

Online Proctoring

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In Search of an Ethical Balance
Between Integrity and Privacy

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Timothy Rezendes - DTSC690 - April 2022

Online Protoring

Many Forms, Many Companies

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- Lockdown browsers

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- Automated webcam monitoring

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proctorio

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proctorio

MEASURE LEARNING
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Assessment Tools for Learning Systems



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examity®
BETTER TEST INTEGRITY.

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Distance Learning is not New

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The world's first all-remote university, Open University in the UK enrolled its first students in 1971 and taught via various media including books, audio and video tape, television and radio programs, and computer software.

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Academic Integrity vs. Student Privacy

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- Online proctoring software collects personal data on students and may require access to computer functions that allow it to monitor students' physical surroundings and their computer activity (Kelley & Oliver, 2020).
- Online proctoring exacerbates students' anxiety leading to reduced exam performance (Woldeab & Brothen, 2019).

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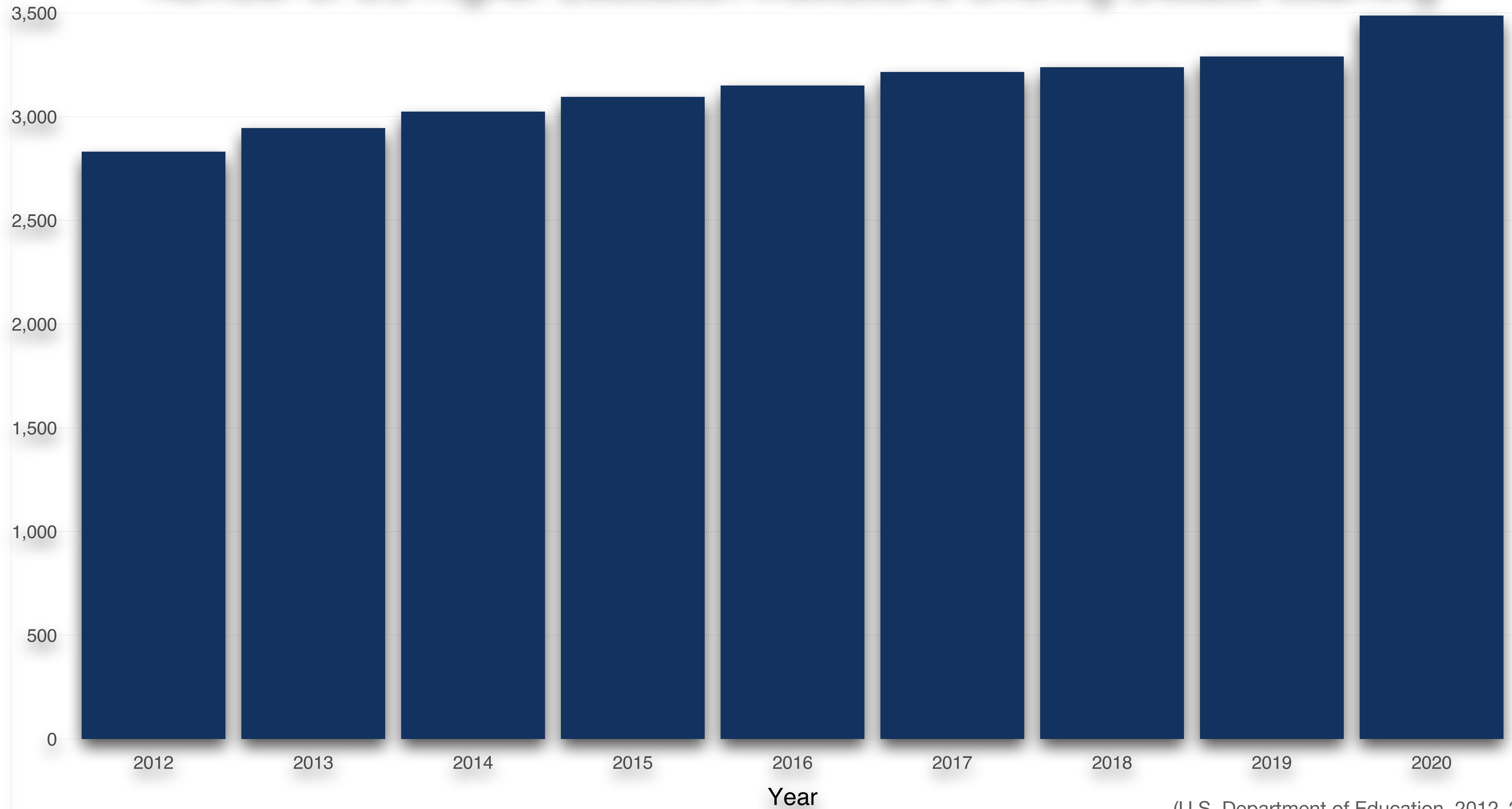
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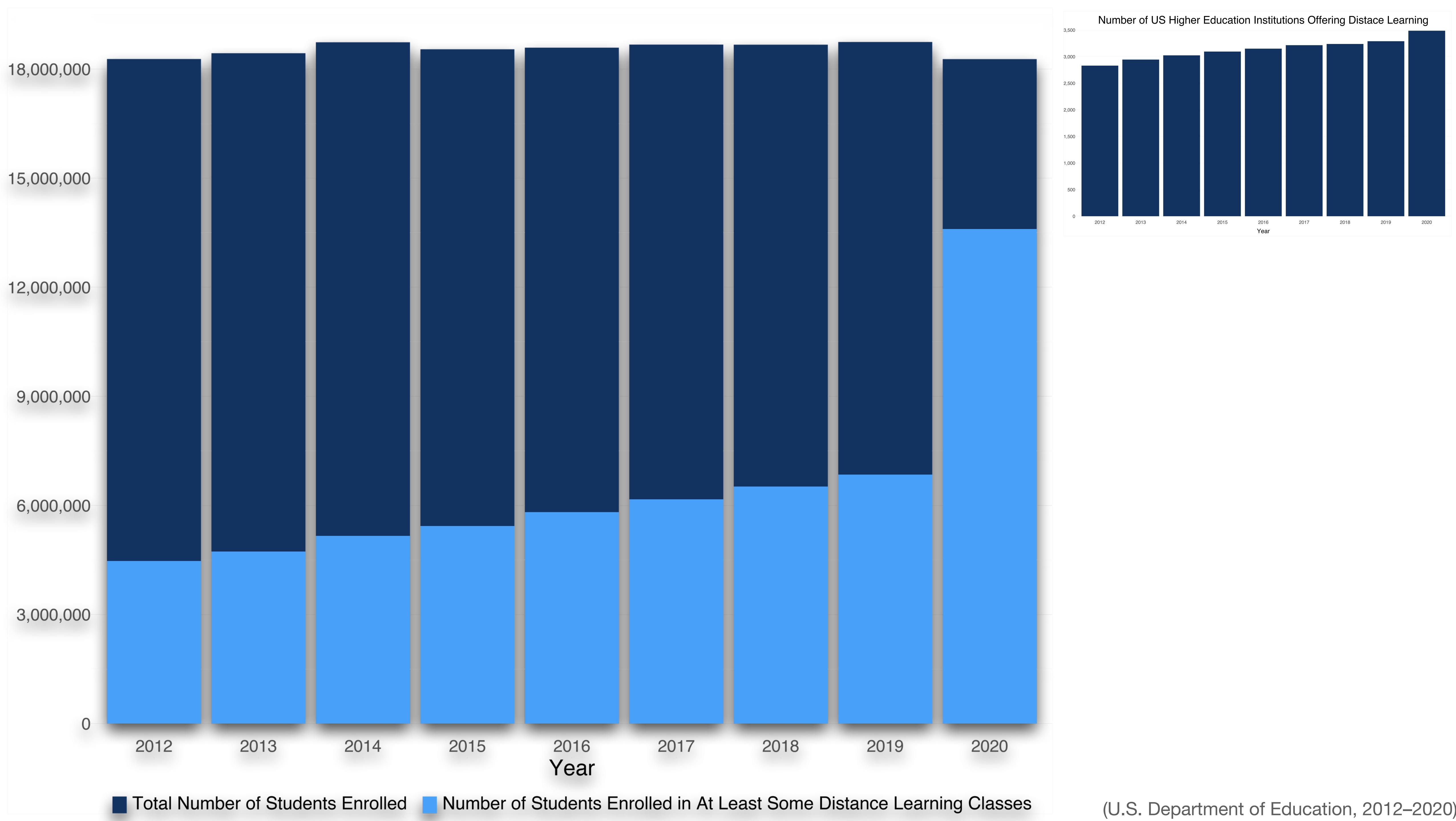
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- Online learning expanded in the 1990s and 2000s.

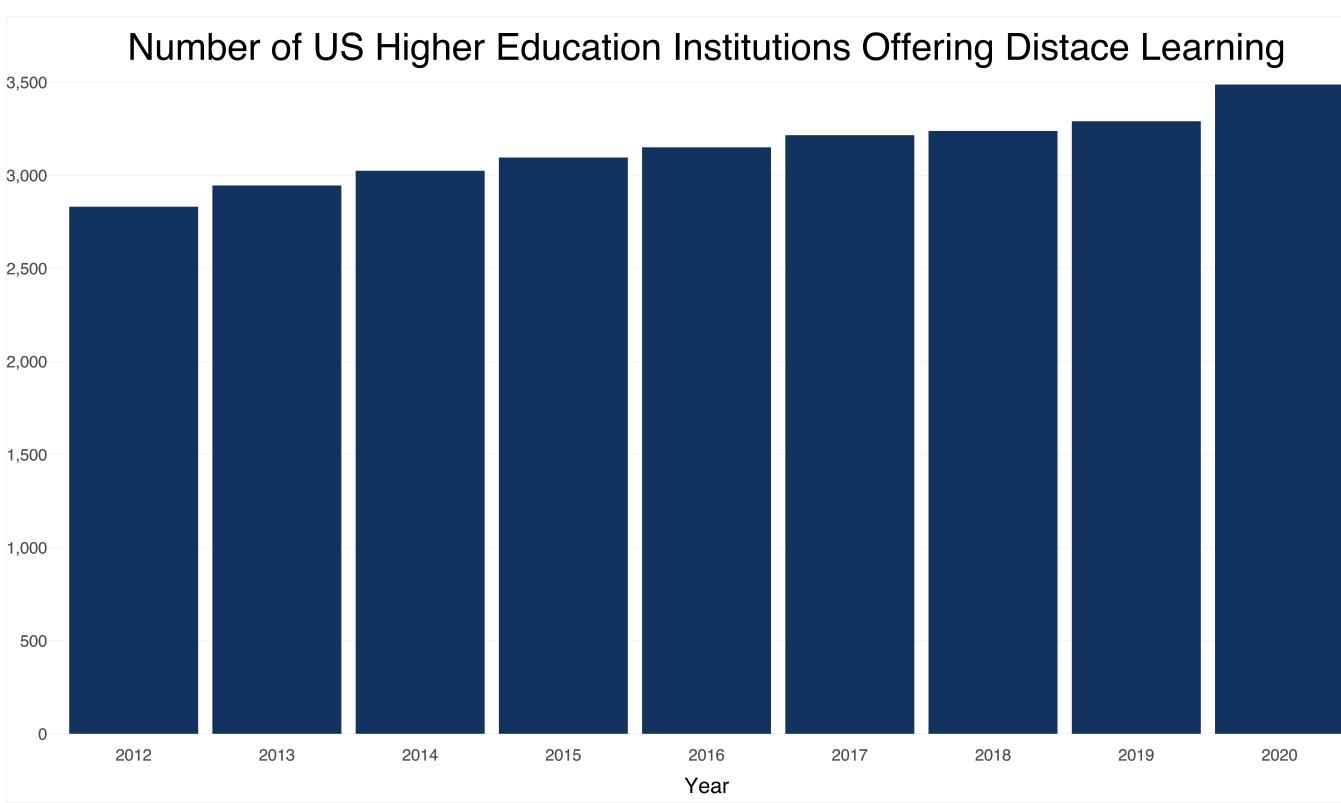
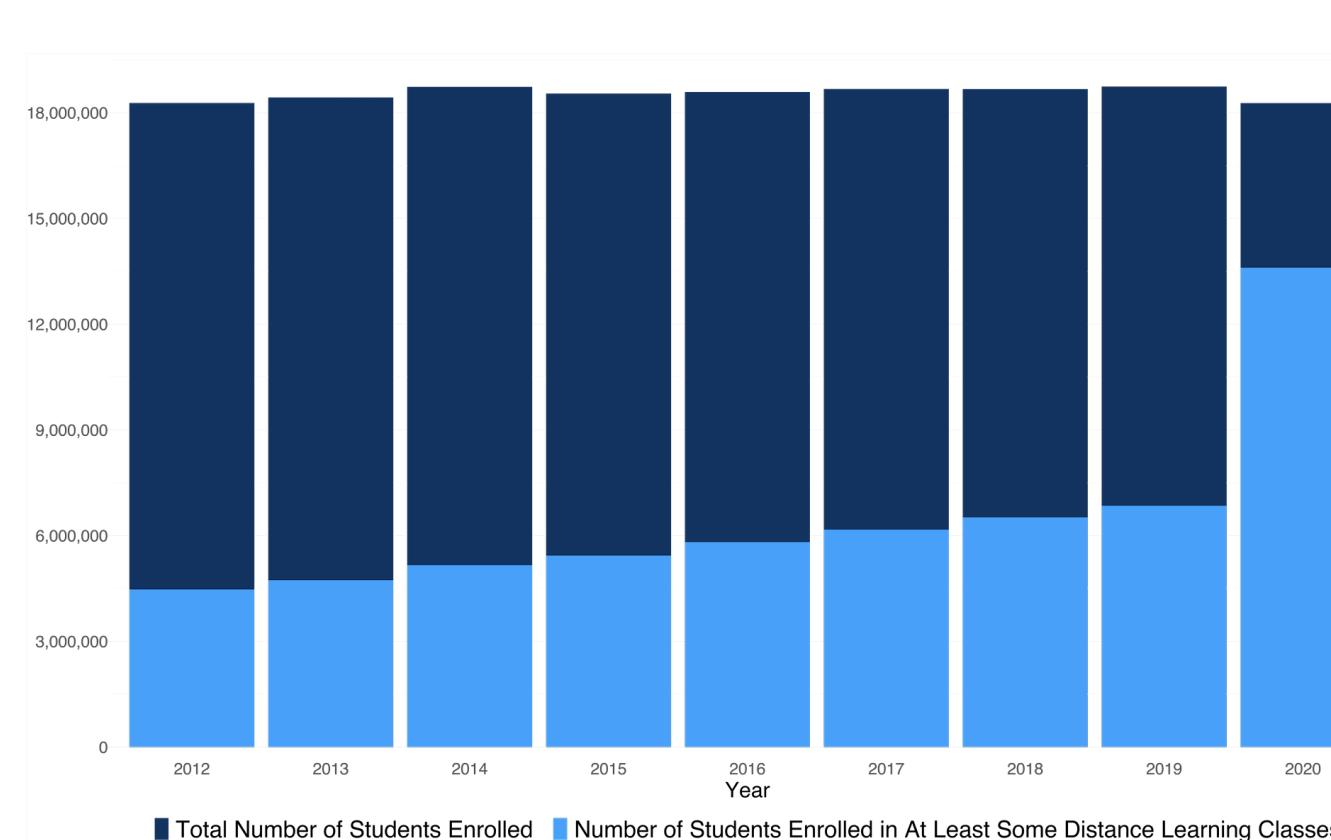
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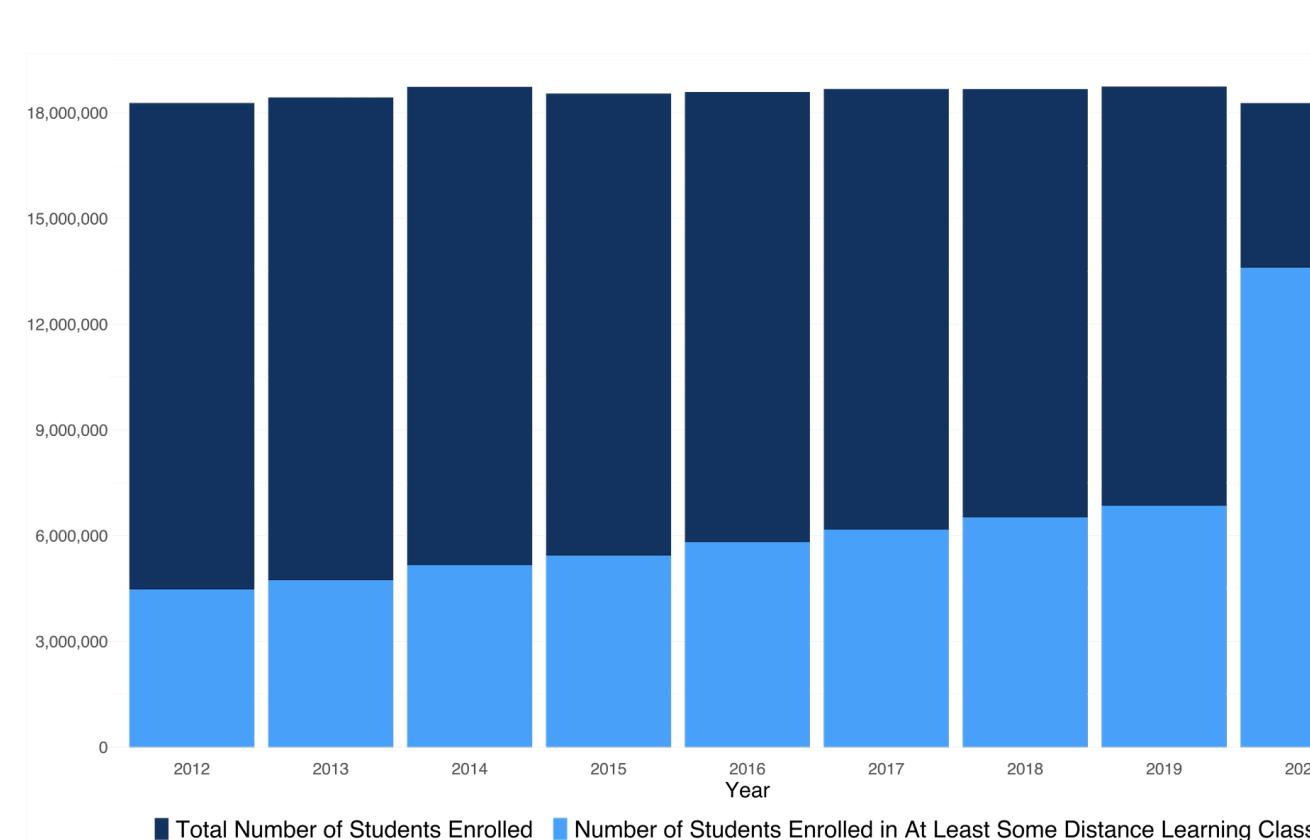
- Although distance learning has been around for centuries, online learning is less than 40 years old.
- The first online courses were offered in the late 1980s.
- Online learning expanded in the 1990s and 2000s.
- The 2010s saw steady growth in both the number of courses offered online and the number of students enrolled in them.

Number of US Higher Education Institutions Offering Distance Learning

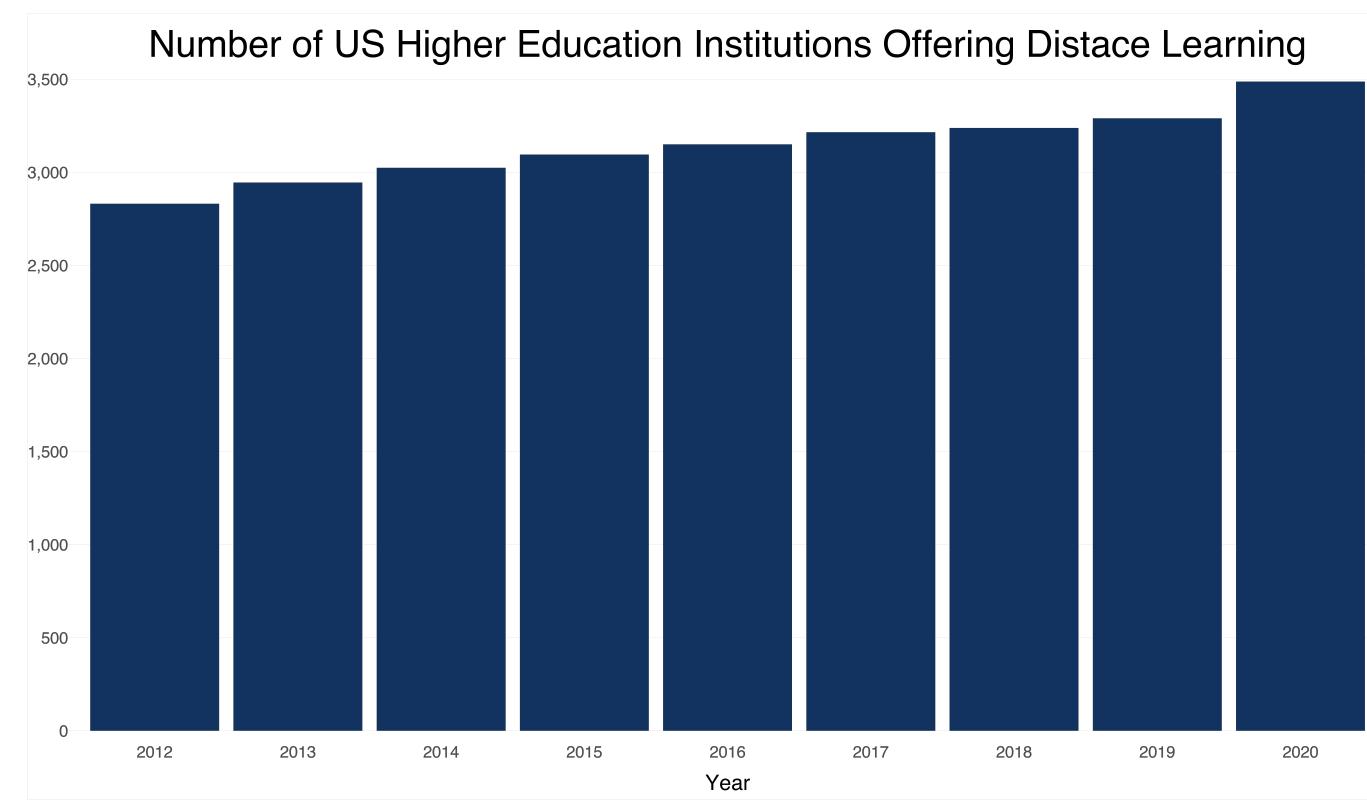


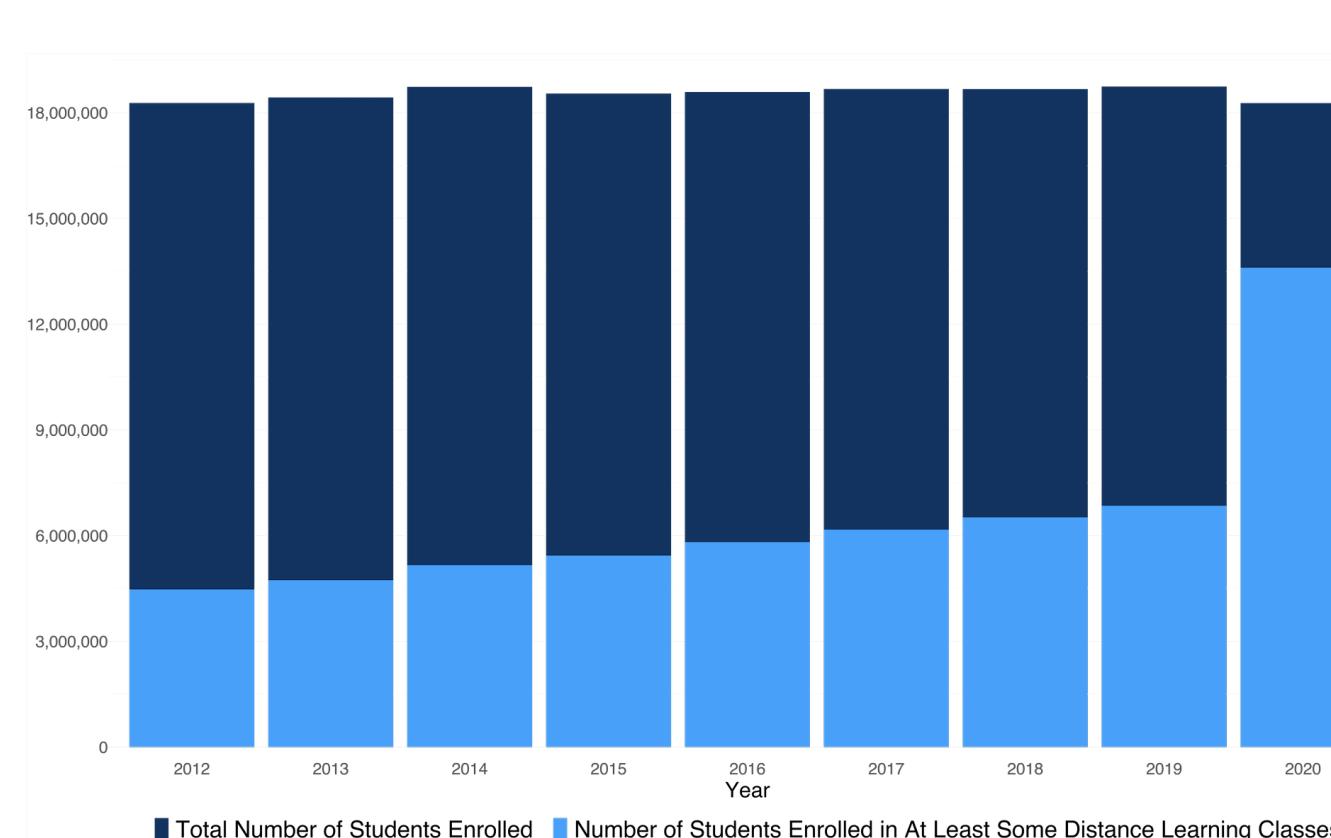




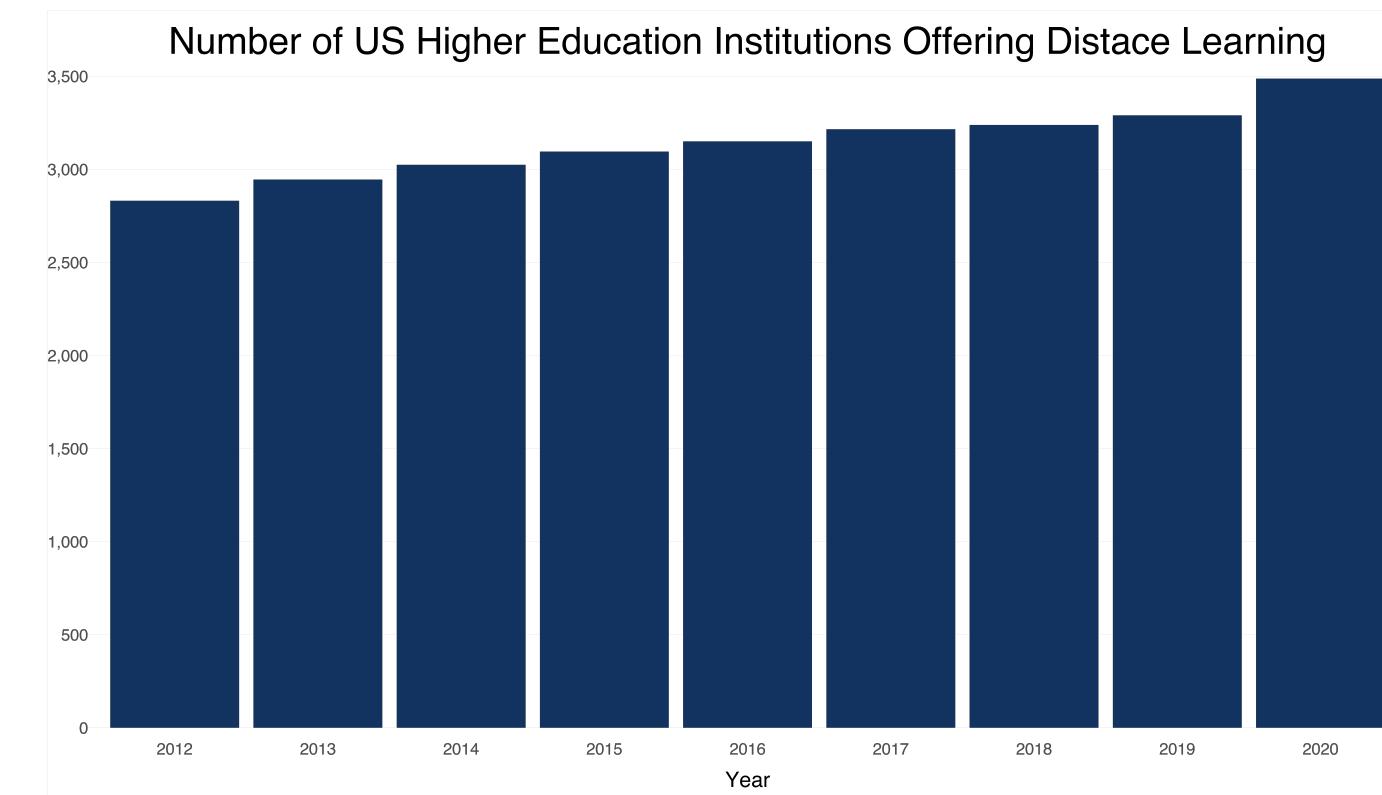


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ExamSoft • 1998

Respondus • 2000

ProctorU • 2008

Examity • 2013

Proctorio • 2013

Proctortrack • 2013

Honorlock • 2015

Why Proctor?

Academic Integrity

As Defined by the International Center for Academic Integrity
(ICAI, 2021)

“Understanding the fundamental values of academic integrity that are held within a community—and behaving in accordance with them—instills a shared framework for professional work, making explicit the value of the mastery of knowledge, skills, and abilities” (Holden et al., 2021).

Honesty

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Honesty

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Respect

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Responsibility

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Courage

Respect

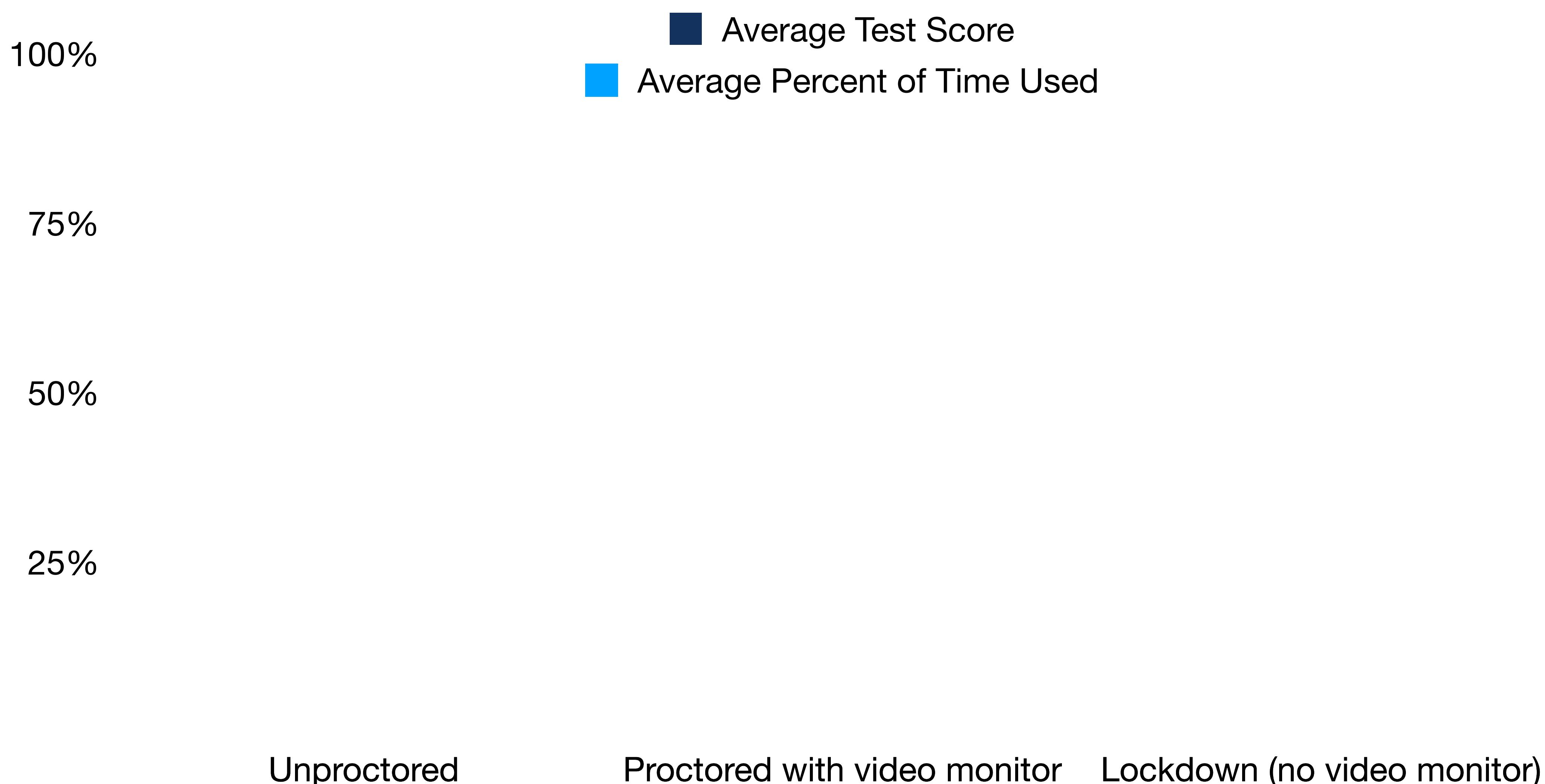
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The Evidence for Proctoring

There is evidence to show that online proctoring of remote exams reduces academic dishonesty.

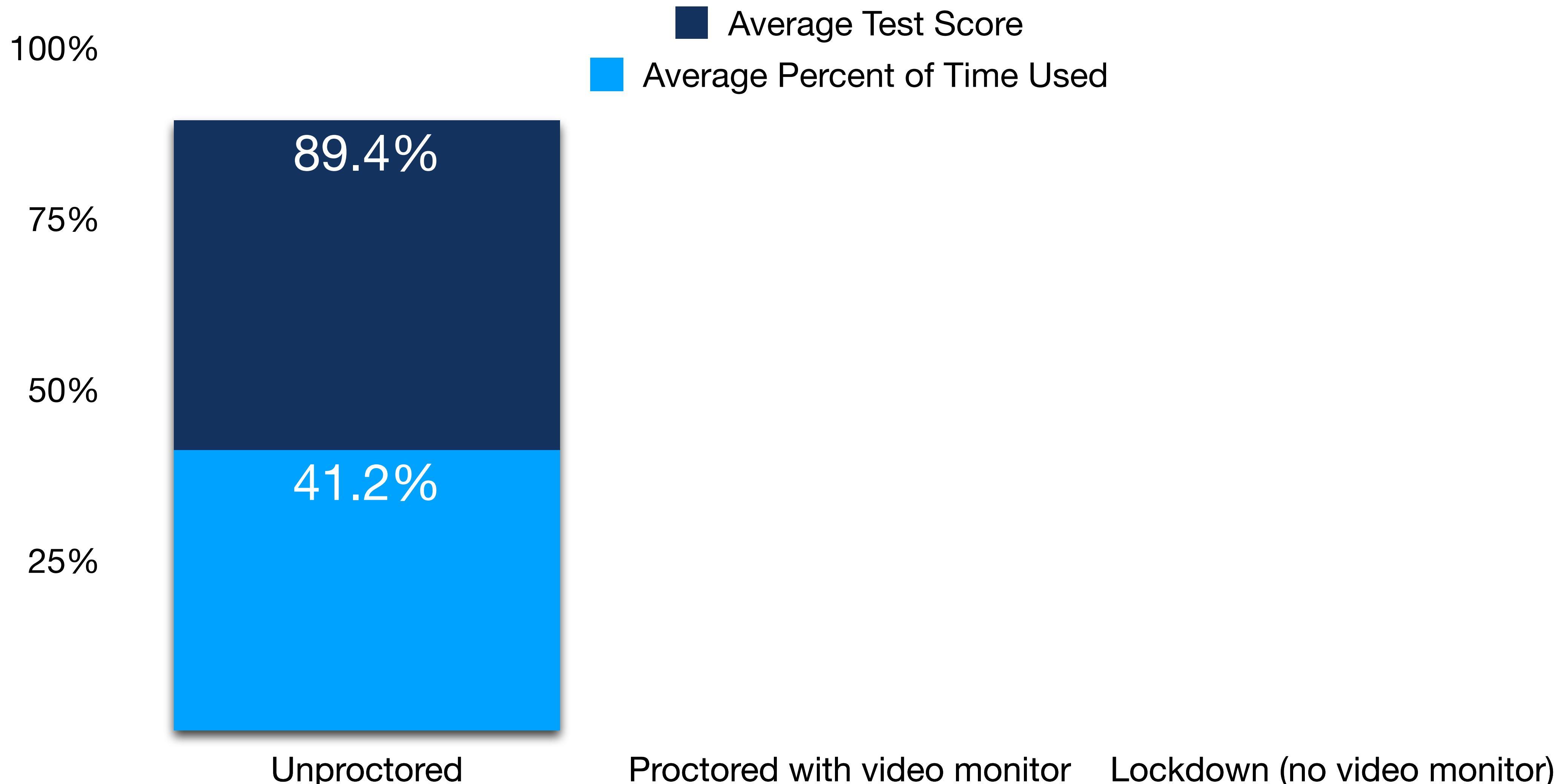
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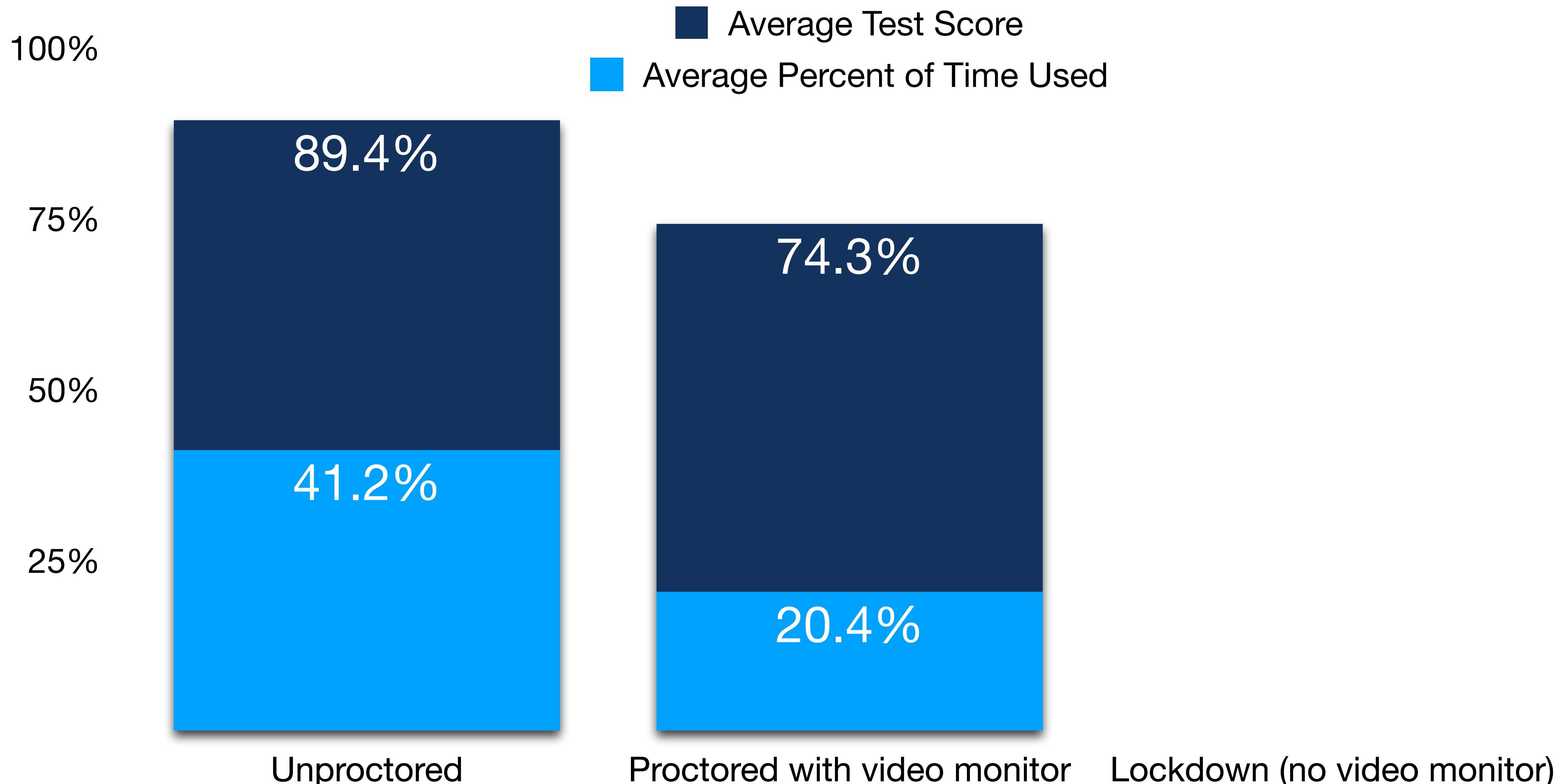
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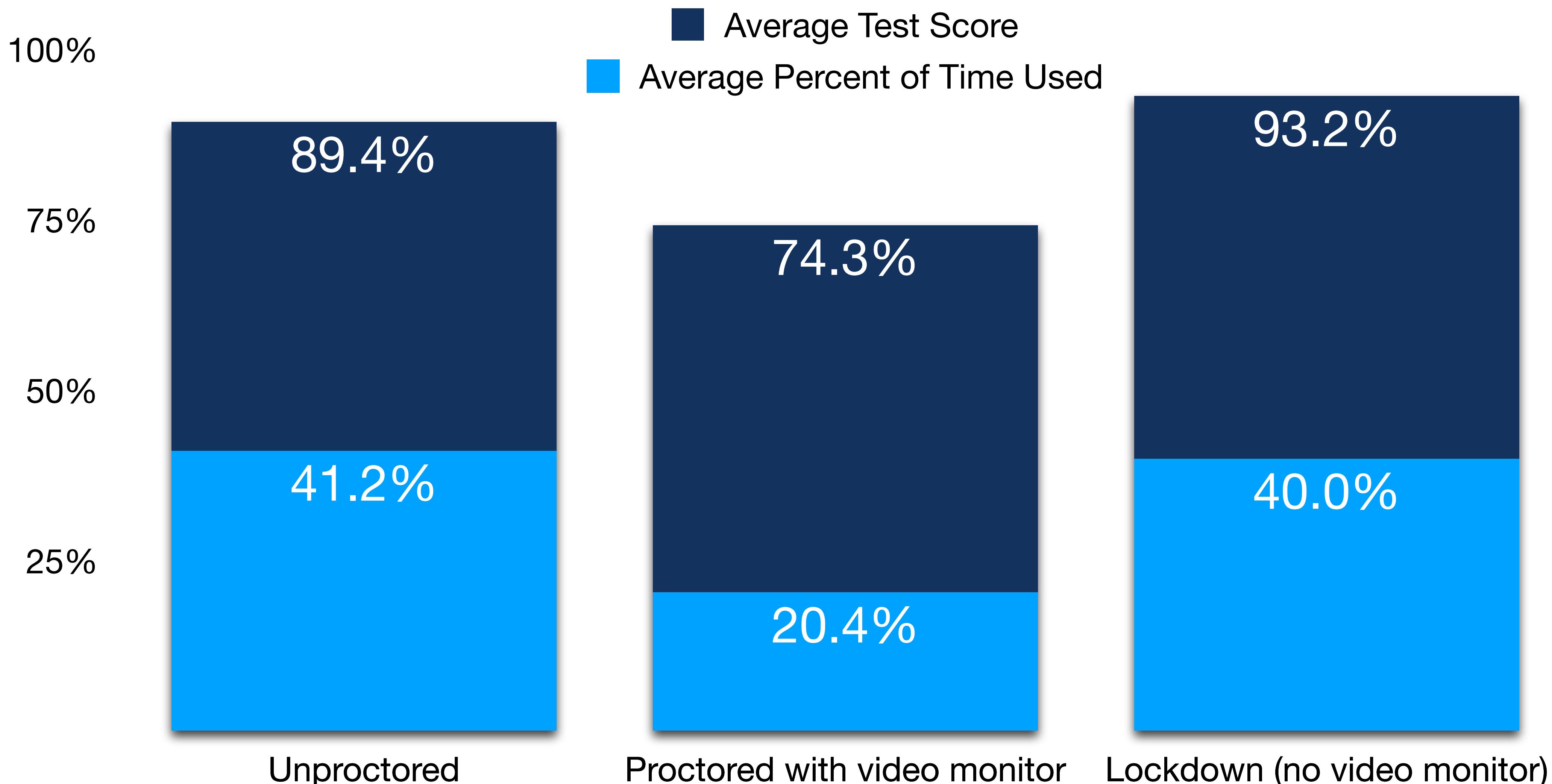
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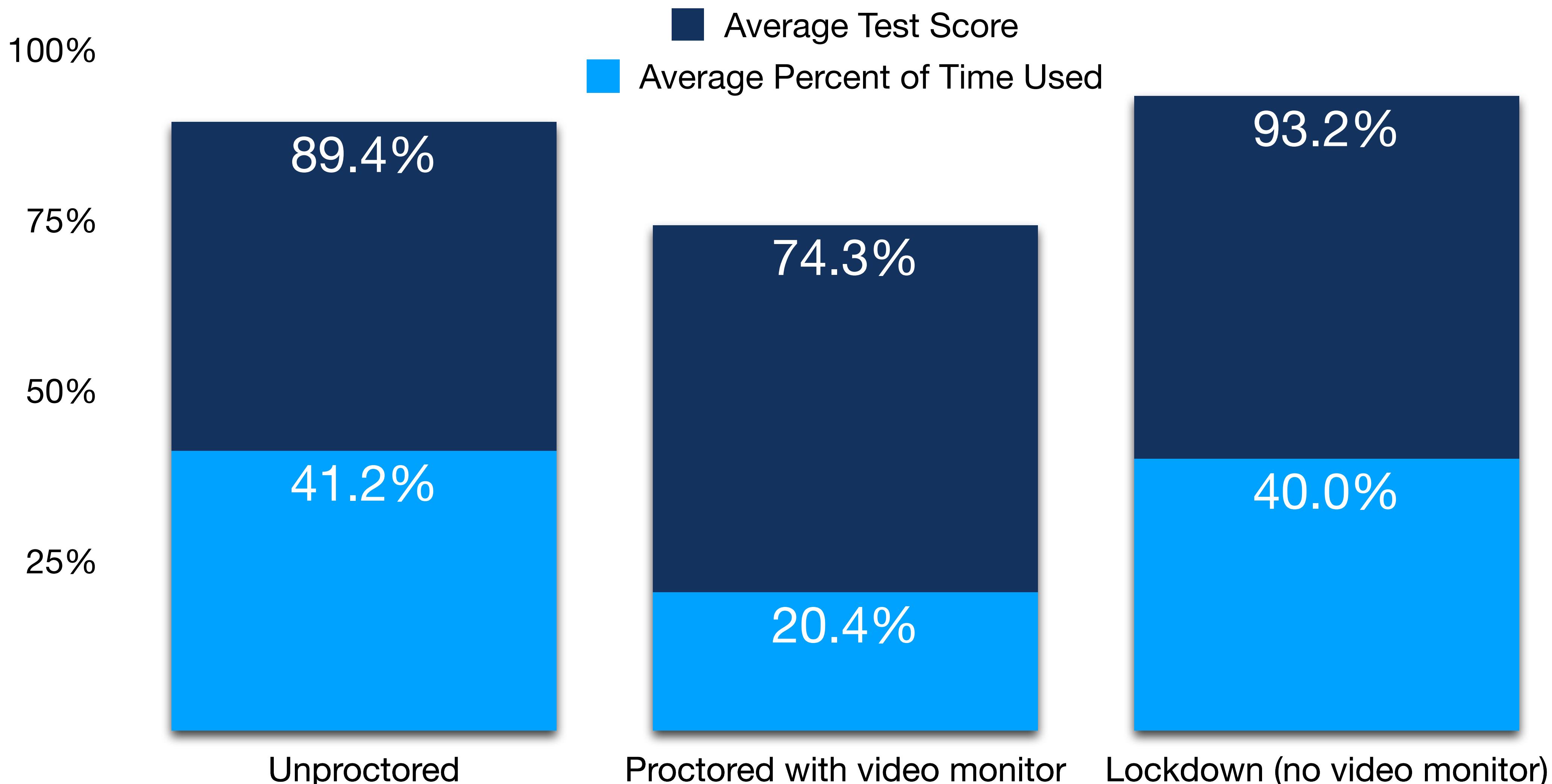
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Stuber-McEwen*
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Showed Higher Cheating Online	Showed Similar Cheating Online and In-person	Showed Lower Cheating Online
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The Problems with Proctoring

Fairness & Trust

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- If some students are unfairly advantaged over others, those at a disadvantage have fewer opportunities to learn.
- In an unfair institution of higher education, all degrees are not representative of the same level of intellectual achievement and so the value of every degree is diminished.

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- Online proctoring may help provide a level playing field by deterring cheating.

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- It may also algorithmically discriminate against students of color, neurodiverse students, and non cisgender students.

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- Utilizing software and systems that surveil students and compromise their autonomy breaks trust and discredits the idea of the institution as a moral and ethical leader.

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In addition to concerns over bias and discrimination, online proctoring raises serious questions about privacy and security.

**Allowing
proctors or
professors to
see a student's
entire bedroom
or other
workspace.**

Webcam
monitoring of
spaces that are
shared with
people who did
not consent to
be recorded.



**Requiring
the
recording of
biometric
data.**

**Requiring
students to override
system-level
security controls
meant to prevent
third party software
from compromising
their computer.**

Increased Anxiety Leads to Poorer Exam Performance

Student fears about online proctoring raise anxiety and lower test scores

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- Studies show that online proctoring of exams can lead to increased test anxiety, particularly in those students already prone to anxiety.
- Increased test anxiety leads to lower test scores.

Some of The Problems can be Mitigated

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- Online proctoring is employed to surveil students. It impinges upon privacy and autonomy by design.
- Modern operating systems routinely incorporate new and better security features that are intended to secure computers against control by a third party. Online proctoring software override such protections in order to fulfill its function.
- When an institution that students trust requires them to install security-compromising software, it undermines infosec best practices and could instill bad habits that have negative repercussions in the future.

Further Research & Careful Consideration

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Although online learning had been growing steadily for years, the massive jump in online learners precipitated by the COVID-19 pandemic lead to a commensurate increase in the use of online proctoring. Many papers on the subject have been written in the intervening two years, but many of them recognize the need for more research in the area.

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After an ethical assessment of online proctoring tools and related technologies, Coghlan et al. (2021) conclude that, while it is imperative that institutions ensure academic integrity, online proctoring comes with a host of ethically suspect side effects that must be carefully weighed against their benefit.

Further Research & Careful Consideration

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- A 2020 ProctorU data breach exposed personal data of half a million students
- Proctorio has made legal threats and filed lawsuits against multiple critics
- Three leading companies were called upon by the United States Senate to account for concerns over discrimination and data security.

A Solution with Too Many Tradeoffs

For institutions of higher learning, maintaining academic integrity is essential, but the rights of their students must take precedence.

Online proctoring may solve one problem, but it creates many others.

It is a “solution” that should be used only when necessary and with care taken to mitigate its many potential harms.

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