Abstract: Proper institutional planning requires accurate enrollment forecasts. This is especially true in the community college context given open enrollment policies and reliance on public funds. Despite the importance of this task, enrollment forecasts are relatively disconnected from theoretical advances in the study of retention and enrollment. In this paper I argue that, in the interest of predictive accuracy, our statistical models ought to be theoretically informed. I show how incorporating theoretical knowledge by building ‘stacked’ models, which model theoretically distinct sub-populations separately, is a fruitful avenue for improving forecast accuracy. I demonstrate this by comparing the predictive accuracy of stacked models to approaches commonly found in the literature on simulated datasets.