Spring 2020

Business Student Research Showcase

To encourage student engagement in business research, foster both creative and critical thinking, and help students enhance their public communication skills and professional development

Friday May 15, 2020

Business & Economics Research Committee

Li Xu, Ph.D., Finance Department, lxu@njcu.edu

Michael Bell, J.D., Accounting Department, mbell@njcu.edu

Nava Cohen, Ph.D., Accounting Department, ncohen@njcu.edu

EunSu Lee, Ph.D., Management Department, elee3@njcu.ecdu

Jorge Medina, Ph.D., Economics Department, jmedina7@njcu.edu

Prashanth Ravula, Ph.D., Marketing Department, pravula@njcu.edu

Sujin Song, Ph.D., Management Department, ssong1@njcu.edu

Xiaodi "Coco" Zhu, Ph.D., Finance Department, xzhu@njcu.edu

Contents

General Schedule

Abstracts

of this research. This research is designed to take into account the distance relationship between all high schools and all zip codes in Jersey City in order to establish which students should be transported to which school based on the zip code in which they reside with the purpose of minimizing school bus travel distance.

Major: B.S. in Global Business; B.S. in Marketing

Brianna McCray and Camille Boisliveau

Advised by Kathleen Rennie and Bridget Esposito

Title: Marketing Students Fight Back With Creativity

When classes at NJCU switched from in-person instruction to online instruction during the COVID-19 pandemic, Marketing professors redirected their curriculum to provide a creative outlet for students while accomplishing course learning objectives. Utilizing COVID-19 related assignments as a learning technique as well a coping mechanism, students recommitted themselves to Marketing creativity. Two Marketing students then developed one interactive newsletter to feature selections from the professors' archives of the best student work from MKTG

and get their opinions. This is how it should have been handled from the beginning and they could have avoided so much controversy and the conversation would have felt more authentic and less of an attack.

Major: B.S. in Marketing; B.S. in Management

Cynthia Bradbury

Advised by EunSu Lee

Title: Ambulance Service in Jersey City

Jersey City is a large population center that has diverse health care needs. As the population continues to grow in Jersey City, this paper focuses on whether the needs of the residents are being met where it concerns emergency ambulance services. Demographic information was collected, as well as raw data regarding the number of ambulance request calls Jersey City receives in a specific time period. Descriptive statistics were used to analyze the data. An account of the number of calls and ambulance response times per census tract block for Jersey City was performed. The data collection, interpretation, and analysis that was conducted supports that Jersey City is currently meeting the needs of its residents when it comes to ambulance services. Cynthia Bradbury is fully responsible for the preparation of this report. Raw data needed to be obtained, filtered, and interpreted for use. Any errors in the data is due to author limitations and errors. Limitations include using a relatively small data set from a six-month time period. Data collection and analysis was not collectively exhaustive.

Major: B.S. in Management

Yong Sang Cho

Advised by EunSu Lee

Title: In Depth Look into Why Rural Hospitals are Closing? US Healthcare in a Closer Look

While specialized medical offices such as dental or optometric offices are thriving in count, large hospitals that are in the rural regions are closing. There are many factors that contribute to this problem. The biggest contributor has to be the fact that these hospitals are performing very poorly kp"vjgkt"hkpcpekcnu0"Vjg"jqurkcn"enquwtgu"tgfwegf"nqecn"tgukfgpvuø"ceeguu"vq"ectg."gurgekcn{" emergency care. While inpatient hospitals in these and other communities may not be sustainable, without new models of health care delivery in place, hospital closures can lead to gaps in access. The closures led to an outmigration of health care professionals and worsened pre-existing

according to statistics published by University of North Carolina. There are dire healthcare circumstances that American citizens have to suffer from by this incidence. This paper will attempt to explain and explore the fundamentals of United States healthcare system as well as the impact that it has on the suburban hospitals.

Major: B.S. in Management

Juan Eusebio and Miguel Rosado

Advised by EunSu Lee

Title: Union City NJ Transit Improvement

Union City is known for its small density and high population in the state. Union City though is also known to be the best to be when transporting to New York City. The bus service is very important for the residents as it is the most commonly used in the city by commuters. The bus service has been lacking often when it comes to focusing on being on time or ignoring commuters and continue to the next stop even with bus on service. Sadly, with the small density and high population of the city it plays a big part of the bus service on NJ Transit which puts them at a disadvantage of the small bus service who takes the lack of service of NJ Transit as an advantage. The study will purpose a network flow model to find better routing for NJ Transit to take so buses run a lot of smoothly to different cities as well as to New York city the state visited the most from commuters. Union City will benefit from this study to help with the residents and commuters using the bus service in the city.

Major: M.S. in Business Analytics/Data Science

Wenxi Wu, Aycha Edwards, and Amgad Hanna

Advised by Li Xu

Title: Stock Index Volatility and Its Ability to Predict Financial Market

Using S&P 500 historic data from 1950 to 2020, the researchers attempting to use empirical method to calculate volatility using ARCH models. The results would show if volatility could impact stock market or not. The financial prediction models combined with good level of personal

Y j gp"o cnkpi "kpxguvo gpv"f gekukqpu"kv"ku"ko r qtvcpv"vq"wpf gtuvcpf "vtgpf u"cpf "nkpmu"kp"c"dwukpguu'u"
financial statements in order to better predict outcomes. Simply because a company is doing well in one year is not sufficient enough to make decisions because there needs to be an evaluation of how this company can weather market conditions and what was done in the past to adapt to change. Comparisons to competitors in the market can be useful in appropriately assessing threats and challenges. In the technology industry, there has been much change in recent years with the range of products and services available to the public. The way that products are bought with the convenience of online purchasing at relatively no additional cost also presents a challenge to businesses like Best Buy. With Best Buy being a large competitor in a lucrative industry, investing would fairly sound.

Major: M.S. in Business Analytics/Data Science

Hina Mahmoon

Advised by Li Xu

Title: Sanctions Screening

The purpose of this study is to develop a model that will help in minimizing failure of risk to detect True match against SDNs list. The main purpose of creating a model is to screen transactions and data against SDN list for maximizing true positive and reducing the risk of non-compliance. Natural Language processing algorithms using R and Excel will be used to fulfill objective. This research paper is divided into two parts.

1. Research Thesis

For purpose to introduce the literature, current practice and problems associated with Sanction screening in the process of combating against money laundering & terrorist financing.

2. Data Processing & Modelling

For the purpose to explain the process of obtaining the Sanction Data, obtaining, cleaning & consolidation of data and creating the model and deriving the results.

Major: M.S. in Accounting

Amanda Miszczuk

Advised by Mingshan Zhang

Title: Financial Statement Analysis - Dunkin Brands Group & Starbucks Corporation

This project is a financial statement analysis of Starbucks Corporation and Dunkin Brands Group using financial data from the last 5 years. This analysis goes over a number of ratios related to profitability, liquidity, and solvency. It also compares changes in the balance sheet and income

The ambulance service provided by the Paterson Fire Department has a challenging response time to the patients, which results in delayed treatment for the patients. Furthermore, the delay from the ambulance service will result in delayed treatment at the hospitals potentially putting the lives of many at risk. It also covers the inequality in response time by the ambulance service. The objective of this study is to cover multiple aspects and issues resultant of the problem of unqy "go gti gpe{ "tgur qpug "vko g "hqt "Rcvgtuqp pb Au "Co dwncpeg0 Vj gtg "ku "c "pggf "vq "eqpukfgt "vj g" Emergency Medical Service (EMS) involving various decision making patterns for optimizing the location station that needs ambulance services. There is a need for pre-arrival instructions including the directions and techniques to stabilize the patients. Hence it has concluded that the ambulance response system faced by Paterson needs to consider the proposed model that the referral system to their services.

Major: B.S. in Management

Eloy Vera Ortiz

Advised by EunSu Lee

Title: Hoboken's Ambulance System

Hoboken is responsible for a number of famous foods, breweries, renowned artists and inventions that have transformed everyday life not only in NJ, but across the country. The ambulance service is very important to the community because it results in having a safe and free ambulance ride for the residents. HVAC has provided an excellent service but due to damages from Hurricane Sandy, funds are needed to continue providing these great services. Unfortunately, there are those that have no clue that HVAC relies heavily on funds to perform the necessary tasks. This study proposes, this objective function should demonstrate that although a linear programming model must either maximize or minimize some objective, the objective itself can be in terms of any type of activity or valuation. A strategy to help reach the funds needed and to bring recognition, so others are willing to volunteer. The residents of Hoboken will benefit from this study because it provides the information about how HVAC can continue providing htgg. "uchg. "cpf "hcuv "ugtxkeg0 J qdqngp pøu "pkempco g "ku "vj g "o kng "us wctO   _   ."c   ,

the parking issue that now it has increased more because of the overpopulation. The goal of this project is to catalog the existing parking supply, and determine the demand for parking in the community. Surveys are going around Jersey City to find out how many families own vehicles and how many of them use it to go to work or school. By doing this Jersey City will have a more specific number of vehicles being used and also they can determine how big the parking lots will be. The parking management plan will inform the community of the regulations of each parking and also it will help reduce traffic congestion generated by single-occupancy vehicles and align with the goals in the Circulation Element to limit land dedicated to parking uses near transit stations and encourage the use of public transit and active modes of transportation throughout the city. On average, it takes from twenty to twenty-five minutes to find a parking space in Jersey City where in other cities like Clifton it only takes five minutes to find parking. This is because there are twice more parking spaces in Clifton rather than Jersey City. By building more parking and making the street parking more accessible to everyone without putting tickets will help a lot in the community. Being able to find parking is very important and I am sure this plan will help all the residents in Jersey City.

Acknowledgement

The Business & Economics Research Committee

is pleased to announce the winners of the WINTER

Graduate Winners

Undergraduate Winners

- 1st place

esearch topics that