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THE GRAND “MAKE-OVER” OF THE UNITED STATES: TIME FOR DRAMATIC CHANGE

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Abstract

This research addresses how we will imagine, administer and manage governmental enterprises in the post-pandemic world. If previous pandemics serve as a guide, the environment that public administration will need to adapt to may feature the following: A more volatile economy and recovery where recovery comes quickly to some and not to others; an intense “greening” of the economy, market systems, environmental policies and conservation practices to meet needs of a world population and sustain the ability to meet needs for generations; major reduction in revenues for local and state governments remembering that governments must balance their budgets; state and city planning departments response to an increased demand for civic participation in life and design of cities and how will technology impact this piece of our environment; and in addition the widening gap between those who are economically advantaged and those who are not, the impact of advanced technology and digitalization, and, among other topics, the “Overton Window”—what was previously thought to be impossible, now becomes feasible, if not necessary.

Introduction

“It was the best of times, it was the worst of times….” Charles Dickens penned this famous phrase in the 18th C. in reference to the political and economic turmoil narrated in A Tale of Two Cities as Paris and London faced the dual American and French Revolutions. Just a few months ago, if a historian visited the United States, they would have learned about the great economic prowess of its economy, at least for some, a robust stock market,
its military strengths, high GDP, low unemployment rates and a myriad of impressive financial metrics. These measurements were quickly muted in January to the present, as the United States and over 195 countries worldwide became the host of an unwelcomed virus that has reached pandemic proportions.

To say these are chaotic times would be a pedestrian observation at best. For those in public administration and public policy analysis, we need to think about the future of governance set within the context of a world-wide pandemic and massive civil protests and demonstrations on the streets of the United States. These tumultuous times are characterized by increasing levels of anxiety, uncertainty, depression, fear, tempered with the triple spirits of resilience, opportunity and the development of institutional trustworthiness.

The economic, political and social climate that dominates affairs at all levels of government—national, state and local—are nearly unmatched in the last century. The crisis was produced by the spread of a tiny virus, a novel coronavirus (COVID-19) that burst upon the scene and with pandemic consequences will fundamentally affect how policies and administration will be made and conducted in the immediate future. The economic strife faced by state, municipal, and local governments for the next few years (at least) will leave an indelible impact. The corresponding “shutdown” of the American economy and its disruptive effect on traditionally accepted ways of doing things socially and culturally, will leave a lasting footprint on basic societal structures, mores, and human behavior.

The changes taking place are already palpable in the rapid transformation of how things we used to take for granted were done, to new ways of doing things, augmented by technology and public health necessity, are done. These changes are evident in the following areas: Voting, telecommuting, education systems (from K-12 to graduate levels), all manner of shopping (from the mall and main street businesses to Amazon and from clothing to groceries), Tele-everything (medicine, health care, legal activities, conferencing (Microsoft Teams, Zoom, Facetime, etc.), insurance claims and adjustments, travel, recreation and leisure, dining activities, manufacturing, assembling, production processes and other congregates, to basic citizen-governmental interactions and essential economic exchanges. And, of course, the explosive use of FaceBook, Skype, Instagram, Twitter, among others, and the necessity of social distancing. In addition, there will be an increase in regional collaboration, lower interest rates and greater
indebtedness (later, perhaps higher tax efforts), complicated further by the decline in globalization, and the rise of populism and “nationalism,” and the rise of the virtual organization.

**Change Endures: Anticipate, implement, Evaluate it and Repeat**

Historically, pandemics have left a lasting impact on the ways in which societies have done things ranging from antiquity to the present time. The cursory list which follows presents an ecological framework in which state and local government will be exercised, and some of the new conditions which will affect how we administer and manage governmental enterprises:

1. The U.S. economy will be mercurial as it attempts to regain the prowess it held in pre-COVID-19 times, yet there will remain many foreseen and unforeseen influences that will differentiate a volatile recovery, making distinctions between “Main street and Wall street.”

2. Unemployment rates will soar to levels unmatched since the Great Depression and will be uneven between those who have higher levels of education and can work in careers that adapt quite easily to telecommuting, and those who do not, and by variables such as socioeconomic status, place, and race/ethnicity.

3. Local and state governments will experience a massive decline in revenues from sundry sources, at least until the economy has a full recovery. This shortfall will be associated with increased spending on unemployment, health spending and Medicaid, etc., constrained by the “balanced” budget requirement found in most states.

4. Educational systems, public and private, will need to adapt to new ways of learning where technology (think Internet) will play an essential role, and distance education will become commonplace.

5. The fragility and incapacity of governmental health and a myriad of other major infrastructure systems to respond to medical and economic demands will be recognized and require major adjustments, if not revolutionary change (unemployment and training programs, defunding certain areas of governmental service (police, justice and security enforcement), energy production, and climate change). Simultaneously, there is an ongoing and increased “hollowing out” and politicization of governmental departments, bureaus and offices.
6. In re-thinking what changes are incumbent, resilience is required: This is neither the first nor the last pandemic we will have to face. Keep in mind that the city has become the defining government unit of the 21st Century and the new human scale embedded in urban designs will emphasize livability, accessibility, affordability, walkability, etc., for people rather than cars; rethinking HVAC (heating, cooling and ventilation technologies); housing needs in proximity to employment opportunities; changing characteristics of housing (larger, separated rooms for privacy, wired for technology), and, the rapidly changing demographics of a country edging toward 330 million—a nation where the majority is soon to become the minority and the minority the majority. This phenomenon is already evident as masses of humanity take to the streets to protest the current state of race relations, access to quality health care, economic, social, and environment injustice, and among many other problems, the twin issues of violence and police brutality.

7. The role that advanced technology and digitalization will play in the life and work of organizations will be explored, examined, and put into practice. These expected changes will bring a revolution of how and where work and related processes get done, especially with the increased use of artificial intelligence (AI), deep learning and machine learning. In the total scheme of things, the basic nature of work (from left to right brain) will undergo a major transformation, accompanied by the advent of new employer-employee psychological contracts. In addition, the rapid introduction of an integrated, mobilized and autonomous way of travel, transportation, and delivery, ranging from everything electric (cars, buses, trucks, trains, etc.) to the use of drones.

8. An intense “greening” of the economy, market systems, environmental policies and conservation practices, and so on, in order to address the accelerating curves of change (hockey stick shaped): world population growth (8.5 billion people by 2030), computation and processing (data transmission, storage, networking, and iCloud), wasted resources, climate change, technological explosions (Moore’s Law--smaller, faster cheaper), and the adverse effects of tribalism, populism, and uncompromising political partisanship.
9. State and City planning departments will need to respond to increased civic participation in the life and design of cities in these areas: Street and road construction, parks and recreation, transit and transportation, zoning laws and building codes—internal and external, the use of brownfields, rooftops, and public spaces, and in particular the design and (re)design of our cities. To envision the future of urban planning, familiarity with the following concepts will be mandatory because an emphasis will be placed on creating healthier and greener environments (smaller green spaces, pedestrian friendly walkways, convenient and safe cycling routes, traffic calming, superblocks for vehicles, etc., that employ social distancing notions, while simultaneously increasing physical activity). While living during COVID-19, city dwellers will have become familiar with temporary road closures and those designs that place restrictions on the use of internal and public spaces, and perhaps, require more initiatives for pollution reduction, healthier natural and built environments, and designs that help build community, neighborhood and personal relationships. Finally, new types of surveillance technology will be put into place for digital tracing, temperature checks, tracking, and perhaps electronic vouchers. These technologies will be put in place based on the needs for safety and security, but bring into discussion the full scope of civil liberties and their protection.

10. In response to the COVID-19 pandemic, public policy makers and managers should ensure that in restructuring and redesigning institutional structures that large swaths of American society have their needs met. That is, ensuring that the poorest among us, the homeless, minorities (religious and racial), and undocumented immigrants are not neglected. During this time of “punctuated equilibrium,” or periods of stability interrupted by sudden change, the goal may be to produce greater equality and efficiencies, but the unintended consequence or outcome might be the exacerbation of inequality.

11. Last, the principles inherent in our federal system of government will be challenged and tested in terms of rightful power, authority, protections, the “rule of law,” and the proper role of national and state governments will be debated and litigated during these
chaotic times. Also, the democratic principles of this republic will be increasingly threatened by the rise of authoritarianism, attacks against a “free press,” and the elemental standards of fairness, equity, justice and TRUTHFULNESS. It will be difficult to navigate the future and address these existential threats if a nation cannot agree on what constitute the basic facts of our history, culture and science.

**Summary and Discussion**

As this summative list shows, these are challenging times and the problems and issues that confront policy makers and administrators are indeed important ones. They become all the more salient as we more fully realize that the American governmental experience is a work in progress (“…to form a more perfect union…”), and as we struggle to meet the demands of “liberty and justice for everyone.”

The oft mentioned desire to return to a state of normalcy when we are in the throes of a full-blown pandemic is short-sighted; alternatively, a crisis is a terrible thing to waste! Instead, at this moment, we should focus on re-thinking how the various systems work and how to improve them, make them more just, equitable, resilient, sustainable, and responsive to human needs, and invest in the critical areas of health care, education, social control, employment, housing, and infrastructure. This is an “Overton Window”—what was previously thought to be impossible, now becomes feasible, if not necessary. If we rise to meet the challenge presented by COVID-19, we will someday, with pride, pass on to future generations how this country faced an existential threat and, in turn, has bequeathed to posterity a reinvented and rediscovered way of governance and built a civil society that solidly bends the “arc of history” toward peace and justice.

The “best of times” remains aspirational if the changes mentioned above take place that move governmental policies forward and repair the institutional and structural inequalities and the myriad areas of historical neglect. The future is full of opportunity if we have the vision and the will to grasp it, embrace it…then our dream will never die.
REFERENCES (SELECTED)


Meyer and Noe


**ABSTRACT**

This paper proceeds from the premise that true change can only be realized after first coming to terms with harsh realities. The murder of George Floyd in 2020 sent shock waves throughout our collective conscience resulting in a racial reckoning unlike any other in modern history. Calls for change throughout Corporate America had organizations pledging millions of dollars toward the cause of racial justice. But now, over one year later, has there been a significant change in workplace equality following heightened awareness to diversity, equity, and inclusion policies in organizations, or have we settled back into the status quo? This paper will examine obstacles to achieving the level of workplace culture shift needed to claim a spot as a true EEO employer. While generally addressing all legally protected classifications, the paper will specifically focus on racial discrimination in the workplace by exploring root causes of racism through a human behavioral lens. Historical research and legal case studies have shown that racism can be found in all areas of society and racial discrimination in the workplace has existed for numerous decades, however, the Black Lives Matter movement and social unrest of 2020 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 reimagine workplace policies on diversity, equity, and inclusion.

Key words: DE&I policies, diversity, equity, inclusion, systemic racism

**INTRODUCTION**

An unprecedented year in our nation, 2020 will claim a spot in history for a convergence of high-profile events concerning civil rights issues beneath a backdrop of a world-wide pandemic. On May 25, 2020, George Floyd, a 46-year-old black man, was murdered in Minneapolis, Minnesota by a white police officer, Derek Chauvin, while being arrested on suspicion of using a counterfeit $20 bill. The following day, excruciatingly explicit videos made by witnesses and security cameras went viral, striking a nerve in most everyone who watched them due to the callous disregard for human life exhibited by the police officer. Floyd’s murder led to world-wide protests against police brutality, police racism, and lack of police accountability (Hill, et al., 2020). The event launched a modern-day civil rights movement, re-energizing the Black Lives Matter movement, and mirroring the Civil Rights movement of the 1960s. The movement resonated with millions of citizens...
of all races, creeds, and ages who either identified with the stories being reported from people who had experienced similar treatment, or who had never experienced such treatment but were struck with horror at how such actions could have transpired. Despite being in the height of a pandemic, the horrific event propelled citizens into action as they took to the streets in protest and participated in the ongoing conversations on the internet. Statistics reveal that between May 26 and June 7, 2020, the #BlackLivesMatter hashtag had been used roughly 47.8 million times on Twitter – an average of 3.7 million times per day (Anderson, et al., 2020).

In response to demands for change from anti-racism advocacy groups, new legislation continues to be passed in several states, as well as police reform bills. President Biden’s passage of Juneteenth as a Federal holiday acknowledged historic roots of racism (Pruitt-Young, 2021). Corporate America nationwide rose to the challenge by pledging millions of dollars toward diversity, equity, and inclusion (DE&I) programs and professing promises to do better. But have those promises been kept? Or, has the momentum waned and the initiatives moved down the priority list? Research shows that even the most genuine of efforts has met with challenges and obstacles to creating the paradigm shift necessary to achieve positive change in the area of equality in the workplace. Despite promises, companies are still behind. The number of companies with a Chief Diversity Officer (CDO) has increased only marginally in recent years, from 47 percent in 2018 to 52 percent as of February 2021. Many leaders in this space are realizing that pioneering this emerging field is more challenging than expected and are quickly getting burned out (Gurchiek, 2021).

Through a reminder of key historical events in the history of the United States, this paper analyzes not only the legal, but socio-psychological impacts of systemic racism to determine the underlying reasons racial discrimination continues to occur in the 21st century workplace. A starting point is to understand that history is not repeating itself, rather, just resurfacing. Acknowledging the fact that racism has never been uprooted - a consequence of not facing harsh truths – is a step in the direction toward healing. The discussion will lead to an awareness of the challenges faced in moving forward as well as highlight obstacles to implementing DE&I workplace policies. New methods of training to comport with current updates in the law will be explored with a focus on creating a culture of equality as a means of fostering a diverse, equitable, and inclusive environment for all employees.

**CHANGES IN DIVERSITY POLICIES**

It is important to understand the expanding definitions of terms from former diversity policies to current diversity, equity, and inclusion policies in workplace settings, both from a legal and sociopsychological view.

**Diversity.** The basic definition of diversity is the differences between individuals, based on any attribute, that may lead to the perception that another person is different from the self (SHRM.org). From a legal policy perspective, considerations of
disparate treatment, disparate impact, and stereotyping, among others, are reflected in policymaking.

**Disparate Treatment.** Disparate treatment is defined as treating a similarly situated employee differently because of prohibited Title VII or other employment discrimination law factors.

**Disparate Impact.** Disparate impact refers to a deleterious effect of a facially neutral policy on a Title VII group.

**Stereotyping.** Stereotyping is a standardized conception held in common by members of a group. Assumptions are made based on such conceptions that do not factually represent all members of a group.

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 race, color, national origin, sex, or religion. [Title VII of the Civil Rights Act of 1964, as amended, 42 U.S.C. § 2000e-2(a).]

If we stop here, with the above law and theories of law in place, a person of color may be hired for a position and not be exposed to any adverse actions by the employer. But that same person of color may not be treated equitably or experience inclusion in workplace groups in the same way as their similarly situated colleagues experience equity and inclusion. The expanded DE&I arena is necessary to holistically address systemic racist and sexist behaviors and implicit biases that have become commonplace in the work environment in order to remedy toxic cultures in the workplace.

**Equity.** A relative form of equality (equal treatment of individuals and groups) that takes into consideration the needs and characteristics of the individuals, the context of the situation, and circumstances that result in disparate outcomes (*SHRM.org*).

**Example.** People of color represented in the highest levels of organizational leadership nationwide is an abysmal number. Black people occupy only 3.2% of the senior leadership roles at large companies in the United States and just 0.8 of all Fortune 500 CEO positions (Brooks, K. J., 2019).

Pay equity is another example of an ongoing workplace issue with its roots based in discrimination. Gender pay disparity continues to exist with women earning 82 cents on every dollar that a similarly situated male earns, excepting black females who earn 64 cents on every dollar, and Hispanic females earning 57 cents on every dollar.
of their similarly situated white males (Spiggle, T. 2021; AAUW 2021; Payscale 2021).

**Intersectionality.** Experiencing more than one type of discrimination at a time, e.g., that of being black and female. Intersectionality adversely impacts various populations of protected classes, illustrating the higher probability of discriminatory behaviors involving, for example, racism and sexism occurring at the same time.

**Inclusion.** The extent to which individuals can access information and resources, are involved in work groups, have the ability to influence decision-making processes, and can contribute fully and effectively to an organization. “Inclusion” is also defined as the fulfillment of needs for belongingness and uniqueness. According to Optimal Distinctiveness Theory, employees’ needs of belongingness and uniqueness must be met in order for employees to feel included. To feel included, the unique characteristic of an employee must be valued within a group; more importantly, though, this uniqueness the person brings to the group must be allowed and encouraged to remain. Inclusive culture exists in the workplace when an organizational environment allows people with multiple backgrounds, mindsets, and ways of thinking to work effectively together and to perform to their highest potential to achieve organizational objectives based on sound principles (SHRM.org).

**Example.** It is important to note that workplace protections from sexual orientation and gender identity discrimination did not come to the federal arena until June 2020. Before that time, while members of the LBGTQ+ community were protected from workplace discrimination and harassment under some state laws, they were not protected under the federal statute of Title VII of the Civil Rights Act of 1964 and, as such, some members of the LBGTQ+ community were still shrouded in fear of revealing how they identify regarding affinity orientation and gender identity.

Weaving DE&I policies into the fabric of the core federal workplace discrimination statutes - Title VII of the Civil Rights Act of 1964; the Age Discrimination in Employment Act (ADEA) of 1967; and the Americans with Disabilities Act (ADA) of 1990 – while rolling out training and development policies is a full-circle approach to the personal and professional development of employees and sends a message from leadership that the company is committed to achieving and maintaining a workplace culture of diversity, equity, and inclusion.

**A LOOK AT THEN TO NOW**

Beyond the legal and political arena, cries for equality were coming from all segments of society during the social unrest of the 1960s. In pop culture, for example, the Beatles did their part in helping to fight racism in the United States when they refused to perform to a segregated audience in Jacksonville, Florida in 1964 (BBC News, 2011). Much of the music of the time reflected the need and
demand for change to address inequities against Black Americans and women, among other protected classes. It is no surprise that equal rights movements found a voice through music, as “music bypasses the brain and resonates straight into the heart where transformative change happens (Berson, 2020).

When Ruth Bader Ginsburg argued her first sex discrimination case in front of the United States Supreme Court in 1973 in the case of *Frontiero v. Richardson*, she cited abolitionist Sarah Grimké during her oral argument saying, “I ask no favor for my sex. All I ask of our brethren is that they take their feet off our necks.” The symbolism highlighting oppression against individuals based on their sex or race was a testament to the fact that not much had changed since the turn of the 20th century.

Fast forward to the 21st century and RBG’s statement could not be more figuratively and literally relevant as when George Floyd was murdered by a knee to his neck. Forcing society to look, once again, at how far we have come – or not come - in over four centuries, revealed that old wounds continue to resurface because the necessary work has not been done to eradicate systemic racism in our society.

Racism and sexism are intertwined and can only be uprooted at the same time (Steinem, 2015). When examining the plight of people of color and women throughout history, the same forms of oppression exist rooted in superiority and patriarchal ideologies. The impact of racism and sexism is far reaching, affecting every aspect of life from access to education, medical services, housing, and job opportunities, among other areas, as illustrated below.

- According to the Brookings Institution, Black college graduates have higher debt loads, on average, than White college graduates. Black debt rises over time. White debt diminishes. Upon graduation, the average Black graduate owes $23,400 vs. the White graduate’s $16,000. Four years later, the gap triples. Even at the top end of the income spectrum. Black students have higher student loans ($4,643, on average) than White students ($3,835), and Black parents take out larger loans to help pay for college - $3,303 vs. $1,903 (Brown, 2021).

- A county-level empirical analysis of structural racism and COVID-19 in the USA revealed that Black Americans as a community have experienced a long and well documented history of exploitation and racial discrimination that has in turn manifested in the form of persistent health disparities and preventable deaths (Bin Shin, et al. 2021).

- In the first quarter of 2020, the Census Bureau reported that black households had the lowest homeownership rate at 44%, nearly 30 percentage points behind white households. Racial discriminatory practices prevented people of color from accumulating wealth through homeownership (Williams, 2020).
Sixty percent of employed Americans have experienced or witnessed discrimination at work on the grounds of race, gender, age, or LGBT identity (Srikanth, 2020). A Gallup poll released in January 2021 found that of the roughly 2,000 Black employees surveyed, 24% reported being discriminated against in their jobs in the past year (Williams, 2021).

Specifically, regarding race discrimination in the workplace, a survey conducted by the Society for Human Resource Management (SHRM) of 1,275 people in the U.S. found that 49% of Black HR Professionals think that race-based discrimination exists in their workplace, but only 13% of White HR Professionals agree. The same survey found that 35% of Black workers say that such discrimination is part of their workplace, while only 7% of White workers say that this is the case (Gurchiek, 2020). The findings from the report, *The Journey to Equity and Inclusion* suggest that while workers agree that racial discrimination exists, there is a vast difference in perception of how widespread the problem is, indicating a need for more awareness and understanding of workplace racial inequality.

The Black Lives Matter movement heightened the need for employers to improve their efforts toward workplace diversity policies. Efforts range across the spectrum from employers outwardly advocating for change because it is the popular thing to do in this climate but have no intention of walking the talk, to employers making genuine efforts toward a paradigm shift in workplace culture but are finding the challenge overwhelming.

**OBSTACLES IN MOVING FORWARD**

To engage in meaningful professional growth, a foundation of personal growth must be present. Individuals lacking in this foundation may pose a major obstacle to successful DE&I trainings because not every employee is in the same space with regard to their level of personal growth and emotional intelligence. Every person is shaped in some degree by their upbringing, whether cultural, religious, societal, or combinations of all or more influences. Implicit biases and prejudices harbored within are carried forward to the workplace. Individuals who do not possess a mature level of emotional intelligence, may engage in acts that can be interpreted as racist or sexist without realizing the impact of their actions on other individuals. As such, some organizations may need to move forward in the DE&I space at a very basic level.

A starting point would include examining the root causes of racism as a threshold foundation. A look back in history reveals the scourge of slavery and its impact on society over centuries and how the burden has plagued our nation, along with the guilt of those actions weighing heavily on our collective conscience. Superiority ideologies passed down from generation to generation are at the base in the formation of racial prejudice. Without exposure to diversity and the plight of people of color in society in general and in the workplace specifically, individuals cannot
gain the pertinent information or develop the necessary empathy to address such issues and begin to remedy them.

Natural human behavior seeks to avoid these painful memories. At times it is easier to live in denial. Further, when racist actions of violence and discrimination enter our stream of consciousness, a human impulse is to excuse them away as not being a problem anymore or, worse, not our problem. But intellectually we know and are reminded by Dr. Martin Luther King, Jr. that, “Injustice anywhere is a threat to justice everywhere” (King, Jr., 1963).

Egregious manifestations of racism and sexism are found by uncovering significant events which have been expunged from history, leaving people unaware of the perpetuation of racist and sexist actions passed down from generation to generation. For example, until recently, most textbooks did not include historic events related to racism such as the Tulsa Race Massacre of 1921. Before 60 Minutes ran a segment last year of the Tulsa Race Massacre, much of the population had never heard of this or other atrocities committed against African American communities. Similarly, most textbooks omitted the participation of African American woman in the United States space race of the 1960s. Neither had much of the population been aware of the number of black women mathematicians and engineers instrumental in sending a man into space 1965 until the appropriately titled movie Hidden Figures hit the box office. Without this knowledge, a large segment of our society was left uneducated as to the contributions to science made by African American women. As if to indicate that if such events are excluded or erased or never spoken of, then they must not have happened is at the root of oppression. This lack of accountability has kept Black Americans and all people of color held back over centuries. Moreover, the release of liability for the heinous crimes committed in the Tulsa Massacre, for example, and atrocious coverup speaks to the enormity of moral turpitude surrounding such events. Failure to be held liable through our justice system, and failure to provide reparations for the victims is an example of the citizenship plurality that our country was built on. It is rooted in our education and criminal justice system, and systematically woven into popular culture.

Facing the harsh truths of racism and sexism requires a deep dive into the root causes of such behaviors. Such exercises are not pleasant and can unearth our own implicit biases and prejudices in a way that can cause us to examine our entire life beginning with our familial upbringing and cultural influences and how such influences have impacted every aspect of our life. Unless and until we do this work, we cannot move forward. With truth comes change. Change is difficult, uncomfortable, uncertain, and disruptive to our daily routine. Remaining in the status quo is simpler, comfortable, secure, and orderly. The truth dismantles the status quo. It forces us to face our own failings and challenges us to do better every day. But facing the truth is not easy. It is easier to stay the same and continue to bury the truth down to the bottom of our list of priorities to handle. As James Baldwin said, “Not everything that is faced can be changed; but nothing can be changed until it is faced” (Baldwin,
While the task to achieving workplace equality may seem enormous, even the smallest efforts toward equality are meaningful and a step in the direction of creating positive change.

TRAINING METHODS REIMAGINED

Far too often and for far too long, diversity 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 diversity issues again for another year or more. The employer, in turn, can check the box that the company has satisfied the requirements of the law, thereby fulfilling legal compliance responsibilities or be ready for 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 diversity laws.

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. What has been missing in diversity training is a holistic approach to the issues of diversity, equity, and inclusion. Tapping into the perceived culture of the company 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.

STEPS FOR IMMEDIATE ACTION

Conduct a Climate Survey. As with any healthy relationship, the employer-employee relationship should be built on a foundation of trust and respect. The original definition of trust is alliance. If the HR Director is professing that the company is an Equal Employment Opportunity (EEO) organization while individual leaders of the company are overtly or covertly discriminating against 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 about fairness, employee wellness, or maintaining a workplace free from discrimination. 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.

**Perform and Internal Pay Audit.** Conduct a voluntary pay audit to proactively assess any racial or gender-related disparities in compensation. Do not wait until a complaint is filed or an EEO commission notifies the company of an audit. Depending on the results of the audit, make immediate pay adjustments accordingly. For example, if the audit reveals a 10% gender pay gap for similarly situated employees in certain positions, then make a 10% adjustment to the adversely affected group. This proactive approach will signal to employees that the company is genuinely concerned about issues of inequity and is making a good faith effort to initiate remedial actions.

**Adjust Recruitment Policies.** Findings from a report released in September 2021 based on an online survey of 1,115 North American organizational leaders conducted in April and May 2021 revealed: Seventy-four percent of all respondents track the diversity of new hires; Sixty-four percent track the diversity of individuals they recruit (SHRM.org, 2021). Tracking recruitment and selection data is critical to a company’s DE&I commitments.

**STEPS FOR ONGOING ACTION**

**Onboarding 1-month Class.** A new employee’s perception of an organization is formed in the first few weeks of employment. Conducting an onboarding training session on Diversity, Equity, and Inclusion in a one-month-long format will be a testament to the new employees that the DE&I statements professed in the company’s mission and vision are in fact practiced in the workplace. While the class is held over a period of one month, the time spent each week is only two hours for a total of eight hours over the period of the month. Typically, diversity training is approximately eight hours, but held in one session. The purpose of spreading the time over a period of one month is to optimize the learning process by allowing time for necessary reflections on the sensitive topics. The format and examples of exercises are illustrated below:

**Case Studies in a Group Setting.** 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.

**Exercise – Reflection Papers.** We all harbor implicit biases and prejudices carried over from our upbringing, culture, and life experiences. In order to be able to progress professionally, we must first work on our personal development. Facing our fears and recording them in honest reflections is not an easy task. But when
given as homework to do personally in a quiet environment, profound revelations may occur. Then, later in a safe workplace workshop setting, employees may feel the desire to share and by so doing become enlightened when hearing about experiences of coworkers.

#1. Write a 2-Page Personal Reflection on the following topic:
What Do You Believe to Be the Root Cause of Racism?

#2. Write a 2-Page Personal Reflection on the following topic:
What Do You Believe to Be the Root Cause of Sexism?

Exercise – Cages. Examine the following excerpt of Oppression by Dr. Marilyn Frye. Write your reflections in your journal.

Looking at discrimination issues is like looking at a wire birdcage. Look at the wires closely and you can’t see why a bird can’t just fly around it. But look at it from further away and you see that the wire you are viewing is only one of many interconnected wires that form an impenetrable cage that keeps the bird in place. With discrimination, each little piece may not seem very significant, but put them together and they form a different existence for one group than another, which keeps the group from progressing like those without the barriers.

Exercise – Stereotyping. Stereotyping weaves its divisive thread through all areas of discrimination, sewing its seeds of superiority ideologies, the roots of which run deep and perpetuate from generation to generation. Assumptions based on protective classifications can create a deleterious impact on such groups.

Watch the video below: The Look

https://urldefense.proofpoint.com/v2/url?u=https-3A__www.youtube.com_watch-3Fv-3DaC7lbdD1hq0&d=DwICAg&c=qwHaVVscXk_NBWd7DQFk0g&r=2GilTHcSqRmEHjaWL4fSA&m=pedHaJXyjO8GjDrCLnK2LVjvq7L-cIoJpYN6VN4gCE&s=kcAOBZmUvFNU_RtFa-sC7kMGqD3J5kpO-Yd6e6Hu5nQ&c=

Discuss the observations you made while watching the video. How did you feel while making your observations? What parts of the video, if any, stood out to you? Were you surprised by the ending?

STEPS FOR LONG-TERM ACTION

EQ Training. HR professionals can utilize training methodologies associated with emotional intelligence concepts 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 first, then to all employees.

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. 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 not acceptable, conduct.

CONCLUSION

DE&I efforts should not end once workers are hired. Leadership must regularly monitor all related metrics and utilize the information implement change toward continuous improvement. In order to fully realize a shift in workplace culture surrounding diversity, equity, and inclusion, strong commitments by leadership at the top levels must be evident and genuine. While there may be a long road ahead to complete eradication of workplace discrimination and inequality, continuing the conversation is imperative to effecting positive change.

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REDDUCING SUPPLY COSTS IN HEALTHCARE THROUGH THE UTILIZATION OF GROUP PURCHASING ORGANIZATIONS (GPOs)

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ABSTRACT

Many healthcare organizations experience increasing supply costs on a yearly basis, including Physician Preference Items (PPI) that account for a sizeable portion of a hospital’s supply costs. This puts a significant financial strain on the organization and can impact planning and budgeting for the year. This paper aims to contribute a review of the literature surrounding Group Purchasing Organizations (GPO) and the implementation plan on how to create a regional GPO in order to reduce an organization’s supply costs. The literature review reveals that GPOs are highly effective in reducing supply costs and bringing in revenue in the form of administrative fees for the organization. It also proves that the advantages of a GPO outweigh the disadvantages and that physician input is needed to successfully implement supply contracts through a GPO. Consequently, the literature suggests that by being a part of a GPO, hospitals and healthcare organizations can reduce their supply costs and save their organizations money.

Keywords: supply chain, cost reduction, group purchasing, contracting, negotiations

INTRODUCTION

Universal business practice is to cut costs where the organization can. This is no different for healthcare organizations. The growing rate of healthcare supply costs is a concern for many hospitals and becomes more of a financial burden every year. According to a recent report, the average hospital spent $11.9 million in 2018 on medical and surgical supplies. Across the United States, this brought the total supply costs to $38 billion for that year alone (Definitive Healthcare, 2021). Research on these costs between 2014 and 2018 shows that supply costs increased by 7% each year across all hospitals (Definitive Healthcare, 2021). This growing expense is unsustainable for healthcare organizations and needs to be addressed.
Supply expenses form the second highest share of a hospital’s budget, second to labor expenses, and the gap between the two is widening over the past several years (Abdulsalam & Schneller, 2017). Experts have proposed that, in order to reduce these costs, healthcare organizations should create a regional Group Purchasing Organization (GPO) that can reduce supply costs across all the regional facilities through aggregated purchasing volume to bring the best value to each organization. This paper reviews how increasing supply costs create a financial burden that can be eased by aggregating purchasing via a regional GPO. Additionally, it proposes an implementation plan on standardizing processes and products across all organizational facilities, contracting for each supply category, and how to interact with clinical staff to ensure the best results.

MEDICAL SUPPLIES AND THEIR INCREASING COST

Consumption of medical supplies at healthcare delivery organizations is ubiquitous. Each patient visiting a healthcare facility for healthcare services will consume at least one type of medical supply. Medical supplies are inclusive of the equipment a physician or institution needs to provide treatment and can include disposable supplies, diagnostic and testing supplies, medical equipment, pharmaceutical supplies, acute care supplies, and surgical supplies (“What are Medical Supplies”, n.d.). Every department within the healthcare organization needs varying supplies to treat patients safely and effectively. For example, an emergency room needs tourniquets, wound care supplies, external defibrillators, and endotracheal tubes, while an oncology clinic needs implantable ports, IV poles, biopsy needles, and chemotherapy syringe pumps. There are also supplies that almost all facilities have in common. These include some non-clinical supplies such as chairs, mattresses, linens, examination tables, storage cabinets, and sterilization cabinets. While some products might seem more important or more specialized than others, all contribute to the care provided to the patient and bring overall value to the treatment experience.

Some supplies have a strong physician preference when it comes to their usage. These are known as a Physician Preference Item (PPI). How physicians define PPIs varies across the industry. Some simply define PPIs as “high-cost and high-quality devices” in order to distinguish them from other lower-cost supplies, whereas others define PPIs as products that will bring a “higher quality of life” to patients and require specialized training to use (Burns et al., 2018). Examples of PPIs include: knee and hip implants, cardiac stents, cardiac rhythm management devices, and mechanical devices used in spine surgeries (Montgomery & Schneller, 2007). Across the United States, there has been a significant increase in the utilization of these supplies over the last two decades. Between 2001 and 2011, implants used in musculoskeletal procedures grew by over 40% (Burns et al., 2018). By 2013, over 800,000 patients suffering from osteoarthritis received prosthetic joints which are
considered to be one of the most successful PPI interventions to improve quality of life over the past century (Burns et al., 2018). PPIs can make up anywhere from 40 to 60% of a hospital’s total supply expenditure (Burns et al., 2018). Given the vast amount of PPI annual turnover at any hospital, any price increase on these supplies will quickly affect the hospital’s annual budget and ability to reduce supply costs. Moreover, a surge in patient volume can lead to a sharp increase in a hospital’s supply expenses, which can increase the cost of providing care, and adversely affect the planned supply budget for the year.

A supply expense includes total cost of all tangible products, and does not include any labor or service expenses associated with the product (Abdulsalam & Schneller, 2017). The average supply expense per patient admission to United States hospitals is $4,470 (Abdulsalam & Schneller, 2017) and can considerably vary between specialties. Children’s psychiatric comes in at the lowest supply expense per admission at $1,095 per patient (Abdulsalam & Schneller, 2017). The highest admission expense is within the oncology department at $38,746 (Abdulsalam & Schneller, 2017). This is likely due to the high costs of oncology pharmaceuticals. Surgical and orthopedic specialties follow oncology at $17,566 and $10,511 respectively (Abdulsalam & Schneller, 2017). Other specialties such as rehabilitation, psychiatric, post-acute and long-term care, and cardiology range from $1,240 to $7,288 per admission (Abdulsalam & Schneller, 2017).

The cost of supplies is an issue for all types of healthcare organizations because when manufacturers increase rates for one of their product lines, it is also associated with an increase in rates across other product lines. Moreover, some manufacturers may increase prices more than once per year, adversely affecting a hospital’s annual budget plan. Another problem for healthcare organizations is the lack of standardization in materials which increases the total cost of supplies. Stocking and using various products that provide the same clinical value but at different prices is an inefficient process. If hospitals were to standardize and aggregate their spending on particular products, their supply chain team could effectively negotiate better pricing for the products and bring financial savings to the organization and ultimately to the patient. These increasing supply costs cut into the organizations operating budget and can decrease the revenue that allows hospital doors to remain open to patients.

**LITERATURE REVIEW**

The discussion around supply costs and how to go about reducing them has been going on for years. Yet, many healthcare organizations consider their supply chains to be at a low level of maturity (Abdulsalam & Schneller, 2017). However, it is clear to hospital executives that supply costs play a crucial role in a hospital’s operations and economic stability (Abdulsalam & Schneller, 2017). Reports suggest that
Healthcare organizations who aggregated their purchasing volumes by contracting with a GPO were able to reduce their supply costs. A GPO is defined as an entity that has aggregated buying power to negotiate discounts with suppliers, distributors, and manufacturers (Yang et al., 2017). A survey of healthcare executives, sponsored by the American Hospital Association (AHA) and its Association for Healthcare Resource & Material Management (AHRMM), found that in 2014, 90% of the healthcare organizations utilized a GPO to help reduce supply costs, and some organizations used more than one GPO (Burns & Yovovich, 2014). 88% stated that the GPO brought savings from lower prices and 86% said there were demonstrable cost-savings and improvements (Burns & Yovovich, 2014). The results of this survey provide evidence that hospitals around the United States are finding financial value in joining a GPO.

While reducing these costs is a top priority, the healthcare executives also agree that patient safety and quality outcomes are of greater importance than reducing costs through GPO contracting (Thill, n.d.). For this reason, Temple University Health System in Philadelphia, Pennsylvania implemented a system in which the supply chain team presents the market data and facts to a clinical team and then bases their purchasing decisions on what those clinicians need, not what they want (Thill, n.d.). Provena Health, with locations in Illinois and Indiana, has a similar structure in which it works with physicians to ensure that a representative from the supply chain team is present on all calls and meetings with supply manufacturers (Thill, n.d.). These strategies allow for physicians to have input in the supplies purchased using a lower GPO negotiated price while also ensuring that these products are clinically acceptable for patient use.

There are advantages and disadvantages to joining a GPO to reduce supply costs. At an individual member level, or a hospital level, the advantages include a reduction of acquisition costs on supplies, reduced transaction costs and administrative costs, increased supply market information, and an increased focus on core operational activities (Rego et al., 2013). The disadvantages include lower innovation capabilities due to being locked in contracts, most likely with commitments, and standardization lowers the ability to meet the needs of any decentralized users (Rego et al., 2013). The macro and political advantages include an overall reduction of supply chain costs and prevention or reduction of corruption (Rego et al., 2013). However, the political disadvantage is that GPOs prefer working with suppliers with broad product lines rather than singular product lines, which can be a barrier to innovation (Rego et al., 2013). The advantages for the overall supply chain across facilities joining a GPO are numerous. Some examples include: aggregation of usage volumes to enable more favorable terms with suppliers, a reduction of duplicated purchasing efforts, development of purchasing expertise, well-inform selection and rationalized choices, increased economies of scale, and a heightened ability to react to bigger sized emergencies because of the flexibilities of inventories.
and coordination (Rego et al., 2013). The costs of coordination that occur when the GPO size increases are a disadvantage to the overall supply chain (Rego et al., 2013). Overall, the advantages for a healthcare delivery organization to purchase via a GPO far outweigh the disadvantages.

GPOs have proven to be effective in providing value to hospitals or healthcare organizations that participate. They provide this value through decreased supply costs and increased revenues brought into the system. Across the healthcare industry, almost 72% of supply purchases are done through GPO contracts (Yang et al., 2017). In 2012, GPOs generated over $55.2 billion in cost savings for healthcare systems (Yang et al., 2017). Hospitals that contracted through a GPO were able to avoid 44% of the cost associated with items on contract (Abdulsalam & Schneller, 2017). The revenue that hospitals can bring in is through administrative fees that the manufacturer pays back to the facilities that are negotiated onto the GPO contracts. There is a government limitation of 3% of the contract price that GPOs are allowed to collect across each contract (Yang et al., 2017). These administrative fees are typically used to support the operation of the GPO (Yang et al., 2017). In the survey sponsored by AHA and AHRMM, 67% of the respondents stated they were able to obtain revenue through the administrative fees (Burns & Yovovich, 2014). Not only are GPOs saving institutions money on supply costs, but they are bringing in revenue for their facilities as well.

REGIONAL GPO AGGREGATION SOLUTION

Some hospitals and healthcare organizations have taken steps to combat the rising supply costs, but there is still more that can be done. By creating a regional GPO, organizations can produce greater savings by aggregating their purchasing volume with those healthcare facilities around them. The regional GPO will be responsible for negotiating, contracting, benchmarking, and presenting opportunities to the GPO members for cost-saving supply opportunities and standardization decisions to be made. A regional GPO will allow for more standardization than a national GPO does as national GPOs award many manufacturers, but regional GPOs can further standardize to only a few. Standardization is one way to reduce the massive amount spent on supplies as it is estimated to bring between 5 to 7% in savings (Kwon et al., 2016). Having this purchasing power as one larger entity, as opposed to just one facility or system, allows for greater volume discounts to be negotiated for all members in the regional GPO. The more standardization and volume discounts, the more the regional GPO can help address the issue of rising supply costs.

However, for the program to purchase via GPO to be effective, all members of the regional GPO must be part of the same national GPO. Some national GPOs that currently contract with healthcare organizations are: Premier, Healthtrust Purchasing Group, and Vizient. Healthcare executives can utilize services such as
benchmarking and data support to ensure they are getting the best value (Burns & Yovovich, 2014). Benchmarking allows an organization to systematically identify a benchmark and compare the organization’s data to that benchmark, identifying data points where the organization can become the new best-in-class (Ettorchi-Tardy et al., 2012). In this case, benchmark data can compare the prices offered to the regional GPO to the national low, median, and maximum price averages across each product. For example, if the regional GPO receives a quote for a coronary balloon at $200 per balloon, but the national average is $105 per balloon with a maximum price of $200, then this signals that the manufacturer is offering the highest price in the market for the balloon. Now the regional GPO has data to go back to the manufacturer to negotiate with to receive at least the average price, which will save the facilities $95 per balloon. Knowledge of competitive pricing can allow the regional GPO to ensure its purchasing prices are fair within the market. Therefore, total supply cost can be significantly reduced down by means of benchmarking, bringing significant downstream saving opportunities for healthcare organizations contracting with the GPO.

With PPI supplies attributing to such a large portion of a hospital’s supplies expense, it is critical to obtain the best pricing for those items. The AHA and AHRMM survey revealed that over half the organizations participating in a national GPO stated that the organization could get better pricing for PPIs outside of the national GPO, through a regional GPO contract (Burns & Yovovich, 2014). When making decisions around these supplies, physicians consider factors such as the technology of the products, scientific evidence, outcomes in prior patient usage, the longevity of the implant, and the ease of switching to another vendor (Burns et al., 2018). Additional factors include manufacturer’s training program around the devices, a vendor’s reputation, the insurers’ willingness to reimburse the surgeon and hospital, and the cost of the implant (Burns et al., 2018). Sourcing PPIs through a national GPO is complicated due to the extremely varying practice preferences of physicians across different US geographic regions. A regional GPO creates a tighter-knit group of physicians who might already have the same preferences or can more easily discuss the considerations with one another to standardize and drive value in supply pricing. If physicians can agree to standardize in each category, then aggregating the purchasing power in these products will help reduce the cost of PPIs and bring downstream savings to each facility.

Next, effective sourcing strategies must be utilized in order to ensure that all categories can receive a realistic strategy for clinical needs alignment while reducing supply costs. One example of a sourcing strategy includes multisource-- where facilities have the option to purchase from three to five manufacturers in the category. The advantages of a multisource strategy include having multiple vendors in the space, allowing for varying technology and clinical preferences to be fully utilized by physicians, while still reducing the overall number of vendors in each
category. This is a common strategy for PPI categories and reduces costs because vendors compete to become one of the three to five vendors thereby aligning their pricing. However, this strategy is the least likely to provide the highest cost savings. Another example is a dual-source strategy, in which all products within the category must be sourced from two vendors, usually with some sort of market share compliance between the two manufacturers. In a dual-source scenario, manufacturers are willing to offer lower supply costs because they are guaranteed, through a contractual agreement, that they will receive a certain portion of the business. Sole source, which is procuring from one vendor only usually at a high market share commitment, would allow for the greatest financial savings, however, opens the door to some risk if the sole awarded vendor cannot supply the product or has a product recall. Being the sole vendor for the facilities, a vendor will offer their best pricing in the market to the regional GPO. Capitated pricing (CAP), setting a maximum price a manufacturer can charge per product, is another sourcing strategy and is usually used in tandem with multisource or dual-source. A strategy could be an All-Play CAP, where it’s a multisource situation, but all vendors must agree to a price at or below the CAP set by the regional GPO. The same would be said for a dual-source CAP, where the awarded two vendors have to meet CAP. Each category, such as peripheral vascular, spine implants, or bone cement, will utilize a different strategy depending on what works best for the clinical team. For example, peripheral vascular stents and balloons is a PPI category and would likely use an All-Play CAP strategy to bring in savings because different physicians prefer different products, however, bone cement could utilize a sole source strategy because there are not too many clinical differences between competing products and the decision would be made based more on costs.

To obtain information from as many vendors as possible in each category, the regional GPO should send out a Request for Information (RFI). An RFI will allow vendors to submit their products, clinical information surrounding the products, and the vendor’s experience with similar hospitals or healthcare organizations (McLaughlin & Olson, 2017). From there, the number of vendors in each category can be reduced based on the responses and what the needs are for the regional GPO members (McLaughlin & Olson, 2017). Utilizing the sourcing strategy that aligns with clinical needs for the category, the regional GPO can then send out a formal Request for Proposal (RFP) to the reduced vendor list (McLaughlin & Olson, 2017). The RFP will be asking each vendor for their best proposal or bid that will be used to decide on which manufacturers are awarded the business in the category, based on the sourcing strategy. Knowing that the RFP was sent to many of their competitors, vendors are likely to submit their best pricing to gain or keep the business. These sourcing strategies address the issue of increasing supply costs by making sure that facilities elect to award vendors with the lowest pricing while also
having the clinical information on hand to ensure there is still a high value for the patients.

Lastly, involving physicians or other clinical staff involved in the supply decision-making process will result in lower costs. There are several factors that contribute to this. One being that, especially for PPIs, physicians work very closely with the manufacturers and can help guide discussions with them that will bring value to the table. If a manufacturer is stating that their prices are higher due to technological advances, but the physicians do not agree, then they can provide the vendor with clinical feedback as to why those advances do not warrant a higher price. Without that clinical input, the vendor could get away with charging a higher price. Another reason for physician involvement is because allowing clinical input upfront will likely result in higher contract compliance for those agreements with market share requirements (Thill, n.d.). The end-users must be comfortable using the products, otherwise, it is ineffective to negotiate and contract for lower pricing on items that staff will not use (Thill, n.d.). Having the pricing data prepared for the physicians allows them to see which vendors are offering lower pricing and decide if standardizing to one, two, or multiple manufacturers will bring the most value based on their needs. Allowing physicians to decide on any market share commitments will also allow for greater contract compliance in the future because they were involved with making that decision and are comfortable with that vendor’s products. Being compliant on contracts results in lower costs as manufacturers are more willing to provide better pricing and will not increase prices due to the use of a competitive product.

IMPLEMENTATION PLAN

There is a need for team effort for regional GPOs to successfully control rising supply costs. The team includes several members from the organizational structure of the healthcare organization—1. Director of Supply Chain, 2. Director of Clinical Value Analysis, 3. Contracts team, 4. Clinical Analyst team, 5. Analytics team, and 6. Chief Executive Officer,

The Director of Supply Chain of the organization creating the regional GPO will need to spearhead this initiative alongside the Director of Clinical Value Analysis. Those positions will need to work together to gather the proper team, build out a Contracts department, a Clinical Analyst team, and an Analytics team. The Director of Supply Chain will oversee all GPO contract negotiations and will manage the Contract and Analytics team. The Contract team will be responsible for negotiating directly with the manufacturers and the Analytics team will pull spend-reports for all facilities in the GPO and track any associated savings with the contracts. The Director of Clinical Value Analysis will supervise the Clinical Analysts, ensure all regional GPO facilities have the proper clinical representation involved in the
decision-making process and approve the clinical acceptability of all products contracted through the GPO. The Clinical Analysts will scrub the spend reports to ensure all spend pulled is for the appropriate categories and will facilitate all meetings with decision-makers. Lastly, the Director of Operations will be responsible for recruiting local hospitals to join the regional GPO and implement all on-boarding processes to ensure a smooth transition for any new member.

To begin, the Director of Supply Chain should receive final approval from the hospital’s Chief Executive Officer (CEO) for establishing the regional GPO, demonstrating the CEO the benefits and effectiveness of cost reduction through GPOs. Once approved, the Director of Operations should recruit local hospitals to join the GPO. This part of the implementation plan will always be ongoing, as growing the regional GPO will give the team more purchasing leverage with the manufacturers. While that is happening, the Director of Supply Chain and Director of Clinical Value Analysis should get a firm handle on any existing contracts, begin creating the structure of the different clinical sub-teams needed to make decisions, and hiring personnel for their teams. Once the sub-teams are finalized, expectations and timelines should be sent to the teams so that the bi-monthly sub-team meetings and decision-making process can begin. At the end of the projected eight months start-up timeline, all teams should be fully staffed, the role and responsibilities explained to all teams involved, and the contract process should be ready to start.

The sub-team decisions and resulting contracts will be broken down by departments, such as: Imaging, Operating Room, Cardiology, Pharmacy, etc., and then even further by product category. Examples include contrast media and mammography categories within Imaging and thrombectomy and hemostasis and vascular closure devices for Cardiology. Within these sub-teams, there should be bi-monthly meetings per team, facilitated by the Clinical Analyst and Contracts teammate, with clinical representation and a Materials Management representative of each facility participating in the regional GPO to discuss the supply categories and where all facilities are in terms of total spend and which manufacturers they are currently using. In these meetings, clinical staff will have an opportunity to provide product feedback on the supply products used and give direction as to the sourcing strategy the Contracts team will move forward with to bring value to all facilities. For PPI products, the Clinical Analyst and Contracts teammate should hold a meeting directly with physicians who utilize these products as they will more closely dictate the exact products that will be used. After each sub-team meeting, each facility will submit a vote, via an electronic voting ballot, as to which manufacturers they want to contract with and the appropriate sourcing strategy moving forward.

Using the direction provided in the votes submitted, the Contracts team will engage with the manufacturers to contract at the regional GPO level to bring the best value to the team. This can include any RFI or RFPs. The Contract team should benchmark
all prices submitted to ensure that those prices are aligned with the market and facilities are not being overcharged. These contracts should include a term length that is between two to three years to allow for any new technology that might enter the market during the next couple of years. The pricing should also be fixed and firm for the term of the agreement so that all facilities can use those prices to plan for their supply budget over the next couple of years. Fixed and firm pricing will also fight against the increases that manufacturers typically take every year. If the sourcing strategy is for a dual-source or sole source, then commitment language will need to be added into the contract, with a chance for facilities to remedy if the commitment is not met. Additionally, an administrative fee of up to 3% should be negotiated into the contract so that the GPO can bring in revenues to help cover the cost of maintaining contracts. Once these contracts are in place, the teams will begin the cycle of reviewing and renewing these agreements as it reaches the term date and starts the sub-team evaluation process all over again.

The last and most crucial part of the implementation plan is to set GPO savings goals every year. These should be realistic goals set by the Director of Supply Chain that will lay out which product categories will be up for renewal within each year based on the contract term dates and how much projected savings the GPO can achieve based on the projected sourcing strategy. For example, if a large category such as a PPI project for Cardiac Rhythm Management (CRM) is up for review, then a vendor reduction strategy to drive value might not be possible but the Director still estimates that the GPO can achieve a 3% savings on the category based on benchmark data, then the savings goal should include 3% of the total CRM spend. Once negotiations are finalized and the final savings have been recorded, the Analytics team will be responsible for tracking the realized savings. This is how the GPO effectiveness will be monitored and how to track if each facility is purchasing from the appropriate vendors given their prior direction and votes. If at any time, the realized savings is substantially off from the projection and facilities are not compliant with the contracts, then the team can discuss during their bi-monthly meetings and either come up with a plan to get back on track or revise the original plan based on current clinical needs.

CONCLUSION

Medical and surgical supply costs are a rising proportion of hospitals’ operating costs (Definitive Healthcare, 2021). As hospitals continue to face budgetary constraints, controlling supply costs becomes a potential opportunity. Supply costs vary across several factors such as service lines, hospital size, chain affiliation, and region. Our study proposes that to combat these rising supply costs, healthcare organizations need to create regional GPOs to aggregate their supply spend and reduce the overall amount each facility spends on materials. Additionally, the alignment of the product purchasing contracting team should include both clinical
and non-clinical representation to ensure highly regarded decision-making skills in the areas of contracting and cost-reduction. By negotiating costs with manufacturers, regional GPOs can reduce the financial burden for the healthcare organizations through GPO contracts.

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HURRICANE KATRINA’S EFFECT ON OIL COMPANY STOCK PRICES: A TEST OF MARKET EFFICIENCY

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Longwood University

ABSTRACT
This study tests market efficiency by investigating the effect on oil company stock prices caused by the landfall of Hurricane Katrina. We should expect that oil firms with significant investments interests in Katrina’s path would have negative stock price returns in a certain time frame. Ten oil companies’ stocks with significant interests in the Gulf of Mexico are analyzed to determine the effect of Hurricane Katrina on stock price’s risk adjusted rates of return before and after event date of August 23, 2005. Results show that stock prices began to drop significantly before the hurricane made landfall, displaying the market’s semi-strong form of efficiency. Statistical tests show that the information about the storm made significant impacts on the difference between the actual average rates of return of the sample stocks and the corresponding risk adjusted average expected returns. Results shows that oil company stock price returns started a downturn at least nine days before Hurricane Katrina made landfall.

Key Words: market efficiency, hurricane, event study

INTRODUCTION
Natural disasters affect the stock market and have significant impacts. This study examined how fast the market responded to such a disaster. If the market can impound all the available information, then the stock markets may be a possible predictor of how much devastation the population can expect. This study examines the market’s ability to obtain and analyze the information to predict the impact of Hurricane Katrina by analyzing the risk adjusted rate of return of the ten selected oil companies.

Hurricane Katrina was one of the worst disasters in US history causing an estimated 1,800 people to lose their lives and 125 billion dollars worth of damage. Katrina moved towards land as a category 5, but weakened to a category 3 when it made landfall through the Gulf, with winds peaking at 175 mph (Reid, 2020). As was expected, the aftermath was devastating for
many, specifically the oil companies who had operations in the Gulf. Katrina had one of the largest impacts on the US economy that created a devastating loss of millions for many companies. The purpose of this study is to analyze the risk adjusted rate of return for the event period as defined as the 30 days before landfall and 30 days after the event on August 23, 2005.

LITERATURE REVIEW

When a disaster is expected to hit the US, some research will predict that the stock market will have a devastating negative trend when actually it has a positive trend. For example, when hurricane Irma hit it caused for the largest evacuation in history, yet stock prices were increasing. The predictions of the expected damage were higher than what actually happened, resulting in less economic impact (Archer, 2017). The same upward trend happened after Katrina and even though it was one of the costliest hurricanes in US history, stock market performance recovered very quickly.

Days after Katrina hit, President Bush urged Americans to carpool and cut all non-essential travel to conserve gasoline (Brown, 2005). The storm had disrupted the capacity to make and distribute gasoline. Bush announced the decision to release oil from the nation’s Strategic Petroleum Reserve to help the refineries that were flooded, destroyed, or struggling from the storm (Bush, 2005). Even though this immediate decision was made, stock prices for oil companies such as Exxon Mobil, Apache, and Anadarko all had spiked. This was a very short-term spike, making investors understand that disasters tend to have short-term effects on stock prices (Bromels, 2017). These firms are in high demand for their products so they can expect to see above average returns for the period after the hurricane until supply and demand are stabilized. Katrina drove oil prices up due to the damage resulting in many of the refineries having to close. Firms who were struggling from the storm saw negative trends in their stock prices because they are responsible for repairing their own machines (Ro, 2017).

METHODOLOGY AND STUDY SAMPLE

This study sample in Table 1 includes ten different oil and gas refining companies located in the Gulf that were potentially impacted by Hurricane Katrina. Some of these firms are the largest in the industry, but they all suffered direct effects from Hurricane Katrina. The stock price reactions of the companies to Hurricane Katrina, with the event date of August 23, 2005, are tested in this study. The event period includes the stock prices for 10
sample firms and the S&P 500 for 180 days prior to the event and 30 days after the event.

**Table 1. Description of Sample**

<table>
<thead>
<tr>
<th>Ticker</th>
<th>Firm Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>COG</td>
<td>Cabot Oil &amp; Gas Corporation</td>
</tr>
<tr>
<td>APA</td>
<td>Apache Corporation</td>
</tr>
<tr>
<td>COP</td>
<td>Conoco Phillips</td>
</tr>
<tr>
<td>DVN</td>
<td>Devon Energy Corporation</td>
</tr>
<tr>
<td>MRO</td>
<td>Marathon Oil Corporation</td>
</tr>
<tr>
<td>RRC</td>
<td>Range Resources Corporation</td>
</tr>
<tr>
<td>XOM</td>
<td>Exxon Mobil Corp</td>
</tr>
<tr>
<td>BP</td>
<td>BP</td>
</tr>
<tr>
<td>RDS-B</td>
<td>Royal Dutch Shell</td>
</tr>
<tr>
<td>CVX</td>
<td>Chevron Corporation</td>
</tr>
</tbody>
</table>

To test market efficiency, especially for oil companies, in response to landfall of Hurricane Katrina and the time period surrounding its landfall, this study presents the following null and alternate hypothesis:

- **H₀**: The risk adjusted rate of return of the stock price of the sample oil firms is not significantly affected by the event.
- **H₁**: The risk adjusted rate of return of the stock price of the sample oil firms is significantly affected by the event.

Using the standard risk adjusted event study methodology in the finance literature, this study tests the market’s response to the event date August 23, 2005, the landfall of Hurricane Katrina. The required historical data, the stock price and S&P 500 index over the event period, was collected from the Internet website https://finance.yahoo.com.

1. The historical stock prices of the 10 sample companies and the S&P 500 index were collected for the event study duration of -180 to +30, with the event period being defined as -30 and +30 days around the event date of 0.
2. Holding period returns of the companies (R) and the corresponding S&P 500 index were calculated using the following formula:

\[
\text{Current Daily Return} = \frac{(\text{current day close price} - \text{previous day close price})}{\text{previous day close price}}
\]

Using the holding period returns, a regression analysis was performed with the actual daily return for each company as the dependent variable and regressing it on the corresponding S&P 500 Index, the independent variable. The analysis was done over the pre-event period (day -180 to day -31) to obtain the intercept alpha and the standard coefficient beta. Table 2 shows the alphas and betas for each firm.

### Table 2. Stock Sample’s Alphas and Betas

<table>
<thead>
<tr>
<th>Firm Name</th>
<th>Alpha</th>
<th>Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>COG</td>
<td>0.0022779</td>
<td>1.44713665</td>
</tr>
<tr>
<td>APA</td>
<td>0.001631267</td>
<td>1.166599914</td>
</tr>
<tr>
<td>COP</td>
<td>0.001968086</td>
<td>1.272783733</td>
</tr>
<tr>
<td>DVN</td>
<td>0.002391239</td>
<td>1.183839626</td>
</tr>
<tr>
<td>MRO</td>
<td>0.002527296</td>
<td>1.21577724</td>
</tr>
<tr>
<td>RRC</td>
<td>0.003415795</td>
<td>1.2583247</td>
</tr>
<tr>
<td>XOM</td>
<td>0.000883446</td>
<td>1.404519172</td>
</tr>
<tr>
<td>BP</td>
<td>0.000636755</td>
<td>0.863548405</td>
</tr>
<tr>
<td>RDS-B</td>
<td>0.000746971</td>
<td>0.755067751</td>
</tr>
<tr>
<td>CVX</td>
<td>0.000915865</td>
<td>1.105795643</td>
</tr>
</tbody>
</table>

3. The risk adjusted (market model) method was used to calculate the normal expected returns. The expected returns for each stock, for each day of the event period were obtained with the formula:

\[
E(R) = \alpha + \beta (R_m)
\]

\[R_m= \text{return on the market calculated with the S&P 500 index}\]
4. Then, the excess return (ER) was calculated as:
\[ ER = \text{actual return} - \text{E(R)} \]
5. Average Excess Returns were found for each day by averaging the Excess Returns for each firm on a given day.
\[ \text{AER} = \frac{\text{Sum of Excess Returns}}{n} \]
N = number of sample firms (10)
6. In addition, cumulative AER was calculated by adding the AERs for each day of the event period, days -30 to +30.
7. For the event period, graphs of AER and CAER were plotted to show their movement over time. Figure 1 models AER plotted against time, and Figure 2 models CAER plotted against time.

**QUANTITATIVE TESTS AND RESULTS**

Did the hurricane have an effect on the market making the information surrounding the event significant? In the past, the market has reacted to events similar to the hurricane. Consequently, one would expect a significant difference between the actual average daily returns during the event period of day -30 to day +30 and the risk adjusted expected average daily returns during the same time period. A significant difference supports the hypothesis that the risk adjusted rates of return around the event date are affected by the event. In order to test for the difference, a paired sample t-test is conducted. The results of the test show there is a significant difference at the 1% level of significance between the actual average daily return and the risk adjusted average expected returns. As a result, hypotheses H1 and H2 are supported because there is significant evidence that the risk adjusted rates of return on and surrounding the event date are affected by information about the event. With this information, we can conclude that information about the event caused stocks to react, thus making Katrina impactful.

Another reason for this test was the answer the question, “Did the market show weak, semi-strong, or strong market efficiency?” The key to finding this answer was to examine the AER (Average Excess Return) and CAER (Cumulative Average Excess Return) in both a statistical test and graphs. Using a T-test, it is possible to find if the AER and CAER deviate from zero. After conducting the tests, it confirmed that the AER and CAER are significantly different from zero, at the 1% level of significance. When observing the CAER it confirms that starting at approximately Day -9, there is a visible negative trend in the CAER, showing that the information about the hurricane affected the stock price prior to the event date of August 23, 2005.
Figure 1: Average Excess Returns Over the Event Period

Figure 2: Cumulative Average Excess Returns over the Event Period
CONCLUSION

This study examined the effect of Hurricane Katrina on the risk adjusted rate of return for a sample of 10 oil firms’ stocks that were affected by the event. After conducting the appropriate statistical tests, results confirmed that information about Hurricane Katrina had a significant negative effect on the risk adjusted rate of return of the sample’s stock prices. Specifically, the results show the stock returns dropping significantly prior to the hurricane reaching land. Graphically, the CAER drops at least nine days before the hurricane made landfall on August 23, 2005. We can conclude that the market is reacting with semi-strong efficiency because the stock prices began to drop in reaction to information regarding the hurricane’s expected damage. Although the selected stocks experienced temporary decline, the CAER shows that there was a positive trend that happened during reconstruction, after the hurricane had diminished.

REFERENCES


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PATIENT READMISSION RATES: 
THE FUTURE OF THE HOSPITAL 
READMISSIONS REDUCTION PROGRAM

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Abstract
Hospital patient readmission has become one of the most critical quality outcome measurements alongside mortality and complication rates (Goldfield, 2010). Hospital patient readmissions are defined as "a hospital admission that occurs within a specific time frame after discharge from the first admission" (Upadhyay et al., 2019). Hospital performances often feature patient readmission because it is a good indicator of quality health care (Goldfield, 2010). Annually, the cost of readmissions to the health care system is estimated to be 17.4 billion for Medicare (Kripalani et al., 2014). Unfortunately, approximately 18% of Medicare patients are expected to be readmitted within 30 days (Donze et al., 2016). Robinsons & Hudali (2017) denote that increased readmission have been diversely identified, such as age, race, having a personal health care provider, major surgery, medical comorbidities, length of hospital stay, previous admissions in the last year, failure to transfer information to the outpatient setting, early discharge, and the number of medications at discharge. Therefore, to improve hospital patient readmission, the Centers for Medicare & Medicaid Services started to publicly report readmission rates in 2009 (Bhatta & Kalhut, 2010). While there are unavoidable readmissions, such as chemotherapy, some readmissions are preventable, and thus the rate of readmission is a cause for concern as it indicates healthcare waste that can be avoided (Zhang et al., 2020).

Key words: hospital readmission rates mortality rates, complication rates, HRRP, intervention through continuum

LITERATURE REVIEW
Beginning October 1, 2012, under the Patient Protection and Affordable Care Act, the United States Department of Health and Human Services and Centers for Medicare & Medicaid Services established Hospital Readmissions Reduction
Program (HRRP) to reduce high hospital patient readmissions rates (CMS, 2020). While there is no national method that aims to reduce readmission for all insurance types (Medicare, Medicaid, and private), HRRP, created to target Medicare patients, impacted other types of insurance types (Ferro et al., 2019). Research has shown a decline for Medicaid with certain medical conditions after implementing HRRP (Ferro et al., 2019). The program’s foundation is linking payments to the quality of hospital care, such as imposing financial penalties to hospitals with higher than standard readmission rates (CMS, 2020). The maximum penalties were set at 1%, 2%, and 3%, respectively, in 2013, 2014, and 2015 (McIlvennan et al., 2015). Ferro et al. (2019) reported that Medicare penalties are roughly 2 billion under HRRP. Supplementary reports reveal that the penalties have a statistical mean of 200 thousand per hospital (Hoffman & Yakusheva, 2020). Thus, all hospitals are encouraged to improve their care coordination to reduce avoidable readmissions by engaging patients and caregivers in the post-discharge process (CMS, 2020).

Under HRRP, the following conditions or procedures are used in the excess readmission ratio (ERR) to assess hospital performance. They are acute myocardial infarction, chronic obstructive pulmonary disease, heart failure, pneumonia, coronary artery bypass graft surgery, elective primary total hip arthroplasty, and total knee arthroplasty (CMS, 2020). “ERR measures a hospital’s relative performance and is a ratio of the predicted-to expected readmission rates” (CMS, 2020). When measuring the readmission rate, age, sex, and co-existing conditions are used to adjust the measurements (McIlvennan et al., 2015). However, socioeconomic status is excluded (Ferro et al., 2019). According to HRRP, all unplanned readmissions within 30 days of discharge are included, regardless of the principal diagnoses, but only "excluded some planned readmissions" (CMS, 2020). Although meant to be an approach to tackle high hospital patient readmission rates, struggles that hamper the success of such efforts have been cited after the implementation of HRRP.

**FALSE POSITIVES**

Policymakers have been pushing to expand the HRRP for all conditions treated in hospital settings; however, clinicians and researchers disagree (Wadhera et al., 2019). The following are limitations that demonstrate how the HRRP does not measure certain factors, why HRRP should not be the only indicator for reducing hospital patient readmission rates, and why other strategies and initiatives are encouraged.

The first concern is that HRRP only includes inpatient hospitalizations; therefore, observation stays and emergency department visits do not count as readmissions (Wadhera et al., 2019). Hence, this loophole creates a blind spot for the patient readmission but does not count as such (Wadhera et al., 2019). For example,
readmissions can extend beyond 30-day without a penalty (Gupta & Fonarow, 2018). In other instances, providers will be more inclined to admit patients under different readmission statuses to manipulate the rates. The care provided will be different than intended, and hospitals might be inclined to pursue this path to avoid a high readmission rate, negatively affecting patients' care.

The second concern is regarding penalties; the penalty for readmission is higher than mortality. Studies show an inverse relationship between readmission and mortality measures, at least in terms of one of the HRRP medical conditions, heart failure (Ferro et al., 2019). In a sense, an unfair weight is put upon hospitals that keep their patients alive with readmissions, as they are penalized more than hospitals that let patients leave and end with higher mortality rates (Wadhera et al., 2019). These cases show that the HRRP is inadequate in addressing hospitals' performance, but it could also be creating more disturbance in the healthcare system. A system in which favors patient mortality over patient readmissions cannot and should not be justified.

The third concern is that the current model for risk factors of readmission is inept. The model performs poorly at predicting events (Wadhera et al., 2019). Furthermore, Thompson et al. (2016) demonstrate that the reliability of risk-standardized readmission rates for medical conditions is limited. Within healthcare, complicated situations occur, and the current system does a poor job of adjusting the rates; therefore, the positive results seen with the HRRP in its early days are questionable and should be viewed under scrutiny. In addition, such limitations will also pose a setback to the success of HRRP.

The fourth concern is that the initial success of HRRP is overly emphasized, as, in the early days of implementation, hospitals quickly identified root causes of readmission to address the impending penalties that would be coming due to hospital performances (Gupta & Fonarow, 2018). As previously discussed, admitting patients with different statuses (observation, emergency) could improve readmissions and avoid financial penalties (Gupta & Fonarow, 2018; Wadhera et al., 2019) but causes a disturbance in the quality of care provided.

**DISCUSSION**

**Interventions through Care Continuum**

Different transitional care interventions across the United States have been executed to reduce the hospital patient readmission rates, such as Comprehensive Discharge Planning, Care Transitions Intervention, and Re-Engineered Discharge (Kripalani et al., 2014). The mentioned interventions have several elements in common, like a designated nurse for the stay at the hospital, follow-up procedures via phone calls after discharge, medication reconciliation, and patient education (Kripalani et al., 2014). Although these interventions appear to address many areas of the care
continuum, the interventions were observed and studied at different periods and identified that a multi-approach would be more likely to significantly reduce patient readmission than a single intervention approach (Kripalani et al., 2014). Therefore, a more significant and well-thought-out care intervention with multiple components is recommended to reduce hospital patient readmissions.

**Focused Core Strategies**

Warchol et al. (2019) has noted the following core strategies for reducing readmission: population health, hospital operations, patient interactions, leadership and mission, and barriers to reducing readmissions. Under population health, strategies include; patient education and the development of community approaches to healthcare (Warchol et al., 2019). For hospital operations and patient interactions, multidisciplinary teams, post-acute services, and monitoring are recorded (Warchol et al., 2019). In leadership and mission, it is essential to set a mission and vision and enable members and reduce barriers (Warchol et al., 2019). Lastly, barriers to reduce readmissions include social factors, patient compliance, and access to care (Warchol et al., 2019).

**Balancing Scale of Penalties**

Various recommendations to improve the readmission rates suggest enforcing weighted penalties according to the timing of readmissions (McIlvennan et al., 2015). Earlier readmission within the first few days should be penalized instead of readmission in 30 days as the patient's underlying severity of the disease should not be used to assess the hospital's performance. Quicker readmission would indicate poorly coordinated healthcare in the discharge process (McIlvennan et al., 2015). Perhaps a sliding scale of readmissions should be implemented. For example, a patient readmitted within 5, 10, 15, 20, 25, 30 days should be penalized accordingly, with the earliest readmission being dealt out higher penalties and descending as more days pass before readmission.

**The Good and the Bad**

HRRP exhibited substantial improvement in the reduction of readmission within the time it was first implemented; however, Shameer et al. (2017) has reported that in 2015, 2,592 out of 5,627 hospitals, approximately 46%, in the nation received penalties for failing to tackle its own high hospital patient readmission rates. The data suggest that although hospitals are being tracked in terms of high readmission rates, they are not doing what is necessary to address the issue. Although financial penalties meant to motivate hospitals and leaders to shape up and improve health care for their patients may have the opposite effect. As mentioned previously, hospitals could be prioritizing incentives over the quality, safety, and health of their patients (Gupta & Fonarow, 2018). The system has created a perfect storm in which
people become tempted to find loopholes to survive, and in the end, the ones to suffer the consequences would be the patients, whether it be a delay in providing care, inappropriate delivery of care, or other forms of trade-offs to reduce the penalties accumulated.

Furthermore, hospitals that serve more minority patients have higher readmission rates than others and receive higher penalties (Joynt et al., 2014). Due to already limited resources, variety of inpatient needs, limited influence in the community, and misalignment of financial incentives, these hospitals face additional challenges in reducing readmissions (Joynt et al., 2014). Therefore, hospitals with lesser resources will be more negatively affected because of the limited ability to tackle the issue and get further penalized, putting them in a worst stance than before (Hoffman & Yakusheva, 2020). In addition, socioeconomic status is a determinant of health and is involved in the process of care (Zhang et al., 2020). Hence, certain patients are more prone to being readmitted. Thus, socioeconomic factors should be adjusted according to the HRRP to reflect more accurate results that do not solely blame hospitals for failing to adhere to the national guidelines and have excess readmissions. While most hospitals place a high priority on addressing high readmission, the understanding of their own hospital's performance is limited, and the impact it has on hospitals is that it can force leaderships to address the issue head-on, but without adequate strategies to respond to the specific needs of those hospitals (Joynt et al., 2014).

**Solution**

After reviewing the literature, and strategies implemented at the federal, state, and local levels, several factors have been evident in reducing hospital patient readmission. Therefore, future efforts to improve readmission can be modeled accordingly. Three extensive processes need to be addressed to modify the current HRRP: (1) the shortcomings of current assessment measurements, (2) differing financial incentives, and (3) the creation of a recommended set of nationwide models and tools to be used to assist in the reduction in patient readmission that includes discharge process and follow-up.

**Assessment Measurements Inadequacy**

Several factors that decrease patient readmissions include addressing the current state of the assessment measurements. Some issues gave rise to the need to standardize how observation and emergency visits affect readmission. Factoring in mortality in the adjustment of readmission rates accounts for socioeconomic factors associated with readmissions, adjusting penalties according to days after readmission, modifying the current risk assessment factors, and addressing how community-related strategies can help reduce readmission. Guidelines that clearly define how observation and emergency visits are classified should be included in the
new assessment. Patients returning to the hospital within 30 days with exacerbated signs and symptoms should be classified as readmission. Plus, the inclusion of mortality rate should be thoroughly defined as to how it would be adjusted regarding readmission rates and perhaps a more reasonable penalty for high readmission versus high mortality. Similarly, patient demographics of different hospitals and socioeconomic factors affecting high readmissions should also be integrated into the new measurements.

Financial Incentives

Hospitals should be penalized for bad performance, but hospitals performing well should also be rewarded according to their reduction rates. The details regarding this inducement can be further fleshed out if it gains momentum. At the very least, this method should encourage continual improvement in reducing patient readmission instead of the one-sided penalties implemented.

Nationwide Guideline

While no model and tool would fit every hospital in the nation, a more standardized process would be easier to adopt and adapt by providing a guideline that creates the framework to reduce hospital patient readmission. Models such as the Transition in Care Framework, screening or prediction tools like HOSPITAL scores, and discharge tools like the Re-Engineered Discharge (RED) should be used as the standards moving forward since each component has been shown to have a positive correlation to reducing hospital patient readmission. Rather than only implementing one part of the guideline, similarly to the current situation, an all-encompassing component that includes a recommended model, screening, and discharge tool should be used concurrently to produce the maximal expectant positive results.

Framework

Backed by the linkage to the efficacy of hospital patient readmission rates, a guideline known as the Ideal Transition in Care framework should be used as a basis for transition care from hospital to patient (Kripalani et al., 2014). This multi-component approach combines multiple models to standardize the procedures in which the continuum of care is integrated like continuous links on a chain (Kripalani et al., 2014). The framework follows the sequence of discharge planning, thorough communication of information, availability, timeliness, clarity, and organization of information, medication safety, educating patients to promote self-management, enlisting the help of social and community supports, advance care planning, coordinating care among team members, monitoring, and managing symptoms after discharge, and outpatient follow-up (Kripalani et al., 2014). The framework provides a basis for implementing the protocols to reduce readmission and improve quality health care. However, it is essential to note that the number of components also
correlates to its effectiveness, which supports that more robust, well-thought-out models will be more likely to have greater effectivity (Kripalani et al., 2014).

Screening Tools

The international HOSPITAL score is a screening tool used as a clinical predictor in identifying high-risk patients for patient readmissions within 30 days (Robinsons & Hudali, 2017). The following predictors are included in the HOSPITAL score at discharge, "hemoglobin, discharge from oncology services, sodium level, procedure during the index admissions, index type of admission (urgent), number of admissions during the last 12 months, and length of stay" (Donze et al., 2016).

Several studies (Robinsons & Hudali, 2017; Donze et al., 2016) endorse that the HOSPITAL scores have good discrimination ability and calibration for predictions and are preferable to the LACE score, another popular similar prediction model. The LACE index utilizes four variables to predict the risk of non-selective 30-day readmission after discharge (Robinsons & Hudali, 2017). The variables are the length of stay, acuity of admissions, patient comorbidity, and emergency department use in the 6-month duration before readmission (Robinsons & Hudali, 2017). As such, a study showed that HOSPITAL scores can be calculated before discharge and has been cited as being excellent for identifying patients at high risk of 30-day potentially avoidable readmission in a large cohort while LACE is not (Donze et al., 2016; Robinsons & Hudali, 2017).

Discharge Tools

The Re-Engineered Discharge (RED) toolkit is a nationwide discharge program that has been established to be effective against all 30-day readmissions (Mitchell et al., 2016). The Agency for Healthcare Research and Quality noted a 25% decreased in 30-day readmission with the implementation of RED (Agency for Healthcare Research and Quality [AHRQ], 2020). RED, the screening tool, addresses the following factors: delayed transfer of discharge summary, unknown test results, lack of follow-up, and medicine reconciliation (AHRQ, 2020). The component of RED includes: making appropriate follow up care appointments, plan for follow up results that are pending at discharge, organize post-discharge outpatient services and medical equipment's, identify medicines and plan for obtaining it, reconcile discharge plan with national guidelines, teach a patient-level discharge plan, educate patient about diagnoses and medicines, review actions if a problem arises, assess the degree of understanding of the discharge plan, expedite the transmission of the discharge summary to clinicians, provide telephone reinforcement of discharge plan and ascertain the need for language assistance (Mitchell et al., 2016). However, the successful implementation of RED requires high visible commitment from senior leadership, empowered interprofessional team, established methods for sharing
results and assessing accountabilities, buy-in from staff and stakeholders, and flexible in-house IT support (Mitchell et al., 2016).

Beyond the HRRP

The HRRP cannot immediately address the high hospital patient readmission rates as multiple areas need improvement. In addition to relying on the HRRP, population health can be expanded to include strategies that approach healthcare via local and community methods. Socioeconomic status is often neglected as part of the care continuum (Warchol et al., 2019). Inability to afford proper nutrition can also increase the high readmission rates for specific patient demographics. Barriers to reducing readmission can be tackled by connecting patients in need with proper resources to influence their health. Perhaps seen as a given, a leadership and mission goal that focuses on forming strategies and initiatives to address high hospital patient readmission rates is often discussed but not practiced (Warchol et al., 2019). Hospitals are often tasked with various missions; while tedious, it is crucial to remember that readmissions should be approached proactively as the high hospital patient readmission rates reflect on the hospital performances and other aspects such as contributing to healthcare waste.

The Future of Readmissions Concerns

Literature confirms that hospital patient readmission rates hamper quality health care and negatively affect our nation's financials. The current strategies do produce an improvement in reduction; however, the nation has since found itself at a languid pace, in which we are unable to surpass the current level of reduction. Although high-level quality evidence for any interventions that could be implemented nationally has not been mentioned, it is for the interest of the United States that we revamp the current HRRP to be more effective and sustainable. By addressing the concerns of the program, we can better avoid early readmissions, reduce cost, improve overall health care quality and patient care. As readmission rates improve, so do hospital performances, and therefore the national average also heads towards a more positive direction. Hence, hospitals must continually improve themselves to be better than the mean of the nation's readmission status and be more accountable to their patients. While the HRRP does not require implementing specific strategies to address high readmission, it is to the advantage of the patients that HRRP spends more time researching a nationwide plan that could be used as a basis when looking to improve readmission. The differences in interventions, methods, techniques, tools, and models can all be used effectively, depending on the which hospital and how well they are received.

In conclusion, the solutions with recommended guidelines were created to improve the current HRRP and provide more evidence-based strategies recognized to have a positive impact on readmission and can be used as national strategies. However, the
HRRP should not be seen as an all-or-nothing solution as it has been shown that to combat high readmission rates, different stakeholders have a fair share of responsibilities. From direct providers to patients and all related healthcare personnel, each stakeholder needs to do their part to ensure that proper processes are being carried out to prevent avoidable readmissions. Whether leadership with a distinct mission or provider's ethical responsibilities to patient compliance, each factor will be directly correlated to readmission rates.

REFERENCES


FALSE BELIEFS AND THE ILLUSION OF EXPLANATORY DEPTH

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ABSTRACT

The purpose of this paper is to connect the concepts of false beliefs and the illusion of explanatory depth while simultaneously signaling an alarm about the level and negative consequences of false beliefs. Illusion of explanatory depth is a false belief about our own explanatory knowledge and has been demonstrated in many mechanical domains, a few natural domains, and a couple of social-cognitive domains. In this paper an argument will be made that holding false beliefs is a common phenomenon and that, while some false beliefs provide benefits, many false beliefs are problematic. False beliefs and the illusion of explanatory depth interact reinforcing each other. There are some things we can do to try to correct our own false beliefs and illusions of explanatory depth. Several managerial implications are provided.

Keywords: Illusion of Explanatory Depth, False Beliefs, Decision-making, Cognition

INTRODUCTION

False beliefs are not uncommon. We all have false beliefs. Many of our false beliefs are beneficial to us and that may help explain why they are so common. We will briefly explore the beneficial aspects of false beliefs in this paper. However, many of our false beliefs are far from beneficial. False beliefs are often the main contributors to many disastrous courses of actions such as business spending that yields no results, poorly made employment decisions, the creation and distribution of faulty products and services. Changing the focus from the business level to the individual level of perspective, we see that false beliefs can be even more devastating for individuals. Individual sometimes ruin life-long relationships because of false beliefs. Many of life’s worst decisions are based on false beliefs. On January 6th, 2021, thousands of people were propelled by their false beliefs in a “stolen election” to commit terrible crimes against a country they allege to love. How can these types of things happen? It has to do with the all too often heavy consequences of false beliefs. Most of the literature on false beliefs is about children. Most of the very important consequences related to false beliefs is connected to adults with false beliefs. We need more understanding of false beliefs.
held by adults. This paper explores many facets of how and why we often have the illusion of explanatory depth and false beliefs.

ILLUSION OF EXPLANATORY DEPTH

Rozenblit and Keil (2002) contend that people like to think they can explain the world they live in. The naïve intuitions that people have about how things work are rarely questioned because they don’t really have to explain them to anyone. People have limited knowledge about most phenomena and, furthermore, have poor knowledge about their knowledge (intuitive epistemology). These combine to create the illusion of explanatory depth. According to Rozenblit and Keil (2002, p.521.), the illusion of explanatory depth basically means that people often think they know “complex phenomena with far greater precision, coherence, and depth than they really do.” The word “illusion” implies a broader, more general enduring pattern of error or bias that is not a short-term oversight or mistake or distortion unlike the terms “error” or “bias” confer (cf. Funder, 1987; Taylor & Brown, 1988). The illusion of explanatory depth is, basically, a pattern of believing that we know how things work. It is a pervasive belief that we understand and can explain the functioning of things around us. This illusion is well documented in the literature.

The illusion has also been made more widely known through popular science writing of Sloman and Fernbach’s 2017 book, The Knowledge Illusion: Why We Never Think Alone. These authors surmise that there are so many complex causal relationships that people need to “live a lie” by ignoring the complexity and overestimating how much we know about how things work. Social issues are particularly complex in causes and relationships, so they are particularly difficult to understand. Sloman and Fernbach state that “instead of appreciating complexity, people tend to affiliate with one or another social dogma.” Their contention is that we really don’t think alone, and that as a group we tend to know (someone knows how a toilet actually functions) things and that we let our group do our thinking for us. A better understanding of this may help people to be more accurate in assessing for ourselves what is causing our beliefs and values. Ultimately, it could help us to correct our false beliefs. People generally blur the boundaries between knowledge they possess and knowledge they have access to through their community, basically taking credit for other people’s knowledge (Sloman & Rabb, 2016).

The illusion of explanatory depth develops as a result of a couple of human information processing patterns. First, it arises partially from the situation where we solve a problem using a device or tool or theory and then, because our problem is solved, we incorrectly believe we understand how the device, tool, or theory functions. According to Rozenblit and Keil (2002, p.522) “When people succeed at solving problems with devices, they may underestimate how much of their
understanding lies in relations that are apparent in the object as opposed to being mentally represented.” A common example of this is the standard toilet, where most us think we know how it works but, when pressed to explain, we can’t actually explain how it works. We activate the flush handle, and it works and, almost as simple as that, we think we understand how the toilet works. Second, people tend to have confusion about higher and lower-level understanding of things. Explanations of complex systems are hierarchical, with the overall system and many levels of subsystems. An understanding of some overall system functioning can lead us to think we understand how the thing operates, even if we don’t really know the subsystems and/or how the subsystems operate. Similarly, understanding one subsystem well can lead us to believe we understand how the larger overall system functions. Both of these information processing problems appear to be types of over generalizations in our beliefs about how well we really understand the phenomena of interest.

People like to think they can explain how and why things happen in the world. We tend to greatly overestimate our understanding of these complex causal relations. There is a voluminous literature showing that people tend to be overconfident in all kinds of judgments, especially about themselves and their knowledge about specific devices, skills, and their own judgments. The illusion of explanatory depth is a different, although related, form of this overconfidence. It is different because the overconfidence occurs in beliefs about complex causal patterns, or explanations (theory-like thinking), rather than specific pieces of knowledge. Complex causal patterns are how and why things interact to get the results that they get.

There is also some evidence for a trait-like state of desiring explanations (Fernbach, Sloman, St. Louis, & Shube, 2013). Some people really prefer and desire explanations that are greatly detailed while others do not generally seek deeper explanations. People who are high in the trait of desiring explanations tend to want to know more about how things operate. They want to understand complex causal relationships more accurately. Others are not too interested in finding out the “true” nature of those complex causal relationships. Those people who are less concerned with getting accurate explanations may be more prone to the illusion of explanatory depth and to holding false beliefs.

In business, we are interested in getting certain results such as increased sales, better productivity, better earnings, etc. The acts (goals, actions, thoughts, etc.) are complex and have very complex causal patterns. This makes managers and leaders especially prone to the illusion of explanatory depth regarding these business goals. If a manager has some knowledge about expectancy theory of motivation and tries out some new intervention (a policy, reward, etc.) based on her
understanding of the theory, and it appears to work as the employees appear more motivated, the manager is very likely to believe she understands the theory quite well. It is not easy for the manager to conceive of other explanations for the improved motivation. Furthermore, the success of the intervention provides an indication to the manager that she understands how the theory works.

**FALSE BELIEFS AND SOME CONSEQUENCES**

False beliefs are when we believe something to be a certain way and that belief is different from the way that something actually is in reality. To “believe something” is, itself, considered to be defined as something that a person accepts as true (cf. Kahan, 2015). False beliefs are basically the combined ideas of 1) having a belief, and 2) having that belief be discrepant from a criterion or what really is, at least as based on the evidence at the present time. According to Kruglanski (1989), the most prevalent conception of accuracy in social judgment is likely that of a correspondence between a judgment and a criterion. To the extent that the illusion of explanatory depth is a discrepancy between what one states or thinks one knows about the functioning of an entity or an object and what one can actually explain about that functioning, it is a direct lack of a correspondence - it is a false belief.

As Schneider (2001) notes “being accurate typically means that one has arrived at a position that is truthful or captures the reality of the situation.” She goes on to describe how many social judgments depend on interpretation rather than having a specific, objective criteria for establishing truthfulness. Some concrete facts provide opportunities for more obviously false or true beliefs about them. The social, theoretical, interactive, or interpretive nature of many instances of information make them a subject area where the demarcation of false and true become more “fuzzy,” and therefore which beliefs are false beliefs. In many of these situations, we can safely assert that if two groups of people hold strong beliefs about one specific issue, and those sets of beliefs can’t possibly both be true at the same time, then one or the other group has members who have false beliefs. At this point, I think it is fair to note that there are philosophy journals full of interesting articles that discern, debate, and examine the meaning of truthfulness, or of “what is true.” For our purposes here, let’s go with convention and say that false beliefs are those that are not in line with the evidence concerning the beliefs.

There are many benefits to being accurate in our beliefs. The most obvious benefit is that we will have a better idea of actual reality if we have more accurate beliefs. A better idea of reality will help us to better determine courses of action as individuals or as managers and leaders of businesses. There are other benefits. As noted by Kruglanski (1989), holding accurate beliefs helps people to better predict things about people and better predict what might be going to take place in the
future. Additionally, when engaging in decisions involving risk, having less than realistic beliefs about the risks can result in not taking appropriate preventive actions, thus placing people and companies in more hazardous situations (Klien & Kunda, 1992; Weinstein, 1980, 1984; Weinstein & Klein, 1996). There are numerous empirical findings and theoretical positions demonstrating the negative effects of holding inaccurate beliefs. Additionally, millions of managers every year are engaged in furthering their training and education specifically to get better at understanding the factors that affect their businesses. They want to be better equipped to make good business decisions and a large part of that effort includes trying to better forecast and understand situations and causal patterns.

While the main point in this paper is to address false beliefs as they cause problems for individuals and businesses, it seems appropriate to briefly acknowledge that there are some situations in which benefits are associated with holding false beliefs. If we want to understand false beliefs better, we need to know a little bit about the consequences. The value or utility of the accuracy or inaccuracy of a belief may be best assessed by considering the response that a person experiences based on that belief. Sometimes a false belief can be beneficial (c.f., Taylor & Brown, 1988). We may, for example, be better able to cope if we hold some beliefs about ourselves — such as about our many positive characteristics, even if those beliefs happen to be inaccurate. Yet, in general, business decisions that are based on more accurate beliefs and forecasts will result in business actions that align better with the given environment and the business objectives. We want to better understand and predict and make better business decisions.

Most psychology professionals used to consider that holding beliefs that are counter to the reality of the matter is a sign of mental illness. Basically, this is the idea being that if one is out of touch with reality then they are mentally ill. This thinking has been replaced in some quarters with the findings that show that some illusions are helpful to people’s mental well-being. Most people have the tendency to believe that positive events are more likely to occur to them in the future than to other people, according to what Weinstein (1980) has called “unrealistic optimism.” He also notes that people believe negative events are less likely to occur to them in the future than to other people. Additionally, Carver and Scheier (2002) find that when situation-specific information is limited, people may rely even more heavily on optimism (and related “trait-like” beliefs) than the information at hand when creating their thoughts and goals. Basically, one’s optimism may be relied on more to form one’s beliefs than the situational-specific information available. An optimistic person has the belief that they will have a positive outcome related to their goals, generally, regardless of the situation-specific information available about the likely positive or negative outcome relative to the goal. When we have
inflated beliefs about ourselves, we seldom realize the costs. On the other hand, we maintain more positively oriented self-conceptualizations.

A general explanation as to why so many of us have so many false beliefs can center around the consequences associated with the false beliefs. Many, and perhaps most, of our false beliefs have benefits that are greater than the costs associated with holding those false beliefs. As Kahan (2015) argues, people are at the same time knowledge acquirers and identity protectors. Identity protection often is associated with false beliefs. This basically means that people can learn knowledge but that won’t, by itself, make them “believe in” something that is antagonistic to their identity protection. We identify ourselves with groups that are important to us. That identity can be very important to us. Indeed, patterns of data about “belief in” such things as evolution fit better with expressive rationality theory than bounded rationality theory (Kahan & Stanovich, 2016). If an elderly woman in a small rural town identifies with the other elderly women and men, then she will likely hold some similar beliefs. If her identity group doesn’t believe in, or even think much about, human evolution then she will likely also not believe in evolution. Her believing one way or the other isn’t going to change whether evolution is true or not. If she makes an error by believing it is not true, she isn’t going to be hurt by that error. It really doesn’t matter to her if it is true. On the other hand, if she strengthens her ties to her identity group, she gets comfort and advantages. So, not believing in evolution is more advantageous for her situation. Sometimes people hold false beliefs partially because they identify with a particular group. They sense benefits, or gain favor, by sharing in the beliefs of others in those particular groups. Shared false-beliefs held by strongly associated identity-groups can have great costs. Some large-scale atrocities in human history are partially attributed to strongly felt identity groups holding shared false beliefs and acting on those beliefs.

We use our cognitive resources to help us form identity-congruent beliefs, especially for strongly held aspects of opposing cultural identities. A given individual may be very good at cognitive reasoning, may be very knowledgeable about what science indicates about evolution, and still may not “believe in” evolution. We can use our cognitive abilities to reason about that which we already profess to believe in or not believe in (Mercier & Sperber, 2017). As we developed over countless generations, people experienced unique problems of coordination and trust amongst one another. The challenges of coordination and trust are much larger than any such challenges for other animals. Mercier and Sperber, as well as others, believe the evidence supports the conclusion that people developed “reasoning” to be able to justify our own beliefs and to evaluate others’ claims, primarily because of these problems of trust and coordination. The relevancy here is that reasoning may be more about justifying beliefs and evaluating others’
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justifications than for developing beliefs. In this view, beliefs come before the reasoning. This contrasts with how we usually think about it, basically that reasoning is used to consider and decide what to believe. Thus, someone who has good reasoning abilities may elaborately defend his or her beliefs, including false beliefs.

In business, we want accuracy in our predictions and our beliefs about our own strengths and weaknesses. False beliefs result in lost financial investments, poor products, and human suffering in ways related to the business operations or products and services. We often predict the future (forecasts) and decide on behaviors to take based on our beliefs. When our beliefs are false, we end up making bad predictions and bad decisions.

PRACTICAL MANAGERIAL IMPLICATIONS

One practical managerial implication is the need to try to reduce the illusion of explanatory depth to make better business decisions. The most basic way to reduce the illusion of explanatory depth is to try to explain in detail the process that you believe you understand well. This “need to actually explain how it works” will generally bring to the fore the holes in your knowledge about it. Write out your understanding of how something works – it will quickly highlight your holes in your true level of understanding.

Even if you can explain something, press yourself to explain it further. Because we tend to construe complex causal patterns at the abstract, big picture, level, we may need to be prompted to explain how the “subsystems” operate. For example, managers often have strong ideas about what drives customer demand for particular products, or product classes. To the extent their mental models diverge from the true dynamics driving customer demand, they have an illusion of explanatory depth. If they are asked to explain it further, it can expose the gaps in either reasoning or knowledge. As a non-business example, if a person has the illusion of explanatory depth about how the U.S. federal government works, she might just explain it in the big picture (abstract) level of construal. First, the legislative branch (Congress, as provided in Article I of the U.S. Constitution) makes federal laws. She might explain that the executive branch (President et. al., as provided in Article II of the U.S. Constitution) shall “execute” the laws and provide executive functioning for the federal government. Finally, she would conclude that the third branch of government, the judicial branch (Courts and judges, as provided in Article III of the U.S. Constitution) decides on constitutionality of laws and adjudicates the differences that citizens have about circumstances and interpretation of the laws – at least for those that are deemed to fall within the federal jurisdiction. She might think that she therefore knows how the federal
government works. A simple questioning at a deeper level about how each of these three branches function would likely expose huge gaps in her knowledge of how the federal government really works. Even if you think you can explain it, then press yourself to explain each of the next level of subsystems. Things suddenly become more complex when we force ourselves to consider how the next level of subsystems operate. If the subject matter of the belief is important to us, we should strive for more concrete construal levels of explanation to justify our judgments of our own understanding.

Another way to reduce the illusion of explanatory depth is to recognize that it exists and question how we came to know, supposedly in great detail, how the device or entity operates. When we realize that we are attributing to ourselves explanatory knowledge just because others seem to have it, we can begin to acknowledge our own lack of explanatory depth. We can work to improve our own knowledge about how we come to believe something. As Will Rogers noted “You know, we are all ignorant, only on different subjects.” Being able to accept that we don’t know some things is good step towards reducing our illusion of explanatory depth and our degree and sheer quantity of false beliefs we hold. We tend to rely greatly on others, and we can learn to be more discerning in just which “others” we are going to rely on.

Another, slightly more technical, method to try to reduce the illusion of explanatory depth and false beliefs is to specifically seek out “disconfirming evidence/information.” People almost uniformly seek out information that confirms what they already believe to be true. When we believe something, we can find a lot of information to support our beliefs. This is true for two individuals who have diametrically opposing sets of beliefs on a particular subject. So, it turns out the notion of trying to disconfirm, as the scientists strive to do, is a better method to use for individuals who want to try to reduce the number of false beliefs they hold. We can easily disconfirm our illusion of understanding by disconfirming our ability to give a concrete, detailed explanation.

Those who know the least about something may also be the least aware of their lack of knowledge about it (Jansen, Rafferty, & Griffiths, 2021). The Dunning-Kruger effect suggests that those who are least able to do a particular task are also the least able to assess how well or how poorly they do the task. This can mean that managers ought to be aware of the differences in employees’ ability to know how well they have forecast or made other business decisions. Cognitive reflection (a trait-like characteristic that varies between people) has important influence on the illusion of explanatory control. In particular, cognitive reflection sometimes reduces the illusion and allows for changes in our positions when dealing with social political explanatory illusions. It is helpful to try to understand the complexity
of the issues involved. The key here is in generating causal explanations for how a given political policy would function (say, cap and trade for carbon emissions) for reductions in both explanatory illusion and movements to the mean of attitude on the policy. Unfortunately, the focus of the cognitive reflection matters, and such reflection focused on reasons one is for/against a policy leads to no reduction in explanatory illusion and strengthens (makes more extreme) their positions (Sloman & Fernbach, 2017).

Consider that the illusion of explanatory depth and false beliefs may have developed to be quite common for some adaptive purposes. Both the illusion of explanatory depth and false beliefs help people to conserve precious cognitive resources. One such possible adaptive purpose is simply to focus our cognitive resources on more important things or to conserve our cognitive resources. Perhaps, the illusion of explanatory depth keeps us from going into ever deeper levels of understanding about things that we really don’t need to have deeper understanding about. That is, maybe the illusion of explanatory depth serves to cut off our mental search for understanding at a point where we can deploy our cognitive attention towards other more practical challenges. Using our cognitive resources in an economical manner means that more important issues can have access to greater resources while less important issues can receive less resource intensive attention. When we understand some bit about something important and we also employ the strategy of frugality of cognitive resource usage (resources conservation), we inappropriately use an abstract construal level and falsely believe we have a greater depth of understanding.

CONCLUSION

People often experience the illusion of explanatory depth. This is especially the case for mechanical and related devices, but also for complex social institutions. The illusion of explanatory depth contributes to strengthening our beliefs about appropriate courses of action to take. Unfortunately, when the beliefs are false beliefs, we may make some rather egregious mistakes in the actions we take based on those false beliefs. Notwithstanding the sphere of false beliefs that result in some beneficial consequences, it is imperative that we try to do better in identifying our own false beliefs in other spheres so that we can avoid making costly mistakes.

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ESTABLISHING EFFECTIVE HOSPITAL DISASTER PREPAREDNESS AND RESPONSE STRATEGY/PLANS

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ABSTRACT

Disaster management remains a significant issue in healthcare. Hospitals face a myriad of disaster risks, both internal and external. External risks include active shooters and natural disasters. Internal risks emerge from systems failures due to issues such as loss of utilities and water leaks. While healthcare organizations are required to establish emergency management programs for federal funding, many struggle with implementation. This article discusses the development and implementation of an effective disaster management program through staff training, implementation of the Incident Command System, and procurement of adequate assets and resources.

Keywords: Disaster Preparedness, Incident Command System, Healthcare Risk Management

INTRODUCTION

Disasters are inevitable and can emerge from a host of different factors. No entity or industry is exempt from this reality, including healthcare. Natural and man-made disasters impact individuals and communities worldwide every year (Shoaf & Rotiman, 2000). The United States alone experienced the complete evacuation of over 150 hospitals from 2000 to 2017 (Aishwarya & Mace, 2019). Of these, 71% (110) were due to external threats, 16% (24) from man-made threats, and 13% (20) due to internal threats (Aishwarya & Mace, 2019). External causes for hospital evacuations included hurricanes (60), wildfires (21), and storms (8), while internal threats included hospital fires (8) and chemical fumes (4) (Aishwarya & Mace, 2019). Man-made causes included four related to bomb threats (Aishwarya & Mace, 2019).

Threats to healthcare organizations, regardless of the cause, can be devastating. Preparedness for such disasters, including efforts to maintain business continuity in
the event of a disaster, is vital to the continuation of operations and overall patient safety. In addition to internal motives for ensuring preparedness and business continuity, external motives exist due to national funding requirements for established disaster relief programs. To meet the response demands from disasters and events, the federal government has allocated billions of dollars towards response efforts and preparedness (Slepski, 2005).

Hospitals accredited and funded by the Centers for Medicare and Medicaid Services (CMS) are required to implement emergency management programs that will them to continue to provide patient care when disasters occur. However, merely having a program is insufficient. These programs and plans must be tested and evaluated periodically to ensure they are sufficient in the event a disaster occurs. CMS accreditation standards require hospitals to maintain an Emergency Operations Plan (EOP), describing the procedures and guidance for a response. The plan should be flexible, incorporating separate standalone emergency response plans (ERP) to respond to an array of different situations or disasters. This flexibility is known as an “All Hazards” approach. Unfortunately, the EOP and ERP’s often become a document of reference and are never fully put into practice. Instead, these documents sit in binders on shelves and are periodically pulled out to discuss with accrediting organizations during a survey. The lack of practice creates risk and limitations in the hospital’s ability to respond effectively when the event occurs.

Disaster preparedness is costly and does not generate revenue or cost savings (Toner, 2017). Even though disasters can strike at any point, the likelihood of a hospital experiencing a disaster is relatively limited (Toner, 2017). Therefore, hospital executives struggle to justify the planned operational expenses dedicated to emergency preparedness efforts (Toner, 2017). Financial backing by leadership for preparedness activities supports appropriate training for both frontline staff and leadership, staff drills, and adequate availability of resources and assets. Without sufficient resources, healthcare organizations may fail to respond adequately when disasters occur, therefore risking the wellbeing and survival of their patients and staff. CMS rules specify that facilities participating in Medicare and Medicaid must have emergency preparedness plans in place and that these should include coordination with federal, state, and local emergency preparedness systems (Toner, 2017, p.9). Unfortunately, CMS provides zero funding for these mandated initiatives and does not monitor ongoing compliance (Toner, 2017). Without enforcement and financial support, the individual hospitals or health systems are left to their own accord to create compliant programs with strong financial backing to truly be effective. Therefore, healthcare organizations must garner financial and leadership support to facilitate robust emergency management programs to be able to respond when it matters.
LITERATURE REVIEW

The art of effective emergency management programs is developed through lessons learned in previous disasters, resulting in a better understanding of how to reduce risk and increase preparedness. Risk will never be eliminated but rather mitigated; therefore, challenges for operations to hospitals experiencing disasters remain. Events such as disasters or pandemics may limit hospital operations and hinder patient care (Veenema et al., 2016). Crisis standards of care (CSC), according to the Institute of Medicine (IOM), are defined as "a substantial change in the usual health care operations and the level of care it is possible to deliver in a public health emergency, justified by specific circumstances" (Veenema et al., 2016, p.49). In August of 2005, Hurricane Katrina, a category five hurricane, struck New Orleans. The hospitals within the city were unprepared to allocate resources and assets and did not have clear response planning to ensure safety for their patients. (Lurie et al., 2015). Many facilities did not invest in developing their evacuation plans, downtime communications, downtime of their electronic health records, and sustainable power through their generators (Lurie et al., 2015). As a result, hospitals were left without electrical power and were therefore unable to operate critical biomedical equipment or access electronic health records for their patients. Furthermore, they could not evacuate their patients or receive local assistance from emergency management offices (Lurie et al., 2015). Healthcare and political leaders learned from these mistakes. Accordingly, since Hurricane Katrina, many advancements have been made regarding resources and assets, training, and facility infrastructure to better improve response to future events. The advancements were offered at the federal and state level but did not necessarily trickle down to the entity or organizational level of healthcare organizations and other businesses. The federal government, in return, required healthcare accrediting organizations to enhance mitigation and response efforts but did not provide additional means to do so.

After Hurricane Katrina, Hurricane Sandy, a category three storm, hit New York City. Hurricane Sandy brought extensive flooding and high water across the city, resulting in the loss of power and the loss of building ventilation controls (Veenema et al., 2016). Although lessons were learned from Hurricane Katrina, it appears that this did not result in the improvements needed to effectively manage a disaster of this magnitude. Several New York hospitals were unprepared and failed to implement evacuations of patients in the initial stages of the event resulting in a swift decline of patient care resources, including both supplies and medical equipment, and evacuations of patients in complete darkness once the hospitals lost generator power (Veenema et al., 2016). Ultimately, two hospitals had to be completely evacuated, New York University Langone Medical Center with 300 patients and Bellevue Hospital with 725 patients. This equates to 1,025 patients total, not including staff, who were at risk because of poor emergency preparedness planning and effective mitigation. Even with emergency management program federal mandates through CMS, the response to Hurricane Sandy displayed the overall weakness of hospital preparedness for emergency events. (Veenema et al., 2016).
Efforts to improve emergency response and preparedness have continued. To assist with improved response and support, coalition groups funded by the Hospital Preparedness Program (HPP) have formed across the country, partnering with hospitals and healthcare organizations to assist with disasters (U.S. Department of Health and Human Services, n.d.). In Texas, there are 22 state Regional Advisory Council (RAC) division groups that provide support and limited state-funded resources to healthcare organizations and health systems for disaster preparedness. In particular, the North Texas Trauma Regional Advisory Council supports local hospitals and health systems in the North Texas area. Each of the 22 RACs works with hospitals to manage the operations of the trauma services across the region. (Texas Department State Health Services, 2021). The RAC participants involve hospitals and community members whose sole purpose is to ensure effective management of trauma services within the region (Texas Department State Health Services, 2021). Members of the RAC may include emergency management and executive leadership representatives from the hospital, hospital clinicians, both physicians and nurses, and representatives from the emergency medical service (EMS) providers across the region (Texas Department State Health Services, 2017). The community partnership with the RAC can assist with the financial burden hospitals face when acquiring resources and assets for disaster management. The challenge, however, results in hospitals not consistently engaging with their local RAC in acquiring assistance with supporting their programs.

On May 22, 2011, an EF-5 tornado struck Jasper and Newton counties, including Joplin, Missouri (Missouri Hospital Association, 2012, p.5). The wind speed registration came in over 200 miles per hour with a destruction path of over six miles, resulting in the deaths of 161 individuals and injuries to approximately 1,300. (Missouri Hospital Association, 2012). The tornado caused damage to vast amounts of property, including the local hospital, St. John’s Regional Medical Center (Missouri Hospital Association, 2012). The Missouri Hospital Association (MHA) performed an emergency preparedness assessment against the current Joint Commission ® standards and elements of performance to determine their compliance level over four years from 2009 to 2012. The 2012 assessment looked at the overall percentage of compliance rating for hospitals across Missouri collectively. Several categories of criteria were assessed during this assessment, including implementation of the incident command system (ICS), communication, staff training through the National Incident Management System (NIMS), planning measures, ICS staffing, redundancy, and ICS operations. The NIMS system is intended to provide a unified and consistent ability for emergency management participants to communicate using similar terminology to facilitate collaborative responses to disaster events (Federal Emergency Management Administration, 2021). Despite the lessons learned from the Joplin tornado, only 80% of all Missouri hospitals followed through with future activations and implementation of their incident command structure when an event occurred and just 43% created their Emergency Management Committees (EMC), which would assist in developing and maintaining an effective emergency management...
program (Missouri Hospital Association, 2012). Additionally, only 86% of the hospitals trained their leadership and staff on disaster response (Missouri Hospital Association, 2012).

CMS requires hospitals to be 100% compliant with a documented emergency management program. However, an area of weakness exists due to the lack of program verification during accreditation audits. Hospitals escape compliance verification because it is not considered a focal point for patient safety. Performance improvement metrics are emphasized within the clinical realm; however, limited metrics are established when evaluating emergency preparedness program effectiveness (Lazar et al., 2009). Leadership and committee oversight provide the support needed for a healthy, compliant, and functioning emergency management program. Both groups serve as drivers to promote the importance of being prepared for disasters and protecting patients.

Emergency management regulations issued by CMS require hospitals to demonstrate how they will evaluate and plan for responses to potential events that threaten operations regardless of the risk category (Lazar et al., 2009). Healthcare organizations often view the potential risk of major disasters occurring as low, causing them to be unresponsive in bolstering response capabilities to strengthen their programs (Lazar et al., 2009). To change this, hospitals must proactively learn from historical events by understanding how the event impacted the organization’s ability to continue operations and reduce future risk by mitigation. Furthermore, evidence suggests hospital emergency management programs suffer due to limited funding and resources, lack of staff training, failure to implement an ICS structure to ensure a compliant NIMS program, and lack of committee oversight ensuring compliance. Leveraging these elements will provide a foundation for a best practice emergency management program, setting the hospital up for success in responding to disasters while saving the lives of its patients and staff.

The federal government remains the key provider of resources for hospital disaster preparedness and should therefore provide adequate financial assistance. Johnson, Davey, and Greenhill (2022) described the tenets of federal cooperation:

ASPR Healthcare Preparedness cooperative agreement, a program called the Hospital Preparedness Program (HPP) was created (HPP, 2021). The program was designed to create a foundation for national healthcare preparedness. It is the primary source of federal dollars for health system preparedness and focuses on the improvement of patient outcomes during emergencies with rapid recovery. The HPP boasts recipients in all 50 U.S. states, 8 territories with 6.8 billion dollars invested as of April 2021 (HPP Overview, 2021). The HPP is the convener for regional collaborations that encourage sustainable health care coalitions (HCC’s) for health care preparedness and response during emergencies (About HPP, 2021). The HCC’s are assisted with meeting the core tenets of the Health Care Preparedness and Response Capabilities 2017 – 2022. This document
outlines the high-level objectives that healthcare entities are pushed to meet to prepare for, respond to, and recover from emergencies. (Johnson et al., 2022)

RECOMMENDATIONS

Proposed solutions to establish and maintain an effective emergency management program begins with establishing an Emergency Management Committee (EMC). The EMC is a regulatory-driven governing body that oversees all operations and compliance efforts of the program for the hospital. This committee is interdisciplinary; it supports the success of the program and evaluation of opportunities for improvement; and provides guidance and direction to hospital staff, medical staff, and hospital executive leadership regarding the functionality and implementation of the program. While CMS and other accrediting organizations do not specify membership, the recommendations include executive leadership (both operational and nursing), nursing supervisors who manage the daily nursing operations of the facility, and physician leadership from areas including high-risk departments such as the Emergency Department, Intensive Care Unit (ICU), and medical-surgical unit. The committee should also include trauma services and support services leadership, including engineering, construction, food and nutrition services, environmental services, and safety. In addition to these roles, the organization’s leadership should consider other stakeholders who bring forward expertise in their field who can assist with driving the operations of the incident management as contributing members of the committee (The Joint Commission, 2021). The committee would also be involved in assessing all regulatory compliance to which the program is required to adhere. For committee operations transparency, the committee should report directly to the hospital’s MEC Committee or the organization’s overarching governing body, such as their Board of Directors. The direct reporting of the committee’s efforts and programs operations will allow the organization’s highest level of leadership to be aware of any challenges or successes of the program, enabling them to provide further support as needed.

Second, a Hospital Incident Command System (HICS) that provides a clear structure of event management must be established to ensure effective response and recovery efforts to any potential threat or event the organization may endure. HICS is a system for utilizing the incident command system (ICS) structure for health care organizations (U.S. Department of Health and Human Services, n.d.). HICS supports health care organizations in establishing a set structure to allow for collaboration when responding to events (California Hospital Association, 2017; U.S. Department of Health and Human Services, n.d.). The HICS structure includes five command center staff and four section chiefs leading subdivisions under the section chief’s scope of responsibility. The command center staff includes an incident commander, public information officer, safety officer, public liaison officer, and a medical/technical specialist. The incident commander provides direction in the management of the event. The public information officer provides feedback and
information regarding hospital response to outside agencies such as news organizations. The safety officer ensures all response efforts are made safely without placing any additional risk to the patients or staff. The public liaison officer serves as the direct contact between the hospital and outside agencies, providing additional support and resources. Finally, the medical/technical specialist provides the direction for the management of clinical care during the response of the event. The four-section chiefs under the command staff include planning, operations, logistics, and finance. The section chief’s role is to provide support and immediate direction in managing an event to ensure continuous operations of the organization while the event is occurring.

Third, training and education are key to a successful response during an event. A robust training program assists in building staff comfort and confidence in how to effectively respond to an event. The training program would include general hospital staff and medical providers as both are critical in the response stage. The training portion would consist of virtual-based learning in addition to hands-on training. The module training will cover aspects such as understanding the hospital’s emergency codes and how to respond as a staff member or medical professional. The hands-on training will translate the module training to reality and provide the staff with critical thinking abilities to prepare them for an actual event. Both modes of training together play key roles in providing continuous learning and reminders to staff about their role and responsibility during an event but also putting the theory into practice.

Fourth, effective disaster responses are generated from mitigation and planning measures in the development and establishment of an emergency operations plan (EOP) and subsidiary emergency response plans (ERP) or procedures. The hospital’s emergency operations plan is intended to address an “all-hazards” approach, preparing the hospital to respond to myriad potential threats or disasters that exist. The EOP should incorporate communication, resources and assets, safety and security, staff responsibilities, utility systems, and clinical/support activities. These six critical focus areas are the fundamentals of a strong EOP and provide direction and expectations to the staff and command center staff during an event. The subsidiary ERP provides more details on how to respond to specific events. This may include a Code Silver plan to address actions during an active shooter event or a Code Black plan to cover how to respond during an active tornado. When the EOP and ERP are not created or implemented, the hospital’s ability to appropriately respond is limited, creating confusion and placing staff, visitors, and patients in the hospital at risk.

Fifth, establishing mutual aid or partnership agreements with the local regional advisory councils (RACs) is needed for event response, business continuity, and continuous operations. An emergency management program requires mutual aid agreements as hospitals are not capable of being entirely self-sustaining. In Texas, the RACs provide state-funded resources and assets, helping to defray the cost of these expensive, but necessary, items. The RACs receive funding from the federal
government through the Hospital Preparedness Program, which operates through cooperative agreements with states (U.S. Department of Health and Human Services, n.d.). During periods when supplies and materials may be limited, the RACs may supplement the hospital’s inventory to assist with supply shortages. During the COVID-19 response, hospitals across the state and country experienced this exact scenario. The RACs provided much-needed assistance to hospitals, helping them to operations moving by providing PPE and medical equipment such as ventilators.

Finally, the hospital will need to actively budget operational expenses and capital expenses to set up the emergency management program for success. The program should be considered part of daily operations, with appropriate financial support, treating this segment as all other aspects of operations. Failure to financially support emergency management programs limits appropriate response capabilities and places patients at risk of receiving inadequate care during an event. Although regional advisory councils can assist in offsetting resource and asset burdens, they cannot fully stock a complete hospital inventory for event response. The hospital must manage current inventory and acquire resources to sustain operations for at least 96 hours before additional assistance is provided.

These proposed solutions will help hospitals enact and maintain an effective emergency management plan, which is crucial to responding to the many types of threats that exist. This should be an important and ongoing aspect of the hospital’s strategic operating plan and budget.

CONCLUSION

With events such as mass shootings, hurricanes, tornados, wildfires, infectious diseases, and pandemic events on the rise, the preparedness efforts by all community stakeholders and hospitals are at an all-time high (Kacik, 2019). The adequate resources and support for effective response to these events should equal the size and scope of the events occurring (Kacik, 2019). To protect patient lives and support continuing operations, hospitals must be prepared for and ready to respond to any potential disaster or threat. Effective emergency management programs are vital to achieve this and succeed at saving lives. While the scale of disasters may vary, consistency of emergency management practice and implementation of a program will provide the support hospitals need to protect their patients, staff, and visitors.

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COVID-19 AND HUMAN RESOURCE MANAGEMENT LITIGATION: WHAT SHOULD EMPLOYERS DO?

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ABSTRACT

The COVID-19 Pandemic has created a multitude of problems for employers including unique employment law allegations. This was to be expected in light of the extraordinary situation and the variety of laws and regulations being promulgated and revised since the pandemic began. Basic Human Resource (HR) law and regulations have in some instances been amended to address the unprecedented situation that employees and employers are confronting in light of the global COVID-19 pandemic. The purpose of this paper is to examine how new and existing laws and regulations are impacting HR decision making and what employers should be doing to reduce their exposure to litigation while the pandemic continues.

Key Words: COVID-19, Regulations, Litigation, Decision making

INTRODUCTION

COVID-19 is a disease caused by a novel (new) coronavirus previously not seen in humans. To be called a pandemic, a disease must be prevalent or widespread over a country or over the world. The disease is widely believed to have started in Wuhan, China, and reached a global death toll of 500,000 in six months. On February 9, 2021, the global death toll for COVID-19 reached 2.4 million, and on July 11, 2021, the US death total increased to 4.1 million (Worldometers, 2021). In February, 2021, the United States death toll was 465,000 which was more than the number who died in World War 1 and Vietnam. On July 11, 2021, the number of deaths in the United States reached 615,000 which is approaching the number who died during the Civil War (Worldometers, 2021). The current situation would certainly meet the criteria for being categorized as a pandemic and has caused fear, anxiety, stress, and worry on a personal level and also about the likelihood of an economic disaster.
Of course, the development of vaccines and the population getting vaccinated have radically altered the pandemic business environment. As the present scenario in the United States improves, states attempt to return to normal. However, the weekly death rate is still over 300, and two percent of the COVID-19 cases result in death (Worldometers, 2021). Although calculations vary from 44% to 48%, Worldometers estimate that 48% of the United States population is fully vaccinated. The United States appears to be entering a new phase of the COVID-19 epidemic as people return to work and try to settle back into normal life. However, most public health officials are not declaring the pandemic vanquished just suppressed and suggest that COVID-19 will continue at least in the background for the long term (Kamp, 2021).

The COVID-19 pandemic created a multitude of problems for employers including new employment law situations. As would be expected, a variety of laws and regulations were promulgated and revised. Basic Human Resource (HR) law and regulations were amended along with new regulations being enacted to address the unusual situations that employers and employees confront. The purpose of this paper is to examine new and existing laws and regulations that impact HR decision making and to provide policy recommendations for employers to reduce their exposure to litigation.

**LAWS INVOLVED**

The H1N1 pandemic of 2009 could have helped prepare the country for the COVID-19 pandemic of 2019. However, there is quite a myriad of laws, Executive Orders, and administrative agencies that affect HR management practices during the pandemic. There are the laws enforced by federal agencies such as the Equal Employment Opportunity Commission and the Occupational Safety and Health Administration, and those enforced by the Department of Justice. There are also guidelines such as those from the Centers for Disease Control and the World Health Organization. In addition, there are pandemic regulations from 50 states, one district, and the territories. For example, states can regulate whether businesses can be open, whether customers are allowed inside, whether employees must work at home, and whether unemployment compensation is available. Consideration of county level regulations further complicates the present state of regulation. There are 3143 counties, parishes, and districts. When all the levels of regulation and enforcement are considered, a very complex system of federal, state, and county or local regulatory authority is revealed. Moreover, there are the numerous ramifications created by different regulations being levied depending upon whether the workers are essential or non-essential. The recommendations and regulations continue to change as the current situation evolves. As a result, the policy recommendations to aid in HR decision may also need refinement.
All of the laws enforced by the Equal Employment Opportunity Commission (EEOC) continue to impact HR decision making during the pandemic (see Table 1). The EEOC also provides additional guidance as to applicability of these basic regulations (EEOC A & B, 2020).

Table 1 Laws Enforced by the EEOC

| Title VII of the 1964 Civil Rights Act as Amended |
| The Americans with Disabilities Act |
| The Rehabilitation Act |
| The Age Discrimination in Employment Act |
| The Genetic Information Nondiscrimination Act |

BASIC EEOC GUIDANCE

The EEOC publication, Pandemic Preparedness in the Workplace, and the Americans with Disabilities Act furnish guidance to help employers implement strategies to navigate the impact of COVID-19 in the workplace (EEOC A&B, 2020). Originally published during the H1N1 outbreak of 2009, it was updated in March of 2020 to address examples and information regarding COVID-19 specifically. Employers with 15 or more employees are subject to regulations of Title 1 of the ADA, and although there is a pandemic, the basic ADA restrictions still apply and must be followed. For example, the ADA has rules on making disability-related inquiries and requiring medical exams of job applicants or employees (see Table 2). During the pandemic, ADA covered employers may ask employees if they are experiencing symptoms of COVID-19. What would normally be a restricted medical inquiry is permitted if employers are relying on Centers for Disease Control (CDC) or other reputable sources of guidance for what COVID-19 symptoms are. Given CDC guidance, measuring an employee’s body temperature, which would normally be considered a medical exam under the ADA and prohibited, is also permitted during the COVID-19 pandemic (EEOC A & B, 2020).

Table 2 Other basic guidance issued by the EEOC

| Does the ADA allow employers to require employees to stay home if they have symptoms of the COVID-19? | YES |
| Can the employer require a doctor’s note certifying fitness for duty? | YES |
| May an employer administer a COVID-19 test to detect presence of the virus to employees & job applicants? | YES |
May an employer administer an antibody test to make decisions about returning persons to work? NO
May an employer ask an employee coming into the workplace whether a family member has COVID-19? NO

(EEOC A & B, 2020)

US DEPARTMENT OF LABOR

In addition to EEOC law, laws enforced by the United States Department of Labor, (US DOL) further impact employers (see Table 3). The US DOL enforces more than 180 federal laws along with the mandates and regulations to implement the laws and covers most workplace activities of about 150 million workers and 10 million workplaces (US DOL, 2021).

Table 3 Major Laws Enforced by the US DOL

| The Fair Labor Standards Act |
| Immigration and Nationality Act |
| Occupational Safety and Health Act (OSHA) |
| Employee Retirement Security Act |
| Comprehensive Omnibus Budget Reconciliation Act of 1985 (COBRA) |
| Health Insurance Portability and Accountability Act (HIPPA) |
| Labor-Management Reporting and Disclosure Act |
| Uniformed Services Employment and Reemployment Rights Act |
| Family Medical Leave Act |
| Worker Adjustment and Retraining Notification Act (WARN) |

The US DOL has also developed and published a great deal of guidance and informative resources on the COVID-19 pandemic. The most notable is their Guidance on Preparing Workplaces for COVID-19 (US DOL Guidance, 2020). However, the guidance is a recommendation and is advisory in nature; it is not a standard or regulation. The guidance provides descriptions of mandatory safety and health standards applicable during a pandemic situation (US DOL Guidance, 2020).

NEW FEDERAL LAW

The Families First Coronavirus Response Act (FFCRA) is the newest piece of federal law and was signed into law on March 18, 2020. It was designed to alleviate some of the negative effects of COVID-19 on employees and employers. Additional laws enacted include the Paycheck Protection Program, Health Care Enforcement Act, and the Consolidated Appropriations Act that added $900 billion in economic relief (Investopedia, 2021). This piece of legislation is hailed as the source of new
litigation for employers particularly from employees seeking and/or using the FFCRA’s leave and sick pay provisions (Bernstein & Larson, 2020). According to the Fisher Phillips Employment Litigation Tracker, as of July 11, 2021, 2786 cases have been filed with the most common type of case involving remote work and leave conflict issues (Fisher Phillips, 2021) (see Table 4). While the healthcare industry has been the industry targeted most frequently, manufacturing, retail, government, and hospitality are also seeing a large number of cases (Fisher Phillips, 2021). Bernstein and Larson point out that the vast majority of the cases have not been adjudicated or resolved, but the allegations made so far provide employers with “a sense of where and how the conflicts tend to arise” (Bernstein & Larson, 2020).

Table 4 Types of Cases

<table>
<thead>
<tr>
<th>Cases</th>
<th>% of Total Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remote Work/Leave Conflicts</td>
<td>778 28.2%</td>
</tr>
<tr>
<td>Employment Discrimination</td>
<td>688 24.9%</td>
</tr>
<tr>
<td>Retaliation/Whistleblower</td>
<td>682 24.7%</td>
</tr>
<tr>
<td>Wage &amp; Hour</td>
<td>189 9.2%</td>
</tr>
</tbody>
</table>

RECENT CASES

Three cases with a judicial track record include the Gomes v. Steere House (a nursing and rehabilitation center) case, the Constance v. Hollybrook Golf and Tennis Club Condominium case, and the Kofler v. Sayde Steeves Cleaning Service, Inc. case.

In the Gomes v. Steere House case, Ms. Gomes was employed as a Licensed Practical Nurse (LPN) at Steere House, a nursing rehabilitation center from August 13, 2018 through May 22, 2020. She was exposed to the COVID-19 virus in April or May of 2020 and eventually contracted the virus (Gomes v. Steere House, 2020). The virus left her unable to work and she eventually applied for paid leave from Steere House under the Family Medical Leave Act (FMLA). Ms. Gomes also brought a claim of retaliation against Steere House alleging that she was terminated for invoking her rights under the FMLA. While the FMLA would normally not entitle an employee to paid leave, the FFCRA contained two acts that provided such relief under the FMLA (Gomes v. Steere House, 2020). Given Ms. Gomes termination on May 22, 2021 was so soon after her positive COVID-19 test, she was able to rely on the temporal connection between her request for FMLA leave and her summary termination. The court concluded that Ms. Gomes allegation that her former employer terminated her in retaliation for requesting leave under the FMLA could proceed because she has presented sufficient facts to support a prima facie case at this stage of the litigation (Gomes v. Steere House, 2020).
The Constance v. Hollybrook Golf and Tennis Club case also involves allegations of violation of the FFCRA for taking leave as a result of a COVID-19 diagnosis and retaliation (Constance v. Hollybrook, 2020). In this case, the plaintiff is alleging that he notified his supervisor on March 27, 2020 that he was experiencing COVID-19 symptoms and then took time off for testing. Mr. Constance, a maintenance supervisor, had been employed at the club for over 21 years. Mr. Constance alleges that after his positive test was confirmed on April 5, 2020, he informed his employer of the results and voiced concerns for his coworkers. Mr. Constance alleges that he was told not to tell his colleagues about his positive test to avoid “Chaos” (Constance v. Hollybrook, 2020). Mr. Constance was told by his doctor to self-isolate and quarantine until the latter part of April in 2020. He made a full recovery and informed his employer on April 20, 2020 that his doctor had provided him with a letter of release permitting him to return to work. Mr. Constance was instructed to return to the Club’s office on April 22, 2020 where he was immediately terminated by the Club’s Facilities Director (Constance v. Hollybrook, 2020).

In the Kofler v. Sayde Steeves Cleaning Service, Inc. case, there is a decision on a motion to dismiss the case by the defendant, Sayde Steeves Cleaning Service – the motion was denied (Kofler v. Steeves, 2020). Ms. Kofler began working for Sayde as a residential and commercial cleaner on February 28, 2020. Shortly after being employed, she asked to take two weeks of unpaid leave in mid-April “to help care for her newborn grandchild “and Sayde agreed (Kofler v. Steeves, 2020). In March of 2020, Ms. Kofler’s “two minor children were affected by school closures due to COVID-19 and as a result were required to stay at home with [Kofler]” (Kofler v. Steeves, 2020). On or around April 1, 2020, Ms. Kofler requested paid leave in accordance with FFCRA requirements. The company did not respond to her request and instead terminated her on or around April 8, 2020 stating that she would be eligible for rehire in six months (Kofler v. Steeves, 2020). Kofler initiated her complaint against Sayde Steeves on June 26, 2020 alleging that Sayde Steeves retaliated against her for pursuing her rights under the FLSA and the FFCRA by terminating her employment (Kofler v. Steeves, 2020). One of Sayde Steeves’s arguments for dismissal of the complaint was that the company was not a covered employer because they were an employer with fewer than fifty employees, the threshold for coverage under the statute. The court noted that the exemption is not a blanket exemption that applies to all small employers and that an authorized officer of the employer must make certain determinations for the exemption to apply (Kofler v. Steeves, 2020). An employer seeking the exemption “must document that a determination has been made pursuant to the criteria set forth by the Department in [Section] 826.40(b) (1)” (Kofler v. Steeves, 2020). The complaint includes no allegation that Steeves elected the exemption or satisfied the exemption’s requirements (Kofler v. Steeves, 2020).
In all three of the cases cited, retaliation is a key part of the complaints. In general, in EEO litigation, plaintiffs are not required to be successful on their top complaint; that is, that they were discriminated against, to be successful on their retaliation complaint (Walsh, 2019).

As workers return to workplaces, there is likely to be litigation dealing with vaccinations. One recent lawsuit dealing with mandatory vaccinations was dismissed. The lawsuit was filed against Houston Methodist by 117 unvaccinated employees who were told to get vaccinated or lose their jobs. Houston Methodist was the first U.S. medical facility to require vaccination of all employees. Managers were required to get shots by April 15 and other employees had until June 7. The majority of the 26,000 employees did as requested and got their shots. Those who did not comply filed the lawsuit claiming they were being asked to serve as human guinea pigs. The basis of their argument was that the vaccine was approved by the Food and Drug Administration’s Emergency Use Authorization rather than regular approval. The FDA said that the vaccines met rigorous scientific standards and that the known benefits outweighed the risks. Judge Lynn Hughes said that the claim by the unvaccinated group was false (Nagele-Piazza, 2021). This was the first ruling regarding mandatory COVID-19 vaccination.

POLICY AND PRACTICE RECOMMENDATIONS WHAT SHOULD EMPLOYERS DO?

Policy and practice recommendations abound from numerous sources including the EEOC, the U.S. Department of Labor (DOL), and the legal experts on EEO. Much of the advice is general in nature and for the most part should not be new for employers and human resource practitioners. For example, employers have been advised by a variety of sources to develop plans of action for a multitude of potential situations such as the following: How should an employer respond to an employee’s request for leave if they show symptoms of or test positive for COVID-19? Whose guidance should be followed on opening or closing operations? Should the Centers for Disease Control (CDC) be followed? Or should the state and or local health agencies be followed?

To facilitate human resource management decision making and EEO compliance, guidance from the EEOC and the US. DOL have been on the books the longest; and consequently, HR practitioners should at least be somewhat familiar. The basic guidance from the EEOC regarding compliance with the Americans with Disabilities Act (ADA) is something employers covered by the ADA and their HR practitioners should also be familiar. Moreover, the additional guidance from the US. DOL publications have been available since the H1N1 outbreak of 2009. Since this
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guidance starts out with the recommendation that organizations should have plans in place for dealing with pandemics, the guidance is more of an update than any new advice. Employers who have not planned in advance to prepare themselves and their workers for a pandemic may be potentially worsening outbreak conditions (US. DOL, 2020). However, training in advance and stockpiling adequate resources for the present pandemic appeared to be sorely lacking at a variety of levels of American government and industry.

The Occupational Safety and Health Administration (OSHA) developed this COVID-19 planning guidance based on traditional infection prevention and industrial hygiene practices. It focuses on the need for employers to implement engineering, administrative, and work practice controls and personal protective equipment (PPE), as well as considerations for doing so (US. DOL, 2020).

The latest information for employers on protecting workers can be found on the US. DOL web site under the heading Protecting Workers: Guidance on Mitigating and Preventing the Spread of COVID-19 in the Workplace (https://www.osha.gov/coronavirus/safework). Specific guidance for workers is found in Table 5.

Table 5 What Workers Need to Know about COVID-19 Protections in the Workplace

- The best way to protect yourself is to stay far enough away from other people so that you are not breathing in particles produced by an infected person – generally at least 6 feet (about 2 arm lengths), although this is not a guarantee, especially in enclosed spaces or those with poor ventilation.
- Practice good personal hygiene and wash your hands often. Always cover your mouth and nose with a tissue when you cough or sneeze or use the inside of your elbow and do not spit. Monitor your health daily and be alert for COVID-19 symptoms (e.g., fever, cough, shortness of breath, or other symptoms of COVID-19).
- **Face coverings** are simple barriers to help prevent your respiratory droplets or aerosols from reaching others. Not all face coverings are the same; the CDC recommends that face coverings be made of at least two layers of a tightly woven breathable fabric, such as cotton, and should not have exhalation valves or vents.
- The main **function of wearing a face covering** is to protect those around you, in case you are infected but not showing symptoms.
Studies show that face coverings reduce the spray of droplets when worn over the nose and mouth.

▪ Although not their primary value, studies also show that face coverings can reduce wearers’ risk of infection in certain circumstances, depending upon the face covering.

▪ You should wear a face covering even if you do not feel sick. This is because people with COVID-19 who never develop symptoms (asymptomatic) and those who are not yet showing symptoms (presymptomatic) can still spread the virus to other people.

▪ It is especially important to wear a face covering when you are unable to stay at least 6 feet apart from others since COVID-19 spreads mainly among people who are in close contact with one another. But wearing a face covering does not eliminate the need for physical distancing or other control measures (e.g., handwashing).

▪ It is important to wear a face covering and remain physically distant from co-workers and customers even if you have been vaccinated because it is not known at this time how vaccination affects transmissibility.

▪ Many employers have established COVID-19 prevention programs that include a number of important steps to keep workers safe – including steps from telework to flexible schedules to personal protective equipment (PPE) and face coverings. Ask your employer about plans in your workplace.

US. DOL (https://www.osha.gov/coronavirus/safework)

The DOL web page has detailed guidance for employers to create an effective COVID-19 prevention program. The DOL reminds employers that under the OSHA regulations that they are responsible for providing a safe and healthy workplace free from recognized hazards likely to cause death or serious physical harm. The idea promoted is that the most effective programs engage workers and their representatives in program development and implementation. In addition to the three highlighted recommendations in Table 6, the DOL recommends establishment of an effective system for communicating with workers and educating and training workers on the organization’s COVID-19 policies and procedures (US DOL Protecting Workers, 2021).
Table 6 The Roles of Employers

1. **Assignment of a workplace coordinator** who will be responsible for COVID-19 issues on the employer's behalf.

2. **Identification of where and how workers might be exposed to COVID-19 at work.** This includes a thorough hazard assessment to identify potential workplace hazards related to COVID-19. This assessment will be most effective if it involves workers (and their representatives) because they are often the people most familiar with the conditions they face.

3. **Identification of a combination of measures that will limit the spread of COVID-19 in the workplace, in line with the principles of the hierarchy of controls.** This should include a combination of eliminating the hazard, engineering controls, workplace administrative policies, personal protective equipment (PPE), and other measures, prioritizing controls from most to least effective, to protect workers from COVID-19 hazards. Key examples (discussed in additional detail below) include:

   In addition to these general guidelines, more specific guidance is available for certain industries.

   A. eliminating the hazard by separating and sending home infected or potentially infected people from the workplace;
   B. implementing physical distancing in all communal work areas [includes remote work and telework];
   C. installing barriers where physical distancing cannot be maintained;
   D. suppressing the spread of the hazard using face coverings;
   E. improving ventilation;
   F. using applicable PPE to protect workers from exposure;
   G. providing the supplies necessary for good hygiene practices; and
   H. performing routine cleaning and disinfection

In February 1, 2021, the updated DOL guidance emphasized five recommendations that are as follows:

- Conduct a hazard assessment.
- Identify control measures to limit the spread of the virus.
- Adopt policies for employee absences that don't punish workers. This can encourage potentially infected workers to remain home.
Ensure that coronavirus policies and procedures are communicated to both English- and non-English-speaking workers.

Implement protections from retaliation for workers who raise coronavirus-related concerns (Smith (A), 2021).

Given that three recent cases highlighted earlier all dealt with retaliation, the last recommendation on retaliation protection for workers who raise coronavirus concerns is particularly important. Employer’s Guardian also reported that among the most common employment litigation cases dealing with COVID-19, retaliation cases are among the top three. Employer’s Guardian also noted that small and midsize employers are facing 66% of COVID-19 litigation, with 38% of all COVID-19 lawsuits being filed against employers with 50 or fewer employees (Employer’s Guardian, 2021). Smith also reported that the Executive Order issued by President Biden on January 21, 2021 required the Occupational Safety and Health Administration (OSHA) to consider the need for emergency temporary standards on COVID-19 such as requiring masks. Emergency standards may be issued quickly since they can skip the usual government requirements for comments and hearings (Smith (B), 2021).

SUMMARY AND CONCLUSIONS

In many instances, the COVID-19 pandemic enhanced the need for HR practitioners and managers to apply what they should already know. Basic elements of EEO compliance recommendations with respect to preventing retaliation when an employee attempts to exercise rights guaranteed under the law is a prime example. Of course, the pandemic has created some unique situations but the basic elements of EEO compliance are not that different. Risk assessment, policy and procedure development, communication, training, and control have been advocated for a long, long time. Another key developing issue for employers involves how to deal with vaccinations in light of the development of vaccines that may mitigate COVID-19. Should employers require as a condition of returning to work that employees get vaccinated? Should employers incentivize employees to get vaccinated? These two questions have both a variety of employee relations and legal issues that employers must consider (Smith (C) 2021). The legal risks include possible litigation associated with the failure to make exceptions for employees who object and potential workers’ compensation liability for individuals who suffer side effects from the mandated vaccinations (Smith (C), 2021). The H1N1 outbreak of 2009 should have taught HR practitioners and managers some important lessons. DOL recommendations first developed then should have been incorporated into organizational planning routines. The current situation should be a reminder that this could happen again, and planning and preparation lessons learned this time should be incorporated into future plans to manage such an on-going crisis.
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THE U.S. MEDICAID DENTAL INSURANCE COVERAGE GAP: ACCESS ISSUES PERSIST FOR MILLIONS OF ITS CITIZENS

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ABSTRACT

Oral health is usually excluded or not considered part of primary healthcare, especially for adults. Disparities in oral health are more likely to impact low-income, uninsured, ethnic minorities, immigrants, or rural populations who have no access to quality oral health. Medicaid and the Children’s Health Insurance Program (CHIP) provide medical and dental services for free or low cost to over 72.5 million Americans; however, adults are excluded from the dental benefits. Under the Affordable Care Act (ACA), 39 states have adopted the Medicaid expansion intending to include dental benefits in their alternative benefit plan (ABP) for eligible adults up to 138% of the federal poverty level (FPL). Nevertheless, the twelve states that have not adopted the Medicaid expansion leave over 2 million adults without dental coverage. The disadvantaged and underserved communities are at a higher risk for periodontal disease and decay due to social factors that include poor nutrition, lack of preventive oral health, alcohol and tobacco use, and oral cancer in older adults. Periodontal disease can cause adverse systemic conditions, and systemic diseases can cause periodontal disease. This issue leaves the disadvantaged and underserved adults in pain, ill from infections, in need of extractions, and facing detrimental effects on their health and quality of life.

Key Words: Dental, Disadvantaged Adults, Federally Qualified Health Center, Medicaid Expansion, Oral Health

INTRODUCTION

Oral health, especially for adults, is usually excluded from healthcare policies and practices in the United States. As a result, the disparities in oral health are more likely to impact low-income, uninsured, ethnic minorities, immigrants, or rural populations who have no access to quality oral health (Northridge et al., 2020). Medicaid and the Children’s Health Insurance Program (CHIP) provide medical and
dental services for free or low cost to over 72.5 million Americans, including children ages 18 and younger, disabled individuals ages 19 - 20, parents of children on Medicaid, seniors, and pregnant women (Medicaid, n.d.). Dental services are mandatory for children on Medicaid, ages 21 and younger. However, adults are excluded from Medicaid dental services unless there is a need for oral surgery, such as emergency extractions.

Under the Affordable Care Act (ACA), 39 states have adopted the Medicaid expansion intending to include dental benefits in their alternative benefit plan (ABP) for eligible adults up to 138% of the federal poverty level (FPL) (Kaiser Family Foundation [KFF], 2021; Chazin et al., 2014). Each state that adopted the expansion can offer dental benefits from three general categories: emergency only: relief of pain; limited: diagnostic, preventative, and minor restorative; or extensive: diagnostic, preventative, minor, and major restorative (Center for Health Care Strategies, 2021). With the extensive category, Wehby et al. (2019) reported an increased likelihood of dental visits among low-income adults by nearly 6% in 2016. This increase indicates that offering the “extensive category” will improve access for low-income adults. However, states that provided the “limited category” did not see an increase in dental visits. Nevertheless, the twelve states that have not adopted the Medicaid expansion leave over 2 million adults without dental coverage. In addition, a proportion of the Medicaid recipients land in the “coverage gap” with incomes above the FPL, or they have an income lower than the limit for Marketplace premium tax credits (Garfield & Damico, 2017). The “coverage gap” beneficiaries could be eligible for Medicaid if the state they live in chooses to expand coverage or lower the FPL.

The American Dental Association (ADA) recommends regular dental prophylaxis (dental cleaning) twice a year to maintain optimal oral health (n.d.). However, Medicaid recipients may not have the ability to pay out-of-pocket costs for public or private insurance coverage for an exam, radiographs, and dental prophylaxis. These prices can range from $200 - $600. The price increases if treatment is needed for periodontal scaling and root planning (SCRPs), fillings, crowns, or root canals. Hegde and Awan (2019) reported that one in two adults in the United States, or 64.7 million adults, have periodontal disease. Poor oral health can lead to periodontal disease. This chronic inflammatory disease affects the tissues and bone that support the teeth, which can cause bone loss and tooth mobility. To maintain optimal oral health and halt the progression of periodontal disease, dentists recommend having periodontal maintenance every three to four months, which, as stated above, entails hundreds of dollars for each visit.

The disadvantaged and underserved communities are at a higher risk for periodontal disease and decay due to social factors. These social factors include poor nutrition, lack of preventive oral health, poor restorative oral health care quality, excessive alcohol and tobacco use, and oral cancer in older adults (Northridge et al., 2020). When a patient has decay, periodontal disease, or possible oral cancer and does not
seek care from a dental provider, this may lead to tooth loss and, eventually, edentulism. Edentulism means a patient has completely lost all-natural teeth, reducing a patient’s quality of life, self-image, and daily functioning (Gil-Montoya et al., 2015). The Center for Health Care Strategies (2021) reported that 42% of low-income adults ages 20 to 64 need dental treatment due to decay or periodontal disease, and more than one-third of those 65 and older have lost all of their natural teeth. Untreated, periodontal disease has been linked to several systemic diseases; atherosclerosis, pulmonary disease, diabetes, respiratory, stroke, osteoporosis, and kidney disease (Kane, 2017). In addition, it is believed that the inflammation in the oral cavity can get into the bloodstream and cause damage to the heart and cause respiratory problems. Since Medicaid does not cover dental services for adults in most states, many will not seek a dentist due to financial difficulties. Consequently, what follows is decay, tooth loss, edentulism, and possibly chronic diseases, diseases that overall cost more than years of series of dental visits (Heilmann, Tsakos, & Watt, 2015).

In addition, the disadvantaged population has had difficulty finding a dentist that accepts Medicaid. Only 20% of practicing dentists nationwide accept Medicaid (Chazin et al., 2014). Many dentists are hesitant to participate in government programs because they only get reimbursed as little as half of the private insurance patients. This issue leaves the disadvantaged and underserved adults in pain, ill from infections, in need of extractions, and facing detrimental effects on their health and quality of life.

**DESCRIPTION OF THE PROBLEM**

Chazin et al. (2014) reported that the federal government considers dental coverage for adults “optional” for all states. It is usually eliminated or substantially cut from funding due to budget constraints. These funding cuts cause a severe barrier to oral health for low-income adults, who usually cannot afford to pay out-of-pocket for dental services. In addition, federal regulations require states that do not offer dental benefits to pay for medical and surgical services related to the oral cavity (Chazin et al., 2014).

Hinton and Paradise stated that 49% of adults with private insurance had a dental visit last year, compared to 20% of adults with Medicaid and 17% of uninsured adults (2016). Since Medicaid does not cover dental services for adults, many will not seek dental care due to financial difficulties. Instead, they wait until they have pain, are ill from infections, or require extractions, which usually cost more than seeing a dentist for preventative services. Unfortunately, if low-income adults cannot afford regular preventative dental visits, the patient might wait until they are experiencing oral pain before going to the emergency room. Akinlotan and Ferdinand reported 2.2 million visits in 2015 to emergency rooms for nontraumatic dental conditions, costing over 2 billion dollars and increasing annually (2020). Over time, a persistent lack of dental care for low-income adults may result in low
intentions to take care of their oral health, reinforcing existing disparities (Hinton & Paradise, 2016).

As stated above, poor oral health can lead to periodontal disease. The disadvantaged and underserved communities are at a higher risk for periodontal disease and decay due to social factors that include poor nutrition, lack of preventive oral health, excessive alcohol and tobacco use, and oral cancer in older adults (Northridge et al., 2020). Drinking excessive alcohol increases the risk of developing oral cancer. Smoking and drinking alcohol together multiplies the risk of oral cancer and oropharyngeal cancer (American Cancer Society, n.d.). According to Johnson et al. (2012), oral cancers are more prevalent in low socioeconomic status groups.

Furthermore, many studies have shown poor oral health (periodontal disease) associated with several systemic diseases; atherosclerosis, pulmonary disease, diabetes, respiratory, stroke, osteoporosis, and kidney disease (Kane, 2017). Atherosclerosis is the narrowing of the blood flow in the arteries due to cholesterol buildup in the vessel walls. Patients with a history of cerebrovascular attacks have worse oral health than people that see the dentist regularly (Kane, 2017). Pulmonary diseases involve the aspiration of bacteria, viruses, and fungi from the oral cavity or oropharynx into the lower respiratory tract, causing an infection (Kane, 2017). Diabetes is a chronic disease of disrupted glycemic control resulting from a lack of insulin production or systemic insulin resistance (Kane, 2017). Periodontal disease can cause adverse systemic conditions, and systemic diseases can cause periodontal disease (Hegde & Awan, 2019). Diabetes is a great example, it can negatively affect oral health, and periodontitis can negatively impact glycemic control (Kane, 2017). Also, when a patient receives treatment for one disease, it could improve the other condition. In addition, the removal of the bacteria from the oral cavity, periodontal SCRP, and the use of oral antibiotics have the most significant impact on glycemic control and periodontal disease in diabetic patients (Kane, 2017). And this is why it is important to take oral health seriously.

Complications associated with these systemic diseases can cause “morbidity and mortality” and are costly to the government’s healthcare system, affecting taxpayers (Harris, 2019). Yet, the federal government does not mandate dental coverage for adults. Each state has the “option” to pay for dental coverage for Medicaid recipients. Some states choose to reduce or eliminate dental coverage from the budget to save money. Without the financial support from the states through Medicaid expansion, there will be more emergency room visits for preventable dental issues. In addition, the cost of care and treatment for these oral-health-related chronic conditions are costly and come with additional expenses paid by the state Medicaid budget (DentaQuest Ventures, 2020).

When diseases, infections, and cancers start in the oral cavity, they can spread throughout the body and cause severe and lifelong issues. This leaves the disadvantaged and underserved adults with pain, ill from infections, in need of
extractions, and facing overall adverse effects on their general health and quality of life. This is thought to save the government money but may end up being more costly.

RESEARCH AND LITERATURE REVIEW

The American Dental Association (ADA) (n.d.) recommends regular dental prophylaxis twice a year to maintain optimal oral health. Unfortunately, Medicaid recipients may not have the ability to pay out-of-pocket costs for public or private insurance coverage for an exam, radiographs, and dental prophylaxis, leading to gingivitis or periodontal disease. These services can range from $200 - $600; the price increases if treatment is needed for any other services. For example, DentaQuest Ventures (2020) stated that 51% of patients’ oral health was their primary concern over heart, eye, skin, digestive, and even mental health. However, in 2013-2016, one out of five adults did not receive dental care due to cost. In addition, patients who wait until they are in pain usually require more extensive treatment; fillings, crowns, root canals, or extractions may be needed. In contrast, some dental issues could be entirely prevented with regular dental prophylaxis every six months.

Gingivitis is characterized by the inflammation, swelling, and bleeding of the gingiva. The gingiva will heal with regular dental prophylaxis, brushing twice a day for two minutes and flossing at night before bedtime. Oral hygiene homecare impacts the microbes in the oral cavity. Good oral hygiene has a simple flora dominated by gram-positive cocci, rods, and gram-negative cocci (Kane, 2017). Poor oral hygiene changes to a complex flora of anaerobic gram-negative organisms, which accumulate in the pocket depths and cause inflammation, damaging the supporting structures; this eventuality is called periodontitis (Kane, 2017). This chronic inflammatory disease affects the tissues and bone that support the teeth, which can cause bone loss and tooth mobility. Hegde and Awan (2019) reported that one in two adults in the United States, or 64.7 million adults, have periodontal disease. To maintain oral health and halt the progression of periodontal disease, dentists recommend having perio maintenance every three to four months, which entails hundreds of dollars for each visit.

Furthermore, the disadvantaged population of all ages has difficulty finding a dentist that accepts Medicaid. Only 20% of practicing dentists nationwide accept Medicaid (Chazin et al., 2014). There are several reasons dentists do not participate in Medicaid; dental reimbursement rates are low, and no-show rates are high (Jackson, 2021). In 2014, a high no-show rate of 45.7% posed serious financial and healthcare concerns for all providers (Jackson, 2021). Additionally, some Medicaid recipients may have more challenges getting to an appointment due to no transportation, not being able to take time off of work, and gaps in health literacy (Chazin et al., 2014). According to Hinton & Paradise (2016), nationally, 27% of all adults ages 20-64 have dental caries, and 44% have an income below 100% of the federal poverty level.
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(FPL). Thus, a consistent lack of access to dental care results in common misconceptions among low-income adults, emphasizing the existing disparities. For example, some low-income adults may not be aware of the need for regular dental prophylaxis and possibly cannot afford dental appointments. Their coverage and access challenges have led to increased dental-related emergency room visits and uncompensated care over several years—costs mainly paid for by taxpayers (Chazin et al., 2014).

Most states that eliminated the dental benefits for adults with the Medicaid expansion led to increased emergency room visits. Every 14 seconds, nationwide, adults visit the emergency room for dental-related issues and costing the healthcare system over $2.4 billion (DentaQuest Ventures, 2020). Unfortunately, most emergency rooms do not have a dentist on staff to provide comprehensive dental care. When patients are seen in the emergency room, they are not treated for cavities or periodontal diseases. Instead, they are merely given antibiotics or pain medication until they can contact a dentist. Akinlotan and Ferdinand’s (2020) study summarized their systematic literature review of 63 articles published between 2010 and 2020 using the Andersen Behavioral Model as a guide. They took the adjusted odds ratios (ORs) and confidence intervals (CIs) and measured the association between predictors and emergency room visits for nontraumatic dental conditions (NTDCs). They found that uninsured patients were three times more likely to visit the emergency room with an NTDC than private insurance patients (Akinlotan & Ferdinand, 2020).

Conversely, when dental coverage is provided through Medicaid expansion, preventative dental services increase, and emergency room visits for non-traumatic dental conditions decrease (DentaQuest Ventures, 2020). Also, with preventative dental services covered for adults every three, four, or six months, the dental hygienist and dentist can treat cavities, check for infections, manage periodontal disease, and detect oral cancer in adults. Hence, Medicaid expansion catches any adverse effects quickly when seeing patients regularly.

In another study by Patel et al. (2019), their cross-sectional analysis of 47 million American adults ages 30 and older from the National Health and Nutrition Examination Survey (NHANES) 2015-2016 found that the lack of dental coverage and access to dental care contributed to healthcare disparities and poor oral health outcomes in people with low socioeconomic status. Furthermore, the study explains that people in the low socioeconomic group with limited access to preventative dental services will likely have severe periodontitis.

The American Rescue Plan Act of 2021 encourages non-expansion states to expand by providing temporary fiscal incentives for states to implement the ACA Medicaid expansion (Corallo et al., 2021). The federal government pays 90% of Medicaid coverage for adults covered through the ACA expansion. Under the new law, American Rescue Plan Act will provide a 5% increase in the state’s regular or
traditional match rate for two years (Corallo et al., 2021). In addition, the Families First Coronavirus Response Act (FFCRA) and the Public Health Emergency (PHE) have already provided a 6.2% incentive for states that expand their Medicaid. Corallo et al. estimate that new states’ cost for the Medicaid expansion would be $6.8 billion over two years; with the 11.2% incentives, states could receive $16.4 billion, which would result in an estimated financial benefit of $9.6 billion for the two years (2021). The data shows that Medicaid expansion will be a win-win for all states, disadvantaged populations, and underserved adults already on or eligible for Medicaid.

IDENTIFICATION AND DISCUSSION OF SOLUTIONS

As of February 2019, 37 states have adopted the expansion of Medicaid, and now 12.6 million Americans are eligible to receive medical and dental coverage (Rudowitz et al., 2019). Medicaid is for all Americans who meet the eligibility requirements and are guaranteed coverage. In addition, the states are guaranteed the federal matching dollars of at least 50% and possibly a higher rate for poorer states (Rudowitz et al., 2019). As of now, the twelve states have neither expanded Medicaid or passed ballots to initiate the expansion. The non-expanded Medicaid states can cover millions of low-income adults who cannot afford other healthcare coverage options. By refusing the expansion, states are missing out on billions in federal funding to help low-income adults and help the economy.

Medicaid and the Children’s Health Insurance Program (CHIP) provide medical and dental services for free or low cost to over 72.5 million Americans, including children ages 18 and younger, disabled individuals ages 19 - 20, parents of children on Medicaid, seniors, and pregnant women (Medicaid, n.d.). Before Medicaid and CHIPs were approved and available to millions of Americans, the states built a robust provider network, bargained contracts, invested in care coordination efforts, and provided support; by collaborating with all providers for the disadvantaged “children” population (Hinton & Paradise, 2016). This same program can be implemented for the disadvantaged “adult” population.

Moving toward an integrated, “whole-person” care for Medicaid recipients will ensure that patients receive coordinated care from groups of physicians, hospitals, dentists, and other healthcare providers, just like the Accountable Care Organizations (ACOs) with Medicare recipients (Centers for Medicare & Medicaid Services, n.d.). Then, when ACOs successfully deliver quality care and conservatively spend healthcare money wisely, there will be savings to all involved. In addition, physicians and dentists need to collaborate more and share information that can impact the patients’ health. For example, Kane (2017) found that most patients with chronic conditions do not think that issues in the oral cavity can affect their hearts, lungs, and bones. However, the relationships are apparent with oral and systemic diseases that call for increased collaboration. What’s more, as stated above,
altering any coexisting (diabetes and periodontal disease) state may prevent a severe life-threatening medical event.

The 37 states that expanded Medicaid under the Affordable Care Act (ACA) provided noticeable benefits for the economy and low-income adults and their families. For example, Buchmueller et al. (2020) reported that the expanded Medicaid states helped unemployed workers access medical and dental care and lowered mortality. Healthcare coverage supports the adults’ ability to work and increases employability. For example, the United States had 164 million working hours lost yearly due to oral diseases (DentaQuest Ventures, 2020). In addition, 29% of low-income adults state that their teeth affect their confidence when interviewing for a job. After states expanded Medicaid, several studies concluded that hospitals’ uncompensated care was cut in half and helped create jobs, boosting the state’s economy (Buchmueller et al., 2020). The spillover benefits helped the economy by reducing debt and helping improve credit scores.

Decker and Lipton (2015) found that states that expanded Medicaid increased access to dentists and reduced dental caries in children. Nevertheless, Medicaid payment rates affected adult recipients and their access to dental care. For example, the Medicaid dental fee increased from $37.57 to $40.04 between 2000 and 2009, and in 2014, the ACA required that Medicaid fees increase to Medicare rates, which resulted in a 2.5% increase (Decker & Lipton, 2015). These results imply that even if a state expands Medicaid, they need to increase Medicaid payment rates so the adults will have access to dental care. Focusing on improving dental benefits will result in a healthier population, improving oral health, increasing dental providers, patient satisfaction, and overall health outcomes, reducing costs, mortality, and disabilities (DentaQuest Ventures, 2020).

Community health centers are a vital source of dental care for adult Medicaid recipients and underserved communities. In 2014, community health centers were able to serve 22.5 million patients, 46% were Medicaid beneficiaries, and 28% were uninsured patients (Hinton & Paradise, 2016). In addition, the ACA invested in health center expansions, established a five-year $11 billion Health Center Trust Fund, and provided $1.5 billion to pay for medical and dental providers to work in the health centers (Hinton & Paradise, 2016). The ACA trust fund made it possible for the states that expanded Medicaid to increase dental care access for eligible adults.

Another way to potentially expand access to dental services for low-income adults is to modify the rules on “scope-of-practice,” allowing Registered Dental Hygienists (RDH) to provide dental services without a dentist present or direct supervision (Hinton & Paradise, 2016). Expanding the scope-of-practice enables RDHs to provide direct access to low-income adults and underserved communities in mobile dental clinics, nursing homes, and walk-in clinics. At the same time, the remote dentist and the entire team have access to demographics, radiographs, and intraoral photos using electronic dental records to determine the level of care needed. RDHs
and dental therapists can be trained and licensed to perform restorative treatments, allowing the dentist to provide more complex procedures (Chazin et al., 2014). With the expansion of the RDH and dental therapist workforce, dental care for low-income adults will increase accessibility. Alaska, Minnesota, and Maine have already accepted and licensed mid-level providers known as dental therapists to improve access to dental care in underserved communities. In addition, some states may need to amend the Medicaid reimbursement policies to allow RDHs to bill directly for services provided to Medicaid recipients (Hinton & Paradise, 2016).

The National Dental Pipeline Program is another way to increase access to dental care in underserved populations. The Dental Pipeline creates a partnership between dental schools and community-based healthcare organizations. Their program aims to eliminate racial and ethnic disparities and increase diversity enrollment among dental schools faculty and students (Pipeline Profession & Practice, n.d.). In addition, developing a diverse oral health workforce will help minority providers arrange care for minority communities. The program gives grants to dental schools; however, the dental schools have to establish community-based clinical education programs, revise the curriculum to integrate community-based practice experiences, and select a program that will increase recruitment for minorities (Pipeline Profession & Practice, n.d.).

**PROPOSED IMPLEMENTATION PLAN**

The US oral health care delivery system has failed to assure vulnerable populations from dental caries and periodontal diseases, which remains prevalent of all chronic diseases over time, despite being largely preventable. Improving the oral health of low-income adults involves expanding coverage, oral health education, improving access and care delivery. Medicaid plays an essential role in this area; however, some states have not expanded, leaving millions with no dental coverage. The proposed plan is opening a Federally Qualified Health Center (FQHC) with RDHs and dental therapists providing free, reduced-cost, and accepting Medicaid for dental services (Texas Department of State Health Services, n.d). The proposed implementation plan expands the “scope-of-practice” for RDHs and dental therapists to be trained and licensed to provide dental services without a dentist present or direct supervision. Remote dentists and the entire team have access to demographics, radiographs, and intraoral photos using electronic dental records to determine the level of care needed. The proposed implementation plan would improve access and care delivery of dental services to low-income and underserved populations.

The first step is to apply to become a funded health center with the Health Resources & Services Administration. Federal funding will be awarded to recipients under section 330 of the Public Health Services (PHS) Act. The New Access Points (NAP) is funding to establish a new site to deliver comprehensive health care services in medically underserviced areas or for medically underserved populations.
Resources & Services Administration, 2020). The estimated award amount is up to $650,000 per year, subject to the availability of appropriated funds, total annual available $50,000,000 (Bureau of Primary Health Care, 2019). After the approval of funds, the second step is to find a building that will have easy access and care delivery of dental services in the area with a shortage of dental health professionals and public bus routes.

The third step is to receive approval to participate in Medicaid, allowing Medicaid to reimburse RDHs and dental therapists for services rendered directly. The federal law requires states to cover specific groups. For example, low-income families, pregnant women and children, and individuals with Supplemental Security Income (SSI) (Medicaid, n.d.). While waiting for approval, the staff will still provide dental services to all children and adults in need for free or at a low cost.

The fourth step is contacting dental hygiene directors from Tarrant County College and Texas Women’s University to set up a meeting. FQHC would like to offer community service hours to the second-year students in the dental hygiene programs. In addition, provide the directors with the mission and goals FQHC would like to accomplish by providing dental services to low-income adults and underserved communities, emphasizing prevention and wellness.

Opening an FQHC will hire four RDHs, three dental therapists, three dental assistants, two dentists (off-site), two nurses (off-site), and two insurance coordinators. FQHC will hire a diversified group of employees who believe in an inclusive culture and encourage empathy and understanding. Our mission is to improve access to dental care for underserved populations in the Northside area of Fort Worth, Texas. The four RDHs will provide dental prevention, dental prophylaxis, scaling and root planing (SCRPs), radiographs, intraoral photos, and oral cancer screenings while using electronic dental records. In addition, the three dental therapists will provide comprehensive exams and perform restorative treatments after approval from one of the off-site dentists. Finally, collaborate with nurses regarding resources and the relationship between our patients’ oral and severe systemic needs. FQHC will provide dental care for low-income adults and underserved communities with preventative and restorative services to mitigate dental emergency room visits and save the government billions.

There will be student RDHs volunteering in the FQHC from local dental hygiene programs at Tarrant County College and Texas Women’s University on Mondays, Wednesdays, and Fridays. The three dental therapists will supervise the RDH volunteers while they are providing dental services to all patients in the FQHC. The two insurance coordinators will schedule all appointments and verify insurance as needed. In 2014, a high no-show rate of 45.7% posed serious financial and healthcare concerns for all providers of Medicaid (Jackson, 2021). So, reminding and educating all patients on the importance of showing up for dental appointments,
verifying current contact information, providing public bus routes, and ensuring open provider-patient communication.

FQHC has identified conflicts with financial, education, and physical barriers and developed solutions as a team. The physical barrier was the first barrier FQHC developed a solution for by finding a location near the public bus route in the neighborhood where they will be delivering needed dental services for low-income adults and underserved communities. The conflicts with finances are free, low costs, and accepting Medicaid recipients for dental services. Finally, on education conflicts, FQHC addressed the patients’ lack of knowledge of resources and ways to gain access to them, provided ways to decrease the emergency room visits, and stressed the importance of prevention and wellness.

CONCLUSION

The US oral health care delivery system has failed to assure vulnerable populations from dental caries and periodontal diseases, which remains prevalent of all chronic diseases over time, despite being largely preventable. In addition, the lack of dental coverage and access to dental care contributed to healthcare disparities and poor oral health outcomes in people with low socioeconomic status. By states refusing the Medicaid expansion, they are leaving millions without dental coverage and missing out on billions of federal funding, which would help the economy. Opening FQHC and providing dental care for low-income adults and underserved communities with preventative and restorative services will mitigate dental emergency room visits and save the government billions. When FQHC focuses on enhancing oral health benefits, it will result in a healthier community, increase satisfaction among providers and patients, and improve oral and overall health outcomes while reducing costs, mortality, and disability.

REFERENCES


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EXAMINING LOYALTY REWARD PROGRAMS BY BRANDS THAT PARTNER WITH SPORTS TEAMS: A STUDY OF FRENCH CONSUMERS

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ABSTRACT

This study used a sample of French consumers that included highly identified fans of French soccer club Paris Saint-Germain (PSG), low-identification fans, and non-fans, to examine their responses to loyalty reward benefits for different brands. The reward benefits were either tied to the team (e.g., team-related experiences) or not (e.g., vouchers for the brand). Results showed that highly identified fans found the team-related benefits more desirable than the low-identification fans and non-fans. Also, highly identified fans found several of the team-related benefits more desirable than the benefits not relating to the team. The findings provide useful managerial insight regarding the value of brands partnering with sports teams and offering team-related benefits as part of the brand’s loyalty reward program.

KEY WORDS: fan identification, loyalty, soccer, sponsorship, sports

INTRODUCTION

American Airlines launched their Frequent Flier program in 1981, considered the first full-scale loyalty program of the modern era (O’Malley, 1998) and since then many brands have been using some form of a loyalty program in an effort to attract and retain customers and cultivate higher loyalty rates among their most valuable customers (Lacey and Sneath, 2006). A majority of consumers in many countries are enrolled and participate in at least one such program (Melancon, Noble, and Noble, 2010, Rowley, 2004).

In an effort to make their loyalty program more attractive, brands that partner with sports teams (e.g., sponsors) often include reward benefits that are tied to their sponsored team. For example, Marriott, a sponsor of Manchester United offers its customers opportunities to redeem their hotel points for
experiences related to the team (e.g., child being a mascot walking to the pitch with the team before a game). Sports provide strong emotional connections to many fans and it is reasonable to expect that such benefits would be especially appealing to fans and, therefore, increase their patronage of and loyalty to the brand offering them.

This study intends to provide insight regarding this topic. Specifically, using a sample of French consumers, we examine fan responses to potential loyalty reward benefits that are either tied to a team (leading French soccer club Paris Saint-Germain) or not. Subsequently, we compare responses to the different benefits options between highly identified fans of the team and low-identification fans and non-fans of the team. The results provide useful managerial insight to brands partnering with sports teams regarding.

CONCEPTUAL BACKGROUND AND HYPOTHESES

The rewards offered by loyalty programs are critical in influencing consumers’ decision if the costs (e.g., financial commitment to a brand) are worthwhile (Kim and Ahn, 2017; Kim, Shi, and Srinivasan, 2001). Brands typically offer economic rewards where consumers can exchange the points they earn for discounted or free airline flights or free hotel stays (Tanford, Shoemaker, and Dinca, 2016). However, some brands also reward their loyal customers with non-financial benefits, like senior membership status (Drèze and Nunes, 2009; Ivanic, 2015). Melancon, Noble, and Noble (2010) found that social rewards lead to affective commitment, while perceived economic rewards lead to continuance commitment. Exclusive rewards for high-loyalty customers are especially meaningful, especially for loyal customers of sports teams like season ticket holders (Dalakas, Tseng, and Melancon, 2021).

Sponsorship is “an investment, in cash or in kind, in an activity, in return for access to the exploitable commercial potential associated with that activity” (Meenaghan, 1991, p. 36) and many brands engage in sports sponsorship as a way to achieve their marketing objectives (Cornwell and Kwon, 2020). Partnering with a sports team allows the brand access to team-related benefits that the brand may offer as part of its reward benefits in its loyalty program. The emotional connection between many fans and their favorite teams is strong, which would make such reward benefits especially attractive to the fans of the team. However, the degree of identification a fan has with his or her favorite team varies (Dalakas and Levin, 2005) and the effect of fandom varies accordingly.
Research has found consistent support for the positive effects of sports sponsorship for a sponsoring brand in terms of response from the highly identified fans of a sponsored team. Essentially, a liking transfer takes place where the affinity toward a team translates into favorable attitudes and purchase intentions toward a brand sponsoring the team (Dalakas and Levin, 2005). This effect is especially pronounced among highly identified (Davies, Veloutsou, and Costa, 2006; Madrigal, 2001; Madrigal and Dalakas, 2008; Smith, Graetz, and Westerbeek, 2008).

We expect that a similar process will take place in regard to a sponsor’s offerings of team-related benefits but also that the appeal of team-related benefits will vary depending on one’s level of attachment to the team. Therefore, we hypothesize that:

**H1:** High identification fans will evaluate more favorably a brand’s loyalty reward benefits that relate to their team that the brand sponsors than the low identification fans or the non-fans.

Along these lines, research has also established that highly identified fans tend to evaluate anything related to their favorite team more favorably and information is processed in a manner that illustrates an in-group bias (Madrigal and Dalakas, 2008), even when there may be objective information suggesting it should not (Bee and Dalakas, 2015). For example, highly identified fans have been found to attribute a team’s victories to internal causes and losses to external causes (Wann and Schrader, 2000) and to evaluate favorably fans of their team and unfavorably fans of an opposing team (Wann and Dolan, 1994).

We expect to find a similar tendency in the context of loyalty reward benefits where team-related benefits will also be considered especially attractive and desirable. On the other hand, we expect the opposite tendency among non-fans. Therefore, we hypothesize that:

**H2:** High identification fans will evaluate more favorably a brand’s loyalty reward benefits that relate to their team that the brand sponsors than loyalty reward benefits that do not relate to their team.

**H3:** Non-fans will evaluate more favorably a brand’s loyalty reward benefits that do not relate to a team than loyalty reward benefits that relate to a team that the brand sponsors.
METHOD

The survey was shared with a convenience sample of French consumers online through social networks (e.g., the first author’s LinkedIn). Of 114 returned surveys, a total of 98 were completed and usable. Females constituted 39% of the sample. The sample was fairly equally divided between students (56%) and non-students (44%); similarly, 64% of the sample was younger than 24 years old.

The study focused on the French soccer club Paris Saint-Germain (PSG), the champion of the French Soccer League (Ligue 1) and runner-up of the 2020 UEFA Champions League Competition. Therefore, participants were asked to indicate their favorite soccer club and answer questions from the Sport Spectator Identification Scale (Wann and Branscombe, 1993) regarding their favorite club. Examples of the scale questions include “how important is it to you that your team wins” and “how much do you see yourself as a fan of your team?” Fifty-seven of the respondents (more than half) indicated their favorite club was PSG, the focal team for the study.

The survey proceeded to asked questions about loyalty benefits for brands from different product categories. We used a mix of brands to avoid any potential biases associated with one specific product category. Along those lines, we used some brands that are actual sponsors of the club and some brands that are not. Specifically, respondents were asked to indicate the desirability of 20 different benefits from 9 different brands, presented in pairs for each brand with one team-related benefit and one not related to the team for each pair. For example, “how desirable do you consider the following benefits as a reward for a loyalty program for Nike? (Assume you need the same number of reward points for each benefit)” The pair of benefits in this case was a) a discovery day at the Camp des Loges and meeting with the players and b) a 250€ voucher for Nike.

RESULTS

We used a median split to divide the PSG fans into high and low identification fans. Fans whose mean score on the identification scale was 4.25 or lower were classified as low-identification fans and fans with a mean score of 4.26 or higher were classified as highly identified fans.

Our first hypothesis predicted that highly identified fans would evaluate the team-related benefits more favorably than the low-identification fans and the
Consistent with H1, highly identified fans perceived significantly more favorably each of the team-related benefits compared to the low-identification fans of the team and those who were not fans of the team.
Therefore, H1 was supported.

Our second hypothesis predicted that highly identified fans would evaluate more favorably loyalty reward benefits that related to their team than benefits that did not relate to their team.

**Table 2. Paired-Sample T-Tests for Team-Related Benefits and Non-Team-Related Benefits for Highly Identified Fans**

<table>
<thead>
<tr>
<th>Name of the sponsor</th>
<th>Significance</th>
<th>Mean of team-related benefits</th>
<th>Mean of non-team related benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offered by Nike</td>
<td>p &gt; .05</td>
<td>6.17</td>
<td>5.93</td>
</tr>
<tr>
<td>Offered by ALL</td>
<td>p &gt; .05</td>
<td>6.41</td>
<td>6.07</td>
</tr>
<tr>
<td>Offered by ALL (2)</td>
<td>p &gt; .05</td>
<td>6.59</td>
<td>6.07</td>
</tr>
<tr>
<td>Offered by McDonald’s</td>
<td>p &lt; .05</td>
<td>6.14</td>
<td>4.72</td>
</tr>
<tr>
<td>Offered by BeinSport</td>
<td>p &gt; .05</td>
<td>6.28</td>
<td>5.93</td>
</tr>
<tr>
<td>Offered by Unibet</td>
<td>p &lt; .05</td>
<td>6.20</td>
<td>5.07</td>
</tr>
<tr>
<td>Offered by EASport</td>
<td>p &lt; .05</td>
<td>6.34</td>
<td>5.45</td>
</tr>
<tr>
<td>Offered by Hisense</td>
<td>p &lt; .05</td>
<td>6.38</td>
<td>5.48</td>
</tr>
<tr>
<td>Offered by Renault</td>
<td>p &lt; .05</td>
<td>6.24</td>
<td>5.17</td>
</tr>
<tr>
<td>Offered by Orange</td>
<td>p &gt; .05</td>
<td>5.00</td>
<td>4.66</td>
</tr>
</tbody>
</table>
To test this hypothesis, we conducted paired sample T-Test for the team-related benefits and for non-team related benefits for the highly identified fans. The table below summarizes the test results.

In all cases, the means for the team-related benefits were higher than the means for the benefits that were not related to the team. However, the difference was significant for half of them and not significant for the other half. Thus, our H2 was partly supported.

The third hypothesis predicted that non-fans would evaluate the benefits that were not related to the team more favorably than the benefits related to the team.

**Table 3. Paired-Sample T-Tests for Team-Related Benefits and Non-Team-Related Benefits for Non-Fans**

<table>
<thead>
<tr>
<th>Name of the sponsor</th>
<th>Significance</th>
<th>Mean of team related benefits</th>
<th>Mean of non-team related benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offered by Nike</td>
<td>p &lt; .05</td>
<td>4.85</td>
<td>6.00</td>
</tr>
<tr>
<td>Offered by ALL</td>
<td>p &lt; .05 (not significant)</td>
<td>5.29</td>
<td>5.68</td>
</tr>
<tr>
<td>Offered by ALL (2)</td>
<td>p &lt; .05 (not significant)</td>
<td>5.76</td>
<td>6.02</td>
</tr>
<tr>
<td>Offered by McDonald's</td>
<td>p &lt; .05 (not significant)</td>
<td>5.02</td>
<td>4.20</td>
</tr>
<tr>
<td>Offered by BeinSport</td>
<td>p &lt; .05 (not significant)</td>
<td>5.07</td>
<td>5.24</td>
</tr>
<tr>
<td>Offered by Unibet</td>
<td>p &lt; .05 (not significant)</td>
<td>4.80</td>
<td>4.54</td>
</tr>
<tr>
<td>Offered by EASport</td>
<td>p &lt; .05 (not significant)</td>
<td>4.76</td>
<td>5.22</td>
</tr>
<tr>
<td>Offered by Hisense</td>
<td>p &lt; .05 (not significant)</td>
<td>4.98</td>
<td>5.22</td>
</tr>
<tr>
<td>Offered by Renault</td>
<td>p &lt; .05 (not significant)</td>
<td>5.17</td>
<td>4.85</td>
</tr>
<tr>
<td>Offered by Orange</td>
<td>p &lt; .05 (not significant)</td>
<td>3.93</td>
<td>4.37</td>
</tr>
</tbody>
</table>

Similar to the test for H2, we used paired sample T-Tests for the team-related benefits and for the non-team related benefits for all of the
respondents who were not fans of the team. The table below summarizes the results of the test.

Overall, with the exception of one benefit, H3 was not supported and there was not significant difference in perception of team-related benefits vs. benefits not relating to the team among non-fans.

**DISCUSSION AND IMPLICATIONS**

The positive response of highly identified fans to team-related benefits compared to benefits not related to the team provides additional support for why brands should pursue partnerships with sports teams. In addition to the benefits that previous research established where positive attitudes and intentions are elicited simply because of the brand’s association with the team, our study shows that the partnership can also function as a loyalty-building mechanism. Fans’ identification with their team and desire to enjoy team-related items or experiences can indeed motivate increased patronage and loyalty to a brand offering such items and experiences as loyalty rewards. It is important to note that a brand cannot offer such benefits without an official partnership with the team, further confirming the benefits of aligning with sports teams.

Another noteworthy observation regarding the appeal of team-related benefits to highly identified fans is the fact that many of them, particularly the experiential ones, are of high emotional value to the fans while being of low cost to the brand. For example, having a fan cash in many loyalty points in exchange for the opportunity to shake hands with some players after practice and take a picture with them costs nothing extra to the brand or to the team or the players. However, for the fan/consumer this can be an extremely exciting and memorable moment. Considering that the traditional non-team-related benefit one could get in exchange for these points would normally be free products or services from the brand, the team-related benefit seems to be a win-win scenario for both the highly identified fans and for the brand.

While team-related benefits are appealing to the highly identified fans, it is important for a brand to also offer other benefits not related to the team. The results suggested that in some cases there was no significant difference between desirability of team-related benefits and benefits not related to the team for highly identified fans. Moreover, low-identification fans and non-fans are less favorable toward team-related benefits compared to the highly
identified fans. Also, the fact that there was no difference in the perception of non-team benefits and team benefits among fans was surprising in the sense that it did not support our hypothesis about them liking non-team benefits more. However, at the same time it also shows they do not like team-related benefits more, reinforcing the need for a brand to offer both. Marriott, a sponsor of well-known English club Manchester United, seems to be doing a good job in that respect. Marriott customers have the option of cashing in their loyalty points for hotel stays (needing more points for nicer hotels in more desirable locations) or for Manchester United experiences.

LIMITATIONS AND FUTURE RESEARCH

The study used a French convenience sample and focused on one French club. While studies on fan identification show the effects are fairly similar across countries, sports, and teams, it will nonetheless be beneficial to study this topic in the context of other sports/teams in other countries. Additionally, although the study did not rely on a student sample, many of the respondents were young, which may have an effect on their perception of the different benefits. Therefore, it is recommended to have more research using older samples.

Despite the limitations, the study provides worthwhile insight on this important but under researched topic of fan response to loyalty reward benefits by brands that align with sports teams. We hope it will stimulate further interest in this area with more research exploring different angles and making further contributions.

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Loquier and Dalakas


Loquier and Dalakas


REGIME-SWITCHING IN THE US CONSUMER CREDIT SERIES

Ellis Heath
Valdosta State University

ABSTRACT

Here we look at the varying states of the US consumer credit series. We employ a Markov-switching model to the consumer credit series to see if these exhibit different states of behavior. Our results suggest that these series are highly persistent. They also suggest that there is a cyclical component to one consumer credit series (revolving), but not the other. This indicates that when one of these series is in a high growth state it is not likely to switch to a different state and vice versa. This is very similar to the behavior of US GDP and US business cycles. Finally, given the different behavior of the two consumer credit series, it would be important to treat them as separate variable. In this study, we evaluate various consumer credit instruments to assess whether they are cyclical or not. Our analysis suggests that some instruments, like credit cards, are cyclical and persistent while other, like car loans, are not.

Key Words: Credit, Federal Reserve, Business cycles, Markov-switching

INTRODUCTION

The Federal Reserve releases the U.S. consumer credit series on a monthly basis. The US Consumer Credit series provide a snapshot of the health of household finance. For this reason, it is one of the more anticipated economic indicators coming from the Federal Reserve. It is made up of three series. They are: Total Consumer Credit Owned and Securitized, Outstanding (consumer credit); Total Revolving Credit Owned and Securitized, Outstanding (revolving consumer credit); and finally, Total Nonrevolving Credit Owned and Securitized, Outstanding (nonrevolving consumer credit). These series are reported to the public by the Board of Governors of the Federal Reserve System in its G.19 Statistical Release. Revolving consumer credit represents unsecured credit plans and credit plans that are secured by collateral. Typically, in these schemes one borrows a predetermined limit. After which, the loan can be repaid in one payment or multiple payments. Credit cards would be an example of this and indeed are the largest component of this series. Nonrevolving consumer credit is similar to revolving consumer credit in that the loans may be unsecured or secured by collateral. They differ in that nonrevolving consumer credit represents a closed-end arrangement where the loan must be repaid on a predetermined schedule. If the borrower needs more funding, the borrower and lender must agree on new terms. Examples of these
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would be vehicle loans, loans for education, and personal loans. Car loans and education loans represent the majority of these types of loans. Combining these two series we get consumer credit.

This research is aimed at empirical forecasting. It would also be useful for theoretical modeling of the financial sector. Little investigation into the behavior of the U.S. consumer credit series has been done. Studies of regime-switching in the finance and monetary literature are numerous as are studies that model credit series. Nevertheless, studies that focus on varying states of behavior for these important time series do not exist. Exploring these state changes in consumer credit and its sub-series could have important implications and provide useful insights for monetary and financial economics.

Frequently time series data exhibit cyclical variations. This characteristic is commonly seen in business cycle dating research. Popular dating techniques use *ad hoc* rules. For example, the "newspaper" definition of a recession requires at least two consecutive quarters of negative real GDP growth. Officially, business cycles are dated by the National Bureau of Economic Research (NBER), but even their dating technique might be considered *ad hoc* given that it is done through the wisdom of a committee with no known concrete algorithm. In an effort to move towards a sounder method rooted in statistics, Hamilton (1989) introduced the Markov-switching model as applied to real GDP. This opened the door to a new area of research in which state-space models were developed based on the original work by Hamilton (1989) and expanded upon by others. (See Garcia and Perron (1996), Engel and Hamilton (1990), and Kim, Nelson, and Startz (1998)). This method also expanded to other time series that showed varying states. The literature does not give any expectations as to what we might find from these series. Fulford (2010) looks at credit limit effects on consumer credit. Fulford and Schuh (2015) and Fulford and Schuh (2017) look at how consumer credit varies over both life cycles and the business cycle, but as of yet, no one has looked at cyclical variations in these series. Here we look at the varying states of these consumer credit series mentioned above. We examine these series to see if their behavior is time-dependent. Specifically, we apply a Markov-switching model to the consumer credit series and its sub-series to see if they exhibit different states of behavior.

We find here that all series are highly persistent. This indicates that when one of these series is in a high growth state or a low growth state they are not likely to switch to a different state. This is very similar to the behavior of US GDP and US business cycles. We also find that revolving consumer credit exhibits cyclical behavior while for nonrevolving consumer credit it is difficult to show.
In the next section, we discuss the data that will be used. Section III illustrates the framework in which the estimations for this study will be made. Section IV presents the empirical results. Section V provides a discussion of these results and Section VI concludes.

DATA

The data for this study was obtained from the Federal Reserve Economic Data (FRED) of the Federal Reserve Bank of St. Louis. The series are:

1) Consumer credit (Total Consumer Credit Owned and Securitized, Outstanding - TOTALSL)
2) Revolving consumer credit (Total Revolving Credit Owned and Securitized, Outstanding - REVOLSL)
3) Nonrevolving consumer credit (Total Nonrevolving Credit Owned and Securitized, Outstanding - NONREVSL)
4) PCE (Personal Consumption Expenditures - PCEPI)

All time series are reported monthly. The three consumer credit series are given in billions of current US dollars and are seasonally adjusted. The PCE variable is used to convert the variables of interest into real terms. The PCE series has been reported from 1959; the revolving consumer credit series has been reported since 1968 while the other two credit series have been reported since 1943. Since revolving consumer credit did not exist before 1968, consumer credit equaled nonrevolving consumer credit. For this reason, we use January of 1968 as the first observation for all series. From January 1968 through November 2020 there are 635 observations. The summary statistics for the three consumer credit series in real terms and in billions of US dollars are reported in Table 1 below:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Observations</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonrevolving consumer credit</td>
<td>635</td>
<td>1258.83</td>
<td>660.48</td>
<td>561.41</td>
<td>2863.20</td>
</tr>
<tr>
<td>Revolving consumer credit</td>
<td>635</td>
<td>521.28</td>
<td>374.58</td>
<td>7.01</td>
<td>1087.85</td>
</tr>
<tr>
<td>Consumer credit</td>
<td>635</td>
<td>1780.11</td>
<td>995.98</td>
<td>568.42</td>
<td>3791.98</td>
</tr>
</tbody>
</table>

These three time series in real terms are depicted over time in Figure 1 below:
From the graph, it seems that each series is unlikely to be stationary. All three exhibit a trend or drift, especially beginning in the late 1990’s.

Figures 2a-c below show the three consumer credit series in logarithmic form:
Now the variances of the series appear to increase with time. In Figures 3a-c, the logarithmic differences of the three series are given:
Finally, all series appear to be covariance stationary. Also, the economic intuition behind using the logarithmic differences is reasonable since we are concerned with the percent change in the consumer credit series. Still, there might be some concern with episodic spikes in the variance of these series and further modeling might seem appropriate to some; here, however, no further adjustments will be made since a model cannot be expected to explain everything.

**ESTIMATION FRAMEWORK**

We estimate an autoregressive model of each consumer credit series in the U.S. where parameters depend on an unobserved state indicator. Smoothed maximum likelihood parameter estimates of a Markov-switching model will be used to indicate "recessionary" periods for this credit series. Following convention and as a starting point, a threshold of 0.5 will indicate the probability of a low-growth state to mark turning points of credit growth. This threshold will be adjusted as needed.
The model to fit is given as:

\[
    y_t - \alpha_{s_t} = \sum_{i=1}^{4} y_{i}(y_{t-1} - \alpha_{s_{t-1}}) + e_t, \quad e_t \sim N(0, \sigma^2)
\]

where \( y_t \) equals the credit series and where \( s_t = \{0,1\} \) acts as a particular realization of a random variable \( S_t \), indicating the unobserved state of the economy. The probability of the present quarter being in a contractionary credit phase given that credit was contracting in the previous quarter equals \( p \), such that

\[
    P(S_t = 1|S_{t-1} = 1) = p,
    P(S_t = 0|S_{t-1} = 1) = 1 - p,
    P(S_t = 0|S_{t-1} = 0) = q,
    P(S_t = 1|S_{t-1} = 0) = 1 - q,
\]

and \( p+q=1 \). The transition matrix for the Markov chain is given by

\[
    P = \begin{pmatrix}
        q & 1 - p \\
        1 - q & p
    \end{pmatrix}
\]

Maximum likelihood parameter estimates and probabilities of latent state variables are produced using the filtering algorithm of Hamilton (1989) and the smoothing algorithm of Kim (1994) and Kim and Nelson (1999). In other words, this technique will indicate the probability that a particular month is in an "expansionary" or "recessionary" state.

**EMPIRICAL RESULTS**

The results are reported in Table 2:

| Variable                | State 1 | State 2 | \( P>|z| \) for State 1 | \( P>|z| \) for State 2 | p11 | p21 |
|-------------------------|---------|---------|-------------------------|-------------------------|-----|-----|
| Revolving consumer credit | -10.77  | 2.03    | 0.00                    | 0.00                    | 0.92| 0.01|
| Nonrevolving consumer credit | -0.42  | 7.44    | 0.59                    | 0.00                    | 0.98| 0.02|
| Total consumer credit   | -0.37   | 9.96    | 0.68                    | 0.00                    | 0.98| 0.02|

State 1 represents the low-growth state and state 2 represents the high-growth state. They can be thought of as a "recessionary" and "expansionary" indicator, respectively. For the revolving credit variable, the low-growth state average is negative 10.77 percent while the high-growth state average is 2.03 percent. For the
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nonrevolving consumer credit series, the low-growth state average is negative 0.42 percent with 7.44 percent being the high-growth state average. For the total consumer credit series, the averages are similar to those in the nonrevolving consumer credit series, negative 0.37 percent and 9.96 percent respectively.

For the revolving consumer credit series, both states appear to be statistically significant. In the other series, the low-growth state mean is not statistically significant. This would suggest that there is weak support for state changes in the nonrevolving and total consumer credit series. However, the revolving consumer credit series shows strong support for a state-dependent mean.

The interpretation of the p11 and p21 variables is as follows: p11 gives the estimated probability of staying in state 1 if the series is currently in state 1; the p21 variable is the estimated probability of moving to state 1 given that the series is currently in state 2.

If revolving consumer credit is in its low-growth state, then there is 92 percent probability of it staying in that state and there is an 8 percent probability that it moves into the high-growth state. If the revolving consumer credit series is in the high-growth state, there is only a 1 percent chance that it moves to the low-growth state and a 99 percent chance that it stays in the high-growth state.

For nonrevolving consumer credit and total consumer credit, there is a 98 percent chance that they stay in the low-growth state given that they are currently in the low-growth state and a 2 percent chance that they move to the high-growth state from the low-growth state. For movements from the high-growth state to the low-growth state, the estimated probabilities are the same (2 percent) and for staying in the high-growth state are the same as well (98 percent).

The p11 and p21 variables indicate a high level of persistence in these series. This level of persistence is very high, even for state-space variables. It is not uncommon that series which exhibit cycles also exhibit persistence (For example, see Hamilton (1989) and Hamilton (1994)).

DISCUSSION OF RESULTS

All credit series exhibit high degrees of persistence. When one state is obtained, it is very unlikely that the series will switch to a different state. This is common behavior in US business cycles and US GDP. It should not be surprising that US credit series behave in a similar fashion. That said, the state 1 significance levels for the nonrevolving and total credit series detract somewhat from the claim of varying
states in those series. However, the statistical significance in the revolving credit series provides strong evidence for varying states in that series.

This suggests that revolving credit shows cyclical behavior similar to business cycles. Therefore, credit that has an open-end arrangement will behave very differently depending on whether they are in a “recessionary” phase or “expansionary” one. As mentioned earlier credit cards are the largest component of this series. Closed-end credit arrangements, or nonrevolving consumer credit, does not appear to have this cyclical nature that its open-end cousin does. The terms for this type of credit are set in advance and for this reason, they may be more immune to cyclical changes in the economy. Again, the largest examples of nonrevolving consumer credit are car loans and loans for education. The behavior of the total consumer credit series is much more akin to the nonrevolving consumer credit series than the revolving consumer credit series. Given that nonrevolving consumer credit makes up about 70 percent of total consumer credit, this result should not be surprising. Furthermore, given the very different behavior between the nonrevolving and revolving consumer credit series, one might question the use of total consumer credit as a variable interest. Other studies have found that when measuring variance, nonrevolving consumer credit and revolving consumer credit behave very differently as well (See Heath (2018)). In other words, any studies on consumer credit should look at nonrevolving and revolving separately or at least treat them as separate variables.

CONCLUSION

In this paper, the US consumer credit as reported by the Federal Reserve—total, nonrevolving, revolving—are examined. The answer to the question of whether consumer credit is cyclical in nature turns out to be ambiguous. Given its close ties to business cycles in the US, one might assume that it is, but as is often the case in economics the answer depends on what type of credit we are examining. Revolving credit, which included credit card loans, is indeed very cyclical, but car and education loans which represent the bulk of nonrevolving credit are not; or at least, statistically, they have not demonstrated a cyclical behavior. Also, all series demonstrated a strong level of persistence. Once a series is in one phase of its cycle, it takes a lot for it to move to another. This is especially true for revolving consumer credit given the statistical significance of its results here.

These results are important because understanding the cyclical nature and persistence of consumer credit is useful for both forecasting and modelling. Also, the lack of statistical significance for nonrevolving consumer credit suggests that it should be viewed differently from revolving consumer credit. Furthermore, this
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also suggests that use of total consumer credit should be done with extreme caution given how differently its components behave.

REFERENCES


ABSTRACT

Historically, the rate of past due mortgages has been slightly higher in Indiana than the U.S. We find, as expected, that unemployment rate differences between Indiana and the nation explains some of the delinquency differentials. In addition, the difference in employment in the manufacturing sector between Indiana and the U.S., wherein Indiana boasts significant employment, also explain the observed delinquency differentials.

Keywords: Mortgage delinquencies, Unemployment, Manufacturing employment

INTRODUCTION

U.S. mortgage delinquencies reached Post WW-II highs in 2010, before beginning a slight decline to the present. Based on quarterly data from the Mortgage Bankers Association (MBA), in healthy economic times we find roughly 4 to 5 percent of all mortgages past due. Following the economic recessions of 1980 to 1982, 1990 to 1991, and 2001 to 2002 we find that the percent past due nudged above 5 percent. The U.S. financial crisis that began in the year 2007 accompanied a drop in home values, as illustrated by the Case-Shiller index, of approximately 32 percent between January 2007 and November 2011. Along with the decrease in housing prices and an increase in unemployment, came a significant increment in past due mortgages.

The ability to anticipate changes in the delinquency profile may be of value to decision-makers in public administration, the financial services sector, and the construction sector of the economy. Increases in the number of mortgage delinquencies and possible subsequent foreclosures exert downward pressure on home values (Dudley 2012, Hartley 2010, Mian, Sifi and Trebi 2011). In turn, household and business balance sheets deteriorate, adversely impacting their borrowing capacity (Bernanke 2012, Schweitzer and Shane 2010). Any resulting inventory overhang of foreclosed homes acts as a drag on new home construction and can drain capital from financial institutions (Dudley 2010). Unoccupied homes erode the tax base of municipalities (Fitzpatrick IV and Zenker 2011) and the pile-up of foreclosure proceedings may strain the judicial system.
Historically, the rate of past due mortgages has been slightly higher in Indiana than the U.S.. Also, Indiana falls a bit behind the nation in many economic categories as can be seen in Table 1. Based upon 2014 data, Indiana ranked 38th amongst the states in terms of median income. The state’s poverty rate was slightly above the national average while college graduation figures lagged behind the national average. Both population increase and the median value of homes were below the national average. That said, Indiana’s homeownership rate was significantly above the national average.

Aspects of the Indiana labor market relative to the aggregate paint a different picture. Over the time period under consideration, Indiana’s unemployment rate was generally lower than the national rate until 2005, a few years before the start of the economic crisis. Indiana’s rate was generally higher through 2013 before dropping below the national average.

Save the unemployment rate comparison, given this snapshot of the state’s economy, it may not be surprising that the mortgage delinquency rates for Indiana are generally greater than the national average. In Chart 1 a comparison of the percentage of mortgages past due for the time period 1998Q1 through 2015Q2 is presented. Indeed, Indiana’s delinquent mortgage rate is statistically higher than the U.S. rate with the difference being noticeably larger after the year 2000.

### Table 1. A snapshot comparison

<table>
<thead>
<tr>
<th></th>
<th>Indiana in 2014</th>
<th>The U.S. in 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Median income</strong></td>
<td>$48,737</td>
<td>$53,482</td>
</tr>
<tr>
<td>(ranked as 38th state)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Poverty rate</strong></td>
<td>15.2%</td>
<td>14.8%</td>
</tr>
<tr>
<td><strong>Percentage of persons 25 years or older with a Bachelor’s degree or higher</strong></td>
<td>23.6%</td>
<td>29.3%</td>
</tr>
<tr>
<td><strong>Median value of owner-occupied housing</strong></td>
<td>$122,700</td>
<td>$175,000</td>
</tr>
<tr>
<td><strong>Population change since 2010</strong></td>
<td>+ 1.7%</td>
<td>+ 3.3%</td>
</tr>
<tr>
<td><strong>Homeownership rate</strong></td>
<td>69.5%</td>
<td>64.4%</td>
</tr>
<tr>
<td><strong>Unemployment rate</strong></td>
<td>5.7%</td>
<td>6.2%</td>
</tr>
</tbody>
</table>

*Source: STATS Indiana and Bureau of Labor Statistics.*

One mortgage product of keen interest is the sub-prime mortgage category. The comparison of delinquencies for this product is shown in Chart 2. Save for the first few years of the time period, Indiana’s delinquency rate for sub-prime mortgages is higher than that of the US, overall. But Indiana’s mortgage delinquency rates closely tracked the national pattern *during* the housing crises.
Interestingly, trouble began to appear in Indiana earlier than the U.S. as a whole. This is particularly true of the subprime mortgage category. The 2000 - 2001 recession, while not terribly challenging for the nation as a whole, was damaging to Indiana and other states, such as Wisconsin, where manufacturing employment comprises a larger portion of the workforce. As a result, beginning in the year 2000
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delinquencies increased more significantly in Indiana than the rest of the U.S. and never fell to previous recession rates. This change was particularly seen amongst subprime mortgages.

Chart 1 shows that while the general delinquency rate for the U.S. increased from 4 to 5.2 percent between the beginning and end of the year 2000, the rate then trended downward until the beginning of 2006, when cracks in the mortgage market began to appear. However, Indiana’s experience was different. Like the rest of the U.S., Indiana delinquencies began to rise at the beginning of 2000. Here the data diverges as Indiana’s rate never really declined. Thus from 2002 through 2006 Indiana’s delinquency rate trended upward, while the U.S. rate trended downward. The general mortgage delinquency trends described here are consistent with the findings of Kinghorn (2011) and McGranahan (2007). In both studies the differing delinquency rates between the U.S. and Indiana are shown. It is also demonstrated the higher delinquency rates in Indiana compared with the U.S. for the period beginning 1997.

Recalling Chart 2, which depicts the experience with sub-prime delinquencies, it is somewhat different than we see for all mortgages. Both the U.S. and Indiana experienced a sharp rise in delinquencies in the sub-prime market with the 2000 recession. The rate for the U.S. peaked in the second quarter of 2002, and then declined into 2005. But the rate for Indiana continued to climb for another 3 quarters.

Then another aspect of Indiana’s labor market, beyond the unemployment rate, may be important. Indiana boasts the highest percentage of employment in the manufacturing sector among the 50 states, and roughly double the national average. Employment in this relatively well-paid sector was adversely impacted during the 2000 to 2001 recession and has not really recovered since. Chart 3 illustrates the long-term trend in employment in manufacturing for the U.S. and Indiana. Employment in this sector has declined both in Indiana and the nation, as a whole. But a noticeable drop occurred in Indiana before the U.S., as a whole.

The outline of this paper is as follows. In the Data and Methodology section we describe the delinquency data and provide an overview of the time series behavior of the data. Following in the section titled Preliminary Results we report on our findings relating delinquencies to unemployment and to employment in manufacturing.
DATA AND METHODOLOGY

To examine the profile of mortgage delinquencies we use seasonally adjusted quarterly data on mortgage delinquencies collected by the Mortgage Bankers Association (MBA) for the time period 1998 to 2015. The data begins with the 1979 year, but the sub-prime data is available beginning in 1998. Since we wish to examine this product, specifically, we will use the first quarter of 1998 as our beginning point for all series. The available data at the time of this study covers until the year 2015, hence encompassing the two recessions of the 2000 decade. We wish to examine the differentials in delinquency rates between the Indiana and the U.S., as a whole, for this time period. In Chart 4 we illustrate the differentials between the delinquency rates for all mortgages and for the sub-prime product as measured by the U.S. minus the Indiana delinquency rate. We will define ALL MORT DIFF as the differential for all mortgage products and SUBPRIME MORT DIFF as the differential for sub-prime mortgages, all referred to mortgage delinquencies. Indiana’s rate for delinquencies is on average 1.03 percent greater than the U.S. for all mortgages and 1.48% for sub-prime mortgages. But the standard deviation for the sub-prime differential is almost two times greater (1.53 percent vs. 0.77 percent).

In Chart 4 we see the much higher volatility the difference in sub-prime delinquencies has compared to the volatility of all delinquent mortgages before the year 2007. The statistics reflect this reality showing a standard deviation of 2.09 percent for the difference in sub-primes delinquencies for the U.S. vs a standard deviation of 0.79 percent for all mortgages combined for years before 2007. The data past 2007 do not show the same difference in volatility, to the contrary, both...
series are more homogeneous after 2007. The volatility for these years is 0.36 percent for the difference in total mortgages and 0.47 percent for the difference in sub-primes.

In Chart 4 we can see the difference in sub-prime mortgage delinquencies to decrease from about 2 percent to almost minus 6 percent. This drop in the difference signifies Indiana going from having a lower proportion of delinquent sub-prime mortgages with respect to the U.S. to having a larger than the U.S. proportion of delinquent sub-prime mortgages. As expressed in previous paragraphs, the relative increase in sub-prime mortgage delinquencies in Indiana with respect to the U.S. coincides with the recession of the year 2000. The difference between the U.S. and Indiana for all mortgages does not seem to have been as affected by the year 2008 recession. Further, we wish to examine if unemployment rate differentials and manufacturing employment rate differentials can provide explanation of the observed delinquency rate differentials. Based upon data from the Bureau of Labor Statistics (BLS) we show in Chart 5 the differential in the unemployment rate for the U.S. and Indiana. A positive value implies that the overall U.S. unemployment rate is greater than Indiana’s rate. UE DIFF will be defined as the unemployment differential with a mean of 0.44 percent and a standard deviation of 0.74 percent. One notes that from 1998 through the trough of the Great Recession in 2009, Indiana’s rate rose relative to the nation as a whole. However, since the trough in 2009, Indiana has closed the gap.
To address the possible effects differences in change in manufacturing employment between the U.S. and Indiana can have on mortgage delinquencies, we use the difference between the manufacturing employment rate in the U.S. and the manufacturing employment rate in Indiana. This variable is titled MANUΔDIFF and we might hypothesize that as manufacturing employment in Indiana falls relative to the US, mortgage delinquencies in Indiana increase relative to the U.S., implying a negative relationship.

The behavior of the MANUΔDIFF variable is illustrated in Chart 6, below. One notes that from 1999 to 2001 Indiana’s manufacturing sector performed very poorly vs. the U.S., but then recovered quicker. Following this, Indiana experienced seven years of poor employment performance in this sector, improved quicker than the nation, as a whole in the Great Recession and has since trended downward. The positive, upward trend in mortgage delinquency differentials seems to coincide with this observation.
PRELIMINARY RESULTS

Since many economic time series present autocorrelation, we use a Dickey-Fuller test for the time series used in this study. The result is that all the time series used present autocorrelation. For that reason, we use linear regressions with Newey-West standard errors. We use the 30-year interest rate and the difference in housing price index between the U.S. and Indiana as control variables. The main reason for using these two variables is the effect that interest rates may have in the decision to buy a house or to refinance the house. Also, higher house prices act as a deterrent to buyers, especially in a recessionary period or in times of high economic uncertainty.

First we examine if measured differentials in unemployment rates and differentials in manufacturing sector employment rates impact mortgage delinquencies. The first four results, shown in Table 2, arise from simple models based upon the measured unemployment differential (UE DIFF). For the differential in all mortgage delinquencies, we first test:

\[
\text{ALL MORT DIFF} = \alpha_0 + \alpha_1 \times \text{UE DIFF} + \varepsilon, \tag{1}
\]

and for sub-prime mortgage delinquencies:

\[
\text{SUBPRIME MORT DIFF} = \beta_0 + \beta_1 \times \text{UE DIFF} + \delta. \tag{2}
\]
Table 2: Results of unemployment difference vs mortgage delinquency difference

<table>
<thead>
<tr>
<th></th>
<th>ALL MORT DIFF</th>
<th>SUBPRIME MORT DIFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>constant</td>
<td>-1.38 (-11.82)</td>
<td>-1.59 (-4.17)</td>
</tr>
<tr>
<td>UE DIFF</td>
<td>0.77** (6.45)</td>
<td>0.76 (1.26)</td>
</tr>
<tr>
<td>F</td>
<td>41.66</td>
<td>1.58</td>
</tr>
<tr>
<td>Prob &gt; F</td>
<td>0.00</td>
<td>0.21</td>
</tr>
</tbody>
</table>

Notes: Table presenting the results of the regressions with Newey-West standard errors where the difference in unemployment between the U.S. and Indiana is the independent variable. The dependent variables are the difference in delinquent mortgages between the U.S. and Indiana and the difference in sub-prime mortgage delinquencies between the U.S. and Indiana. T-stats in parentheses, ** significant at the 95% level of confidence, * significant at the 90% level of confidence.

Observing the results for all mortgage delinquencies reported Table 2, one can see the positive and significant coefficient of the unemployment rate differential when all delinquent mortgages are considered as the dependent variable. This result implies that as the Indiana unemployment rate rises (falls) relative the nation’s, delinquencies in Indiana rise (fall) relative to the nation’s average. This result is to be expected since an increase in unemployment in either the whole U.S. or Indiana should bring about an increased number of people who find themselves unable to pay their mortgage. This result is consistent with McGranahan (2007) findings, where the unemployment rate has a positive and statistically significant coefficient. The results for delinquencies arising from sub-prime mortgages are more muddied. The expected result of a positive and significant relationship between the U.S. and Indiana’s unemployment differential and the sub-prime delinquency differential is not borne by the data. This is puzzling because sub-prime mortgages were taken by persons whose ability to pay was low, hence needing a small change in their employment situation to be unable to pay the mortgage. One possible explanation of this result is that the employment loss was mostly for borrowers who were not classified as sub-prime.

To control for two factors likely to affect the delinquency rate, we turn to the 30-year treasury rate and to the difference between the home price indexes in the U.S. and Indiana. The 30-year rate was chosen as a control variable because a high interest rate makes for a more difficult refinancing of a house in case of unemployment. The differential in price between the U.S. and Indiana house price indexes was chosen because if a house can be sold for a higher price than originally paid, it is more likely than the owner could repay whatever is left of the mortgage in case of loss of employment. The house price indexes for both the U.S. and Indiana are presented in Chart 7.
From Chart 7 we can see both the U.S. and Indiana experienced increasing property values until mid-2006. The increase in house values for the U.S. is markedly higher than for Indiana until the year 2006, approximately. For the both the U.S. and Indiana house values decreased until the year 2010, before beginning recoveries. More specifically, during the period 1991 to 2007 the U.S. housing price index grew at an annual compounded rate of 5.12 percent per year while that for Indiana’s grew at 3.33 percent per year. The period 2007 to 2012 brought an annualized drop of 1.71 percent in the U.S. house index and 0.43 for Indiana. Finally, the period 2012 to 2017 brought an annual growth in the house index of 1.15 percent for the U.S. and 0.65 percent for Indiana.

The effect of the growth, or decrease, of the housing index value in the proportion of delinquent mortgages can be hypothesized as follows: an increase in the value of the index should decrease the proportion of delinquent mortgages since the homeowner can sell the property to pay the remainder of the mortgage or can more easily refinance using a loan against the property. If the difference between the U.S. and Indiana housing price indexes increase, the difference of the number of delinquent mortgages between the U.S, and Indiana should decrease. This implies a negative coefficient for the difference in house price indexes. We label this variable VALUE DIFF, below.

An increase in the 30-year interest rate should make the refinancing more difficult for anybody who is already defaulting since it implies higher payments. Also, an increase in interest rates for persons who are on a floating rate mortgage could push them to default. We expect the coefficient for the 30-year rate to be positive since an increase in rates should provoke an increase in mortgage delinquencies.
The results obtained when adding the 30-year interest rate and the difference in house price indexes differentials to equations (1) and (2) yield the following:

\[
\text{ALL MORT DIFF} = \alpha_0 + \alpha_1 \times \text{UE DIFF} + \alpha_2 \times 30 \text{ YR RATE} + \alpha_3 \times \text{VALUE DIFF} + \varepsilon,
\]

(3)

and for sub-prime mortgage delinquencies:

\[
\text{SUBPRIME MORT DIFF} = \beta_0 + \beta_1 \times \text{UE DIFF} + \beta_2 \times 30 \text{ YR RATE} + \beta_3 \times \text{VALUE DIFF} + \delta.
\]

(4)

The results of estimating equations (3) and (4) between are presented in Table 3. One can see that once the control variables are introduced, the significance of the difference in unemployment disappears for both all mortgage delinquencies and sub-prime mortgage delinquencies. Also, one can see that the sign of the control variables is as hypothesized. Counter intuitively, this result suggests the most important variables when it comes to mortgage delinquency to be the interest rate and the price of the house. This result is consistent with McGranahan, who finds the market value of the house to be significant, and with a negative sign, when the dependent variable is the proportion of delinquent mortgages. The employment status of the homeowner seems to matter less than the two control variables used.

<table>
<thead>
<tr>
<th></th>
<th>ALL MORT DIFF</th>
<th>SUBPRIME MORT DIFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-1.46 (-5.97)</td>
<td>-3.55 (-3.93)</td>
</tr>
<tr>
<td>UE DIFF</td>
<td>0.11 (0.97)</td>
<td>-0.59 (-1.04)</td>
</tr>
<tr>
<td>30 YR RATE</td>
<td>0.11 (2.63)**</td>
<td>0.57 (3.62)**</td>
</tr>
<tr>
<td>Difference in house price indexes</td>
<td>-0.029 (-6.36)**</td>
<td>-0.056 (-3.06)**</td>
</tr>
<tr>
<td>F-statistic</td>
<td>50.79</td>
<td>14.71</td>
</tr>
<tr>
<td>prob &gt; F</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

** represents significance at the 5% level, * represents significance at 10% level

One can see that once the control variables are introduced, the significance of the difference in unemployment disappears for both all mortgage delinquencies and sub-prime mortgage delinquencies. Also, one can see that the sign of the control variables is as hypothesized. Counter intuitively, this result suggests the most important variables when it comes to mortgage delinquency to be the interest rate and the price of the house. The employment status of the homeowner seems to matter less than the two control variables used.

With more of Indiana’s employment concentrated in the manufacturing sector, and that sector experiencing a long-run decline, we would like to examine if changes in this type of employment impacts delinquencies. To test this, we estimate the
following four equations including the Indiana vs. U.S. differential in manufacturing employment, MANUΔDIFF. For the differential in all mortgage delinquencies, we test:

\[
\text{ALL MORT DIFF} = \alpha_0 + \alpha_1 \times \text{MANUΔDIFF} + \varepsilon, \tag{5}
\]

and for sub-prime mortgage delinquencies:

\[
\text{SUBPRIME MORT DIFF} = \beta_0 + \beta_1 \times \text{MANUΔDIFF} + \delta. \tag{6}
\]

With the additional control variables included,

\[
\text{ALL MORT DIFF} = \alpha_0 + \alpha_1 \times \text{MANUΔDIFF} + \alpha_2 \times 30 \text{ YR RATE} + \alpha_3 \times \text{VALUE DIFF} + \varepsilon, \tag{7}
\]

and for sub-prime mortgage delinquencies:

\[
\text{SUBPRIME MORT DIFF} = \beta_0 + \beta_1 \times \text{MANUΔDIFF} + \beta_2 \times 30 \text{ YR RATE} + \beta_3 \times \text{VALUE DIFF} + \delta. \tag{8}
\]

The results of estimating equations (5) and (6) are presented in Table 4, while the results of equations (7) and (8) are presented in Table 5. One can see the manufacturing employment to affect the total number of delinquent mortgages. From Table (4) we conclude that the higher the manufacturing employment in the U.S. compared to Indiana, the less the mortgages delinquencies in the U.S. compared to Indiana. Thus the sign for the coefficient for manufacturing employment is the correct one. Conversely, since manufacturing employment, as percent of the workforce, has been higher in Indiana than in the U.S., the fraction of mortgage delinquencies in Indiana should be less than in the U.S. Given the actual experience over this time period this implies that as employment in Indiana’s manufacturing sector falls more rapidly than that of the U.S., the rate of delinquent mortgages in Indiana rises relative to the U.S. The F-statistic of about 5 for the model indicates that manufacturing employment effectively explains mortgage delinquencies. When delinquencies in the sub-prime market become the dependent variable in the second column, we find that the MANUΔDIFF variable has no explanatory power.

When adding the control variables, the difference in manufacturing employment is no longer significant for all mortgage difference, the significance being taken by the 30-yr interest rate and the difference in the house price indexes. In a similar way to the regressions run with the unemployment difference as independent variable, the significance is taken by the control variables.
Table 4: Regressions with manufacturing employment

<table>
<thead>
<tr>
<th></th>
<th>ALL MORT DIFF</th>
<th>SUBPRIME MORT DIFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-4.82 (-3.09)**</td>
<td>0.84 (0.33)</td>
</tr>
<tr>
<td>MANU△DIFF</td>
<td>-0.47 (-2.25)**</td>
<td>0.29 (0.81)</td>
</tr>
<tr>
<td>F</td>
<td>5.05</td>
<td>0.66</td>
</tr>
<tr>
<td>prob &gt; F</td>
<td>0.03</td>
<td>0.42</td>
</tr>
</tbody>
</table>

** indicates significance at the 95% level.

Estimating equations (7) and (8), which adds the 30-year interest rate and difference in the house price indexes, provide the results in Table 5.

Table 5: regressions with manufacturing employment and control variables

<table>
<thead>
<tr>
<th></th>
<th>ALL MORT DIFF</th>
<th>SUBPRIME MORT DIFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-1.07 (-1.20)</td>
<td>7.61 (2.49)</td>
</tr>
<tr>
<td>MANU△DIFF</td>
<td>0.05 (0.46)</td>
<td>1.17 (3.3)**</td>
</tr>
<tr>
<td>30 YR RATE</td>
<td>0.13 (3.34)**</td>
<td>0.28 (2.97)**</td>
</tr>
<tr>
<td>VALUE DIFF</td>
<td>-0.03 (-8.70)**</td>
<td>-0.07 (-6.49)**</td>
</tr>
<tr>
<td>F</td>
<td>42.19</td>
<td>23.65</td>
</tr>
<tr>
<td>prob &gt; F</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

** indicates significance at the 95% level.

This result indicates the importance of the interest rates and house prices in mortgage delinquency. When the control variables are used with the difference in manufacturing employment with the sub-prime mortgage difference as the dependent variable, the difference in manufacturing employment becomes statistically significant and with a positive sign. The positive sign for the difference in manufacturing employment in this particular equation suggests that the larger the difference in manufacturing employment between the U.S. and Indiana, the larger the difference in sub-prime mortgage delinquencies. As with previous regressions, the signs for the 30-year rate and the difference in housing price are as expected.

CONCLUSIONS

Using data available through the Mortgage Bankers Association we examined the differential in Indiana’s mortgage delinquencies compared with that of the U.S., overall. The time period under consideration is 1998 to 2015. This appears critical because: while Indiana’s experience largely shadowed the nation’s through the Great Recession, the period between the recession of 2000 to 2001 and the beginning of the financial crises was a defining period for Indiana. It appears
mortgage problems seem to have piled up in Indiana much earlier than the nation. Indiana is characterized by a larger portion of its workforce employed in manufacturing, thereby increasing its exposure to the rapid decline in such employment that has occurred over the last few decades in the U.S. This change seems to have manifested itself into problems with mortgages that preceded the financial crises and the Great Recession.

REFERENCES


IS THE U.S. DOLLAR LOSING ITS MOMENTUM AS A GLOBAL LEADER?

Adrian McFarland  
Balasundram Maniam  
Sam Houston State University

ABSTRACT

The United States is seen as a leader in many aspects across the globe, when compared with other countries. Leading in things such as currency, cultural influence, power and as an economic leader. The United States looks to continue to innovate and lead the charge in all categories. The United States dollar has been the global leader in currency for the past while, but with other countries’ currencies gaining in popularity, the dollar could be losing the momentum it once had. This paper will look at the United States dollar status and momentum as the current global leader and look at if the current momentum it has is diminishing at all.

Keywords: hegemony, currency, internationalization, United States, China

INTRODUCTION

Economic growth is the backbone of every country on the globe. Growing in such a way that puts the country at the forefront of the economic leaderboard so to speak. However, to be an economic leader and have abundant prosperity the country itself must be at the top of its game. Countries such as the United States, China, Europe, and others have consistently grown upwards with the goal of being the global leader with their country’s currency. The process of becoming the global leader is a long, strenuous path, but a few are able to consistently strive for the top spot.

The United States dollar since its beginning has been striving for economic global leadership. With persistence and few key moves from the United States history, it has been proclaimed global currency leader, thus beating out other very large and prosperous countries. A lot has taken place for the United States dollar to be a global leader, but it will take much more effort to keep it there with the multitude of things that attempt to topple the dollars’ dominance stance.
This paper will look at the overarching idea of if the United States dollar is losing its momentum as a global leader. The paper will first begin with the history and current power of the United States dollar to give background on where the dollar’s current hegemony came from and how it is currently thriving. Next it will discuss the United States dollar relationship with foreign countries, showing how the United States dollar directly effects other countries. Finally, the paper will conclude with the recent COVID-19 pandemic, and the toll that it took on the dollar.

LITERATURE REVIEW

Middlekoop (2016) provides an historical overview of the history of the United States dollar, starting from the very first centralized bank in the late 1700’s. Speaking about Robert Morris and his role within setting up the first credit system. He works his way up to World War I in 1914, World War II in the 1940’s discussing the assistance the United States was able to provide to other countries. Proceeding from there, Ezrati (2015) touches on the banking system in the 1920’s. He talks about the pre and post-World War II status of the United States dollar and how at one point it was seen in a similar light as Europe’s Pound. Progressing through the mid and late 1900’s with the U.S. dollar and economy growth, with some possible hiccups along the way.

On a more current note, Prakken & Varvares (2015) displays recent context of the status of the United States dollar starting in 2014. They explore how the U.S. dollar has strengthened among the fluctuation of imports, exports, and interest rates while also touching on how that effects the economic status of the United States. Faudot & Ponsot (2016) transition over to a more global view of the impact on the U.S. dollar. They show the impact the U.S. dollar has on the international scene. Stating countries that are in the beginning phases of development economically, they are most likely to accept the full embrace of the U.S. dollar rather than larger, more economically stable countries. They present multiple stats of how much the United States dollar has grown in other countries over thirty to forty-year period. Following up on the topic of international relevance Shatz (2016) demonstrates how the economy of the United States connects with the rest of the world. Shatz goes in depth on the four different ways the US interconnects with the world through the economy. On top of those ways, he touches on U.S. dollar swap lines and the significance that has on a global scale. Harrel, Rosenberg, Cohen, Shiffman, Singh & Szubin (2019) take a slightly different approach to discuss the economic dominance as well as the U.S. economic
coercion future. They go in depth on the measures the United States took with its foreign competitors such as China, Russia, and Europe. Furthermore, they describe concerns with foreign country investments in the technology portion of the U.S.

Haar (2020) takes a new direction to focus primarily on China and the concern there is with them being a top competitor with the United States for the world’s dominant power. He referenced the 2008 financial crisis and the repercussions that followed due to China holding the majority of the U.S. debt during this time. Even with those past events, it states that there is a negative connotation associated with China due to their past fraudulent activities as well as their mean nature with other countries. Lew (2021) takes a position of demonstrating how the United States economy is stronger than most people realize and is able to resist many different situations that may come its way in the future. He isn’t concerned with the status or position China has on the U.S. and he believes that the U.S. wouldn’t be affected significantly by any of China’s moves. Roach (2020) on the other hand takes an opposite stance regarding the U.S. dollar. Believing that the United States dollar reign as global currency is ending, he even makes a prediction of the plunge.

Ke (2020) starts the discussion off early in the year on if China could use the United States economic downturn from the pandemic as a way to be able to take the lead on the U.S. dollar. Following along the same path, Kusumhadi & Permana (2021) take a more global approach to how the COVID-19 pandemic has affected the global financial markets. They use the assistance of data and charts to help display the negative effect the pandemic had globally.

This paper is going to discuss the central theme of is the United States dollar losing its momentum as a global leader in 3 major topics. It will start with the history of the United States dollar and proceed to the current power of the dollar. The following topic will be going over the United States dollar’s relationship with foreign countries. Lastly, it will touch on how the COVID-19 pandemic effected the momentum the dollar had and the new trajectory as the globe moves past the pandemic.

THE HISTORY AND CURRENT POWER OF THE DOLLAR

The United States dollar has had a long-standing history since its inception. Growing alongside other major currencies, with no real sight of overtaking them. The first central bank was created in 1781, by a man named Robert Morris, who is known as the father of the credit system (Middlekoop
2016). Fast forward to the early 1900’s, the U.S. dollar has begun to rise in popularity across the globe. It was being used more and more especially during the first World War. With the Pound leaving the gold standard in 1914, the currency began to become very weak, so the U.S. dollar became significantly more important with this new role to fill in and out the United States (Middlekoop 2016). With the dollar taking on this new-found role, it was slowly becoming dominant as a world reserve currency. By the 1920’s, after the World War hurt the European economy and the Pound leaving the gold standard, the United States dollar began gaining the necessary qualities needed to be in the top spot (Ezrati 2015). These multiple events happening caused there to be a huge growth of the United States economy as well as a booming trade market that used the dollar. The intense popularity and growth of the U.S. dollar as a global reserve currency helped the country achieve a more stable financial position since it was now able to borrow any amount of money at any time, thus being able to thrive during distressing times (Lew 2021).

The United States dollar took a strong hold on the spot of global reserve currency and didn’t let go. It spread like wildfire across the globe especially after World War II when countries like France and others needed huge financial help (Middlekoop 2016). These struggling countries were very quick to embrace the U.S. dollar as it was their new life line of their economies. During times of financial global instability, countries would rush to the safety of U.S. bonds and other secure financial items as they are safe assets internationally to ensure there isn’t any loss for them (Jiang, Krishnamurthy, & Lustig 2018). The U.S. dollar has a very unique position to where through its credibility, status, and other qualities, it was easily accepted by new developing countries. While the abundance availability and widespread acceptance it gave the United States a large advantage since it could be used to pay military personnel, any foreign supplies, or any party in general. The U.S. was essentially able to weaponize the dollar to have a greater dominance over their global counterparts (Keaney 2017). By being the world’s largest economy and being the reserve currency, the United States is able to continue to grow and push its power even further. If a country was cut off or couldn’t do business with the U.S. then they would be in a tight spot. With this kind of power the United States would be able to essentially police other countries if they were doing something that the U.S. didn’t like by placing sanctions on them. Placing a sanction on a country would cause significant headache by preventing their business or trade (Lew 2021). For example, North Korea is isolated and shut off from the majority of other countries. One of the countries that helps North Korea the most is China, so if ever North Korea does something that negatively effects the United States
or any other countries the U.S. will initiate sanctions on China which will ultimately hurt North Korea. However, even with the large-scale embrace of the U.S. dollar there were still countries that were either hesitant or didn’t want to be covered by the embrace of the United States.

(Ivashina, Scharfstein, & Stein, 2015)

Since the 1970’s the United States dollar has been through some ups and downs as the global reserve currency. The perceived value of the U.S. dollar has increased and decreased in comparison to other currencies. The U.S. still has a commanding lead as the economic powerhouse but countries like China and Germany are close behind (Ezrati 2015). International financial markets make up a large chuck and over time, the assets/liabilities that are in other countries banks have grown to about ten trillion. In the chart below you can

(Figure I: Dollar Assets and Liabilities of Foreign Banks)
see the steady increase which puts international banks almost to the same level as U.S. banks (Ivashina, Scharfstein & Stein 2015).

China is working its hardest to convince other countries to abandon the dollar and to adopt the Yuan as their primary currency. They have been somewhat successful in doing so; but even with this going on, the United States dollar is still leaps ahead in terms of the strongest economy. It is a given that other currencies like the Euro/RMB/Yen will grow over time, but none are in the position to take over the dollar. These other currencies are not yet widely accepted like the U.S. dollar, so that is a big crutch in them gaining strength (Lew 2021). More recently, since June of 2014, the dollar has had a significant spike in its strength up to about ten percent. This rise is beneficial for the United States as it boosts foreign export prices, lowering the price on imports and ultimately going to a path of low interest rates (Prakken & Varvares 2015). This positive growth for the dollar also helps its popularity and acceptance as a global currency, because if the economy is doing well more countries are more likely to be open to accepting the transition.

According to the Harrell, Rosenberg, Cohen, Shiffman, Singh & Szubin (2019), the United States has 6 pillars of economic leverage that keeps it strong and at the top spot as an economic powerhouse. Starting off the list would be the strength of the U.S. dollar as the global currency. The United States dollar makes up about 605 of the total global reserves as well as more than fifty percent of the total debt issuance. Companies that are issuing out debt want to do so in dollars because the dollar market has so much depth and it makes it easier for them to spend the money anywhere in the world. Since the dollar does currently dominate the global market for those that don’t use the dollar are at a large disadvantage to the prosperity that is available with the U.S. dollar. This would give the United States a significant level of power over many other countries as they relied heavily on the dollar to assist during their economic hardships (Costigan, Cottle & Keys 2017). As touched on prior, countries like North Korea will use companies in disguise to be able to directly affiliate with the dollar to be able to have access to trade among other things. The next pillar is keeping U.S. banks in good standing with foreign countries. This is incredibly important since having a good relationship with U.S. banks gives them full access to both the dollar to spend but as well as an overall relationship with the United States. Foreign entities will not risk being in bad standing because if they are, they could be subject to large fines as well as losing access to the U.S. financial System. Costigan, Cottle & Keys (2017) agree that especially in a post-World War era, the adoption of the dollar was key to keep the strategic power of the dollar on the rise.
The third pillar is the size and ability of the U.S. market. By the United States having such a large economy, it can choose who they open the economy to. When countries are faced with the ultimatum of continuing business with the U.S. economy or dropping the other negative thing they are doing. Most countries will comply with the United States wishes to be able to continue their access to the prosperous dollar and economy. Skerritt (2019) goes on to state that with hegemonic status the U.S. has to be able to say yes or no to other countries doing business with them is the most effective way to be a secure world power. This gives the United States a leg up when making economic deals with foreign countries. Next up on the list is the sheer depth of United States companies within global foreign supply chains. Having such a large bandwidth of U.S. companies within these foreign supply chains gives the U.S. economy an additional level of power. Skerritt (2019) continues that with the current bandwidth of the United States in these foreign supply chains, it further supports the idea that the U.S. is unable to be challenged. This is great due to the other countries are relying so heavily on the United States, which gives the U.S. a further sense of stability across the world scale. The following pillar of having large bandwidth of investments in foreign entities is another important pillar. This one is particularly important because by the U.S. having large amounts of investments in foreign countries means that the United States has that much more power over that country economically. With the threat of being able to pull the investments it keeps other countries in good graces with the United States. Lastly, having very transparent requirements of the financial system. This is essential so no matter what country is doing business, trading or utilizing the U.S. dollar there are strict rules to keep everything running smoothly.

There has been a perception that the United States would have a decline as the global leader. This perception comes from the momentum from the financial crisis that have happened as well as the growth of currencies from other countries. Even with the many factors that some perceive the United States will lose its top spot, it won’t happen anytime soon (Keaney 2017).

As portrayed above the U.S dollar and its economy are very strong as the global reserve currency. From the time it overtook the place of the Pound up until the present day it is still dominating its role. By having a solid background on the dollar, this paper will move into focusing on the U.S. dollar direct involvement with foreign countries.
THE U.S. DOLLAR WITH FOREIGN COUNTRIES

From the very beginning of the United States dollar, it has made strides to continually progress in maintaining its status as the global reserve currency. The U.S. dollar has made advances as other currencies around the globe prove its worth as this dominant currency. This is something it has to do to prevent other countries such as China or Europe from taking the spotlight.

The United States dollar, for many decades, has been an essential factor within the economy of the world. It is so essential to the global financial system that no matter what consequences might stem from the political or economic situations the U.S. goes through, it will still remain dominant (Costigan, Cottle & Keys, 2017). The key to the U.S. dollar dominance is that there really aren’t any other global options that check all the boxes that are needed from a global currency. For example, the European Monetary Union is mostly incomplete, which makes it not a good contender for the spot. Places such as Japan have a variable debt situation which makes it hard for the country to grow and other countries in the United Kingdom are on an economic decline. In addition to that, the United States dollar makes up over half of the foreign exchange reserves. (Segal, Goodman, Dongxiao, Cory, Raymond, Reinsch & Ming, 2019). In feeble attempts to promote other currencies, rather than the dollar, by these emerging countries have shown, there isn’t a credible alternative that has been found. Since these developing countries lack the resources to provide a currency that can rival the dollar, the more developed countries are looked upon as the future issuers of a currency that could go against the dollar (Faudot & Ponsot, 2016).

From a high-level perspective, the U.S. dollar continual dominance from other currencies is comprised of a few key factors. The first being that these newer growing markets look towards the dollar for safe assets, as they know the dollar will not fluctuate as much as their currency will. The other thing is the fact that so many foreign banks hold very large amounts of U.S. dollar reserves that it would be basically impossible for a decline to happen to the dollar without it wrecking these banks in the process (Roach 2020). These countries that have vast amounts of debt are impacted in a negative manner regarding the countries overall growth as compared to those with much lower debt. The issue of debt is a large reason why a lot of these foreign currencies have trouble gaining momentum and spreading in popularity (Kharusi & Ada, 2018). The United States dollar connects with other countries and their currency through four unique ways. Those ways being through trade, foreign direct investments, the energy revolution and lastly through its influence of the Federal Reserve over the global economy.
The U.S dollar is used more widely across the globe than its counterparts, like the RMB or the Pound, in foreign transactions. These countries borrow and lend currency in the dollar rather than other easily accessible currency due to the fact that these financial institutions can trust that the dollar will always be there when they need it. The Federal Reserve has set up relations with about 14 central banks in foreign countries to create an easy swap of currency (Shatz 2016). For example, in France, the amount of United States dollar exports rose almost thirty percent in the last 38 years. Joining alongside France, Australia’s exports grew significantly as 75% of them were invoiced using the dollar. Toping all of those would be Latin American, who rely heavily on the dollar, totaled out upwards of 94% of their exports were invoiced in the U.S. dollar (Faudot & Ponsot, 2016). As time progresses, the U.S. dollar continues to prove its stability and dominance around the world. These countries, especially Latin America.

McCauley, McGuire, Sushko, Michaelides, & Tanyeri (2015) state that upwards of 3/4ths of the credit that is given out by the U.S. dollar are coming from Europe area with countries like UK, Japan, Canada, and a few Nordic countries. With that being said, China holds the number one spot for currency held by U.S. dollars with a whopping one trillion dollars (Lew 2021). Even with that large of an amount, the dollar has such wide and deep roots across the globe that there wouldn’t be a way for China to tank the overall value of the dollar to make its currency look better. In 2008, during the financial crisis the United States was going through, at that point in time, the U.S had become the largest holder of debt and China was the country that the U.S owed all the money to (Haar, 2020). China’s RMB would be the dollar’s biggest competitor for the global reserve currency spot. With China’s RMB continually striving to overtake the U.S. dollar a few things must be taken into consideration of their currency. The first thing is it must be a freely useable type of currency, meaning that it must have the capability to be used in a wide range of international transactions like the U.S. dollar is able to. Studies show that the RMB was not up to par for this status in 2010 but has increased since 2015. Even with such an increase it still only accounts for a fraction of the foreign exchange reserves as compared with the U.S. dollar (Segal, Goodman, Dongxiao, Cory, Raymond, Reinsch… Ming, 2019).

During 2016, the United States saw a rise in both their imports and exports, reaching upwards of almost 2%. This was an increase that hasn’t been seen in many years. During this time, the U.S. dollar had increased in overall value when compared to the other major currencies around the globe. This increase was due to the significant increase in economic status conditions that were being seen in the United States at the time. The stronger the dollar becomes typically what happens is it will lower the price for both
imports and exports, and this goes hand in hand with oil prices (Trantin, 2017). Countries like Russia and China are constantly challenging the United States when it comes to oil prices and the available currency to be used to make those transactions. It’s seen that a specific country’s currencies are more likely to be used when the country’s currency is doing well because that would entail lower crude oil prices. With the constant competition between the United States with China and Russia, the U.S. uses a wide variety of economic tactics to ensure that the dollar stays strong over their currency while also maintaining low import and export prices (Harrell, Rosenberg, Cohen, Shiffman, Singh & Szubin 2019). The dollar has had a certain grasp on the reserve currency of the globe since after the second World War, but in reality, if any other currency were to take command within the oil trading industry, then the U.S dollar’s hegemonic status would take a significant hit (Costigan, Cottle, & Keys, 2017).

Regarding the dollar’s hegemonic status, Roach (2020) expresses that the United States dollar would be nearing its end. He predicted an upwards of thirty-five percent drop as the country comes out of the worst part of the pandemic in 2021. These claims are coming from an increase the deterioration of the savings position that the U.S. once had, along with the defense that there is no other option than the dollar is starting to crumble as well. Even with these bold statements Roach (2020) goes on to conclude with even the number of things that are starting to happen that negatively effects the hegemonic status of the dollar, the dollar will continue to maintain the top spot regardless of many thoughts of its downfall.

The United States dollar will continually have to deal with threats and competition from other developed countries like, China, Russia and Europe, as they strive to build up their currency’s status to attempt to overtake the U.S. dollar for the spot of global reserve currency. Through this type of competition with other currencies it actually works in the U.S. dollar’s favor by continually making it strong since it has to adapt to any situation that may arise. A situation that would significantly hurt all currencies and the world economy was the COVID-19 pandemic. This was a situation that grew rapidly from the start of its recognition and spread all over the globe effecting everything.

**TOLL THE PANDEMIC TOOK ON THE DOLLAR AND THE ECONOMY**

The impact that the COVID-19 pandemic had on the world was unprecedented as it turned the global economy upside down very quickly, but
it kept the financial market down for about a year. Covid was seen as the most serious crisis since that of the World Wars, by quite literally bringing all economic activity to a screeching halt (Ke 2020). As seen in the chart below you can see the significant impact that pandemic took on each of the major countries.
Figure 2. COVID-19 map as of August 25, 2020. Changes in the stock indices of several countries affected by COVID-19 (December 31, 2019 = 100)

(Kusumahadi & Permana, 2021)
As the pandemic grew, there was a rapid downward spiral in the global financial market because of the fear of the unknown that was overtaking the globe. The fear of the unknown pandemic that was making a rapid appearance all across the world was causing investors to act out in an unnormous way. According to Kusumahadi & Permana (2021), the S&P 500 index has a loss of over 5 trillion dollars. Since there was so much fear and anxiety about the unknown pandemic, it was greatly affecting all economies worldwide. Even the U.S. being the global reserve currency was heavily affected. Stock prices show the strength and prosperity of the country, but when a crisis like that happens it causes investors to make irrational decisions thus greatly effecting the overall economy. Every single country in the above chart experiences a negative trend when the pandemic emerged. In March of 2020 every country’s returns hit their lowest points as that was the beginning of a global economic shutdown. However, countries that responded positively with a plan of action were able to correct their trend and help it increase back to normal levels quicker than others (Kusumahadi & Permana 2021).

Covid’s effect on the international monetary system was large, but even with the negative impact it had it actually strengthened the international currency status of the U.S. dollar. This was due to the fact that as the market began to correct itself the majority of countries looked to the dollar as a sense of safety and trust for the hope of improving the financial situation (Ke 2020). However, in the future, the constant fluctuation of the monetary system could actually open up an opportunity for the RMB to take the lead over the dollar. The Chinese economy was able to get their market corrected back much quicker and didn’t take as low of an initial blow as compared to the U.S. economy. This actually brought to light that the Chinese RMB could actually have potential to take the top spot from the U.S. dollar. China was on quick with the realization of how slow the United States was to reach to the pandemic as compared with them, thus opening the chance of the opportunity for China’s RMB to make leaps in advancement while the U.S. dollar was still down (Haar, 2020).

According to Ke 2020, the main cause of the failed global safety net is because the dollar was the only safety net, so when it sank, the whole financial system went down with it. The U.S. dollar isn’t in unlimited supply so there is not an option to continually printing money when a crisis happens. The solution is simple, diversify the international reserve currencies. This means bringing currencies other than the dollar to the top and sharing the spotlight. China is currently trying to put the RMB in the same spot at the dollar to alleviate any uncertainties, as well as assist with stabilizing the global economy. Even though during the main part of COVID, China wasn’t
being viewed in a good light as their narrative and the numbers they were producing just didn’t match up with what was actually happening (Haar 2020). This could be good to help prepare for the next global crisis, but in the meantime it would significantly cut down the momentum the dollar has built over the past decades.

IMPLICATIONS FOR THE FUTURE

The future of the United States dollar is bright, and its path of growth is pretty clear. It has had a great amount of support and use from the majority of the world as the global reserve currency. The U.S. dollar will continue to grow and adapt as new situations or economic conditions take place. The only concern for the dollar would be another global pandemic. Due to the fact that China’s RMB and their economy was able to recover quite a bit faster than the U.S. economy. This might point out a weak spot for the U.S. dollar. However, without another pandemic, the U.S. dollar should continue in its hegemonic journey as a global reserve currency and continue to lead the way for what other currencies should strive to be. With the amount of support and depth the U.S. dollar has across the world in foreign centralized banks, there shouldn’t be an issue with the dollar losing its momentum as the global reserve currency anytime in the near future.

SUMMARY AND CONCLUSION

The United States dollar has grown significantly since the early 1900’s. Seeing the growth pattern the dollar has had since then is very promising. It shows that the dollar has a good foundation for what it is based on, as well as, it has deep roots globally, so it is very supported by the majority of countries. With this kind of network, the dollar is very strong and it would take a lot for it to be removed as the global reserve currency.

From analyzing how the U.S. dollar interacts and its role with other countries, it can be seen that the continued support from other countries and the amount of safety they see the dollar as having, displays the sheer power of it. When comparing the dollar to other currencies that are working their way to try and take the title of global reserve currency, it really brings to light the negative qualities of the other currencies. Even with a global pandemic tanking, the global financial system, during that time of distress people were looking to the dollar for safety and the U.S. economy for assistance to get back on their feet.
The U.S. dollar has had a great trajectory since it became the sole global currency. The momentum of the dollar will continue for many years to come. The number of qualities that the dollar has when compared to other currencies shows that there isn’t a real threat to the status of the dollar quite yet. With that being said, until China’s RMB or another growing currency is able to grow in popularity and trust to the level of the dollar, it will continue to reign supreme.

REFERENCES

McFarland and Maniam


