

Analyzing Non-Linear and Interactive Impacts of Distance Learning on College Enrollment Post-COVID-19

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Abstract

The COVID-19 pandemic significantly altered the landscape of higher education, prompting institutions to shift to online learning. This study explores the impact of distance education on total enrollment, considering changes spurred by COVID-19 and various demographic characteristics. Using data from approximately 5,000 institutions, we analyze enrollment trends from 2019 to 2022. Our fixed effects regression models reveal that a 1% increase in the distance education rate is associated with an increase of approximately 7,964 students in total enrollment. This trend is more pronounced post-pandemic, with a significant net effect of 9,361 students when considering the interaction with COVID-19. Additionally, the study identifies non-linear diminishing returns, with the positive impact of distance education decreasing at higher levels, showing a threshold level of 91% without COVID-19 and 67% with COVID-19. These findings suggest that policymakers should focus on optimizing the expansion of distance education by avoiding enrollment saturation beyond these thresholds while ensuring that quality standards are maintained, addressing both resource allocation and equity in higher education.

JEL Classification Numbers: I25; I26; I28.

Keywords

Distance Education, Higher education, COVID-19 pandemic, IPEDS, Fixed-Effects, Polynomial Models.

