardship standpoint, at least for our particular institution. We're not alone: Two-thirds of the more than 800 colleges surveyed by the Chronicle of Higher Education have now come to the same conclusion and will reopen with in-person instruction in the fall.¹

The most salient discovery the world has made during these terrible two months is that covid-19 is a very dangerous disease, specifically for the elderly and the infirm, particularly those with diabetes, hypertension, other cardiovascular illnesses or the obesity that so frequently leads to these disorders.

The companion discovery is that this bug, so risky in one segment of the population, poses a near-zero risk to young people.² Among covid-19 deaths, 99.9 percent have occurred outside the 15-to-24 age group³; the survival rate in the 20-to-29 age bracket is 99.99 percent.⁴ Even assuming the United States eventually reaches 150,000 total fatalities, covid-19 as a risk to the young will rank way below accidents, cancer, heart disease and suicide. In fact, it won't even make the top 10.⁵

¹ <https://www.chronicle.com/article/Here-s-a-List-of-Colleges-/248626>

² (2020). Estimates of the severity of coronavirus disease 2019: a model-based analysis. *The Lancet Infectious Diseases*. doi.org/10.1016/s1473-3099(20)30243-7

³ Data.CDC.gov

⁴ (2020). Estimating the burden of SARS-CoV-2 in France. *Science*. DOI: 10.1126/science.abc3517

⁵ (2020). Estimating the Risk of Death from COVID-19 vs. Influenza or Pneumonia by Age. Roy, Avik.

<https://freopp.org/estimating-the-risk-of-death-from-covid-19-vs-influenza-or-pneumonia-by-age-630aea3ae5a9>

This is fundamental information for institutions with radically skewed demographic compositions. If you're running a nursing home, it means one thing. New York unintentionally ended hundreds of lives prematurely by ordering covid-19 patients into such homes, the worst possible places for them.⁶

But if you're running a university, the science is telling you something diametrically different. Our campus, including its surrounding community, has a median age of 20.5. More than 80 percent of the total campus population is 35 and under. We may have the population density of New York City, but we have the age distribution of Uganda. The challenge for Purdue is to devise maximum protection for the unusually small minority who could be at genuinely serious risk in order to serve the young people who are our reason for existing at all.

Here's something else we've learned. Our students (and, one suspects, their trapped-at-home parents) overwhelmingly are eager to continue their educations, in person and on campus. We know it is not the case everywhere, but at Purdue, tuition deposits by incoming freshmen have shattered last year's record by double digits and re-enrollments of upper-class students are at normal levels.

Forty-five thousand young people — the biggest student population we've ever had — are telling us they want to be here this fall. To tell them, "Sorry, we are too incompetent or too fearful to figure out how to protect your elders, so you have to disrupt your education," would be a gross disservice to them and a default of our responsibility.

Instead, we have spent every waking minute of the past eight weeks planning changes to almost everything we do — how we house and feed students and preserve the value of the tutelage and mentoring by faculty and advisers, while maintaining a safe physical distance between the two groups. A panel of scientists and clinicians is guiding our choices.

We will make our campus less dense in multiple ways. At least one-third of our staff will be required to work remotely. Our technologists have applied what they've learned about social distancing to redesign 700 classrooms and labs, and 9,500 dormitory rooms, all of which will be reconfigured with lower occupancy limits. All large-enrollment courses will be offered online as well as in person, to accommodate those who cannot or choose not to come to campus, and to further reduce in-class numbers.

We will test systematically and trace contacts of anyone testing positive for the coronavirus. Large numbers of symptomatic Boilermakers will also be tested. Among the options we are considering include random testing, tests for those with potential exposure, and tests for those living in potential "hot" spots as determined by contact tracing.

We will forgo the concerts, convocations and social occasions that ordinarily enliven campus life. It will be a quieter fall without fraternity parties, but first things first.

⁶ 2020. AP count: Over 4,500 virus patients sent to NY nursing homes. ABC News. abcnews.go.com/Health/wireStory/ap-count-4300-virus-patients-ny-nursing-homes-70825470

Perhaps most important will be the cultural change on which we have to insist because, in another lesson of the coronavirus spring, nothing makes a more positive difference than personal behavior and responsibility. Wearing masks indoors and in any close-quarters space reduces viral transmission dramatically all by itself. Combined with rigorous hygiene and prudent social distancing, facial protection can probably provide more protection than all the extra disinfecting, plexiglass-barrier installation, HVAC improvements and other measures we take.

On arrival in August, each Boilermaker will receive a kit including face masks and a thermometer for daily temperature-taking as well as the Protect Purdue Pledge asking for a commitment to at least a semester of inconvenience, not primarily for the student's own protection but for the safety of those who teach and otherwise serve them. I will urge students to demonstrate their altruism by complying, but also challenge them to refute the cynics who say that today's young people are too selfish or self-indulgent to help us make this work.

A final thought: We recognize that not every school can or should view the decision to reopen as we do. Unlike Purdue, many colleges were already struggling with low enrollment and precarious finances when the pandemic hit. But given what we have learned, with 45,000 students waiting and the financial wherewithal to do what's necessary, failure to take on the job of reopening would be not only anti-scientific but also an unacceptable breach of duty.

I thank the committee for this invitation and any guidance you may offer us in enabling 45,000 purposeful young people to continue their education without interruption.