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DOES ONLINE EDUCATION LIVE UP TO ITS PROMISE? A LOOK AT THE EVIDENCE

Statement of

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before the

Senate Higher Education Committee

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* The views expressed are my own and should not be attributed to the Urban Institute, its trustees, or its funders.

This testimony is based largely on two of my 2019 papers: "Does Online Education Live Up to Its Promise? A Look at the Evidence and Implications for Federal Policy" written with Spiros Protopsaltis and funded by Arnold Ventures; and "The Human Factor: The Promise & Limits of Online Education," written with Michael McPherson and published in the fall issue of *Daedalus: Journal of the American Academy of Arts and Sciences*.

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Biography

Sandy Baum is a senior fellow in the Center on Education Data and Policy at the Urban Institute and professor emerita of economics at Skidmore College. An expert on higher education finance, she speaks and writes extensively about college access, college pricing, student aid policy, student debt, and college affordability. Dr. Baum earned her BA in sociology at Bryn Mawr College, where she is currently a member of the board of trustees, and her PhD in economics at Columbia University. She has coauthored the College Board's annual publications *Trends in Student Aid* and *Trends in College Pricing* since 2002. Through the College Board and the Brookings Institution, she has chaired major study groups that released proposals for reforming federal and state student aid. She has published numerous articles on higher education finance in professional journals, books, and the trade press. She is the principal researcher on the Urban Institute's website on college affordability, and her recent work includes Urban Institute briefs on Federal Work Study, Parent PLUS loans, and college endowments. She is the author of *Student Debt: Rhetoric and Realities of Higher Education Financing* (Palgrave Macmillan, 2016) and coauthor with Harry Holzer of *Making College Work: Pathways to Success for Disadvantaged Students* (Brookings Institution Press, 2017). Dr. Baum publishes frequent blog posts on *Urban Wire* at https://www.urban.org/urban-wire/author/sandy-baum.

Senator Cunningham and members of the Higher Education Committee, thank you for the opportunity to talk with you about the promise and pitfalls of online postsecondary education. I am pleased to know that the state is thinking carefully about the most effectives ways to use technology to increase educational opportunities and success, particularly for low-income and underrepresented students. My research strongly suggests that while online learning holds great promise, innovating without a focus on personal interaction between students and instructors, as well as among students, risks putting vulnerable students even farther behind in their quest for social and economic mobility. Fully online coursework frequently increases the gaps in educational outcomes across socioeconomic groups. I urge state policymakers to use caution as they work to provide access to new creative and cost-effective postsecondary approaches.

Predictions that technology will revolutionize postsecondary education have generated extreme optimism about the promise of online coursework for solving the problems of rising college prices, as well as unequal access and student outcomes. For the past couple of decades, the hope has been that students whose geographical constraints, financial limitations, and work and family obligations make it difficult for them to participate in brick-and-mortar classrooms will be able to enroll online and earn high-quality, inexpensive degrees.

Today, almost one-third of college students in the United States take courses online, with no in-person component. Half these students are enrolled in exclusively online programs, while the remaining take at least one, but not all, courses online. This form of delivery is particularly prevalent in the for-profit sector: for-profit colleges enroll just 6 percent of all students but 13 percent of students taking courses online and 24 percent of fully online students.

However, more than a decade after Congress allowed online colleges full access to federal student aid programs, and despite a subsequent explosion in their enrollment, a growing and powerful body of evidence suggests that online learning is far from the hoped-for silver bullet. Online education has failed to reduce costs and improve outcomes for students. Faculty, academic leaders, the public, and employers continue to perceive online degrees less favorably than traditional degrees.

In a range of environments, the gaps in student success across socioeconomic groups are larger in online than in classroom courses. Students without strong academic backgrounds are less likely to persist in fully online courses than in courses that involve personal contact with faculty and other students; and, when they do persist, they have weaker outcomes. Not surprisingly, students with more extensive exposure to technology and with strong time management and self-directed learning skills are more likely than others to adapt to online learning, where students can do the work on their own schedules. There is considerable danger that moving vulnerable students online will widen attainment gaps rather than solving the seemingly intractable problem of unequal educational opportunity.

Technology can add to the learning experience when it supplements, rather than replaces, face-to-face interaction. The outcomes of hybrid models employing this approach do not mirror the problems that emerge in fully online courses. But high-quality courses are expensive to produce and maintain. It is inexpensive to post lectures on a website for large numbers of students to access, but online courses with meaningful interaction among students and between students and faculty are not money savers.

A key theme emerging from the literature is the critical importance of student-faculty interaction in online settings. Researchers, as well as both proponents and skeptics of online education, emphasize the need to design online courses that facilitate robust interactions as an essential component for improving the quality of learning and student outcomes and satisfaction. Lack of sufficient interaction between students and faculty is likely online education's Achilles' heel. Both evidence about the cognitive components of learning and research on differences in outcomes in different types of courses confirm the central role of meaningful personal interaction between the subject-matter expert (that is, the instructor) and the student.

As efforts to further expand online opportunities proceed, it is critical to design more interactive educational experiences that integrate regular, direct, and meaningful contact and communication through real-time class sessions and other synchronous interactions with peers and instructors. It is reasonable to believe that many problems with online learning—particularly for at-risk students—would be mitigated if these courses and programs consistently incorporated the frequent, substantive personal interaction that is central to the learning process.

In 2006, following several years of intense lobbying by online providers and the for-profit sector, Congress provided online programs with unrestricted access to federal student aid but required them "to support regular and substantive interaction between the students and the instructor, synchronously or asynchronously." This distinction was meant to clearly distinguish online programs from self-paced correspondence programs, which rely on self-learning, do not provide such interaction, have limited access to federal student aid, and have a long history of fraud and abuse.

The evidence about outcomes of purely online coursework demonstrates the following:

- Online education is the fastest-growing segment of higher education, and its growth is overrepresented in the for-profit sector.
- A wide range of audiences and stakeholders—including faculty and academic leaders, employers, and the public—are skeptical about the quality and value of online education, which they view as inferior to face-to-face education.
- Students in online education, and in particular underprepared and disadvantaged students, underperform and, on average, experience poor outcomes. Gaps in educational attainment across socioeconomic groups are even larger in online programs than in traditional coursework.
- Online education has failed to improve affordability, frequently costs more, and does not produce a positive return on investment.
- Regular and substantive student-instructor interactivity is a key determinant of quality in online education; it leads to improved student satisfaction, learning, and outcomes.
- Online students desire greater student-instructor interaction; the online education community is also calling for a stronger focus on such interactivity to address a widely recognized shortcoming of current online offerings.

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For some students the choice may be between online coursework or no coursework at all. Even if success rates are relatively low in online courses, the availability of these courses may allow students to enroll in more courses, leading to the accumulation of more credits. Even low pass rates might increase graduation rates. But the greatest risk is that the rush to transform higher education will widen the gulf between the college education available to those who arrive at the door with ample resources and strong academic preparation and those who depend on postsecondary education to create a path to opportunity.

Creating access to programs is a step forward, but only if those programs provide meaningful educational opportunities to students with minimal levels of academic preparation who need to develop their self-discipline, time management, and learning skills—not just provide access to a specific body of information. As we seek to reverse the poor record of online education and ensure that it not only serves more students, but serves them well, it is critical to promote regular and meaningful student-instructor interaction. Otherwise, we risk blurring the line between education and self-learning and further opening the floodgates for unscrupulous online colleges to prey on vulnerable students and exploit student aid programs.

Predictions of a revolution clearly exaggerated the near-term prospects for change. But that does not mean we should give up on technology's potential to enhance college learning opportunities. It does mean we should be cautious about proponents of innovation who over-promise, and we should create and maintain a regulatory environment that supports the use of technology to supplement and strengthen the intrinsically interactive nature of teaching and learning.