

JOURNAL OF BUSINESS AND BEHAVIORAL SCIENCES

Volume 31 Number 1

ISSN 1946-8113

Spring 2019

IN THIS ISSUE

- Workplace Sexual Harassment in the “Me Too” Era: The Unforeseen Consequences of Confidential Settlement Agreements Bernadette Baum
- The Budgetary Impacts of Hospital-Acquired Infections Schmidt, Hunt and Stapp
- Campus Conflict Resolution: The Time Has Come for Mandatory Mediation Joshua E. Bienstock
- Preserving Life and Health by Preventing Fraud in Healthcare Sullivan and Hull
- An Analysis of Ethical Standards of Business and Higher Education Students: A Case Study of Taiwan Gwinner, Ludlum and Steelman
- Reducing Waste in the Operating Room Through Inventory-Based Supply Chain Optimization Schmidt, Posteraro and Lopez
- Effects of Technology Innovations on Business McKnight, Maniam and Robertson
- E-Cheating and Undergraduate Business Students: Trends and the Role of Gender Case, King and Case
- Community Oriented Policing: Security in the Domestic Counter Terrorism Environment Goldberg and Christopher

**A REFEREED PUBLICATION OF THE AMERICAN SOCIETY
OF BUSINESS AND BEHAVIORAL SCIENCES**

JOURNAL OF BUSINESS AND BEHAVIORAL SCIENCES

P.O. Box 502147, San Diego, CA 92150-2147: Tel 909-648-2120

Email: mondal@asbbs.org <http://www.asbbs.org>

ISSN: 1946-8113

Editor-in-Chief

Wali I. Mondal

National University

Editorial Board

Karen Blotnick
Mount Saint Vincent University

Gerald Calvasina
University of Southern Utah

Pani Chakrapani
University of Redlands

Shamsul Chowdhury
Roosevelt University

Steve Dunphy
Indiana University Northeast

Lisa Flynn
SUNY, Oneonta

Sharon Heilmann
Wright State University

John Bennett
Saint Leo University

Sheldon Smith
Utah Valley University

Saiful Huq
University of New Brunswick

William J. Kehoe
University of Virginia

Douglas McCabe
Georgetown University

Maureen Nixon
South University Virginia Beach

Marybeth McCabe
National University

Z.S. Andrew Demirdjian
California State University long Beach

Thomas Vogel
Canisius College

Jake Zhu
California State University San
Bernardino

Linda Whitten
Skyline College

The Journal of Business and Behavioral Sciences is a publication of the American Society of Business and Behavioral Sciences (ASBBS). Papers published in the Journal went through a blind review process prior to acceptance for publication. The editors wish to thank anonymous referees for their contributions.

The national annual meeting of ASBBS is held in Las Vegas in February/March of each year and the international meeting is held in May/June of each year. Visit www.asbbs.org for information regarding ASBBS.

JOURNAL OF BUSINESS AND BEHAVIORAL SCIENCES

**ISSN 1946-8113
Volume 31, Number 1; Spring 2019**

TABLE OF CONTENTS

Workplace Sexual Harassment in the “Me Too” Era: The Unforeseen Consequences of Confidential Settlement Agreements Bernadette Baum.....	4
The Budgetary Impacts of Hospital-Acquired Infections Schmidt, Hunt and Stapp.....	25
Campus Conflict Resolution: The Time Has Come for Mandatory Mediation Joshua E. Bienstock.....	36
Preserving Life and Health by Preventing Fraud in Healthcare Sullivan and Hull.....	48
An Analysis of Ethical Standards of Business and Higher Education Students: A Case Study of Taiwan Gwinner, Ludlum and Steelman.....	59.
Reducing Waste in the Operating Room Through Inventory-Based Supply Chain Optimization Schmidt, Posteraro and Lopez.....	74.
Effects of Technology Innovations on Business McKnight, Maniam and Robertson.....	84
E-Cheating and Undergraduate Business Students: Trends and the Role of Gender Case, King and Case.....	102
Community Oriented Policing: Security in the Domestic Counter Terrorism Environment Goldberg and Christopher	114

WORKPLACE SEXUAL HARASSMENT IN THE “ME TOO” ERA: THE UNFORESEEN CONSEQUENCES OF CONFIDENTIAL SETTLEMENT AGREEMENTS

Bernadette Baum
National University

ABSTRACT

The current surge in media attention surrounding workplace sexual harassment cases has created a hypersensitivity among coworkers and left employers scrambling to tighten HR policies and training procedures in an effort to mitigate a company's exposure to liability. But, why now? Are workplace sexual harassment cases on the rise? Is harassment occurring in industries uncommon from those typically known in the past? The #MeToo and Time's Up movements are shining a light on the fact that workplace harassment is found in all types of industries, not just those highlighted in recent media. The statistics regarding the number of sexual harassment incidents occurring in any industry, however, cannot be determined with any level of reliability or validity due to the high number of cases that go unreported, and the widespread usage of Confidential Settlement Agreements that, until recently, were part and parcel of most settlements in sexual harassment cases. The secrecy surrounding such agreements arguably has contributed to the ongoing prevalence of workplace sexual harassment. This mandate of silence is also to blame for the post-traumatic stress plaguing victims of sexual harassment. While historical research has shown that workplace harassment has existed for decades, the movements have found a platform at a time when all aspects of the issue are converging, thereby making the time ripe for changes in legislation and challenging employers to rethink the way anti-harassment training is conducted.

Key words: sexual harassment, confidential settlement agreements, #MeToo.

INTRODUCTION

Time Magazine's 2017 Person of the Year cover story was "The Silence Breakers" - the faces of women and men who came forward to give a voice to the subject of sexual harassment. On October 17, 2017, Facebook reported that there were more than 12 million posts, comments and reactions regarding "#MeToo"

in less than 24 hours by 4.7 million users around the world (Khomami, 2017). In the year that followed, the campaign that launched a worldwide conversation about sexual harassment, especially in the workplace, unleashed a wave of disclosures from women sharing their experiences of sexual harassment by clicking hashtag “MeToo”. The movement resonated with millions of women who identified with the stories being reported from well-known celebrities. Women with stories that were before shrouded in secrecy were now sharing, “It happened to me, too.”

Statistics reveal that over half of all American women have experienced “unwanted and inappropriate sexual advances” at some point in their lives, with over 30% by male colleagues. A 2018 poll found that 33 million U.S. women have been sexually harassed and 14 million sexually abused in work-related episodes. Ninety-five percent of the women polled reported that the male perpetrators go unpunished. Based on these findings, it is not surprising to learn that three out of four people who experience sexual harassment in the workplace never report it (Zillman, 2017).

The #MeToo movement has empowered women to come forward with stories of their experiences of workplace sexual harassment by offering a platform where their voices can be heard. This is in stark contrast to decades of silencing victims’ voices due to nondisclosure clauses in settlement agreements that prohibited victims from speaking about the harassment. Prior to January 2019, most all Confidential Settlement Agreements were equipped with specific contract language delineating what parts of the incident were forbidden to be disclosed, as well as damages associated with any breach of contract. Along with monetary payouts as consideration to the agreement, confidentiality was material to the contract and any disclosure of the workplace abuse constituted a breach of contract, giving way to stiff monetary penalties. In essence, the alleged offender - harasser and company - was buying a victim’s silence. Arguably, the prevalent use of Confidential Settlement Agreements in sexual harassment cases over past decades has not only had a severe, long-term adverse impact on victims’ mental and physical health, but has created a barrier to the prevention of workplace sexual harassment, thereby enabling the harassment to proliferate.

In response to demands for change from anti-harassment advocacy groups, new legislation was passed in several states in January 2019 banning nondisclosure agreements in sexual harassment cases. California, along with several other states at the end of the 2018 legislative session, enacted new laws that significantly

impact employers. Among the Me Too legislation signed into law in California were bills concerning nondisclosure agreements and sexual harassment training (Martin, 2018). A provision within a settlement agreement that prevents disclosing factual information related to a claim of sexual harassment entered into on or after January 1, 2019 is void as a matter of law and as against public policy.

While victims of workplace sexual harassment can be found in other classifications of individuals beyond women, including men and members of the LGBTQ community, this paper narrowly focuses on sexual harassment against women by taking a historical look back at women's struggle for equality. Through a case study, the paper analyzes legal and socio-psychological impacts of sexual harassment to determine the underlying reasons sexual harassment continues to occur in the 21st century workplace. HR policies and new methods of training to comport with the current updates in the law will be explored with a focus on creating a culture of equality as a means of fostering an inclusive, safe, and respectful environment for all employees.

CASE SCENARIO

Along with other advocacy groups, many celebrities in the entertainment industry have joined together in the fight for a fair and equitable workplace. The #MeToo movement has also created a space for artists to share their contributions to the ongoing dialogue in an effort to provide enlightenment and understanding about the subject of sexual harassment.

In a demonstration of art imitating life, actor David Schwimmer collaborated with filmmaker Sigal Avin to produce a series of short videos titled, "That's Harassment" (Avin & Schwimmer, 2018). The videos star various actors in compromising positions - most involving workplace scenarios and some concerning sexual harassment in other areas - but all based on true accounts.

In a video called, *The Boss*, Schwimmer portrays a lawyer working in a law firm. Actor Zazie Beetz plays his newly-hired young assistant. As the scene unfolds, the lawyer is working late in his office. His assistant enters his office asking if he needs any help. The lawyer exhibits frustration with his computer, complaining that he seems to have lost a client file. The assistant offers to help and, within approximately 20 seconds, she finds the file. As the assistant stands up to leave, the lawyer says, "You're amazing... you're really sweet." The assistant thanks

him and says she'll be going home for the day. The lawyer tells her that he will drive her home. She tells him that won't be necessary. He keeps insisting and she keeps declining, stating that it's just a short train ride. He then asks, "You don't get bothered on the train?" She replies, "No, I just put my headphones on and listen to music." The lawyer further engages her in conversation asking, "You're happy here? Everything good? Is everyone treating you right?" The assistant assures him everything is great and that she feels really lucky to have the job. The lawyer proceeds to tell her that he is really glad that they chose her, even though ... "you know, they wanted someone older, more experienced... and the salary..." She responds, "Oh, yes... I was about to move in with my parents...it really saved me. I feel really lucky." The lawyer then says, "I want you to know that I really believe in you." The assistant thanks him, and the lawyer reaches out to touch her ear, commenting on her earrings, then lunges in, kissing her on the mouth. She pulls away in shock and bewilderment, saying, "Uh... I'm sorry, I have a boyfriend," He says, "That's okay, I'm married." She proceeds to state her discomfort with the situation as she edges toward the door. The lawyer then steps around her and in front of the door, blocking her exit. He proceeds to tell her that he does not want to make her feel uncomfortable and that he was just trying to express to her how great she is. Then he repeatedly asks, "Are we okay? Nothing happened, are we okay?" She nervously says, "Yes, it's okay." Then he insists that they hug, despite her expression of discomfort. "This is how we show we're okay," he says as he proceeds to hug her while her arms are up in front of her blocking him. Then, he finally moves away from the door. She exits the office.

LEGAL ANALYSIS

In the scenario above, what happens next can be examined from both a legal and psychological perspective. While the legal perspective may be limited to procedure and resolution of the issue at hand, the psychological perspective illustrates a long-term experience focused on the mental and physical damage sexual harassment plays on the life and health of the victim. A closer examination, however, will reveal that a key component of the long-term adverse impact can be traced to the secrecy associated with confidentiality clauses of the settlement agreements which, until recently, were a part of the legal resolution of the matter. Therefore, what was perceived as the best possible resolution at the time – the victim removed from the toxic, unsafe workplace and paid monetary damages - turned out to be a psychological prison that continued to haunt the victim for years to come. The utilization of non-disclosure and non-disparagement clauses in the legal process extends the healing process

indefinitely by its mandate of secrecy, while perpetuating the occurrences of workplace sexual harassment, thereby allowing the harasser and employer to escape accountability.

The legal definition of sexual harassment may be taken directly from the federal statute as set forth in Title VII of the Civil Rights Act of 1964 and through the guidance of the administrative agency charged with enforcing the statute.

According to Title VII of the Civil Rights Act of 1964, it shall be unlawful employment practice for an employer –

- (1) to fail or refuse to hire or to discharge any individual, or otherwise to discriminate against any individual with respect to his compensation, terms, conditions, or privileges of employment, because of such individual's . . . sex [gender] . . . [Title VII of the Civil Rights Act of 1964, as amended, 42 U.S.C. § 2000e-2(a).]

Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature constitute sexual harassment when (1) submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment, (2) submission to or rejection of such conduct by an individual is used as a basis for employment decisions effecting such individual, or (3) such conduct has the purpose or effect of unreasonably interfering with an individual's work performance or creating an intimidating, hostile, or offensive working environment. [29 C.F.R. § 1604.11 (a) (EEOC Sexual Harassment Guidelines).]

There are two theories under which a sexual harassment claim can be made: Quid Pro Quo and Hostile Work Environment. Quid Pro Quo sexual harassment is harassment in which the harasser requests sexual activity from the harassee in exchange for workplace benefits. The elements of Quid Pro Quo sexual harassment are: a workplace benefit promised, given to, or withheld from the harassee in exchange for sexual activity and accompanied by a paper trail (e.g., promotion, raise, termination paperwork). Hostile Work Environment sexual harassment is harassment in which the harasser creates an abusive, offensive, or intimidating environment for the harassee. The elements of a prima facie case are: unwelcome behavior, based on gender, severe or pervasive, affects a term, condition, or privilege of employment, and the employer had constructive knowledge and took no remedial action.

In the scenario above, a viable claim for hostile work environment sexual harassment can be made as the boss created an abusive, offensive, and intimidating environment for his assistant. His behavior was unwelcome, severe, and based on his position as boss, knowledge and liability is imputed. Quid pro quo may also be argued based on the boss' insinuation that he had some part in her receiving a salary that was above her qualifications (so, she owed him something in return). Depending on how the scenario plays out in the days that follow the incident, both quid pro quo and retaliation may become viable claims. In any event, the "zero tolerance" harassment policies professed by the firm at the start of the assistant's employment, in reality, proved to be hollow promises with false commitments.

In most cases where a settlement is negotiated, the terms of the agreement will be formalized contractually in a settlement agreement. Before January 2019, the agreement, whether labeled Confidential Settlement Agreement or Non-Disclosure Agreement, or other such titles, will have undoubtedly contained contractual language binding the harasser to confidentiality as to the claims being made and settlement terms thereof. The use of Confidential Settlement Agreements in workplace sexual harassment cases was commonplace for decades before the new law was passed in 2019 in California. While the intent of silencing the victim to preserve a company's reputation was certainly intentional, the long-term effects of the silencing were not predicted.

UNFORESEEN CONSEQUENCES OF CONFIDENTIAL SETTLEMENT AGREEMENTS

Of all the discoveries unearthed by the #MeToo movement, the most revealing was the devastating impact of being forced into silence after being harassed and the long-term health issues that resulted. "For decades, secret settlements have been used by wealthy and well-connected perpetrators to offend repeatedly with no public accountability," wrote State Senator Connie Leyva, who authored the bill to prohibit non-disclosure agreements in sexual harassment cases. "This critical legislation will empower victims and offer them the opportunity to finally say Time's Up to those who have hurt them" ([nytimes.com](#)).

Research clearly shows links between secrets and illness. The negative health effects of secrecy, both physical and mental, have been studied by psychologists for years. Emotional distress manifests physically in a variety of illnesses. People hiding personal traumatic secrets showed more incidents of hypertension,

influenza, cancer, and other disease (Pennebaker, 1984). The reverse is also true. Research showed health benefits to revealing secrets. Disclosure can reduce rumination and worry, freeing up the mental quagmires that hinder social relationships. Putting experiences into words has a powerful effect on the healing process (Pennebaker, 1984).

A study by Dansky and Kilpatrick (1997) of over 4,000 women who had experienced sexual harassment in the workplace found that women who had experienced unwanted sexual attention or sexual coercion at some point during their careers were more likely to be experiencing current depression and symptoms of post-traumatic stress disorder beyond 10 years after the harassment occurred. These statistics go a long way toward explaining why 4.7 million people clicked #MeToo 12 million times in 24 hours. Hearing the stories of the silence breakers triggered their own trauma-filled experiences that for years had been suppressed out of legal necessity and fear. The post- traumatic stress and anger that emerged was a revelation that women are not healing, the workplace climate is not improving, and the silence has finally reached a breaking point, exploding onto the #MeToo platform.

PSYCHOLOGICAL ANALYSIS

While often defined from a legal viewpoint, sexual harassment has broader connotations that may be best explained by considering psychological impacts in addition to the legal liabilities. What happens next in the case scenario above can be examined from a social-psychological perspective, necessitating definitions of sexual harassment from other disciplines.

In studies of sexual harassment from a social-psychological perspective, psychological researchers have applied a socio-psychological definition focused on the victim's subjective interpretation of the experience defined as, "unwanted sex-related behavior at work that is appraised by the recipient as offensive, exceeding her resources, or threatening her well-being" (Fitzgerald, Drasgow, Hulin, Gelfand, & Magley, 1997). Sexual harassment based on the social psychological definition generally fits into one of five categories: general sexist remarks and/or behavior, inappropriate sexual advances, solicitation of sexual activity or rewarded sexual favors, coerced sexual activity that include threats of punishment, or sexual assault (Till, 1980).

The psychological effects of sexual harassment can range from mild to severe, resulting in decreased work performance or job loss, symptoms of extreme personal distress such as depression, anxiety, and sleeplessness, and physical problems such as headaches, gastrointestinal upset, and raised blood pressure (Fitzgerald, Schneider, & Swan, 1997).

A meta-analysis of harmful workplace experiences and women's occupational well-being conducted by Sojo, Wood, & Genat (2016) found that more intense yet less frequent harmful experiences (e.g., sexual coercion and unwanted sexual attention) and less intense but more frequent harmful experiences (e.g., sexist organizational climate and gender harassment) had similar negative effects on women's well-being. The evidence indicated that power imbalance explained the impact of harmful work experiences on women's well-being.

An example of the effects of imbalance of power can be made by observing the reactions of the victim in the case scenario. The short video is particularly effective in demonstrating to the viewer a scenario that is too often experienced by women in the workplace. The calculating portrayal of a boss's exchange with a newly hired employee, along with body language cues, provides ample emotional behavioral flags which may be observed by the viewer, as follows, providing opportunity for analysis of the psychological impact of the boss's behavior on the assistant while the sexual harassment unfolds.

Boss: Elicits her help. Presents himself vulnerable, not understanding the computer program; questioning his own lack of computer skills.

Assistant: Feels pleased to be needed and competent when she locates the missing file.

Boss: Extends several verbal compliments to her.

Assistant: Feels proud and grateful to be recognized for her skills.

Boss: Tells her that he will drive her home, over and over again, despite her objections.

Assistant: Confused and taken off guard.

Boss: When it is clear this tactic is not working with her, his tone quickly changes. Now, he insinuates that she was not entirely qualified for the job, and that the pay was more than her experience warranted – all the while continuing to compliment her, as if he was one of the supporters who played a role in her selection.

Assistant: Feels deflated; her confidence is dashed.

Boss: Makes his attack, lunging toward her and kissing her on the mouth.

Assistant: Feels stunned. Freezes up in fear and shock. Pulls away. In her bewilderment, she apologizes, stating she has a boyfriend.

Boss: He says, “That’s okay, I’m married” – as if to convey that there is no commitment needed here; it’s only about sex.

Assistant: Realizes what is transpiring and the type of person he is. Restates her discomfort with the situation.

Boss: Realizes he is getting nowhere with her. Getting nervous about what she might do the next day, he acts as if it is not a big deal stating he was only trying to show his appreciation for her. Continuing to exert his power over her and exhibit control, he blocks the door; insists on hugging her, despite her objections.

Assistant: Frozen in fear about what might happen next; in fight or flight mode and anticipating another attack, she acts as if everything is okay. She says what she thinks he wants to hear in order to escape.

For a victim of sexual harassment, life can change within minutes. In this scenario the assistant’s life changed in the four short minutes of an encounter with someone who held a position of power over her. Within those four minutes, a myriad of decisions had to be made – e.g., whether to flee, whether to scream – and those decisions needed to be navigated around the possible consequences of her actions or inactions. Will she escape without being further assaulted? Will she be fired if she makes him mad? Will she be believed if she complains? Will she be retaliated against? If she quits or is fired, how will she pay her rent? Will she have to go back home to live with her parents? Within those four minutes, a promising career was tainted. Within those four minutes, her confidence was dashed. Within those four minutes, all the degrees she rightfully earned and the skills and abilities she possessed were diminished.

Workplace harassment of women has existed since the time women entered the workforce. Harassing behaviors have been found to stem from a resistance to the presence of women in the working world based on stereotypes surrounding gender norms. The notion of women doing something more with their lives outside of the home violates the traditional stereotypical societal norms assigned to women of wife, mother and homemaker, thereby threatening the status quo. Evidence shows gender stereotypes to be at the core of the problem of harassment against women. Many incidents of sexual harassments are driven by power or identity-based concerns. Leskinen, Cortina, & Kabat (2011) suggest a definition of harassment as being a form of hostile environment harassment that appears to be motivated by hostility toward individuals who violate gender ideals rather than by desire for those who meet them.

A LOOK BACK AT WOMEN'S STRUGGLE FOR EQUALITY

In order to understand why sexual harassment is occurring in epidemic proportions in the 21st century, it is necessary to trace the problem to its roots. When lawyers analyze law, they often start by looking to the intent of the statute. For example, an examination of Title VII of the Civil Rights Act of 1964 will show that the passage of this legislation came about as a response to the Civil Rights movement in the United States in the early 1960s, specifically discrimination against African Americans in the workplace on the basis of race. Similarly, in order to understand sexual harassment behaviors, it is important to know that sexual harassment is a form of sex (gender) discrimination under the law. Because sexual harassment is a form of gender discrimination, the two behaviors co-occur, i.e., an act of sexual harassment against a woman falls under gender discrimination (Bennett-Alexander & Hartman, 2019). Therefore, it is important to understand the root cause of gender discrimination.

Discrimination against women on the basis of sex can be explored by recounting the historical plight of women on the road to gaining equality. A small chronological sampling follows, beginning with some of the more well-documented events dating back to early centuries when a woman was considered chattel: the property of her husband. The idea of women as chattel can be found in legal codes throughout history in various countries and cultures. In the patriarchal society of Old New York, women were treated as chattel and valued as objects. Even the centuries-old chattel law was on the books in Ireland in the late 20th century. Criminal Conversation was one of the most oppressive anti-women laws in Ireland, stating that a wife was the property of her husband. The law was abolished in England in 1857, but remained on the Irish statute books as recently as the mid-1970s (Corless, 2015).

Women were not allowed to vote in the United States until the passage of the 19th Amendment to the United States Constitution which prohibits states and the federal government from denying the right to vote to citizens of the United States on the basis of sex. Decades of efforts from 1840-1920 by the Women's Suffrage movement made historical strides – but not without painful efforts and much opposition designed to silence their voices - until women were finally granted the right to vote in the United States in 1920 (womenshistory.org).

In the 1950s in the United States, a woman was not allowed to open a bank account in her own name without her husband co-signing, even if she was in the workforce earning her own income. Before the Equal Credit Opportunity Act was passed in 1974 in the United States, banks required single, widowed, or divorced women to have a male cosigner on any credit application, regardless of their income (McGee & Moore, 2014). Additionally, a woman could not own a home or a business without her husband on the loan. As it followed, women were effectively barred from jury duty because only property owners qualified to serve. In the 1960s in the United States, the Women's Rights Movement made headlines through publicized activism resulting in sex (gender) being included as a protected class in a key piece of anti-discrimination law: The Civil Rights Act of 1964.

Many events concerning women's struggles for equality, however, were not publicized due to societal norms of suppression of women, as well as attitudinal barriers against women. One little-known story is the fact that gender was not originally a part of the Civil Rights Act. When it was clear that the bill had enough support to pass, gender was inserted to the bill at the 11th hour by Judge Howard Smith, a southern legislator and civil rights foe desperate to maintain segregation in the south. His strategy was to include gender to the bill legislating racial equality, believing that the entire bill would surely be defeated based on the notion that most male voters would not want their wives in the workforce. While his strategy failed and the Civil Rights Act passed, the ploy resulted in very little legislative debate on the gender category of the bill and, therefore, little guidance to the courts in interpreting what Congress intended by prohibiting gender discrimination (Bennett-Alexander & Hartman, 2019).

Sometimes, in the behind-the-scenes facts the true stories reside. While there is much historical documentation about Woman Suffrage, there is less documented about the “iron-jawed angels” of the suffrage movement. A key leader in the movement, Alice Paul, along with another activist, Lucy Burns, broke off from the National American Woman Suffrage Association (NAWSA) over strategy differences and became leaders of the National Woman’s Party (NWP). When one of Paul’s confrontational protests for the vote landed the activists in jail, they were subjected to tortuous treatment in the Occoquan women’s prison in Virginia. They received no legal counsel or visitors. When they went on a hunger strike, they were brutally force-fed and abused, hence the name “iron-jawed angels.” Despite efforts, the press were unable to get any information about the brutal treatment of the activists until one activist finally was granted a visitor.

Paul was able to slyly give the visitor a letter detailing the abuse the activists endured in the prison. When the story broke in the press, public sympathy for the suffragists grew, eventually leading to the passage of the 19th Amendment to the United States Constitution guaranteeing women the right to vote (suffrageandthemedia.org).

Other under-publicized information concerned the important contributions by women in male-dominated professions. Biologist Rachel Carson's publication of *Silent Spring* which exposed the harm of widespread usage of pesticides was highly influential in changing public opinion about the importance of environmental protection, eventually leading to the passage of the Environmental Protection Act in 1970. However, gender-biased criticism of Carson as a scientist and attitudinal barriers overshadowed her discoveries and she was not given proper credit until after her death (Brinkley, 2012).

Major contributions by women to various industries were often not taught in history classes, or even known by the general public. Moreover, the credit for some contributions by women were usurped by men. An untold story about women in the STEM profession includes the contributions to the NASA program of four African American women in the 1950s and 1960s: mathematician and physicist Katherine Johnson, mathematician and aeronautical engineer Mary Jackson, mathematician and supervisor Dorothy Vaughan, and mathematician Christine Darden (Shetterly, 2016). Their brilliant work as "human computers" and their critical mathematical calculations played a crucial role in the space launch of the first American to orbit Earth. Their contributions were virtually unknown to the public until Margot Lee Shetterly's 2016 publication of their story and the award-winning movie, *Hidden Figures*, was released to high acclaim. They faced intersectionality obstacles in the workplace based on their sex *and* race, but their genuine excitement for and love of their life's work enabled them to persevere with determination and professionalism throughout their careers.

For centuries, women authors used male pseudonyms in order to place their manuscripts in a position to be read, as well as to have any chance of being considered for publication. Similarly, women artists over the centuries have been restricted to certain genres of their craft based on what the male art critics deemed acceptable as coming from a woman (Nochlin, 2015). Additionally, throughout history women in sports have endured gender-based discrimination and harassment. Tennis icon, Billie Jean King, a tireless advocate for women's

rights in sports, forever changed the landscape for women professional tennis players based on her courageous efforts for equality and equal pay for women.

Sexual harassment became a household term in 1991 during televised hearings of Anita Hill testifying before the Senate Judiciary Committee on the Clarence Thomas Supreme Court nomination. Her claims against Thomas of sexual harassment were alleged to have occurred in the early 1980s when Thomas was her supervisor and head of the EEOC and Hill was a staff attorney. Professor Hill was reluctant to testify and only did so when an FBI interview was released. Her fears were realized when her testimony was not believed and she was publicly disrespected by Senators who made racial and sexist remarks during questioning. She was publicly maligned and even received death threats. While it is common knowledge that Thomas was confirmed to the highest court in the land, what is not often heard or talked about are the thousands of cards, hand-written notes, and typed letters that Hill received from women across America who thanked her for her courage and shared their own experiences about sexual harassment in the workplace (Hill, 2011).

In testimony before the Senate Judiciary Committee in 1993, Supreme Court nominee Ruth Bader Ginsburg reflected on her days at Harvard Law School in 1956-1958 as one of nine women in the first-year class. The Dean of the Law School at the time asked Ginsburg to justify taking a place in the class that otherwise would have gone to a man. She spoke about the indignities that Harvard imposed on women as being the catalyst to her spending much of her legal career fighting to break down legal barriers to the advancement of women in society (Stoll, 1993).

A LOOK FORWARD AT WOMEN'S PROGRESS IN THE FIGHT FOR EQUALITY

To forget the struggles women have endured in the progression of their development in the workforce is to risk history repeating itself. While the small sampling of stories above occurred decades ago, some may ring as a *déjà vu* from recent headlines.

In 2018, Professor Christine Blasey Ford testified before the Senate Judiciary Committee on the Brett Kavanaugh Supreme Court nomination. Her claims that Kavanaugh sexually assaulted her at a prep school party in the 1980s received national and international public attention. Comparing the televised testimony to

that of Anita Hill's testimony 27 years earlier reveals some striking similarities. There appeared to be no change or improvement in the process. While Professor Ford was treated more respectfully than Professor Hill, the tone of many of the senators exposed their confirmation bias. Hostility toward women was evident in the manner in which several of the male senators, and the nominee, treated the female senators, in stark contrast to the tone they took with other opposing male senators. The dismissing, disrespectful tone used on national television made clear that this was common workplace behavior for them. Moreover, they appeared to not recognize the disparate treatment. The rush to judgment in the decision-making process revealed that nothing was learned from past events and, more importantly, the majority did not appear to care.

Nearly 70 years after NASA's Johnson, Jackson, Vaughan, and Darden were hidden from the public eye and their contributions went unacknowledged publicly, women have taken their place in the STEM field at large companies such as Google, representing an appearance of positive change and progress for women. Looking within, however, we see incidents of a hostile work environment and disparate treatment, behavior that essentially alters the working conditions and adversely impacts women employees. On November 1, 2018, thousands of Google employees worldwide staged a walkout demonstration regarding the company's response to sexual harassment and workplace inequality (D'Onfro & Castillo, 2018). The protest followed a report that Google gave a \$90 million exit package to a senior vice president in 2014 after he was accused of sexual harassment. The protestors claimed that Google has been slow to address numerous structural issues such as unchecked power of male employees.

While women are aptly represented in sports, the treatment of women in sports is another story. In 2018 when several top Olympian gymnasts reported being molested by their team doctor and harassed by their trainers, USA Gymnastics tried to silence them. When one victim reached out to the chief executive of the sports federation, she was told that very, very few people were in the loop and that the most important thing is to keep this quiet (Connor, Fitzpatrick, & Abou-Sabe, 2018).

By all appearances, women have made great strides in obtaining equal rights and fair treatment in the workplace. But in reality, how far have we come? Chronicling women's progress for equal rights and fair treatment helps to remind generations of the struggles that women have endured to create a better future for

generations to come and, hopefully, guard against the risk of history repeating itself. However, until societal norms catch up with equal rights laws, they are just words on paper. Until the actions of leaders in industry match the professed policies of a company, the policies are just hollow promises. To truly appreciate the import of women's courageous advocacy over the centuries is to first understand the social consciousness that has existed in the majority of society and in the workplace by those who hold positions of power (Fitzgerald, 2003).

To recap the historic chronology of women's progress in obtaining equality in the workplace, a comparison of then versus now shows: Women have progressed from being chattel to being silenced and suppressed; from being ignored and unheard, to being heard and dismissed; from being listened to and not believed, to being believed, but treated apathetically; from being silenced, again, to now having a voice.

The theme that can be traced throughout history is the suppression of women's voices. But, attempts to silence the voices of women will continue unless the mentality and societal norms change to a view of respect for all individuals regardless of gender. Until social consciousness catches up with the intent of the law, violations of the law will continue to occur. Change will not happen as long as there continues to be secrecy. Transparency in all employment practices is essential. Open communication methods from the company's leadership that is instituted for the purpose of genuinely engaging with employees to seek feedback and ideas should be incorporated into employment practices.

HR ANTI-HARASSMENT TRAINING METHODS REIMAGINED

Far too often and for far too long, anti-harassment training methods have been compliance-based, with a view to mitigating an employer's exposure to legal liability. Most training is perceived by employees as a mandatory task that takes time away from their job duties and deadlines. Many employers are resentful for having to expend resources to remain in compliance with labor and employment laws. Check-the-box training - listening to video lectures in isolation, answering questions, passing the test, receiving a certificate of completion – are the norm. After completion of the training video, the employee does not have to think about anti-harassment issues again for another two years. The employer, in turn, can check the box that the company has satisfied the requirements of the law, thereby fulfilling any audit that may be conducted by an EEO agency. The company has

the necessary documentation to prove that the employees have been trained in workplace anti-harassment law.

Learning about the elements of the law, however, is quite different from learning how societal norms impact the behaviors of employees and leaders of an organization. Issues surrounding changing perceptions of sexual harassment behaviors over time pose a challenge to the work environment. Behaviors that are now considered inappropriate were justified, accepted, and tolerated in the past (Cortina & Berdahl, 2008). What has been missing in anti-harassment training is a holistic approach to the issues of gender discrimination and harassment. Tapping into the perceived culture of the company as a whole can provide vital information that can be utilized to create necessary interventions and preventive measures to restore the health of the entire organization and all its employees.

As with any healthy relationship, the employer-employee relationship should be built on a foundation of trust and respect. If the HR Director is professing that the company is an EEO organization while individual leaders of the company are overtly or covertly discriminating against and harassing employees, engaging in retaliatory actions, or condoning such behaviors by inaction, employees will know that the company's "zero tolerance" policy is simply a façade, designed to shield the organization from legal scrutiny. The policy then plays out as a false commitment, and employees will realize that the leadership of the company is not concerned with keeping the employees safe. The breakdown of trust will result in disillusionment and low morale. If trust is lost, the employer-employee relationship shifts from cooperative and collaborative to isolated and adversarial. Climate surveys can be very useful in gauging the morale of employees, especially if employees are not inclined to be forthcoming about problems based on distrust, fear of reprisals, or the existence of a hostile atmosphere. An organizational development consultant can prepare and administer the surveys independently and in a neutral environment. The results should be shared with the entire organization along with concrete plans to address critical issues and shortcomings.

According to the new requirements for California employers concerning anti-harassment training, all supervisors must receive at least two hours of training (within six months of assuming their position – and once every two years thereafter), and all non-supervisory employees must receive at least one hour of sexual harassment training. Further, bystander training was allowed in California, but not made mandatory as in some states. Large companies may want to retain

the video format training out of convenience, making the necessary updates and additions of all employees to the training schedule, however, consideration should be given to additional exercises beyond the requisite hours set forth in the new laws. The training schedule could be supplemented with communication exercises to address the foundational aspects of the issues of sexual harassment and gender disparity. A lesson plan may include a brief historical timeline, as discussed above, to provide a framework for employees that will make the material more relatable.

HR professionals can utilize training methodologies associated with emotional intelligence concepts in order to orient and train supervisors and non-supervisory employees. Determining the format and venue of the training depends upon the size of the group to be trained and the type of training to be administered. The communication exercises can be rolled out in a “train the trainer” format for leadership and top management, then to all employees

The time is ripe for meaningful, engaging exercises in a group setting. Similar to taking an employment law class, case studies should be utilized in a classroom format, to include group breakout sessions with a subject matter expert facilitating the process. Time should be allowed for journal reflections, along with voluntary sharing to enrich the learning process. Bystander intervention could be incorporated into the case studies to illustrate in group sessions how each person can find their voice and be given the tools to speak up (Schulte, 2018).

This new approach to training will produce a paradigm shift in workplace dynamics. The process demands a significantly longer expenditure of time and effort than what is required by law, but the preventive measures have considerable value that extend beyond monetary benefits. Ideally, it is designed for two-hour sessions weekly to span a period of one month, in order to allow for reflection time between sessions. The importance of additional time spent on meaningful engagement cannot be overstated. The improvement to the company’s culture through relationship-building exercises designed to foster authentic communication will go a long way toward creating an environment of trust and respect. Once a community of trust and respect is built, all the members of the community by their behavior will set the tone for what is acceptable and what is not acceptable conduct.

CONCLUSION

In reading each of the thousands of letters she received from women across America, Professor Anita Hill found some common themes emerge. She saw a disconnect between legal policies on the books and how they were actually carried out. The individuals who wrote to her to share their experiences of sexual harassment saw legal protections as inaccessible or having too many negative consequences. Countless individuals expressed that rather than pursue their legal rights, they had left jobs that they treasured. Of those who did make formal complaints, some felt satisfaction and many others wrote about the negative toll that the process took on them and their families. She noted that laws alone are not enough – only an understanding of history, culture, and the human experience could bridge the gap. Though the law may fail individuals, the public discourse that follows can bring about collective understanding that can effect change (Hill, 2011).

In order to finally realize change in the culture surrounding workplace sexual harassment, all parties must join in the effort. Legislators, employment lawyers - both management side and employee side - federal and state administrative agencies, and all employers and employees must make workplace safety a priority. This is not an “us versus them” issue, rather a subject for all generations and future generations to address in the workplace. Time’s Up for tolerating, condoning, and ignoring harassing acts. While there may be a long road ahead to complete eradication of workplace harassment, the only way to move forward in breaking the silence is by continuing the conversation.

AUTHOR’S NOTE

Employment laws are rapidly changing in the area of workplace sexual harassment. The author provides no legal advice in this article and, as such, nothing written herein is intended to be construed as legal advice. The author strongly encourages individuals and employers to seek legal counsel from an attorney specializing in the area of labor and employment law for all inquiries concerning workplace discrimination and harassment.

The author has settled dozens of sexual harassment cases on behalf of victim employees over the course of her legal career. Recalling clients’ suffering from harassers, as well as re-living personal experiences of workplace harassment, has been emotionally painful. This paper is dedicated to all the silence breakers. Your courage is an inspiration for all generations.

REFERENCES

- Arango, T., Del Real, J. A. (2018). 5 Takeaways From California Gov. Jerry Brown's Last Bill Signing Session. The New York Times, October 1, 2018.
- Avin, S., Schwimmer, D. (2018). *That's Harassment: The Boss*. Milk Studios. YouTube channel.
- Bennett-Alexander, D., and Hartman, L. (2019). Employment Law for Business, (9th ed.). NY: McGraw-Hill. ISBN 978-0-07-802379-8.
- Brinkley, D. (2012). Rachel Carson and JFK, an Environmental Tag Team. Audubon Magazine, May-June 2012.
- Colvin, A. J. S. (2018). The growing use of mandatory arbitration: Access to the courts is now barred for more than 60 million American workers. Economic Policy Institute. April 6, 2018.
- Connor, T., Fitzpatrick, S., & Abou-Sabe, K. Silent no more: Inside the USA Gymnastics sex abuse scandal: Did USA Gymnastics try to silence McKayla, Aly and Maggie? nbcnews.com, April 23, 2018.
- Corless, D. (2015). When a wife was her man's chattel. The Independent, January 4, 2015.
- Cortina, L. M., & Berdahl, J. L. (2008). Sexual Harassment in Organizations: A decade of research in review. *The Sage Handbook of Organizational Behavior*. Vol. 1, 469-497.
- Dansky, B. S., & Kilpatrick, D. G. (1997). Effects of sexual harassment. In W.T. O'Donohue (Ed.), Sexual harassment: Theory, research, and treatment (pp. 152-174). Needham Heights, MA: Allyn & Bacon.
- D'Onfro, J., & Castillo, M. (2018). Google employees around the world are walking out today to protest the company's handling of sexual misconduct. CNBC, November 1, 2018.
- Equal Employment Opportunity Commission. (1980). Guidelines on discrimination because of sex. Federal Register, 45, 74676-74677.

Journal of Business and Behavioral Sciences

Fitzgerald, L. F. (2003). Sexual harassment and social justice: Reflections on the distance yet to go. *American Psychologist*, 58, 915-924.

Fitzgerald, L. F., Drasgow, F., Hulin, C. L., Gelfand, M. J., & Magley, V. J. (1997). Antecedents and consequences of sexual harassment in organizations: A test of an integrated model. *Journal of Applied Psychology*, 82, 578-589.

Fitzgerald, L. F., Schneider, K. T., & Swan, S. (1997) Job-Related and Psychological Effects of Sexual Harassment in the Workplace: Empirical Evidence From Two Organizations. *Journal of Applied Psychology* 1997, Vol. 82, No. 3, 401-415.

Gurchiek, K. (2019). Google Employees Fight Forced Arbitration Agreements. SHRM.org. January 15, 2019.

Hill, A. (2011). The Stories I Carry With Me, Time Magazine Oct. 12, 2011.

Khomami, N. (2017). #MeToo: how a hashtag became a rallying cry against sexual harassment. The Guardian, October 20, 2017.

Lanhee Lee, J., Dave, P., Google's '#metoo' moment: Workers walk out over women's rights. Reuters.com.

Leskinen, E., Cortina, L., & Kabat, D. (2011). Gender harassment: Broadening our understanding of sex-based harassment at work. *Law & Human Behavior*, 35, 25-39.

Maddux, K. (2009). Women's Suffrage and the Media. *Feminist Media Studies*, Vol. 9, Issue1, pp.73-94, February 23, 2009.

Martin, B. (2018). 18 Important Signings and Vetoes from Jerry Brown's Busy Weekend. Los Angeles Times, October 2, 2018.

McGee, S., & Moore, H., Women's rights and their money: a timeline from Cleopatra to Lilly Ledbetter. *The Guardian*, August 11, 2014.

Schulte, B. (2018). To Combat Harassment, More Companies Should Try Bystander Training. *Harvard Business Review*. October 31, 2018.

Nochlin, Linda, From 1971: Why Have There Been No Great Women Artists?
ArtNews, June 2015.

Shetterly, M. L. (2016). *Hidden Figures: The Untold True Story of Four African American Women who Helped Launch Our Nation Into Space*. William Morrow and Company, 2016.

Sojo, V. E., Wood, R. E., & Genat, A. E. (2016). Harmful workplace experiences and women's occupational well-being: A meta-analysis. *Psychology of Women's Quarterly*, 40, 10-40.

Stoll, Ira. (1993). Ginsburg Blasts Harvard Law. *The Harvard Crimson*. July 23, 1993.

Szalai, I. S., & Wessel, J. D. (2017). The Widespread Use of Workplace Arbitration Among America's Top 100 Companies. The Employee Rights Advocacy Institute for Law & Policy, September 27, 2018.

Till, F. (1980). *Sexual Harassment: A report on the sexual harassment of students*. Washington, DC: National Advisory Council on Women's Educational Programs.

Turner, N., 10 Things That American Women Could Not Do Before the 1970s, Ms. Magazine, May 28, 2013.

42 U.S.C. § 2000e-2(a).]

Zillman, C. (2017). A New Poll on Sexual Harassment Suggests Why "Me Too" Went So Insanely Viral. Fortune, October 17, 2017.

THE BUDGETARY IMPACTS OF HOSPITAL-ACQUIRED INFECTIONS

Ryan N. Schmidt

Sharon Hunt

Mitchell Stapp

Texas Tech University Health Sciences Center

ABSTRACT

Hospital-acquired infections (HAIs) impose significant economic impact on the US healthcare system. It is essential to comprehend the underlying concepts and mechanisms put into place to prevent such infections and to identify their shortcomings in order to decrease their incidence in hospitals today. Applying two different Consumer Price Index (CPI) adjustments to account for the rate of inflation in hospital resource prices, the overall annual direct medical costs of HAIs to US hospitals was found to range from \$28.4 to \$33.8 billion (using the CPI for all urban consumers) and \$35.7 billion to \$45 billion (using the CPI for inpatient hospital services). After adjusting for the range of effectiveness of possible infection control interventions, the benefits of prevention range from a low of \$5.7 to \$6.8 billion (20 percent of infections preventable, CPI for all urban consumers) to a high of \$25.0 to \$31.5 billion (70 percent of infections preventable, CPI for inpatient hospital services) (Scott, 2009). Designing and implementing effective infection control interventions may prove to be lucrative for any healthcare organization.

Key words: Hospital acquired infections, organ transplant, *Staphylococcus aureus*, bloodstream infections.

INTRODUCTION

With a considerable aging population, increasing options for cancer treatment, and rising organ transplant numbers there is great concern for the number of patients that may now be at risk for obtaining a HAI. As these infections become more prevalent, it is essential to understand how they present and what their target populations may be. The following nosocomial infections will be reviewed: pressure ulcers, methicillin-resistant *Staphylococcus aureus*, *Clostridium difficile*, urinary tract infections and other catheter related bacteremia, anemia, venous thromboembolism, and acquired or ventilator-associated bacterial pneumonia. One of the most common issues seen in

hospitals nationwide is the development of pressure ulcers. A pressure ulcer is a localized injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear and/or friction and are considered chronic wounds with physiologically impaired healing (Brem, 2010). Pressure ulcers tend to appear easily in bed bound patients and their progression should be monitored closely. Pressure ulcer incidence has increased by 63% in recent years, with a prevalence as high as 26% among hospitalized patients, 43% among those in nursing homes, and 39% among patients with spinal cord injuries (Brem, 2010). Another seemingly perpetual nuance in healthcare environments is bacteria. Whether it be the negligent use of antibiotics leading to antibiotic resistant ‘superbugs’, stubborn biofilms, or other general infections due to immunosuppression, it has been shown that bacteria may always pose as a threat to many hospitalized individuals. With increase in antibiotic resistant bacteria, methicillin-resistant *Staphylococcus aureus* (MRSA) has become a common target for epidemiologic studies. Some strains of MRSA have a particular facility for nosocomial transmission and are often resistant to several antibiotics in addition to the penicillinase-resistant penicillins and cephalosporins, and are occasionally only sensitive to vancomycin and teicoplanin (Ducel, 2002). MRSA infections tend to present similarly to the sensitive strains of *S. aureus* and is often seen in wound infections, lower respiratory and urinary tract infections, septicemia, sites for invasive devices, pressure sores, burns, and ulcers (Ducel, 2002). High-risk units often contain the most highly-susceptible patients and a few factors increasing the likelihood of acquisition of resistant organisms are as follows: prolonged hospital stay, excessive use of antibiotics in unit, inadequate facilities for hand washing and appropriate isolation, and patient overcrowding (Ducel, 2002). Along with the presence of MRSA in hospital settings there is another common bacteria that continues to also be associated with significant morbidity and mortality, *Clostridium difficile*. *C. difficile* is the leading cause of infectious nosocomial diarrhea in the United States and the incidence and severity of infection are increasing (Zhang, 2016). *C. difficile* infection (CDI) also presents a list of potentially life threatening complications such as; toxic megacolon, pseudomembranous colitis, and perforations of the colon leading to sepsis (Zhang, 2016). As with MRSA those who are at increased risk of CDI include the immunocompromised, patients with serious underlying disease, and those in high-risk units such as intensive care units (ICUs) (Zhang, 2016). Although not as threatening as the previously mentioned bacterial infections the most common nosocomial infection is the urinary tract infection. These infections are usually defined by the following microbiological criteria: a positive quantitative urine culture ($\geq 10^5$ microorganisms/mL, with a maximum of 2 isolated microbial species) and are usually associated with the use of an indwelling catheter (Ducel, 2002). Catheterization may present potential routes for other bacterial infection as well. It has been shown that MRSA is a common cause of potentially serious and costly health care-associated infections presenting frequently in hospitals as central line-associated bloodstream infections (BSIs) (Burton, 2009). The last

bacterial associated nosocomial infection may also show a correlation with the use of an assistive medical device. Although nosocomial pneumonia occurs in several different patient groups, the most important are the patients that require the use of ventilators in intensive care units (Ducel, 2002). The rate of pneumonia is 3% per day in those on ventilators in the ICU and there is a high case-fatality rate associated with ventilator-associated pneumonia (Ducel, 2002). These infections are often endogenous, stemming from the digestive system or nose and throat, but may also be exogenous, often from contaminated respiratory equipment (Ducel, 2002). "Known risk factors for infection include the type and duration of ventilation, the quality of respiratory care, severity of the patient's condition (organ failure), and previous use of antibiotics" (Ducel, 2002). Finally, the issue of blood related pathologies must be addressed. Something that often occurs upon hospitalization is a reduction in hemoglobin eventually leading to anemia. This hospital acquired anemia is classified as a reduction in hemoglobin to a level of less than 13 g/dL in men and less than 12 g/dL in women (Martin, 2015). Anemia is further broken down into three grades of severity: mild (Men: <13 g/dL but >11g/dL, Women: <12 g/dL but >11g/dL), moderate (9.1 to 11 g/dL) and severe (<9.1 g/dL) (Martin, 2015). At risk populations are said to be those who have surgical losses, coagulopathies, are on certain chemotherapy or antibiotics, or through overuse of phlebotomy (Martin, 2015). The other common blood pathology seen in hospitals nationwide is venous thromboembolism (VTE). The occurrence of VTE arises spontaneously or is caused by clinical conditions such as: surgery, trauma, or prolonged bedrest (Kyrle, 2005). VTE can lead to serious complications such as pulmonary embolism, which occurs when a blood vessel in the lung becomes blocked by the thrombus created in another part of the body. This can be life threatening and it is just one more reason as to why at risk patients should be closely monitored for the development of VTE. These conditions should be cause for alarm due to their potential to cost any healthcare organization millions in avoidable costs.

PROBLEM STATEMENT

The costs of healthcare-associated infections may seem comparatively small at first when observing the impact of one or two cases but when reviewed in aggregate there is a substantial observable impact on healthcare costs. Applying two different Consumer Price Index (CPI) adjustments to account for the rate of inflation in hospital resource prices, the overall annual direct medical costs of HAI to US hospitals was found to range from \$28.4 to \$33.8 billion (using the CPI for all urban consumers) and \$35.7 billion to \$45 billion (using the CPI for inpatient hospital services) (Scott, 2009). Control of HAIs should be one of the utmost priorities of any healthcare organization considering these costs may be avoidable simply with a sound infection control plan and a general knowledge of the etiology of these diseases. The following information will include a breakdown of each nosocomial infection previously reviewed. It was found in a 2008 study through the observation of 672 adult patients over a 2-day period that

the point-prevalence of pressure ulceration was 18.5% of which a staggering seventy-seven percent were hospital-acquired (49% grade 1, 37% grade 2, 11% grade 3, and 3% grade 4) (Gallagher, 2008). Although no direct cost has been established for hospital acquired pressure ulcers it is estimated to be approximately \$5 to \$8.5 billion (Beckrich, 1999). However, since then there has been a study conducted where the charts of nineteen patients with stage IV pressure ulcers were studied and it was found that the average hospital treatment cost associated with stage IV pressure ulcers and related complications was \$129,240 during 1 admission and \$124,327 over an average of 4 admissions (Brem, 2010). Following this cost analysis it was stated that the costs incurred from pressure ulcers are much greater than previously estimated (Brem, 2010). For bacterial infections one 2013 study used the Monte Carlo simulation to generate point estimates and 95% CIs for attributable costs and length of hospital stay. “On a per-case basis, central line-associated bloodstream infections were found to be the most costly HAIs at \$45,814 (95% CI, \$30,919-\$65,245), followed by ventilator-associated pneumonia at \$40,144 (95% CI, \$36,286-\$44,220), surgical site infections at \$20,785 (95% CI, \$18,902-\$22,667), Clostridium difficile infection at \$11,285 (95% CI, \$9118-\$13,574), and catheter-associated urinary tract infections at \$896 (95% CI, \$603-\$1189)” (Zhang, 2016). When locating estimated costs regarding hospital acquired anemia (HAA) there was no direct estimate attainable. However, among 188,447 hospitalizations, 139,807 patients (74%) developed HAA: mild, 40,828 (29%); moderate, 57,184 (41%); and severe, 41,795 (30%). Risk-adjusted odds ratios and 95% confidence intervals for in-hospital mortality with HAA were: mild, 1.0 (0.88-1.17; P = 0.8); moderate, 1.51 (1.33-1.71, P < 0.001); and severe, 3.28 (2.90-3.72, P < 0.001). Risk-adjusted relative mean LOS and hospital charges relative to no HAA were higher with HAA: LOS: mild, 1.08 (1.08-1.10, P < 0.001); moderate, 1.28 (1.26-1.29, P < 0.001); severe, 1.88 (1.86-1.89, P < 0.001). Hospital charges: mild, 1.06 (1.06-1.07, P < 0.001); moderate, 1.18 (1.17-1.19, P < 0.001); severe, 1.80 (1.79-1.82, P < 0.001) (Koch, 2008). These findings helped illustrate that HAA is in fact associated with increased mortality and resource utilization which generates an increase in overall costs. Finally, for VTE in the base model, annual cost ranges in 2011 US dollars for total, hospital-acquired, and hospital-acquired “preventable” costs and were \$13.5-\$27.2, \$9.0-\$18.2, and \$4.5-\$14.2 billion, respectively (Borrego, 2012). When given the amounts spent on the treatment and complications of HAIs one may begin to theorize just how much may actually be saved with an efficient infection plan. In 2009 the CDC found that after adjusting for the range of effectiveness of possible infection control interventions, the benefits of prevention range from a low of \$5.7 to \$6.8 billion (20 percent of infections preventable, CPI for all urban consumers) to a high of \$25.0 to \$31.5 billion (70 percent of infections preventable, CPI for inpatient hospital services) (Salzman, 1980). Estimated costs of nosocomial infections mentioned above may be found in *Table 1*

Table 1.

Nosocomial Infection	Estimated Costs
Pressure ulcers	<input type="checkbox"/> \$5-\$8.5 billion (total cost) <input type="checkbox"/> \$129,240 (per-case for stage IV)
Central line-associated bloodstream infections	\$45,814 (per-case)
Ventilator-associated pneumonia	\$40,144 (per-case)
Surgical site infections	\$20,785 (per-case)
Clostridium difficile infection	\$11,285 (per-case)
Catheter-associated urinary tract infections	\$896 (per-case)
Venous thromboembolism	\$4.5-\$14.2 billion (total preventable cost)

SOLUTIONS

Prevention of the previously mentioned infections may prove to be tremendously profitable but one must first review the practices generally agreed to be optimal in the prevention of said disorders. Refer to *table 2* for a summation of the recommendations mentioned below. It has been established that the three components of pressure ulcer prevention include management in incontinence, nutritional support, and pressure relief (Edlich, 2004). A pressure relief program must be individualized for non-weight-bearing individuals as well as those that can bear weight. For those who cannot bear weight and passively stand, it is suggested to implement an alternating pressure system for the immobile patient who lies supine on the bed, the stretcher, or operating room table (Edlich, 2004). For those who can achieve a passive standing position, a powered wheelchair that allows for passive standing is recommended (Edlich, 2004). Prevention of certain bacterial infections requires an alternative approach in that most of these infections stem from overuse of clinical therapy. Appropriate antimicrobial use is key to minimize the selection of resistant microorganisms. Guidelines for prevention of resistant microorganisms are as follows: 1. the antibiotic must be justifiable based on diagnosis, 2. bacteriological examination must be obtained before initiating antibiotic treatment, 3. an agent with as narrow a spectrum as possible should be used and combinations avoided, 4. the correct dose must be used, and 5. the physician should receive timely, relevant information of the

prevalence of resistance in the facility (Ducel, 2002). It should be noted that inappropriate antibiotic therapy can not only lead to antibiotic resistant bacteria but, can also allow for overgrowth of other bacterial species such as *C. difficile*, another common nosocomial infection. Measures that have proven effective for the prevention of UTIs are limiting the duration of catheter use, aseptic technique upon insertion, and maintaining closed drainage (Ducel, 2002). Similar precautions have been shown to decrease the incidence of ventilator-associated bacterial pneumonia as well. Through the use of aseptic intubation and suctioning, limiting the duration of use and implementing non-invasive ventilation there has been a significant decrease seen in clinical cases of ventilator associated pneumonia (Ducel, 2002). Similar to bacterial infections hospital acquired anemia tends to also emerge from the overutilization of clinical treatments. HAA may not be preventable in most patients but the costs due to the overuse of blood products certainly are. One 2014 study assessed the impact of clinical decision support at computerized physician order entry and education on red blood cell (RBC) transfusions on clinical patient outcomes. It was found that there was a significant improvement in RBC utilization and concurrently improved patient outcomes with the introduction of sufficient education on favorable RBC usage and computerized decision support. (Goodnough, 2014). As mentioned above HAA may not be preventable in most, however there has been significant findings regarding the correlation of phlebotomy with anemia that may be prevented. A 2005 study found that on univariate analysis, changes in hemoglobin and hematocrit were predicted by the volume of phlebotomy, length of hospital stay, admission hemoglobin/hematocrit value, age, Charlson comorbidity index, and admission intravascular volume status. The volume of phlebotomy remained a strong predictor of drop in hemoglobin and hematocrit after adjusting for other predictors using multivariate analysis ($P<.0001$). On average, every 100 mL of phlebotomy was associated with a decrease in hemoglobin and hematocrit of 7.0 g/L and 1.9%, respectively (Stergiopoulos, 2017). For the prevention of VTE, the American College of Chest Physicians provided a few exceptional guidelines. The key recommendations published are as follows: 1. mechanical methods of thromboprophylaxis be used primarily for patients at high bleeding risk, 2. thromboprophylaxis with a low-molecular-weight heparin (LMWH), low-dose unfractionated heparin (LDUH), or fondaparinux for those undergoing major general surgery, 3. LMWH, LDUH, fondaparinux or intermirrent pneumatic compression (IPC) is recommended for major gynecologic surgery 4. LMWH, fondaparinux, or a vitamin K antagonist (VKA); international normalized ratio (INR) target, 2.5; range, 2.0 to 3.0 is recommended for most arthroplasties and, 5. on admission to the ICU All patients be assessed for their risk for VTE and most receive thromboprophylaxis (Geerts, 2008). Often times even when preventative measures are taken outbreaks of certain diseases may still occur.

Table 2.

Nosocomial Infection	Preventable Measures
Pressure ulcers	<input type="checkbox"/> Management in incontinence <input type="checkbox"/> Nutritional support <input type="checkbox"/> Pressure relief
Infection due to inappropriate antimicrobial use	<input type="checkbox"/> Antibiotic must be justified by diagnosis <input type="checkbox"/> Bacteriological examination must be obtained <input type="checkbox"/> Agent with as narrow a spectrum as possible should be used <input type="checkbox"/> Correct dose must be used
Catheter-associated urinary tract infections	<input type="checkbox"/> Aseptic technique upon insertion <input type="checkbox"/> Maintain closed drainage
Ventilator-associated bacterial pneumonia	<input type="checkbox"/> Aseptic intubation and suctioning <input type="checkbox"/> Limiting the duration of use <input type="checkbox"/> Implementing non-invasive ventilation
Inappropriate red blood cell utilization/Hospital acquired anemia	<input type="checkbox"/> Education on RBC transfusions and clinical outcomes <input type="checkbox"/> Computerized clinical decision support <input type="checkbox"/> Limit blood loss from laboratory testing
Venous thromboembolism	<input type="checkbox"/> Mechanical methods of thromboprophylaxis be used primarily for patients at high bleeding risk <input type="checkbox"/> Low-molecular-weight heparin (LMWH), low-dose unfractionated heparin (LDUH), or fondaparinux for major surgery <input type="checkbox"/> LMWH, LDUH, fondaparinux or intermittent pneumatic compression (IPC) for gynecologic surgery <input type="checkbox"/> LMWH, fondaparinux, or a vitamin K antagonist (VKA); international normalized ratio (INR) target, 2.5; range, 2.0 to 3.0 for arthroplasties

IMPLEMENTATION OF PLAN

With the identification of the expansive financial benefits that are obtainable through the minimization of HAIs there comes the question of how to maintain containment. Optimal containment is thought to be attainable through the use of simply stated precautions. It is recommended that isolation and other barrier precautions be clearly written policies which are standardized, and adaptable to the infectious agent and patients involved (Ducel, 2002). These precautions are

broken down into subcategories of standard (routine) precautions and the additional precautions for specific modes of transmission. Standard precautions include limiting healthcare worker contact with all secretions or biological fluids, skin lesions, mucous membranes and blood or body fluids through the use of all appointed personal protective equipment (PPE) (Ducel, 2002). Additional precautions should be established for separate modes of transmission (airborne, droplet, contact, etc.) with detailed specifications for patient care to minimize potential outbreak. Examples of precautions include: patient isolation with adequate ventilation, appropriate PPE for mode of transmission, careful handling and disposal of medical devices, and a reduction in ward transfers for the staff and patients involved (Ducel, 2002). In 2017 a panel of key international infection prevention and control experts was formed by the World Health Organization to make recommendations based on the core components for effective infection prevention and control (IPC) programs (Storr, 2017). The panel included representation from various professional groups, such as physicians, nurses, clinical microbiologists, infectious disease specialists, epidemiologists, researchers and patient representatives. The recommendations were based on the following eight core components of healthcare prevention and control: 1. IPC programs, 2. IPC guidelines, 3. IPC education and training, 4. Surveillance, 5. Multimodal strategies, 6. Monitoring/audit of IPC practices and feedback, 7. Workload staffing and bed occupancy, and 8. Built environment, materials and equipment for IPC at the facility level. The panel recommends that an IPC program with a dedicated, trained team be in place with the sole purpose of preventing HAI. (Storr, 2017). It is also recommended that evidence-based guidelines be developed for the purpose of reducing HAI, along with the education of relevant healthcare workers on how to adhere to said guidelines. Education should be in place for all healthcare workers by utilizing team- and task-based strategies that are participatory and include bedside and simulation training. HAI surveillance should be performed to guide IPC interventions and these surveillance programs should include mechanisms for timely data feedback with the potential to use for comparative benchmarking (Storr, 2017). The panel recommends that the IPC programs coordinate and facilitate the implementation of IPC activities through multimodal strategies. Regular monitoring/auditing and timely feedback of practices according to previously established standards to ensure adherence to guidelines. Finally, it is additionally recommended that bed occupancy not be exceeded, staffing levels be adequately assigned and thorough cleansing of the environment, materials and equipment be performed routinely (Storr, 2017). It is thought that with the addition of the formerly mentioned recommendations any healthcare organization will be capable of reaping the benefits that come with preventing hospital acquired disease.

CONCLUSION

Through a concise systematic review of the literature it is now clearly visible why nosocomial infections remain a well favored topic in healthcare research studies. From deep understanding of the infections to be faced, comes a new

perspective of an environment that is rich with opportunities for financial gain. Preventing and dealing with outbreaks effectively can show great improvements in patient safety as well as limit the financial burden of unfavorable clinical outcomes. By seriously considering recommendations made by experts of all fields, there is substantial evidence that this will aid in chipping away at the significant economic impact that HAIs have on the US healthcare system.

REFERENCES

- Beckrich, K., & Aronovitch, S. A. (1999). Hospital-Acquired Pressure Ulcers: A Comparison of Costs in Medical vs. Surgical Patients. *Nursing Economics*, 17(5), 263-271. Retrieved April 9, 2018, from https://www.researchgate.net/profile/Sharon_Aronovitch/publication/12604956_Hospital-acquired_pressure_ulcers_A_comparison_of_costs_in_medical_vs_surgical_patients/links/56eaf15908aec6b500166c99/Hospital-acquired-pressure-ulcers-A-comparison-of-costs-in-medical-vs-surgical-patients.pdf.
- Borrego, M. E., Woersching, A. L., Federici, R., Downey, R., Tiongson, J., Bieniarz, M. C., . . . Mahan, C. E. (2012). Venous thromboembolism: Annualised United States models for total, hospital-acquired and preventable costs utilising long-term attack rates. *Thrombosis and Haemostasis*, 108(08), 291-302. doi:10.1160/th12-03-0162
- Brem, H., Maggi, J., Nierman, D., Rolnitzky, L., Bell, D., Rennert, R., . . . Vladeck, B. (2010). High cost of stage IV pressure ulcers. *The American Journal of Surgery*, 200(4), 473-477. doi:10.1016/j.amjsurg.2009.12.021
- Burton, D. C. (2009). Methicillin-Resistant Staphylococcus aureus Central Line-Associated Bloodstream Infections in US Intensive Care Units, 1997-2007. *Jama*, 301(7), 727. doi:10.1001/jama.2009.153
- Ducel, G., Fabry, J., & Nicolle, L. (2002). Prevention of hospital-acquired infections : a practical guide (2nded.) (Switzerland, World Health Organization, Department of Epidemic and Pandemic Alert and Response). Geneva, Switzerland: World Health Organization.
- Edlich, R. F., Winters, K. L., Woodard, C. R., Buschbacher, R. M., Long, W. B., Gebhart, J. H., & Ma, E. K. (2004). Pressure Ulcer Prevention. *Journal of*

Long-Term Effects of Medical Implants, 14(4), 285-304.
doi:10.1615/jlongtermeffmedimplants.v14.i4.20

Gallagher, P., Barry, P., Hartigan, I., Mccluskey, P., Oconnor, K., & OConnor, M. (2008). Prevalence of pressure ulcers in three university teaching hospitals in Ireland. Journal of Tissue Viability, 17(4), 103-109.
doi:10.1016/j.jtv.2007.12.001

Geerts, W. H., Bergqvist, D., Pineo, G. F., Heit, J. A., Samama, C. M., Lassen, M. R., & Colwell, C. W. (2008). Prevention of Venous Thromboembolism. Chest, 133(6). doi:10.1378/chest.08-0656

Goodnough, L. T., Maggio, P., Hadhazy, E., Shieh, L., Hernandez-Boussard, T., Khari, P., & Shah, N. (2014). Restrictive blood transfusion practices are associated with improved patient outcomes. Transfusion, 54(10pt2), 2753-2759. doi:10.1111/trf.12723

Kyrle, P. A., & Eichinger, S. (2005). Deep vein thrombosis. The Lancet, 365(9465), 1163-1174. doi:10.1016/s0140-6736(05)71880-8

Martin, N. D., & Scantling, D. (2015). Hospital-Acquired Anemia: Contemporary Review of Etiologies and Prevention Strategies. Journal of Infusion Nursing, 38(5). Retrieved April 9, 2018, from <https://nursing.ceconnection.com/ovidfiles/00129804-201509000-00003.pdf>.

Salzman, E. W., & Davies, G. C. (1980). Prophylaxis of venous thromboembolism: analysis of cost effectiveness. Annals of Surgery, 191(2), 207-218.

Scott, R. D. (2009, March). The Direct Medical Costs of Healthcare-Associated Infections in U.S. Hospitals and the Benefits of Prevention. Retrieved February 18, 2018, from https://www.cdc.gov/hai/pdfs/hai/scott_costpaper.pdf

Stergiopoulos, S., Calvert, S. B., Brown, C. A., Awatin, J., Tenaerts, P., Holland, T. L., . . . Getz, K. A. (2017). Cost Drivers of a Hospital-Acquired Bacterial Pneumonia and Ventilator Associated Bacterial Pneumonia Phase 3 Clinical Trial. Clinical Infectious Diseases, 66(1), 72-80.
doi:10.1093/cid/cix726

Storr, J., Twyman, A., Zingg, W., Damani, N., Kilpatrick, C., Reilly, J., . . . Allegranzi, B. (2017). Core components for effective infection prevention and control programmes: New WHO evidence-based

Journal of Business and Behavioral Sciences

recommendations. *Antimicrobial Resistance & Infection Control*, 6(1).
doi:10.1186/s13756-016-0149-9

Zhang, S., Palazuelos-Munoz, S., Balsells, E. M., Nair, H., Chit, A., & Kyaw, M. H. (2016). Cost of hospital management of Clostridium difficile infection in United States—a meta-analysis and modelling study. *BMC Infectious Diseases*, 16(1). doi:10.1186/s12879-016-1786-6

CAMPUS CONFLICT RESOLUTION: THE TIME HAS COME FOR MANDATORY MEDIATION

Joshua E. Bienstock
New York Institute of Technology

ABSTRACT

Campus conflict, in large part driven by unresolved student disputes with faculty, staff and administration is profligate. Regrettably, unresolved student grievances may end up in litigation a forum which is not only costly and time consuming but also a public platform where the reputations of the litigants are often compromised, as their respective dirty laundry is exposed. Moreover, the win/lose model of litigation often irreparably damages the relationship of the university and student. Many universities have utilized rigid complaint processes which employ a win/lose model of conflict resolution. Some universities have incorporated voluntary mediation into their campus conflict resolution process, yet many have not. This paper suggests going a step further and explores the possible advantages and disadvantages of utilizing a mandatory mediation process to resolve disputes addressing the interests of both the student and university mitigating the risk of avoidable litigation. We propose research to study whether universities would consider making student enrollment in the university conditioned on agreeing to submitting all campus conflicts to mediation.

Key words: Conflict resolution, mediation, campus conflict, campus and society

INTRODUCTION

It is the intent of this paper to demonstrate, through an exploration of the hypothetical application of mediation to a variety of campus based complaints commonly voiced by university students, the advantages and disadvantages of imposing a mandatory mediation process for resolving university student complaints.

LITERATURE REVIEW

Mediation as a tool for resolving campus conflict: Often, individuals find that they are unable to resolve conflicts by themselves. This problem is shared by college students, who often find it difficult to resolve campus conflicts without assistance. Consequently, mediation has become an effective tool in resolving conflict on campus for many years. It is a process in which a third-party neutral seeks to resolve conflict between the participants by exploring mutual interests (Warters 2000). The process of mediation was first utilized in institutions of higher education to resolve academic conflicts and was based on the community mediation model (Girard, et al, 1985). Warters (1995) pointed out that dispute resolution mechanisms are often available on campus in a variety of formats: student solution centers, counseling and wellness centers, residence halls, and campus academic and service offices (“campus conflict resolution services”).

The mediation model is a universally embraced methodology for effectively resolving conflict (Douglas, 1998). Many universities have incorporated mediation of campus conflict involving student, staff, faculty, administration as well as the surrounding community (landlord, merchants, etc.) and often address interpersonal conflicts (Griffin, 2002). Institutes of higher education are promoting the education of their campus citizens in alternative dispute resolution methodology (ADR) which includes the mediation process (Jameson, 1998). Mediation of campus disputes involving student athletes has effectively served to resolve many disputes concerning players and coaches (Galton, 1998).

Campus mediation programs in the U.S. have primarily directed their focus on issues related to education and academics, offering students extensive conflict resolution programs aimed at assisting students in connection with issues of academic adjustment (Griffin, 2002). Mediation is also an avenue for giving college students a way to resolve conflicts that are complicated by issues related to cultural diversity and personality contrast (Volpe and Witherspoon 1992).

The win/win model of mediation which seeks to explore the interests of the disputants and to identify common ground has already benefited many universities who have voluntarily embraced the methodology. The advantages of mediation include (1) Preservation of

privacy/confidentiality, (2) Restoring and safeguarding relationships, (3) Less costly, less formal and less time intensive, and less stressful than litigation, (4) Customized win/win outcomes because parties are in control, and (5) Greater compliance with the resolutions which tend to endure longer because the parties structured the settlement to address their respective needs. (Fisher, 2011)

The relationship among the various campus stakeholders can be extremely complex and fraught with emotion; mediation can effectively exorcise the emotional component and encourage the parties to focus on their interests and needs to achieve a mutually satisfactory outcome. In the universe of institutes of higher education of critical importance is that in resolving the dispute through mediation they are both well served in that the parties can preserve and perhaps improve their relationships and their respective reputations (Fisher 2011).

DISCUSSION

Society is increasingly litigious: Society at large has become increasing riddled with conflict. In the general population, litigation has increasingly become the means by which individuals seek redress for the wrongs, perceived or real, committed against them. That society has become increasing litigious is not shocking. However, the degree to which individuals resort to the judicial system to resolve conflicts has become staggering. With an estimated population of 322,762,018 as of January 1, 2016 (U.S. Census Bureau), the United States has 1,315,561 active lawyers, the largest per capita in the world (American Bar Association). Approximately 15,000,000 lawsuits are filed every year in the United States (Common Good). The average length of a civil trial is 3.7 days (Statistic Brain). Factoring in the time spent before, during and after trial in appeals, it can take years for a civil lawsuit to conclude.

Conflict on campus mirrors society at large: The university campus is a microcosm of society as a whole. In our society, conflict abounds. In turn, conflict demands resolution. All too often, resolution is found through litigation. Life on a university campus is no different. Conflict on campus is as inevitable as it is in society at large. Unfortunately, just as in society at large, student conflict all too often leads to litigation. Litigation is costly, time consuming, and damaging to reputation and relationships.

Although conflict on campus mirrors conflict in society at large, it also presents unique challenges due to the culture of academia: The matter of addressing campus conflicts presents unique challenges, largely

because academia, in many ways, encourages dissent. Freedom of thought and expression, public discourse, intellectual debate and autonomy are treasured and revered in the world of academia (Din, et al 2011, 6981-6982) (Spiller 2002, 1).

Yet, universities are, in a very real sense, businesses: they provide a service, education, to a service base, its students:

Universities operate as a unified mega-business with a complex culture due to the different roles, responsibilities and politics of those in power, a matrix or decentralized often conflict oriented culture within each academic division, with students adding an additional layer to the reporting hierarchy and chain of command (Katz and Kovack, 5).

Achieving balance between these two seemingly contradictory goals is further complicated by the numerous stakeholders and the countless factors that drive conflict on campus. Even when limiting one's view to those conflicts in which students(s) are involved, the causes of conflict on campus are varied and numerous, including: competition for limited resources; miscommunication; failing to be respectful of others; unfair, unequal or abusive treatment, real or perceived; failure to observe and comply with rules; unequal power relationships; individual fears and insecurities; and unclear policies. Mix in the many differences present among individual members of the campus community, such as personality, gender, race, culture, language, beliefs and values, and the factors triggering conflict grow exponentially.

Both universities and university students have a self-interest in resolving and reducing conflict: The traditional costs associated with an increasingly litigious mindset are deeply troubling; litigation is financially draining, time consuming, and often results in lost productivity. Perhaps the most important, but undervalued harm though is the damage to reputation and the destruction of ongoing relationships which litigation causes. Litigation is a distraction and time spent defending a lawsuit is unproductive and takes away valuable time that should be spent focusing on improving the academic experience of students, faculty, staff and administration. Its outcome is uncertain, it relies on the decision of an outsider (whether judge or jury) and is subject to the right of appeal.

Students also have a self-interest in resolving their complaints as efficiently and quickly as possible. Their complaints are important to them; they have personal meaning and value. However, they are a distraction and interfere with the primary purpose of attending the university, which is education.

Mediation has been used to resolve campus conflict (before it results in litigation): Conflict, a struggle between two or more interdependent parties who perceive their goals to be incompatible and believe that the opposing parties will interfere with their achieving their own goals (Hocker and Wilmot 1985), has been a part of academic life since time immemorial (Holton 1995). To date, most research on conflict has been conducted in non-academic organizations, such as for profit and not for profit businesses, in the context of business and employment relationships. (Hearn and Anderson 2002.)

Conflict on campus is often complicated by the many people who may hold an interest in any given conflict, i.e., the various stakeholders who may potentially be involved, including: other international students, domestic students, faculty, staff, administration, alumni, or members of the university community at large, such as landlords, store owners, restaurant owners, local residents and the police (Warters, 1995).

Students may experience a multitude of campus-based conflicts, centering on matters such as (but certainly not limited to) academics, athletics, finances, financial aid, accidents, discrimination, employment, freedom of expression, accommodations for individuals and groups, interpersonal disputes, interdepartmental disputes, disputes with the surrounding community and on campus. There are multiple different stakeholders to these conflicts, such as administrators, staff, faculty, students, vendors and the outside community (see, Appendix "A").

Many of these disputes are already resolved in a handful of universities through voluntary mediation. (Griffin, 2002). We suggest that the time has come for universities to incorporate mandatory mediation into their dispute resolution process and make student enrollment preconditioned on their accepting mandatory mediation as their exclusive dispute resolution process. The process puts no additional burden on students and does not in any way reduce or restrict their legal options. In the event the mediation process fails they remain free to proceed to litigation. On the other hand, in view of the very special relationship between students and institutions of higher education, which does not end at graduation, it behooves the university stakeholders to attempt to resolve their disputes in an amicable and productive mediation environment before entering into the "win-lose" combat of litigation.

Litigation generates anger and harms reputations and relationships:

It is often the case that a mediated resolution is a process of engaging the parties in seeking common ground. Ultimately the parties, who control their destiny in the mediation forum, remain free to either accept or reject possible solutions. Litigation does not embrace this outcome. There is a very rigid law and rule-based outcome which is imposed on the parties who must comply with the court's decision. It proceeds with an uncertain outcome, as the parties must rely on the trier of fact (whether judge or jury) to reach a fair determination. While litigants have a right to appeal, the odds do not favor winning on appeal and during the appeals process the parties are mired in even greater uncertainty. Because litigated outcomes are imposed by a judge, jury or appellate court the losing litigant may be more likely to question its legitimacy and demonstrates greater reluctance to comply with the decision, in direct contrast with the mediation process where compliance with settlements enjoys greater credibility.

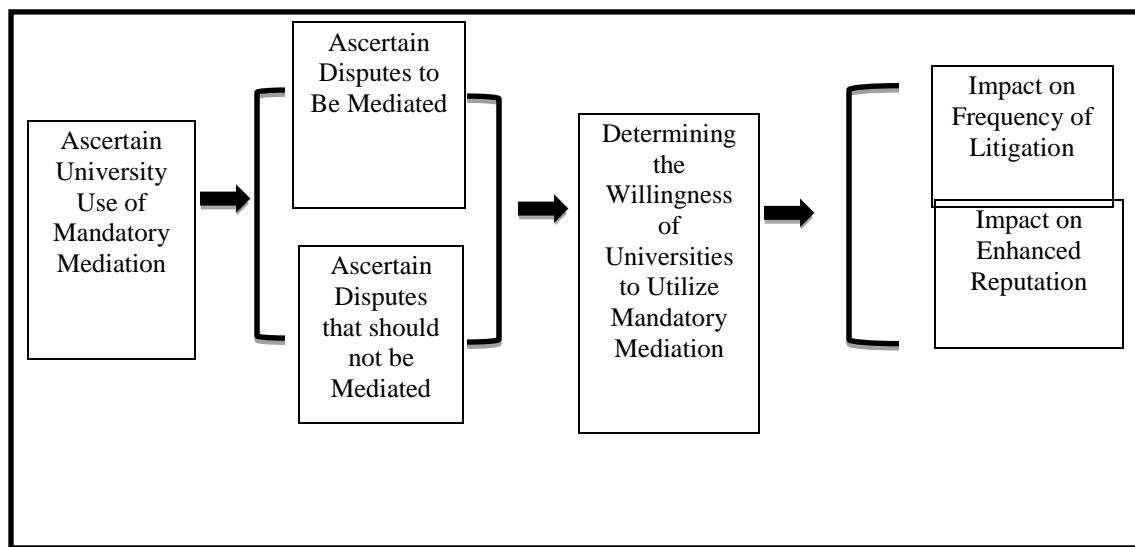
Mediation is not appropriate to all campus conflicts: To be fair, mediation is not appropriate as a dispute resolution process in all cases. In cases in which one party to the conflict has committed a crime or has engaged in harassment, abuse or bullying, mediation would be inappropriate. It should be noted that this paper does not suggest that complaints of sexual assault or rape might be resolved with the use of the mediation process. Specifically, in the case of violent criminal behavior, for example, rape and sexual assault, mediation is not appropriate because the nature of the conflict is such that a mutually agreeable solution simply cannot be found or does not exist. Other types of conflict which may not be appropriate for mediation include instances where the conflict impacts a policy the university has determined must be protected or preserved because of its potential public policy implications (for example, a policy prohibiting hate speech on campus); where the hostility evoked by the disputants makes it impossible to find a mutually acceptable resolution, i.e. where a component of the conflict involves one side abusing his or her power or being abusive. In cases where the university perceives that they need a legally binding outcome to protect their fundamental position to protect their institutional positions and to set precedent for the future beyond just the parties to the instant dispute, litigation may be a more appropriate avenue.

Further, mediation will fail if either of the disputants is seeking to punish the other party, since the success of the mediation process requires that the

parties are acting in good faith to find common ground. Bad faith of the parties dooms the possibility of success in mediation.

Is it time to impose mandatory mediation? In emotionally charged campus disputes institutes of higher education should consider mandating that as a condition of enrollment in their university students must agree to resolve all campus related conflict through the mediation process where relationships and reputations may be preserved. The alternative, proceeding in court, is fraught with uncertain outcomes and unpleasant ramifications. The question remains however, are universities willing to impose, as a condition of enrollment, the mediation process as a mandatory step in resolving campus conflict?

Figure 1. RESEARCH PROPOSAL: Are universities willing to make mediation of campus-based student conflict mandatory as a condition of enrollment in the school?



PROPOSED METHOD

Method: Our study will utilize qualitative in-depth interviews. Our study will conduct recorded and transcribed interviews during a one-year period. The interviewees will be assigned pseudonyms and numbers to protect confidentiality. In September, 2019 recruitment will commence. It is anticipated that interviews will conclude in August 2020. Data collection and analysis will be complete in December 2020.

Participants: The interview group will be drawn from 25 institutes of higher education drawn randomly from both the private and public arena in the New York metropolitan area. The participants will be administrators at the university. The interview will focus on the universities' current use of mediation to resolve campus conflict and the universities' willingness to make mediation of campus conflict mandatory. To facilitate the discussion, the administrators will be asked which stakeholders it would subject to mandatory mediation: students, staff, faculty, vendors? Further, the administrators will be asked whether any conflict(s) would be excluded from mediation and why?

Analysis: The data collected in the interviews will be analyzed utilizing the NVIVO software program. The researchers will develop a coding system, to observe common patterns or themes concerning university utilization of voluntary and mandatory mediation in their dispute resolution process as a condition of enrollment in the university.

Expected Outcome: The results of the study will be the foundation for formulating and implementing recommendations to institutes of higher education as to how to effectively implement mandatory mediation processes for campus-based student conflict.

REFERENCES

- Bienstock, Joshua, Swid, Amr and Brown, Anne. (2018) "Managing University/Student Conflict by Implementing Mandatory Arbitration as a Condition of Enrollment: Preserving Institutional Cost and Reputation" *International Journal of Business Research*, Volume 18, Issue 3.
- Bienstock, Joshua and Amr Swid (2017). "International Students' Adjustment to U.S. Universities: Utilizing a Campus Mediation Approach" *Proceedings of the 24th annual conference, American Society of Business and Behavioral Sciences*. ISSN: 1935-0583, 56-65
- Din, Siraj au, Bakhtiar Khan, Rashid Rehman and Zainab Bibi (2011). "An Investigation of Conflict Management in Public and Private Sector Universities." *African Journal of Business Management*, Volume 5, Number 16, 6981-6990.
- Douglas, J. M., "Conflict Resolution in the Academy: A Modest Proposal." In S. A. Holton (ed. 1998) *Mending the Cracks in the*

- Ivory Tower: Strategies for Conflict Management in Higher Education*, Bolton, MA: Anker Publishing Company, Inc.
- Galton, E. (1998). "Mediation programs for collegiate sports teams." *Dispute Resolution Journal*, Volume 53, Number 4, 37.
- Girard, K., Rifkin, J., & Townley, A. (1985). *Peaceful persuasion: A guide to creating mediation dispute resolution programs on college campuses*. Amherst, MA: The Mediation Project.
- Griffin, T. (2002). "Similarities and Differences Between Campus Ombudsing and Mediation." *Conflict Management in Higher Education Report*, Volume 3, Number 1. doi:10.18411/d-2016-154
- Fisher, Roger, William, L. Ury and Bruce Patton (2011). *Getting to Yes: Negotiating Agreement Without Giving In*, 3rd ed. New York: Penguin.
- Jameson, Jessica Katz (1998). "Diffusion of a Campus Innovation: Integration of a New Student Dispute Resolution Center into the University Culture." *Conflict Resolution Quarterly*, Volume 16, 129-46.
- Katz, Neil H. and Linda N. Kovack (2016). "Higher Education's Current State of Alternative Dispute Resolution Services for Students." *Journal of Conflict Management*, Volume 4, Number 1, 5-37.
- Sisson, V. S. & S.R. Todd (1995). "Using mediation in response to sexual assault on college and university campuses." *NASPA Journal*, Volume 32, Number 4, 262-269.
- Spiller, Dorothy (2002). "ADR in the University: The Limits of a Problem Solving Paradigm." *ADR Bulletin*, Volume 5, Number 8, 1-7.
- Ury, William L., Jeanne M. Brett and Stephen Goldberg (1988). *Getting Disputes Resolved: Designing Systems to Cut the Costs of Conflict*. San Francisco: Jossey-Bass.
- Volpe, Maria R. and David Chandler (2001). "Resolving and Managing Conflicts in Academic Communities: The Emerging Role of the 'Pracademic.'" *Negotiation Journal*, Volume 17, 245-55.

- Volpe, M. R., & R. Witherspoon (1992). "Mediation and cultural diversity on college campuses." *Mediation Quarterly*, Volume 9, Number 4, 341-351.
- Warters, B. (1991). "Mediation on campus: A history and planning guide." *The Fourth R*, Volume 33, 4-5.
- Warters, Bill (1995). "Making the Case for Campus Mediation." <http://files.eric.ed.gov.arktos.nyit.edu/fulltext/ED499548.pdf> (originally published in *The Fourth R.*, Volume 55, Feb/March 1995).
- Warters, W. C. (1995). "Conflict management in higher education: A review of current approaches." In S. A. Holton (ed.), *Conflict Mngmnt Higher Education 92 (New Directions for Higher Education)*. San Francisco, CA: Jossey-Bass.
- Warters, W. C. (1999). "The history of campus mediation systems: Research and practice." *CNCR-Hewlett Foundation Seed Grant White Papers*. Paper 10.
- Warters, W.C. (2000). *Mediation in the Campus Community: Designing and Managing Effective Programs*. San Francisco, CA: Jossey-Bass.
- Yarn, Doug (2014). "Designing a Conflict Management System for Higher Education: A Case for Design in Integrative Organizations." *Conflict Resolution Quarterly* 32(1):83-105.

APPENDIX “A” *

STAKEHOLDERS TO THE CONFLICT	TYPE/CATEGORY OF CAMPUS CONFLICT	EXAMPLES
Student/Faculty	Academics	Grades, plagiarism
Student/Faculty	Athletics	Discipline, scholarships, disputes with coach or teammates, academics, injuries
Student/Administration	Accommodations	Physically and/or mentally challenged, K-9/service dogs
Student/Administration	Class accommodations	Tests, blind students/physically disabled students, special education needs, other special needs and religion
Student/Administration	Financial aid	Tuition, scholarships and grants
Student/Faculty/Staff	Accidents	Automobile, personal injury and property damage
Student/Faculty/Staff	Discrimination	Race, sex, national origin, age, religion, etc.
Student/Administration	Drug and alcohol abuse	Use, possession and/or sale of drugs or alcohol
Student/Administration	Employment	Student employees and interns
Student/Administration	Freedom of expression	Student clubs, student newspapers, campus rallies, campus invited speaker
Student/Administration	Disseminating material on campus	U.S. constitution, petitions, controversial material (i.e. white supremacy/racially hostile material)
Student/Administration	Campus accommodation for student clubs/groups and miscellaneous campus protests	Sit-ins or rallies; use of campus property/space
Student/Faculty/Staff	Interpersonal disputes	Student v. student conflict, married students and their spouses, student v. faculty
Student/Outside Community	Community disputes	Rent and payment disputes with local landlords or merchants, damage, theft
Student/Administration	Student Housing	Room assignments, roommate disputes
Student/Faculty/Staff/Administration	Intentional torts	Assault, vandalism
Student/Faculty/Staff	Harassment	Sexual, bullying

*Portions of this appendix were initially formulated in Bienstock, Joshua and Amr Swid (2017). "International Students' Adjustment to U.S. Universities: Utilizing a Campus Mediation Approach" Proceedings of the 24th annual conference, American Society of Business and Behavioral Sciences. ISSN: 1935-0583, 56-65 and Bienstock, Joshua, Swid, Amr and Brown, Anne. (2018) "Managing University/Student Conflict by Implementing Mandatory Arbitration as a Condition of Enrollment: Preserving Institutional Cost and Reputation" International Journal of Business Research, Volume 18, Issue 3.

PRESERVING LIFE AND HEALTH BY PREVENTING FRAUD IN HEALTHCARE

*Carol Sullivan
Heather Hull
University of Texas Permian Basin*

ABSTRACT

Healthcare fraud, waste, and abuse losses are estimated to be as much as \$700 billion per year. These losses contribute to rapidly increasing healthcare costs for all Americans and have led Americans to approach healthcare from a money motivation standpoint. This money motivation can lead to a lack of healthcare or the malpractice of healthcare which can actually result in death. The purpose of this article is to describe several different types of healthcare frauds that occurred and to offer suggestions related to the prevention and/or detection of this type of fraud. With a better understanding of the type of frauds that can take place, auditors can help prevent these frauds with better internal controls and protect society from both skyrocketing healthcare costs and unnecessary medical problems.

Key Words: healthcare fraud, healthcare auditing, internal controls

INTRODUCTION

Healthcare spending is estimated to be \$2.7 trillion annually and it represents about 17% of the United States Gross Domestic Product (GDP) as compared to only 9.5% among other countries (van Capelleveen, Poel, Mueller, Thornton, & van Hillegersberg, 2016). As the cost of healthcare continues to rise, healthcare fraud schemes continue to increase in both the magnitude of losses and complexity related to patients' health. These losses contribute to rapidly increasing healthcare costs for all Americans and the lack of healthcare or the malpractice of healthcare for money motivations can result in death or chronic illness. Legislation has been enacted to address this problem and organizations are creating task forces to enforce the legislation. The purpose of this article is to describe several different types of healthcare frauds that occurred and to offer suggestions related to the prevention and/or detection of this type of fraud.

RESEARCH BACKGROUND AND LITERATURE REVIEW

Yang and Hwang (2006) estimated healthcare fraud to be as high as 10% of the annual spending in the industry while Rudman, Eberhardt III, Pierce, and Hart-Hester (2009) estimated it to be as low as 3% of annual spending. The annual losses are estimated to be as high as \$700 billion (van Capelleveen et al., 2016) or as low as \$100 billion per year (Simborg, 2008). The simple fact that the estimates are so different indicates the complexity associated with the problem. Please note that this phenomena took place long before the Affordable Care Act of 2010.

The problem affects consumers (patients), payers of the bills (parents if children are involved), health insurance providers, the government (with Medicare, Medicaid, etc.), and healthcare professionals. Because of moral hazard, this problem involves people outside the parties listed above because they have to pay higher health care costs to cover costs that the under/uninsured people are paying. Calls for help have come from all of the parties listed above and action has come in the form of legislation and organizations. Simborg (2008) both outlined “guiding principles” and offered an organizational idea of a Nationwide Health Information Network (NHIN) with policies, procedures, and standards to proactively prevent, detect, and reduce healthcare fraud. Swartz (2006) discussed the 6-month project commission by the Office of the National Coordinator for Health Information Technology within the Department of Health and Human Services (HHS) that involved two main tasks: (1) a study of the issues and steps in the development and use of automated coding software that enhance healthcare anti-fraud activities; and (2) identifying best practices to enhance the capabilities of interoperable health information technology infrastructure to assist in prevention and detection as well as prosecution of healthcare fraud or improper claims and billings. One humanist approach to prevention and detection of fraud comes from whistleblowing and data mining. Hannigan (2006) described a nurse practitioner’s dilemma. The article identifies some of the potential devastating effects: job-loss, threats against the person and family, and psychological/emotional stress. However, reporting the fraudulent activity may actually reduce the psychological and emotional stress. By considering both ethical principles and practical issues, people may have a better ability to “do the right thing” when faced with these dilemmas. A more scientific approach related to the prevention and detection of fraud is data mining. Yang and Hwang (2006) provided a research framework that distinguished fraud and abuse cases from normal healthcare cases.

Joudaki, Rashidian, Minaei-Bidgoli, Mahmoodi, Geraili, Nasiri, and Arab (2015) reviewed the literature in this area and offered the idea of combining automated methods and statistical knowledge as an interdisciplinary branch of science that is called Knowledge Discovery from Databases (KDD) – data mining is the core of the KDD process. Koh and Tan (2005) provided more information related to data mining being used for evaluation of treatment effectiveness, management of healthcare, customer relationship management, and the detection of fraud and abuse. The article also highlights the limitations of data mining. From an international perspective, research about data mining in Taiwan was conducted by Liou, Tang, and Chen (2008). This study applied data mining techniques to detect fraudulent activities related to diabetic outpatient services.

Fielder et al (2012) describes how the passage of the Affordable Care Act promotes population-based prevention and requires the broad application of the ecological health model. Orentlicher (2011) researched the effects of the Affordable Care Act in terms doing much to provide health care coverage for the uninsured, but not effectively containing health care spending. This emphasis on increasing access without cutting costs has actually been a problem since President Jimmy Carter's unsuccessful efforts to reform the health care system with Health Maintenance Organizations (HMOs) in the 1970s. Andrulis and Siddiqui (2011) maintains that the Affordable Care Act of 2010 creates both opportunities and risks for safety-net providers in caring for low-income, diverse patients. While there was new funding for health centers; declining payments to safety-net hospitals, existing financial hardships, and shifts in the health care marketplace intensified competition, obstructed the ability to innovate, and endangered the financial viability of safety-net providers. Koh et al (2012) asserts that millions of Americans have limited health literacy skills and that poses major challenges in delivery of high quality care at a reasonable cost. They reviewed the federal policy initiatives with both the Affordable Care Act and the Department of Health and Human Services' National Action Plan to Improve Health Literacy and the Plain Writing Act of 2010 as a way to improve the health care quality as well as the overall health for all Americans. The purpose of this research is to expand the literature related to the effects of healthcare throughout the Affordable Care Act era and perhaps offer some explanations and examples of healthcare fraud that continued throughout the era. The assertion found in this research is that health care literacy among the average American patient as well as organizations that understand health

care costs and treatments better than the average person would be helpful in terms of both improving health care quality and containing costs.

BACKGROUND ON THE AFFORDABLE CARE ACT OF 2010 AND MEDICAL FRAUDS

Verdon et al (2013) described efforts to catch Medicare fraud in 2012 and continued efforts in 2013. In 2012, HHS formed the Healthcare Fraud Prevention Partnership, a public-private group governments, insurers, professional associations, and other groups, to detect and prevent payment of fraudulent healthcare billings. Other action, via a joint effort between HHS and the Department of Justice, the Health Care Fraud Prevention and Enforcement Action Team's Medicare Fraud Strike Force, resulted in 198 doctors, nurses, and other licensed medical professionals in multiple cities being charged for allegedly participating in schemes to defraud Medicare of more than \$884 million through false billing. And an additional 30 healthcare providers were suspended or had other action taken against them by HHS for fraud-related activities. Federal funding for Senior Medicare Patrols (a group of volunteer elderly citizens who train their peers to identify, prevent, and report healthcare fraud) was greatly expanded. More than 2 million beneficiaries are now looking for fraud in 54 states and territories. The ACA contains provisions to bolster existing efforts. Under new ACA screening requirements, providers identified as high-risk will be required to undergo fingerprint-based criminal background checks. The law also established penalties for those who obstruct fraud investigations or audits. It also brings tougher sentences and more jail time for those found guilty of fraud. Sentences will increase 20% to 50% for crimes involving losses or more than \$1 million. So, according to HealthPort (an audit management and tracking technology firm), the following procedures will help prevent problems:

- Gather, track, and manage all audit requests centrally.
- Check for duplicate audits, and create a process to dispute duplicitous requests.
- Review and approve records before releasing them, and only release what you are legally required to submit
- Manage decision and demand letters, and keep detailed notes of any telephone communications with auditors.
- Appeal wisely, because the process can be costly and takes time to prepare for.

LEGISLATION AND ORGANIZATIONS TO HELP

The Health Insurance Portability and Accountability Act of 1996 (HIPAA) created a national Health Care Fraud and Abuse Control (HCFAC) Program with the Attorney General and the Secretary of the Department of Health and Human Services (HHS) supervising it. HCFAC was designed to coordinate the federal, state, and local law enforcement related to health care fraud and abuse. In spite of this legislation and new organization, the Governmental Accountability Office (GAO) designated Medicare and Medicaid as high-risk programs because of both size and the overall system complexity (van Capelleveen et al., 2016). In 2009, Attorney General, Eric Holder, and HHS Secretary, Kathleen Sebelius, announced the establishment of a new organization called Health Care Fraud Prevention & Enforcement Action Team (HEAT). This initiative combined increased detection tools and resources with enduring focus by senior leadership. It was also designed to enhance collaboration between the Department of Justice (DoJ) and investigative agencies. HEAT was made up of top-level enforcement agents, prosecutors, attorneys, auditors, and other staff from the DoJ, HHS, and other operating governmental divisions. The purpose of HEAT was to collaborate with joint efforts across government to both prevent health care fraud and enforce current anti-fraud laws throughout the United States (DoJ, 2017a). Despite the new legislation and organizations to help promote both better health care and honest billing practices, the frauds continued and were prosecuted. The following section describes some of this continued fraudulent activities that recently took place.

RECENT HEALTHCARE FRAUD CASES PROSECUTED

With the new HEAT organization, the DoJ has been able to both prosecute and fine individuals, organizations, and businesses involved with health care fraud and abuse. The following cases reflect recent cases:

- (1) In 2016, an owner of more than 30 Miami-area skilled nursing and assisted-living facilities as well as a hospital administrator and physician's assistant were charged with conspiracy, obstruction, and fraud related to \$1 billion scheme involving many area health care providers. This was the largest single criminal health care fraud case ever brought against individuals by the DoJ. The scheme involved admitting beneficiaries (who did not qualify) to skilled nursing homes, community mental health centers, and home health care providers. They were giving them medically unnecessary services that were billed to Medicare and Medicaid.

Kickbacks were also paid in form of cash, charitable contributions, payments for services, and fake lease payments. One of the individuals was prosecuted back in 2006, but continued the fraudulent activities after paying a \$15.4 million civil fine (DoJ, 2016a);

(2) Criminal and civil charges were made against 301 individuals, including 61 doctors, nurses, and other licensed medical professionals in 2016. This case was an unprecedented sweep made by the Medicare Fraud Strike Force and the schemes involved about \$900 million in false billings. This was the largest enforcement action at the time in terms of both loss amount (please refer to the previous case as the largest to date) and the number of people involved. More than 60 of the defendants were charged with violations involving the Medicare prescription drug benefit program known as “Part D”, which is the fastest growing component of the Medicare program overall and contributing to the opioid epidemic (DoJ, 2016b);

(3) In 2017, a new record takedown of 400 individuals and \$1.3 billion in false billings was performed by the Medicare Fraud Strike Force. The target schemes involved false billings to Medicare, Medicaid, and TRICARE (a health care program for members and veterans of the armed forces as well as their families) for medically unnecessary prescription drugs and medications that were often never even purchased or opioids and other narcotics that were illegally distributed (DoJ, 2017b). Of the 412 people charged, there were 115 doctors, nurses, and other licensed professionals. There were also 30 state Medicaid Fraud Control Units participating in these enforcement actions (DoJ, 2017c);

(4) In terms of court cases actually going to trial, a Danville, Virginia doctor pled guilty to both healthcarefraud and tax evasion charges in 2017. The Morning Star medical practice billed covered patient visits to various insurers, such as Optima, Virginia Premier, Aetna, Anthem, Medicare, and Medicaid. The doctor was the only person authorized to complete the “superbill”, which is the form that determines which services to invoice to a health care benefit program. The doctor would bill health care benefit program for the patient visit under an “evaluation and management” code and “preventative counseling” for the exact same patient visit, resulting in double billing. The doctor also diverted some of the overpayments to a day trading bank account and concealed the profits from this account from the Internal Revenue Service (DoJ, 2017d); (5) In 2017, a Cleveland Heights woman was sentenced to 10 years in prison and her son was sentenced to 7 years for a \$8 million home healthcare fraud scheme. They were also ordered to pay \$8.1 million in restitution. The company, Just Like Family, defrauded Medicare, Medicaid, and the Department of

Veteran Affairs by submitting forged or false records in support of previously submitted and reimbursed billings for patients they did not actually provide face-to-face services (DoJ, 2017e).

REASONS WHY SOME OF THE LEGISLATION PREVENTING HEALTHCARE FRAUD DID NOT WORK

Some reasons why some of the legislations in preventing healthcare fraud did not work are as follows:

- Patients involved with the healthcare system are often sick and not able to spend lots of extra energy reviewing bills and perhaps catching mistakes/fraud involving their care.
- Patients are not properly educated related to healthcare literacy, healthcare treatments, and healthcare costs. While people constantly watch “The Price is Right” on TV to keep abreast of the price of cars, trips, and appliances on the shows, very few people could come to agreement related to what the cost of heart surgery or simply stitches should be. Rarely do patients ever ask “How much will this surgery cost?” when communicating with their doctors.
- The high cost of doctors’ education as well as the costs of setting up their practices put financial pressure on them before they even start treating patients.
- Since many of the bills are paid by either the government or private third parties, people involved simply do not have a direct interest in maintaining cost controls and preventing fraud. The social costs can be evaporated by large number of people overall.
- Doctors often have a “halo effect” by patients and others in society so their transgressions are often overlooked or rationalized as mistakes or simply not understanding business.
- At this point in time, medical bills are often “suggestions” and require extra time and effort from both patients and third party payers to get the amounts down to a reasonable fee for the product or service. Again, please remember that the patients are often very vulnerable because they are sick or incapacitated in some form or fashion.
- Our society values life and often promotes procedures to extend the life of certain patients at enormous costs. Often, this activity is rationalized as “progressing the science” or “serving society” with activities like producing “orphan drugs”. While some of this activity is certainly worthwhile, the procedures involved can be sketchy and creates an environment where there is opportunity for fraud.

WHAT CAN BE DONE FOR FUTURE LEGISLATION?

The focus on healthcare needs to be based on prevention in order to help everyone involved be accountable for their own healthcare overall and to help prevent fraud. While there were several suggestions provided by HealthPort in the earlier section of this article, here are some more suggestions:

- Focus more on nutrition and healthy lifestyles to take pressure off of the healthcare system in the first place.
- Educate everyone in terms of both healthcare literacy as well as the cost of healthcare.
- Create healthcare cooperatives for more local oversight of both care and billings instead of massive federal government oversight. Healthcare cooperatives can be linked to small businesses that are often struggling to offer healthcare insurance for their employees.
- Use cloud-based computing to maintain medical records for everyone – using a holistic approach to both healthcare and recordkeeping can improve the information found in both treatment and billing.
- Create more incentives for healthy living for everyone in spite of age. Programs that create both recognition and financial incentives for participating are helpful and create a community of learners in terms of healthcare.
- Make healthcare education more affordable for both doctors and other practitioners so that they will not have so much financial pressure as they treat patients. The new University of Houston Medical School offered free tuition to their initial class of new doctors and that helps them immensely as they pursue their students and their profession.
- Educate auditors and accountants more with respect to healthcare. While many students study industrial environments (such as oil and gas, construction, etc.) in their Cost Accounting and Auditing courses, very rarely do they encounter problems related to healthcare. Some schools are now providing new “Accounting for Healthcare” courses.

CONCLUDING REMARKS

This study describes legislation, organizations, and internal control techniques established to prevent or detect health care fraud, waste, and abuse. It also provides examples of enforcement actions taken recently and court cases taking place as a result of more healthcare fraud vigilance. Instead of using guns to rob banks or other businesses, these fraudsters were simply submitting fake documents to basically steal billions of dollars from taxpayers. They were also contributing to the opioid epidemic with illegal distribution or prescription drugs. It is a matter of life and

death in some cases as well as governmental fiscal responsibility that everyone gets involved with healthcare fraud prevention and detection. The key to everyone being involved is that healthcare literacy improves and everyone (patients, practitioners, doctors, and organizations) remain vigilant.

REFERENCES

- Andrulis, D. and Siddiqui, N. (2011) Health Reform Holds Both Risks And Rewards For Safety-Net Providers And Racially And Ethnically Diverse Patients, *Health Affairs*, 30(10), 1830-6.
- Department of Justice [DoJ]. (2016a). *Three individuals charged in \$1 billion medicare fraud and money laundering scheme*. Retrieved from <https://www.justice.gov/opa/pr/three-individuals-charged-1-billion-medicare-fraud-and-money-laundering-scheme>.
- Department of Justice [DoJ]. (2016b). *National health care fraud takedown results in charges against 301 individuals for approximately \$900 million in false billings*. Retrieved from <https://www.justice.gov/opa/pr/national-health-care-fraud-takedown-results-charges-against-301-individuals-approximately-900>.
- Department of Justice [DoJ]. (2017a). *Health care fraud unit*. Retrieved from <https://www.justice.gov/opa/pr>.
- Department of Justice [DoJ]. (2017b). *National health care fraud takedown results in charges against over 412 individuals responsible for \$1.3 billion in fraud losses*. Retrieved from <https://www.justice.gov/opa/pr/national-health-care-fraud-takedown-results-charges-against-over-412-individuals-responsible>.
- Department of Justice [DoJ]. (2017c). *National healthcare fraud takedown results in charges against more than 400 individuals, including several Chicago-area medical professionals*. Retrieved from <https://www.justice.gov/usao-ndil/pr/national-healthcare-fraud-takedown-results-charges-against-more-400-individuals>.

Department of Justice [DoJ]. (2017d). *Danville doctor pleads guilty to healthcare fraud, tax evasion charges.* Retrieved from <https://www.justice.gov/usao-wdva/pr/danville-doctor-pleads-guilty-healthcare-fraud-tax-evasion-charges>.

Department of Justice [DoJ]. (2017e). *Cleveland Heights woman sentenced to 10 years in prison, son to seven years for \$8 million home healthcare fraud.* Retrieved from <https://www.justice.gov/usao-ndoh/pr/cleveland-heights-woman-sentenced-10-years-prison-son-seven-years-8-million-home>.

Fielding, J. Teutsch, S., and Koh, H. (2012) Health Reform and Healthy People Initiative, *American Journal of Public Health*; 102 (1), 30-3.

Hannigan, N. S. (2006). Blowing the whistle on healthcare fraud: Should I? *Journal of the American Academy of Nurse Practitioners*, 18(11), 512-517.

Joudaki, H., Rashidian, A., Minaei-Bidgoli, B., Mahmoodi, M., Geraili, B., Nasiri, M., & Arab, M. (2015). Using data mining to detect health care fraud and abuse: A review of literature. *Global Journal of Health Science*, 7(1), 194-202.

Koh, H. C., & Tan, G. (2005). Data mining applications in healthcare. *Journal of Healthcare Information Management*, 19(2), 64-72.

Koh, H., Berwick, D., Baur, C. , and Brach, C. (2012) New Federal Policy Initiatives To Boost Health Literacy Can Help The Nation Move Beyond The Cycle Of Costly 'Crisis Care' *Health Affairs*; 31 (2).

Liou, F. M., Tang, Y. C., & Chen, J. Y. (2008). Detecting hospital fraud and claim abuse through diabetic outpatient services. *Healthcare Management Science*, 11(4), 353-358.

Orentlicher, D. (2011). Controlling Health Care Costs Through Public, Transparent Processes: The Conflict Between the Morally Right and the Socially Feasible. *Journal of Corporation Law*, 36(4), 807-821.

- Rudman, W. J., Eberhardt III, J. S., Pierce, W., & Hart-Hester, S. (2009). Healthcare fraud and abuse. *Perspectives in Health Information Management*, 6, 1-24.
- Simborg, D. W. (2008). Healthcare fraud: Whose problem is it anyway? *Journal of the American Medical Informatics Association*, 15(3), 278-280.
- Swartz, N. (2006). E-records may end fraud. *Information Management Journal*, 40(1), 16.
- Verdon, D. Bowers, L. Bendix, J., Zimlich, R., Sofranec, D. (2013) Top 10 business issues you'll face in 2013, *Medical Economics*; 90(1),12-6, 19.
- Van Capelleveen, G., Poel, M., Mueller, R. M., Thornton, D., & van Hillegersberg, J. (2016).Outlier detection in healthcare fraud: A case study in the Medicaid dental domain. *International Journal of Accounting Information Systems*, 21, 18-31.
- Yang, W., & Hwang, S. (2006). A process-mining framework for the detection of healthcare fraud and abuse. *Expert Systems with Applications*, 31(1), 56-68.

AN ANALYSIS OF ETHICAL STANDARDS OF BUSINESS AND HIGHER EDUCATION STUDENTS: A CASE STUDY OF TAIWAN

Thomas Gwinner

Chien Hsin University of Science and Technology, Taiwan

Marty Ludlum

Burle Steelman

University of Central Oklahoma

ABSTRACT

This research details a survey of Taiwanese college students and their views on business stakeholders. In this project, we surveyed students in the fall of 2015 (n=1157). We found that the students reject the Friedman view and strongly support the stakeholder view of ethics. We examined students' views based on several demographic factors, including gender, religion, year in school, and major and found statistically significant results. We also found a very high commitment to employee stakeholders and community. We conclude by discussing the implications for further research in this area.

Key Words: Taiwan, business ethics, survey, students

INTRODUCTION

Ethics is described as the “science of morality” (Nieman & Bennett, 2006). A cynic would claim business ethics is really a pretense so that customers can think the business is doing “the right thing” (Goldman, Bounds, Bula, Fudalinski, 2012). In the last few decades, businesses have put more emphasis on behaving above what is considered legal. Deegan, Rankin, & Voght (2000) indicated firms are facing increased pressure to behave ethically (not just make a profit).

Are the next generation of business leaders (today's students) concerned about being ethical, or do they view ethics as a marketing ploy? The motivation for this study is to examine the views of an understudied population, current Taiwanese students, towards the various stakeholders in business.

Taiwan is an interesting blend of ancient and modern. Taiwan's culture is deeply rooted in Confucianism (Yang, 2014; Ni, Egri, Lo, & Lin, 2015). Taiwan's business culture also represents this blend. Taiwan is a leading trading nation in East Asia, dominated by technology firms (Chui & Wang, 2015). For

non-technical firms, Taiwan is very traditional, dominated by family-run businesses (Wu, 2012).

Taiwan's higher education system significantly expanded after World War II (Chen 2012), growing from 4 colleges in 1949, to 50 in the 1980s, to 163 colleges in 2012 (Hou et al., 2015; and Yao & Jacob, 2012). In 1980s, the Taiwanese government further promoted higher education with a goal of accelerating economic growth (Huang & Huang, 2015; and Hou et al., 2015). Taiwan accomplished this by converting 2-year colleges into 4-year colleges, renaming vocational schools as universities, and increasing the number of schools (Huang & Huang, 2015). College enrollment jumped from 16% in 1980 to 83% in 2011 (Huang & Huang, 2015).

The rate of college enrollment has exceeded 80% every year since 2005 (Huang & Huang, 2015). Taiwan, with a population of over 23 million (CIA Factbook, 2016) has over one million students in higher education (Yao & Jacob, 2012; and Chen, 2012). Currently, private schools outnumber public schools (Chen, 2012). Private colleges enroll more students (Chen, 2012). The number of graduate colleges has increased by 2000 in the last 15 years (Lin, 2014).

Because the numbers of college graduates in Taiwan have surged, the wage premium for college graduates has dropped significantly, creating strife for recent college graduates (Huang & Huang, 2015; Lin & Yang, 2009; Lin & Wang, 2005; Lin & Orazem, 2004; and Gindling & Sun, 2002).

This research details a survey of current Taiwanese college students and their views on the various ethical stakeholders. To start, we will first review the relevant literature. Second, we will discuss the survey methods. Next, we will discuss the findings and results from the survey. We conclude by discussing the implications for further research in this area.

REVIEW OF LITERATURE

Friedman's (1982) Shareholder theory stated that a firm's only obligation is to the shareholders (owners). The purpose of a business is to make a profit within the confines of the law, period. The owners can decide to spend (or not spend) those profits on socially beneficial causes, as they see fit. However, the business entity must make a profit, and without a profit, it cannot survive.

A more encompassing view is that businesses should consider all stakeholders in making decisions (Huang & Kung, 2010). As the name implies, decisions should be justified for all those who have a "stake" in the organization, something at risk (Collier, 2008). Organizations succeed or fail based on how accountable they are to their stakeholders (Mitchell, Agle, & Wood, 1997). Stakeholders help an organization create value (Freeman, Harrison, & Wicks, 2007).

Who are the stakeholders? Freeman (1984) defined stakeholders as "groups and individuals who can affect or are affected by, the achievement of an organization's mission" (p.52). Stakeholders are a much broader group than just the business owners. Davenport (2000) classified stakeholders into five categories: customers, suppliers, shareholders, employees, and communities.

Carroll (1999) divided stakeholders into two categories: primary (directly affected by the organization) and secondary (indirectly affected by the organization). Primary stakeholders would be shareholders, suppliers, employees, and customers. Secondary stakeholders would include the society, the environment, and the government.

Post, Preston & Sachs (2002) proposed three groups of stakeholders: Core stakeholders (investors and employees), competitive environment stakeholders (business partners and competitors, unions, regulators), and external environmental stakeholders (social and political interests). To fulfill the obligations of corporate social responsibility, the organization must respond to all relevant stakeholders (Shauki, 2011). Stakeholder theory would argue firms only survive and prosper by satisfying stakeholder demands (Roberts, 1992; Gray, Kouhy, & Lavers, 1995; and Ullmann, 1985).

Not all stakeholders have the same importance in Taiwan (Chui & Wang, 2015; Huang & Kung, 2010). For example, Taiwan has extreme environmental concerns because of population density and closeness to mainland China (Huang & Kung, 2010). Taiwan has limited social reporting to stakeholders (Chiu & Wang, 2015). Corporate social responsibility (CSR) fills the void for guidance in developing countries by increasing information to stakeholders (Su, Peng, Tan, & Cheung, 2016).

Ip (2008) explained CSR in Taiwan has global consequences. CSR is being given more attention in Taiwan (Huang & Kung, 2010). Blodgett, Lu, Rose & Vitell (2001) examined Taiwanese and American life insurance agents ($n=637$) and found Taiwanese agents to be more collectivists than Americans. Su (2014) surveyed MBA students in Taiwan ($n=26$) and found higher ethics was correlated with higher human capital. Yang (2014) studied ethical leadership in Taiwan and found it correlated with higher job satisfaction.

The variable we are exploring is culture. Individual values are strongly affected by culture. Culture is defined as “a set of shared values and beliefs that characterized national, ethnic, moral and other group behavior” (Craig & Douglas, 2006). Barbash & Taylor (1997) stated that culture includes religion, gender, language, class, ethnicity, and sexual orientation. Hofstede (1983, 1991, and 1993) argued that cultural difference impact conduct in business, communication, and decision-making. Blodgett, Lu, Rose & Vitell (2001) stated that national culture is influenced by traditions, religions, rituals and customs. Blodgett, Lu, Rose & Vitell (2001) explained that culture is a comprehensive and implicit window to view the world. Taiwan has a different social/economic system from China and from Hong Kong (Ni, Egri, Lo, & Lin, 2015).

How do these stakeholder views apply in different cultures? Which view dominates among business students, the shareholder approach of Friedman or the stakeholder approach? International studies on stakeholder’s views are expanding. Habish, Patelli, Pedrini & Schwartz (2011) found U.S. firms are primarily concerned with stakeholder needs and the community. Goldman, Bounds, Bula, & Fundalinski, 2012 compared South African and Polish business students and found neither thought businesses fulfill an obligation to protect the

environment. This is interesting since Polish society is very conservative, based on Catholicism while South Africa's society is more liberal (Goldman, Bounds, Bula, & Fundalinski, 2012). Shauki (2011) found that among Indonesian students, females and older persons with more workplace experience had a greater support for all the stakeholders of the organization.

Ludlum, Hongell, & Tigerstedt (2013) found among Finland's college students a majority did not agree with the Friedman view. Instead, Finnish students preferred a stakeholder approach and had especially strong support for employees. Ludlum, Hongell, Tigerstedt & Alsobrook (2016) surveyed Finnish college students and found only 14% supported Friedman's view. The stakeholder view was dominant, with 91% who supported employees, 95% supported the environment, and 72% supported the community.

Lopez-Navarro & Cipres (2015) examined the stakeholder views of Spanish business students and found that females have stronger commitments to social and environmental stakeholders than their male counterparts. Further, they found that Spanish students had attitudes closer to the stakeholder model than the shareholder model.

Moskalionov, Ludlum, Ramachandran, & Stephenson (2015) examined Russian college students and found strong differences on attitudes towards ethical issues based on gender, indoctrination, and maturity. They found females, older students (by age) and more experienced students (by college year) were more responsive to ethical issues than males. Ludlum, Moskalionov, & Machiorlatti (2008) surveyed Russian business students based on 17 behaviors involving ethics in the workplace and found that females were significantly more ethical than males. The purpose of this project is to explore an understudied population, the future business leaders of Taiwan.

SURVEY METHODOLOGY

Large convenience samples were taken from large business classes at Chien Hsin University in Zhongli, Taiwan in the fall of 2015. The university has over 12,000 students in five colleges with seventeen degree programs (Chien Hsin, 2017). The survey was conducted simultaneously in both English and Chinese since Chien Hsin is a bilingual university (Chien Hsin, 2017). The translation from English to Mandarin was completed by a co-author who teaches at the Language Center of Chien Hsin University. Both languages were included in the survey instrument, to minimize any translation difficulties. Text of the bilingual survey is in the Appendix.

Students completed the questionnaire during class time. The survey instrument was voluntary. We were best able to minimize the socially appropriate response bias by using a large group survey, with anonymous results and confidential submissions. A total of 1410 surveys resulted, approximately 10% of the entire campus. Of our total, 246 surveys were rejected because of incomplete answers, leaving 1157 completed surveys, for an effective response rate of 82.4%. Descriptive statistics are reported in Table 1.

Table 1. Comparative Demographics

2015 sample	Raw data	Percentage
Completed surveys	1157	100
Business majors	1062	91.79
Non-business majors	95	8.21
<i>Year in school</i>		
First year	360	31.11
Second year	415	35.87
Third year	358	30.94
Fourth year	24	2.07
Males	422	36.47
Females	735	63.53
<i>Religion*</i>		
Muslim	2	0.17
Roman Catholic	21	1.82
Lutheran	8	0.69
Protestant	7	0.61
Jewish	2	0.17
Buddhists	455	39.33
Other	662	57.22
<i>Politics</i>		
Very conservative	28	2.50
Conservative	141	12.57
Independent	57	5.08
Liberal	856	76.29
Very liberal	40	3.57

*Since the largest group claiming a specific religious affiliation is Buddhist, we ran all analyses using a Buddhist dummy variable.

Most (92%) of the participants were business majors. The respondents were in the following academic years: first, 31%; second, 36%; third, 32%; and

fourth, 2%. In our sample, females strongly outnumbered males 64% to 36%. These results are similar to findings on gender by Hsiao (2015) who found females in Taiwan's higher education outnumbered males (57% to 43%). Our sample was young. The group consisted of primarily traditional students with an average age of 19.21 years. The age range was 18-29, however only eight students (less than 1%) were older than 23. Only 13 students (less than 1%) were married. None of the respondents reported being a parent. As a result, comparisons of students based on marital status and parenting were not possible.

Tobacco use was reported by 10.9%. In Taiwan, smoking is a male activity. Taiwan's adult smoking rate was 39% for men, 5% for women in 2007 (Lin, 2010). Chiao, Yi, & Ksobiesh (2012) found smoking rates of 48% for males by the end of college, but female rates less than 5%. Our finding of 10.9% was likely influenced by gender since our sample was 2-1 female.

Most students in our sample worked while attending school (54%). These findings are consistent with Hsiao (2015) who surveyed Taiwanese college students (n=525) on the topic of academic cheating and found 62% worked while attending school. Politically, the students were divided, 15% self-identified as conservative or very conservative, 5% as independent, and 80% as liberal or very liberal. In religion, Buddhist was the dominant group with 39%. Other students were spread among all other faiths, with no group higher than 2%. These findings are consistent with surveys of Taiwan generally (Voas, 2014).

FINDINGS AND DISCUSSIONS

We examined current Taiwanese students on various ethical views of stakeholders and the business climate. First, we asked our sample (n=1157) whether the student would want to work for a company that had been accused of unethical business practices. Less than 10% of Taiwanese students wanted to work for an accused company. Students would "vote with their feet", avoiding firms that they viewed as unethical.

Second, we asked whether the government should be more involved in regulating business. The overwhelming majority (81%) supported more government involvement in business compared to 2% who wanted less. The remainder (17%) wanted regulation to remain the same. Taiwanese students favored a very active government role in business. These results are consistent with the finding of Taiwan's liberal political majority within our sample.

We asked five questions on specific stakeholders. These questions used a five point Likert scale, from (1) strongly agree, (2) agree, (3) no opinion, (4) disagree, and (5) strongly disagree.

We asked students about the Friedman Shareholder view summarized as a business' only obligation is to its shareholders. Only 17% of the Taiwanese students agreed with the Friedman Shareholder view while 65% disagreed.

Seeing strong disagreement with the Shareholder view, we asked for students' attitudes towards several specific stakeholders. We asked whether a business has an ethical duty to care for their employees. Taiwanese students

overwhelmingly supported the employees (53% strongly agreed, and another 36% agreed). Less than 1% disagreed with the ethical duty to employees.

Next, we asked whether businesses have an ethical duty to care for the environment. A super majority either strongly agreed (47%) or agreed (39%). Only 1.5% disagreed with environment being a stakeholder. We also asked whether business have an ethical duty to care for their community. A dominant majority agreed (84%) while only 1% disagreed.

Finally, we asked whether corporate social responsibility required a corporation to give part of its profit to charity. On this question, 68% agreed, 27% had no opinion, and only 5% disagreed. The finding on these five questions indicate Taiwanese students do not endorse Friedman's Shareholder view, but instead prefer a strong stakeholder approach. These results were similar to findings of Finnish business students, who had strong support for employees, the community, and the environment as important stakeholders (Ludlum Hongell, Tigerstedt, & Alsobrook, 2016).

Socialization shapes personal values (Hofstede, 1991). Drazin, Glynn& Kazanjian (1999) explained people are members of many communities, so the influence of one community only partially explains the individual behavior. Each student from our sample was not just a Taiwanese national but also a member of a gender, a religion, a political party, or academic discipline. Each of these societal memberships influenced the person.

We designed five research hypotheses for the current project. For each we started with a null hypothesis. Those hypotheses are:

1. Age (self-identified) does not affect attitudes towards ethical stakeholders;
2. College major (self-identified) does not affect attitudes towards ethical stakeholders;
3. Indoctrination (year in school) does not affect attitudes towards ethical stakeholders;
4. Religion (self-identified) does not affect attitudes towards ethical stakeholders; and
5. Gender (male/female) does not affect attitudes towards ethical stakeholders.

Surveys were examined for the relationships between age of the student, the student's major, the student's year in school, the student's religion, and the gender of the student with their attitudes on various ethical questions regarding corporate behavior. When we ran a correlation matrix on students' ages and the reported year in school, we found a very high correlation (.8367) between the variables. Testing these independent variables appeared to be redundant.

Because the outcome variables use a 5-point Likert scale from Strongly Agree (1) to Strongly Disagree (5), we conducted ordered logistic regression analyses for each of the five questions used as dependent variables using the following independent variables: major (dummy variable for business majors), indoctrination (year in school), Buddhism (dummy variable for religion) and female (dummy variable for sex). Only one of the five analyses produced a

significant model with $\alpha = .05$. Therefore, we compressed strongly agree and agree, and strongly disagree and disagree into a three-point Likert scale, with one indicating disagreement, two indicating no opinion, and three as agreement with the respective statement. As the analyses produce a subset of the data for which the questionnaires had the fewest missing data points, we use the smaller subset of 1157 observations from which we reported all results. We reviewed the summaries of student attitudes on the various questions and find most still hold, even with the smaller dataset.

We conducted ordinal logistic regression of each of five statements: 1) “A business only has an obligation to its shareholders;” 2) “Businesses have an ethical duty to care for their employees;” 3) “Businesses have an ethical duty to care for the environment;” 4) “Businesses have an ethical duty to care for the community;” and 5) “Corporate social responsibility means that a corporation should give part of its profits to charity.” As noted earlier, these variables are recoded from the five-point Likert scale to a three-point scale with one indicating disagreement, two indicating neutral, and three indicating agreement with the statement.

Table 2 presents the results of the ordinal logistic regression for each of the questions posed. Coefficients and standard errors (in parentheses) are shown below.

Table 2. Ordinal logistic regression output for each of the five questions.

	Shareholder	Employees	Environment	Community	Charity
Business major	0.43+ (0.24)	-0.15 (0.39)	-1.02* (0.47)	-0.67+ (0.36)	-0.16 (0.24)
Year	-0.21** (0.07)	0.34** (.12)	0.18+ (0.11)	0.24* (0.10)	0.01 (0.08)
Buddhist	-0.10 (0.12)	0.03 (0.20)	0.17 (0.18)	0.27 (0.17)	0.34** (0.13)
Female	-0.34** (0.13)	0.51** (0.19)	0.40* (0.18)	0.03 (0.16)	0.04 (0.13)
	Model ***	Model**	Model**	Model**	Model n.s.

Note: + $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

Major

In the four models for which significance was demonstrated, business majors tended to agree more with business-friendly statements than did non-business majors. Of the four models producing significance (the probability of the model $> X^2$), we see that business majors produced a positive coefficient, approaching significance, regarding the shareholder question ($z = 1.78, p < .10$). This indicated greater agreement with the Friedman view that businesses only have an obligation to their shareholders. Business majors disagreed most often with businesses’ duty to the environment ($z = -2.17, p < .05$). Regarding businesses’ ethical duty to care for the community, business majors tended to

disagree more than non-business majors ($z = -1.86, p < .10$). And our question regarding corporate social responsibility (giving part of the profits to charity) failed to achieve significance for the model.

Year in School

As students received additional indoctrination, they tended to display less favorable attitudes toward business-friendly statements. This is reflected in the negative, significant coefficient regarding disagreement with the Friedman view ($z = -2.86, p < .01$). As the year in school increases, respondents tended to agree more with businesses' responsibilities toward employees ($z = 2.80, p < .01$), the environment ($z = 1.70, p < .10$), and the community ($z = 2.49, p < .05$). There was no relationship between year in school and attitudes about businesses' responsibility to give a portion of their profits to charity.

Religion

The dummy variable for religion (Buddhist) failed to produce a significant coefficient in any of the models, save the charity model, which failed to achieve significance for the model itself. Other than Buddhist, the subgroups were too small to have any meaningful comparisons.

Gender

In these analyses, female respondents were more likely to have a negative response to the Friedman view ($z = -2.72, p < .01$). Females were more likely to indicate their beliefs that business had ethical responsibilities to their employees ($z = 2.60, p < .01$) and to the environment ($z = 2.26, p < .05$). Their attitudes were non-distinguishable from their male counterparts for the questions regarding businesses' responsibilities to the community or to give a portion of their profits to charity.

Factors that appeared to have the greatest impact on respondents' attitudes for the questions under investigation are the students' year in school and being female. As students spend more time in school, they tended to expand their views on corporate responsibility to other than shareholders. As noted above, females tend to agree less with the Friedman view, when those differences were significant.

The five statements in this survey asked respondents to provide their level of agreement or disagreement with the respective statement. When taken together, the five questions provide an overview of respondents attitudes about businesses' responsibilities to their shareholders or to those other than their shareholders (the community, the environment, their employees, or to charity). Cronbach's alpha on the compressed items produced alpha of .53. However, when we exclude the Friedman question, alpha on the compressed items (disagree, no opinion, agree), is .65. Regarding alpha, Tavakol and Dennick (2011) advise that although a lower number of items may produce a lower coefficient, while a greater number of items may artificially inflate the coefficient.

CONCLUSION AND SUGGESTION FOR FUTURE RESEARCH

Despite making some interesting findings, this survey, like all surveys, has limitations. The primary limitation of this study was that it covered a single institution at a single point in time. Even with a large sample (over 1100), we may not generalize to all Taiwanese college students. Further, a larger, more diverse sample could result in a more detailed analysis of the sub-groups. For example, further research could define majors into discipline areas (accounting, tourism, management, etc.) to see if any disciplines had different views. The same distinctions can be made with religion and political affiliation. No religious group in our sample was larger than 2%, which makes any meaningful comparison problematic.

Family status sub-groups (married students and students with children) have too few members in the current sample to do any comparison. Future projects should expand the surveyed population to include more non-traditional students.

Finally, the conclusions are time bound, as attitudes are influenced by the economic/political/cultural climate, which are certainly in flux. Clearly, further research on this topic is warranted. As international trade becomes more prevalent to even small and medium sized firms, the necessity of understanding the business culture of other nations becomes more important to the success of domestic institutions. The world is getting smaller all the time.

*Professor Ludlum teaches legal studies in business at the University of Central Oklahoma and can be reached at mludlum@uco.edu. (Corresponding Author)

REFERENCES

- Barbash, I. & Taylor, L. (1997). *Cross-cultural Filmmaking*. Berkeley and Los Angeles, California: University of California Press.
- Blodgett, J.G., Lu, L.C., Rose, G.M., & Vitell, S.J. (2001). Ethical sensitivity to stakeholder interests: A cross-cultural comparison. 29.2 *Journal of the Academy of Marketing Science* 190-202.
- Carroll, A.B. (1999). Corporate social responsibility: Evolution of a definitional construct. 38.3 *Business and Society* 268-295.
- Chang, T.S., Bai, Y., and Wang, T.W. (2014). Students' classroom experience in foreign-faculty and local-faculty classes in public and private universities in Taiwan. 68 *High Educ.* 207-226.
- Chen, D.I. (2012). Higher education reform in Taiwan and its implications on equality. 45.5 *Chinese Education and Society* 134-51.
- Chiao, C., Yi, C.C., and Ksobiech, K. (2012). Exploring the relationship between premarital sex and cigarette/alcohol use among college students in Taiwan: A cohort study. 12 *BMC Public Health* 527.

- Chien Hsin University of Science and Technology.* (2017).
<http://aps2.uch.edu.tw/english2/About.html>, last accessed on February 8, 2017.
- Chiu, T.K. & Wang, Y.H. (2015). Determinants of social disclosure quality in Taiwan: An application of stakeholder theory. 129 *Journal of Business Ethics* 379-398.
- CIA Factbook.* (2016). <https://www.cia.gov/library/publications/the-world-factbook/geos/tw.html>, last accessed on December 2, 2016.
- Collier, P.M. (2008). Stakeholder accountability: A field study of the implementation of a governance improvement plan. *Accounting, Auditing & Accountability Journal* 21.7, 933-953.
- Craig, C.S., and Douglas, S.P. (2006). Beyond national culture: Implication of cultural dynamics for consumer research, *International Marketing Review* 26.3, 322-342.
- Davenport, K. (2000). Corporate citizenship: A stakeholder approach for defining corporate social performance and identifying measures for assessing it. 39.2 *Business and Society* 210-219.
- Deegan, C., Rankin, M., and Voght, P. (2000). Firms disclosure reactions to major social incidents: Australian evidence. 24.1 *Accounting Forum* 101-130.
- Drazin, R., Glynn, M.A., and Kazanjian, R.K. (1999). Multilevel theorizing about creativity in organizations: A sensemaking perspective. 24 *Academy of Management Review* 286-307.
- Fan, L.C.N, and P.W. Fox. (2009). Exploring factors for ethical decision making: Views from construction professionals. *Journal of Professional Issues in Engineering Education* 135.2, 60-69.
- Freeman, R.E. (1984). *Strategic Management: A Stakeholder Approach*. Massachusetts: Pitman Publishing.
- Freeman, R.E., Harrison, J.E., and A.C. Wicks. (2007). *Managing for Stakeholders: Survival, Reputation and Success* (Yale University Press: New Haven, CT).
- Friedman, M. (1982). *Capitalism and Freedom*. Chicago: University of Chicago Press.
- Gingling, T.H. and Sun, W. (2002). Higher education planning and the wages of workers with higher education in Taiwan. *Economics of Educational Review* 21, 153-169.
- Goldman, G., Bounds, M., Bula, P., and Fudalinski, J. (2012). On the ethical conduct of business organizations: A comparison of South African and Polish business management students. 6.1 *African Journal of Business Ethics* 75-87.
- Gray, R., Kouhy, R., and S. Lavers. (1995). Corporate social and environmental reporting: A review of the literature and a longitudinal study of UK disclosure. *Accounting, Auditing & Accountability Journal* 8.2, 44-77.

- Habisch, A., Patelli, L., Pedrini, M., and Schwartz, C. (2011). Different talks with different folks: A comparative survey of stakeholder dialog in Germany, Italy, and the U.S. 100 *Journal of Business Ethics* 381-404.
- Hofstede, G. (1993). Cultural constraints in management theories. 7.1 *Academy of Management Executive* 81-94.
- Hofstede, G. (1991). *Cultures and Organizations: Software of the Mind*. London: McGraw Hill.
- Hofstede, G. (1983). *National cultures in four dimensions*. 13.1-2 *International Studies of Management and Organization* 46-74
- Hou, Y.C., Morse, R., Ince, M., Chen, H.J., Chiang, C.L., and Y. Chan. (2015). Is the Asian quality assurance system for higher education going glonacal? Assessing the impact of three types of program accreditation on Taiwanese universities. 40.1 *Studies in Higher Education* 83-105.
- Hsiao, C.H. (2015). Impact of ethical and effective variables on cheating: Comparison of undergraduate students with and without jobs. 69 *High Education* 55-77.
- Huang, C.L. and Kung, F.H. (2010). Drivers of environmental disclosure and stakeholder expectation: Evidence from Taiwan. 96 *Journal of Business Ethics* 435-451.
- Huang, L. and Huang, H. (2015). Rigid low college premiums and the expansion of higher education in Taiwan. 60.4 *Singapore Economic Review* 1550022.
- Ip, P.K. (2008). Corporate social responsibility and crony capitalism in Taiwan. 79.1 *Journal of Business Ethics* 167-177.
- Lin, C.H. and Orazem, P.F. (2004). A reexamination of the time path of wage differentials in Taiwan. 8.2 *Review of Development Economics* 295-308.
- Lin, C.H. and Wang, C.H. (2005). The incidence and wage effects of overeducation: The case of Taiwan. 30.1 *Journal of Economic Development* 31-47.
- Lin, C.H. and Yang, C.H. (2009). An analysis of educational inequality in Taiwan after the higher education expansion. 90 *Journal of Social Indicators Research* 295-305.
- Lin, M.P., Ko, H.C., and Wu, J.Y.W. (2011). Prevalence and psychosocial risk factors associated with internet addiction in a nationally representative sample of college students in Taiwan. 14.12 *Cyberpsychology, Behavior, and Social Networking* 741-746.
- Lin, S.J. (2010). Estimating the determinants of smoking behavior in Taiwan. 45 *Substance Use & Misuse* 482-495.
- Lin, W.P. (2000). *Taiwanese Children's Reading Interest*. Taitung, Taiwan: National Tai-Tung Teachers' College Publishing (original in Mandarin).
- Lin, Y.N. (2014). The graduate student experience at a research-oriented university in Taiwan. 135.2 *Education* 197-210.
- Lopez-Navarro, M.A., and Cipres, M.S. (2015). Social issues in business education: A study of students' attitudes. 90 *Journal of Education for Business* 314-321.

Journal of Business and Behavioral Sciences

- Ludlum, M., Hongell, L., Tigersted, C., and Alsobrook, L. (2016). Gender, indoctrination, and religious effects on ethical stakeholders: A case study of Finnish business students. 6.1 *Journal of Business and Educational Leadership* 13-26.
- Ludlum, M., Hongell, L., and C. Tigerstedt. (2013). Finnish business students and business ethics: A preliminary survey. 4.4 *International Journal of Business and Social Science* 120-127.
- Ludlum, M., Moskalionov, S., and Machiorlatti, M. (2008). Perceptions of proper ethical conduct of Russia's future business managers: A replication of Deshpande, Joseph, and Maximov. 11.1 *The Business Review, Cambridge* 267-272.
- Ludlum, M., Moskalionov, S., and Ramachandran, V. (2013). Examining ethical behaviors by business students. 3.3 *American International Journal of Contemporary Research* 13-21.
- Lumsden, K.G., & Scott, A. (1987). The economic student re-examined: Male-female differences in comprehension. 18 *Journal of Economic Education* 365-375.
- Maksimainen, J., Saariluoma, P., and Jokivuori, P. (2010). Corporate social responsibility and values in innovation management. 5.2 *Journal of Social Sciences* 97-101.
- Mitchell, R.K., Agle, B.R., and D.J. Wood. (1997). Toward a theory of stakeholder identification and salience: Defining the principle of who and what really counts. 22.4 *Academy of Management Review* 853-886.
- Moskalionov, S., Ludlum, M., Ramachandran, V., Stephenson, M. (2015). Study Habits of Russian Business Students. 2015.2 *Global Education Journal* 55-63.
- Ni, N., Egri, C., Lo, C., & Lin, C.Y.Y. (2015). Patterns of corporate responsibility practices for high financial performance: Evidence from three Chinese societies. 126 *Journal of Business Ethics* 169-183.
- Nieman, G., and Bennett, A. (2006). *Business Management: A Value Chain Approach*. Pretoria: Van Schaik.
- Post, J.E., Preston, L.E., and Sachs, S. (2002). Managing the extended enterprise: The new stakeholder view. 45.1 *California Management Review* 6-28.
- Roberts, R.W. (1992). Determinants of corporate social responsibility disclosure: An application of stakeholder theory. 17.6 *Accounting, Organizations and Society* 595-612.
- Shauki, E. (2011). Perceptions on corporate social responsibility: A study in capturing public confidence. 18 *Corporate Social Responsibility and Environmental Management* 200-208.
- Su, H.Y. (2014). Business ethics and the development of intellectual capital. 119 *Journal of Business Ethics* 87-98.
- Su, W., Peng, M.W., Tan, W., & Cheung, Y.L. (2016). The signaling effect of corporate social responsibility in emerging economies. 134 *Journal of Business Ethics* 479-491.

- Tavakol, M. & Dennick, R. (2011). Making sense of Cronbach's alpha. 2
International Journal of Medical Education 53-55.
- Ullmann, A.A. (1985). Data in search of a theory: A critical examination of the relationships among social performance, social disclosure, and economic performance of US firms. 10.3 *Academy of Management Review* 540-557.
- Velasquez, M.G. (1996). Business ethics, the social sciences, and moral philosophy. 9 *Social Justice Research* 97-107.
- Voas, D. (2014). Does education develop or diminish spirituality in Taiwan? 53.3 *Journal for the Scientific Study of Religion* 556-574.
- Wu, C.F. (2002). Business should be its own therapist: Observing the "governance ethics" of Taiwanese enterprises. 40.4 *Journal of Business Ethics* 363-371.
- Yang, C. (2014). Does ethical leadership lead to happy workers? A study on the impact of ethical leadership, subjective well-being, and life happiness in Chinese culture. 123 *Journal of Business Ethics* 513-525.
- Yao, C.S. and Jacob, W.J. (2012). Expansion and stratification of higher educational opportunity in Taiwan. 45.5 *Chinese Education and Society* 112-133.

Appendix One. Survey Questions.

NOTE: Original survey is in English and Mandarin.

Contact author for the English & Mandarin version.

This is a voluntary research project on student views. The survey should take approx. five minutes to complete. There is no penalty for refusal to participate. You must be at least 18 years old to take this survey.

DO NOT PUT YOUR NAME OR IDENTITY NUMBER ON THE SURVEY.
ALL ANSWERS ARE ANONYMOUS AND CONFIDENTIAL. If you do not wish to participate, you may hand in the survey form blank. Thank you for your input on this research project.

What year in school are you presently? What is your major? 1.

Business 2. Non-Business

Are you male or female? 1. Male 2. Female

Would you describe yourself politically?

1. Very Conservative 2. Conservative 3. Independent 4. Liberal 5. Very Liberal

Do you use tobacco? 1. Yes 2. No

Are you currently employed? 1. No 2. Part-time 3. Full-time

Are you married? 1. Yes 2. No What is your age? How many children do you have?

How would you describe your religious views: 1. Muslim 2. Roman Catholic 3. Lutheran

4. Protestant 5. Jewish 6. Buddhist 7. Other

How many times a MONTH do you attend religious services or meetings?
THESE QUESTIONS INVOLVE YOUR FEELINGS & ATTITUDES.
THERE ARE NO CORRECT ANSWERS.

Would you want to work for a company that had been accused of unethical business practices?

1. Yes 2. No 3. Unsure

Should the government be more involved in regulating business, less involved, or remain the same?

1. Much more involved 2. A little more involved 3. Remain the same
4. A little less involved 5. Much less involved

Describe your views on the following statement: "A business only has an obligation to its shareholders."

1. Strongly Agree 2. Agree 3. No Opinion 4. Disagree 5. Strongly Disagree

Describe your views on the following statement: "Businesses have an ethical duty to care for their employees."

1. Strongly Agree 2. Agree 3. No Opinion 4. Disagree 5. Strongly Disagree

Describe your views on the following statement: "Corporate Social Responsibility means that a corporation should give part of its profits to charity."

1. Strongly Agree 2. Agree 3. No Opinion 4. Disagree 5. Strongly Disagree

Describe your views on the following statement: "Businesses have an ethical duty to care for the environment."

1. Strongly Agree 2. Agree 3. No Opinion 4. Disagree 5. Strongly Disagree

Describe your views on the following statement: "Businesses have an ethical duty to care for their community."

1. Strongly Agree 2. Agree 3. No Opinion 4. Disagree 5. Strongly Disagree

NOTE: The survey included additional questions, not part of this research.

**REDUCING WASTE IN THE OPERATING ROOM
THROUGH INVENTORY-BASED SUPPLY CHAIN
OPTIMIZATION**
Ryan N. Schmidt
Robert H. Posteraro
Marc Lopez

Texas Tech University Health Sciences Center

ABSTRACT

This paper looks at how to reduce operating costs in a hospital's operating room through incorporation of preference card management. A hospital's operating room (OR) generally holds the second-largest amount of inventory for the organization, with regard to both volume and cost. Without an efficient process to ensure the operating room runs lean, the probability of costs associated with waste occurring is extremely high. Through the implementation of an efficient preference card program, an operating room should see reduced per case costs, and a reduction in supply chain expenditures. The region's only Level 1 Trauma Center had its preference card system updated to only pull items which were indicated to be opened during the surgeon's case. Any item which was indicated to have available in the room, but not opened, was no longer pulled for any surgical case. Data was collected for September 2018 to identify if there was a reduction in per case costs, and if there was an impact on surgical times. Based on the results of this project, it was determined that a potential savings opportunity of \$1.18M to \$1.45M could be gained, without increasing the average surgical minutes per OR case.

Key words: Operating room, supply chain optimization, surgical time, waste, value analysis

INTRODUCTION

With the requirement for hospital operating rooms to run as lean and efficient as they can, surgeon preference cards must become an area of focus to assist in reducing operational costs. Depending on the size of the hospital, an operating room can spend millions of dollars on soft goods (disposable supplies), which could have a major effect on the operating room's operating margin, and the overall operating margin of the hospital. While efforts can be made to reduce periodic automatic replenishment (PAR) levels to minimize the stock on hand, if there is no change made to the supplies a surgeon requests for use on their cases, an operating room will not see a reduction in inventory.

SURGICAL TIME, CALIFORNIA

According to Ely (2018), the average cost of OR time in the state of California ranged from \$36 to \$37 per minute. This data was pulled from the Office of Statewide Health Planning and Development (OSHPD) which mandates that all hospitals in the state of California report annual financial metrics. The mix of hospitals that made up this average included for profit (25.8%), not for profit (57.9%), and government owned (16.2%). Based on the data collected, it was determined that the OR expenses for the state of California had increased at a rate which surpassed that of the consumer price index (CPI) (Bureau of Labor Statistics, 2018) and the medical care index (one of the eight major groups in the CPI) for the period of 2004 to 2015 (Ely, 2018).

When breaking down the data further, it was identified that direct costs for OR time ranged from 55% to 59% of the total per minute cost, depending on whether the procedure was an inpatient or outpatient procedure. This results in direct costs accounting for \$20 to \$22 of the average \$36 to \$37 per minute, with \$13 to \$14 of those direct costs being attributed to wages and fringe benefits. Ely (2018) identified that \$2.50 to \$3.50 of the per-minute cost was for non-chargeable supplies (soft goods).

TEXAS

While Texas Health Care Information Collection (THCIC) provides cost data for a patient's overall encounter in the state of Texas, determining what the average cost of OR time equates to is not easily determined. So, to consider what the impact of these costs are for surgical cases in the state of Texas, it is important to recognize that the average cost of medical care is 8% less than that of California (Segal, 2017). Looking at a Level 1 Trauma Center in Texas, for the first six months of 2018, based on the aforementioned cost data, the medical center could be looking at a supply cost of \$2.5M to \$3.5M for their 1,077,742 minutes (Alpha Medical Center, 2018). If the numbers are annualized, the medical center would be experiencing \$5.0M to \$6.9M in unchargeable supply expenses.

VALUE ANALYSIS

Because a hospital's operating room is typically the second-largest holder of inventory in a hospital, it is crucial that processes are developed to streamline supply chain management. As much as a hospital can eliminate unnecessary supplies from its OR inventory, there will be no gains if surgeons keep requesting new items to be used in their cases. In the past, as Covidien (2011) points out, surgeons were in a great position to request

their preferred products to be stocked in a hospital with which they had privileges. Before reimbursement transitioned to a quality vs quantity approach, hospitals were more willing to bargain with surgeons if it meant the surgeon would bring their caseload to that hospital. At that time, the more patients who were seen at the hospital, the greater the revenue generated.

Now, however, hospitals are reimbursed mainly on the quality of care which is provided – whether that be in a bundled payment, through capitation, shared risk, etc.; few payers today still use fee-for-service as their method of payment. Therefore, hospitals are no longer in a position to offer surgeons their preferred supplies even if they threaten to move their caseload elsewhere. Formal supply chain management processes have been implemented at most hospitals, with Value Analysis Committees (VAC) being a tool administrators are using to limit OR costs and maintain inventory control.

Through the VAC, surgeons are now tasked with providing a clinical justification for why a new item needs to be introduced into the OR's inventory. While this is of benefit for the VAC because they are given the information needed to make an informed decision on whether to approve or deny a product, it can be extremely time consuming for a surgeon to have to provide research validation for a product they want to request. In addition, Covidien (2011) mentions that many surgeons believe they should be compensated for the time they spend fulfilling some of the labor-intensive tasks that the VAC mandates.

There are some hospitals which have taken this into account and offer different compensation models to ensure the surgeons participate and are engaged. This could be in the form of a cost-reduction incentive bonus for surgeons who actively participate in the VAC, or a general committee participation bonus if a surgeon participates in any hospital committee (including the VAC). Rolling an incentive bonus into the mix creates an environment where a surgeon is more likely to want to participate, but these plans are generally the exception to the rule.

Because of this, vendors are often a prime choice as participants at a hospital VAC. As Covidien (2011) mentions, they are one of the major connections which surgeons have to surgical innovation. They could be a voice for the surgeon to educate VAC members on why a new product was requested, and what the overall benefit is for the procedure. The

purpose of the VAC is not to deny every product which is requested, but to ensure that there is enough clinical justification to warrant the introduction of the product.

PREFERENCE CARD MANAGEMENT

The physician preference card is a tool which allows a clinical member of an operating team to recognize individual preferences of each surgeon for each procedure. It will list all the supplies for the case the surgeon wants to use from the C-arm drape to the trocar, it identifies what area of the patient's body to prep, what pharmaceuticals need to be ordered from the pharmacy, what dressing the surgeon uses, what position the surgeon wants the patient placed in, and what instruments the surgeon uses. These cards are an integral part of an efficient operating room. Without them, it would be impossible for supplies to be pulled for 50+ cases every day, for a variety of surgeons. In fact, at this region's Level 1 Trauma Center, there are over 8,000 preference cards in the preference card management system. Each was established at the time a new surgeon joined, or whenever a surgeon was credentialed for a new procedure.

Because there are so many possibilities for preference cards, and depending on the size of the organization there could be thousands or tens of thousands of preference cards, it is imperative that appropriate preference card maintenance be performed to ensure that the correct soft goods and instruments are pulled for each case. If a surgeon requests a new item and it is approved through the VAC, their card for the procedure the item is used for needs to be updated so their supplies are pulled correctly.

When preference cards are not updated, wrong items for a case will be pulled which can have adverse effects that are widespread. If a wrong item is pulled, it could delay a procedure which would cause all members of the surgical team to be frustrated, and the cases that follow will be delayed. If a circulator is having to run to the central supply room to pull the correct item, the patient is having to be on the table for an unnecessarily prolonged time. In addition, it could cause the surgeon to take his frustration out on the staff in the room which is unhealthy for the morale in the OR. If wrong items are pulled and unused, there is a potential for unopened items to be discarded which creates unnecessary waste. Plus, any instrument sets which are opened and unused create the need for them to be re-sterilized and restocked which adds to the unnecessary cost (Richards, 2017).

PREFERENCE CARD ACTION

Because of the importance preference cards have on the impact of an OR's efficiency, many healthcare organizations are starting to focus on what they can do to decrease costs. Vanderbilt University Medical Center in Nashville, TN has a combined 1,025 beds and performs over 57,000 procedures every year (Vanderbilt University Medical Center, n.d.). Curlin, Harvey, and Smith (2016) identified cost savings through a review of Vanderbilt's gynecological preference cards. They pulled the top five procedures for each gynecological surgeon which resulted in 81 cards being distributed to 21 surgeons. Of that amount 67% of the surgeons returned their cards, with 81% having changes which needed to be made. For the changes which were made, 109 items were removed from the cards totaling over \$700. In addition to this, the status of several items was changed from "opened" (meaning the item should be opened and ready for use in the case) to "have available" (meaning the item should be in the room, unopened, but ready for use). The outcome of these changes resulted in an additional savings of \$6,300, resulting in a total savings of \$7,000 or \$179 per card (Curlin, Harvey, & Smith, 2016).

Another healthcare organization which recognized the need to make a change to their preference cards was Charleston Area Medical Center (CAMC) in Charleston, WV. CAMC is an 850-bed teaching health system that sees 30,000 surgical cases every year. Because of this large volume of cases, their OR budget for materials management surpasses \$40M across its facilities. Through standard operating procedures, CAMC identified a problem with the amount of waste which was being produced from their surgical cases. They have established a program which collects any unused surgical supplies pulled for cases to send them to be used on mission trips. Through this collection CAMC recognized an abundance of surgical supplies was being collected (Perry, n.d.).

After recommendations were made to reduce waste at CAMC, they implemented the Lean Information Control System (LINCS) which collects OR data and materials inventory management system (MIMS) data to compare materials that were issued, used, and returned. The LINCS results were then utilized to identify any trends of items being wasted, the type of waste which occurred (i.e., was it opened and not used), and what corrective action was taken as a result. As a result of this new process, CAMC identified more than 600 preference cards which needed to be updated. They used LINCS to identify the largest variances

of items which were pulled for the case and not used, and removed these obsolete items from the cards (Perry, n.d.).

Based on their work to update the 600+ preference cards, CAMC saw an average reduction of \$100 per case across their facilities. For CAMC's 30,000 surgical cases, that results in a savings of approximately \$3M. In addition to the case cost reduction, CAMC also saw a reduction in case cart supplies of \$14.9M per year, and a reduction of returned items of \$11.2M per year. Plus, they were able to reduce their indirect costs by decreasing the amount of time it took to pull supplies for their cases.

Looking at the University of California, San Francisco Health, they are an organization consisting of over 950 beds, two million visits and over \$4B in revenue a year (UCSF Health, 2018). Because their organization is so large, they recognized there was a potential of a negative financial impact on disposable supplies which were opened and not used in surgical cases. A study was conducted which measured the amount of supplies that were documented as waste (opened but not used) in 58 of their neurosurgical procedures (Boscardin et al., 2017). After these cases were reviewed, it was determined that the average cost of supplies which were wasted amounted to \$653 per case.

Based on the average amount per case which was wasted, it was determined that for neurosurgical cases, approximately \$243K per month was attributed to wasted supplies – annually, this amount equates to \$2.9M. Because the findings were so significant, Boscardin et al. (2017) indicated that UCSF Health started enforcing price transparency within their organization so surgeons and clinical staff would be more cognizant of what the supplies for their cases cost. In addition, preference cards were reviewed to eliminate items which had a high variance of being pulled for a case but were documented as waste.

PREFERENCE CARD STRATEGY

The county health system this project focuses around consists of two parts – a 500-bed acute care medical center (which serves as the county hospital and primary teaching hospital for the region's university) and an ambulatory organization which consists of almost 35 clinics throughout the region. This organization has served as the region's only Level 1 Trauma Center (as designated by the Texas Department of Health) for the past 25 years, and as such, is equipped to handle critical patients in their trauma and surgical ICU and their burn unit (which is the only burn center

in the region). In addition to this, other services include: EMS services, family medicine clinics, maternity and newborn care, cancer care, home health, physical medicine and rehabilitation. Their annual operating budget is \$644M, with approximately \$60M of that residing in the OR (Alpha Health System, 2018).

Because this hospital serves as the only Level 1 Trauma Center in the region, there are countless cases that the OR encounters on a daily basis. This means that supplies are pulled daily to serve the 16,000+ which are seen every year. As was mentioned, preference card management for large health systems often results in an oversight of updates to the cards. This means there are probably items pulled for cases which are not used and are possibly discarded at the end of cases. To circumvent this problem, a decision was made to cease pulling items which were marked as “Have Available” on the surgeon’s preference card. The new process started September 4, 2018 and is currently ongoing.

During this project, data was collected which indicated case costs prior to the implementation of the project and after implementation of the project. In addition, surgery times were monitored to determine whether cases experienced any major increase in operating time as a result of circulating nurses having to leave the rooms to pull additional supplies for their cases (i.e., something which would have been previously listed as “Have Available”). The goal of this project was to prove that eliminating “Have Availables” from the surgeon’s preference cards would eliminate waste in the operating room, which reduces costs, without increasing the time the surgeon operates.

PROJECT SCOPE

The period of the data collection began on September 5, 2018. The collection period focused specifically on OR cases scheduled during prime hours (Monday – Friday, 07:00 – 15:00), with holidays excluded. This project period was compared to the same period for September 2017, to ensure any cyclic behavior was taken into consideration. Supply expense data was determined using the most recent price files to accurately determine any shift in costs between the two years.

In addition to this, disposable supplies were the only costs which were attributed to this project. The case cart technicians at this county health system do not pull surgical instruments, equipment, or implantable devices, so they were not a part of the case cost factor. All OR clinical

staff (i.e., surgical technicians, circulating nurses, and service coordinators) were in-serviced about the change in this process.

RESULTS (CASE COSTS)

For 2017, a total of 1,007 OR cases occurred during the prime hours for the project period; 2018 saw 978 OR cases. The total cost for supplies used during the 2017 cases amounted to approximately \$992K, while the total cost for the supplies used during the 2018 cases amounted to approximately \$880K (Alpha Medical Center, 2018). The difference between the two years was \$112K, or a reduction of 12% in disposable supply case cost expenses.

However, because there was a difference in case volume between the two years (a reduction of 3%), to determine if a true savings was recognized the average cost per case was calculated. For 2017, the average cost of disposable supplies per case amounted to \$985 while for 2018, the average cost of disposable supplies per case amounted to \$899 (Alpha Medical Center, 2018). The difference equating to \$86, or a reduction of 9.1% of disposable supply costs per case.

When annualizing this county health system's volume for OR cases occurring during prime hours starting January 1, 2018, the ending result equated to a forecast of 13,736 cases for the year (Alpha Medical Center, 2018). Taking the \$86 reduction per case in supply costs and applying it to the forecasted number of cases resulted in a potential savings opportunity of \$1.18M for the health system. Annualizing the volume for all OR cases (cases occurring any time of the day, seven days per week) starting January 1, 2018, the forecasted amount is 16,841 cases. Applying the same \$86 reduction in case costs to this forecasted amount results in a potential savings opportunity in disposable supply costs of \$1.45M for the health system.

SURGERY MINUTES

Looking at the surgery minutes for the project period, one concern was the potential of an increase in minutes (the total minutes from the moment the surgeon performs the first incision to the moment the surgeon closes the patient) because of a supply listed as "Have Available" not being available for immediate use. For 2017, a total of 90,779 surgery minutes were documented for the project period; 2018 had 87,782 surgery minutes documented (Alpha Medical Center, 2018). The total difference in surgery minutes was a reduction of 2,997, or 3%.

Again, because there was a difference in case volume, between the two years, an average number of surgery minutes per OR case was determined. For 2017, the average number of surgery minutes per case equaled 90.15 minutes. For 2018, the average number of surgery minutes per case amounted to 89.76 minutes. The difference between the two results came out to an average of 0.39 minutes less per case for the 2018 project period, or a reduction of 0.4% in surgery minutes per case.

CONCLUSION

Because of the findings from this project, this new process will continue indefinitely for the county health system. The resulting evidence of a reduction in disposable supply case costs, without increasing surgery minutes, provides strong incentive for surgical leadership to support this program. As such, any staff member who pulls disposable supplies for any of their cases will be expected to continue omitting any item listed as “Have Available.” Data will continue to be collected for the months that follow to determine if the savings in disposable supply costs continue to be recognized. In addition, surgery minutes will also continue to be monitored to ensure that an increase in minutes is not recognized for future months.

The progress which this project has made in reducing waste in the OR has been a welcoming change. Throughout the OR, staff are actively engaged in identifying new opportunities to reduce waste to help bring down expenses. Even surgeons are actively engaged with their case costs and are taking one step further by proactively asking what the cost of certain implantable devices are. They want to be just as assertive in the OR’s savings opportunities and are researching alternative implantable devices which are less costly, but still provide the same high-level quality of care for their patients. If anything, this project has provided a team approach for all members of the operating team to help develop and implement ideas to reduce waste and costs in the OR.

REFERENCES

- Boscardin, C., Gonzales, R., Lawton, M., Moriates, C., Valencia, V., Yoon, S. Zygourakis, C. (2017). Operating room waste: disposable supply utilization in neurosurgical procedures. *Journal of Neurosurgery*. 126(2), 620-625.

- Bureau of Labor Statistics. (2018). Consumer price index. Retrieved from:
<https://www.bls.gov/cpi/>
- Covidien. (2011). Surgeons and the value analysis committee: agents of change. Medtronic. Retrieved from:
<http://www.medtronic.com/content/dam/covidien/library/us/en/education-training-research/sharing-healthcare-solutions/surgeons-and-the-vac-agents-of-change-white-paper.pdf>
- Curlin, H., Harvey, L. F. B. &, Smith, K. A. (2016). Improving operative room costs and efficiency through review of surgeon preference cards. *Journal of Minimally Invasive Gynecology*, 23(7), S37.
<https://doi.org/10.1016/j.jmig.2016.08.097>
- Ely, K. (2018). What are the implications of the costs of operating room time. *The American Journal of Managed Care*. Retrieved from:
<https://www.ajmc.com/newsroom/what-are-the-implications-of-the-costs-of-operating-room-time>
- Perry, S. (n.d.). Preference cards as a ticket to savings. *The Journal of Healthcare Contracting*. Retrieved from:
<http://www.jhconline.com/preference-cards-as-a-ticket-to-savings.html>
- Richards, H. (2017). The price you pay for outdated surgical preference cards. Medium. Retrieved from:
<https://medium.com/@harold.richards/the-price-you-pay-for-outdated-surgical-preference-cards-3eecca7d640>
- Segal, T. (2017). Cost of living: Texas vs California. *Investopedia*. Retrieved from:
<https://www.investopedia.com/ask/answers/100214/what-cost-living-difference-between-texas-and-california.asp>
- UCSF Health. (2018). Our leadership. University of California San Francisco. Retrieved from: <https://www.ucsfhealth.org/about/our-leadership/>
- Alpha Medical Center. (2018). [Surgical encounter data]. Unpublished raw data.
- Vanderbilt University Medical Center. (n.d.). States, facts & rankings. Retrieved from:
<http://prd-medweb-cdn.s3.amazonaws.com/documents/patientandvisitorinfo/files/1038-2828-VUMC-Factbook-2016-MK-PAGES-opt.pdf>

EFFECTS OF TECHNOLOGY INNOVATIONS ON BUSINESS

Samuel Tanner McKnight

Balasundram Maniam

Joey Robertson

Sam Houston State University

ABSTRACT

Technology has always been the primary driver in industrial shifts throughout history. The Industrial Revolution itself was driven by technological innovation. This paper seeks to determine how modern business practices have adapted to recent technological innovations and how these innovations will continue to affect businesses in the near future. The recent effects felt by businesses relate to shifts in industry demands, globalization, and alternative work environments. Upcoming effects for businesses to be aware of are determined based on general business and economic principles and historical trends.

Keywords: *technological innovation, globalization, alternative work environment, flexible work schedule*

INTRODUCTION

Technological innovations have been the dominant driver in industrial and cultural shifts throughout history. Work, social, and family-life all undergo constant adaption revolving around new technological advancements. These advances can be traced all the way back to the invention of the wheel, when a simple innovation transformed the way society worked and lived.

Advancements in technology have a direct correlation to increased productivity by allowing more work to be completed with fewer resources. More currently, employment shifts from agricultural roles to industrial and service occupations are largely attributed to advances in agricultural technology that allow more work to be performed with fewer employees as well as increased demand for goods and services in industries directly related to the technological advancements themselves (Duarte and

Restuccia, 2010). Recent innovations have also expanded avenues of communication by increasing communication speeds and creating new modes of instant communication (i.e. video conferencing) (Naím, 2009).

With these innovations, however, come countless culture-shifts and side effects, many of which remain unknown and unaddressed until after the effects are actually felt. As with the invention of the cellphone and the rise of text messaging, the necessary laws and limitations promoting safe use of the new technology were not developed until after the new technology was introduced to the world. Often times, necessary adaptions cannot occur until the effects have been felt and the world evaluates exactly how it needs to adapt. This evaluation period-lag can result in temporary, unforeseen adverse effects such as a rise in motor vehicle accidents caused by texting and driving.

In analyzing innovation from a cause-and-effect perspective, the cause would be the innovations themselves and the effects are the ever-changing business models and lifestyles that develop from the innovations. This study discusses how recent technological innovations have led to global shifts across different business sectors. These sectoral shifts also relate to the effects on globalization that have developed from recent technological innovations. In turn, both technological innovations and globalization have resulted in the practical creation of alternative work environments for businesses. The effects of technological innovation on the way we do business ripple deeper than the surface-level surrounding the innovations themselves and farther than impact of the innovations' original intent. Through analyzing the historical effects of recent technological innovations on business, this research seeks to determine what immediate future effects of recent technological advancements may lie on the horizon for businesses. Recent adaptions to technological innovations point the direction that businesses are heading.

LITERATURE REVIEW

Productivity shifts across multiple global business sectors during the rise of modern technological innovations are included in the study conducted by Duarte and Restuccia (2010). Dana and Orlov (2014) expound on the study of sector shifts by analyzing the internet's effects on the US airline industry. Krajewski and Marcrum (2010) study how the internet and search engines are effecting shifts in business operations as well. Consumer satisfaction and business' use of new technology are linked in the article by McWilliams, Anitsal, and Anitsal (2016). Forman, Ghose, and Goldfarb (2009) make the connection between a consumer's geographical location and the actual location of a business transaction between two parties. Additional historical data showing trends in

productivity based on the non-farm business sector is reported by Holman, Joyeux, and Kask (2008). Corresponding to these shifts in various business sectors is the study conducted by Lin (2011) analyzing where the implementation of technological innovation happens the fastest.

Boeuf and Sénécal (2013) look at how consumer behaviors, as an effect of technological innovation, have sped up the process of globalization. This globalized economy, driven by both consumer demands and technology, is studied further by, Liu, Feils, and Scholnick (2011), who provide a list of reasons why companies have increased the level of offshore-outsourced operations. Similarly, Weigelt (2009) analyzes the benefits of a business's decision to outsource certain areas of internal operations. Building upon the study conducted by Liu, Feils, and Scholnick, Naím Moisés (2009) determines the feasibility and functionality of a one-world economy, essentially pulling all of the aforementioned studies related to globalization together.

Branching away from the economic facet of globalization and into effects related to human resources, Bauernschuster, Falck, and Heblich (2009) analyze the likelihood of business success in relation to management's education of ever-changing technological innovations. Similarly, Fard, Cheong, and Yap (2014) discuss the human capital aspect of globalization in regard to technological modernization across countries of differing income levels.

Another effect of technological advancement is the practicality of implementing alternative work environments into a business model, which is studied by Hermelin and Trygg (2009). Survey results of benefits and detriments of alternative work environments are included in the articles written by Dizaho, Salleh, and Abdullah (2017) and Leslie, Park, and Mehng (2012). A study of social and family conflicts related to alternative work environments comprises the research written by Fonner and Stache (2012). In addition, Lee and Hong (2011) report results of productivity and employee-workplace commitment based on alternative work environment options offered by employers; this research reports both historical data found in past analyses, while also adding additional variables in relation to modern technology.

In relation to the studies concerning the practicality of alternative work environments, Ridić, Avdibegović, and Bušatlić (2016) discuss the idea of using alternative work environments as a business strategy; this article links the benefits of alternative work environments to the competitive advantage that these benefits can provide for a business. As part of this strategy, Golden (2012) evaluates the viability for businesses

to use alternative work environments during nontraditional work hours (outside of the standard 9-5 workday).

Linton and Solomon (2017) address the impacts felt by small businesses when adapting to new technology. The effects on small businesses that refuse to adapt and incorporate new technology are considered further by Hurst, Pugsley, Haltiwanger, and Looney (2011). The conjunction between large-scale retailers leasing new technology to small business owners is another impact on small businesses; Jiang, Jerath, and Srinivasan (2011) review this concept. An analysis of how recent technological innovation has led to shifts across various industry sectors will begin this study.

SHIFTS IN INDUSTRY SECTORS

All throughout history, shifts in industrial sectors have corresponded to revolutions in technology. The industrial revolution, for example, brought new modes of transportation with the invention of the steam engine, allowing more work to be done with fewer human resources. In turn, a natural reallocation of human labor occurred between agricultural and industrial sectors to adjust for the employment and labor needs. Just the same, recent technological innovations such as advanced computers, cellphones, and the internet have led to similar shifts in today's society.

From 1995 to 2005, the information technology, manufacturing, and retail sectors all increased their production-output while simultaneously decreasing their work-input, indicating improved efficiency and, potentially, greater demand for certain goods and services (Holman and Kask, 2008). As reported by Duarte and Restuccia (2010), the number of labor hours in the global agriculture industry fell due to modern technological advances. The degree at which these industry shifts occurred varied with each country individually depending on the country's level of involvement in a particular industry (Duarte and Restuccia, 2010).

New equipment allows more work to be done with fewer human hands involved. Many retail businesses such as supermarkets and even banks are implementing automated technologies to reduce the number of employees needed to serve customer needs (McWilliams, Anitsal, and Anitsal, 2016). Self-checkouts and enhanced automated teller machines are reducing labor-input and cutting long-term labor expenses for many businesses (McWilliams et al., 2016). A side effect of implementing self-service technology is customer satisfaction, which is always a risk when consumers are forced to learn new technology just to serve themselves (McWilliams et al., 2016). Surveys of satisfaction related to self-serving kiosks and registers show that consumers who are not familiar with the

technology have higher levels of frustration and spend more time than desired trying to teach themselves how to use the new technology (McWilliams et al., 2016). Although the effect of implementing these types of technology for customer use was evaluated by businesses beforehand, unforeseen side effects emerged from the unpredictable human element forcing businesses to continuously evolve and adapt to meet consumer needs (McWilliams et al., 2016).

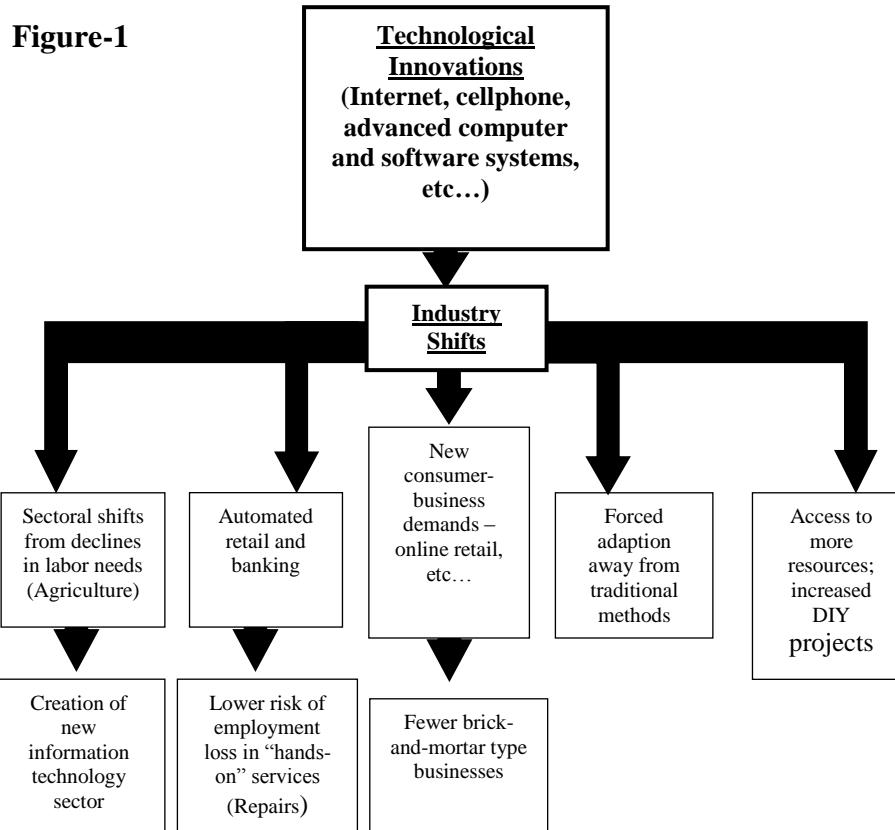
The same technological advancements that are replacing cashiers and clerks are also providing the resources for the common-man to provide many services for himself (Dana and Orlov, 2014). Advancements such as the internet deliver a world of knowledge and resources that allow the average consumer to perform a job without hiring the work out (i.e. tax return preparation and travel agencies) (Dana and Orlov, 2014). The internet has become the intermediary, replacing human labor in many industries (Krajewski and Marcrum, 2010). Some industries, however, still require “hands-on” services, expertise, and special equipment to complete the job (Lin, 2011). Specialized factors lessen the risk of an industry being replaced by DIY (do-it-yourself) alternatives (Duarte and Restuccia, 2010). Although new technology can make jobs such as appliance and vehicle repairs easier for technicians, the need for experienced human-hands and special tools and equipment has yet to be eliminated by the innovations (Duarte and Restuccia, 2010).

With the increased usage and sophistication of technology, the demand for additional businesses and skilled labor in the information technology sector has increased (Duarte and Restuccia, 2010). Within the past two decades, a new depth of technology consulting firms has emerged due to the specialism and complexity of modern business technology (Linton and Solomon, 2017). Generally, management does not specialize in the area of information technology, and therefore, requires many of these services to be outsourced to other businesses specializing in the information technology industry (Linton and Solomon, 2017). With new technological innovation comes new avenues of communication. These new ways of reaching the public have created the need for marketing specialists to adapt from traditional roles in marketing to more technologically advanced methods such as utilizing social media (Linton and Solomon, 2017).

As online marketing becomes more relevant, so do online transactions for goods and services, especially in areas such as rural regions where particular items cannot be purchased through a face-to-face transaction (Forman, Ghose, and Goldfarb, 2009). Forman, Ghose, and Goldfarb (2009) concluded that trends in online purchasing increased

more in rural areas than in populated areas primarily due to limited access to particular goods or services. With the rise of the internet and the increase of globalization, the geographic location of the consumer no longer plays as significant of a role in business as it did less than a century ago. This concept is a major principle with globalization.

Figure-1 below provides a graphic summary of the effects on industry sectors stemming from recent technological innovations.



GLOBALIZATION

Although globalization became a relevant concept following modern transportation innovations, the internet has been credited with speeding up the globalization process and creating a continuous, smooth flow of business and communication across the globe (Naím, 2009). The rise of the internet has aided in tearing down consumer-borders geographically by opening a door to a global economy by connecting producers and consumers at the touch of a button (Boeuf and Séençal, 2013). In doing so, competition for domestic goods increases with globalization attributable to an increased supply of goods and producers (Duarte and Restuccia, 2010). Another similar direct effect of

globalization on the market is the development of pricing wars existing on a global scale (Duarte and Restuccia, 2010); consumers have access through the internet to compare prices globally, which, theoretically, speeds up the process of the market reaching equilibrium in terms of pricing (Boeuf and Sénécal, 2013). Businesses are forced into a global market with greater competition due to the entrance of other global businesses into local markets via the internet; as a result, producers must compete prices down to maintain their market share, not only in their local markets, but in a global environment, too (Duarte and Restuccia, 2010).

Along that same line of reasoning, the economic concept of competitive advantages should naturally take effect resulting in producers competing to lower manufacturing expenses and sell goods at the lowest cost (Liu, Feils, and Scholnick, 2011). In this regard, the nation that can produce a good or service for the lowest cost would also be able to sell the good or service for the lowest cost, thereby controlling the market. Of course, this theory only exists under free-trade agreements without significant interference from the government (Liu et al., 2011).

With each nation specializing in its own industry (i.e. natural resources, manufacturing, information technology services), the globalized economy can function similarly to one big business itself with each nation representing a different department (Naím, 2009); each nation can play a different role in the supply chain of the global “business” (Duarte and Restuccia, 2010). This allows globalization to benefit all countries regardless of wealth or poverty by allowing underdeveloped nations to provide natural resources and manual labor, while wealthier advanced nations provide everything else (Fard, Cheong, and Yap, 2014). Countries no longer have to depend solely on their own resources to progress (Duarte and Restuccia, 2010).

Correlating to the rise of globalization, global absolute poverty has declined significantly across the board (Fard et al., 2014) (Naím, 2009). Although all nations, rich and poor, can benefit from globalization, the nations with the greatest educated population are the first to lead the way in technological innovation and the first to receive the benefits of the innovation and globalization (Bauernschuster, Falck, Heblich, 2009). The nations with the highest population of educated citizens are typically those with the financial resources and more advanced human capital needed to incorporate new technology (Bauernschuster et al., 2009); there is not enough data related to recent technological advances to show just how much faster wealthier nations progress compared to impoverished countries (Fard et al. 2014).

Since all nations can benefit from globalization, national economies worldwide have become more intertwined and woven together. Under a complex one-world economy, the ill effects of an economic crisis in one country are felt by all other countries due to the global relations between nearly all nations. The more inter-dependent nations become on each other, the greater the widespread impact one nation's economic decisions will have on another (Naím, 2009).

For instance, a consumer from one country may cease trade with the producer from another country. In this case, the producer may have excess goods left unsold leaving the producing nation with less income circulating in its national economy. This lower income results in less spending from the producer to other businesses (in this case the producer becomes the consumer). On the contrary, if the producer breaks the trade agreement with the consumer, one consequence felt by the consumer could be shortages of goods in the national economy. Finding a new producer will also generally lead to high costs or lower quality since natural consumer-behavior is to purchase the best value first (before the trade agreement was broken by the producer); these higher costs get passed down to the individual consumers within the national economy. These alterations of trade-agreements can shift the market supply and demand cause further changes in prices.

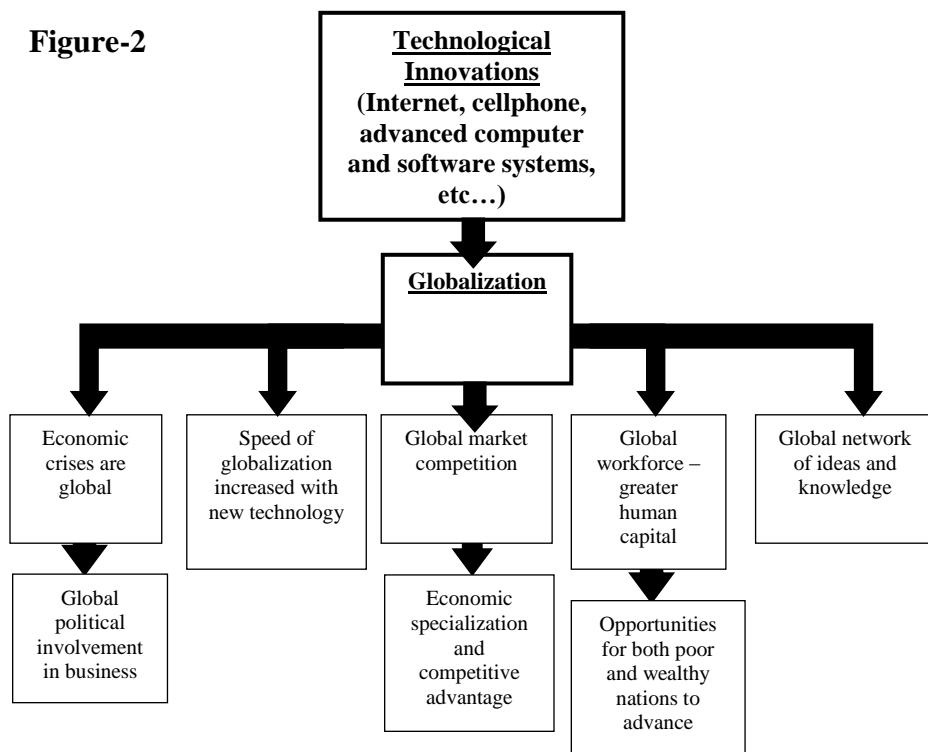
Naturally, in theory of a free-market setting, trade disruptions are kept to a minimum once the market reaches equilibrium. However, in a global economy where no single economic governing power exists over all nations, political involvement becomes another significant side effect on the way businesses operate (Fard et al., 2014). With the uprising of globalization, government relations have taken control of limitations on who is allowed to trade what, with whom. New and additional trade tariffs and regulations have been imposed on consumers and producers alike since international trade has become more prevalent (Naím, 2009). This external force affecting business operations has been around as long as international trade has existed, but it has more recently become especially common with the increase of globalization (Naím, 2009). Aside from external factors affecting operations beyond the business's control, internal elements such as management practices and styles have also been forced to adapt from ever-advancing technology.

Decisions of business direction are made directly by management but are influenced and determined based on a wide array of factors outside of management's control. Another benefit that has derived from increased globalization is the expansion of educated human capital and knowledge that can be access by virtually any organization around the world (Fard et

al., 2014). Just like the increased access to goods worldwide, access to a vast network of specialized labor is now made possible via the internet and modern communication technology (Fard et al., 2014); therefore, it can be said that another effect of globalization resulting from technological innovation is the globalized network of ideas and knowledge shared between people (Fard et al., 2014). Both advances in information technology and the speed in which globalization has spread have created access for new methods of conducting business; one notable change in business operations is the utilization of alternative work environments.

Figure-2 illustrates a summary of the effects of technology on business globalization.

Figure-2



ALTERNATIVE WORK ENVIRONMENTS

Alternative work environments, in general, are not a new concept for businesses, and over the last two decades have become part of many American businesses (Leslie, Tae-Youn, Si Anh, Flaherty, 2012). Of American businesses employing 50 or more people, 79% offer flexible schedules, 50% have telecommuting options, 38% allow compressed workweeks, 29% allow job sharing, and 27% hold part-time work policies (Leslie et al., 2012). Two types of alternative work environments, however, have become more feasible as a result of recent technological

advances: telecommuting (work-from-home options) and nontraditional schedules (working outside the traditional 9-5 workday). Increased globalization has led to a need for many organizations to sustain some level of operations outside of the traditional 9-5 workday (Ridić, Avdibegović, and Bušatlić, 2016). As companies conduct more business with foreign organizations, the need to operate during different time zones becomes relevant (Ridić et al., 2016). Alternative work environments make this easier on both employees and employers (Dizaho, Salleh, and Abdullah, 2017).

Due to time-zone differences and increased globalization, many businesses have a need to operate during nontraditional hours, but at the same time, employees have an obligation to manage their families (Dizaho et al., 2017). The very same technology that led to the push for globalization also offers some possible solutions for employers and employees to balance work-life conflicts through telecommuting and nontraditional work schedules (Dizaho et al., 2017). Technological innovations have made working remotely a plausible concept by creating the means for instant communication between two people regardless of their geographical separation (Hermelin and Trygg, 2012). Alternative work environment options promote lower employee stress by allowing employees to work around their family needs during traditional or nontraditional hours (Lee and Hong, 2011). Surveys of employees show that both men and women desire the freedom to work from home from time to time to help manage their personal lives outside of the work environment (Dizaho et al., 2017). Studies show that incorporating alternative work environments into employee work schedules can benefit employers by reducing both absenteeism and employee turnover rates (Dizaho et al., 2017) (Lee and Hong 2011). Reducing employee stress levels can also lead to greater employee productivity (Dizaho et al., 2017).

Employers also have the option to benefit from offering telecommuting options by reducing fixed asset costs. From globalization, there has been a shift from physical brick-and-mortar based retailers to online retailers without physical store locations (Jiang, Jerath, and Srinivasan, 2011); many of these same retailers have lowered other infrastructure costs by eliminating the need for some office spaces by implementing telecommute options (Fonner and Stache, 2012). Many jobs such as customer service representatives, product salespeople, and consultants can be done remotely and no longer require extensive office locations (Weigelt, 2009). Businesses all over take advantage of this benefit of technological innovation by outsourcing certain areas of operations overseas to nations with cheaper labor rates (Weigelt, 2009).

The global competition for human labor has expanded from modern technological innovations, which have led to increased competition driving down many business labor costs (Lin, 2011). It also allows businesses in geographical areas with less human resources to access skilled labor as needed through telecommuting alternatives (Lin, 2011).

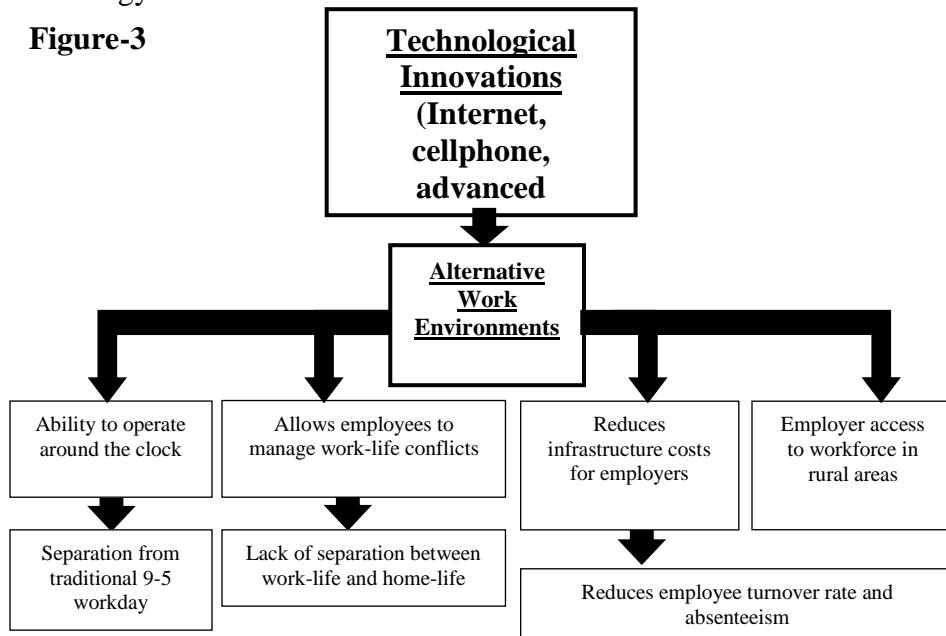
Global access to labor is only useful, however, in certain limited sectors of industry and with certain types of employees (Hemelin and Trygg, 2012). For example, some jobs such as appliance repairs or medical procedures can only be done in a face-to-face setting where alternative work environments are not realistic (Hemelin and Trygg, 2012). Likewise, only certain types of people are suitable for alternative work environments. Employee independence and responsibility play a significant role in determining whether an alternative work environment would benefit the employee and employer alike (Lee and Hong, 2011) (Fonner and Stache, 2012). When operating under alternative work environment conditions, an employee's performance is solely productivity based (Dizaho et al., 2017). Employers must monitor employee performance through the quality and completion of work rather than attendance at the workplace (Dizaho et al., 2017). Working in an alternative setting requires the same work to be done without working under traditional management supervision (Dizaho et al., 2017). Alternative work environments tend to offer the flexibility employees need to manage work-life stress, but they can also create challenges for both the employee and employer depending on the employee's stress levels and particular needs (Leslie et al., 2012).

Just as with anything that involves a human element, the benefits that result from technological innovation will always have exceptions. For employees, alternative work environments can eliminate the physical separation between a workplace and a home since work is being done during the traditional home/family hours (in the evening; outside the 9-5 workday) (Fonner and Stache, 2012). This allows work to bleed over into the employee's family-life (Fonner and Stache, 2012). By limiting the amount of time employees spend in an alternate work setting but still allowing occasional flexibility, employees are less likely to struggle with work-family separation conflicts while still being able to manage family situations (Golden, 2012). Management must be aware of employees' ever-changing needs to minimize conflicts and maximize productivity. The necessary training that management must undergo to stay up-to-date with new technology is as equally important as education on new methods of management and operations, such as alternative work environments (Ridić et al., 2016). To get the most out of the staff and new avenues of

operations, management must be able to balance new strategies like alternative work environments while also maintaining adequate levels of productivity (Ridić et al., 2016). What happens when a business fails to stay relevant with modernizing technology and the world of effects that comes with it?

Figure-3 provides a visualization of the effects related to alternative work environments caused by the implementation of new technology.

Figure-3



FAILURE TO ADAPT

When new technology is introduced to the world, both consumers and businesses incorporate the innovations into everyday-life (Linton and Solomon, 2017). From a management standpoint, new technology can create a wave of effects reaching from easier modes of tracking performance to the creation of new, alternative work environments (Lin, 2011). To increase the efficiency of operations, management must innovate itself just as technology innovates (Lin, 2011). Human capital must progress to increase productivity, decrease employee stress, increase employee satisfaction and retention, and increase the firm's profitability (Lin, 2011). Apart from the management element at risk from failing to adapt to the modernizing market, a business's operations themselves are faced with various risks.

As consumers incorporate new technology into their daily lives, the consumer-desired experiences with businesses demand corresponding improvement (Linton and Solomon, 2017). Since new technology is

incorporated into consumers' daily lives, failure of a business to also include new technology in its operations and customer experience can result in a loss of consumer demand (Linton and Solomon, 2017). For example, a consulting firm who refuses to expand their services using the internet as an avenue for reaching clients is limiting their market to their physical region; the global market of consultants in the particular industry may all choose to offer their services globally through an internet platform. The firm that refuses to expand globally not only limits their market to their geographical region, but also experiences an increase in market competition from all of the firms that have chosen to enter their local market using the internet. Aside from loss of consumer interest, failure to include new technology into business operations could lead to lower productivity and higher production costs for a business.

The logical reasoning for innovation is to make some aspect of work easier. New technology is incorporated into business operations to lower production costs (increases profitability), to lower the amount of manual human labor required to perform a job (increases productivity), or increase the speed of finishing a job (increases productivity) (Linton and Solomon, 2017). Businesses that refuse to integrate new advancements into their operations are likely to lag behind the market in terms of productivity (Linton and Solomon, 2017). Firms that are delayed in adapting to new technology have historically shown differences in income as well (Lin, 2011). Firm size plays a significant role in whether or not a company has the resources to add new technology to its operations (Hurst, Pugsley, Haltiwanger, and Looney, 2011).

How can small businesses with limited resources compete with large corporations holding virtually unlimited resources when it comes to purchasing and implementing new technology? Large corporations are the industry leaders in applying innovative technologies because they hold the financial and human resources needed to do so (Hurst et al., 2011). This potentially puts many small business owners who cannot afford to innovate with the market leaders out of business (Hurst et al., 2011). In regards to online retail, many large corporations like Walmart and Amazon have chosen to lease their online retail platforms to small retailers to market their products (Jiang et al., 2011). This strategy allows small retailers to remain competitive by entering a larger market while also allowing the large corporations to profit from small business' sales without having to manage any of the operations (Jiang et al., 2011).

Figure-1 illustrates a summary of the ripple of effects resulting from the impact of recent technological innovations. Based on these effects and the direction that they have been leading businesses over

recent years, several conclusions can be drawn about how businesses could be affected even further in the near future.

FUTURE EFFECTS AND DIRECTIONS FOR BUSINESSES

Gordon Moore of Intel developed a theory known as “Moore’s Law” in the mid-20th century illustrating the exponential speed of technological developments. Following Moore’s concept, recent technological advancements have all but slowed down. With the constant evolution of newer and better technology, the effects felt by businesses and consumers alike will continue to evolve. Trends from the past several decades have been pushing toward a centralized world economy; however, external influences of authority over businesses such as regulations and political involvement are slowing the process of reaching that free-trading centralized economy. Without a single, central governing body to regulate all global trade, the process of reaching a centralized economy is hindered by contradictory regulations between nations. Political involvement will continue to prevent the market from reaching maximum efficiency. These limitations prohibit the global market from reaching equilibrium, which, in turn, leads to broken trade relationships and imbalances in pricing.

Innovative globalization creates the need for businesses to operate during all different time zones. To do that, businesses in any particular country must work around the clock to some extent. As global operations become more sustained and demand rises, the need to operate during all hours of the day increases. The implementation of alternative work environments helped to make this concept more achievable for employees. With the need of continuous business operations on the rise and essential technology being put in place to accomplish these needs, the elimination of the traditional 9-5 workday for many employees is drawing near. The demand for employees during nontraditional hours is being solved by the optionality for employees to work from any location at any time. The ability to work from any location and time zone has helped to solve the problem for sustainable global operations.

As the world’s population continues to grow and more businesses move to global operations, the supply and demand for jobs will correspondingly increase to the labor market. Instead of adding additional infrastructure and operating during the traditional 9-5 workday, many companies (especially logistics specialists, manufacturers, and online retailers) who operate globally have begun hiring employees for night shifts; while not a direct effect of new technology, this new “workday” is a direct effect of needs created by globalization. In essence, this business model of perpetual operations is creating two divisions of people: those who work during the traditional workday and socialize in the evening

hours and those who work during the night shifts and manage home-lives surrounding work schedules (morning and early afternoon hours. This solution not only solves the problem of businesses shifting to constant operations to sustain globalization, but also creates more jobs while not adding costs of additional infrastructure.

The more advanced innovations become, the more specialized the workforce must be to work with the new technology. Specialized labor leads to new sectors in industry and new businesses. This trend will continue to effect businesses as long as technology is advancing (never-ending cycle of progression). Advanced information technology consulting groups and businesses specializing in online retail platforms have recently begun to emerge as new global industries and will continue to evolve as time goes on.

Finally, management's failure to evolve with the changing technology will continue to result in failed businesses, essentially weeding out all of those in the progressive-lag. Management's refusal to innovate will result in inefficient operations, lack of market presence, lower employee satisfaction, and lower consumer interest. Without staying connected and relevant to the consumers in the market, successful business operations cannot be sustained.

CONCLUSION

Chain reactions from one innovation can have effects so significant that the entire world alters its way of life to incorporate the new technology. Often times, the effects of a new type of technology build upon existing technology with future innovations building on the inventions of today. This constant evolution and growth forces businesses to adapt or expire. New technology is intended to increase efficiency and lower production costs; the only reason for adding new technology to a business is to improve operations in some form or fashion. Failure to incorporate the most up-to-date technology makes a business obsolete.

Since the dawn of time, new inventions have been the turning point of improving the quality of life. The invention of the wheel led to easier transportation that allowed more work to be done with less effort. More recently, new modes of transportation such as airplanes and cargo ships have enhanced and replaced preceding transportation innovations through technological evolution. A long step away from what we know today, the invention of the telegraph has evolved over the past two centuries leading the way for our modern day phone and internet system.

As the world adapts to the most recent introduction of technological advancements, new inventions still linger on the horizon. These future innovations will continue to force businesses to adapt and

evolve just as they have all throughout history. Although the innovations themselves are different in both capabilities and design, the patterns and trends show that history will always repeat itself.

REFERENCES

- Bauernschuster, S., Falck, O., & Heblisch, S. (2009). Training and Innovation. *Journal of Human Capital*, 3(4), 323-353.
doi:10.1086/498592
- Boeuf, B., & Séncal, S. (2013). Online international out-shopping experience: Proposition of a research model. *Recherche et Applications en Marketing*, 28(3), 110-119. Retrieved from <http://www.jstor.org/stable/24720951>
- Dana, J., & Orlov, E. (2014). Internet Penetration and Capacity Utilization in the US Airline Industry. *American Economic Journal: Microeconomics*, 6(4), 106-137. Retrieved from <http://www.jstor.org/stable/43189690>
- Dizaho, E. K., Salleh, R., & Abdullah, A. (2017). Achieving Work Life Balance through Flexible Work Schedules and Arrangements. *Global Business & Management Research*, 9455-465.
- Duarte, M., & Restuccia, D. (2010). The Role of the Structural Transformation in Aggregate Productivity. *The Quarterly Journal of Economics*, 125(1), 129-173. Retrieved from <http://www.jstor.org/stable/40506279>
- Fard, M. S., Cheong, K., & Yap, S. (2014). Reopening the Debate on Globalisation and Economic Growth Through Technology Transfer. *Malaysian Journal Of Economic Studies*, 51(2), 231-247.
- Fonner, K. L., & Stache, L. C. (2012). All in a day's work, at home: teleworkers' management of micro role transitions and the work-home boundary. *New Technology, Work & Employment*, 27(3), 242-257. doi:10.1111/j.1468-005X.2012.00290.x

McKnight, Maniam and Robertson

- Forman, C., Ghose, A., & Goldfarb, A. (2009). Competition between Local and Electronic Markets: How the Benefit of Buying Online Depends on Where You Live. *Management Science*, 55(1), 47-57. Retrieved from <http://www.jstor.org/stable/40539126>
- Golden, T. (2012). Altering the Effects of Work and Family Conflict on Exhaustion: Telework during Traditional and Nontraditional Work Hours. *Journal of Business and Psychology*, 27(3), 255-269. Retrieved from <http://www.jstor.org/stable/41682912>
- Hermelin, B., & Trygg, K. (2012). New Geographies of Work: A Case Study from Sweden. *Urbani Izziv*, 23, S126-S134. Retrieved from <http://www.jstor.org/stable/24920620>
- Holman, C., Joyeux, B., & Kask, C. (2008). Labor productivity trends since 2000, by sector and industry. *Monthly Labor Review*, 131(2), 64-82.
- Hurst, E., Pugsley, B., Haltiwanger, J., & Looney, A. (2011). What Do Small Businesses Do [with Comments and Discussion]. *Brookings Papers on Economic Activity*, 73-142. Retrieved from <http://www.jstor.org/stable/41473598>
- Jiang, B., Jerath, K., & Srinivasan, K. (2011). Firm Strategies in the ``Mid Tail'' of Platform-Based Retailing. *Marketing Science*, 30(5), 757-775. Retrieved from <http://www.jstor.org/stable/23011976>
- Krajewski, M. & Marcrum, C. (2010). Ask Jeeves: Servants as Search Engines. *Grey Room*, (38), 6-19. Retrieved from <http://www.jstor.org/stable/27809415>
- Lee, S., & Hong, J. (2011). Does Family-Friendly Policy Matter? Testing Its Impact on Turnover and Performance. *Public Administration Review*, 71(6), 870-879. Retrieved from <http://www.jstor.org/stable/41317386>
- Leslie, L. M., Tae-Youn, P., Si Anh, M., & Flaherty Manchester, C. (2012). Flexible Work Practices: A Source of Career Premiums or Penalties? *Academy of Management Journal*, 55(6), 1407-1428. Doi:10.5465/ami.2010.0651

- Lin, J. (2011). Technological Adaptation, Cities, and New Work. *The Review of Economics and Statistics*, 93(2), 554-574. Retrieved from <http://www.jstor.org/stable/23015954>
- Linton, J. D., & Solomon, G. T. (2017). Technology, Innovation, Entrepreneurship and The Small Business-Technology and Innovation in Small Business. *Journal Of Small Business Management*, 55(2), 196-199. doi:10.1111/jsbm.12311
- Liu, R., Feils, D., & Scholnick, B. (2011). Why are different services outsourced to different countries? *Journal of International Business Studies*, 42(4), 558-571. Retrieved from <http://www.jstor.org/stable/29789441>
- McWilliams, A., Anitsal, I., & Anitsal, M. M. (2016). Customer versus Employee Perceptions: A Review of Self-Service Technology Options as Illustrated in Self-Checkouts in U.S. Retail Industry. *Academy of Marketing Studies Journal*, 20(1), 79-98.
- Naím, M. (2009). Globalization. *Foreign Policy*, (171), 28-34. Retrieved from <http://www.jstor.org/stable/20684848>
- Riđić, O., Avdibegović, A., & Bušatlić, S. (2016). Analysis of Relationship between Flexible Work Arrangements, Work Life Balance and Employee's Efficiency: Evidence from Bosnia and Herzegovina's (BiH) IT Sector. *Economic Review: Journal Of Economics & Business / Ekonombska Revija: Casopis Za Ekonomiju I Biznis*, 14(2), 44-55.
- Weigelt, C. (2009). The Impact of Outsourcing New Technologies on Integrative Capabilities and Performance. *Strategic Management Journal*, 30(6), 595-616. Retrieved from <http://www.jstor.org/stable/20536064>

E-CHEATING AND UNDERGRADUATE BUSINESS STUDENTS: TRENDS AND THE ROLE OF GENDER

Carl J. Case

Darwin L. King

Julie A. Case

St. Bonaventure University

ABSTRACT

A perpetual challenge for educators is the occurrence of student cheating, a problem exacerbated because of the availability of electronic technology. As a result, this longitudinal study was undertaken to empirically examine the cheating practices of those that will likely face ethical dilemmas in their careers, the undergraduate business students. Findings suggest that while the volume of unethical behavioral incidences vary by type of behavior, the percent of students exhibiting these behaviors is decreasing for most unethical behaviors. However, participation in e-cheating is on the rise. Even though the student perception is that it is becoming increasingly more difficult to cheat on an online course exam, for example, now two-thirds of students perceive that it is easy to cheat and one-fourth indicate that he/she cheat on these exams. Finally, results suggest that gender is a factor with respect to electronic cheating incidence.

Keywords: e-cheating, ethical behavior, empirical study, undergraduates

INTRODUCTION

Student cheating is a fluid and ongoing challenge for educators at both secondary and post-secondary institutions. McCabe, for example, found in a survey of 24,000 students at 70 high schools that 64% of students admitted to cheating on a test and 58% admitted to plagiarism (Plagiarism.org, 2017). Moreover, in a survey of over 63,700 U.S. undergraduate students from 2001-2005, McCabe found that 36% of undergraduates admitted to paraphrasing/copying sentences from an Internet source without footnoting it, 7% reported turning in work completed by another person, and 3% reported obtaining a paper from a term paper mill.

A Kessler International study of 300 college students found that 86% admitted to cheating in school (Schaffhauser, 2017). While 54% thought that cheating was okay, some suggested that it was even necessary to stay competitive. Among those who acknowledged cheating, 97% indicated that he/she had gotten away with it. Cheating activities included plagiarism from Internet sources (79% of respondents), copying text from another student's assignment (76% of

respondents), using a mobile device to cheat during class (72% of respondents), and purchasing custom term papers or essays online (42% of respondents).

Reported incidences have been increasing and vary by origin of the student. The Russell Group universities, a group of 24 British research universities, found that the number of students caught cheating increased by 40% from 2,640 to 3,721 between the academic years 2014-15 and 2016-17 (Lodhia, 2018). A Wall Street Journal analysis of data from more than a dozen large U.S. public universities found that in the 2014-15 school year, the schools recorded 5.1 reports of alleged cheating for every 100 international students but only one such report per 100 domestic students (Jordan and Belkin, 2016).

A factor that further exacerbates the cheating environment is the variety of readily-available tools that offer students opportunities to commit unethical behavior. Wolfram|Alpha, for instance, is a program that uses artificial intelligence natural language processing technology to perfectly and untraceably solve math equations and thus allow the student to cheat in math classes (Biddle, 2017). Another program is Quizlet, a mobile and web-based study application that permits the student to study information via learning tools and games. In 2016, students in central Florida high schools admitted to using the application to access answer keys during exams (Lavin, 2016). In May 2018, Texas Christian University announced that 12 students were suspended after allegedly using Quizlet to cheat on a final exam (McKenzie, 2018).

Responses to cheating incidences have varied. One study found that while more than two-thirds of college students reported engaging in cheating, approximately 40% of U.S. faculty members have ignored a case of cheating in his/her courses (McCabe, Butterfield, & Trevino 2012). However, in 2014, the University of Georgia reported investigating 603 possible cheating incidents with nearly 70% of the cases concluding with a student confession (Barthel, 2016). Moreover, in 2015, Dartmouth College suspended 64 students suspected of cheating in an ethics class.

As a result of this problematic cheating climate and the availability of electronic cheating (e-cheating) mechanisms, this study was undertaken to longitudinally examine undergraduate business students. Business students were selected because these students will be the future business leaders and those that will likely face ethical dilemmas in their careers. The research was conducted to empirically examine several questions. What are the current trends with respect to cheating and e-cheating activities as a percentage of students and volume of activity? Do these factors vary by gender? In addition, because of the increasing use of online courses at universities, the study explores student cheating perceptions and behavior in an online course that he/she has taken. Results are important in determining if there is a need for proactive education to improve ethical student behavior.

PREVIOUS RESEARCH

To examine cheating behavior, the authors conducted an exploratory study of undergraduate business students in the Spring semester of 2006 to serve as a baseline for research (Case and King, 2007). Although 49% of students cheated at least once during the past 12 months in college, only six percent indicated using information technology (IT) to cheat on an exam, five percent submitted a downloaded paper as his/her own, and 12% did not cite work that was cut and pasted from the Internet. A follow-up study was conducted at the end of 2006 (King and Case, 2007). During the Fall semester, 43% of the students admitted to at least one type of unethical behavior such as cheating on an exam either with or without IT, letting another student copy his/her homework or exam, downloading a research paper as his/her own work, or cutting and pasting information from the Internet and not citing the source of the material. Overall, each student that committed at least one unethical behavior reported performing approximately 10 unethical actions during the semester.

Next, a preliminary five-year study was conducted in 2013 (King and Case, 2014). Results indicated that students were cheating in various ways regardless of the course delivery mode. In 2013, 15% of students admitted cheating on an exam, 10% indicated that he/she used IT to cheat on an exam, 15% let another student copy from his/her exam, 31% let a classmate copy his/her homework, and 10% reported that he/she downloaded an Internet paper and submitted it as his/her own work. Results further indicated that students believe their fellow classmates are unethical and often resort to cheating. In 2013, for example, surveyed students believed that 44% of their colleagues cheated on homework, 29% cheated on exams, 25% cheated on term papers, and 36% cheated on Internet projects. In general, results were consistent across the study years.

Other researchers have studied several additional aspects related to cheating. Studies have, for example, examined the connection between cheating in high school and in college, examined ethical attitudes of post graduate and doctoral students, examined factors in the Theory of Planned Behavior, and examined the use of technology-based intervention.

In terms of cheating in high school and in college, a multi-university study of the attitudes, perceptions and behaviors of college-aged engineering students toward academic dishonesty and unethical professional behavior suggested that there is a clear connection between cheating in high school and the decision to cheat in a specific scenario in college (Harding, et.al, 2004). A comparison of student responses to the pressures and hesitations to cheating across the contexts of academic and workplace settings further indicated that there are distinct similarities in the decision-making processes used by respondents in these two contexts. Finally, frequent cheaters in high school reported being more likely to decide to violate work place policies.

Relative to post graduate and doctoral students, a study at a Pakistan university found that students are in favor that academic dishonesty is a normal part of life but an ethically wrong activity (Rehman and Waheed 2014). Results indicate that although university students in Pakistan are willing to do their utmost effort not to be involved in academically dishonest activities, time constraints and relationship preferences lead the students to adopt an attitude of task completion even through unfair means like academic misconducts. Another finding is that younger students (age 21-25 years old) are highly involved in educational misconducts and copy other author's contents without proper referencing.

Cronan, Mullins, and Douglas (2018) examined academic integrity using factors in the Theory of Planned Behavior. Using a sample of more than 1,300 freshman business students over a two-year period, intent to plagiarize and intent to share homework were compared to past violation behavior and moral obligation (feelings of guilt). Results indicate that attitude, perceived behavioral control, subjective norm, past behavior, and moral obligation were found to significantly influence an individual's intention to violate academic integrity (for plagiarism and sharing homework when asked not to do so), explaining 33% and 35% of the variance in intention to commit an academic integrity violation for sharing homework and plagiarism, respectively.

Finally, a technology-based intervention program called RAISE was used to determine if such a program would change academic integrity knowledge and attitudes (Cronan, et.al, 2017). Using a sample of more than 5,000 freshman students drawn from two major midwestern U.S. universities over a three-year period, the study found that across all years, disciplines, and universities, the web-based intervention significantly improved student knowledge and attitudes toward academic integrity.

RESEARCH DESIGN

This study employs a survey research design. The research was conducted at a private, northeastern U.S. university. A Student Ethical Behavior instrument was developed by the authors and administered to undergraduate students enrolled in a School of Business course. The courses included a variety of subjects such as Business Information Systems, Introduction to Financial Accounting, Macroeconomics, and Business Policy. A convenience sample of class sections and faculty members was selected. The surveys were collected during a five-consecutive year or 10 semester period (from Spring 2014 until Fall 2018).

The survey instrument was utilized to collect student demographic data such as gender and academic class. In addition, the survey examined student behavior regarding cheating and ethical behavior. The survey requested that each student indicate the number of times during the semester that he/she cheated in various ways (let another student copy his/her exam, cheated on an exam using IT, downloaded a paper and submitted it as his/her work, and so on). In addition, if

the student had taken an online course, the respondent was asked how easy it was to cheat and to indicate the number of online exams that he/she cheated on. To ensure consistency, the same questions were asked during each of the 10 semesters.

Results were summarized by calendar year and correlation statistics were calculated to determine potential relationships between unethical behaviors and gender.

Because of the sensitivity of the subject and to encourage honesty, no personally-identifiable data were collected and respondents were informed that surveys were anonymous, participation was voluntary, and responses would have no effect on his/her course grade. As a result, the response rate was nearly 100 percent.

RESULTS

A sample of 1,364 usable surveys was obtained. Table 1 indicates that, overall, 60% of the respondents were male and 40% were female.

TABLE 1
Gender Response Rate by Academic Year

	2014	2015	2016	2017	2018	Total
Male	63%	57%	63%	58%	59%	60%
Female	37%	43%	37%	42%	41%	40%
Count	322	392	222	167	261	1,364

The response rate by academic class is presented in Table 2. Overall, 18% of respondents were freshmen, 33% were sophomores, 23% were juniors, and 26% were seniors.

TABLE 2
Academic Class Response Rate by Academic Year

	2014	2015	2016	2017	2018	Total
Freshmen	12%	23%	12%	17%	25%	18%
Sophomore	35%	32%	20%	36%	39%	33%
Junior	21%	21%	24%	31%	21%	23%
Senior	32%	23%	44%	17%	15%	26%

Cheating activity was examined to determine the type of cheating activity committed. Chart 1 illustrates, for example, in 2014, 45% of students cheated on an exam, 32% let another student copy from an exam, 83% let another student copy homework, 26% cheated on an exam using IT, and 13% downloaded a paper and submitted it as his/her own work. However, by the end of the five-year study period, two behaviors increased and three behaviors decreased as a

percentage of students. Letting another student copy an exam increased to 36% and downloading a paper and submitting it as his/her own work increased to 19%. On the other hand, cheating on an exam decreased to 27%, cheating on an exam using IT decreased to 24%, and letting another student copy homework decreased to 68% of the students. Overall, the most prevalent type of cheating committed during every year of the study involved letting another student copy his/her homework.

CHART 1
Type of Cheating Activity

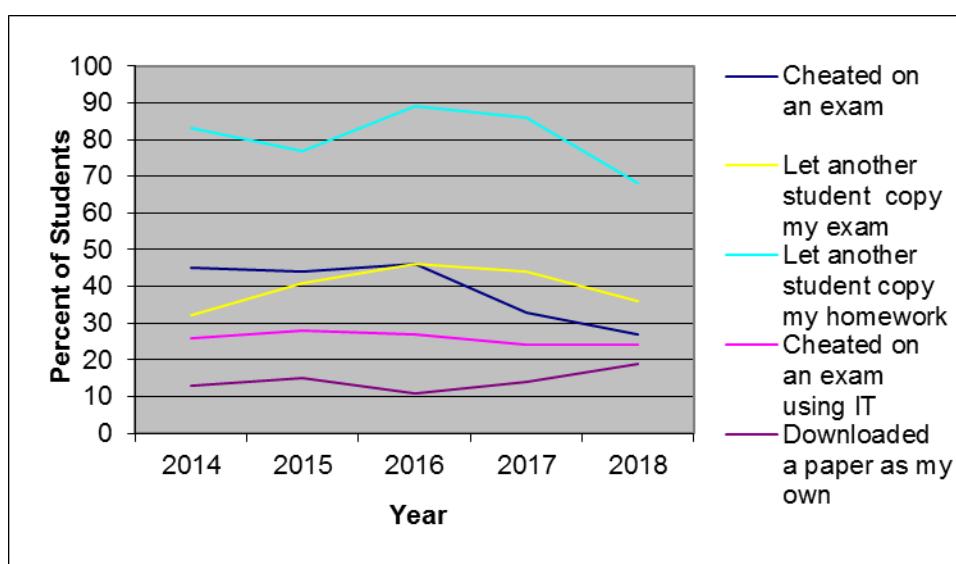


Table 3 presents cheating activity by quantity per respondent for those indicating the behavior. In 2014, the highest volume type of cheating reported was the downloading of completed papers from the Internet that are submitted as the student's own work (5.1 incidences per student). Other activities included letting another student copy his/her homework (4.8 incidences per student), cheating on an exam (3.9 incidences per student), letting another student copy from his/her exam (2.3 incidences per student), and cheating on an exam using IT (2.2 incidences per semester). By 2018, behaviors changed. Letting another student copy his/her homework increased by 46% to become the highest volume type of cheating (7.0 incidences per student). While cheating on an exam decreased by 46% to 2.1 incidences and letting another student copy his/her exam slightly decreased to 2.2 incidences, cheating on exams using IT increased to 2.6 incidences and downloading papers as his/her own increased to 5.7 incidences per respondent.

TABLE 3
Quantity of Cheating Activity (Average Number of Times Per Semester)

Activity	2014	2015	2016	2017	2018
Cheated on an exam	3.9	2.4	2.0	2.7	2.1
Let another student copy from my exam	2.3	2.7	2.0	2.8	2.2
Let another student copy my homework	4.8	4.7	5.0	4.6	7.0
Cheated on an exam using IT	2.2	2.9	2.0	2.4	2.6
Downloaded an Internet paper as my own work	5.1	6.6	6.4	4.1	5.7

The study next examined gender and cheating. Table 4 illustrates that with respect to the five cheating behaviors, in 2014, 46% of males and 36% of females participated in at least one unethical activity. By 2018, the percentage of males had not changed but the percentage of females decreased by 22%. Overall, during four of the five study years, a larger percentage of males versus females indicated participating in at least one unethical activity.

TABLE 4
Cheating Activity by Gender (% of respondents with at least one unethical activity)

Gender	2014	2015	2016	2017	2018
Male	46%	44%	43%	48%	46%
Female	36%	45%	39%	40%	28%

In addition, Table 5 explores gender with respect to whether the student used a web search to explore techniques for cheating. In 2014, for example, 9% of males and 3% of females indicated this behavior. By 2018, the male percentage decreased slightly to 7% but the female percentage more than tripled to 10%. Overall, however, only a relatively small percentage of students indicated using a web search to learn about cheating techniques during any of the study years.

TABLE 5
Web Search for Cheating Techniques by Gender

Gender	2014	2015	2016	2017	2018
Male	9%	8%	6%	8%	7%
Female	3%	2%	7%	1%	10%

To further understand the different aspects of cheating, the authors examined cheating in the increasingly used format of class, the online class. If a student had taken an online course, the survey prompted the respondent to indicate on a four-point Likert scale how easy it would be to cheat on an online exam. Table 6

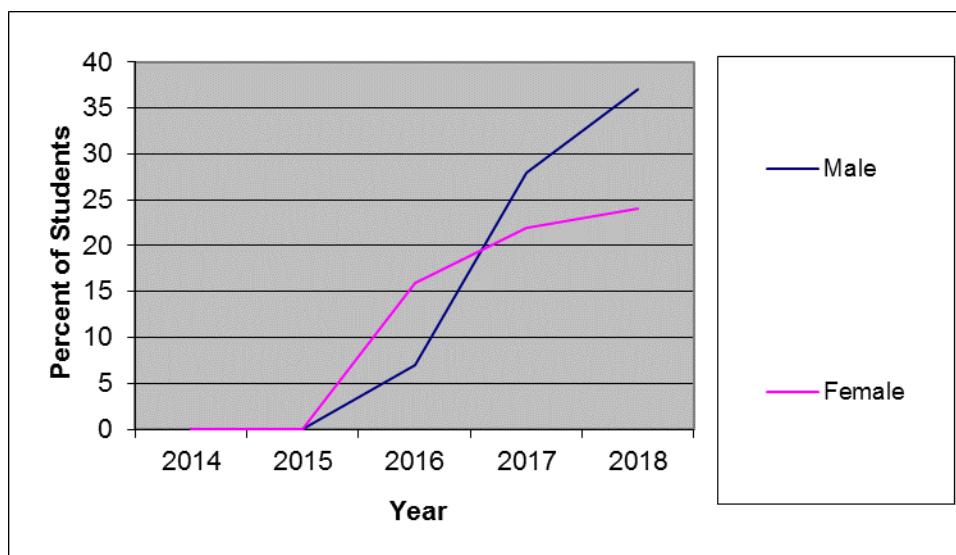
demonstrates that in 2014, 28% of the students indicated that it is “very easy” to cheat on an online exam, 47% indicated that it is “somewhat easy,” 19% indicated that it is “difficult,” and 6% indicated that it is “very difficult.” By 2018, while the percent of students indicating “very easy” decreased to 21% and the percent of “somewhat easy” decreased to 42%, the percent of “difficult” increased to 30% and the percent of “very difficult” increased to 7%. Overall, there has been a relatively steady transition with respect to student perception that it is getting more difficult to cheat on an online exam.

TABLE 6
Ease of Cheating on Online Course Exams (Students had taken an online course)

Ease of Cheating	2014	2015	2016	2017	2018
Very easy to cheat	28%	29%	20%	25%	21%
Somewhat easy to cheat	47%	38%	49%	48%	42%
Difficult to cheat	19%	25%	17%	21%	30%
Very difficult to cheat	6%	8%	13%	6%	7%

Chart 2 subsequently depicts online exam cheating by gender. In 2014, for example, no male or female respondent indicated this behavior. By 2018, both the male and female percentages dramatically increased, to 37% and 24%, respectively. Overall, 26% of students indicated cheating on an online exam in 2018.

CHART 2
Percentage of Students Cheating on an Online Exam



In terms of the quantity of online exam cheating incidences per student, Table 7 illustrates that in 2014, no males or females cheated on exams. In 2018, the quantity for males increased to 1.4 exams per student and the quantity for females increased to 1.6 exams.

TABLE 7
Quantity of Online Exam Cheating Incidents per Student

Gender	2014	2015	2016	2017	2018
Male	0.0	0.0	0.1	2.1	1.4
Female	0.0	0.0	0.4	1.1	1.6

Finally, Spearman Rho correlation statistics were calculated to determine potential relationships between the various unethical behaviors and gender (Table 8). Cheating on exams using IT had a statistically significant correlation (significant at the .01 level) with gender. In addition, downloading a paper and claiming it as one's own had a statistically significant correlation (significant at the .05 level) with gender. In other words, males as compared to females, are more likely to use IT to cheat on exams and are more likely to download papers as his own. There was, however, no statistically significant correlation with cheating on an online exam and gender.

TABLE 8
Spearman Rho Correlations Between Behaviors and Gender

Behavior	Gender
Exams cheated using IT	.071**
Downloading papers	.064*
Online exams cheated	.026

* Correlation is significant at .05 level (2-tailed).

** Correlation is significant at .01 level (2-tailed).

CONCLUSIONS AND FUTURE RESEARCH

Results indicate that overall cheating as a percentage of students is decreasing with respect to most unethical behaviors. Although the percentage of students letting another student copy his/her exam increased slightly from 32% to 36% and the percentage downloading papers as his/her own increased from 13 to 19%, cheating on exams fell dramatically from 45% to 27% of students, letting another student copy homework decreased from 83% to 68% of students, and using IT to cheat on an exam decreased from 26% to 24%. Overall, the percentage of males exhibiting at least one unethical behavior remained consistent at 46% of males and the percentage of females decreased from 38% to 28% of females.

Regarding e-cheating, while cheating on an exam using IT decreased slightly (26% to 24% of students), cheating on an online exam steadily increased to 37% of males and 24% of females and downloading a paper as his/her own increased (13% to 21% of students). Moreover, although the percentage of males attempting to learn how to cheat online decreased from 9% to 7% of males, the percentage of females more than tripled from 3% to 10%. The volume of online exams cheated per gender, on the other hand, has been approximately one per student per semester.

Findings further indicate that the volume of unethical behavioral incidences for those exhibiting the behavior varies by type of behavior. From 2013 to 2017, the volume of cheated exams decreased from 3.9 to 2.1 incidences per semester, letting another student copy his/her exam decreased from 2.3 to 2.2 occurrences per semester, letting another student copy homework increased from 4.8 to 7.0 incidences per semester, cheating on an exam using IT increased from 2.2 to 2.6 exams per semester, and downloading papers as his/her own increased from 5.1 to 5.7 papers per semester.

In terms of student perception of the degree of ease of cheating in an online course, a discernable pattern is emerging. In 2013, 75% of respondents indicated that it was either “very easy” or “somewhat easy” to cheat. By 2018, the percentage had decreased to 63%. Although most students still perceive it easy to cheat, the trend is downward.

There are two important implications from the study. One finding is that relative to cheating in general, there has been a decrease both in the percentage of students exhibiting at least one behavior and in behaviors such as cheating on exams and letting another student copy homework. These findings imply that education, controls, and enforcement may be becoming increasingly effective. However, there is a problematic trend with respect to both e-cheating and online cheating. During the five-year study, approximately one-fourth of students cheated on an exam using IT and the percent of students downloading a paper as his/her own increased by 61%. Moreover, even though the overall student perception is that it is becoming increasingly more difficult to cheat, approximately two-thirds of students still perceive that it is easy to cheat on an online course exam and more than one-third of males and one-fourth of females indicated cheating on an exam during the most recent year of the study. The relative student anonymity, the degree of difficulty in policing online exams, and the availability of e-cheating tools likely create a tempting environment for students to cheat. These trends imply that educators may need to modify pedagogies with respect to both e-cheating and online cheating ethics. This could involve, for example, using a technology-based intervention system such as RAISE to change academic integrity knowledge and attitudes. In addition, these trends suggest that there needs to be increased educator vigilance in searching for cheating.

A second implication relates to gender. Two e-cheating behaviors, cheating on exams using IT and downloading a paper and claiming it as one's own, were statistically correlated with males. In addition, in 2018, a larger percentage of males exhibited at least one cheating behavior (46% versus 28% of females) and indicated cheating on an online exam (37% versus 24% of females). It is possible that males are more forthcoming, more lethargic in classroom deliverables, and/or more unethical. Conversely, females may perceive these activities as a personal negative reflection and thus underreport participation. Moreover, it could be that females are more serious and/or more ethical in academic decisions. In any event, results imply that educators may need to be more aggressive in instilling positive ethical values in male students.

The limitations of this study are primarily a function of the nature of the research methodology and sample. The instrument relies on self-reporting so there could be recency effects and underreporting of activity. Moreover, the research was conducted using a sample of one university. Finally, although academic class was relatively equally distributed, there were slightly less freshmen surveyed. As a result, replication at multiple universities and the inclusion of more freshmen would increase the research robustness and generalizability. Future research needs to examine why there are gender differences and what are the most effective techniques in minimizing e-cheating. The study does, however, further clarify the state and trends of e-cheating behavior among undergraduate business students.

REFERENCES

- Barthel, M. (2016). How to Stop Cheating in College. *Theatlantic.com*, April 20, <https://www.theatlantic.com/education/archive/2016/04/how-to-stop-cheating-in-college/479037/>
- Biddle, P. (2017). AI Is Making It Extremely Easy for Students to Cheat. *Wired.com*, July 4, <https://www.wired.com/story/ai-is-making-it-extremely-easy-for-students-to-cheat/>
- Case, C. J. & King, D. L. (2007). The Decision to E-Cheat. *Business Research Yearbook, Global Business Perspectives*, 14, 143-148.
- Cronan, T. P., McHaney, R., Douglas, D. E., & Mullins, J. K. (2017). Changing the Academic Integrity Climate on Campus Using a Technology-Based Intervention. *Ethics & Behavior*, 27.2, 1-17.
- Cronan, T. P., Mullins, J. K., Mullins, J. K., & Douglas, D. E. (2018). Further Understanding Factors that Explain Freshman Business Students' Academic Integrity Intention and Behavior: Plagiarism and Sharing Homework. *Journal of Business Ethics*, 141.1, 197-220.

- Harding, T.S., Carpenter, D. D., Finelli, D. J., & Passow, H. J. (2004). The Influence of Academic Dishonesty on Ethical Decision-Making in the Workplace: A study of engineering students. *Proceedings of the 2004 American Society for Engineering Education Annual Conference & Exposition*,
https://digitalcommons.calpoly.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1060&context=mate_fac
- Jordan, M. & Belkin, D. (2016). Foreign Students Seen Cheating More Than Domestic Ones. *Wsj.com*, June 5, <https://www.wsj.com/articles/foreign-students-seen-cheating-more-than-domestic-ones-1465140141>
- King, D. L. & Case, C. J. (2007). E-Cheating: Are Students Misusing IT? *Issues in Information Systems*, 8.1, 71-75.
- King, D. L. & Case, C. J. (2014). E-Cheating: Incidence and Trends Among College Students. *Issues in Information Systems*, 15.1, 20-27.
- Lavin, S. (2016). Students Using App to Cheat. *Clickorlando.com*, September 6, <https://www.clickorlando.com/enterprise/students-using-app-to-cheat>
- Lodhia, D. (2018). More University Students Are Cheating – But It's Not Because They're Lazy. *Theguardian.com*, May 1, <https://www.theguardian.com/education/2018/may/01/university-students-cheating-tuition-fees-jobs-exams>
- McCabe, D., Butterfield, K., & Trevino, L. (2012). Cheating in College: Why Students Do It and What Educators Can Do about It. The Johns Hopkins University Press.
- McKenzie, L. (2018). Learning Tool or Cheating Aid? *Insidehighered.com*, May 14, <https://www.insidehighered.com/news/2018/05/14/professors-warned-about-popular-learning-tool-used-students-cheat>
- Plagiarism.org. (2017). Plagiarism: Facts and Stats. *Plagiarism.org*, June 7, <https://www.plagiarism.org/article/plagiarism-facts-and-stats>
- Rehman, R. R. & Waheed, A. (2014). Ethical Perception of University Students About Academic Dishonesty in Pakistan: Identification of Student's Dishonest Acts. *The Qualitative Report*, 19.7, 1-13.
<http://www.nova.edu/ssss/QR/QR19/rehman7.pdf>
- Schaffhauser, S. (2017). 9 in 10 Students Admit to Cheating in College, Suspect Faculty Do the Same. *Campustechology.com*, February 23, <https://campustechology.com/articles/2017/02/23/9-in-10-students-admit-to-cheating-in-college-suspect-faculty-do-the-same.aspx>

COMMUNITY ORIENTED POLICING: SECURITY IN THE DOMESTIC COUNTER TERRORISM ENVIRONMENT

Kenneth Goldberg
Kenneth Christopher
National University

ABSTRACT

Community oriented policing efforts have been questioned by immigrant community residents and law enforcement agencies as a counter terrorism strategy. The communities fear being targeted by law enforcement concerning immigration issues. Law enforcement agencies believe that the residents of the immigrant communities can provide critical information on counter terrorism activities but are hesitant to share information fearing it will be used against them during immigration proceedings. As a result, a lack of trust can develop between the stakeholders that can hinder domestic counter terrorism efforts and impact the business environment. This paper will review the associated literature and provide recommendations that can be adopted to increase the trust between the stakeholders and may also improve the business environment.

Key Words: Community Policing, Terrorism, Counter Terrorism, Social Cohesion, Security

BACKGROUND

Since September 11, 2001 the United States and Europe have been at a heightened state of security awareness due to terrorist acts committed against their countries. While much of the counter terrorism efforts reside against enemies outside of the United States, some have argued that the more serious terrorist threat is from the enemies already living in our communities. The challenge facing the United States and its European counterparts is developing strategies whereby law enforcement can build trusting relationships with immigrant community stakeholders that support information sharing without the fear of being targeted as supporting terrorists or apprehended due to illegal immigration issues.

HISTORY OF COMMUNITY ORIENTED POLICING

Community oriented policing (COP) has been at the forefront of law enforcement for the past 40 years. It is characterized as policing that emphasizes community involvement, through partnerships, in crime prevention efforts. This contrasts with the more traditional policing efforts that focus on law enforcement and order maintenance (Gill, Weisburd, Telep, Vitter & Bennett, 2014 and Pickering, McCulloch & Wright-Neville, 2010).

Policing in the United States developed through three distinct historical periods: The Political Era, the Reform Era and the Community Problem Solving Era. The Political Era developed in the mid-1800s with the rise of the modern police force. As related by Walker (1977), American police departments first developed in the larger northern cities in the early 1800s as an outgrowth of a system of night watches. The movement towards law enforcement systems involving permanent government agencies employing full time officers to prevent crime was precipitated by the rise in violence and disorder in America in the 1830s. As they developed, police organizations came under the influence of partisan politics which engendered a culture of corruption and favoritism.

As noted by Jones and Supinski (2010) the period between the 1920s and 1970s, known as the Reform, Era of policing, was when an emphasis on crime control and police professionalization developed. The reform movement and efforts to professionalize law enforcement, as Walker (1977) also describes, were efforts to establish control over police behavior which had come under the influence of racketeers and corrupt politicians. This led to the bureaucratization of police organizations through the late 1800s and into the 1900s and the growth of what became known as the Professional model of policing. As Walker notes, the movement toward bureaucratization and the professional model seemed contradictory. The control of behavior through administration appeared to conflict with the professional ideal of allowing for individual discretion based on knowledge, skills and abilities. By controlling officer behavior, police managers were controlling officer discretion.

The third era of policing, Community Problem Solving, from which the COP model sprang, was characterized primarily by the efforts of police agencies to build confidence and trust with their communities (Jones & Supinski, 2010). Community problem solving policing strategies require police agencies to think deftly in terms of their managerial approach to engaging police officers and civilian staff to be creative in addressing the underlying causes of crime and disorder in their communities. For

example, a seminal figure in the development of problem-oriented policing, Herman Goldstein (1990), wrote of the important role of police leaders in building internal capacities and support for being responsive to community needs. Another important organizational dynamic critical to the success of a community problem solving approach to policing centers on organizational support and emphasis on employee skills and professional development, as well as a reliance on the personnel who interact with the community to take the lead in addressing community needs. Research (Couper and Lobitz, 1988) also emphasized the importance of teamwork, decisions being driven by data, and a police organization being in touch with its community members.

The thrust of a COP approach, contrasted with the professional approaches of the Reform Era, is therefore to build community trust and partnerships between community members and their police agencies. COP grew out of efforts to move beyond traditional crime control to refocus police resources on addressing the underlying issues in communities which lead to crime and disorder. By working collaboratively with community members and organizations, police agencies can work to both reduce crime and improve community relationships.

COMMUNITY ORIENTED POLICING AFTER SEPTEMBER 11, 2001

Literature suggests a shift in community oriented policing developed with the terrorist events of September 11, 2001. With these events community oriented policing took on a broader role supporting counter terrorism efforts. This new role changed from traditional local enforcement issues to domestic security issues, such as intelligence collection, covert investigations, information sharing and immigration support (Ortiz, Hendricks & Sugie, 2007). The authors suggest in their study of 16 law enforcement agencies that the counter terrorist related missions are being conducted using traditional law enforcement practices and working more closely than before with Joint Terrorism Task Forces. Ortiz, et. al. (2007) is not alone in this discussion. Addressing similar developments, Oliver (2006) contends that policing has entered a new, a fourth era of policing, called the Homeland Security Era. In this new era, Oliver also contends that law enforcement agencies direct their resources more on the counter terrorism aspects facing communities.

TRUSTING RELATIONSHPS AND TRANSPARENCY BETWEEN COMMUNITIES AND LAW ENFORCEMENT

In her book *Frontiers of Fear: Immigration and Insecurity in the United States and Europe*, Ariane Chabel d'Appollonia (2012) discusses the securitization of immigration practices and the impact it has had on immigrant communities. D'Appollonia suggests that the securitization, the taking on of the counter terrorism practices by law enforcement, may lead to mistrust between the agencies and immigrant communities, and prevent reporting counter terrorist activities. This sense of mistrust is also supported by Henderson, Ortiz, Sugie and Miller (2006) and DeGuzman (2002). According to Henderson, et. al. (2006) and DeGuzman (2002), the mistrust comes from concerns that law enforcement may use the information about immigration violations gained from their counter terrorist activities. The community's concern is a lack of trust of law enforcement. Law enforcement's concern is continued criminal activity in the community that may go unreported. In a related discussion, Husband and Alam (2012) question the ability of the Muslim community in the United Kingdom to feel part of the larger U.K. community while also being singled out for counter terrorism efforts.

Literature discusses the role of trusting relationships in successful community policing efforts. Putman (2000) discusses how building relationships with stakeholders can build social capital and a sense of belonging. Pickering, McCulloch and Neville (2010) suggest that police, through community engagement, can build trust and a sense of belonging when relationships are based on strategies like building partnerships in community oriented policing. Smith (2015) argues the importance of building trusting relations among stakeholders who are community and culturally knowledgeable. And d'Appollonia (2012) suggests that without a foundation of trust, immigrant communities may fear they are being singled out for selective engagement practices such as profiling.

Research also suggests that the counter terrorism practices of law enforcement agencies raise concern in immigrant communities. Pickering, et. al. (2010) caution that counter terrorism efforts can erode police and community relations due to lack of transparency. A similar argument about transparency was put forth by Thacher (2005) in his research on Dearborn police efforts to conduct counter terrorism efforts in that city. Henderson, Ortiz, Sugie and Miller (2006) came to a similar conclusion between Arab American communities and law enforcement agencies.

ADDRESSING COP AND COMMUNITY TRUST ISSUES

There is a rich discussion on the role trust and transparency play on law enforcement and immigrant community relationships. Despite the research that supports community-oriented policing, the literature also suggests that trust issues between community members and their police agencies persist. Also discussed in the literature are practices law enforcement agencies can implement for building trusting relationships with the communities they serve. According to Pickering et. al (2010), social cohesion is “based on the police building long term trust and legitimacy with immigrant communities” (31). The concept of social cohesion is based on five core dimensions that include: belonging, inclusion, participation, recognition and legitimacy (Stone and Hughes, 2002). According to the authors, the social cohesion model helps breakdown the behaviors that prevent law enforcement agencies and community stakeholders from working together. Similarly, Briggs (2010) suggests an even stronger reasoning for building trust. Briggs argues that trust is developed when the community feels they are “trusted, equal and respected” (976).

Kashu, Busch, Latif and Levy (2005) and Sant-Fort, Yasso and Shah (2012) argue that sustained community interaction and involvement are essential practices for successfully resolving issues and building trust. They suggest developing regular communication channels with a diverse group of community representatives to show respect for the diversity and political divisions within immigrant communities. According to Henderson, et. al. (2006) law enforcement needs cultural awareness and language training to understand potential barriers in communication. Similarly, Bryett (1995) calls for understanding communities from a holistic perspective appreciating their complexity and diversity.

As described by Christopher (2014), policing in the United States has traditionally been ‘incident-driven’ in that police officers’ contact with the public has mainly been reactive. Police react in response to observed criminal behavior or calls for service. In comparison, with COP, a problem-oriented model of policing, police officers engage more proactively in community problem identification and solution development. For local police agencies to address community mistrust and lack of transparency issues in a still evolving homeland and national security policy landscape, police organizations could adopt more

organizational and community engagement approaches which encourage shared decision making at multiple levels.

A COP/problem-oriented approach would appear to be an ideal one if the police organization desires to take advantage of the knowledge, skills and abilities of all organizational members. Police agencies at the local level in the United States are operating in a threat environment that includes risks from domestic and international terrorism. To work effectively in this environment, police agencies must work to take advantage of the capabilities of all employees, from the line level up through senior leadership. A vital organizational link between policing policy and operational deployment resides at the supervisory and middle management levels in police organizations. As Sparrow (1993) observed during the developmental years of COP, the mid-level managers in police organizations can either support or inhibit an environment for effective problem-solving. In other words, police leadership must ensure the ability of line level officers and staff to have the freedom to address underlying problems and have the necessary resources to do so. The literature shows that police leaders are supportive of enabling officers to have a larger role in organizational decision making (Hoover and Mader, 1990). In the current threat environment, police administrators should embrace a dynamic, community-oriented, problem-solving model of policing.

Problem-solving strategies are necessary when addressing possible terrorist threats to a community while at the same time mitigating a community's distrust in its own police department. Problem-solving can be structured as a rational process by which a problem is identified, and alternative solutions are crafted, analyzed and chosen upon for action. This process is more productive when all parties likely to be affected by a decision are involved. For example, a neighborhood plagued by an increase in incidents of vandalism may have community members who have insight into the underlying reasons for the situation. Police officials should engage those members in identifying an appropriate mechanism to mitigate the problem. Central to the COP approach is for police agencies to inspire trust from community members that law enforcement efforts have their needs at the forefront.

Police organizations may benefit from examining how businesses and private sector security organizations focus on embedding an awareness of security and safety needs throughout an organization. For example, security awareness orientation and training programs are common strategies employed to ensure employees, vendors and visitors to a facility understand their roles and responsibilities in maintaining facility safety and security. These types of programs offer an opportunity for police

agencies to model their community engagement and partnership efforts in addressing security threats in a community arising from terrorism. There may be alternative ways of addressing community threats. For example, police patrols in one area may need to be increased or shifted to another area to accommodate evolving terrorist threats. This reallocation of human resources and equipment may affect a police organization's ability to operate in a COP/problem-solving modality. COP is thus a practical model to use in a terrorism/homeland security atmosphere.

COP PRACTICES AND BUSINESS PERFORMANCE

As previously discussed, COP was designed to gain support of the community. Literature also suggests it can positively impact business performance where implemented. Up until now, this research has centered on the physical safety of a community. Although the research is limited, at least one study suggests that COP practices can also support business profitability. In a study conducted on the performance of a shopping mall in Westminster, California, Jim, Mitchell and Kent (2006) suggest that collaborative efforts between businesses and law enforcement prevented criminal activity. From their research, one might also suggest that COP practices may make business owners and community residents feel safer and invest more in their communities by shopping in their neighborhoods. This aligns well with private sector security practices promoting and encouraging partnerships between police and businesses associated with such needs as security awareness. These collaborations, especially when considering homeland security, can address potential criminal or terrorist activity.

Community safety and security is the responsibility of many stakeholders. Perhaps no stakeholder is more important than the law enforcement partners who protect the business community.

RECOMMENDATIONS

Literature suggests there are practices for addressing the challenges in using community oriented policing for supporting counter terrorism efforts. One can suggest the challenge facing law enforcement agencies is implementation and operationalizing the discussion. This research suggests law enforcement agencies could consider the following four recommendations for successfully implementing community oriented policing efforts:

Recommendation One: Law enforcement should develop a good understanding and respect for the complexity of their immigrant communities. Law enforcement agencies need to be knowledgeable of the cultural and language aspects of their communities. This can be accomplished in a variety of ways, such as with targeted training of personnel and the hiring of professional consultants to serve on community relations boards.

Recommendation Two: Law enforcement agencies should assign senior officials to community service boards. Many community service boards consist of the senior leadership of a community. One could suggest it would be appropriate for similar leadership be represented from law enforcement. This would help establish the legitimacy of a partnership and hasten decision making actions.

Recommendation Three: Long term assignment of officers serving in the immigrant communities to develop the relationships the necessary to build trust between the stakeholders. There is history in policing of dedicating police officers to tackle emerging public safety problems in specific populations. Some examples include Drug Abuse Resistance Education (DARE), gang-investigation units and team police units in housing projects. Police leadership operating in a COP/problem-solving environment, faced with issues of distrust and fear of police in immigrant communities, should consider developing and deploying community police teams in specific immigrant communities to assess and manage the levels of fear and distrust. By doing so, police organizations can work to grow and sustain productive police-community relationships.

Recommendation Four: Additional research should be conducted on the impact that COP practices have on the performance of local businesses in immigrant communities. If future research supports that COP partnerships can improve business performance, it may open new opportunities to help build trusting relationships.

CONCLUSION

The role of community oriented policing is a significant one for counter terrorism efforts. The research suggests that to successfully practice community oriented policing, law enforcement agencies need to appreciate the cultural diversity of their communities and the importance of building trusting relationships.

REFERENCES

- Briggs, Rachel. (2010). "Community Engagement for Counterterrorism: Lessons from the United Kingdom". *International Affairs*, Vol. 86 (4), 971-981. URL: <http://www.jstor.org/stable/40865006>.
- Bryett, Keith. (1995). "Terrorism and Community Policing". *Journal of Contemporary Criminal Justice*, Vol.11 (1 February).
- Christopher, Kenneth..(2014). *Port security management*, 2nd Ed. Boca Raton, FL: Taylor and Francis/CRC Press.
- Couper, D.C. & Lobitz, S.H. (1988), April. "Quality Leadership: The First Step Toward Quality Policing". *The Police Chief*, pp. 79-94.
- d'Appollonia, A. C. (2012). *Frontiers of fear: Immigration and insecurity in the United States and Europe*. Cornell University Press: Ithica, NY.
- Gill, Charlotte, David Weisburd, Cody Telep, Zoe Vitter and Trevor Bennett. (2014). "Community-Oriented Policing to Reduce Crime, Disorder and Fear and Increase Satisfaction and Legitimacy Among citizens: A Systematic Review". *Journal of Experimental Criminology*, Vol. 10 (4), pp. 399-428. DOI 10.1007/s11292-014-9210-y.
- Goldstein, H. (1990). *Problem oriented policing*. Philadelphia: Temple University Press.
- Henderson, N., Christopher Ortiz, Naomi Sugie, and Joel Miller. (2006). "Law Enforcement and Arab American Community Relations After September, 2001: Engagement in a Time of Uncertainty. Retrieved March 3, 2018 from Vera Institute of Justice". http://archive.vera.org/sites/default/files/resources/downloads/Arab_American_community_relations.pdf
- Hoover, Larry and Edward Mader. (1990). "Attitudes of Police Chiefs Toward Private Sector Management Principles". *American Journal of Police*, 19 (4), pp. 27-47.

Husband, C., and Alam, Y. (2011). *Social cohesion and counter terrorism: A policy contradiction?* Bristol, U.K.: Policy Press.

Jackson, William. (2008). "Natalie Givans: Security Gets into the Mix: GCN Interview". *Government Computer News*. https://advance-lexis-com.nuls.idm.oclc.org/document/?pdmfid=1516831&crid=3e6f4a79-b56d-421e-a0c8-24d039049704&pddocfullpath=%2Fshared%2Fdocument%2Fnews%2Furn%3AcontentItem%3A4SCB-64R0-TXGW-G0R9-00000-00&pddocid=urn%3AcontentItem%3A4SCB-64R0-TXGW-G0R9-00000-00&pdcontentcomponentid=304144&pdteaserkey=sr1&pditab=all_pods&ecomp=1fyk&earg=sr1&prid=7e89f2ac-b18c-403c-95c4-4a2c9dbb0ddd

Jim, Julia., Fawn Mitchell and Douglas Kent. (2006). "Community-Oriented Policing in a Retail Shopping Center". *Policing: An International Journal of Police Strategies and Management*. 01 January 2006, Vol. 29, pp. 146-157.

Jones, Charles and Stan Supinski. 2010. "Policing and Community Relations in the Homeland Security Era". *Journal of Homeland Security and Emergency Management*. Vol. 7 (1), article 43. DOI: 10.2202/1547-7355.1633.

Khashu, Anita, Robin Bush, Zainab Latif, and Francesca Levy. (2005)." Building Police-Immigrant Community Relations: Lessons Learned from a New York City Project". http://www.vera.org/publication_pdf/300_564.pdf.

Oliver, Willard. (2006). "The Fourth Era of Policing: Homeland Security". *International Review of Law, Computers and Technology*, Vol. 20 (1-2 Crime), 49-62.

Ortiz, Christopher, Nicole Hendricks and Naomi Sugie, N. (2007). "Policing Terrorism: The Response of Local Police Agencies to Homeland Security Concerns". *Criminal Justice Studies*, Vol. 20 (2). DOI:10.1080/14786010701396830.

Goldberg and Christopher

Pickering, S., McCulloch, J., and Wright-Neville, D. (2010). *Counter-terrorism policing:community, cohesion and security*. Springer: New York.

Putnam R. (2000) *Bowling alone: the collapse and revival of american community*. New York, NY: Simon and Schuster.

Smith, Angus. (2015). "Preventing Violent Extremism through Community Engagement". *The Police Chief* (February 2015), 82(2), 40-41.

Sparrow, Malcolm. (1993). "Integrating a Distinct Management Style: The Challenge for Police Leadership". *American Journal of Police*. 12(2), pp 1-16.

Stone, Wendy and Jody Hughes. (2002). "Understanding Community Strengths". *Family Matters*, Number 61 (Autumn 2002).

Sant-Fort, Pradine, Noelle Yasso, and Susan Shah. (2012). "Engaging Police in Immigrant Communities: Promising Practices from the Field". The Vera Institute.
<https://static.prisonpolicy.org/scans/vera/engaging-police-in-immigrant-communities.pdf>

Thacher, David. (2005). "The Local Role in Homeland Security". *Law & Society Review*, 39(3), 636-676.

Walker, S. (1977). *A critical history of police reform: the emergence of professionalism*. Lexington, MA: Lexington Books.