Research Project Title: Key skills and attributes desired of undergraduate business hires

Student Presenter: Elena Arida

Faculty Mentor: Ralph Greco

Faculty Mentor Department: Business Analytics Initiative

Research Abstract: Job candidates spend time considering what qualities they should market to potential employers. There is a fair amount of research surrounding Key Skills and Attributes (KSA) businesses look for when hiring MBA graduates, however, this research is lacking at the undergraduate level. This project will expand upon the existing research by focusing specifically on jobs being filled by undergraduates. To this end, this project explores KSAs employers look for in recent undergraduate business potential hires, and how those hiring goals differ between employers by industry. This was accomplished by compiling job descriptions posted in FisherConnect, the Fisher College of Business™ recruiting platform, and applying text analysis, utilizing current tools like Voyant and Textio to identify the frequency of each KSA. Preliminary results indicate that Computer and Analytical skills are the most commonly asked for hard skills, while Leadership and Initiative are the most commonly asked for essential, or soft, skills. These results are in line with what researchers have found at the graduate MBA level. Insights like these are invaluable to undergraduate business students who are attempting to market themselves on resumes and in interviews to employers. In addition, business colleges can use the desired KSAs to modify or reinforce curricula. Finally, employers can see if their job postings are reflecting company needs and desires for specific KSAs.
Research Project Title: Predicting spending behavior of universities

Student Presenter: Will Beyer

Faculty Mentor: Bruce Weinberg

Faculty Mentor Department: Economics

Research Abstract: Competition between colleges for top students has increased significantly over the past few decades. This increased competition between colleges could be reflected in the spending behavior of universities. Specifically, Universities may spend less on non-instructional or academic areas, while spending more on student services in order to attract top students. Student services are broadly defined as activities whose primary purpose is to contribute to students’ emotional and physical well-being and to their intellectual, cultural, and social development outside the context of the formal instructional program. This paper seeks to identify trends in student services spending since 1984, and also analyzes variables that may be predictive of student services spending. Data for this project is provided by the Integrated Postsecondary Data System, and is cleaned and analyzed using Excel and R programming software. The research for this project mainly focuses on about 400 universities identified as “more selective” by the Carnegie Classification of Universities. A significant increase in spending on student services since 1984 is identified through analysis of data. Furthermore, an OLS regression identifies variables such as research spending, instructional spending, and endowment, which help explain the student services spending behavior of universities. As the project progresses the effect of geographic variables such as city size of college, region of college, and proximity to other top colleges will be explored as they relate to changes student services spending.
Research Project Title: Analyzing racial wage gaps in university faculty

Student Presenter: Olamide Bola

Faculty Mentor: Bruce Weinberg

Faculty Mentor Department: Economics

Research Abstract: I. Introduction

Economic stratification impacts one’s ability to accumulate social, cultural and monetary capital; induces and normalizes the unequal distribution of resources; and results in varying levels of access to education and healthcare. Due to the negative impacts of economic inequality, numerous studies have been performed that work to isolate key sources of the racial and gender wage gaps. The purpose of this study is to first complete the necessary preliminary work before isolating major causes of the racial wage gap, which is to first demonstrate there is indeed a racial wage gap. I analyze the relationship between income, race, and occupational field when there are no differences between employees’ human capital.

II. Methods

I used an R package that utilized methods performed in a previous study by Imai, K. and Khanna, K. (2016). "Improving Ecological Inference by Predicting Individual Ethnicity from Voter Registration Record." Combining University of Arizona’s 2015-2016 salary database, and the US Census information on surnames and race probability, I was able to predict the race of approximately 83% of the data. With this data, I was able to look at numerous combinations such as the mean salary of faculty who are Black, associate professors in a social science, or the median salary of all faculty who are in the Health field. From here I pulled my findings.

III. Results

I ran regressions that looked at annual salary, academic rank, department and race and found there are indeed discrepancies in wage. Specifically, the discrepancies between Whites and Asians and Whites and Hispanics to be particularly significant. While my results did demonstrate a higher median salary for White faculty compared to Black faculty, these discrepancies were not as significant. However, the gap between White and Black faculty are smaller when compared to numerous other studies.

IV. Conclusion

In conclusion, consistent with other studies I did find significant wage gaps between races, and it persists even as level of education heightens to the doctorate level.
Research Project Title: Classification of university object codes

Student Presenter: Augustus Bradley

Faculty Mentor: Bruce Weinberg

Faculty Mentor Department: Economics

Research Abstract: Spending on research funding purchases materials, services, and equipment that may stimulate the economy locally and nationally. Analysis of spending on research grants may also help us allocate money in more efficient ways. The impact of grant money can be difficult to measure, however, as university reports of object purchases are often too specific to be effectively reviewed. I devised a classification system containing twelve primary classifications, which are then broken into secondary and tertiary classifications. Objects are classified and assigned a confidence code at each level. I also included a system for providing a secondary classification, which is useful when an object falls at the margin of two categories or is too ambiguous to be classified with certainty. After classifying objects from 23 schools, 92% of objects could be placed into a category. By analyzing the share of university spending in each category, I find that about 5% of grant money is spent on laboratory supplies, making this the largest area of spending. Immediately following this category is capital equipment, which makes up 2% of grant spending. Services account for about 2.5% of spending, but only 0.5% of spending is on non-professional services.
Research Project Title: Examining the "no-choice" option in choice-based conjoint analysis

Student Presenter: Maggie Chwalek

Faculty Mentor: Greg Allenby

Faculty Mentor Department: FCOB Marketing & Logistics

Research Abstract: Choice-Based Conjoint analysis (CBC) is a method used to determine how individual consumers value attributes of a product or service. The consumer selects the option he or she would be most likely to purchase among those presented, which includes a “no-choice” option. The “no-choice” option is an alternative within a CBC analysis that allows consumers to decide against purchasing any of the presented options. This no-choice option is necessary in order to correctly simulate real choices, but could be problematic if each consumer perceives this option differently. This project examines the effect of building a more consistent interpretation of the no-choice option across participants in a CBC study. We employ the framework in General Evaluability Theory (Hsee & Zhang 2010) to justify potential improvements to CBC. We hypothesize that evaluability of the no-choice option can be improved by creating a consistent view of the frontier of products available to the consumer. We will test this hypothesis by sampling 1000 respondents randomly split into three different groups, with each group receiving a different amount of information about the products in the market. A control group will engage in standard CBC, the first treatment group will be shown the prices of products in the market, and a second treatment group will be shown the price of products in relation to multiple attributes of the product. We suspect that a one-dimension graph of the prices of products in the market is an evaluable and appropriate display of the frontier of products and that the participants who are shown this price graph will have more consistency in their choices than standard CBC. Participants in the second treatment group may or may not have more consistency in their choices, as the amount of information may be too great to use. The goal of this research is to provide a recommendation for how to improve the consistency of choices in CBC analysis.
Research Project Title: Influence of exchange traded fund (ETF) splits on investor behavior

Student Presenter: Aaron Estrel

Faculty Mentor: Justin Birru

Faculty Mentor Department: Finance

Research Abstract: Investors do not always behave rationally. Nominal share prices have been found to influence investor behavior and expectations about the future (Green & Hwang, 2009; Birru & Wang, 2016). One way to measure the impact of nominal share prices on investor behavior is through stock splits as, when they occur, underlying fundamentals do not change, only share price changes. Studies show mixed results on the impact of stock splits on liquidity, as measured by daily trading volumes. Additionally, research shows exchange traded funds (ETFs) have high tracking efficiency, as measured by deviation from net asset value (NAV). To expand on current research and determine the impact of splits and reverse splits on the liquidity of ETFs, this paper measures how trading volumes of ETFs change following splits and reverse splits for the years 2010-2016. Further, this paper measures how deviation from NAV and tracking efficiency of ETFs change following splits and reverse splits. The results suggest that following splits, trading volumes of ETFs on average tend to increase, but not at a statistically significant level. Following reverse splits, trading volumes of ETFs on average increase dramatically at a statistically significant level. Deviation from NAV and tracking efficiency of ETFs do not change significantly following either a split or reverse split. Based on these results, it is possible that nominal share prices influence investor behavior regarding ETFs. The cause, however, remains unknown. Despite an increase in liquidity post-split, deviation from NAV does not change significantly, potentially implying ETFs are priced efficiently prior to undergoing a split or reverse split. This paper provides insight into investor behavior that may be valuable not only to investors, but also to the companies that manage ETFs.
Research Project Title: Linguistic barriers to financial development

Student Presenter: Annette Gailliot

Faculty Mentor: Bruce Weinberg

Faculty Mentor Department: Economics

Research Abstract: Historical ties and linguistic similarities between countries are correlated with outcomes in the financial sector. To test this hypothesis, I specify the mechanisms through which language affects real world outcomes such as the size of the stock market. One way to analyze linguistic relationships is to quantify them through linguistic difference between the populations in countries. I do this using data on the types of linguistic relationships in populations. Various types of linguistic patterns, such as official language, spoken language, and native language, all affect the flow of information and paths of communication between populations in different ways. Furthermore, countries with similar languages can more easily share ideas and are likely to have come from similar groups historically. However, this may be true not only in the historic development of financial systems. There is evidence that linguistic factors have a strong effect on bilateral trade, and I question whether this is also true for financial trading. Using data on amounts of borrowing, lending, and foreign direct investment, I quantify this relationship of financial trading. Furthermore, using datasets detailing the various linguistic compositions of countries, I analyze how linguistic differences in populations are related to financial outcomes between countries. I find that when two countries have populations sharing a common spoken language, they are more likely to have similar financial outcomes. However, different types of legal structures may have an effect upon financial outcomes in countries. Even when controlling for other explanatory factors such as legal origin, spoken language still has a significant relationship with stock market capitalization. Upon further analysis, this result disappears when controlling for the size of a country’s economy. This has led me to question whether there are omitted variables such as geography and religion affecting my analysis. This could lead to an overstatement of my results, and so I aim to address potential omitted variables that may be affecting the relationship between linguistic ties and financial outcomes. By measuring both the relative sizes of financial markets and the flow of financial transactions, I can analyze how interactions between countries affect financial developments.
Research Project Title: Emerging growth companies' performance under the JOBS Act

Student Presenter: Michael Korn

Faculty Mentor: Michael Schwert

Faculty Mentor Department: Finance

Research Abstract: The number of public companies in the U.S. has steadily declined over the past two decades. To help reverse this trend and encourage small businesses to go public and receive funding, the U.S. passed the Jumpstart Our Business Startups Act, or JOBS Act, in 2012. This law helped small U.S. businesses go public by relaxing many of the typical securities regulations a public company would normally face. The part of the law that has gained the most attention is Title III, the CROWDFUND Act. This part of the law allows companies, called emerging growth companies, to use crowdfunding to issue securities, which was not allowed previously. This meant that non-accredited, or retail investors, could now invest in these IPOs. Because these emerging growth companies don’t disseminate as much information about themselves as one would see from a typical public company, it makes it more difficult for investors to determine if an emerging growth company is a good investment. This additional accessibility to retail investors combined with the relaxed reporting requirements led me to investigate whether or not investing in emerging growth companies would result in subpar relative returns. This study examines stock returns and volatility measures for emerging growth companies that have gone public since the passing of Title III of the JOBS Act and finds that these companies have had poor relative returns. When looking at the returns for these emerging growth companies, the 50th percentile and median of returns is -0.7%, far below the 50th percentile and median of the S&P 500 and other comparable indices. Preliminary results have also shown these emerging growth companies to be more volatile than most other stocks, meaning losses can happen quickly. Because these companies have shown to be poor and risky investments thus far while being able to take advantage of uninformed retail investors, actions must be taken to increase the reporting requirements for emerging growth companies.
Research Project Title: The impact of star power and team quality on NBA attendance

Student Presenter: Zhuo Li

Faculty Mentor: John Draper

Faculty Mentor Department: Management Sciences

Research Abstract: As data analytics has improved rapidly in the past decade, sports analytics is playing a more crucial role in the sports industry. Professional sports leagues like the NBA and MLB have utilized on-field analytics to improve the performance of teams and players. At the same time, team managers use off-field analytics to gain insights on the business side. As a direct indicator of ticket sales, attendance is an important area to study. Many factors affect attendance, but the influence brought by each factor is different. The purpose of this research is to show the impact of star power and team quality on NBA attendance, as well as to determine whether superstar presence or a championship caliber team (or both) drives NBA attendance. The dataset includes attendance data of all NBA teams in the past two seasons (2015-2016 and 2016-2017 seasons). NBA teams are separated into four groups for this research: the high-level team (playoff team) with at least one superstar, the high-level team with no superstars, the low-level team (non-playoff team) with at least one superstar, and the low-level team with no superstars. Each group is tested separately in order to find any differences in attendance. Preliminary results suggest that even a single visiting superstar will increase attendance, and this effect is larger for low-level teams. Moreover, when a team has high attendance variability, the effect of one or more visiting superstars is even larger. Further analysis will utilize regression models to find the correlation between the number of stars, team quality, and attendance. After analyzing the impact of star power and team quality on NBA attendance, NBA team managers can make specific and targeted marketing strategies to increase ticket sales.
Research Project Title: International student perceptions of leadership and involvement on campus

Student Presenter: Rachel Horvath

Faculty Mentor: John Gray

Faculty Mentor Department: Management Sciences (FCOB)

Research Abstract: As the international student population on college campuses continues to grow, it is crucial that universities improve their understanding of these students’ values to better serve their specific needs. In this paper, perceptions held by international students regarding involvement and leadership in student organizations will be explored through a survey of the Fisher College of Business. The objective of this research is to analyze factors that relate to emphasis placed on involvement and leadership by both domestic and international students pursuing business degrees. Specifically, we focus on how involvement in student organizations and on-campus activities may change from high school to college for members of both groups and seek to discover if there is a connection between time spent on leadership and extracurricular activity during high school and overall (academic and personal) success at university. Using an electronic survey sent via email, we collected data from 842 students at the Fisher College of Business in December of 2017. Hypothesis testing and regression models were utilized to compare domestic and international students. Results show that the two groups place significantly different value on involvement and leadership in high school, with domestic students reporting higher overall importance. However, these differences diminish from high school to college with the two groups converging to hold more similar values once at university. Further, the results of hypothesis tests indicate that while at university international students value leadership and involvement greater than their domestic peers; a change that should be researched further to determine possible causes and implications.
Research Project Title: Potential complacencies that can arise in an established sales and operations planning process

Student Presenter: Harrison Milacek

Faculty Mentor: August Knemeyer

Faculty Mentor Department: Marketing & Logistics

Research Abstract: The sales and operations planning process, or S&OP, is how businesses work cross-functionally to synchronize supply and demand to efficiently source, produce and distribute their products. While this business process is extremely important to a firm’s bottom line, it is still a relatively new planning approach. Most of the currently available knowledge on S&OP focuses on the initiation of the process in the business with little research on how to continuously improve the process beyond high-level benchmarking. The purpose of my research is to build an enhanced understanding of where companies with a mature S&OP business process deviate from the prescribed activities. The primary hypothesis is that in a mature S&OP process, companies encounter issues that arise from complacency amongst the participating members through decreased cross-functional engagement, management undervaluing the value of the process, and participant unpreparedness to actively contribute. To test this hypothesis, interviews were conducted with cross-functional members of companies S&OP process. These interviews were semiformal with five open-ended questions being posed to the interviewee and further questions being asked based on ideas that emerged from their responses. The interviews are then analyzed using thematic coding to identify common themes across interviews. Initial results show that company’s upper management has a tendency to make S&OP decisions outside of the formal meetings designed for this purpose and that members of the financial function of the business are less invested in the process than their supply and sales colleagues. These results suggest that firms fail to acquire significant participation from members outside of the atypical supply chain. A potential way to address this issue would be to formally log issues to be brought into the S&OP meetings that engage the involved function. If further research were to be conducted, then an analysis of problems stated on these issue sheets and how they help reduce complacency could be further pursued.
Research Project Title: The interactive effects of home ownership and housing prices on asset allocations

Student Presenter: Jiaxuan Li

Faculty Mentor: Justin Birru

Faculty Mentor Department: Finance

Research Abstract: Finding the optimal portfolio construction has in recent years been a trendy topic among institutional and individual investors. Since the housing bubble of 2007, researchers have paid more attention to the relationship of housing markets and the financial world to take advantage of how these relationships affect investment decisions. This project mainly investigates how investors allocate wealth by analyzing the interactive effects of housing prices and home-ownership on asset allocation decisions. In addition to housing-related data, this research also incorporates non-financial factors such as age, sex, number of children, occupation status, education, income level, among other controls. The analysis applies multivariate regression models and time series analyses to forecast three types of information of investors: whether someone has one specific asset, the holding value, and the percentage of a particular asset in investors’ entire asset pools. Initial results show that home ownership plays a role in asset allocation decisions and causes homeowners and home renters behave differently in the financial markets. This research will continue to identify statistically significant factors that drive investment decisions and build models for each asset class such as stocks, bonds, certificates of deposits, savings accounts. Such analyses and models will provide an innovative framework to quantify non-financial factors from the behavioral finance standpoint and enable institutions to forecast the overall financial market trends.
Research Project Title: Analysis of the fee structure and expense ratios of U.S. equity mutual funds

Student Presenter: Evan Lingrel

Faculty Mentor: Roger Bailey

Faculty Mentor Department: Marketing and Logistics

Research Abstract: A plethora of research exists showing the relationship between a mutual fund’s performance, in the form of its percentage return to investors, and a fund’s expense ratio. Existing research, by Hooks (1996), Haslem, Baker, and Smith (2008), and Bello and Frank (2010), show across different samples and controls that funds with higher than average expenses under-perform compared to those with a lower ratio. Thus, the funds that use more of an investor’s money for expenses, usually the highest of which is the earnings of the fund manager, perform worse in their returns than the funds that use less of an investor’s money for expenses. With this being the case, how do mutual funds justify having a higher than average expense ratio and what are the actual factors of a fund that determine this ratio? This is a major gap in mutual fund research and although some findings do exist on the determinants of these expenses, this paper hopes to add to those findings through analysis of additional variables and controls. To do this, data was collected via the independent mutual fund database Morningstar, which provides information such as absolute performances, performances relative to the market, risk and cost data, portfolio information, and expense data. A screening was used to control the data set so that the results of this research would be most applicable to casual investors who are most susceptible to high expense ratios. From this screening we were able to create both a year to date cross sectional set of data and a time series dataset of annual data from 2013 to 2017. A regression analysis was conducted on the cross-sectional data set and initial results show that both the year to date absolute return percentile and the rank percentile of the funds are both significant in determining the expense ratio. Further regression analysis will be conducted on the remaining year to date variables, as well as on the variables in the time series. These results will then be compared and answers will be concluded on the most significant variables associated with a mutual fund’s expense ratio.
Research Project Title: An investigation of alignment of time-to-ship offerings and consumer value in ecommerce shopping

Student Presenter: Anthony Rangel

Faculty Mentor: Jim Hendrickson

Faculty Mentor Department: Marketing & Logistics

Research Abstract: Category: Business

Title: An investigation of time-to-ship offerings and consumer value in ecommerce shopping

Student Presenter: Anthony Rangel

Faculty Advisor: Hendrickson, Jim

Abstract: Ecommerce businesses are racing to offer competitive time-to-ship delivery to meet consumer demand, under the assumption that shorter delivery time is better for consumers. The fundamental question of this study is whether consumers are receiving ecommerce items when they most value them. The studies of Chou (2014) have confirmed, in agreement with Zeithaml et al. (1996), Ruyter et al. (1998), Wong and Sohal (2003), and Aydin and Ä–zer (2005), that service quality positively influences customer loyalty. This past research has further shown that customers prefer home-delivery options, which increase likelihood for repeated consumption, with the range of service offerings ranked as the most important factor in service quality. This study aims to expand upon previous findings by the degree to which customer planning horizons and expectations align with various time-to-ship offerings, and how this impacts overall satisfaction. To assess consumer perceived value, participants are completing an online survey that distinguishes between routine and time-critical purchases in order to further define their shopping intents. Participants are then answering a variety of questions related to differentiating their satisfaction levels given specific planned, expected, and actual times-to-ship under each purchasing category. We hypothesize that routine online purchases are made with a planning horizon sooner than their actual intended use, and thus are being delivered before consumers most value them. Additionally, we predict that time-sensitive items are most commonly purchased later than the planning horizon related to actual intended use, and thus are delivered either at or later than customers most value them. As such, the practical applications of this study become apparent in the value online retailers can derive from a more accurate understanding of consumer value of the time-to-ship for various types of goods (i.e. routine online purchases versus time-critical online purchases). These results might provide online retailers that sell both routine and time-sensitive purchases the basis on which to differentiate shipping options between the two categories. Data is still being collected to gather initial results.
Research Project Title: Social media presence and its effects on consumer trust in CPG brands

Student Presenter: Alexandria Ross

Faculty Mentor: Joseph Goodman

Faculty Mentor Department: Marketing & Logistics

Research Abstract: In 2014, 92% of marketers claimed that social media marketing was important for their business, and 80% indicated that their efforts increased traffic to their websites (DeMers, 2014). Moreover, social networks and apps are the highest area of investment for companies today in the digital marketing sector (Tiago & Verissimo, 2014). The utilization of social media for companies is not only important in regards to visibility of the brand, it also can play a huge role in how customers perceive the brand, for example, consumer trust. The goal of this research is to further understand the relationship between a company’s social media presence and its relationship to consumer trust. For this purpose, data was collected for 30 consumer packaged good firms over four months and included daily social media information (such as number of likes and followers) from the firms’ Twitter, Facebook, Instagram, and YouTube pages. This data was then used to develop a social media index to base online presence. Additionally, a survey was distributed through Mturk to 548 participants that sought to measure consumer trust for these 30 firms. Each participant was randomly assigned ten firms and then they were asked to rank their familiarity with the brand and usage of social media as a whole. Preliminary results of this research show that familiarity of a brand is a strong predictor of trust, and that social media presence is also a relatively strong predictor. These results may infer that companies should focus on social media marketing and strengthening their online presence because it may allow them to achieve an increased level of trust from consumers.
Research Project Title: The perfect post: capturing consumer engagement

Student Presenter: Emily Schaefer

Faculty Mentor: Joseph Goodman

Faculty Mentor Department: Marketing

Research Abstract: Social media’s popularity has grown steadily for both consumers and advertisers through its visual nature and interactive design. To gain interest and engagement, marketers have used a variety of tactics on social media, from more traditionally ad-like material posts to a variety of experiential posts that attempt to capture the lifestyle the brand is attempting to emulate. Past research has proven that consumers talk more about experiences than material objects. This research aims to determine whether experiential posts lead to more consumer engagement with a brand on social media. This is achieved by analyzing the effect of logo inclusion, brand identification, and the experiential nature of posts on measures of post engagement across companies and industries. To determine these factors, data was collected through Instagram posts and a survey. Instagram data was collected across nine industries, including the post image and post engagement through likes and comments. Then, participants rated the Instagram posts on whether they were more “material” or “experiential,” visibility of a logo, and the degree to which they identified with the 39 brands. Preliminary results show a positive correlation between experiential posts and post engagement. Findings from this research suggest that managers should use experiential posts whenever possible to increase engagement and word of mouth.
Research Project Title: The mindful consumer: a look into the effects of mindful meditation on consumers' ability to recall advertisements

Student Presenter: Landon Palma

Faculty Mentor: Roger Bailey

Faculty Mentor Department: Marketing & Logistics

Research Abstract: Originating as a concept from Buddhist psychology, mindfulness has found its way into countless clinical and social psychology journals. Much of the research has shown both short and long-term effects of mindfulness on sustained attention, emotional regulation, and attention switching. Mindfulness has been shown to have a substantial impact in these areas, but research on how mindfulness impacts consumer behavior is limited. As such, this work explores how mindfulness impacts an important aspect of consumption: consumers’ memory. Specifically, we examine whether meditation induced mindfulness affects consumers ability to recall details from advertisements such as brand name, product attributes, and other elements of the advertisement. We will collect data from 300 participants through the Amazon Mechanical Turk online platform. Participants will either be subject to a guided meditation to invoke mindfulness or assigned to a control group. Participants will then be shown one of two advertisements: one for a product they may be familiar or one for a product that is unfamiliar. Participants will be asked a series of questions to measure their ability to recall the advertisement. We will then compare the experimental group’s ability to recall details from an advertisement with that of a control group. We expect to see an increased ability to recall aspects from the advertisement in the experimental group. This would provide evidence that mindfulness can have an effect on consumers’ consumption of advertisements thus changing the way marketers choose to communicate to the mindful consumer.
Research Project Title: Compare the predictive ability of three volatility forecasting methods

Student Presenter: Yunying Zhu

Faculty Mentor: Bernadette Minton

Faculty Mentor Department: Finance(Fisher College of Business)

Research Abstract: Forecasting volatility is important for investors to be able to assess the financial risks. However, predicting volatility is difficult for most investors since most methods require advanced mathematical knowledge. Luckily, there are two time-series models (GARCH (1,1) and EWMA), which can be used by investors with some basic training. The implied volatility indexes launched by CBOE give investors a direct assessment of the volatility on the markets. Though it is more convenient for investors to use volatility indexes, it is unclear whether the implied volatility indexes are good forecasts and can outperform these two time-series models. This paper chooses to research this issue by investigating two major questions: First, how do the predictive ability of the implied volatility indexes on U.S. stock indexes (S&P500, S&P100, DJIA, Russell 2000 and NASDAQ 100) compare with GARCH (1,1) and EWMA? Second, how does the predictive ability of the S&P500 volatility indexes change over different time periods? The loss functions and information-encompassing tests are used to examine the predictive ability of the above three volatility forecasting methods from two aspects respectively: the accuracy of the numerical value of the forecasts and the effectiveness of information embedded in the forecasts. The results show that in some cases implied volatility indexes have bigger errors than GARCH (1,1) and EWMA models on the numerical value. However, in all situations, implied volatility indexes contained more effective information of future volatility, as well as most historical information embedded in the time-series models. Additionally, as the time horizon increases, the predictive ability of the S&P500 volatility indexes decreases. Therefore, short-term implied volatility indexes can be regarded as good forecasts of the trend of future volatility to be used by investors than GARCH (1,1) and EWMA.
Research Project Title: CEO characteristics and firm risk

Student Presenter: Kevin Min

Faculty Mentor: Benjamin Bennett

Faculty Mentor Department: Business - Finance

Research Abstract: It is no surprise that a firm’s CEO has a large impact on the firm itself. Previous research has established a relationship between CEO characteristics and R&D spending, firm performance, or acquisition behavior. However, research regarding CEO characteristics and firm risk is scarce, with research only in specific areas such as CEO wealth to equity risk. This research seeks to incorporate a wide variety of CEO characteristics and risk measures, broadening the scope of the existing literature. The methodology used involved examining CEO data and different measures of firm risk for the past 15 years. CEO characteristics include measures such as age, gender, and education. Firm risk was assessed with four different measures, which were stock price volatility, idiosyncratic volatility, earnings per share volatility, and cash flow volatility. Preliminary findings show that certain characteristics, such as age, are in fact correlated with risk measures. These findings can be used to determine a profile for the “least risky” CEO, helping firms find CEOs that fit this profile if seeking risk reduction strategies.
Research Project Title: Perception data and its potential effect on business site selection

Student Presenter: Margo Geppert

Faculty Mentor: MJ Van Maasakkers

Faculty Mentor Department: City and Regional Planning

Research Abstract: Introduction

Perception data collects the thoughts and feelings of constituents about a topic. In cities it is most commonly used for perceptions of crime, safety, and cleanliness. Perception data is used to help creators of programs or administrators of institutions understand how their consumers view their program or institution. This thesis aims to understand the perception of retail mix in cities and whether citizens feel their needs are being met. This thesis also aims to understand if perception data is helpful to provide to developers and cities. Does presenting current retail mix information to citizens change their retail mix desires? Does presenting citizen’s desires to developers and city officials change business site selection choices?

Methods

A survey will be sent to the Discovery District in downtown Columbus, Ohio. The survey asks what businesses and amenities they would like to see added to the District. A list is then presented of the current retail mix and establishments present in the community to gage how many of those establishments residents and those affiliated with the District are aware of. Then, responders will be asked if the current retail mix presentation changes their responses to their business and amenity addition suggestions. Responders will also be asked if there are any barriers to why they may not use current establishments.

Results

Hopefully, there will be a difference between initial desires and after current retail mix is presented. If there is a difference, we will better be able to address specific hurtles to why they community may feel establishments are not meeting their needs. There may also be an importance of the education of establishments to the community and this survey may help the District gage what level of outreach is needed for awareness improvement.

Conclusion

The thought of including perception data in city initiative informatics was inspired by the Public School system's use of perception data on improving school programming initiatives. Communities are experienced personally. Interaction with the community and hearing perception feedback will be a tool for the Discovery District SID to recruit from the private market and provide the perception data as an additional resource for business site selection.
Research Project Title: The impact of the Supreme Court on deregulation in the banking industry

Student Presenter: Zachary Lippman

Faculty Mentor: Lawrence Baum

Faculty Mentor Department: Political Science

Research Abstract: The Supreme Court under Chief Justice Warren Burger (known as the Burger Court) oversaw a drastic shift in previous Court opinions dealing with banking regulation. The court decisions under the previous Chief Justice, Earl Warren, worked to strengthen banking regulation while the Burger Court’s decisions tended to loosen regulation. As the Supreme Court shifted its position, federal agencies and Congress also began efforts to deregulate the banking industry. Through my research, I have reviewed the Burger Court’s decisions regarding banking regulation and analyzed their effect on regulatory policy. By exploring the Supreme Court’s role in banking regulation, I hope to clarify our understanding of the Supreme Court’s ability to influence policy. My method for conducting this research involves connecting Supreme Court decisions with subsequent legislation and federal agency activity. First, I have conducted an in-depth analysis of a survey of banking cases. Following, I have searched through Congressional records and federal agency documents to find evidence that regulation was influenced by these cases. Through my research, I have found evidence that the Burger Court affected the course of banking regulation. Specifically, the Supreme Court provided Congress and agencies with “regulatory tools” necessary to deregulate the financial industry. These findings suggest that the Supreme Court has the ability to help drive regulatory policy when the goals of the Supreme Court align with those of Congress and the regulators.