Department of Mathematical Sciences
Colloquium

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Identification of At-Risk Students and Multi-spell Analysis of Student Departure, Return and Graduation: A Survival Model Approach

A survival model technique is used to identify at-risk students and to understand the complex factors that impact college student persistence and graduation. Using student characteristics that were available at the time of admission, a Cox proportional hazards (PH) regression model is used to identify students at-risk of departure (dropout/stopout). According to risk scores derived from the Cox PH regression model, the students could be classified into three risk groups. The findings indicate a need for early identification of and interventions with students who are at-risk of departing. To understand student dropout, stopout and graduation, six years of student enrollment history, along with longitudinal academic performance and financial aid data, were examined in depth. The risk (hazard) of departure and return is modeled using a logit link function that captures the general shape of the hazard profile and the heterogeneity of the hazard caused by different predictor variables. On-time graduation was modeled using the Proportional Subdistribution Hazards regression model under a competing risk setting. The results of these different models and their implications are also discussed.

Friday, February 15, 2008 at 3 pm in Bell Hall 143
The University of Texas at El Paso

Refreshments will be served in front of the colloquium room, 15 minutes before the start of the colloquium.

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