

# **Dissertation Proposal**

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## **“Essays on Strategic Behavior in Entry and Exit and the Impact on Local Economy”**

Firms oversee market structures and choose the optimal strategic behavior in entry and exit to maximize profits. Understanding market structure and the role it plays in determining the extent of competition benefits both policymakers and firms. Policymakers use market structure knowledge to set regulations on industries that may hurt consumer welfare, while firms use such knowledge to estimate market capacity. My dissertation seeks to model and provide insights for three such problems in the education and banking industries.

In the first chapter, titled “Understanding the Impact of Rising Online Channel on Exit of Bank Branches,” I investigate the market exit strategy of the bank branches from 2009 to 2013. I find that after the recession in 2009, banks reconsidered their business model and decided to shrink branch networks. Using empirics, I show that the increasing usage of online channels such as websites and phone applications is the main driving force of branch closure. My results indicate that there is a negative relationship between the usage of bank services through online channels and the number of traditional brick-and-mortar branches. This suggests that online services have replaced the traditional business services and banks are responding accordingly. Furthermore, since many banks have merged after the recession, banks were incentivized to shut down branches in overlapping markets to minimize redundancy and operating costs and to prevent merged branches from competing with each other. Finally, I show that a policy designed to ban branch closures in branch deserts could reduce the speed of branch network shrinking.

In the second chapter, titled “The Effects of Bank Branch Closures on Local Loan Market,” I propose to investigate the impact of big bank branch closures on local credit demand and access. I seek to examine the impact from different aspects. First, I plan to study how branch closures impact local consumers’ behavior in searching for loans. Second, I will measure the damage to loan seekers caused by the loss of personnel-specific soft information between the loan seekers and the closed branches. Third, I will examine the changes in distance between loan seekers and banks to see how banks responds to branch closures, as banks may have nearby branches to continue to provide credit access for areas with branch closures. The result will provide valuable information on whether banks can still offer the same standard of credit access to a local economy after shrinking the branch network.

In the third chapter, titled “Understanding the Supply Side of For-Profit colleges: Structural Analysis,” I study the market entry of private for-profit colleges in the United States from 2005 to 2013. I empirically show that for-profit schools in a larger population or higher median income market often choose to enter the market earlier. Moreover, my results reveal that both the federal and state regulations regarding for-profit colleges’ recruiting process have a negative impact on for-profit schools’ payoff; therefore, for-profit colleges often choose to delay their timing of market entry. Furthermore, my model suggests that the competitive effects from other for-profit and community colleges in the same market are substantial and likely to push back the entry time for new for-profit colleges. As a result, I show that the proposal made by former President Obama regarding free community college has the greatest negative impact on the for-profit college industry compared to existing federal and state regulations.