



POSTSECONDARY SUCCESS FOR INTERNATIONAL STUDENTS

EPPS 6323 – KNOWLEDGE MINING

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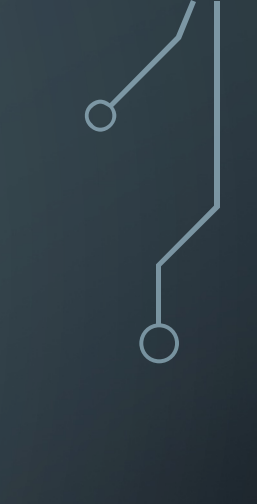

OVERVIEW

- Evidence for different drop-out rates for domestic and Int'l students (Alsakran 2018)
- Pre-existing student characteristics - finance, race, sex, abroad experiences (Kwai 2010)
- Previous scholarship attempts to measure why students did not continue with their education and some interesting work to measure international drop-out rates, but none using advanced quantitative approaches.
- Contribution - introduce novel variables that isolate the drop-out rates of international students compared to domestic students using advances predictive statistical models.
- EX. English language – pre-existing or language competency (TOEFL scores)





RESEARCH QUESTION

How do student characteristics and institutional factors influence the degree attainment of undergraduate international students in Texas?




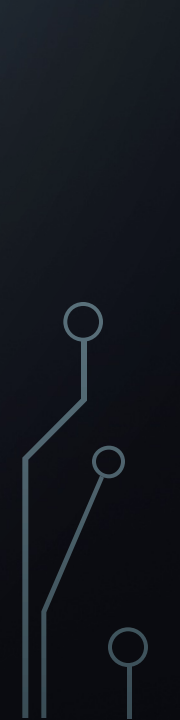


COMMON THEMES IN LITERATURE

- Descriptive
 - Narrow populations
 - Cover momentum similar to non-international students
 - Transferring between institutions
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CONTRIBUTION TO THE FIELD

- Machine learning methods not found
 - Large datasets studies not found
 - The amount of data available in Texas is unique
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METHODS

- Outcome variable – bachelor's degree completed
- Focus on classification models
- Tree models will help identify major variables that split completers and non-completers
- Forest models should help to improve outcome predictions
- May look at clustering models to look for student or institution similarities in characteristics

DATA AVAILABILITY

- Texas Schools Project – Education Research Center
- Utilize micro-data panel from a current project
 - K-12 administrative and data
 - College administrative and course-level data
 - Work and income-level data for assessment of labor market outcomes
- All data is from Texas
 - The large population, diverse economy, and number of colleges make the state a reasonable representation of the US

POLICY IMPLICATIONS

- A better understand of decision points that contribute to a student completing a bachelor's degree will improve college administrator's ability to develop interventions
- Better predictions of completion will allow student support professionals to take action to reduce the number drop-outs
- A deeper knowledge of the factors influencing enrollment and attendance may also contribute to re-enrolling students that previously left the institution

CONCLUSION

- International students face unique challenges
- Existing literature has been descriptive with focus on common educational variables
- Machine learning methods may illuminate previously omitted predictors
- The large-variable data set available in Texas will be a strong basis for the study
- Policymakers and college administrators should benefit from a better understanding of international student needs