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AN ANALYSIS OF REGIONAL CORPORATE INJUSTICE, CULTURE AND
ACCOUNTABILITY

DISSERTATION

Presented in Partial Fulfillment of the Requirement for the Degree Doctor of Philosophy
in Administration of Justice in the Graduate School of Texas Southern University

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2021

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AN ANALYSIS OF REGIONAL CORPORATE INJUSTICE, CULTURE AND
ACCOUNTABILITY

By

Antonio Basilio, Ph.D.

Texas Southern University, 2021

Professor David Baker, Advisor

Coal miners' struggles with black lung disease can be traced to the 1800s. Back then, coal miners fought to make the industry accept that coal mine dust was the culprit behind black lung disease, but they failed. By 1900, some clinicians started recognizing that coal miners suffered from anthracosis or asthma. The miners realized that they could accomplish more if they worked as a team and formed the United Mine Workers of America. They attempted to get compensation for disabled coal miners but failed repeatedly. Their hard work gradually brought about change with the passage of the 1969 Federal Coal Mine Health and Safety Act which allowed the government to inspect coal mines, establish safety coal-dust level policies, and compensate sick coal miners. Gaining black lung disease benefits was not as easy as expected. Despite several thousand coal miners applying for black lung disease benefits, only a few thousand received them since the coal companies would mostly appeal benefit award claims for decades until the coal miner and/or his wife gave up or died. After the act was passed, there was a decrease in

black lung disease cases until 2000, when the number started to rise again, especially among young coal miners.

Many scholars have been looking for an explanation for the sudden increase in black lung disease cases since 2000. Some theorize that the increase was caused by coal mining companies cutting corners and not maintaining safe coal dust levels; the true extent of the problem was unknown because all coal miners do not test themselves for black lung disease. This research uses rational choice theory to analyze the decisions of key players, such as the federal government (Congress and the President), coal miners, black lung disease medical experts, coal mine operators/owners, and appellate courts, to identify patterns in the way their decisions impacted the US Department of Labor's ability to implement the 1969 Federal Coal Mine Health and Safety Act (Policy) and the amendments added years later and also determine whether the federal government has properly implemented coal mining safety and health policies in the coal mining industry. The researcher would consider coal mine explosion investigations, criminal and/or civil cases related to coal mine explosions, violations to Environmental Protection Agency policies, and attempts by coal miners, and watchdog and coal mining organizations to obtain monetary damages and/or a judicial order to stop the federal government from issuing a coal mining permit or stop implementing the policies for coal mining federal agencies such as the MSHA.

Coal mine explosion investigations and criminal/civil cases began in 2000 and has continued since then. The literature review suggests that the black lung cases among coal miners first noticeably rose in the mid 1990s. This research will answer the following questions:

1. How are the major findings of the mine explosions reports, criminal cases, and civil cases related to the administration of justice?
2. How are the major findings from the mine explosions reports, criminal cases, and civil cases related to the administration of black lung disease benefits?
3. How do the actions of key players (state and federal legislators, coal mining operators/owners, coal miners, and the federal government and federal agencies) possibly hinder the US Department of Labor's ability to implement the 1969 Federal Coal Mine Health and Safety Act (Policy) and its later amendments? How can it be determined whether the federal government has properly implemented coal mining safety and health policies in the coal mining industry?

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DEDICATION

I dedicate this dissertation to my parents, sisters, friends, professors, and work colleagues who have support me since the beginning of my journey in obtaining my Ph.D. I would like to thank my mother for encouraging me and refusing to let me quit on several occasions when I wanted to throw the towel by reminding me that I would be an idiot if I throw away some many years of sacrifice towards getting my Ph.D. I would also like to dedicate this dissertation to my grandparents and uncle that passed away before I completed my Ph.D. In addition, I would like to dedicate this dissertation to God, and Virgin Mary for their spiritual guidance, support, and unconditional love through this whole process. Finally, I would like to dedicate this dissertation to my two nephews who have always expect and demand excellence from me.

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CHAPTER ONE

INTRODUCTION

Black lung disease has affected coal miners since the 1800s (Derickson, 1998). Coal miners battled the industry to make them accept that coal mine dust caused the black lung disease. The industry denied these accusations by claiming that coal mine dust did not cause the disease. Coal miners, desperate to eradicate the disease, attempted several available remedies (ibid.). However, they were ineffective because black lung disease is incurable.

By 1900, several clinicians recognized anthracosis or miners' asthma as a disease—its slow, disabling symptoms and signs were known to them (Derickson, 1998). However, doctors gave miners two cures for the disease: leave the coal mines or get their employers fix conditions in the mines (ibid.). The miners could not afford to quit their jobs because they were the primary providers of their families (Derickson, 1998). They realized that they could be more effective if they worked as a group. Thus, they established the United Mine Workers of America (UMW) (Derickson, 1998). The UMW attempted to claim benefits for disabled coal miners for several years, although they were unsuccessful. The UMW got the federal government to focus on safety in coal mines and the health of coal miners in 1969. This led to the passage of the Federal Coal Mine Health and Safety Act of 1969 (Derickson, 1998).

Coal Workers' Pneumoconiosis (CWP) or black lung disease is "a lung disease that results from breathing in dust from coal, graphite, or man-made carbon over a long time" (MedlinePlus, 2018). The National Institute for Occupational Safety and Health (NIOSH) reported that, since 1968, "more than 76,000 miners have died from black lung disease and more than \$45 billion in federal compensation benefits have been paid out to coal miners disabled by black lung and their survivors" (US Department of Labor, 2014). Forty-five billion dollars in paid benefits is a lot of money. However, only a small percentage of the coal miners disabled by black lung disease have had their black lung disease benefit claims approved. In 2017, 7076 Part C black lung claims were submitted for review in the district director of the US Department of Labor (US Department of Labor, 2017), of which only 1275 were approved, corresponding to an 18.02 percent approval rate (US Department of Labor, 2017).

A black lung disease benefits claim being approved does not mean that the sick coal miner gets the benefits immediately because their employer has the right to appeal the decision. Coal mine companies appeal approved benefits claim decisions in most cases. Hasemyer (2017) pointed out that "despite the federal black lung benefits act, 70 percent of benefit awards are challenged by an industry that hates to lose or pay." Sick coal miners with at least 15 years of coal mining experience are not immune to their employers challenges their benefits despite a legal presumption stating that "a miner with 15 years or more of service in the mines with lung problems has black lung as a result of his work" (ibid.). Despite the changed rules to level the playing field "the coal industry has a tactic of keeping appealing benefit awards until the miner or miner's wife dies or gives up" (ibid.).

Sick coal miners struggling to find lawyers willing to take their benefits claim cases is a major problem. This is because lawyers are only compensated if they win. Additionally, the US Department of Labor has not ensured that certified black lung disease radiologists can adequately detect black lung disease in coal miners. In 2013, the department was made aware that Dr. Wheeler, the head of the Hopkins black lung program, “had not reported a single instance of severe black lung in the more than 1500 cases he reviewed since 2000,” by ABC News and the Center for Public Integrity’s investigation (Ross, Moss & Kreider, 2014). The investigation led the US Department of Labor to “ordered officials handling black lung claims of mine workers to stop relying on the medical opinions of a leading Johns Hopkins doctor whose work for coal companies helped lead to benefits being denied to thousands of miners over the last two decades” (Ross, Moss & Kreider, 2014).

One wonders whether the US Department of Labor would have been able to detect discrepancies in the black lung disease cases reviewed by Dr. Wheeler if ABC News and the Center for Public Integrity had never conducted their own investigation. Hasemyer (2017) reported that “the disclosure led the US Department of Labor to notify about 1,100 coal miners that their claims for black lung benefits may have been wrongly denied because of Wheeler’s findings.” The Black Lung Benefits Act of 1973 was created to provide “compensation to coal miners who are totally disabled by pneumoconiosis arising out of coal mine employment, and to survivors of coal miners whose deaths are attributable to the disease...The Act also provides eligible miners with medical coverage for the treatment of lung diseases related to pneumoconiosis” (US

Department of Labor, 2018). The Act from 1973 came out of the Federal Coal Mine Health and Safety Act of 1969. The key points of the Act from 1969 were:

Four annual inspections required at all underground coal mines, two annual inspections required at all surface coal mines, mandatory fines for all violations, criminal penalties for knowing and willful violations, individual state enforcement plans discontinued, safety standards for all coal mines strengthened and health standards adopted, specific procedures created for developing improved mandatory safety and health standards, training grant programs instituted, miners given the right to request a federal inspection, and miners disabled by black lung disease provided benefits. (US Department of Labor, 2018)

The US Department of Labor has attempted to monitor and improve safety and health standards in coal mines. The department's commitment to reducing black lung disease among coal miners was expressed in the new respirable coal mine dust rule, effective since August 1st, 2014 (Mine Safety and Health Administration (MSHA), 2016). The final phase of the new dust rule, effective since August 1st, 2016, required "the overall respirable dust standard in coal mines is reduced from 2.0 to 1.5 milligrams per cubic meter of air" (Mine Safety and Health Administration (MSHA), 2016). Additionally, "the rule also reduced the standard for miners diagnosed with black lung, and for air used to ventilate areas where miners work, from 1.0 to 0.5 milligrams per cubic meter of air" (Mine Safety and Health Administration (MSHA), 2016). However, policy monitoring can be hindered by lack of appropriate funding. President Trump has proposed a reduction in the US Department of Labor's 2019 budget from 12 to 10.9

billion dollars. This is a 10 percent decrease. The Environmental Protection Agency is expecting a 25 percent decrease in their 2019 budget (Washington Post Staff, 2018).

Reducing the US Department of Labor's budget will reduce the inspectors inspecting the coal mines. Cutting corners is not always good, especially in the coal mining industry, considering that 15 coal miners died during Trump's first year in office (2017) compared to the eight coal miner deaths in 2016 during the Obama administration (Goodkind, 2018). Besides battling budget cuts, the US Department of Labor has to face challenges from the coal mining industry that tends to use its resources to influence state legislatures and pass legislation weakening the Federal Coal Mine Health and Safety Act of 1969 at the state level. This could make it difficult for the US Department of Labor to effectively implement and administrate the Act or policy.

The coal mining industry influenced Kentucky lawmakers to "reduce the number of mine safety inspections and replace them with coaching sessions on miners' safety habits" (Lovan, 2017). Kentucky state law allows coal mines to "replace half of the six required inspections with 'analyst visits' that focus on coaching" (ibid.). The lack of funding has decreased the available coal mine inspectors and analysts in Kentucky from 121 in 2010 to 64 in 2015 (ibid.). Sick coal miners, the US Department of Labor, and the public must face the fact that the Black Lung Disability Trust Fund, backed by the US Government, is billions of dollars in debt (Cohen & Bonifield, 2018). "More than 14,000 miners depend on the Black Lung Disability Trust Fund to pay their medical bills and help with other expenses when they're too sick to work" (ibid.).

The US Government Accountability Office has forecasted that by 2050, "the trust will be forced to borrow more than \$15 billion dollars to stay afloat" (Cohen & Bonifield,

2018). The fund is supposed to be covered by taxing coal companies but it “has almost never been enough to cover the fund’s expenditures” (ibid.). The coal mines are responsible for the trust but taxpayers are bailing them out. In 2017, the trust had to borrow 1.3 billion dollars from taxpayers and currently owes them 4.3 billion dollars (ibid.). The trust does not have a good record of repaying taxpayers since the government, in 2009, “forgave 6.5 billion in dollars, which is more than half of what the trust owed to taxpayers” (ibid.). The trust’s financial troubles will probably worsen since coal companies persuaded the federal government to cut the tax by 55 percent by the end of the year and the Congress and President Trump have not indicated that they will be cancelling the cut (ibid.). Black lung disease does not only affect the US but also other countries, such as China, Australia, Great Britain, Colombia, etc.

Statement of Problem

The passage of the 1969 Federal Coal Mine Health and Safety Act was supposed to decrease black lung disease among coal miners. Research shows that black lung disease had been declining since the passage of this Act until it reemerged in the late 1990s, with an increasing number of new cases. Popovich (2018) pointed out that, “Black lung, a chronic disease caused by breathing in coal mine dust, declined precipitously between the early 1970s and late 1990s, following new health and safety rules put in place by the 1969 Coal Act.” He added that, “...By 2000, black lung was on the rise again. An advanced form of the disease, rarely seen in the mid-1990s, made an especially dramatic comeback” (ibid.).

Black lung disease continues to be a major problem among coal miners because “Overall, investigators have confirmed nearly 500 cases in just four clinics over the past

four years” (Popovich, 2018). National Public Radio (NPR) has reported close to 2000 cases of progressive massive fibrosis (black lung) in Appalachia since 2010 (Berkes, 2017). The number of cases reported by NPR is 20 times higher than the 99 cases reported by NIOSH nationwide in the same time period (Berkes, 2017). Blackley and colleagues (2016) reported “a cluster of 60 cases of PMF identified in current and former coal miners at a single eastern Kentucky radiology practice during January 2015–August 2016.” Forty-nine (82 percent) of the 60 new cases had radiographs taken during 2016 (ibid.).

The federal government has been less successful in identifying new cases of black lung disease in coal miners. “The federal government’s voluntary screening program for working miners recorded fewer than 100 cases of complicated black lung disease nationwide between 2011 and 2016” (Popovich, 2018). Researchers agreed that “true extent of black lung disease among current and former coal miners remains unclear” (Popovich, 2018). Blackley, concerned by the emergence of the black lung disease, states that, “nearly a quarter of the miners with complicated black lung disease had been on the job less than 20 years” (Popovich, 2018). New cases of black lung disease influenced the Obama administration into issuing a new coal dust rule in 2014 which the coal industry considered costly and overly burdensome (Popovich, 2018).

The new rule motivated Murray Energy to sue the US Department of Labor Mine Safety and Health Administration (MSHA) in 2014 by asking the sixth US Court of Appeals to review the rule, stating that “the department failed to adequately take into account the input of technical experts and the coal industry” (Yen & Associated Press, 2014). Gary Broadbent, assistant general counsel for Murray Energy felt that the Obama

administration was not interested in protecting coal miners; instead, it wanted to promote their war against the coal industry (Yen & Associated Press, 2014). The Department of Labor felt that it was more important to reduce coal dust than just require protective gear for the workers since “symptoms of the disease include chronic coughing and shortness of breath and can lead to disability and death” (Yen & Associated Press, 2014).

The US Department of Labor expected savings of 36.9 million dollars annually in medical costs related to black lung disease (Yen & Associated Press, 2014). The United States Court of Appeals for the 11th Circuit denied the coal industry’s petition, stating that

MSHA acted consistently with its statutory authority in promulgating the New Dust Rule; the statute, read as a whole, clearly delegates regulatory authority for the matters covered by the New Dust Rule to its authority alone. Substantively, MSHA’s decisions comport with the requirements of the statute and are not otherwise arbitrary, capricious, or an abuse of discretion. (United States Court of Appeals for the 11th Circuit, 2016)

However, the new coal dust rule as a possible solution for decreasing black lung disease among coal miners was a short-lived legal victory.

The Trump administration cut the mandated level of allowable dust in coal mines by 25 percent (Blades, 2018). With the new ruling, it is expected that “thousands more coal miners will die since there will be no end to black lung disease” (ibid.). The prevalence of black lung disease has increased over the last 50 years. In 1970, one in 30 coal miners were expected to be diagnosed with black lung disease, compared to the one

in 14 today (ibid.). Black lung disease is difficult to detect when coal miners refuse testing. Anita Wolfe, program coordinator for the Coal Workers' Health Surveillance Program administered through NIOSH, pointed out that, "many miners decline to undergo the free examinations that federal regulations entitle them every five years" (as cited in Wei-Haas, 2017).

Some coal miners have claimed that they do not participate in the free federal testing because they "are afraid of losing their jobs or other forms of company retaliation" (Wei-Haas, 2017). Ms. Wolfe added that "oftentimes a miner won't get examined until after he or she retires, by which point the disease could have progressed" (as cited in Wei-Haas, 2017). She continued by pointing out that "Some miners just flat out don't want to know if they're sick or not ... they're going to continue to work" (ibid.). Finally, Ms. Wolfe estimates that "current participation in screening programs is about 40 percent overall, but in states like Kentucky, it's as low as 17 percent" (ibid.).

The reality of black lung disease is that once a coal miner becomes sick, the disease will continue to progress, leading to possible death regardless of whether testing is free. The problem is that we do not know exactly how long it takes for the disease to manifest in coal miners because it spreads gradually and its time of manifestation can vary with every case. Therefore, it is crucial for the 1969 Federal Coal Mine Health and Safety Act to be analyzed as a policy that is being implemented by the US Department of Labor because more coal miners are resorting to lung transplants as a final effort to save their lives.

Purpose of Research

This research aims to make more people aware of the struggles (injustices) of coal miners with black lung disease due to lack of implementation of the 1969 Federal Coal Mine Health and Safety Act. Their struggles are unique. Researchers have found that 62 coal miners have received lung transplants since 1994 (Monforton, 2018). Among the 62, 70 percent resided in Kentucky, Virginia, and West Virginia (ibid.). Many of the black lung transplants received by coal miners were paid for by taxpayers (ibid.). Black lung disease, which is 100 percent preventable, can cost taxpayers an average of 1.19 million dollars due to double lung transplants (ibid.). We are all equal in the administration of justice and all our injustices need to be heard.

The study also aims to analyze the administration of the 1969 Federal Coal Mine Health and Safety Act (Policy) by the US Department of Labor through MSHA. The US Department of Labor is not on trial in this research. However, one cannot judge the department without analyzing the facts (evidence) and, in the administration of justice, we have the established belief that a defendant is innocent until proven guilty. When a policy is being written, it is hard to predict all the struggles/impediments that it will face in the future.

For example, a police officer is responsible for administering state law policies. Regardless of the number of hours of training a police officer receives, you can never prepare them for all the scenarios that he/she will face while patrolling the streets. When the 1969 Federal Coal Mine Health and Safety Act was written, it was hard to predict that the US Department of Labor's power to implement the policy would be undermined by

federal cuts in their budget and the coal industry's lobbying power in convincing state legislatures to pass legislation weakening the policy.

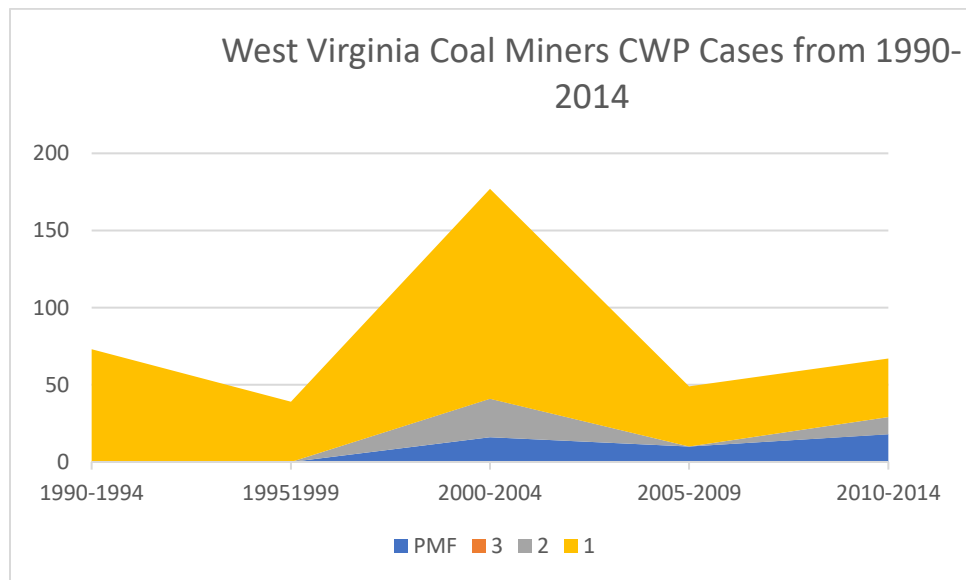
Finally, the study aims to find out if the federal government has been able to properly implement the coal mining safety and health policies in the coal mining industry. After policies are written and pass in the US Congress, the hardest task to achieve becomes the proper implementation of such policies. Special interest groups, job industries, and lobbyists have power to weaken policies to fit their own interests. Perhaps one main legal avenue in having their interests heard is through their political contributions they make to political candidates that can come from different political views as long as they share their beliefs, desires, and views to name a few. Take in mind the effects of political power in policy making, the study will also focus on the ways key players such as coal miners, coal mine operators/owners, federal and local legislators, and the federal government and federal agencies might possibly hinder the US Department of Labor's ability to implement the 1969 Federal Coal Mine Health and Safety Act (Policy) and its later amendments.

Significance of Research

This research will use rational choice theory to evaluate the decisions of coal miners, coal mine operators/owners, appellate courts, the federal government (US Department of Labor), and other entities that could have contributed to the black lung disease problem; the US Department of Labor is not solely responsible. Coal miners are partly to blame because they decided to work in coal mines of their own free will, knowing that they risked contracting the disease. Coal mine owners/operators are not immune to their responsibility because they prefer profits over following coal mine dust

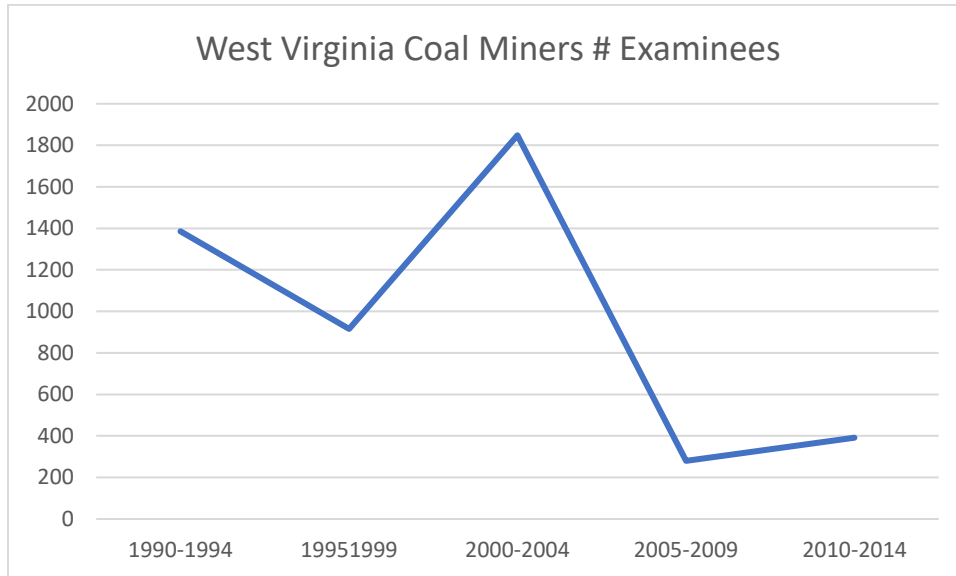
safety levels policy as first established by the 1969 Federal Coal Mine Health and Safety. The rational decisions of appellate courts in black lung disease cases are significant to this research because they give us an idea of why more coal miners are successful at appellate courts when the same courts tended to rule against them years ago. Did any changes in policy make it possible for appellate courts to rule in their favor over the years?

This research is significant because policy-level changes are desperately needed to control the increase of black lung disease cases. Why is black lung disease so significant that it requires the attention of scholars? West Virginia, Virginia, and Kentucky are Appalachian states known for their significant rise in black lung disease cases in the last couple of years. The researcher used data from the Coal Workers' Health Surveillance Program (CWHSP), data query system, to graph the Coal Workers' Pneumoconiosis (CWP) cases diagnosed among coal miners from West Virginia and the number of West Virginia Coal miners who participated in the CWHSP from 1990 to 2014. CWHSP collect data every five years; the last time being 2014. They labeled CWP using the following severity labels: 0 (no CWP found), 1 (lowest severity), 2, 3, PMF (very severe form of black lung disease) (National Institute for Occupational Safety and Health, 2018). The researcher excluded CWP severity level 0 in the graphs, as illustrated in Figure 1.

Figure 1**West Virginia Coal Miners CWP Cases from 1990-2014**

Source: National Institute for Occupational Safety and Health (2018).

Figure 1 shows that CWP level 1 (less severe form of CWP) cases have constantly been around from 1990 to 2014. It can also be seen that from 2000 to 2014, PMF (severe form of black lung disease) was detected in West Virginian coal miners. Regardless of its severity, black lung disease has been manifesting in West Virginian coal miners for the last 20 years.

Figure 2**West Virginia Coal Miners # Examinees from 1990-2014**

Source: National Institute for Occupational Safety and Health (2018).

Black lung disease detection requires the participation of coal miners. As figure 2 demonstrates, it can be detected that the highest level of participation from coal miners in West Virginia occurred in the 2000–2004 data collection period. After 2004, the participation level decreased. It did increase in the 2005–2009 and 2010–2014 periods but the increase was lower than the participation level before 2005–2009.

Research Questions

1. How are the major findings of the mine explosions reports, criminal cases, and civil cases related to the administration of justice?
2. How are the major findings from the mine explosions reports, criminal cases, and civil cases related to the administration of black lung disease benefits?

3. How do the actions of key players (state and federal legislators, coal mining operators/owners, coal miners, and the federal government and federal agencies) possible hinder the US Department of Labor's ability to implement the 1969 Federal Coal Mine Health and Safety Act (Policy) and its later amendments? How can it be determined whether the federal government has properly implemented coal mining safety and health policies in the coal mining industry?

CHAPTER 2

LITERATURE REVIEW

Scholarly Qualitative Literature Review of Problem

According to some scholars, black lung disease control policies first created in the 1969 Federal Coal Mine and Health Act were being implemented in the 1980s and early 1990s. However, other scholars disagree. Nonetheless, there was a consensus among scholars that since 2000, black lung control policies were not being implemented, especially as a greater prevalence of CWP was found in younger men who probably enter the coal mines after the implementation of the 1969 Federal Coal Mine and Health Act. The literature about black lung disease (CWP) has also confirmed that it is not only a national problem but also a global epidemic to which coal miners from countries including Australia, Japan, China, Great Britain, Colombia, etc. have been exposed.

However, we are in the dark because do not know how effectively the federal government (US Department of Labor) has administered the black lung disease control policies in the US. Administration of policies in the criminal justice system or other systems/departments/entities is crucial for the success of the policies. It is unacceptable that almost 50 years after passing the 1969 Act, new cases of black lung disease are still identified, sick coal miners are still submitting black lung disease benefits claims and, most importantly, we are still witnessing coal miners dying from CWP. Some scholars have published articles about the prevalence of CWP among coal miners. Others have written about the factors causing CWP, like the composition of coal dust, smoking habits, the location of the mine, and the size of the coal mining, etc. Laney and associates (2010)

pointed out that “resources likely influence the mine size/fatality rate association.” It was also mentioned that “smaller mining operations may have limited capital to upgrade safety equipment and dedicated safety and health personnel are less likely to be available to workers in smaller mines” (Laney et al., 2010 cited Randolph, 1998). Laney and associates (2010) argued that, “lack of resources may determine the effectiveness of dust monitoring and control, and thus have the potential to influence pneumoconiosis prevalence and severity.” McCunney and associates (2009) mentioned that “the risk of Coal Workers’ Pneumoconiosis (CWP) depends on the concentration and duration of exposure to coal dust.” It was mentioned that “epidemiology studies have shown inverse links between CWP and quartz content” (ibid.).

McCunney and associates (2009) also indicated that “coal from the USA and Germany has demonstrated links between iron content and CWP; the same studies indicate virtually no role for quartz.” They continued by stating that, “vitro studies indicate strong mechanism links between iron content in coal and reactive oxygen species, which play a major role in the inflammatory response associated with CWP” (ibid.). Their research led scholars to conclude that “the active agent within coal appears to be iron, not quartz” (McCunney et al., 2009). It was recommended that by “identifying coal components of coal before mining activities, the risk of developing CWP can be reduced” (ibid.). Attfield and Moring (1992) study pointed out that “one factor associated with coal workers pneumoconiosis (CWP) and the incidence is the rank of coal” (as cited in Walton et al., 1977). Coal rank is measured by percentage of carbon (Attfield & Moring, 1992 cited Given, 1984). Anthracite has the highest percentage of carbon (coal rank) at 93 percent (ibid.). In the US, higher coal ranks are found in the east,

while lower coal ranks tend to be in the west (Attfield & Moring, 1992 cited Given, 1984). Some scholars' articles focused on health impacts of coal dust, besides CWP, on coal miners, such as various types of cancer, renal failure, heart problems, etc. Landen and associates (2011) found that "death from IHD (Ischemic Heart Disease) and death from pneumoconiosis are both known to be associated with particulate exposure." It was found that a decrease in the concentration of stable coal radicals (SCR) was caused by smoking" (Dalal et al., 1991). Strangely, "evidence showed smokers had lower levels of SCR and they tended to experience a lower prevalence of CWP" (ibid.). Shen and associates' (2004) study found that "of 53 research subjects with CWP (coal workers pneumoconiosis), 28 patients (53 percent) with PMF (progressive massive fibrosis) had their first ARF (Acute Respiratory Failure) at a younger age than those without PMF (69.1 years of age versus 74.8 years of age)...Pneumonia was the most common cause of ARF (Acute Respiratory Failure) 49 percent of the time." The results of the study made the researchers conclude that "the findings of the study showed that the long-term prognosis of patients with CWP after ARF was poor even though a substantial proportion of them could be weaned from the ventilator and discharged from the hospital" (Shen et al., 2004).

The US Department of Labor annually publishes various statistics on coal mining such as coal mining fatalities, inspections (violations and citations), coal dust concentration in the mines, and black lung disease benefits. The US Department of Health, through its various sub-departments such as the Centers for Disease Control and Prevention (CDC) and NIOSH, publishes reports about the prevalence of CWP in various parts of the country. Scholarly articles that study the federal government's (US

Department of Labor) effectiveness in implementing black lung disease control policies are rare, probably non-existent. The study is probably not new because other scholars may have discussed the issue in some form. However, the federal government's implementation of black lung disease policies is scarcely reviewed, and it is crucial for independent scholars to do so.

The findings or impact of the study/review can probably influence other scholars to review the administration of black lung disease benefits by the federal program and consider other aspects of the federal government's implementation of such policies that the researcher may have overlooked. The more scholars reviewing the federal government's implementation of black lung disease control policies, the more the knowledge (value) created about the field. Criminal justice and administration of justice cover aspects such as who is more likely to offend and how criminal defendants fare in the courts. One major aspect examined is the administration of policies by key stakeholders, which is the main research focus.

There might be some lack of willingness in reviewing the administration of black lung disease policies since coal mining is decreasing in this country while other energy sectors, such as solar energy, are gaining a market share. As solar energy continues to grow, there will be a need to protect the workers from that sector by creating safety and health regulations which will require scholars to review the administration of such policies by key stakeholders in the future. Reviewing the administration of policies is crucial because policies can impact intangible entities such as people.

As more scholarly research is published in this area, the researcher hopes that the US Congress and the President of the United States would work together to find ways to give

the US Department of Labor more funding to continue policing coal mines and ensure that they comply with black lung disease policies. Funding is crucial for successfully implementing policies. In this case, the US Department of Labor cannot fund its own policies. Therefore, it needs the cooperation and support of both the US Congress and the President. However, getting their support is not easy since the President, Senators, and Congressperson's own beliefs and desires, and the national environment at certain times, influence their decisions. President Trump and his administration, "in December, announced it was considering rolling back MSHA regulations that protect coal miners from "black lung" disease, which comes from breathing in coal dust" (Sanders, 2018). In July 2016, Sykes (2016) mentioned that since President Obama took office in 2009, "he had issued 3900 Environmental Protection Agency (EPA) environmental regulations." Sykes (2016) added that "the issued EPA regulations translated into hundreds of billions of dollars in compliance costs and such costs had increased by over \$50 billion dollars in annual costs."

For example, in 2017, President Trump's budget called for a 31 percent cut for the EPA, 29 percent for the Department of Education, and a 21 percent cut for the Departments of Agriculture and Labor (Fahey & Wells, 2017). The EPA mentioned that a 2.6-billion-dollar reduction in their budget would eliminate 3200 positions (ibid.). The researcher hopes the findings would influence the US Congress to implement harsh criminal and monetary penalties for coal mine owners who continue to violate established federal coal mine dust concentration standards. One cannot disregard the influence of coal mine owners/operators on state and federal legislatures through political donations. In 2017, the coal mining industry was able to persuade the Kentucky state legislature to

pass House Bill 384, which replaces “up to three of the four required annual underground mine inspections with mine safety analysis visits and reduce the minimum number of annual full electrical inspections from two to one” (Desrochers & Brammer, 2017). It was mentioned that “unlike a regular inspection, which involves checking a mine and its equipment for safety violations, a safety analysis involves an inspector spending a day with at least one coal miner” (ibid.). According to the Kentucky General Assembly Website, Kentucky House Bill 384 was signed into law by the governor on March 21, 2017 (Kentucky General Assembly, 2017).

In 2016, the coal mining industry was able to convince Governor Tomblin from West Virginia to sign West Virginia House Bill 4726 (HB 4726) (Ward, 2016). HB 4726 won the coal mining companies the following victories: First, it “relaxes the requirements for mine operators to provide private mine rescue teams.” Second, it “reduces the fines for not immediately reporting major mining incidents like fires and explosions to state officials.” Finally, third, “It gave the industry increased ability to appeal safety violations in court and sends such appeals to local judges in communities where the mines are located” (Ward, 2016).

In 2018, the coal mining industry won another victory in Kentucky by getting the House Bill 2 passed. It changes the control regulations which has made it harder for coal miners from the state to prove that they have black lung disease (Colgrass, 2018). House Bill 2 prohibits federal-approved radiologists from diagnosing black lung disease, leaving the diagnosis to doctors who have mostly been hired by coal mining companies (ibid.).

The research findings might help reduce the prevalence of CWP by encouraging the government to do a better job of implementing black lung disease control policies.

However, it would take some time for the government to improve their implementation since coal mine owners/operators will resist and use their power and influence to induce legislatures to change laws in their favor, as discussed earlier.

Theoretical Framework

The theoretical framework of this research is the rational choice theory. Rational choice refers to deciding something using our own free will after considering its advantages and disadvantages and making a decision that benefits us the most. The research will consider the decision making of key stakeholders such as the US Department of Labor (policies administrator), coal mine owners/operators (policy follower), and coal miners (policy follower) using the rational choice theory. Some factors influencing the rational decision making of the participating parties, such as their beliefs, desires, attitudes, social norms, current situations, and past experiences, will be examined. Stressful factors such as depression, alcohol abuse, drug abuse, and brain functions (for e.g., being an irritable and impatient individual) will also be considered.

Research has indicated that “rational choice has the following two epistemological approaches: internalist and externalist” (Aguilar & de Francisco, 2009). The internalist feels that “the agent’s preferences and beliefs are mental states that constitute reasons for action while the externalist solely considers the preferences revealed in action and certain behavioral hypothesis, neither of which entails delving into the minds of the individuals” (ibid.). Aguilar and de Francisco (2009) have stated that,

...Canonical paradigm of rational choice theory explains all social action in terms of the decisions made by an individual or group of individuals in a given context, the consequences of those decisions, and an assumption about the individuals’

reasons for having made the decision, namely that individuals will try to maximize their benefits (whatever that benefit may be) (as cited in Bell, Raiffa, & Tversky, 1988).

The researchers further argued that, “for a choice to be made, the agent must face a set of possible options (feasible set)...it is assumed that given a feasible set, the agent will choose the option that leads to or he/she believes leads to the best outcome” (Aguiar & de Francisco, 2009). Further, Aguiar and de Francisco (2009) mentioned that, “if he/she has full information about the outcome of his/her decisions, he/she will find himself/herself in a situation of certainty and be able to maximize her utility.” An important aspect of the theory is that “if the information is incomplete, however, he/she will only be able to maximize the expected utility in a context of risk and uncertainty” (ibid.). Finally, the “internalist interpretation of rational choice holds that the theory describes what is actually going on inside us when we reason” (Satz & Ferejohn, 1994 as cited in Aguiar & de Francisco, 2009).

Satz and Ferejohn, (1994) stated that “rational-choice theory is taken to be a psychological theory that it explains a person’s actions in terms of his/her mental states.” They further argued that, “the theory is also taken to be an individualistic theory in that it applies directly only to individuals (that is, only individuals have preferences).” A setback of the rational choice is that, “even where people do act as the theory predicts, the best rational-choice explanation of their actions may not be an individualist, psychological one” (ibid.). The internalist,

...Assumes that mental entities—the desires and beliefs on which individual preferences are based are causally linked to the individual's decision given that they provide reasons for action: beliefs and desires are mental states that motivate the individual and causally explain his/her action. (Aguiar & de Francisco, 2009, cited Williams, 1981; Boudon, 2003; Landa, 2004; Hedstrom, 2005, 2006)

Hedstrom (2006) suggested that in “sociology the basic entities of a mechanism always tend to be actors, and the basic activities tend to be the actions of these actor.” He also suggested that, “Through their actions actors make society tick, and without their actions social processes would come to a halt” (ibid.). It was agreed that “the desires, beliefs, and opportunities of an actor are seen as the proximate causes of the actor's action” (ibid.). Landa (2004) mentioned that moderately internalist rational choice is “based on a conception of rationality as a normatively justified correspondence between interests and choices.” Landa (2004) also indicates that, “rationality is best thought as a property not of individual actions, but of a complex two-level phenomenon comprised of the social justification of behavioral norms and of the everyday choices made under this norms.”

Aguiar and de Francisco (2009) continued their discussion of rational choice theory by arguing that, “by relying on individual beliefs, desires, and preferences and the role they play as reasons for action, the theory not only explains individual behavior—why individuals choose as they do—but also justifies these decisions from a normative standpoint insofar as they are the best ones that an individual can make to maximize his/her interest, provided, of course, that he/she has sufficient information and is not deceiving himself/herself” (as cited it Davidson, 1980). They also suggested that “for the

internalist, beliefs, desires, and preferences are not mere labels, nor simple theoretical construction that aid us to understand human conduct, nor constructs that have no real correlation to what is going on in our minds, but are instead real events in the intentional processes of the human mind” (Aguiar & de Francisco, 2009). Our own “beliefs can be interpreted as mere probabilities that a decision will lead to certain outcomes rather than other” (ibid.).

Coyne and Eck (2015) mentioned that, “people make choices, choices are based on some system, the system is similar in similar situations, and the system for making choices is similar across people.” The rationality of a choice/decision (rationale choice) depends on our brain function such as “balancing the Behavior Activity System (BAS) with the Behavior Inhibition System (BIS)” (Coyne & Eck, 2015). It was suggested that “individuals with an overactive BIS are more likely to have high levels of anxiety and make extremely cautious decisions, avoiding risks” (ibid.). Researchers also found that “other brain functions such as the regulation of hormones and neurotransmitters can greatly affect how we make choices (rationale choice) and behave” (ibid.). Additionally, “our unique neurological predispositions matter, these differences affect how we perceive, process, and respond to information—how we think” (ibid.).

It is believed that decision making (rationale choice) considers the environment (Coyne & Eck, 2015). The environment can be classified into three layers: “the first and most influential layer is the immediate environmental setting; which is known as the situation.” Space and time converge in the first layer. The “...next layer involves the experiences that have occurred recently, and the outer layer is made up of distant experiences from the past” (ibid.). Lahno (2007) criticized the standard rational choice

theory because “it cannot give an adequate account of rule following behavior.” As a rule of thumb “people just do not decide above their actions by first calculating expected utilities and then choosing that option among the available ones that promise the best reward as indicated by those utilities.” Instead, they follow the rules (Lahno, 2007). Another criticism of rational choice is that “standard rational choice is not only descriptively insufficient as a theory about the process of decision making, it is essentially unsuited to an adequate explanation of social order in human society” (Kliemt, 1990, 1993; Rowe, 1989 cited in Lahno,2007). Researchers have inferred that rational choice is not a theory of decision but a theory of choice (Lahno, 2007). Nonetheless, “people then follow rules instead of rational choice in decision making” (ibid.). We consider three types of information while making choices (ibid.). These types of information are: “information to determine the options available, information relevant for determining the causal consequences of available acts, and the information needed to evaluate the possible expected consequences” (ibid.).

Landa (2006) mentioned that the “standard model of rational behavior posits the existence of a causal relationship between an agent’s preferences and beliefs and his/her action” (as cited in Davidson, 1980). The researcher used a map to make rational decisions. Landa (2006) stated that “a map from motivations into actions serves two purposes: first, it establishes an agent’s competence as someone whose reasons for action are sufficient to cause his/her behavior.” He continued by stating that, “if we give up either knowledge or the assumption of such competence, both the moral status of the agents and of our own responses to their behavior will change dramatically” (ibid.). Second, “the considerations of causal relevance require us to identify reasons for action

independent of the action taken, beliefs and desires issue in behavior only as modified and mediated by further beliefs and desires, attitudes, and attending's, without limit" (Davidson, 1980 cited in Landa,2006). However, creating a map can "result in rebuilding the internationalist structure of rational individuals' responses to their environment" (Dowding, 2002 cited in Landa,2006).

Landa (2006) implied that "a rational agent cannot be choosing whether to act in way x beyond what enters into the formation of the belief that x is the rational way to act." Therefore, "when a belief is affirmed, the choice must be automatic rather than a product of" (Raz, 1999 cited in Landa,2006). Additionally, "rational individuals are expected to adopt behavioral responses suitable to the immediate choice circumstances by interpreting those circumstances in light of the accessible situational paradigms associated with the particular justifiable behavioral norms" (Pettit, 1993 cited in Landa,2006). Muntanyola-Saura (2014) mentioned that "agents construct their preferences based on supposed outcomes; they are at the same time the motor for the action." Therefore, "our choice is based on a comprehensive and exclusive access to information, so we are rationally in control of the situation" (ibid.).

To achieve the desired outcome, "we often discover new preferences, or act to modify them, lie, or deceive" (Muntanyola-Saura, 2014). As agents, we "gather information from others, from the environment, or from our own actions, to fulfill our wishes" (ibid.). However, "the rational choice model revolves around the belief that the mind is a manipulator of symbolic information" (ibid.). We have to accept the reality that, "thinking does not happen simply in the mind, but in the interaction between the mind and the environment" (Muntanyola-Saura, 2014, cited Gigerenzer, 2008). Finally,

“intentionality and empathy are central to the decision-making process” (Muntanyola-Saura, 2014).

The research will provide examples of the way factors contributing to rational choice theory such as desires, beliefs, property, social norms, past experiences, stressors, and current experience contribute to the decision of the coal miners, coal owners/operators, the US Department of Labor (policies administrator), and appellate courts. The desire of the US Department of Labor to target coal companies violating safety coal mining dust levels requires support from the executive (the President) and legislative branches (the Congress). However, the department’s belief and desire (rational choice) is not their sole property. Instead, it is the property of the US Congress and the President. This is because the President, along with his staff, determines the funding for each department, entity, and other federal-sponsored programs in the annual budget. Nonetheless, the US Department of Labor’s funding depends on the President’s beliefs about environmental regulations and the impact of black lung disease on coal miners.

Regardless of the President’s beliefs (rationale choice), his budget is subject to approval by the US Congress. The proposed annual funding for each department can change depending on what the Congress believes are important, contemporary issues that need to be addressed. For example, if the US Congress’ current agenda (belief) involves focusing on terrorism then the US Department of Defense will probably get additional funding from the Congress while other departments such as the Department of Labor will be subject to budget cuts, making it difficult for them to meet their goals. In 2011, the US Congress passed the Budget Control Act to pay the national debt that had accumulated to over 16 trillion dollars (Newman, 2012). The Act necessitated annual cuts in spending

adding up to 110 billion dollars. Half that money was supposed to come from cuts in defense and the other half from cuts to other programs (Newman, 2012). The Act resulted in annual cuts of 2.3 billion dollars from special education and education funding for the disadvantaged, 1.5 billion dollars in rent subsidies for low-income tenants, among others (Newman, 2012).

Regardless of the Congress' beliefs, the Department of Labor's desire for stricter coal mine inspections by hiring more inspectors is subject to the environment when the President proposes the budget, and the Congress debates it for their approval. If the environment of coal mining states such as West Virginia and Kentucky is in opposition to black lung disease regulations from coal miners, coal companies, and other constituents, then Congresspersons and Senators from such states will probably vote against the budget and/or submit amendments that could eliminate parts of the US Department of Labor's budget.

Critics agree that coal miners could reduce their risk of contracting black lung disease by leaving the coal mines and seeking work in other safer industries such as manufacturing. Regardless of how safe other industries are compared to the coal mining industry, if the coal miner has a desire (rational choice) to work in the coal mines, then no one and nothing can change his/her mind. If working in coal mining has been a social norm (rational choice) in the coal miner's family and neighborhood for generations, then the coal miner is most likely to work in the mines regardless of health safety issues and competitive salaries from other job sectors. While deciding to work in the coal mines, coal miners consider their current situation (rational choice). If they are the only ones

supporting their families, then they will probably decide to work in the coal mines to pay bills and prevent the family from starving.

Current trends (rational choice) also influence their decision. If the current trend is owning a car and a house, then the coal miners will probably work in the mines if the salary allows them to afford the current American dream of owning a car and property. They could also decide to work in the mines because they believe (rational choice) that the coal mine dust does not cause black lung disease or they simply do not care (attitude—a component of rational choice) about the risk of contracting black lung disease.

Coal miners could be struggling with substance abuse (alcohol or/and drugs) which would prevent them from rationally deciding whether to work in the coal mines. They may continue to work despite knowing the risks of contracting black lung disease. Alcohol and drugs have been a serious problem in coal mines. The problem got so serious that, in 2008, MSHA proposed a rule that “prohibited the possession and use of alcohol and/or drugs in mine premises” (Walter, 2008). The proposed policy “required mine operators to establish drug testing and training programs for miners and requires all mine operators to create and implement an alcohol- and drug-free workplace program that includes referrals to assistance for miners who violate the policy” (ibid.).

Coal mine owners/operators will probably lean toward the idea of profiting by violating the black lung disease control policies while making a financial decision. It is probably easy to violate these policies because the violation does not lead to a criminal or misdemeanor charge. Instead, it leads to a citation. The worst outcome of a violation is the closure of the coal mine by the federal government but that takes time since coal

mines can resort to the courts to prevent the closure. Additionally, the coal operators/owners probably prefer profits and use part of those profits to lobby state legislatures to eliminate or rewrite state laws that weaken black lung control policies.

Regardless of how sad the coal miner's situation is (defendant), the judges cannot and are not allowed to consider their desires and beliefs about the case while making a rational decision because their decision must rely on what is written in existing federal laws and the Constitution. Additionally, the rational decision in the case is not the sole responsibility of a judge. The majority of the judges in the appellate court need to agree on the reversal or upholding of a lower court decision. Finally, the rational decision of a case in the appellate courts is not final (property of the appellate courts) because changes in policies (laws) considered in the case could change with new policies (laws) passed by the federal government over time, resulting in the need for the appellate courts to revisit the subject matter in the future.

Regardless of appellate courts' decisions, the sick coal miners suffer the consequences of those decisions. For example, Bethel Brock worked in the coal mines for decades and was diagnosed with the early stages of black lung disease in 1982 (Hasemyer, 2017). When he first applied for black lung disease benefits in 2003, he found it would not be an easy battle as his former employer, Westmoreland Coal Company, appealed the ruling (ibid.). Westmoreland Coal Company did not agree that Brock had black lung disease. They were able to defeat him in court 10 times with the help of lawyers and doctors (ibid.). After a 14-year court battle with the company, Brock was able to finally win black lung disease benefits (ibid.). Coal mine owners make the rational decision of challenging black lung disease benefit claims awarded by the US

Department of Labor because they have the advantage of coal miners not having the funds and access to lawyers. Research has found that “miners are often overmatched because few lawyers will take their cases” (ibid.). Additionally, “attorneys are barred from charging plaintiffs’ fees, meaning they receive modest compensation, and only if they win” (ibid.).

In the last decade, only “7252 out of 52,537 black lung disease claims were considered eligible for black lung disease benefits by the US Department of Labor” (Hasemyer, 2017). Additionally, “the industry then challenged 70 percent of those claims, often denying the presence of the disease” (ibid.). Coal mine owners have succeeded to the point that they have “prevailed more than half the time” (Hasemyer, 2017).

There are several constraints on an individual’s rationale choice decisions. One is the scarcity of resources. Level of possession of resources and access to the level of resources for every individual is considered in a rationale choice decision (Marx 1867; 1977, Parsons & Shils, 1951 as cited Zey,1998). For coal miners, scarce access to and possession of resources such as cash are probably factors determining whether they continue coal mining. Cash is necessary to pay for some essential items such as rent, bills, food, and clothes. The next constraint is the opportunity costs which include “those costs associated with forgoing the next most attractive course of action” (Friedman & Hechter, 1988, p. 202 as cited in Zey,1998).

As more coal jobs are lost, efforts have been made to retrain affected coal miners through courses that can help them find jobs in other sectors. However, before deciding

whether to attend retraining courses, coal miners look at opportunity costs such as the odds of securing job placement after completing retraining and covering living costs with a part-time job or no job at all. Research has shown that regardless of how reluctant coal miners are about retraining courses, companies account for the local workforce's level of training while deciding to open a distribution or manufacturing plant (Volcovici, 2017). Companies will be less reluctant to open shop in coal mining states if coal miners continue to refuse retraining.

For example, research has indicated that southern Pennsylvania has a participation rate of under 20 percent in training programs while southern Virginia has a participation rate of 50 percent (Volcovici, 2017). Coal miners are not willing to incur opportunity costs if jobs are not available in the areas they live. Volcovici (2017) found that ex-coal miners do not prefer existing jobs in natural gas in Pennsylvania because work in the natural gas pipelines requires travel while coal mines are closer to their homes. However, coal miners failed to realize that most Americans have to commute to work. Research shows that the average American in 2015 had an average daily commute time of 26.4 minutes to and from work (Ingraham, 2017). Additionally, the commute time increased from 2014 to 2015. “[The] 45-minute daily work commute increased by 3.5 percent, an hour-long daily work commute increased by 5.1 percent and extreme commutes of 90 minutes or longer increased by eight percent” (Ingraham, 2017).

Institutional norms are another constraint to consider which “affect both rewards and costs, providing support for and constraints against individual actors through such mechanisms as family norms, policies of schools and other formal organizations, government laws, and church commandments” (Zey, 1998). There is no guarantee of coal

mine owners/operators paying black lung disease benefits because there is no policy making them 100 percent liable. They can always avoid liability by declaring bankruptcy. Berkes (2018) found that in 2017 alone, coal companies only paid 25 percent of black lung disease benefits by resorting to bankruptcy and/or not buying enough insurance to cover the benefits. The Black Lung Trust Fund, which only kicks in when coal companies cannot pay benefits, covered 64 percent of the benefits paid in 2017 (Berkes, 2018).

The black lung disease policies in place are flawed. The Center for Public Integrity found that black lung disease increased because the federal government systems supported loopholes or cheating in monitoring miners' exposure to coal dust which causes black lung disease (Hamby, 2012). Research found that "from 2000 to 2011, the federal Mine Safety and Health Administration, MSHA, received more than 53,000 valid samples showing an underground miner had been exposed to more dust than was allowed, yet the agency issued just under 2,400 violations" (Hamby, 2012; updated 2014). The low number of violations can probably be attributed to the policies allowing coal operators to average dust samples (ibid.). Instead of reprimanding coal mine owners/operators for their cheating, MSHA allowed coal mining companies extra time to fix dust problems in 57 percent of cases between 2000 to 2011 (ibid.). One rationally wonders if black lung disease was merciful to coal miners the same way MSHA was with coal mining companies' violators?

The final constraint to consider is information (Zey, 1998). Information is needed to "make purposive choices among the alternative courses of action" (ibid.). There is a "growing recognition that lack of information quantity is not a problem, but quality of information is highly variable" (ibid.). Access to information about coal mine

owners/operators cheating black lung disease policies is a challenge to the MSHA. Coal miners can stop cheating but they participate in cheating schemes because they either do not want to get their coal mine in trouble or they are pressured by managers to go with it through reminder about their jobs depending on it (Jamieson, 2017). The reality is that coal miners might not seem to care about unsafety dust levels since coal mining jobs in some counties such as Muhlenberg County in Kentucky offer salaries above the median household income of the county in 2012 (ibid.).

Salary is a major, crucial economic resource for coal miners. Coleman was interested in the idea that we need a “more precise conceptualization of the rational actor derived from economics, one that vires the actor as choosing those actions that maximize utility or satisfy needs and wants” (Zey, 1998, as cited in Coleman, 1990). Economics is a factor in coal mining operators’ rational decision to follow or disregard black lung disease policies. Coal mining operators are pressured to generate profits while facing a decrease in demand and drop in coal prices (Nasdaq, 2018). They also must find creative ways to compete with natural gas companies who have taken and threaten to continue taking energy market share away from the coal industry (Nasdaq, 2018). Some creative ways utilized by coal mining companies to remain relevant in the energy industry are: “cutting production, idling coal mines, lowering expenses, selling off coal mines and producing coal from low-cost mines” (ibid.). Conversely, coal miners also rely on economics while deciding whether to take a coal mining job or continue working in the coal mining industry to cover for basic needs such as food and rent. Trading Economics has illustrated that the US experienced an average food inflation of 3.41 percent between 1914 and 2018

(Trading Economics, 2018). In August 2018, the cost of food increased by 1.4 percent, compared to food costs in August 2017 (ibid.).

The miners' decision to work in the coal mines despite being aware of the risk of contracting black lung disease is made under conditions of uncertainty. This is a premise of rational choice theory that needs to be considered (Zey, 1998). The consequences of their decisions are uncertain because not all coal miners working in the coal mines contract black lung disease. Additionally, there is no policy in place that makes it mandatory for coal miners to get black lung disease screenings. Blackley and associates (2016) mentioned that "the voluntary Coal Workers' Health Surveillance Program stipulates that active coal miners be offered no-cost medical monitoring that includes a chest radiograph at entry into coal mining and then at approximately 5-year intervals." However, free screenings have not motivated enough coal miners to get screened. Between 2011 and 2016, "only 17 percent of Kentucky coal miners" participated in the free screenings (Blackley et al., 2016).

Another premise of rational choice theory is that "preferences are structured" (Rey, 1998). Some coal miners prefer securing black lung disease benefits while other coal miners prefer coal mining jobs to return to their community. Miners in Appalachian coal counties highly favored Trump for President in 2016 because, during his campaign in West Virginia, he promised to bring coal jobs back and claimed that coal miners needed "to get ready because you're going to be working your asses off" (Benderev, 2018). Coal mining has not only increased due to Trump's campaign promises but also due to "coal mine owners' trust in Trump and an increase in demand in metallurgical coal mainly in China which is used to make steel"(ibid.). Coal miners prefer coal jobs because they

provide higher salaries than entry jobs requiring a college degree (ibid.). For example, a coal miner called Johnson dropped out of college in 2015, ignoring the pleas from family and friends, to be employed in a coal mine (ibid.).

Rational choice theory scholars such as Russel Hardin believed that “rational means that one is efficient in securing one’s self interest” (Hardin, 1982 as cited in Zey, 1998). The problem is that the coal miner and coal miner owner/operator are both interested in securing their own self-interests. Coal operators securing their own interests meets the following premise of rational choice theory: “individuals are the unit of analysis and individual’s behavior is central to our understanding of organizations, not norms, positions, power, class, or status” (Zey, 1998). Despite the policies that the Department of Labor puts in place to protect coal miners from black lung disease, coal mine owner/operators use their power and class to induce the state and federal government to implement policies favoring their self-interests.

Coal mining operators/owners were able to persuade President Trump to “relax rules for the disposal of spent coal used to fuel hundreds of power plants nationwide which were established by ex-president Obama in 2015” (Romero & Associated Press, 2018). Environmental groups opposing President Trump’s policies were concerned since such a move could “affect drinking water near dozens of sites” (ibid.). Additionally, the coal mining industry could persuade President Trump to throw out the Clean Power Plan established by President Obama which would have “required power plants to reduce carbon emissions by 30 percent by 2030” (Becker, 2018). President Trump replaced the Clean Power Plan with the Affordable Clean Energy (ACE) rule which allowed states to set their own power plant emissions standards to reduce pollution (ibid.).

A major downside of the ACE rule is that “it is aimed to relax the permit requirements that are triggered if a project is predicted to cause a significant net increase in a facility’s actual annual emissions, meaning less regulation for coal plants” (Becker, 2018). Another criticism of the ACE rule is that people such as Maura Healy, the Massachusetts Attorney General, felt that, “the fingerprints of the coal industry are all over this plan” (ibid.). When the federal government implement policies favor the industry, coal mining operators/owners fulfill the last premise of rational choice theory, which is “utility is maximized” (Zey, 1998). The coal miners also maximize their utility by obtaining the highest salary possible while working in the coal mines. However, the coal miners’ utility maximization can vanish when they are ill because they have to decide whether to continue working in the coal mine and be exposed to coal dust or quit the coal mines and run the risk of being broke. Some mentioned that a few co-workers with black lung disease continue working (Davidson, 2017). Despite coal miners with black lung disease being assigned to jobs with less exposure to coal dust, they are still breathing in it (ibid.). In the coal mines, continued production by keeping machines running is the focus (ibid.). As machines keep running the coal mines, there comes a point when being around coal dust becomes inevitable since “there is not enough oxygen and water to keep down the coal dust” (ibid.).

Adam Smith, in *The Wealth of Nations*, mentioned that “individuals contribute to the general productiveness of society, although their intent is to be only interested in their own gain” (Zey, 1998, cited Smith, 1776, 1979). Even if coal miners are paid a decent salary in the coal mines, they contribute to society by being responsible for extracting coal from mines which is used to meet the electricity needs of Americans. Donald

Davidson, another rational choice scholar stated that “rational action could be explained as action that stands in a certain relation to the agent’s beliefs and desires” (Davidson, 1980 as cited in Zey,1998). The coal miners’ decision to work in the mines is based on their desire to ensure the financial stability of their families, especially if they are the primary providers. Conversely, coal mine owners/operators’ challenge black lung disease policies and benefits decisions in favor of sick coal miners because they want to make huge profits for themselves and their investors. For coal miners and coal mines operations/owners’ decisions/actions to fall within the rational choice theory, “beliefs and desires must be consistent with actions” (Elster, 1983 as cited in Zey,1998).

An assumption of rational choice theory is that “individuals maximize the expected value of their payoff measured on some utility scale and that, usually, numerical probabilities can be attached to different eventualities” (Arrow, 1951, pp. 1–3 as cited in Zey,1998). For the coal mine owners/operators, the maximization of their desire for profits cannot be measured numerically because, despite President Trump pledging to bring more coal jobs and revive the coal mining industry, there is no guarantee that coal mining will return to its glory days. Noah Kaufman, a research scholar at Columbia’s University Center on Global Energy, feels that “Trump has not had any effect on coal so far” (Collins, 2018). Popovich adds to the discussion by stating that “no one is naïve enough to think that coal will return anytime soon to its glory days, when it fueled more than half of the nation’s electricity generation, employment reflected robust production, and coal was fetching high prices in overseas steelmaking centers such as Brazil, China, Japan, and South Korea” (ibid.).

Coal miners are like coal mine owners/operators in the sense that they cannot measure the maximization of their salaries because they do not know when black lung disease will handicap them, since it can take years to develop and not everyone in the coal mines will become ill. Oliver Williamson, a rational choice theory scholar, “defines man in social organizations (specially, markets) as opportunistic, self-interest seeking guile, meaning that man is calculatedly selfish by nature and under conditions of scarce resources moves from market structures to hierarchies (corporations) in order to increase returns and therefore maximize his security” (Williamson, 1975 as cited in Zey,1998). The statement mentioned above mostly applies to coal mining owners/operators because they have access to money (a scarce resource) that can influence state legislators (and the markets in their region) to pass and create legislation in their favor. If state legislators cannot get the coal mine owners/operators agenda passed, they can use their resources to access the US Congress and President (Corporation). From 1990 to 2018, most of the coal mining industry favored Republicans over Democrats (OpenSecrets.org, 2018). The coal mining industry donated \$11 million dollars for the 2014 elections and only 4 percent of their donations went to Democrats (OpenSecrets.org, 2015).

It was mentioned that most of the coal mining donations came from Kentucky and West Virginia and donors tended to favor Republicans such as “ex-Speaker of the House John Boehner and Senate Majority Leader Mitch McConnell” (OpenSecrets.org, 2015). The coal mining industry exercises power through their political donations. This has not been seriously considered. Ignorance about use of power is a weakness of rational choice according to the rational choice theory scholar Mayer Zald (Zald, 1987, p. 705 as cited in Zey,1998). Despite only 14 percent of coal miners applications for black lung disease

benefits being approved by the US Department of Labor over the last decade, the coal mining industry used their power to challenge 70 percent of the approved claims (Hasemyer, 2017). This was done by denying the existence of black lung disease. The coal mining industry prevailed more than half of the time (ibid.).

The industry used its power by hiring “high profile law firms that in turn employ a cadre of doctors, setting the stage for protracted battles of conflicting medical opinions” (Hasemyer, 2017). Conversely, coal miners are restricted to a few lawyers because lawyers are “barred from charging plaintiffs’ fees and only receive compensation if they win” (ibid.). Shannon Bell pointed out that “the coal mining industry tactic is to keep appealing a case until the miner or the miner’s wife dies or gives up” (ibid.). Coleman suggested that “as principals and agents corporate more, the more they will identify with each other and trust each other” (Coleman, 1990 as cited in Zey,1998). However, not all coal miners identify with each other. As explained earlier, some coal miners want to relax policies on coal mining and favor more coal mining jobs while others want the federal government to fix the roadblocks to black lung disease benefits.

CHAPTER 3

METHODOLOGY

Data Collection Methods

The researcher was interested in the following finding from the literature review about black disease among coal miners: "...despite the Mine Safety and Health Administration receiving more than 53,000 samples from 2001 to 2011 that clearly showed that coal miners were being exposed to unsafe levels of coal dust, the MSHA only issued under 2,400 violations" (Hamby, 2012; updated 2014). The main reason for such a low number of violations is that existing policies allows coal operators to average dust samples (Hamby, 2012; updated 2014). Averaging dust samples might be beneficial to coal operators. However, black lung disease does not average out the number of times coal miners are exposed to unsafe levels of coal dust while affecting the coal miners' immune systems (contracting the disease).

The researcher decided to focus on coal mine explosions (including criminal and civil cases arising from such explosions against the coal mines), coal mines being targeted by the Environmental Protection Agency for potential environmental violations (criminal and/or civil), and civil cases in which the federal government, suppliers, and/or coal companies were being sued for monetary damages or adjudication relief since 2000. The starting point was selected as 2000 because black lung disease among coal miners had been rising since the mid 1990's. There were explosions that occurred before the mid-1990s but accessing mine explosion investigations, civil and/or criminal investigations related to the explosions was limiting. Such mine explosions were not

completely excluded because it could give the researcher an idea about what was going in the coal mines before the increase in black lung disease benefits.

Mine explosions reports, civil and criminal cases related to the explosions, and civil and criminal cases related to EPA violations or coal miners/general public seeking monetary damages or adjudication relief data/information are the issues that will answer the following research questions:

1. How are the major findings from the mine explosions reports, criminal cases, and civil cases related to the administration of justice?
2. How are the major findings from the mine explosions reports, criminal cases, and civil cases related to the administration of black lung disease benefits?

The following variables will be examined for the explosion reports: the primary failures that caused the explosions in coal mines, any preliminary fines assessed for such failures, and any past safety and health coal mine violations and the fees assessed for such violations before or after the explosion. The following variables will be examined for the criminal cases about the mine explosions: the criminal charges for which a defendant was indicted, the criminal charges for which a defendant was convicted, and the type of sentence resulting from a criminal conviction (probation, fine, prison sentence, or a combination).

The following variables will be considered for the civil cases caused by the mine explosions: monetary damages awarded to injured coal miners and the families of dead coal miners and the medical benefits awarded to injured coal miners, if any. Monetary

damages can remain undisclosed for several reasons. One reason being the plaintiffs reaching a settlement with the defendant(s).

The following variables will be considered for criminal cases related to EPA violations: the charges for which a defendant is indicted, the charges for which a defendant is convicted, the type of sentence resulting from a conviction or plea deal (probation, fine, prison sentence, or a combination), and the dropped charges. Government attorneys drop charges against a defendant for various reasons including a defendant cooperating with the case.

The following variables will be considered for civil cases related to EPA violations: fines imposed for violations, fines paid for violations through a judicial order or agreement, fines paid to the state, fines imposed on the federal government, and the fines paid for other areas such as cleaning costs.

The EPA, coal miners, coal mining associations, and other associations can sue coal mining companies, suppliers, and the federal government in civil court for monetary damages and/ or judicial relief. For instance, prohibiting the government from granting permits to coal mining companies whose practices threaten the environment. The following variables will be considered: the monetary damages awarded to coal miners and/or their families for defected supplies such as masks and judge adjunctions ordering the federal government to conduct an environmental impact study before issuing a permit to a coal mining company.

The following final research question will be answered after reviewing and analyzing coal mine explosions reports and civil and criminal cases:

3. How do the actions of key players (state and federal legislators, coal mining operators/owners, coal miners, and the federal government and federal agencies) possible hinder the US Department of Labor's ability to implement the 1969 Federal Coal Mine Health and Safety Act (Policy) and its later amendments? How can it be determined whether the federal government has properly implemented coal mining safety and health policies in the coal mining industry?

Qualitative data will be used for most part of the research. Secondary data such as coal mine explosions reports issued by the MSHA and independent investigation agencies and the available civil and criminal cases will be collected from the internet. Key words such as coal mine explosions, coal mine criminal cases, coal mine civil cases, coal miners sue suppliers, and watchdog group sues federal government coal mining deferral agencies will be used to acquire secondary data for the research.

Quantitative secondary data will be used, if available. Some possible quantitative data that can be used includes the coal mining industry's contributions to political parties and hourly wages for jobs in industries excluding coal mining. This will help understand why legislators in some states passed laws benefitting the coal mining industry and why coal miners continue to work in the coal mining industry knowing that have a chance to contracting black lung disease and that other jobs with wages close to or higher than the coal mining industry are available.

The researcher will also inspect the records of some mines provided by the MSHA that have experienced explosion(s) investigations to know if they have had or continue to have a pattern of violating coal mining safety and/or health policies

established by the Federal Coal Mine Health and Safety Act of 1969 and its later amendments.

The data from the mines will be obtained from the US Department of Labor under the Mine Data Retrieval System (<https://www.msha.gov/mine-data-retrieval-system>).

The following characteristics of the mines will be studied:

- A. Inspections (number and type of inspections, annually)
- B. Violations (number of violations, total fines paid, total fines delinquent, and number of fines successful challenged, annually)
- C. Samples from a federal government inspector (dust concentration, number of samples above the dust concentration standard of two mg, and average dust concentration of samples collected)
- D. Samples collected by an operator hired by the mine owners (dust concentration, number of samples above the dust concentration standard of two mg, and average dust concentration of samples collected)

Accidents are excluded from mine data. Only coal mines will be included in the study and other types of mines will be excluded. The following steps will be taken to access the characteristics of the mines listed above:

- A. Go to the Mine Data Retrieval System website mentioned earlier
- B. Scroll down to the search extended page subtitle and click on the red search button link next to it
- C. Click on the search button next to the subtitle of search for mines, state-wise and commodity-wise
- D. Select a state and all its mines. Click on the “get info” button

E. Identify the mines from the selected state that only deal with coal as their commodity

F. Click on “more information” for each of the mines found dealing with coal

G. Obtain the date for inspections, violations, operator samples, and inspector samples for each of the coal mines being studied

H. Examine the operator’s history of the mine at the top left corner before getting a report for each of the characteristics of the coal mines being studied.

The operator history provides the owners’ names along with dates on which the coal mines changed hands, their first year of operation, regardless of the owners, and their years of closure. If the coal mines are still open, then a default end date of December 31, 2017 will be used.

I. Once the beginning and ending date have been identified, insert them in the appropriate boxes. Click data characteristic of interest, and select the “get report” button to generate a report.

The beginning date will be January 1, 2000.

Since the focus of the research is black lung disease among coal miners, the researcher will consider and analyze the main rulings for black lung disease cases that went through the appellate courts. Some characteristics that will be considered are the reasons for coal miners being denied black lung disease benefits and the policies considered by the appellate to affirm or reverse the denial of black lung disease benefits. The cases about black lung disease benefits at the appellate courts, made available to the public from 2000 to 2014 from the internet, will be considered for this study.

CHAPTER 4

ANALYSIS OF DATA

Bull Mountains Mine No. 1 (Civil)

The Bull Mountain Mine owned by Signal Peak Energy LLC was one of the first mines in the USA to earn the label “persistent violator” by the Mine Safety and Health Administration (MSHA) in 2010 (Johnson, 2010). The persistent violator label is given to those coal mines that have at least “50 significant and substantial violations within a year period “and “high rates of severe injuries” (ibid.). After Signal Peak Energy LLC received a warning letter from MSHA, the company promised to resolve the safety issues at their coal mines (ibid.). However, from January 1, 2011 to December 31, 2018, Signal Peak Energy LLC received 842 civil citations from MSHA, as shown in the Mine Data Retrieval System(US Department of Labor Mine Safety and Health Administration,2019).When it comes to the administration of justice, it seems rationale that the MSHA deterrence method of issuing warning letter to coal miners violators are ineffective in deterring coal mines violators for not continuing violating the 1969 Federal Coal Mine Health and Safety Act (Policy) and its later amendments policies or regulations. When it comes to the administration of black lung disease benefits, one can rationally belief that a rise in black lung disease might be due to coal mines desire to continue to commit violations and undermining the federal government.

Signal Peak Energy LLC has paid \$ 774,522 in civil citations during this period (01/01/2011 to 12/31/2018)(US Department of Labor Mine Safety and Health Administration,2019). When it comes to the administration of justice, it seems that coal

mines might rationale belief that monetary payments of citations are enough punishment for their violations. When it comes to the administration of black lung disease benefits, one can rationale belief that coal mines' violations monetary payments have actually undermine the federal government regulation of the 1969 Federal Coal Mine Health and Safety Act (Policy) and its later amendments since black lung disease cases have increased instead of decrease. The last monetary citation issued to Signal Peak Energy LLC dated November 19, 2018(US Department of Labor Mine Safety and Health Administration ,2019). In early part 2019 alone, Signal Peak Energy LLC received six citations but monetary fines had not been assigned to those citations(US Department of Labor Mine Safety and Health Administration,2019).. Whether fines will be incurred, depends on process. Bull Mountains Mine No. 1 owned by Signal Peak Energy LLC has two delinquent citations. One dated September 05, 2018 for deficiencies in the examination, testing, and proper maintenance of electric equipment by a qualified person (\$ 118.00) (US Department of Labor Mine Safety and Health Administration,2019). The other dated July 21, 2016 for deficiencies in the mine ventilation plan (\$116.00) (US Department of Labor Mine Safety and Health Administration ,2019).

Signal Peak Energy LLC has significant civil citations based on the amount fines from January 01, 2011 to December 31, 2018. In this research, significant civil citations are citations with over \$10000 in civil fines which is the same fine guideline level that MSHA used for "significant violator" mines. One of the significant civil citations for the company was dated August 3, 2011 worth \$70000 for lack of protection for workers from falls of roof, face, and ribs(US Department of Labor Mine Safety and Health Administration ,2019). The citation became a fine order on January 6, 2014 and the

company brought the fine down to \$ 39500 before settling(US Department of Labor Mine Safety and Health Administration ,2019). Another significant citation was dated September 04, 2011 worth \$ 52,500 for not preventing workers from travelling or working under an unsupported roof(US Department of Labor Mine Safety and Health Administration,2019). The next significant citation was dated March 27, 2012 worth \$ 70000 for the lack of a mine ventilation plan(US Department of Labor Mine Safety and Health Administration ,2019). A mine ventilation plan should include protocols for maintaining methane and respirable dust levels meeting federal health and safety mine regulations (Cornell Law School, 2019). The citation became a final order on December 31, 2013 and the company settled the citation at \$ 59500(US Department of Labor Mine Safety and Health Administration ,2019).

Another significant citation was dated June 13, 2012 for not correcting violations and hazardous conditions found by a certified individual during weekly inspections(US Department of Labor Mine Safety and Health Administration ,2019).. The proposed fine was \$ 13609 but the company ended up paying \$15000 after the final order was issued on May 14, 2014(US Department of Labor Mine Safety and Health Administration,2019). Signal Peak Energy LLC received a second significant citation on June 13, 2012 worth \$ 13609 for deficiencies in the conventional roof support(US Department of Labor Mine Safety and Health Administration ,2019). The final order for the citation was dated December 31, 2013 and the mine company was able to settle the citation for \$11568(US Department of Labor Mine Safety and Health Administration ,2019). On August 05, 2012, Signal Peak Energy LLC received two major significant civil citations worth \$52500 each for not using safety belts and lines when the workers were in danger of

failing and for not maintaining and ensuring the accessibility of safe means of access in all working areas of the mine(US Department of Labor Mine Safety and Health Administration,2019). A final order for both citations was issued on June 24, 2014 and the mine settled each citation at \$42000 each(US Department of Labor Mine Safety and Health Administration ,2019).

On January 12, 2013 Signal Peak Energy LLC received another significant civil citation worth \$ 52500(US Department of Labor Mine Safety and Health Administration ,2019) for the operator not developing and following a roof control plan approved by the District Manager that included protocols for protecting individuals from any unusual hazards that they might encounter (**30 CFR § 75.220**)(Cornell Law School, 2019). A final order for the citation was issued on August 19, 2014(US Department of Labor,2019). The mine settled the citation at \$ 22500(US Department of Labor Mine Safety and Health Administration,2019). However, it only took the mine three days to get another significant civil citation on January 15, 2013 worth \$ 32.810 for deficiencies in in the mine ventilation plan(US Department of Labor Mine Safety and Health Administration,2019). The mine ventilation plan should include protocols for maintaining methane and respirable dust levels that meet federal health and safety mine regulations (**30 CFR § 75.370**) (Cornell Law School, 2019). The civil citation was for violating a rule that the company had already paid a civil fine for on March 27, 2012(US Department of Labor Mine Safety and Health Administration ,2019). The company settled the civil fine at \$ 27889(US Department of Labor Mine Safety and Health Administration,2019). On May 30, 2013 Signal Peak Energy LLC received its final, three significant civil violations(US Department of Labor Mine Safety and Health Administration ,2019). Two

civil citations worth \$52500 each for lack of openings in surface installations, safeguards, and hard hat or cap requirement for workers working underground(US Department of Labor Mine Safety and Health Administration,2019). The company settle the citations at \$ 29500 and \$ 20556, respectively(US Department of Labor Mine Safety and Health Administration ,2019). Another civil citation worth \$ 70000 was issued for deficiencies in the use of safety belts and lines when the workers were at a dangers of falling (US Department of Labor Mine Safety and Health Administration,2019). The mine had been fined for the same citation on August 05, 2012(US Department of Labor Mine Safety and Health Administration ,2019). The citation received a final order on September 25, 2014 and the mine settled the citation at \$ 29500(US Department of Labor Mine Safety and Health Administration ,2019).

The most recent significant civil citation which was worth less than \$ 10000 was issued on October 2, 2018(US Department of Labor Mine Safety and Health Administration,2019). The mine was issued a civil citation worth \$ 2487 for a lack of escapeways in bituminous and lignite mines(US Department of Labor Mine Safety and Health Administration,2019).The regulation the violating mine requires that, “ each escapeway should be provided with a continuous , durable directional lifeline or equivalent device that is located in such a manner for miners to use effectively to escape”(**30 CFR § 75.381**)(Cornell Law School, 2019). Most of the civil citations against the mine are worth less than \$ 1000 each. Irrespective of how small the civil citation is, the mine clearly has problems in following safety regulations established by the MSHA. When it comes to the administration of justice, it is rationale to believe that

there have been various occasions that coal mines have put the safety of coal miners at risk but were not detected by enforcement agents such as MSHA mine inspectors.

In addition, when it comes to the administration of justice, it is rationale to believe that it is impossible for enforcement agents (MSHA mine inspectors) to watch the coal mines twenty-four hours day seven days a week. When it comes to the administration of black lung disease benefits, one can believe that coal mines are undermining the federal government enforcement power by putting profits over coal miners' safety and have been successful in getting the fines reduced for violations. When it comes to the administration of black lung disease, it is rationale to believe that the federal government is undermining their own enforcement power by not being able to hold coal mines accountable for the whole proposed fines for violations they commit. It is rationale to believe that coal mines are not breaking any laws by negotiating their violations' fines.

It seems the US Office of Surface Mining and Enforcement Office either did not consider or ignore Signal Peak Energy LLC's problems with following MSHA safety regulations when they decided to approve the mine's application for a federal plan modification in 2017 (US District Court for the District of Montana Missoula Division, 2017). When the mine's application was approved, the community and environmental supporters had concerns about the way the federally approved mining plan modification was going to affect their water supply. There were concerns that water damages could affect the livelihood of people such as cattle-rearing farmers who depend on the available water sources such as rivers, lakes, etc. Environmental concerns led Montana Elders for A Livable Tomorrow, Montana Environmental Law Center, and Montana Chapter of the Sierra Club to ask the district court to issue a civil order that halted Signal Peak Energy

LLC's federally approved mining plan modification (US District Court for the District of Montana Missoula Division, 2017).

The US Office of Surface Mining and Enforcement approved the mining plan modification because their Environmental Assessment led the agency to conclude that the modification would not significantly impact the human environment (US District Court for the District of Montana Missoula Division, 2017). The plaintiffs felt that Environmental Assessment was deficient and the federal agency failed to prepare an Environmental Impact Statement (EIS) as required by the National Environmental Policy Act (US District Court for the District of Montana Missoula Division, 2017). The District Court agreed with the plaintiff's arguments and disagreed with others (US District Court for the District of Montana Missoula Division, 2017). The District Court, at the level of administering justice, felt that the federal government failed to "look at indirect and cumulative effects in coal transportation and coal combustion" (US District Court for the District of Montana Missoula Division, 2017). Additionally, the District Court stated that the federal government did not "look at foreseeable greenhouse emissions, and it made a decision without sufficient consideration for the need to produce an Environmental Impact Statement despite significant uncertainty about the critical issues" (US District Court for the District of Montana Missoula Division, 2017). The judge stated that the plaintiff failed to argue about the federal government not considering other "reasonable alternatives" and the federal government failed to consider "water pollution impacts" (US District Court for the District of Montana Missoula Division, 2017).

Therefore, Signal Peak LLC's mining plan modification federal permit was halted by the judge pending "compliance with the National Environmental Policy Act (NEPA)"

(US District Court for the District of Montana Missoula Division, 2017). It is rationale to expect federal agencies to follow state and federal laws while administering justice.

However, the federal agency failed to follow the NEPA which required that all federal agencies complete environmental assessments and environmental impact statements (US Environmental Protection Agency, 2018). When it comes to the administration of justice, one can rationale belief that if the federal government agencies are not criminally prosecuted and punished for non-adherence to environmental laws such as NEPA, why should ordinary people be criminally charged for violating laws in the administration of justice? Why should companies follow environmental laws rationally when the federal government fails to follow or ignores environmental laws?

When it comes to the administration of black lung disease benefits, one can rationally belief the federal government might not have the desire to make sure coal mines are actually protecting the health of coal miners since they have the desire to undermine the environment as seen in this case. For example, the company Nebraska Railcar Cleaning Services LLC. One of the 22 counts indictments against the company and its executive officers included a violation of the environmental law known as the Resource Conservation and Recovery Act (US Department of Justice, 2018). Why should the cleaning company and its executives face criminal charges for violating a environmental law while employees from the US Office of Surface Mining and Enforcement are not facing criminal charges for violating NEPA while approving Signal Peak Energy LLC's mining plan modification? The federal government and companies might differ in their ways of breaking federal laws but the federal government, being on

top of the power structure, must set an example and follow environmental laws so that companies under them will also follow them.

Earlier this year, environmental protective plaintiffs returned to the district court, over a year after the district court's decision in the matter from August 2017. On this occasion, the plaintiffs were seeking a civil complaint for declaratory and injunctive relief (US District Court for the District of Montana Missoula Division, 2019). The plaintiffs claimed that despite the district court reprimanding the federal government in the previous court ruling, the federal government was not significantly impacted and approved Signal Peak Energy LLC's mining plan modification in August 2018 without notifying the members of the public opposing the mine expansion of their decision (US District Court for the District of Montana Missoula Division, 2019). When it comes to the administration of justice, it is rationale to believe federal agencies have the duty to keep their general public informed of their decisions just like criminal justice agencies do as a form of checks and balance since they are funded by taxes paid by the general public; which was not done in this case. When it comes to the administration of black lung disease benefits, one rationally wonders whether the increase in black lung disease might be due to the federal government desire to ignore or not take serious the health and safety violations of coal mines since the federal government has a desire to approve a mine expansion without informing the public as seen in this case?.

It is customary to inform the public of a business seeking a permit by announcing it in the local newspapers or other media. Typically, public hearings are held to hear the opinions of the public. They may either approve or oppose the company's request. Since the environment can be harmed, the federal government is obligated to notify the public

of its decision to grant the mine their expansion request. The plaintiffs argued that even the federal government expanded their analysis in the benefits of the proposed mine expansion, they refused to “acknowledge and quantify the economic costs of the expansion” (US District Court for the District of Montana Missoula Division, 2019). The defendants, once again, failed to prepare an environmental impact statement, as requested in the previous court ruling (US District Court for the District of Montana Missoula Division, 2019) .

The federal government undermined the court’s mediating ability in the administration of justice by ignoring the previous court ruling and not notifying the public of their decision to approve the mine expansion. The federal government’s alleged behavior makes people distrust courts to implement equal justice for all. When it comes to the administration of justice, even do the federal government is required to respect court rulings, it does not mean they will accept and follow court rulings. It is rationally unfair because if an ordinary person does not follow court rulings, he or she will most likely can end in prison for contempt of court. When it comes to the administration of black lung disease benefits, one can rationalize that the federal government enforcement of the 1969 Federal Coal Mine Health and Safety Act (Policy) and its later amendments might remain unchecked and unchallenged since the federal government tends to ignores rulings from courts; whom as the judicial branch have right to check and balances the federal government. Therefore, one can rationalize that the belief we have of checks and balances for more than two hundred years might not actually exist. A surprise from the plaintiffs’ recent court filing is that the federal government, through the US Bureau of Land Management (BLM), recommended an environmental impact statement when

Signal Peak Energy LLC sought to lease federal coal back in 2008 (US District Court for the District of Montana Missoula Division, 2019).

BLM based their recommendation on the possible controversy and uncertainty the coal lease would have caused (US District Court for the District of Montana Missoula Division, 2019). They were concerned with “long term impacts to Musselshell County in Montana” (US District Court for the District of Montana Missoula Division, 2019). However, BLM failed to follow through with their recommendation after Signal Peak objected to an environmental impact statement because the one-year approval process would “kill the mine” (US District Court for the District of Montana Missoula Division, 2019). After only conducting an environmental assessment and finding no significant impact, the BLM approved the coal lease (US District Court for the District of Montana Missoula Division, 2019).

The federal government is required to keep the public safe from any possible environmental harms while administering justice. If the federal government does not follow through their own environmental assessments’ recommendations, then who can the public rely on to protect them for environmental harm? The public can rely on the courts but by the time the public becomes aware of any potential environmental harms in their communities, irreversible damage, that a court ruling cannot remedy, would already be done. Finally, most members of the general public do not have training to detect environmental harm. When it comes to the administration of black lung disease benefits, it seems the federal government might have the desire to give priority to coal mines profits over coal miners’ health just like they gave priority to the coal mine potential losses in this case over the environment by backing off from their requirement of

environmental impact statement when the coal mine complain such move could kill their business. It is rationale to belief that coal mine owners/operators are an entitled to express their opinions over their federal government environmental regulations especially when it can affect their businesses.

The plaintiffs for this case supported their arguments by describing the possible environmental impacts of Signal Peak Energy LLC on the community if their mining expansion plan is not halted by the court(US District Court for the District of Montana Missoula Division, 2019). The plaintiffs argued that coal particles might impact air pollution because the coal is being transported from the mine to Canada for exportation by train (US District Court for the District of Montana Missoula Division, 2019).

Plaintiffs are also concern about possible coal spills in the rivers or lakes in Montana from possible coal trains accidents caused by unlicensed train operators (ibid.). Finally, plaintiffs mentioned coal trains possibly hitting animals like bears (ibid.).

When it comes to the administration of justice, it is not illegal for businesses to conduct business. However, one can rationally belief that companies that conduct business should be held responsible for their liabilities that rises when conducting business such as potential coal spills and hurting animals in this case. If the administration of justice has the desire to held ordinary people accountable for liabilities that arises for their car accidents through civil courts, then it is reasonable for courts to hold coal companies liable for any liabilities that results from them conducting business. When it comes to the administration of black lung disease benefits, it seems the federal government do not have a desire in stopping coal companies from delaying social justice to seek coal miners by allowing them to appeal black lung disease benefits awards for

many years as previously mentioned just like they put coal mines needs over protecting the environment in this case.

Bear Run Mine (Civil)

Several community members that live close to Peabody Energy's Bear Run Mine in Indiana complained about the dust from the mine settling into their homes (Sabalow, 2014). State regulations refused to address the problem even after receiving 12 complains from the community and some neighbors presenting video footage of dust clouds around their homes (ibid.). In fact, state regulators must witness environmental problems to act against them (ibid.). The Indiana Department of Environmental Management (IDEM) inspected the community at least four times but failed to witness dust clouds in the community (ibid.).

Defendants and plaintiffs can use evidential support such as videos, pictures, etc. to prove their case while administering justice. IDEM inspectors had the moral duty to review and use the video of the dust clouds that the community had provided while remedying the problem, if they did not witness any dust during their community inspections. Environmental supporters alleged that IDEM issued a relax water permit and air quality permit to the Bear Run Mine which requires minimal protections (Sabalow, 2014). Since IDEM regulators/officials cannot be present 24*7, it was suggested that IDEM "appoint a regional officer," like local health official, to deal with the public complaints about the dust from Bear-run mine (ibid.). The suggestion was embraced but IDEM found it unnecessary at that moment (ibid.).

It is common for agencies in charge of monitoring crimes to use alternatives to accomplish such a task while administering justice. For example, local police agencies

that rely on volunteers from the community act as watch blockers to report crime to police after receiving proper training from the police. Therefore, the suggestion of an alternative solution such as using a regional officer as a liaison between the community and IDEM was probably a necessary measure because just like the administration of justice, IDEM is answerable to the people. The people cover the annual budget of IDEM through their taxes, like the budget of agencies that administer justice.

However, since the rules clearly state that “the mine must keep dust inside property boundaries” (Sabalow, 2014), a video showing dust clouds in community properties should have been sufficient proof for a possible violation of such rules. The Environmental Protection Agency issued a violation notice to the mine in 2013 due to sensor data showing unsafe levels of dust at least 150 times (ibid). This data was obtained from the dust sensors that the company had installed in the Summer of 2012 due to an EPA order (ibid.). If the community from Indiana has to wait for the EPA to act, then what is the point of having a state agency like IDEM?

IDEM is probably being run as a bureaucratic agency because not taking the community complains seriously gives the wrong impression that they are taking the side of the small but powerful groups like the coal mine companies. However, IDEM should not be run as a bureaucratic agency because environmental hazards can severely harm several members of the public in Indiana who outnumber the total number of Congress members, lobbyists, and bureaucrats combined. The neighbors feel that the environmental protection agency had not done enough to deal with the dust in their neighborhood and had not address their medical concerns arising from the dust (Sabalow,

2014). Neighbors have alleged that they had to resort to using masks while doing their daily chores (ibid.).

Independent researchers found that residents living near the coal mine dealt with nearly three times higher air pollution than neighborhoods farther away from the mines (ibid.). Independent researchers tested individuals living close to and far away from the mine through blood work to test for the presence of a protein indicating possible blood inflammation caused by breathing dust (Sabalow, 2014). This revealed that individuals living close to the mine scored an average of 4.23 while those living far away scored an average of 2.5 (ibid.). It was suggested that individuals who score a minimum of 3 on blood tests conducted by independent researchers are possibly at risk of health complications and should visit their physician (ibid.). In the administration of justice, it is rationale to belief that scientific findings of potential harm to the community as mentioned above should at least had trigger an inquiry about possible environmental harm being caused by Bear Run Coal Mine by IDEM. In the administration of black lung disease benefits, it seems the federal government does not have a desire to conduct inquiries on coal companies regarding them causing possible harm to the safety and health of coal miners similar to what they do about conducting inquiries of possible harm to the environment as mentioned in this case since they allow coal mines to average their coal mine dust readings that includes coal mine dust readings that are above the established federal safety coal mine dust readings levels as previously mentioned.

Heather Gillers mentioned that the state of Indiana decided to exempt Bear Run Coal Mine from getting an individual water pollution permit which caused a controversy (Blair, 2012). Also, Heather Gillers suggested that an individual pollution permit is an

adequate request from environmental groups since states like Ohio, Pennsylvania, and West Virginia require mines to get these permits (ibid.). Perhaps, it was rationale for the State of Indiana to exempt the coal mine from getting a water permit since the mine contributes to the state economy through the number of individuals they hire. The coal mine employees in return use their paychecks to buy groceries and other items in the State of Indiana and pay taxes for such items that go to the state annual budget. It is also rationale to believe that there is nothing wrong with coal companies and other companies contributing to states economy. Yet, it is rationale for the State of Indiana to require Bear Run Mine to get a water permit in order to ensure they do not contaminate the drinking water of the residents of the State of Indiana. It is rationale to believe that the State of Indiana has a duty to ensure its residents' drink water is safe to drink since its residents also contribute to the state's economy through the state taxes they paid annually.

Sierra Club; an environmental watch group sued IDEM and Peabody Midwest Mining LLC (owner of Bear Run Mine) (see Peabody Midwest Mining, 2013 OEA 36) for the water pollution permit exemption Bear Run Mine obtained from the State of Indiana (Indiana Office of Environmental Adjudication,2013). In case, **Peabody Midwest Mining, 2013 OEA 36**; Judge Gibbs ruled that Sierra Club failed to" present sufficient evidence to show that the specific discharges from the mine contribute to violations of water quality standards so that the requirements of Rule 7 (327 IAC 15-7: set requirements for storm water discharges from coal mines) were insufficient to ensure compliance with these standards" (Indiana Office of Environmental Adjudication,2013). Judge Gibbs also ruled that " Sierra Club failed to present sufficient evidence to justify an individual permit or that Peaboy's submission of its NOI(Notice of Intent) did not

comply with all requirements of the General Permit and Rule 7 requirements” (Indiana Office of Environmental Adjudication,2013). However, Judge Gibbs ruled in favor of Sierra Club by affirming that “ IDEM failed to perform a Tier II antidegradation review as required by the rules in effect in 2010 when a modification was issued” (Indiana Office of Environmental Adjudication,2013). Judge Gibbs also mentioned that “ Peabody had the burden to proof that degradation of the receiving waters was justified by the economic or social factors and would not cause violations of water quality” (Indiana Office of Environmental Adjudication,2013).

It is rationale to expect states to give some privileges or tax exemptions to companies that create jobs in their states in order to persuade companies to keep their business in their states; especially when states are competing to have businesses set shop in their individual states.. Yet, it is rationale to expect states to be responsible when giving companies privileges by making sure that such privileges do not have negative impacts to their citizens and environment. It is rationale to expect people to hold Peabody responsible for no conducting the Tier II antidegradation review when they were seeking a modification. It is true, they hold some blame. However, it is rationale that most of the blame belongs to IDEM since they are the agency is the gatekeeper of the environment of the State of Indiana. It is rationale to expect IDEM had the obligation to make sure a Tier II antidegradation review was conducted at the time Peabody was seeking a modification especially when the state regulations or rules requires it. It is rationale to believe by the IDEM not making sure Peabody conducted a Tier II antidegradation review when they seek modification approval, they denied the general public (citizens) their right to learn

about the modification and the general public was also denied their right to express their approval or disapproval of the modification.

It is rationale to also believe that the general public was also denied their right to question the IDEM on the possible risks of the modification affecting the quality of their water supply since it seems clear the public was not even aware of Peabody modification request. When it comes to the administration of black lung disease benefits, it can be rationale expected that the increase in the number of black lung disease cases might be due to states not possibly following the 1969 Federal Coal Mine Health and Safety Act (Policy) and its later amendments just like the IDEM not following existing state environment rules or policies. When federal legislators wrote and passed the 1969 Federal Coal Mine Health and Safety Act (Policy) and its later amendments, it seems they had the desire to protect coal miners and reduce the number of black lung disease. They might have had the believe that the states would follow such policy and its later amendments. However, as seen in this case, states follow whatever policies they like or want even if that means disregarding their own existing rules or policies just like IDEM did.

Regardless of policies, one can rationally wonder what did Judge Gibbs meant regarding Sierra Club not providing sufficient evidence to prove that Peabody coal mine in Indiana specific discharges violated water quality standards?. One can also rationally wonder what type of evidence is considered sufficient to prove that Peabody coal mine specific discharges violated water quality standards?. Some rationally probably felt that Judge Gibbs did not care about the environment in her ruling. However, as mediator, it could had been possible that her ruling was rationally based on the actual IDEM policies

regarding water quality standards. It is rationally possible that she found loopholes in the IDEM policies regarding water quality standards that forced her to rule against Sierra Club.

In fact, it was mentioned that “evidence presented is relevant if it has a tendency to prove a material fact as ruled in *Booker, Inc. v. Morrill*, 639 N.E.2d 358, 363 (Ind. Ct. App. 1994)” (Indiana Office of Environmental Adjudication, 2013). Yet, the relevance of evidence presented is left at the discretion of the presiding judge (Indiana Office of Environmental Adjudication, 2013). Judge Gibbs made it clear in ruling against the Sierra Club because in order for the evidence they presented regarding Peabody’s water discharges affecting water quality standards to be relevant, “IDEM should have had Bear Run Mine’s impact on all downstream waters not just those in which an outfall directly discharges” (Indiana Office of Environmental Adjudication, 2013). It is reasonable to believe if IDEM was interested in protecting water quality standards in the State of Indiana, then they should have considered the impact of all downstream waters on water quality standards and not just certain downstream waters in their water quality standards policy. Therefore, it is reasonable to believe the IDEM gave Peabody and other coal mines/businesses in the state of Indiana protection from liability of any damages to the water quality resulting from their water discharges due to the loopholes in their water quality standards policy.

When it comes to the administration of black lung disease benefits, it seems reasonable to believe based on this case that coal companies are more interested in challenging any lawsuit, black lung disease benefit claims, or inspection fines in order to find any loopholes in policy that grants them a favorable decision in court rather than following federal and state policies or rules. Based on this case, it seems reasonable

believe in terms of the administration of black lung disease benefits that coal companies are more interested in putting their beliefs and desires ahead of others such as desiring profits over making sure their mines do not negatively impact the drinking water of constituents.

Besides not making sure water quality is not negatively impacted, Bear Run Mine seems to have a problem in keeping their employees and contract employees safe. On September 7, 2018, a sixty-year-old contract employee was injured after a fire ignited in the haul truck he was operating (US Department of Labor Mine Safety and Health Administration, 2018). Robert A. Grostefon (contract employee) died days later from complications from his injuries (US Department of Labor Mine Safety and Health Administration, 2018). MSHA investigators concluded that a steering hose rupture on the haul truck caused “hydraulic fluid under high pressure to spray onto hot surfaces of the engine resulting in a fast growing fire” (US Department of Labor Mine Safety and Health Administration, 2018).

MSHA investigators found that the mine operator was at fault in the fatal incident. The MSHA investigators concluded that the mine operator failed to ensure “the fire suppression system was properly installed and maintained in order to mitigate the fire as the employee escaped the haul truck” (US Department of Labor Mine Safety and Health Administration, 2018). MSHA investigators also concluded that the mine operator failed to ensure the “primary egress stairs and the alternate egress ladder were properly installed and maintained, impeding the contract employee’s ability to escape the fire” (US Department of Labor Mine Safety and Health Administration, 2018). Even so, the mine did take corrective action after the MSHA investigation, it is reasonable to believe that a live

could had been spared if the mine had done their job in the first place such as maintaining and installing a fire suppression system, and ensure primary egress stairs and alternative egress ladder were properly installed and maintained.

In addition, it is rationale to question why coal mines such as Bear Run Mine do not identify their own mine safety and health deficiencies and fix instead of waiting for accidents to occur in order to fix mine deficiencies?. It is rationale to believe that if coal mines can properly identify mine safety and health issues and fix them, then they can avoid costs associated with mine incidents, violation fines, not interrupt coal mine production, and reduce life threatening risks to their employees. When it comes to the administration of black lung disease benefits, it is rationale to believe if the federal government has a desire to decrease black lung disease then they would had to hire additional investigators in order to properly detect mine health and safety issues and make the coal mines fixed them in a timely manner since it seems coal mines do not have the desire to identify and fix their own mine safety and health issues.

In the other hand, it is rationale to believe that there maybe some coal mines that are diligent by identify their own mine vulnerabilities and fix them before any federal government intervention. Yet, it is rationale to believe that not enough coal mines are diligent in identifying and fixing their mines safety and health vulnerabilities since we have been experiencing a rise in black lung disease cases among coal miners. The fatal incident investigation led the MSHA to issue the following two citations to Peabody Bear Run Mining LCC: “104(a) Citation No. 9106776 for violation of 30 CFR § 77.404(a). and 104(a) Citation No. 9106778 for violation of 30 CFR § 77.1606(a).” (US Department of Labor Mine Safety and Health Administration,2018). 30 CFR § 77.404(a) deals with

requiring” mobile and stationary machinery and equipment being maintained in a safe operating condition, and requires equipment in unsafe condition to be removed from service immediately” (Cornell Law School,2019). 30 CFR § 77.1606(a) requires that “ mobile loading and haulage equipment should be inspected by a competent person before such equipment is placed in operation and require equipment defect affecting safety should be recorded and reported to the mine operator”(Cornell Law School, 2019).

When it comes to the administration of justice, for deterrence to be effective, rule violators must be concern for their actions. It is rationale to believe that Bear Run Mine might not be concern for the safety of its workers since they are failing to maintain their mobile and stationary machinery and equipment in safe operating condition and fail to hire a competent person to inspect their loading and haulage equipment which led to the death of a contract worker in the September 7,2018 fatal incident. When it comes to the administration of black lung disease benefits, one can believe based on this case that is possible that coal mines are not following safety and health policies that were put in place to protect the coal miners. Both citations were proposed on 1/11/2019, each citation was proposed a penalty of \$10,764, and the penalty for each citation was reduced to \$7,535 (US Department of Labor Mine Safety and Health Administration, 2019). In the administration of justice, it is reasonable to believe that in order to deter coal mines from violating safety violations that can lead to coal miners and others lose their jobs that the coal mine in question should be required to pay the full proposed fine and not given a reduction in their proposed fine. When it comes to the administration of black lung disease benefits, it is reasonable that the coal mines have the desire to reduce the impact

of fines they received for violations. It is clear they have been successful since they have been able to get their violations fines reduced.

Sago Mine (Civil)

The Wolf Run Mining Company's Sago Mine experienced an explosion on January 2, 2006 (Gates et.al, 2007). During the explosion, 29 miners were working underground (ibid.). The explosion caused the deaths of 12 miners and one got injured (ibid.). On the day of the explosion, the area was experiencing "thunder, lighting, and rain" (ibid.). The MSHA listed three possible causes for the explosion. One was that "the two North Main seals were not capable of withstanding the forces generated by the explosion" (ibid.). The second possible cause was that "the atmosphere within the sealed area was not monitored and it contained explosive methane/air mixtures" (ibid.). The third and final cause was that "Lightning was the most likely ignition source for this explosion with the energy transferring onto an abandoned pump cable in the sealed area and providing an ignition source for the explosion" (ibid.).

MSHA concluded that "Lightning was the most likely ignition source for this explosion with the energy transferring onto an abandoned pump cable in the sealed area and igniting the methane that had accumulated within the sealed area" (ibid.). The United Mine Workers of America's (UMWA) investigation of the explosion led to a different conclusion from the MSHA investigation. The UMWA felt that existing coal mining safety and health laws provide lesser protection to coal miners than before the passage of such laws (United Mine Workers' of America, 2007). UMWA argued that mine operators, MSHA, and state health and safety agencies have not done enough to protect coal miners (ibid.).

UMWA argued that the Sago Mine explosion was caused by several issues. One of them being MSHA ignoring the US Congress mandate and allowing coal mines to use substandard seals made from Omega Block instead of bulkhead seals (United Mine Workers' of America, 2007). In the administration of justice, federal and state agencies/government are supposed to follow laws passed by the US Congress. However, they may not do so. Federal and state government agencies can follow Congress laws, ignored them, or/and attempt to have appellate courts rule them as unconstitutional.

It probably seems unfair to force coal mines to follow coal mining safety and health laws to prevent black lung disease among coal miners when the federal government (MSHA) undermines the US Congress mandates (laws). The top management (MSHA [federal government]) must set an example for the lower-level (coal mine operators) workers in the chain of command to follow protocols/laws. They can do so by following protocols/laws without exceptions. UMWA argued that another possible cause for the Sago Mine explosion was the coal mines' and regulatory agencies' reluctance to enhanced two-way, underground communications although UMWA and others have raised this problem before 1968 (United Mine Workers' of America, 2007). The lack of enhanced, two-way communications made it impossible to communicate with trapped miners during the Sago Mine explosion (ibid.).

In the administration of justice system, before any law, protocol, or regulation is created, passed, and implemented, it is a common practice to conduct hearings with all the affected parties to hear their perspectives and/or concerns. Just like politicians, federal agencies such as MSHA are not obligated or criminally prosecuted for not hearing the concerns of their constituents—coal miners and/or their union representatives (UMWA)

in this case. The MSHA's ignorance of the UMWA and others raised concerns about the lack of enhanced, two-way, underground communications not being illegal as the possible problem because there is no law making MSHA criminally responsible for its ignorance.

This also makes one wonder whether the increase in the prevalence of black lung disease among coal miners since 2000 might be due to the MSHA's ignorance of the UMWA and coal miners' safety and health concerns of coal mines. Coal mine companies such as the Century Mine in Ohio made attending a Romney presidential campaign event in Ohio on August 2012 a mandatory and unpaid day for their coal miners (Eaton, 2012). Some groups felt pressured to attend the event because they feared they would be fired despite a company official pointing out that the event attendance was on a voluntary basis and that there were no penalties for no shows (ibid.). Additionally, Moore pointed out that the mine was shut down that day for "safety and security reasons; it was also claimed that federal law does not allow companies pay workers to attend political events, and also claimed that the event was in the best interest of anyone related to the coal industry"(ibid.).

Even though it is illegal for companies to pay employees (working classes) to attend a political event, it is not illegal for employers (the upper class) to advocate for a political candidate in the administration of justice (McGregor, 2016). Research indicates that private employers can distribute materials listing the "company positions on political issues" among their employees (ibid.). A boss can go so far as sending an email to his/her employees to persuade them to attend a rally for the boss' preferred political candidate on

the grounds that his/her candidate of choice is crucial for “the future of the company” which makes such an act “legal” in the administration of justice (ibid.).

However, instead of leveling the field between the employers (ruling class) and the employees (working class), the appellate courts have to relax the rules in the favor of the ruling class. Citizens United winning their case in the US Supreme Court only “expanded the First Amendment rights of corporations and unions” (McGregor, 2016). The ruling gave employers the green light to “encourage rank-and-file employees to make contributions to candidates as long as they are in coordinating donations with the campaign, and give all employees educational materials or “voter guides” that make their political positions clear” (ibid.). Before this ruling, employers were cautious about not biasing their employees or favoring a candidate over another (ibid.).

Another major concern is that the ruling allows coal companies to encourage coal miners to contribute to the candidates favoring the relaxation of coal mine safety and health regulations. Additionally, it also allows coal companies to distribute materials about a candidate favoring the relaxation of coal mining regulations which can influence coal miners to vote for their employer’s candidate choice without their employers breaking the law. Both scenarios can undermine MSHA’s enforcement efforts to control black lung disease among coal miners. The Federal Election Committee looked at two complaints against Murray Energy—an Ohio based coal mining company. The complaints alleged that the company “mandated their workers to attend a Mitt Romney rally campaign presidential rally in Ohio in 2012 and it was alleged the company forced their employees to make donations to the company’s political action committee; reimbursing them with bonuses” (McGregor, 2016).

Even though Murray Energy won because the Federal Election Committee had no issues, they could not be fully exonerated because the complaints were closed. This is because the commissioners were deadlock along party lines (McGregor, 2016). Nonetheless, politicians and commissioners do not always cast votes favoring the interests of their constituents. There is no evidence suggesting that commissioners valued the interests of the coal mining industry over the Federal Election Commission established procedures and regulations while casting their votes about the complaints against Murray Energy.

The UMWA's independent report about the accident found that MSHA overrode the US Congress by not requiring the legally mandated number of mine rescue teams when coal miners are working underground (United Mine Workers of America, 2007). This allowed the International Coal Group to hire inexperienced rescue team members who were not even living in close proximity of the coal mine. This halted the rescue efforts after the Sago Mine explosion until the rescue team members arrived (United Mine Workers of America, 2007). It was implied that more than one person could have been saved if trained rescue teams would have been in place to immediately act after the Sago Mine explosion (ibid.).

The Sago mine explosion led to the settlement of 12 wrongful deaths lawsuits and one lawsuit for the sole survivor of the mine explosion due to the injuries he incurred during the explosion (Ward, 2011). The terms of the settlements were undisclosed to the public (Ward, 2011). Only the family of Martin Toler did not sue for wrongful death (Ward, 2011). When it comes to the administration of justice, courts give victims the option to seek civil damages against an individual or corporation that wronged a person.

However, individuals have the right to choose to sue for civil damages, just like the family of the dead coal miner, Martin Toler. During the administration of justice, International Coal Group and others settling the lawsuits and paying off the lawsuits, accepted some responsibility for the Sago coal mine explosion.

Coal miners are having trouble getting social justice during the administration of black lung disease benefits. The coal mining industry's lack of acceptance about the black lung disease is still causing problems for coal miners. Research has showed that even though black lung disease continues to kill coal miners, the coal mining industry refuses to acknowledge its existence (East, 2019). Dr. James Brandon Crum stated that "every case of simple and complicated black disease case he saw on his clinic; which coal miners went to seek chest radiographs" (ibis.). In fact, Dr. Crum was detecting black lung disease (workers' pneumoconiosis) cases at higher rates than reported by National Institute for Occupational Safety and Health (ibid.).

These findings indicate that while administering justice for black lung disease benefits, the MSHA reporting that most coal mines are respecting federal approved safety coal mine dust levels in the mines, does not mean mines do not have coal dust levels above the federally approved safe coal mine dust levels. The MSHA statistics about coal mine dust levels could be inaccurate because its inspectors do not inspect coal mines 365 days due to the lack of available MSHA inspectors and funding. Additionally, there is no mechanism to confirm that all the coal mine dust levels reported by the coal mine operators are completely accurate.

In 2015, Dr. Crum was surprised that, "no other black lung specialists in Kentucky were observing the same trend" for black lung disease among coal miners, as

he did (East, 2019). Additionally, Dr. Crum also mentioned that, “if they did, they certainly weren’t saying anything about it” (ibid.). Crimes not being reported, like new cases of black lung disease, does not mean that they are not being committed. There is no guarantee that all black lung disease specialists report every case of black lung disease that they detect to the federal government for the administration of black lung disease benefits.

Since, Dr. Crum’s reputation was on the line, he notified the National Institute for Occupational Safety and Health about his black lung disease X-ray readings in June 2016 (East, 2019). Subsequently, the National Institute for Occupational Safety and Health sent a medical van to monitor the health of coal miners in the area. However, their efforts resulted in a low voluntary black lung disease testing rate (ibid.). The National Institute for Occupational Safety and Health maintained due diligence by sending a medical van to the area to verify that the black lung disease epidemic reported by Dr. Crum was occurring. This is like a prosecutor ensuring that there is enough evidence to take an alleged perpetrator to court or dropping the charges due to a lack of evidence.

The National Institute for Occupational Safety and Health confirmed the black lung disease epidemic in the area in December 2016 since Dr. Crum’s black lung disease cases represented a true sampling of the area population (East, 2019). The National Institute for Occupational Safety and Health recognized that the prevalence of black lung disease in Dr. Crum’s clinic was eight times higher than the prevalence of black lung disease they had observed and reported earlier (East, 2019).

The National Institute for Occupational Safety and Health’s response rate to Dr. Crum’s reported inquiry was adequate for the administration of black lung disease

benefits since they only took six months to verify Dr. Crum's black lung disease findings. However, since coal miners evidently trust clinics run by doctors such as Dr. Crum over medical vans administrated by the National Institute for Occupational Safety and Health, it would probably be more efficient to transfer some or most of the funding from the medical vans to community medical clinics testing for black lung disease so the federal government could effectively monitor and control the disease.

The lone survivor and families of two victims of the Sago mine explosion accused "International Coal Group (ICG) and a subsidiary of negligence in the operation of the mine and alleged unsafe working conditions lead the Sago mine explosion" (Associated Press, 2006). In the administration of justice, victims can seek monetary damages in civil court regardless of the defendant being charged criminally. When it comes to the administration of black lung disease, it does not matter what or who caused the Sago mine explosion; the owners of Sago mine are liable for civil damages for causing the deaths of and injuries to their coal miners since they happened during their work hours. They are liable irrespective of being insured since companies need to be insured—cash or otherwise—to cover liabilities.

The lawsuits against Sago mine explosion also targeted mine suppliers such as "Burrell Mining Products, INC, Raleigh Mine, and Industrial Supply Inc., GMS Mine Repair, and CSE CORP. for failure to provide proper safety equipment"(Associated Press, 2006). When it comes to the administration of justice, companies whose products are ineffective or do not lead to the results they claim, they can be liable for monetary damages in civil court. When it comes to the administration of black lung disease

benefits, the safety of coal miners does not only depend on the oversight of the MSHA but also on the effectiveness of the safety equipment provided by outside vendors.

Some victims of the Sago mine explosion accused ICG of “recklessly failing to control the dissemination of information after the explosion, which resulted in victims’ families falsely believing for nearly three hours that their loved ones were alive” (Associated Press, 2006). When it comes to the administration of justice, it is difficult for an employer, like Sago mine, to stop the dissemination of information due to the freedom of press guaranteed by the first amendment of the US Constitution. When it comes to the administration of black lung disease benefits, Sago mine is duty-bound to inform coal miners’ families about the status of rescue operations and the likelihood of their loved ones’ survival.

Criminal indictments were not issued for the Sago mine explosion. When it comes to the administration of justice, even though the explosion brought social injustice to coal miners, an indictment needs sufficient proof to be issued. This case had insufficient proof for indictments to be issued. However, former Sago mine foreman Robert Dennison was indicted for 116 counts since he was found to have had “falsified inspection reports at the mine in 2004 and was not certified as a miner of mining foreman” (Associated Press, 2006). Mr. Dennison was only sentenced to probation after “pleading guilty to one felony count of falsifying a safety record” (Ward, 2010). When it comes to the administration of justice, defendants pleading guilty, make prosecutors’ jobs much easier since they do not have to prove beyond reasonable doubt that a defendant committed a crime(s) that they were originally indicted for. The prosecution was only able to get Mr. Dennison sentenced for one of the 116 counts that he was originally indicted. Mr. Dennison merely

got a lower sentence called a slap on the wrist. This indicates the prosecution's possible ineffectiveness in getting justice. Additionally, such mild sentences will not deter others in the coal mining industry from committing the same felonies in the future.

Research indicated that, "Sago managers did not demand that Robert Dennison provide them with proof of his foreman license" (Ward, 2006). Additionally, "Sago mine did not try to confirm his credentials with the state Office of Miners Health, Safety, and Training" (ibid.). Finally, it was mentioned that "state regulators mentioned that Mr. Dennison was never certified as a mine foreman or underground miner but did receive a certificate as a surface miner truck driver" (ibid.). Employers and state and federal agencies have a duty and ethical responsibility to ensure that potential employees have valid and authentic licenses for the job positions requiring a license or certification for the administration of justice. This is because unlicensed or uncertified individuals can make errors in their job which may cause serious injuries to the public or the customers that they serve. It would be socially unjust to only focus on verifying the legal status of immigrants or those not born in the USA but have a legal status seeking employment in the US while not verifying the licenses or certifications of US citizens. Solely focusing on verifying immigrants and individuals who were not born in the US can be considered racial profiling which is like police agencies discriminating against minorities in the administration of justice.

When it comes to the administration of black lung disease benefits, coal mines refusing to verify the licenses of their employees' shows their lack of commitment to upholding safety standards which are crucial for the safety of all coal miners. Their refusal can make a reasonable individual wonder if the coal mining industry is committed

to decreasing black lung disease by ensuring their coal miners comply with federal coal mine dust-safety levels. However, it is difficult to make the coal mining industry comply with the 1969 Federal Mine Safety and Health Act when the federal government and appellate courts cuts them some slack. Ward (2010) stated that the Obama administration agreed

...[T]o cut the in half the fines that International Coal Group must pay in the second of two legal cases over violations cited during the investigation of the Sago Mine Disaster since the MSHA agreed to settle an appeal of more than a dozen violations by slashing the fines from \$134,000 to \$72,000, a reduction of 46 percent. The MSHA deal included a administrative law judge's ruling that also reduced the fines for two other enforcement orders that ICG subsidiary Wolf Run had appealed concerning the January 2006 disaster.

When it comes to the administration of justice, a ruling or a fine from a state or federal agency is not final since an appellate judge can eliminate or minimize the ruling or fine. The federal government and appellate courts giving the coal mining industry a break in fines or sanctions only gives them the green light to not enforce safety and health standards in the mines since they can use their monetary power to hire lawyers to challenge all the fines and sanctions against the coal mine industry. Continuing to give the mining industry a break will make it difficult to control the current black lung disease epidemic.

Research has indicated that “Judge Jerold Feldman of the Federal Mine Safety and Health Review Commission ruled that the two violations—concerning the company's failure to immediately report the incident to regulators and mine safety teams—were not

as serious as MSHA inspectors had alleged” (Ward, 2010). One wonders what makes a failure to report an incident a serious violation in the administration of justice for black lung disease? A coal mine should report an incident to the MSHA at once, on grounds of social justice, especially an incident such as that the Sago mine explosion that trapped 13 coal miners trapped and they struggled to survive as the hours passed.

If an ordinary individual would have left the scene of a car accident and failed to report the scene to the police and someone died, it would be possible for the individual to be criminally charged while the Sago mine officials were not criminally charged for their failure to report the mine explosion to the MSHA in a timely manner. Research indicates that “if a person leaves the scene of an accident, even if he or she was not at fault, the person may face a variety of criminal charges. Additionally, if the person was at fault in the accident or a person was injured, the person may face stronger charges” (hg.org, 2019).

Jim Walter Resources Coal Mine 2001 (Civil)

Thirteen coal miners were killed in the Jim Walter Resources coal mine explosion (United States Mine Rescue Association, 2019). The explosion was considered the worst mine disaster in the US in 17 years (ibid.). It was mentioned that government had approved a roof control plan that called for “steel I-beams and straps to be used when the cracking becomes severe” (ibid.). Yet, the mine bosses felt such approved roof control plan was not needed and continued to use rods to diminish the clamor since it seems the rods were doing the job (ibid.).

It seems the coal mine was probably using the rods to avoid the costs of using steel-I beams and straps, as recommended by the government-approved roof control plan. When it comes to the administration of black lung disease benefits, taking shortcuts such as avoiding crucial costs can lead to injuries and/or fatalities such as the Jim Water Resources coal mine explosion which will be discussed later. One wonders whether the coal mining industry's shortcuts like not providing safety equipment to their employees including coal dust masks or not following federal safety coal mine dust levels could have contributed to the recent rise in black lung disease among coal miners. The National Public Radio and Frontline analyzed the data on coal and silica dust samples collected by the federal government in the last 30 years (Berkes, Jingnan, & Benincasa, 2018). Their analysis of the data revealed that dust samples in which miners "were exposed to excessive silica levels that violated federal health standards" constituted 15 percent of the samples (21,000 samples) (Berkes, Jingnan, & Benincasa, 2018).

It is crucial for the federal government to pay attention to silica dust along with coal dust since both can cause black lung disease among coal miners (Berkes, Jingnan, & Benincasa, 2018). A review by the National Public Radio revealed that the federal government was not directly addressing the presence of silica dust (ibid.). An ordinary citizen such a nurse neglecting elderly patients in a nursing home can be subject to criminal prosecution while administering justice (latlaw.com, 2015). This can be considered socially injustice since no negligent criminal charges were filed against the federal government for possibly socially neglecting silica dust when they have been aware of it causing black lung disease among coal miners. However, as research

indicates, it is difficult for the prosecution to determine “at what point and under what standard negligent conduct turns into a crime” (ibid.).

Besides being negligent, the Jim Walter Resources Coal Mine was known for defying federal safety standards before the 2001 mine explosion. Research indicates that the mine “led the country in safety violations and had one of the highest accident rates” (United States Mine Rescue Association, 2019). Even though the company injuries and fines were dropped for three years, they were risen after production began to boom (ibid.). Research indicates that by 2000, the mine was ranked the third highest for violations but 62nd for serious and substantial violations (ibid.).

This injuries and safety violation record of the mine suggests that the MSHA would have investigated the Jim Walter Resources Coal Mine more to prevent future injuries or serious safety violations. Research indicates that the MSHA did not investigate it further. Instead, it was found that “MSHA inspectors were cutting breaks to the mine” (United States Mine Rescue Association, 2019). It was found that “the company was routinely warned ahead of time about “surprise” inspections, that federal mine safety agency bosses frequently overrode their inspectors' citations, that inspectors often failed to follow up to check if violations were remedied” (ibid.).

The police informing the public about surprise raids in advance, just like coal mines being informed of surprise inspections, only gives potential lawbreakers time to hide or correct any wrong doings to avoid criminal charges or monetary fines. Therefore, by the time police officers and MSHA inspectors arrived on-site for the surprise raid or inspection, they probably found everything in order. This lead the police and MSHA inspectors to report no crimes and safety and/ health violations. Thus, their reports could

possibly be false positives or false negatives, i.e., they did not reflect an accurate picture of the crime rate for an area or true safety/health record for an inspected coal mine.

The police or MSHA inspectors did not return to the original site where crimes or safety violations had been spotted to ensure that the same crimes or safety violations had not recurred. This threatens the wellbeing of the public or coal miners in the case of the coal mining industry. When it comes to the administration of black lung disease, the MSHA inspectors not doing their jobs and cutting breaks to the coal mining industry undermines their power to oversee vested in them by the US Congress through the passage of the Federal Coal Mine Health and Safety Act of 1969. They undermine their power to oversee the operation which could have contributed to the rise of black lung disease among coal miners in the mid-1990s.

MSHA's critique forced them to launch "an internal review of practices in its District 11, responsible for Jim Walter Resources mines" (United States Mine Rescue Association, 2019). For the administration of justice, it is customary to launch an internal investigation for a criminal justice department when allegations of wrong doing are raised against such a department. The MSHA launching an internal review could indicate that the management was unaware of what was going on in District 11. If top management was unaware of the goings-on, how could we be certain that MSHA inspectors were ensuring that the coal mines complied with federal safety coal mine dust levels and did giving coal mines any breaks? The lack of compliance in the coal industry might explain the increase in black lung disease.

The safety of coal miners, beyond controlling black lung disease, is crucial. Research has indicated that "as a precaution, mining machines are built to automatically

shut down when gas levels exceed two percent, and company and union policy discourage workers from operating equipment when concentrations reached even one percent” (United States Mine Rescue Association, 2019). Miners reported feeling pressured to meet coal mine production demands to the point that “Mike Boyd and several other miners said workers often got flak from company bosses if they turned off machinery because of concerns about gas” (ibid.). However, the “company officials denied such claim” made by their miners (ibid.).

For the administration of justice, police agencies, researchers, and local/private employers conduct rescue operations or research in a way that least harms their employees, themselves, and the general public/research subjects. If the machinery being off during the presence of unsafe gas levels could have been harmful, then the coal company had a social responsibility to turn off the machinery and wait for the gas levels to return to safe levels before continuing their coal production since safety should be prioritized over profits. Companies, including coal mining industries, need profits to survive but they also need to rely on employees to make these profits. Therefore, they must value the safety of their employees.

If mining companies, such as Jim Walter Resources, were willing to continue operating their machinery when gas levels were unsafe, how can MSHA be sure that they did not allow their miners to work when the coal mine dust levels were unsafe, especially considering that the MSHA does not and cannot inspect coal mines 24*7? It seems logical to believe that coal mines were probably allowing miners to work with unsafe coal dust levels, as evidenced by the rise of black lung disease cases among coal miners.

The coal mine officials denied the coal miners' claim. While it is possible that some coal miners lied, it is unlikely that all their testimonies are lies. Additionally, the coal mine officials did not provide evidence discrediting the coal miners' testimonies. In the administration of justice, the coal company is assumed to be innocent of the claims made by the coal miners until proven guilty, just as the coal miners' testimonies are assumed to be credible until proven otherwise. Nonetheless, it is unbelievable that Jim Walter Resources' coal mine management ignored the warning signs indicating that something was wrong with the mine before the explosion.

Research has indicated that "ten days prior to the explosion, Mine no. 5, Sectors 4 and 6 put out three ignitions due to small pockets methane gas catching fire" (United States Mine Rescue Association, 2019). Ignoring signs of bullying at schools have forced some victims to die by suicide or be killed by others while, in this case, ignoring signs of potential safety issues in the mine caused the deaths of coal miners due to an explosion. In Urban Assembly School for Wildlife Conservation, a 12-year-old student unsuccessfully attempted suicide to deal with being bullied by his classmates. A month earlier, a student who was bullied at Wildfire Conservation killed a student and injured another (Harris, 2017). When it comes to the administration of black lung disease benefits, it is possible for the coal mining industry to ignore high levels of unsafe coal mine dust level readings since they can ignore the early signs of safety issues. Even though ignoring signs of safety and health issues in the coal mine can help coal mines increase profits, in the long run, it can have negative consequences such as an increase in the number of black lung disease cases among coal miners.

The MSHA investigation of the Jim Walter Resources Mine explosion found several factors that could have contribute to the mine explosion. One of those factors was that “during the drilling of the cable bolt holes, the potential seriousness of the condition was not accurately determined by those working in section 4 and, thus, was not fully communicated to the section coordinator” (McKinney et al., 2002). Police officers’ training does not end with the police academy. They go through countless hours of training during their tenure as police officers to be able to combat new forms of crime, protect society, and protect their own lives. It seems that perhaps continuous employee training was not a priority at Jim Walters Resources Mine based on the MSHA investigation’s findings about the mine explosion. Continuing employee training would probably enable coal miners to spot safety issues more accurately which would save their lives at the Jim Walter Resources Mine.

Research indicates that reasons for employee training and development are “risk management, increased efficiencies in processes resulting in financial gain, increased capacity to adopt new technologies and methods, and enhanced company image,” among others (McNamara, 2019). When it comes to the administration of black lung disease, if coal miners have difficulties in accurately spotting potential safety hazards in coal mines, it is possible for them to face difficulties in recognizing when coal dust levels are unsafe for their health which could explain the increase in black lung disease cases among coal miners. When it comes to the administration of justice, it is crucial for law enforcement agents to share any unsafe street crime patterns or threats against themselves to their supervisors so that they can pass it on to other officers to keep an eye to preserve their lives. The lives of the coal miners would had been preserved if the above Jim Walters

Resources' unsafe mine conditions would have been shared by the coal miners to the management.

One wonder if coal miners and management of Jim Walter Resources mine had a good relationship based on trust. This would have allowed an easy flow of information between the coal miners and management. MSHA's investigation of the accident found that another root cause of the explosion was that "a timely mine evacuation was not initiated by mine management" despite "mine management having several opportunities to order a mine-wide evacuation; which they never did"(McKinney et al., 2002). Mostly all business, including law enforcement agencies, have emergency training listed in their employee handbook. For example, the Virginia Department of Criminal Justice has a section titled emergency response in their training manual and compulsory minimum training standards (Virginia Department of Criminal Justice, 2019).

If it is possible for coal mines to not have safety evacuations, it might reasonable to believe that it might be possible for some coal mines to not have mine evacuations when coal dust levels reach unsafe levels which could explain the rise in black lung disease cases. In fact, one wonders if coal miners are aware of and understand coal mine evacuation procedures. The MSHA investigation seems to indicate that coal miners are unaware and/or do not understand mine evacuation procedures since they recommended that "mine practices and procedures should be reviewed to ensure that responsibilities and responses to mine emergencies are clearly delineated and all underground personnel should be familiar with the procedures"(McKinney et al., 2002). After investigating the mine explosion, the MSHA issued five orders against Jim Walter Resources Mine for high negligence (ibid.).

Additionally, the MSHA issued Jim Walter Resources Mine one citation for high negligence and one citation for moderate negligence (McKinney et al., 2002).

Additionally, the MSHA issued a 103(k) order against Jim Walter Resources Mine (ibid.). A 103(k) order deals with accidents and rescue/recovery procedures. It is issued “to protect the safety of any person in the mine when a mine condition exists as a result of an accident that threatens the safety of miners” (United States Department of Labor, 2019). The US Department of Labor did an internal review “to evaluate the actions of the Mine Safety and Health Administration prior to the accident at the Jim Walter Resources Mine, No. 5 Mine, and to make recommendations to improve inspection process to better protect our nation’s miners” (US Department of Labor, 2003).

The internal investigation revealed deficiencies at the district-level and in the MSHA headquarters in the following areas “inspection procedures, level of enforcement, plan reviews, the Alternative Case Resolution Initiative, and accountability programs, supervision and management, and headquarters oversight” (US Department of Labor, 2003). The internal investigation concluded that MSHA deficiencies had not contributed to the mine accident at Jim Walter Resources Mine (US Department of Labor, 2003). Regardless of MSHA flaws, Jim Walter Resources Mine is responsible for their own actions/flaws that caused the mine explosion since the mine had the free will to choose to address the safety issues that had arisen before the explosion or continue working with the possibility of a major accident such as the explosion. This is because the mine decided to ignore mine safety issues days before the explosion.

When it comes to the administration of black lung disease benefits, the rise in black lung disease cases was probably caused by the MSHA’s lack of oversight. It was a

travesty that, in 2001, over 31 years after the passage of the Federal Coal Mine Health and Safety Act of 1969, MSHA was still facing problems with oversight, inspection procedures, enforcement, and accountability. If the coal miners only relied on the MSHA for assistance with health and safety issues in coal miners, who would they turn to for assistance when the MSHA failed them?

The internal investigation into MSHA's actions found that training was not a permanent solution for its deficiencies and that action was needed at the district and national level to correct the failures and reduce the likelihood of such failures occurring during future inspections (US Department of Labor, 2003). When it comes to the administration of justice, it does not matter how many hours of training courses law enforcement agencies have taken because that will not deter police brutality or reduce street crimes. Police brutality and street crimes can only reduce if police officers', of their own free will, decide to do their job and respect the civil rights of suspects. When it comes to the administration of black lung disease benefits, training would not completely eliminate MSHA employees' errors. Training has not eliminated errors, as is apparent from the rise of black lung disease cases. Taking actions against those inspectors, employees, and top management who violate MSHA's procedures and regulations during an inspection would deter them. For example, based on the level of the error, the recurrence of deterrence actions would probably reduce errors and, thus, the cases of black lung disease cases.

Deterrence actions are a reasonable choice because a regular joe committing a crime is sent to jail to prevent them from committing future crimes. Nurses and doctors committing malpractice can lose their license to deter them from their unethical behavior.

So, why should MSHA inspectors, top management, and employees not be subject to deterrence actions for their work errors when we, the general public get, deterrence actions for our errors? Deterrence actions should apply to everyone because we are all equal before the US Constitution. If deterrence actions do not apply to everyone, then it can be consider a form of inequality causing social injustice.

The MSHA fined the Jim Walter Resources mine with penalties worth \$435000 for two citations and six orders from the 2001 mine explosion (Federal Mine Safety and Health Review Commission, 2005). However, Judge Barbour favored the coal mine over MSHA by vacating two citations and six orders, and reducing the proposed penalties from \$435000 to \$3000 which was a 99.3 percent reduction in proposed penalties (Federal Mine Safety and Health Review Commission, 2005). Companies and individuals have the right to appeal judicial decisions during the administration of justice. Yet, such high reductions in proposed penalties only undermined MSHA's authority. Additionally, such a ruling can be considered a form of social injustice because it shows that the powerful classes can use their monetary power to hire lawyers to get away from the responsibilities for their actions. The ruling can also be seen as social injustice against the dead coal miners' families because the 13 lives lost in the mine explosion and the mine ignoring safety issues and failing to order a mine evacuation days before the explosion when they could have done so do not seem to matter.

One will assume that Jim Walter Resource mine would immediately pay the low penalty assessment and end their appeal process. However, this was not the case due to their appeal process. Jim Walter Resources mine filed a petition review, asking the commissioners of the Federal Mine Safety and Health Review Commission to review the

judge's ruling (Federal Mine Safety and Health Review Commission, 2006). The Secretary of Labor also filed a petition review (ibid.). However, such a petition from the Secretary of Labor was reasonable because the judge's ruling did not fit the actual questionable actions and responsibility of the mine for the explosion that caused the death of 13 miners.

The commissioners vacated "the fines the judge imposed for the two violations found and remand for further explanation" (Federal Mine Safety and Health Review Commission. They also indicated that the judge ruled about Jim Walter Resources Mine violating

The fire drill requirement in section 75.1101-23(c) and it is also violated section 30 C.F.R. § 75.360(b)(3) for failing to conduct a pre-shift examination in the area of the mine where work was schedule; and the judge's determination that the violation of the pre-shift examination requirement was significant and substantial, and due to Jim Walter Resources Mine unwarrantable failure (ibid.).

In remand, Judge Barbour mentioned that the Secretary of Labor partially proved two of the violations during the first hearing but failed to established the "violations contributed to the cause of the accident and/or resulted in the fatalities" (Federal Mine Safety and Health Review Commission, 2006). On remand, Judge Barbour increased his original penalties assessment against Jim Walter Resources Mine from \$3000 to \$5500 which was an 83.33 percent increase from the judge original penalty assessment (ibid.). However, the \$5500 penalty assessment is 1.26 percent of the MSHA penalty assessment of \$435000.

Jim Walter Resources Mine paying a small portion of their original MSHA penalties for the mine accident can make people feel that laws and regulations have been written to give the rich and power an upper hand in the administration of justice. By judges, like Judge Barbour, ruling in favor of mine companies makes one wonder if judges understand or are aware of the injustices that working-class coal miners experience in the ruling class businesses. For example, many of them die or injure themselves due to coal mine accidents regardless of the law during the administration of justice.

If judges throw out or reduce fees due to health and safety issues issued by the MSHA then who is going to ensure that the coal mining industry complies with safety and health regulations and takes such regulations seriously? Instead of giving judges the freedom to do whatever they want with MSHA penalties, the legislative branch should create minimum and maximum price tags for each offense based on their seriousness. Judges must follow these prices in their rulings.

Despite court rulings, the injured and dead coal miners' families got some form of justice when "Jim Walter, Walter Industries and affiliated companies settled numerous lawsuits associated with the 2001 Jim Walter Resources Mine explosion" (Smith, 2005). Coal miner Vonnie Lee Riles sued Jim Walter Resources Mine for psychological injuries resulting from the 2001 explosion (ibid). He was diagnosed with post-traumatic stress disorder (ibid.). It was mentioned that after the mine explosions in 2001, Jim Walter Resources Mine had problems following federal safety regulations (ibid). It was mentioned that the MSHA reported that Jim Walter Resources' Mine No. 5 saw 108 injuries between 2001 to 2004 (ibid.).

Individuals and companies are deterred from crimes and misdemeanors through a jail sentence and/or fine. However, a judge eliminating most of the violations and setting very low penalties for two violations for the 2001 explosion in favor of Jim Walter Resources Mine, leaves the federal government helpless and unable to use fines as deterrents for Jim Walter Resources Mine against committing safety violations in the future. When it comes to the administration of black lung disease benefits, it is crucial for the MSHA to deter coal companies with a record of violating safety and/or health regulations, such as Jim Walter Resources Mine, to reduce the number of black lung disease cases among coal miners. Apparently, Judge Barbour's low penalty assessment favoring Jim Walter Resources Mine for the 2001 explosion had an opposite effect for the mine. Instead of deterring the mine from continuing violating safety regulations, by 2012, it did not care much for federal regulations since it had to settle with the US Equal Employment Opportunity Commission which required the mine to pay "\$40,000 directly to Rocky Davis who has profound hearing loss for not accommodating him to work in areas that did not harming his hearing aids" (US Equal Employment Opportunity Commission, 2012).

The US Equal Employment Opportunity Commission thanked the mine for their commitment to providing relief to Mr. Davis and to ensuring that such a violation does not occur in the future (US Equal Employment Opportunity Commission, 2012). However, for the administration of justice, enforcement agencies such as US Equal Employment Opportunity Commission had to step in to acquire relief for Mr. Davis instead of the mine recognizing their own wrong doing and providing relief to the affected parties before the intervention of an enforcement agency. One wonders what

would have happened to Mr. Davis' hearing if the US Equal Employment Opportunity Commission would not have gotten involved?

United Mine Workers of America, International Union v. Zatezalo (Assistant Secretary for

Labor for Mine Safety and Health), and MSHA(2018) (Civil)

The United Mine Workers of America (UMWA) sued the MSHA in December 2018 after it lifted a POV (pattern of violations) status away from Affinity mine in West Virginia operated by Pocahontas Coal Company, LLC. (Casey, 2018). The POV status was imposed due the mine's negligence leading up to the deaths of two of their workers in 2013 (ibid.). UMWA decided to sue because they felt that the mine had not passed the required safety tests for the removal of a POV status (ibid.). UMWA felt the need to sue the government because the health and safety of their miners was at stake and after the government replaced statutory and regulatory requirements with other requirements that did not have the Congress' approval (ibid.). Robert Cohen, a former member of the independent federal committee on assessing mining safety, felt that "it was illegal for the government for removing the POV status from the mine without the mine addressing any of the safety concerns" (ibid.).

This lawsuit applies to the administration of justice in the sense that the government sided with the rich (coal companies) by disregarding the legitimate safety concerns of the working class (coal miners) despite the mining company not meeting the required safety examinations from the removal of their POV status. The MSHA Mine Data Retrieved Safety supports the safety concerns of the working class since the mine

has received a significant number of citations between 2013–2018 (2013 being the latest year the mine experienced coal miners deaths)(US Department of Labor Mine Safety and Health Administration,2019). The Mine Safety Retrieval Safety database showed that Pocahontas Coal Affinity received 51 citations in 2013–2018 with the last citation dated October 16, 2018 (US Department of Labor Mine Safety and Health Administration, 2019). Additionally, UMWA sued the federal government to prevent the enforcement (federal government) of the 1969 Federal Coal Mine Health and Safety Act and its amendments from removing future POV status of coal mines and ignoring the law (Industrial Safety and Hygiene News, 2018).

UMWA argued that “Defendants are in violation of the Administrative Procedure Act (APA) for unlawfully ignoring the statutory and regulatory requirements for terminating a POV Notice and replacing it with another process that was not created by Congress or otherwise properly promulgated” (Industrial Safety and Hygiene News, 2018). The POV enforcement was created by the Federal Mine Safety and Health Review Act of 1977 (an amendment of the mine act) (Industrial Safety and Hygiene News, 2018). In administration of justice, laws only exist when they are enforced by enforcers. When enforcers (federal government) refuse to enforce the laws then the working class (coal miners) and other minorities do not get justice. When it comes to the administration of black lung disease benefits, it is rationale to believe that if MSHA is willing to ignore their own regulations regarding the termination of POV notice which can create a safety concern for coal miners; then it is rationale to believe that MSHA might also be capable to ignore coal dust safety regulations which can explain the recent rise in black lung disease cases among coal miners. When it comes to the administration of justice, this case

is unique since the workers coal mining union are demanding social justice by making it clear that they believe that the MSHA actions can place coal miners safety in jeopardy.

United Mine Workers of America, International Union (plaintiff) v. Zatezalo (Assistant Secretary for Labor for Mine Safety and Health), and MSHA; the court decided to dismiss the case in 2019 since the plaintiff lack standing (United States District Court for the Southern District of West Virginia, 2019). The case facts made it clear the MSHA issued a Notice of POV to the mine under the Obama Administration but terminated the Notice of POV in 2018 under the Trump Administration(United States District Court for the Southern District of West Virginia, 2019). When it comes to the administration of black lung disease benefits, safety and health regulations that were set to protect coal miners can be ignored at any time as experienced in this case depending in each individual presidential administration to upheld regulations or relax regulations in order to benefit the coal mining industry in this case which could explain the recent rise in black lung disease cases.

The court argued that “UMWA’s complaint asserts standing based on the allegation that the Defendants’ termination of the POV Notice at Affinity Mine undermines the deterrent effect of the overall POV standard, and thereby puts UMWA members and other miners at risk through decreased safety in the nation’s mines” (United States District Court for the Southern District of West Virginia, 2019). The court mentioned that “the primary harm identified by the UMWA is not the impact on Affinity Mine itself, but the loss of deterrent effect across the entire industry” (United States District Court for the Southern District of West Virginia, 2019). In addition, the court reasoning that “ UMWA alleges that every miner in the country is impacted when MSHA

acts in a way that lessens the effectiveness of the POV standard” (United States District Court for the Southern District of West Virginia, 2019).

When it comes to the administration justice, just because coal miners experienced possible safety risks in one mine that does not necessary means every coal mine in the coal mining industry puts their coal mine workers at risk since just like we are all capable to commit crimes that does not mean that we all are criminals. When it comes to the administration of black lung disease benefits, just because coal miners are exposed to unsafe levels of coal dust that does not mean every single coal miner exposed will develop black lung disease since developing or not developing black lung disease can depend in many factors such as level or duration of exposure to unsafe levels of coal dust to name a few.

The court also mentioned that “The UMWA alleges that every miner in the country is impacted when MSHA acts in a way that lessens the effectiveness of the POV standard” (United States District Court for the Southern District of West Virginia, 2019). When it come to the administration of justice, the court seemed to infer that they believe that MSHA actions would not necessarily lead to a phenomenon of putting all coal miners’ safety in danger in the entire coal mining industry similar to high crime areas. When it comes to the administration of black lung disease, black lung disease does not wait until a group of miners is exposed to unsafe coal mine dust levels as a form of a phenomenon since the disease can manifest in coal miners individually at any time of exposure.

The court also mentioned that UMWA failed to satisfy standing since it failed to demonstrate that injury resulted from the termination of the POV notice of Affinity

Mine(United States District Court for the Southern District of West Virginia, 2019).

When it comes to the administration of justice, it seems the court believed that UMWA failed to demonstrate that the removal of POV notices in other coal mines by the MSHA also led to threats to the safety of coal miners from such mines. When it comes to the administration of black lung disease benefits, researchers had to documented a cluster of cases of black lung disease among current and former coal miners in the Appalachian states such as West Virginia as previously mentioned in order to proof to the federal government that black lung disease was once again in a rise.

The court also ruled that UMWA did not had standing since “it is not clear that termination of POV Notice at Affinity Mine is fairly traceable to the harm alleged”(United States District Court for the Southern District of West Virginia, 2019). It seems rationally that perhaps UWMA was not able to proof a traceable of harm associated with the termination of POV Notice at Affinity Mine since UMWA did not had any of its members employed by Affinity Mine(United States District Court for the Southern District of West Virginia, 2019). When it comes to the administration of justice, it seems that the court ruling my make the generic public believed that perhaps the outcome of the case would had been different if actual employers of Affinity Mine actually sued the mine in court instead of UWMA. It is not clear whether the UMWA seek the participation of Affinity Mine coal workers in their civil lawsuit or coal miners of Affinity Mine refused to participate in UMWA civil lawsuit. In administration of justice, it is hard to bring social justice when coal miners refused to report such social injustices like rape accuser being set free because rap victims refuse to accuse their accusers. When it comes to the administration of justice, a true picture of black lung

disease is unknown because not all coal miners go to the free clinics to get tested for black lung disease.

Kentucky Energy and Environmental Cabinet (Civil)

Ron Mills, the former director of mine permits in Kentucky settled a wrongful termination suit with Kentucky Energy and Environmental Cabinet (Associated Press, 2012). He alleged that he was wrongly terminated in November 2009 “for opposing illegal coal mining practices” (ibid.). Mills opposed “a state policy that grants mining permits to coal operators before they had obtained rights to enter mine property from all property owners on the permit” (ibid.). This policy was illegal and banned in 2008 but reinstated a year later (ibid.).

When it comes to the administration of justice, laws or policies are not always fair and those in in charge of executing such policies are left with no choice but to execute the policies or laws. However, those deceptively executing unfair laws or policies are subject to criminal consequences or/and losing their jobs like Mr. Mills. The Kentucky Energy and Environmental Cabinet reaching a settlement implies that it either found some merit for Mr. Mills’ wrongful termination lawsuit or decided to settle because they do not want to spend more resources and/or manpower in countering Mr. Mills’ lawsuit. However, we will never know the real reason behind the settlement since that information is confidential (Associated Press, 2012).

When it comes to the administration of black lung disease benefits, this civil case has been discussed as a balance since the civil and criminal cases discussed earlier show mining companies and federal agencies (MSHA) not following or overseeing black lung

disease policies. This case shows a former state director's commitment to follow laws and ensure that the policies are fair. If coal mining companies and overseeing state and federal agencies had ensured that black lung disease policies were being followed, perhaps we would not be dealing with the recent rise in black lung disease cases—almost 50 years after the passage of the Federal Coal Mine Safety and Health Act of 1969.

When it comes to the administration of justice, regardless the type of business trying to enter a private property, it reasonable to believe that all owners of such private property would like to be informed about who is trying to enter their property and have the right to grant or deny access to the property since they are the ones liable for the property through property taxes, for instance. Besides property taxes, Mr. Mills alleged that political pressure from the coal industry caused his firing (Brammer, 2009; updated 2015). Kentucky Governor Beshear refused to investigate the firing of Mr. Mills especially when there was some evidence suggesting that perhaps the coal mining industry probably played a role in firing Mr. Mills which possibly warranted an investigation (ibid.).

Evidence such emails from Raymond Ashcraft, the Alliance's Coal Manager, showed that he send an email to his colleagues predicting Mr. Mills firing minutes after Mr. Mills was called in to be informed that he was fired (Brammer, 2009; updated 2015). His email named Mr. Mills' replacement before the replacement being announced, later in the day (ibid.). Governor Beshear's defense against investigating Mr. Mills' termination was that he does not "micromanage our cabinets" (ibid.). When it comes to the administration of justice, regardless of whether Governor Beshear was against or in

favor of micromanaging, he was obligated to order an investigation into the firing of Mr. Mills to establish transparency.

An investigation would not have violated the civil rights of the coal mining industry since a grand jury would have decided whether to bring criminal charges against the coal mining industry. This would only happen after any possible criminal information, if any were found during the investigation, would have been passed over to a grand jury for review. Assuming that the coal mining industry is innocent and the allegations are false, since everyone is innocent until proven guilty in a court of law, an investigation was necessary to know who leaked classified information, such as Mr. Mills' termination and the name of his replacement to the coal mining industry beforehand. Even though state employees work at the pleasure of the governor, they owe their loyalty to the public since they are the ones paying for the government workers' salaries through taxes. The public expects state employees to follow laws and regulations, such as protecting and not leaking confidential and/or classified information, in return.

When it comes to the administration of black lung disease, one reasonably wonders if state and federal employees protect the sensitive information about coal miners applying for black lung disease benefits or about coal miners' complaints against the coal mining industry. Even though there are no cases of leaked private information about the coal miners, we cannot be certain that it did not occur. Crimes are always occurring, however, criminal acts are only considered crimes when they are reported to the police.

Transparent investigations, such as the release of private information, are necessary but also crucial when one of the political donors are part of the investigation. It

was mentioned that the federal Office of Surface Mining Reclamation and Enforcement found “at least 266 violations in coal mines in five states owned by billionaire Jim Justice; 129 of those violations were issued against his Kentucky mining companies” (Loftus & Bruggers, 2014). The problem was that Jim Justice had donated closed to \$400,000 to Governor Beshear’s campaign since 2011 (ibid.). Governor Beshear mentioned that the Jim Justice family’s political contributions “had no influence in state government actions; it was pointed out that the Kentucky Energy and Environmental Cabinet treat others in the same manner as Jim Justice, and that the Governor’s Office does not interfere” (ibid.).

Yet, state officials “acknowledge of keeping the Governor informed” (ibid.). Not interfering in situations where political donors or friends are involved prevents conflict of interest. However, in the administration of justice, it does not mean that politicians, such as Governor Beshear, could not have interfered when one of their political donors or friends was violating laws and regulations. Governor Beshear being informed and not doing anything to stop his political donor, Jim Justice, from continuing violating coal mining regulations is socially unjust.

Drummond Company (Criminal)

Drummond Company was concerned with the Environmental Protection Agency’s decision to expand a superfund cleanup site north of Birmingham, Alabama. The coal company is located there which could make them liable for cleanup costs (Faulk, 2017; Updated 2019). Drummond Company hired the legal services of Balch and Bingham to help them preventing the expansion of the super cleanup site since “expanding the cleanup of elevated levels of arsenic, lead, and benzo(a)pyrene found

during the soil sampling would have exposed Drummond to tens of millions of dollars as pointed out by US Attorney Jay Town” (ibid.). The US Attorney’s Office indicted Joel Iverson Gilbert (coal company attorney), Steven George McKinney (coal company attorney), and David Lynn Robertson (Vice President at Drummond Company) on “one count of conspiracy to defraud the United States, one count of bribery (bribed former Alabama state representative Oliver Robinson), three counts of honest services wire fraud, and one count of money laundering conspiracy (Drummond Company)” (ibid).

The indictment filed in the United States District Court For the Northern District of Alabama Southern Division on September 27, 2017 revealed some interesting facts about the crimes committed. Joel Iverson Gilbert and David Lynn Roberson were registered lobbyists with the state of Alabama (United States District Court For the Northern District of Alabama Southern Division, 2017). This finding is related to the administration of justice. The law prohibits registered lobbyists from bribing politicians since they can access politicians. It is also about the black lung disease epidemic because it shows that coal companies are trying to have their executives register as lobbyists to access politicians. Their legal access to politicians gives coal companies the power to influence legislators to pass laws weakening the federal government’s oversight of coal mines. They have been successful in implementing this system in some states, thereby increasing the risk of developing black lung disease among the coal miners there.

The indictment also revealed that the two indicted lawyers and vice president of the coal mine developed a plan of action that included “advising residents of north

Birmingham and public officials to oppose the Environmental Protection Agency actions” (United States District Court For the Northern District of Alabama Southern Division, 2017). The State Representative, Oliver Robinson, was hired to implement this plan through a consulting contract with his foundation known as the Oliver Robinson Foundation (ibid.). This complicated the administration of justice because the coal company planted their own interests in the residents’ with the help of Oliver Robinson. This possibly affected the residents’ impartiality in adequately considering the rationality of the EPA’s decision. Thus, the EPA was denied the right to fair and impartial hearing, as required in the courts of justice. It took the form of “a public comment period from September 22, 2014 to January 22, 2015” (ibid.).

It is also creates a possible conflict in controlling black lung disease because the coal company’s efforts to turn the public against the EPA makes one wonder if they have attempted to silence people who were against coal companies from discussing the situation of the black lung disease nationally and convince people to ask politicians to enhance the existing black lung disease policies. In fact, Murray Energy “sued HBO and HBO Sunday night host John Oliver for a false and malicious broadcast and embarrassing Robert Murray, CEO of Murray Energy by making fun of his age and appearance” (Associated Press, 2017). John Oliver pointed out that “Robert Murray had fought against coal safety regulations” (ibid.)

Murray Energy complained that John Oliver made “false statements on air regarding their Utah mine collapse in 2007 and Mr. Oliver ignored the information the company sent to the show that shows the collapse was caused by an earthquake and that Mr. Murray made efforts to save the trapped mines” (Associated Press, 2017). The

company is seeking “financial damages and a court order barring rebroadcasts of the segment's “defamatory statements” (ibid.). It seems that the company wants civil punishment for anyone discussing the company negatively, possibly to prevent them from influencing politicians to address black lung disease since their CEO has fought coal safety regulations, as mentioned earlier.

John Oliver did not violate company rights by not mentioning the earthquake that caused the Utah mine collapse because the MSHA concluded that the collapse was “lead by major engineering deficiencies and regulators were not told that the mine was unstable”(Brady, 2008). The MSHA also claimed that Murray Energy was negligence and reckless (ibid.). However, a federal investigation concluded that Murray Energy was not the only one responsible for the mine collapse.

The Office of the Inspector General concluded on MSHA’s negligence in protecting the safety of Murray Energy’s coal miners (US Department of Labor Office of Inspector General Office of Audit , 2008). The Office of the Inspector General felt that MSHA’s negligence was due to the following findings: “the MSHA could not demonstrate it exercised due diligence or made the right decision in approving the Crandall Canyon Mine roof control plan, MSHA did not ensure the approved roof control plans were properly implemented or continued to provide protections to coal miners as conditions in the mine changed, and the MSHA lacked guidance on non-rescue activities” (ibid.).

The above is related to the administration of justice because the federal government cannot be sued for any damages for their negligence and it cannot be criminally prosecuted. The case is about black lung disease because the federal

government's lack of commitment to ensuring the safety of coal miners questions their oversight in ensuring that coal mining companies are not putting miners at risk of contracting black lung disease. Questioning the oversight of MSHA is reasonable because the MSHA's negligence took the lives of six coal miners and three rescue workers attempting to save their lives (US Department of Labor Office of Inspector General Office of Audit, 2008). It is reasonable to partially blame Murray Energy for the mine collapse but MSHA is responsible for implementing and ensuring the higher safety standards. After all, that is one of the roles tax payers are paying the agency to play.

The indictment against Drummond Company's Vice President and two attorneys from Balch and Bingham had interesting findings. Joel Iverson Gilbert (one of the Drummond Company attorneys) wrote letters that State Representative Oliver Robinson "print verbatim on his state letterhead and sign before delivering to members of the Alabama Department of Environmental Management ("ADEM") and the Alabama Environmental Management Commissions (AEMC)" to further the interests of Drummond Company without letting them know that he was working on behalf of the coal company through a consulting contract (United States District Court For the Northern District of Alabama Southern Division, 2017).

This finding is related to the administration of justice since Joel Iverson violated the lobbyist code of ethics adopted in 2000 by the State of Alabama House of Representatives which clarifies that "A lobbyist shall not offer employment to any legislator or legislative employee that impairs the legislator's or legislative employee's independence of judgment as to their official duties" (Alabama Ethics Commission, 2019). Joel Iverson took Oliver Robinson's independent judgment away from him by

writing the letter for him. It is also related to black lung disease because the coal mining industry has money for lobbying state and federal legislators to debate and pass laws that reduce MSHA's coal inspectors' power which puts coal miners at risk of contracting black lung disease.

Research indicates that “Walter Energy, Patriot Coal, Alpha Natural Resources , Arch Coal , and Peabody Energy who filed for bankruptcy spend \$100 million combined in the last decades in order to protect their annual federal taxpayer subsidies of \$167 million” (Western Values Project, 2016). Additionally, those companies, along with three coal companies spent \$1 billion dollars in executive compensation (ibid.). The Western Values Project pointed out that “The federal government provides this industry with tax subsidies, sells these companies' coal at a price far below market value, allows them to skirt insurance requirements by permitting “self-bonding,” and fails to enforce environmental clean-up laws” (ibid.).

This is related to the administration of justice because it proves the idea that laws are designed to protect the rich and powerful like the coal mining industry. It is also related to black lung disease because relaxing rules makes it possible for coal mining companies to delay justice for sick coal miners who have had black lung disease for years because the company is allowed to constantly appeal unfavorable black lung disease benefits decisions that are against the coal company. Going back to the indictment of a Vice President from Drummond Company and two lawyers representing the coal mine, the government indicated that from 2015 to 2016, Oliver Robinson Foundation was paid \$360,000 in a contract to look out for the interests of Drummond Company (United States District Court For the Northern District of Alabama Southern Division, 2017).

The government argued that state representative Oliver talked to the EPA and during the meeting he discussed talking points favoring the coal company and their lawyers' position but did not disclose that he was under contract with Drummond Coal Company and Balch and Bingham lawyers to the EPA (United States District Court For the Northern District of Alabama Southern Division, 2017).

State representative Oliver protected the Drummond Company and their lawyers position by advising the AEMC director that “if the areas of north Birmingham are designated as a Superfund site or listed on the NPL, the residents are considered to live in a dump and nothing can happen there until it’s either cleaned up and after that, it will take tremendous investment to get it to move forward” (United States District Court For the Northern District of Alabama Southern Division, 2017). The state representative hid that he was under contract with Drummond Coal Company and their lawyers to protect their interests from the AEMC director (United States District Court For the Northern District of Alabama Southern Division, 2017).

The finding is about criminal justice in the sense that people are reluctant to question their politicians, especially if they have served for many years in their districts such as state representative Oliver because betrayal from their politicians never comes to mind. It is also related to black lung disease because if politicians are willing to go against the interests of their constituencies, then who can guarantee that politicians are willing to pass stricter laws that can make coal mine inspections stricter to protect coal miners from black lung disease.

For example, Kentucky coal miners along with others have asked the Congress to pass laws strengthening the Black Lung Disability Trust Fund, pass the RECLAIM

Act which would give jobs to laid off coal miners, and protect the United Mine Workers of America pensions (Shoupe, 2018). The coal miners from Kentucky feel Senator McConnell is “dragging his feet” with the Kentucky miners’ legislation requests (ibid.). Senator McConnell and the Congress members from Kentucky claimed that they support coal mine communities in Kentucky “...so why don’t show they show it by passing this legislation?” (ibid.).

Returning to Drummond Company, state representative Oliver wrote a joint resolution for both chambers of the Alabama legislature to consider. It urged that “the Attorney General and ADEM to combat the EPA’s overreach” (United States District Court For the Northern District of Alabama Southern Division, 2017). After the resolution was passed in the Alabama Senate, “Representative Oliver L. Robinson, Jr., then a member of the Alabama House of Representatives’ Rules Committee, voted in committee to send the resolution to the floor of the House of Representatives for consideration” (United States District Court For the Northern District of Alabama Southern Division, 2017). Joel Iverson Gilbert and Oliver L. Robinson hid that state representative was being paid to take “take official action favorable to the interests of Balch and Bingham and Drummond Company” from both the houses of the Alabama legislature (United States District Court For the Northern District of Alabama Southern Division, 2017).

The above actions from state legislature Oliver Robinson is related to the administration of justice because Mr. Robison was in conflict of interest while writing the joint resolution and vote in favor of the resolution as a member of legislature committee and a paid consultant. The possible conflict of interest must be reported in

the administration of justice. For instance, the Department of Justice is an agency that requires employees to report conflicts of interests. Regarding personal conflicts, the Department of Justice points out that,

In addition to the impartiality regulation, 28 C.F.R. § 45.2 (disqualification arising from personal or political relationship) prohibits a DOJ employee, without written authorization, from participating in a criminal investigation or prosecution if he has a personal or political relationship with any person or organization substantially involved in the conduct that is the subject of the investigation or prosecution, or any person or organization which he knows has a specific and substantial interest that would be directly affected by the outcome of the investigation or prosecution. (United States Department of Justice, 2017)

State representative Oliver Robinson's failure to report the conflict of interest is related to black lung disease because the public is not aware of any politicians helping the passage of laws that relax coal mining inspections in favor of the coal mining industry while being paid as a consultant by the coal mining industry. Such cases exist only due to whistle blowers. The indictments of a vice president of Drummond Company, two attorneys from Balch and Bingham, and State Representative Oliver Robinson were caused by Oliver Robinson and others acting as whistle blowers in exchange for lenient sentencing (this will be explained later).

Joel Iverson Gilbert was "sentenced to five years in prison, received a \$25,000 fine, and received two years of supervised release with 100 hours of community service each year, for bribing former Alabama Representative Oliver Robinson"(Birmingham Times, 2018). David Lynn Roberson was sentenced to "30 months in prison, received a

\$25,000 fine, and received a one year of supervised release for the same charge as Joel Iverson Gilbertson” (ibid.). Their sentencing is related to the administration of justice because even though they were sentenced for the same charge, there were disparities in their sentencing. Criminologists are against sentencing disparities in the court system. Their sentencing is related to black lung disease because if the government had not become aware of their illegal actions then the general public would have been exposed to possibly irreversible side effects of continued environmental contamination through toxins. Additionally, the coal miners from Drummond Company would have been exposed to additional toxins besides coal mine dust which can cause black lung disease.

Even though Steven McKinney (Balch and Bingham attorney) was also indicted with John Iverson Gilbert and David Lynn Roberson, Mr. McKinney escaped legal prosecution after the federal judge on the case dismissed him from the case due to a possible, unintentional, technical error by one of the federal agents on the case (Hrynkiw, 2018, updated 2019). Agent Hunt mentioned that the possible technical error was caused because she “was not aware of any meeting between Mr. McKinney and Mr. Oliver Robinson, but told the grand jury that the three men all met with the former representative prior to the AEMC meeting” (ibid.). She also mentioned that “her answer was true regarding Mr. Gilbert and Mr. Roberson” (ibid.). This is related to the administration of justice because regardless of an indictment, a defendant is innocent until proven guilty in the court. Agent Hunt’s error in the case makes the public distrust justice agencies. However, no evidence corroborated that Agent Hunt’s goal was “getting” Mr. McKinney at any cost.

Former State Representative Oliver Robinson was “sentenced to 33 months for accepting bribes” (United States Attorney’s Office Northern District of Alabama, 2018). Additionally, Mr. Robinson was ordered to pay “\$169,151 in restitution to the Internal Revenue Service and to forfeit \$390,783 as proceeds of illegal activity” (United States Attorney’s Office Northern District of Alabama, 2018). Finally, he was placed on “supervised release for three years following completion of his prison term” (ibid.). The recommended sentencing for the crimes he committed was “51 to 63 months but he received a lower sentence because the government asked for a sentence downgrade” due to Mr. Robinson’s cooperation and he plead guilty to “conspiracy, bribery, honest services wire fraud and tax evasion” (ibid.).

This is related to the administration of justice because it demonstrates plea bargaining to get a lower sentence, like Oliver Robinson did. Even though Mr. Robinson’s prison sentence was slightly higher than Mr. Roberson’s prison sentence despite his cooperation, Mr. Robinson’s prison sentence was appropriate because, as a former legislator he was fully aware of legal and illegal behavior. The former State Representative was also aware of ethical conflicts because he resigned his job so that “his daughter could serve as House liaison for Gov. Robert Bentley” (Cason, 2016; updated 2019). It is related to the administration of justice because the plea bargaining can be used by the federal government to bring anyone preventing the MSHA inspections of the coal mines to justice. This is similar to the federal government bringing those individuals who attempted to prevent the inspections of the EPA to justice.

Armstrong Coal (Criminal)

Eight former coal mining workers from Armstrong Coal were indicted for lying and misleading federal regulators regarding coal mine dust levels that their workers were being exposed to (Jamieson, 2018). Justice was not equally and fairly served because only the working class (coal mining workers) received indictments for their unlawful behavior while Armstrong Coal and its executives were not indicted (Jamieson, 2018). US Attorney Robert Coleman argued in his indictment that all eight coal mining employees “conspired to commit dust fraud by knowingly and willfully altering the company’s required dust sampling procedures, by circumventing the dust sample regulations, submitting false samples, and by making false statements on dust certification cards from January 1,2013 and August 8,2015” (United States District Court Western District of Kentucky at Owensboro, 2019).

When it comes to the administration of justice, perpetrators can only be charged with a crime if they are caught by or reported to law enforcers. It seems that the working class (coal miners) received delayed justice since the perpetrators (coal miners) were not able to get away with their alleged crimes. The above indictment seems to indicate that it is possible for the working class to commit crimes affecting their own working-class co-workers. However, the indictments are unfair in the context of the justice system because it is difficult to believe that the coal mine owners, operators, and executives were not aware of the criminal behavior in the mine for over two years.

However, perhaps criminal indictments against the coal company and their executives were not possible because they did not have enough probable cause for the indictments to stick. In the administration of justice, regardless of the alleged

perpetrator's guilt, they cannot be indicted without proving probable cause for their alleged criminal offense. The eight indicted coal mine workers (director/foreman/superintendent) could not claim that they were unaware of their criminal violations at the administration of justice as a defense since they all had "Federal Dust Certifications cards, meaning that they received training on the dust regulations referred in the indictment" (United States District Court Western District of Kentucky at Owensboro, 2019). The government established a necessity to enforce the law against the eight indicted perpetrators by indicating that over 4,800 miners died from black lung disease from 2005 to 2014 and lower respirable coal dust concentrations are needed to prevent the disease (ibid.).

The indictment indicates that all eight perpetrators undermined the following federal regulations while administering justice by "switching off operators during dusty conditions during dust sample collection and place dust sample equipment in clean air in order to deceive federal regulators regarding the actual dust breathing concentrations of the mine" (United States District Court Western District of Kentucky at Owensboro, 2019). Perhaps the federal government became aware of such activities due to the individuals labeled as unindicted co-conspirators by the prosecutor (ibid.). The indictment also alleges that six of the eight perpetrators, by removing sampling devices of coal miners before the conclusion of the dust data collection, violated the regulations for the administration of justice which require sampling devices to be used during the entire shift when dust data is being collected (ibid.).

In February 2019, Glendal Buddy Hardison (most senior official); "former manager of all Armstrong Coal western Kentucky mines was indicted by a federal grand

jury for defrauding regulators about black lung causing risks to miners” (US Department of Labor Mine Safety Health Administration, 2019). It was mentioned that “the grand jury charges that Hardison allegedly met with co-defendant Ron Ivy and an unindicted co-conspirator in 2013, and ordered them to do whatever they had to do to “make the pumps come in.” (US Department of Labor Mine Safety Health Administration, 2019).

When it comes to the administration of justice, all nine former Armstrong Coal Mine indicted workers are presumed innocent until proven guilty. Since their trial is pending, it is unknown whether if all or any of the nine former workers indicted will be found guilty and sentenced. Yet, the possibility that any or all nine accusers might face criminal punishment if found guilty for attempting to submit inaccurate coal mine dust readings to regulators might bring some social justice for those coal miners sick with black lung disease. When it comes to the administration of black lung disease benefits, it is not clear whether there are other coal mining workers are also submitting false coal mine dust to regulators but have not been detected. When it comes to the administration of black lung disease benefits, one might believe that coal mine operators might have the desire to not report accurate coal mine dust readings despite MSHA allowing coal mines to report average coal mine dust readings instead of holding coal mines accountable for every coal mine dust reading.

It is rationale to believe that the MSHA must come with an effective method to ensure that all coal mines report accurate coal mine dust readings especially silica dust reading since coal workers are now deal more with silica than actual coal dust. Even coal miners’ unions are concerned about silica. In fact, United Mine Workers of America and the United Steelworkers International Union “ called for a new standard to protect miners

from silica dust”(United Mine Workers of America,2019). It was mentioned that Silica was believed to be responsible for the rise of black lung disease cases among coal miners in central Appalachia” (United Mine Workers of America,2019).

The believe that coal mine dust was mainly responsible for black lung disease might no longer hold true since coal miners are coming more in contact with silica than coal dust (United Mine Workers of America,2019). However, silica has been known to be deadly and have been inhaled by coal miners since the Clinton Administration (PBS News Hour, 2019). When it comes to the administration of black lung disease benefits, one can believe that black lung disease cases might have been lower today if coal miners through their unions would had push for a straighter regulation of both coal dust and silica about twenty-eight years ago. When it comes to the administration of black lung disease benefits, one can believe that twenty-eight years ago, coal miners were more concerned with making money (achieving American dream) than focusing on the health risks they might face later in the future due to coal dust and silica exposure. There is nothing wrong with achieving the American dream. But one must accept the negative consequences that results from achieving the American dream. Therefore, when it comes to the administration of justice, coal mine operators/owners cannot be fully blame for black lung disease cases caused by silica and coal dust since coal miners should be also held accountable for their own actions of focusing mainly on making money than their own health risks associated from working in the coal mines.

R&D Coal Company (civil and criminal)

The first mine explosion from 2004 seriously injured two miners while the 2006 explosion caused the death of miner Dale Reightler (Staff Reports, 2008). David Zimmerman (mine owner and operator) and Steven Zimmerman (mine foreman) were charged with “involuntary manslaughter, causing or risking a catastrophe, recklessly endangering another person, obstruction of justice and criminal conspiracy, and violation of the Anthracite Coal Mine Act”(Staff Reports, 2008). David Zimmerman was also charged “with tampering with evidence” (Staff Reports, 2008). Additionally, Jeffrey Klinger, the miner responsible for the blast that killed a miner, was charged with “involuntary manslaughter, causing or risking a catastrophe, recklessly endangering another person, and violations of the Anthracite Coal Mine Act”(ibid.). All three suspects were released on a \$50,000 unsecured bail (ibid.).

When it comes to the administration of justice, all three suspects being charged for their actions regardless of their position (employer or employee) shows that they were probably charged for their own actions that each suspect did on their free will. However, when for the administration of justice, all three suspects getting the same bail is unequal. It can be interpreted as the bail is designed to favor the powerful (owner and operator). It is reasonable for someone to expect the owner, operator, and foreman to get a higher bail amount than Jeffrey Klinger since they had three and two more additional charges than him, respectively. Additional charges such as tampering with evidence, obstruction of justice, and criminal conspiracy are serious and a reasonable individual can believe that such charges can be grounds for a higher bail amount.

For example, tampering with evidence can be a serious charge since it can carry “a prison sentence of no more than 20 years, a fine, or both if convicted (18 U.S.C. § 1519)” (England, 2019). Criminal conspiracy under federal statutes “can be punishable up to five years in prisons plus fined if convicted” (FindLaw, 2019). However, criminal conspiracy can be downgraded to a misdemeanor (ibid.). All three defendants being charged for violating laws and regulations is crucial for deterring others from committing the same crime in the future, thereby reducing the number of black lung disease cases in the future. If deterrence can be used to prevent future crime, it could also be applied to those who violated federal safety and health coal mining regulations, thereby encouraging them to respect such regulations in the future.

Mr. Killinger pleaded guilty to “blasting without a mining certification and storing detonators in direct line of blasting and was sentenced to probation” (Associated Press, 2008). When it comes to the administration of justice, suspects accept responsibility for their actions by pleading guilty of the charge(s). However, only Mr. Killinger getting probation implies, to a reasonable individual, that he got a slap on the wrist. The sentence might seem socially unjust because it might be considered unfit for the crimes he committed which caused the death of a coal miner.

The owner and foreman of the coal mine “pleaded no contest to involuntary manslaughter and guilty to recklessly endangering another person and three violations of the Anthracite Coal Mining Act” (Bortner, 2009). Even though pleading no contest does not totally clear him/her of wrong doing, yet, “a no contest plea cannot be used as evidence against a defendant in a civil lawsuit for the same act” (Chow, 2012). The powerful (owner and foreman) being allowed to plead no contest in the court shows that

the court system has been designed to protect them. It would prevent injured coal miners and family of the death miner to use their plea in civil court to prove their case and win monetary damages for their injuries and loss.

When it comes to the administration of black lung disease, allowing a no contest pleas for owners and operators of the coal mining industry is a form of social injustice since it takes one defensive tactic that they can use to prove the responsibility of the coal mining owner/operator in court to get monetary damages for their black lung disease. David Zimmerman, owner and operator was sentenced to “ six months on house arrest and 17 months on probation and Steven Zimmerman was sentenced to 23 months in prison, with eligibility for work release and continuation of drug treatment”(Bortner, 2009). Both men were “ordered to pay costs, a \$1,000 fine and \$50 to the Criminal Justice Enhancement Account and perform 20 hours of community service” (ibid.).

The father (owner) and son (foreman) getting two different type of sentences for the same crime is proof of the continued inequality in sentencing while administering justice. The powerful (mine owner) serving jail time in his house rather than a prison is socially unjust to their victims including the family of the dead miner. This is because his actions caused the death of one of their loved ones. House arrest is a form of social injustice because a convicted criminal gets to spend time at home with access to all the comforts such as a large bedroom, good food, and access to technology, while most criminals in prison do not have such comforts.

Convicted criminals are sent to prison to deter them from repeating their actions and for them to face the negative consequences of committing a crime such as losing their work and wages. How does a house arrest deter the powerful (coal mine owner)

from committing future crimes and make them face the consequences of committing a crime? In the administration of black lung disease benefits, a rationale individual can rationalize that prevalence of black lung disease is not going to decrease significantly in the near future since the powerful coal owner) are continuing to get light sentences if any for violating safety and health coal mining regulations. Therefore, the powerful will probably continue committing violations since the consequences from committing violations are not severe and/or significant enough.

David Himmelberger, the president and owner of the R&D Coal Mine, committed suicide (Parker, 2007). The owner lawyer mentioned that Mr. Himmelberger was distressed “by the prolonged case and potential fines that would have sent him into bankruptcy” (ibid.). Additionally, it was mentioned that MSHA fined the mine company \$874,500 “for flagrant safety violations” (ibid.). R&D Coal Mine was the first mine to be “cited for flagrant violations under new federal rules forged in 2006” (ibid.). The mine got a break from the MSHA since “under the new rules, the mine could had been fined about \$1.33 million” (ibid.).

When it comes to the administration justice, it is not clear why the MSHA did not fine the mine with the maximum penalty allowed under the new rules. However, the MSHA issuing a fine that was 34.24 percent less than the maximum penalty allowed to the mine shows its unwillingness to fully enforce the laws designed to deter coal companies from violating federal coal mine health and safety regulations. When it comes to the administration of black lung disease benefits, the MSHA not fully enforcing laws and regulations does not help control or reduce the black lung disease epidemic among coal miners.

Mr. Himmelberger's wife mentioned that "they are pushing these miners to the brink" (Parker, 2007). Even though it is unfortunate that her husband took his life, in the administration of justice, all owners, regardless of the type and size of business, are required to follow laws and regulations. When it comes to the administration of black lung disease, businesses are entitled to make a profit, just as they are required to follow federal coal mining health and safety regulations. The mine did not follow safety regulations. It was mentioned that the "Federal Mine Safety and Health Review Commission order the mine to pay \$905,825 in penalties for violations related to the fatal 2006 explosive detonation" (Walter, 2011). In return, the mine agreed to "withdraw its contests for the violations and the full penalty judgment" (ibid.).

The administrative judge ordering the mine to pay a fine that is 3.58% higher than the original fine issued by MSHA (\$874,500) shows the judge's commitment in possibly issuing a fine fitting the seriousness of the violations. The seriousness of an offense is one of the factors considered in the administration of justice for determining a sentence for convicted suspects. When it comes to the administration of black lung disease benefits, the judge ordering the mine to pay despite the "mine operator ceasing operations following the incident" (Walter, 2011) shows that no one is above the law and that any mine breaking the regulations will be held accountable for its violations. The MSHA pointed out that "they were extremely pleased for the outcome of the case and that mine operators must be held accountable for their failure to keep miners safe" (ibid.).

The only way to reduce the prevalence of black lung disease among coal miners is to hold coal mine operators and owners accountable for violating federal coal mining health regulations. State and federal legislatures and the executive branches should be

neutral and not create laws or orders that give an upper hand to the coal mining owners and operators. This will be discussed in the analysis of research findings and recommendations. It was reported that in early 2007, “Pennsylvania coal industry regulators revoked the operating permit of the coal mine in early 2007” (Rubinkam, 2007).

It was also mentioned that, in 2004, “four workers in the mine were injured by what company officials had claimed was flying debris and coal from an explosion caused by a pipe with a faulty gauge” (Rubinkam, 2007). A month later after the incident, “the mine was allowed to reopen after installing safety equipment” (ibid.). However, when it comes to the administration of black lung disease benefits, a rational individual would expect the state and federal regulations must require a mine company with an incident to provide a safety plan with the steps that they would take to prevent future safety violations. State and federal regulations should have been regularly inspecting the mine to ensure that they were following their safety plan. Companies are not perfect. Therefore, when they violate rules, it is crucial for the federal and state governments to implement oversight measures to ensure that they follow regulations to prevent fatal incidents or black lung disease cases.

The 2006 explosion, that caused the death of miner, forced the Department of Environmental Protection (DEP) to reconsider the 2004 incident. They concluded that the 2004 accident “ was caused by a methane explosion, not by debris from a ruptured pipe, and that R&D Coal mine officials had lied to state regulators “ (Rubinkam, 2007). It was also mentioned that the “department now believes that in December 2004, R&D officials took it upon themselves to fabricate an accident scene, intentionally provide false details

and information to investigators, and failed to preserve the accident scene” (ibid.).

Apparently, the DEP took the word of the coal mine officials (powerful) instead of doing the due diligence of conducting an exhaustive investigation immediately after the 2004 mine incident.

When it comes to the administration of justice, regular people must, in most cases, submit unique evidence-based support to defeat an allegation against themselves. These have to go beyond their word that they did not commit the alleged crime. It is difficult for regular people to prove an allegation against themselves made by the powerful. This is because of the stereotypes about criminals that exist in the administration to justice. For example, Black people are stereotyped as criminals. “Criminal predator is used as a euphemism for young black male” (Welch, 2007). Common stereotypes have led “to the subtle rationale for the unofficial policy and practice of racial profiling by criminal justice practitioners” (ibid.). Some stereotypes about Latino men include, “all Latino men that have tattoos are in gangs or have been in prison, seen as drunks, beat women to death, and seen to have machismo, hood-rat life, and lack intelligence” (Singh, 2015).

While, the coal mining industry (powerful) gets away with white collar crimes because “it is so difficult to establish that a crime has taken place, or even to distinguish between criminals and victims” (Barber, 2010). It was also mentioned that powerful people have opportunities to create barriers that “prevent others from foreseeing and becoming aware of what goes on” (Oskar, 2009). When it comes to the administration of black lung disease benefits, the state and federal regulators failure to detect when a mine company submits false information, constructs a fake accident scene, and does not preserve an accident scene could possibly explain the rise in prevalence of black lung

disease cases among coal miners. When it comes to the administration of black lung disease benefits, the DEP waiting almost two years for another accident to occur in the mine which caused the death of miner before adequately investigating the mine in a long time, could be death warrants for coal miners once they fall ill due to black lung disease. The disease can take time to fully develop among coal miners, individually.

The MSHA concluded that one root cause of the methane explosion in the R&D Coal Mine was that “the miners in charge of blasting activities that lead to the fatal accident , lack qualifications to handle, load, or fire explosives” (Garcia, Sargent, Boylan, Mehalchick, & Lobb, 2006). When it comes to the administration of justice, an individual can be criminally charged if they are caught doing a job that requires a license or certification. License and certification are required for certain jobs to prevent social injustices such as harming or killing the public. For example, an individual would be charged with a misdemeanor for practicing medicine without a license. They can face up to a year of prison. An individual convicted of felony for the same offense can face eight years or more in prison (Theoharis, 2019).

When it comes to the administration justice, coal mining companies cannot just handle and fire explosives without following established regulations. In fact, the Safety Explosive Act, passed in 2002, authorizes the Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF) to require a permit or license for all explosive users (Office of Surface Mining Reclamation and Enforcement, 2019). The ATF does background checks on all listed responsible persons and authorized employees who possess explosives seeking a permit or license (ibid.) The ATF denies explosive permits or licenses to convicted felons and individuals with mental defects (ibid.)

The Office of Surface Mining Reclamation and Enforcement requirements for a blaster certification are as follow: job training, a training course, and evidence showing satisfactory classroom training completion (Office of Surface Mining Reclamation and Enforcement, 2019). Some of the job training activities for a blaster certification are safety procedures, regulations, handle misfires, blast design, and blast site management (ibid.). Coal companies, such as R&D Coal mine, not committing themselves to ensuring that their coal miners have the certification/license and training to perform their jobs shows a possible lack of commitment to follow coal mining health regulations which can explain the rise in black lung disease cases among coal miners. The MSHA concluded that the fatal accident in the coal mine was due to the mine's failure to conduct a proper pre-shift mine examination which is necessary to "identify any potential hazards to the miners"(Garcia et al., 2006).

When it comes to the administration of justice, a policy is successful when those on top of the ladder follow it. This sets an example for the people below them to also follow the policy. However, the MSHA, which is in top of the ladder, has not really set an example for coal mines to follow rules during the last 40 years. For example, in 1981, The US General Accounting Office investigated the MSHA after receiving a letter in 1981 from US Representative Rahall II expressing concern that the MSHA was understaffed and was not performing all required the coal mine inspections (Ahart, 1982). The US General Accounting Office MSHA investigation revealed that all the required coal mine inspections were not being performed by the MSHA and that it the MSHA had been experiencing a decline in coal mine inspectors' since "the hiring freezes and restrictions began in 1978" (ibid.).

Interviews with former coal mine inspectors revealed that they were not intimidated into resigning but they left their jobs due to poor salaries and medical benefits, and job dissatisfaction caused by factors such as “harassment from miners and operators, lack of support from MSHA management, frequency changes in enforcement policy, inappropriate use of performance standards, and conflict of interest regulations” (ibid.). Although lack of funding clearly handicapped the MSHA’s ability to oversee the coal mines, it should not have prevented the management from learning about the needs of their inspectors and coming up with ways to address inspectors’ job dissatisfaction to prevent a further shortage in the number of available coal mine inspectors.

When it comes to the administration of black lung disease benefits, a shortage of employees can occur at any federal agency, irrespective of them being over- or under-funded. However, those federal agencies are socially obligated to perform their duties. For instance, cops must keep the society safe from crime. When federal agencies fail to meet their social obligations, people’s lives can be jeopardized. MSHA must learn how to effectively use their available resources, such as coal mine inspectors, to effectively meet their social obligation of overseeing the coal mines through inspections which can help reduce the number of black lung disease cases.

However, 20 five years after the 1981 US General Accounting Office investigation on MSHA’s inability to conduct all the mandatory inspections in the coal mines, it seems that perhaps the MSHA is doing a better job of ensuring that coal mines are being inspected. This is apparent from Kentucky coal mine companies complaining of “too many mine safety inspectors” (Coats, 2016). Kentucky Governor, Matt Bevin also felt “there were too many mine safety inspectors and felt the coal mining industry needed

to be help by reducing costs and through restrictive oversight” (ibid.). When it comes to the administration of justice, it seems coal mine companies might see too many inspectors to target or profile them. Nonetheless, the MSHA is just doing their job by inspecting the coal mines. The mines that have been constantly inspected probably have serious safety and/or health violations that need attention from the MSHA.

When it comes to the administration of black lung disease benefits, the state of Kentucky passing legislature that allows “state officials to replace half of the six required inspections with analyst visits that focus mainly on coaching” (Lovan, 2017), possibly reduces coal companies’ sense of responsibility for ensuring that they comply with federal coal mining safety and health regulations. This is because it decreases inspections which decreases oversight. Even though state officials “can increase the number of inspections a mine received if they found a problem” (ibid.), there is no guarantee that the use of an analyst visiting instead of inspections will reduce the prevalence of black lung disease among coal miners.

When it comes to the administration of justice, unanimous complaints from miners can help MSHA become aware of any safety and health violations in the coal mines that coal mining inspectors have failed to identify. In *Marshall County Coal Company et al., V. Federal Mine Safety and Health Review Commission and Secretary of Labor, Mine Safety and Health Administration* (2019), argued in front of the US Court of Appeals For the District of Columbia Circuit, it was learned that during “a series of mandatory awareness meeting in each of the five underground coal mines in West Virginia owned by Murray Energy Corporation, Robert Murray (President and CEO of Murray Energy Corporation) criticized miners for filing unanimous complains with the

MSHA as allowed by Section 103(g) and instructed miners that if they filed such complains, they must make the same reports to mine management” (US Court of Appeals For the District of Columbia Circuit, 2019).

Sometime after the meetings, “several miners and union representative filed complaints with the Secretary of Labor alleging that the petitioners (Marshall County Coal Company, ET) had interfere with their rights to file anonymous complaints pursuant to Section 103(g)” (ibid.). When it comes to the administration of justice, it seems Robert Murray attempted to intimidate coal miners by continuing to make unanimous complains to prevent the federal government (MSHA) from becoming aware of the safety and/or health violations in his coal mines.

Research indicates that “victims and witnesses who live in geographic proximity to offenders are at a greater risk of intimidation than those who live in different neighborhoods or communities”(Dedel, 2006, cited Finn and Healey, 1996; Elliot, 1998). Since Robert Murray is the CEO and owner of the fives mines in Kentucky, he can walk in and out of the mines whenever he wants, allowing him to come in contact with the coal miners. This would give him the opportunity to intimidate them, if he decides to do so. If it was possible for coal mine owners and operators to intimidate their workers, we would probably never have learned the truth about the extent of the black lung disease epidemic since coal mine owners, operators, and coal miners are the only ones who know whether coal mines are respecting federal coal mining safety dust-levels. MSHA coal mines inspectors do not inspect the mines 24*7 since they lack the manpower and budget to do so.

The MSHA also concluded that the R&D coal mining incident was caused by the operator failing to “follow the provisions of the ventilation plan and roof control plan approved for the mine” (Garcia et al., 2006). When it comes to the administration of justice, just because a federal regulation agency such as MSHA approves ventilation and roof control plans for mines, it does not mean they will follow such plans similar to federal agencies defying courts railings that protect the environment as discussed in a previous case. When it comes to the administration of black lung disease benefits, one can rationally believe that in order for black lung disease cases to decrease, the MSHA as an enforcer must be able to ensure coal mines followed federal coal mining health and safety policies such as ventilation and roof control plans. If coal mines do not follow approved ventilation and roof control plans, then the MSHA is wasting time, resources, and manpower in making sure such plans are safe for the coal miners. Therefore, when it comes to the administration of justice, it seems coal mines are writing and following their own rules or policies.

In addition, MSHA also concluded that the R&D coal mining incident was due to the mine failure to include provisions in their ventilation plan “that guarantee air quantities that will dilute, render harmless and carry away flammable, explosive, noxious and harmful gases” (Garcia et al., 2006). When it comes to the administration of justice, it is not unreasonable for coal mines to amended their ventilation in order to include necessary safety provisions that coal mine owners/operators are refusing to do as seen in this case similar to existing laws or policies being amended by state and federal legislators. When it comes to the administration of black lung disease benefits, one can believe that just like MSHA requires coal mines to implement safety provisions in their

ventilation plan, the MSHA should also require coal mining owners/operators to amend their working conditions in their coal mines, in order to ensure coal miners are protected from coal dust and silica.

The R&D Coal Company fatal explosion led to the MSHA to issued four citations for the following violations: “30 CFR § 75.1325(c) (1); 30 CFR § 75.1325(c)(3); 30 CFR § 75.1318(a); and 30 CFR § 75.1322(d)” (Garcia et al., 2006). 30 CFR § 75.1325(c) (1) violation deals with ensuring that before the blasting,” that persons shall leave the blasting area and each immediately adjacent working place where a hazard would be created by the blast, to an area that is around at least one corner from the blasting area” (Cornell Law School, 2019). 30 CFR § 75.1325(c)(3) violation deals with ensuring that before the blasting, a warning is given in adequate time in order to ensure that everyone responds to the warning (Cornell Law School,2019). 30 CFR § 75.1318(a) violation deals with ensuring that explosives are upload by a qualify individual or have a qualify individual supervise the individual uploading the explosives (Cornell Law School, 2019). 30 CFR § 75.1322(d) violation deals with ensuring boreholes that are at least four feet or higher are stem by at least twenty-four inches (Cornell Law School, 2019). Citations for 30 CFR § 75.1325(c) (1); 30 CFR § 75.1325(c)(3); and 30 CFR § 75.1318(a) violations were issued on 12/1/06 for \$8,400 for each citations which became final orders on 09/01/11, and the mine did not paid the citations (US Department of Labor Mine Safety and Health Administration,2019). Citation for 30 CFR § 75.1322(d) violation was issued on 12/1/2006 for \$145,300 which became final order on 09/01/11, and the mine did not pay the citation either (US Department of Labor Mine Safety and Health Administration,2019). The mine has been abandoned/sealed since 06/19/2007 (US

Department of Labor Mine Safety and Health Administration,2019). When it comes to the administration of justice, individuals legally protected from their debts once their bankruptcy is approved; bankruptcy caused the MSHA to close all unpaid citations for the mine(US Department of Labor Mine Safety and Health Administration,2019). When it comes to the administration of black lung disease benefits, it is reasonable that coal companies that continue make serious violations that caused the deaths of coal miners should be forced to shut down in order to protect coal miners' health and safety; this fatal incident forced the mine to shut down.

CHAPTER 5

ANALYSIS OF RESEARCH FINDINGS

Discussion, major findings, limitations, and recommendations

The Federal Coal Mine Health and Safety Act of 1969 was created to help control black lung disease among coal miners. Although the Act has been created, it has not been fully implemented. In 2012, the PBS special on the deadly black lung disease rises among coal miners, mentioned that between 1995 to 2004, at least 10,000 coal miners died from black lung disease (PBS, 2012). It was also mentioned that the greatest number of cases of black lung disease among coal miners were from West Virginia, Virginia, and Kentucky (ibid.). Additionally, it was also mentioned that in West Virginia alone, over 2,000 coal miners died from black lung disease in a decade, as of 2012 (ibid.). Thus, the federal government (MSHA) is not effectively implementing the Act passed over 40 years as suggested by this information and the civil and criminal cases presented in the previous chapter.

Using the rational choice theory, over 10,000 deaths of coal miners in a nine-year period are proof of the MSHA not enforcing the Act passed almost 50 years ago. However, it is not rational to only blame the MSHA for the Act's failure. The US Congress also shares some responsibility. It is rational to expect the US Congress to have protocols in place that ensure the implementation of laws that have been passed. This was the original intention of an act being written for consideration and passage by the US

Congress. It is difficult to monitor every law/act/policy passed by the US Congress. However, policies written to protect vulnerable groups, such as coal miners through the Federal Coal Mine Health and Safety Act of 1969, should be closely monitored. This ensures that they are being fully enforced. Otherwise, who can such vulnerable groups rely on for protection?

In July 2019, 120 coal miners along with their families took a bus from Kentucky to visit the Senator Majority Leader from Kentucky, Mitch McConnell. They wanted to discuss the Black Lung Fund being insufficiently funded (Cousins, 2019). One would rationally assume that Senator McConnell, being a representative for a state with one of highest number of black lung disease cases, would at least listen to the needs and concerns of the individuals affected by black lung disease, like the coal miners from his state. Afterall, it is rational to expect legislators, such as US Senators, to use feedback from affected parties and their constituents to help develop legislation that meets the needs of the public.

On the contrary, US Senator McConnell seemed to not care for the needs of former coal miners with black lung disease from his state of Kentucky. It was reported that he only gave them two minutes of his time (Cousins, 2019). The former coal miners with black lung disease had a unique need because the funding from coal miners' Black Lung Fund had automatically gone down from a \$1.55 tax per ton of coal produce to \$0.55 tax per ton of coal produce (1970 level) paid by the coal companies because the US Congress failed to vote on the issue (thus, allowing it to expire) (Cousins, 2019). It is reasonable (based on rational choice) to blame the US Senate Majority Leader, Mitch

McConnell, since he is the one who determines which issues are to be discussed on the US Senate floor.

If US Senator McConnell was not concerned about stepping up in time to vote for the Black Lung Fund before it expired, then one can rationally wonder who can the sick coal miners rely on for assistance to address their needs, such as proper funding for the Black Lung Fund? US Senator McConnell's move only benefited the coal mine companies who saved 64.5 percent in taxes for a ton of coal produced. When the Black Lung Disability Trust Fund was first created, it had an upper hand over the coal companies. It paid benefits to sick coal miners with black lung disease in cases where "a liable coal mine operator does not pay or no responsible coal mine operator is identified" (United States Government Accountability Office, 2018). This research has found the upper hand favoring the coal miners and has been one of the contributing factors for the coal mining health and safety policies not been enforced fully and effectively by the federal government through the MSHA. "The Black Lung Disability Trust Fund was established in 1978 was created by Black Lung Benefits Revenue Act of 1977" (ibid.). In fact, since 1979, the taxpayers have had to cover the fund expenditures almost every year since expenditures have over exceed actual revenue collected from coal companies in the form of tax for every ton of coal produced (ibid.).

Coal companies were given a break due to the Energy Improvement and Extension Act of 2008. It forgave the fund's 6.5-billion-dollar debt (ibid.). A rational individual would expect any businessman or corporation to pay their own liabilities, such as the black lung disability trust fund. Therefore, as rational individuals and taxpayers, we wonder why we should cover the liabilities of the coal companies? Why does the US

Congress not go after these coal companies to collect the coal tax or increase the coal tax in a way that the collected revenue at least covers all the expenditures of the fund? The bailout from 2008 was not enough to control the debt from the liabilities caused by a rise in black lung disease cases among coal miners.

The 2008 recession and competition from other forms of renewable energy decreased the coal tax collection revenue. That is, taxpayers had to cover repayment debt expenditures from 2010 to 2017 (United States Government Accountability Office, 2018). In fact, in 2017, the trust borrowed 1.3 billion dollars from taxpayers to stay afloat (ibid.). Nonetheless, it seems reasonable to believe that the federal government continues to give the coal mining industry breaks from their liable responsibilities and continues forcing taxpayers to pay the coal mining industry's bills. This is demonstrated by their failure despite creating a fund to help coal miners with black lung disease over 40 years ago—which the coal mining operators are responsible for adequately funding—and bailing out the fund over ten years ago.

When convicted felons are sentenced, they are sentenced to deter them from committing the crime in the future. Similarly, how does the federal government expect to deter the coal mining industry from violating safety and health coal mining policies if the federal government continues to not hold them accountable for their liabilities for violating policies such as properly fund the black lung disability trust fund to cover liabilities resulting the rise in cases of black lung among coal miners? Finally, The United States Government Accountability Office predicted that a decrease in coal tax(which has already gone into effect early this year) will result in the black lung disability trust fund continuing to borrow money from tax payers from 2020 to 2050 because the revenue

collected by the fund would be insufficient to cover its expenditures (United States Government Accountability Office, 2018).

One would assume (rational choice) that a concerning forecast about the future of the fund from a respectful organization such as the United States Government Accountability Office would make the US Congress to work to pass legislation that puts the coal tax back at its original 2018 levels (“ \$1.10 tax rate per ton of underground-mined coal and \$0.55 per ton of surfaced-mine coal”). Additionally, the Congress can be expected to develop an appropriate coal tax that will help ensure that its revenue covers the expenses: break-even (United States Government Accountability Office, 2018). However, it is reasonable to expect this scenario to not occur in the near future since the US Senate Majority Leader Senator McConnell pushed for a tax cut on the coal tax to begin with (Pierce, 2019). In fact, Senator McConnell told a group of coal miners with black lung disease from his state of Kentucky who visited him in his office in Washington D.C. that “they would be taken care of but failed to provide specifics on how he was going to accomplish that” (ibid.).

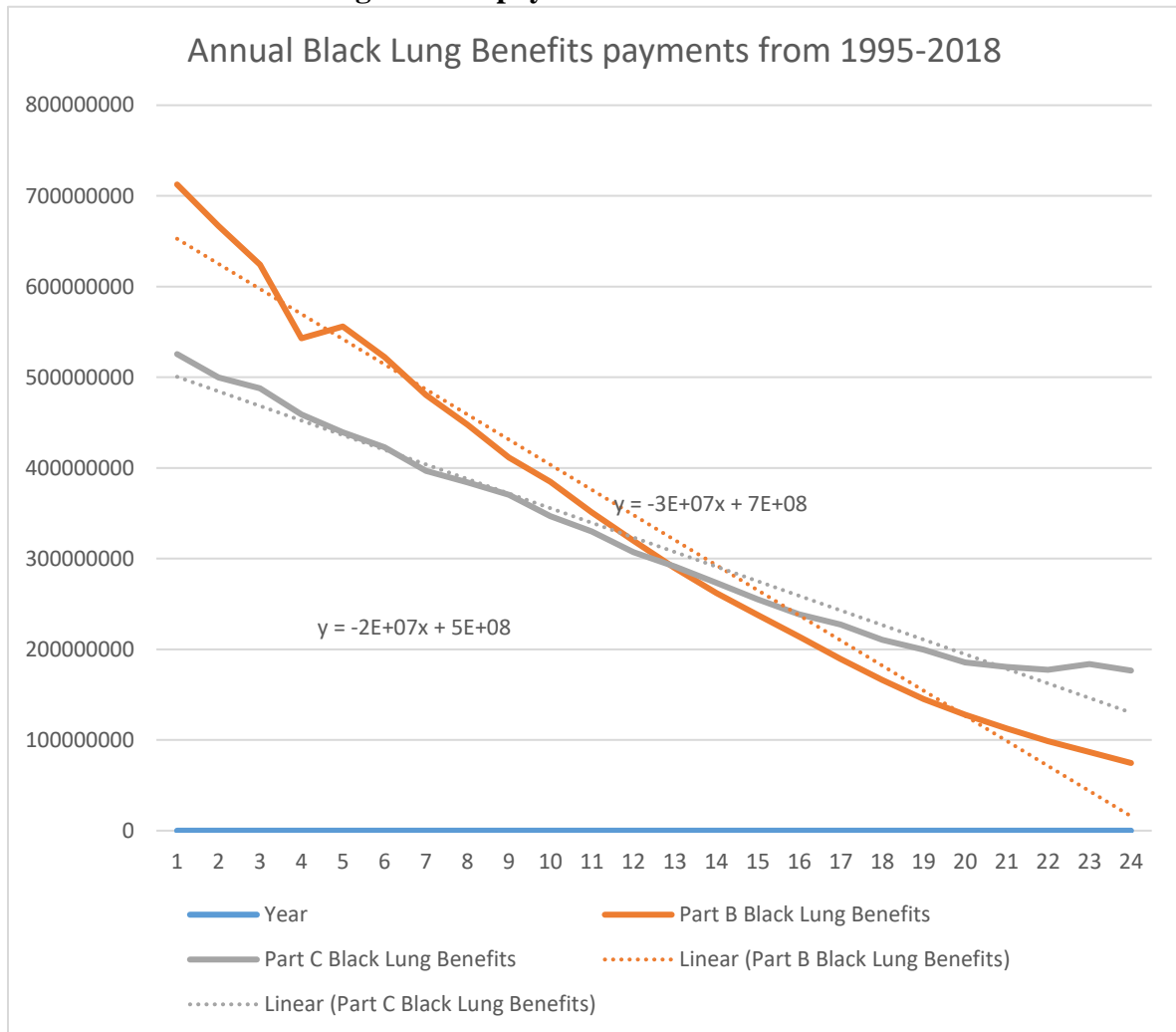
It would have been rational for Senator McConnell to create and pass legislation addressing the needs of the coal miners with black lung disease before letting the coal tax roll back to its low levels at the beginning of the year. It is rationale to wonder whether the US Senate Majority Leader Senator McConnell is interested in looking out for the interests of the coal mining industry instead of the coal miners (working class), especially those coal miners who belong to his state. When the coal mining industry’s political contributions for the 2002-2020 (still in process) election cycles are analyzed, US Senator McConnell is at the top of the list for top 20 recipients on four occasions

(opensecrets.org, 2019). On three of those occasions, Senator McConnell ranked 1st or 2nd in the list for years when he was up for reelection : 2002 (“ranked 1st, \$105,900”), 2008 (“ranked 1st, \$166,300”), and 2014 (“ranked 2nd, \$287,500”) (ibid.). The political contributions were made by individuals, PACs, and soft money/outside money (ibid.).

Thus, it can be rationally concluded that the coal mining industry had Senator McConnell’s back in his time of need—his reelection years. It is also rational to believe that one cannot conclude that the political contributions he received from the coal mining industry fully explain the Senator looking out for the interests of the coal mining industry. In fact, an investigation from PBS along with National Public Radio mentioned that since the policy was created to protect coal miners from coal mine dust, the loopholes in the law have allowed the coal mining industry to gain from the system (PBS NewsHour, 2012). One can rationally assume that perhaps the Federal Coal Mine Health and Safety Act of 1969 was created to ease the coal miners’ nationwide strikes which were costing coal mines money. The mining companies, in turn, may have pressured legislators to pass such legislation instead of addressing black lung disease (Derickson, 1998). Even though black lung disease decreased after passing this Act, it resurged in the mid-1990s. More cases of black lung disease among coal miners were registered than ever before.

However, one major finding of this research is that we probably do not know the true extent of black lung disease among coal miners because not all coal miners applying for black lung disease benefits get their claim approved due to legal challenges. The coal mining industry brings such challenges, including appealing claims originally approved by the US Department of Labor Office of Workers’ Compensation Programs. As

mentioned earlier, legal challenges that can last for years mean that a majority of the sick coal miners die before receiving black lung disease benefits. Unfortunately, once black lung disease is contracted, it ultimately leads to death. This finding can be tested by analyzing the annual number of black lung disease benefit payments from 1995 to 2018(the first indication of a possible rise in black lung disease).

Graph #3**Annual Black Lung Benefits payments from 1995 to 2018**

Source: US Department of Labor Office of Workers' Compensation Programs (2019)

Table A indicates that Part B, i.e., the total annual black lung benefits payments have decreased almost every year since 1995. This excludes 1998 to 1999, which saw a small increase in total annual black lung benefits payments. Part C, i.e., total annual black lung benefits payments decreased every year since 1995. An equation of the line revealed that for every one-year increase in time, total Part B annual black lung benefits payments decreased by \$30 million dollars while for every one-year increase in time, total Part C

annual black lung benefits payments decreased by \$20 million dollars. Additionally, Table A, one can wrongly, rationally assume that the number coal miners contracting black lung disease have been decreasing in the last 24 years. This may not be the case because, as mentioned earlier, more cases of black lung disease have been detected and reported, especially among young coal mine workers.

Perhaps, a rational reason for a decrease in total annual black lung benefits payments is a decrease in the revenue collected for tax per ton of coal produced. However, the shortage has been covered by taxpayers for years, as mentioned earlier. In fact, Part B and Part C of black lung benefits rates have increased almost every year since 1969 and 1973, respectively (US Department of Labor Office of Workers' Compensation Programs, 2019). A rational question that one can ask is why is the data on the total, annual black lung benefits payments not reflecting the scenario of a rise in black lung disease among coal miners? In criminal justice, a true reflection of crime is not possible because not all crimes are reported to the police. In this case, could it be possible that not all black lung disease cases are being reported or that not all of them are being considered as actual black lung disease cases by the federal government which is responsible for enforcing coal mining safety and health policies?

We know that black lung disease an actual epidemic among coal miners because sick coal miners are force to decide whether to eat or breath the disease progresses. It comes to a point where they are not able to do both simultaneously (PBS NewsHour, 2012). A possible reason for the rise of black lung disease among coal miners could be that coal miners work 600 more hours annually than coal miners did 30 years ago (ibid.). Thus, it is rational to expect coal miners to not be completely protected from black lung

disease irrespective of coal mine companies following coal mining safety and health policies since one can expect that the more hours a coal miner works, the higher their risk of contracting the black lung disease.

Another possible reason for the increase in black lung disease is that the coal being extracted is becoming thinner. Additionally, it is made up of a volatile combination of coal dust and silica (PBS NewsHour, 2012). In fact, coal miners have inhaled silica for decades and silica has caused black lung disease among coal miners. However, existing laws, since the 1970s, do not address or regulate the effects of silica on coal miners (PBS NewsHour, 2019). For years, the federal government was aware of the dangers of silica, going back to the Clinton Administration, who warned the coal mining industry about silica causing advanced cases of black lung disease and the need for the industry to address the issue of silica (*ibid.*).

It is rational to expect the federal government to be an arbitrator for both coal mining industry and the coal miners and to expect that they would do something to address silica by promoting and ensuring the passage of a policy addressing silica instead. However, it allowed the coal industry to address the silica problem which only left the industry with two options: address the problem which could require a monetary investment or do nothing and continue with normal production operations. It is rational to believe that the mining industry opted to do nothing because, just like any regular business, generating profits is more valuable to continue being in business.

It is rational to expect policies to be amended to address the factors contributing to a problem because they occasionally change which should have been done when it was not known that the primary contributing factor to black lung disease changes

from just coal mine dust to silica mixed with coal mine dust. It was mentioned that the federal government did not pay attention to their own data for years (PBS NewsHour, 2019). The federal government has only counted 115 cases of advanced black lung disease since 2010 while a co-investigation between National Public Radio and Frontline identified over 2300 cases in five Appalachian states alone (ibid.).

The federal government only identifying five percent of the total number of black lung disease cases identified by the National Public Radio and Frontline clearly demonstrates that the federal government is not properly administrating black lung disease policies the US Congress trusted it with. The 115 cases of black lung disease reported by the federal government can be challenged as not illustrating the true extent of black lung disease using a single clinic in Southwestern Virginia which easily identified 416 cases of black lung disease by examining three years of x-rays from 2014 to 2017. The number of identified black lung disease cases for such a clinic can easily double if they analyze x-rays going back to 2010 (PBS NewsHour, 2019).

The main reason for the federal government not being able to properly count the number black lung disease cases is that they only focus on testing currently active coal miners through free voluntary x-rays. This has a low nationwide participation rate of 35 percent while the areas most affected by black lung disease, such as Eastern Kentucky, have a participation rate of 17 percent (PBS NewsHour, 2019). Most of the new black lung disease cases have been detected among coal miners who are either retired or laid off (ibid.).

In fact, retired and laid off coal miners seems to prefer going to clinics for black lung disease over using the free x-rays program offered by the federal government

(PBS NewsHour, 2019). It is rational to believe that the federal government should implement procedures to better interact with retired and laid off coal miners. This will help them learn ways in which the federal government can make the free x-ray testing program accessible to retired and laid off miners. Reaching out to retired and laid off coal miners is probably rational because diagnosing simple black lung disease has doubled in the last decade and the advanced form of black lung disease has quadrupled since 1980s in areas such as Virginia, West Virginia, and Kentucky (Frontline, 2019).

The National Institute for Occupational Safety and Health (NIOSH) did not originally believe Dr. Crum when he reported cases of the advanced form of black lung disease from coal miners in their 30s and 40s (Frontline, 2019). It was only when NIOSH researchers went to the clinic in which Dr. Crum works to examine his x-rays findings that they realized that his originally claim of cases of the severe form of black lung disease to the agency was legitimate. They realized that black lung disease among coal miners was more severe than they had originally thought (ibid.). The finding rationally indicates that federal agencies, such as the NIOSH and MSHA, need to work with other agencies, such as local black lung disease clinics, to better combat and understand the true extent of black lung disease.

The NIOSH and MSHA's potential working partnerships with local black lung clinics can be similar to the partnerships of police agencies with the general public where the general public provides an extra set of eyes to the police to combat crime. Even though silica is known to be 20 times more toxic than coal dust, in the mid-1990s NIOSH proposed seeking new silica regulations that were twice as tighter than coal dust regulations but they did not get the required support for the proposal to become law

(Frontline, 2019). Nothing was done to regulate silica in the mid 1990s mainly because the coal mining industry and the mine workers union were reluctant to have coal mining dust standard and silica dust standard (ibid.).

Coal miners working in the mid-1990s, are the ones paying the ultimate price (death from black lung disease) for not doing anything about silica (ibid.). It is rationale to believe that MSHA would need to regulate silica after the thousands coal miners' deaths caused by exposure to silica. However, that is not the case because, in 2014, when MSHA established new coal mining dust rules, silica dust levels rules were not put into place or even considered by the agency (Frontline, 2019). However, it is rational to believe that regardless of silica dust level limits being in place, the coal mining industry could easily implement procedures to reduce exposure to silica by cutting the number of coal production hours. This could be achieved using machinery (ibid.).

However, such procedures were never implemented because, as a mine workers union representative mentioned, the MSHA failed to regulate contact with silica (Frontline, 2019). A rational thought that arises is why should the coal mining industry and mine workers union wait for MSHA to come up with the required regulation to control exposure to silica when they could develop ways to reduce coal miners' contact with silica themselves? Particularly since it is a matter of life or death for the coal miners who are exposed to silica.

For example, police cannot be present in our streets 24*7. Therefore, as citizens, we have to develop ways to reduce our contact with crimes to preserve our lives by travelling in groups instead of alone at night. An unknown rationale is that in the next decade or so, when we have learned whether the new coal dust rules established by the

MSHA in 2014 effectively controlled black lung disease, would the MSHA continue its lax policy or find an urgent way to control silica in the coal mining industry? The Occupational Safety and Health Administration (OSHA) led the movement to minimize the dangers of silica for workers by recommending a reduction to “exposure limits of silica to a 50 ug/m³ averaged over an eight-hour shift” in 2016 (Aggregate Research, 2016). There was a rational expectation for the MSHA to follow OSHA’s lead in silica control but that did not happen. Limiting silica was part of MSHA’s agenda towards the end of the Obama administration but once the new regulatory agenda came about under the Trump administration, silica no longer remained a priority for MSHA. The limits on silica dust were moved to the long-term actions for MSHA (Scala, 2017). Therefore, reviving the limits on silica will require action from the White House which is unlikely to happen any time soon (ibid.).

MSHA’s explanation for no longer considering limiting silica in the short term was “science and economic impact, and industry strong opposition to OSHA’s tighter regulations on silica” (ibid.). Despite the ultimate price (death) that coal miners have paid after contracting black lung disease, it seems rational to believe that the MSHA comes up with an excuse for not addressing the issue with silica. This perhaps protected the interests of coal mining companies. As mentioned earlier, the MSHA has remained silent (doing nothing) about restricting silica exposure since the mid-1990s, when the federal government became aware that silica caused black lung disease.

It is rationale to expect the MSHA to stop looking out for the interests of the coal mining companies and start looking out for the well-being of coal miners since research has indicated that the US Department of Labor has identified 4679 cases of progressive

massive fibrosis (PMF) from 1970 to 2016 (Almberg et al., 2018). The most interesting part of the research was that close to 50 percent (2318 cases) of PMIF cases have been identified since 2000 (ibid.). One of the main techniques the MSHA uses to attract the attention of coal mine companies violating the health and safety coal mining policies identified during coal mining inspections is by issuing fines. However, the MSHA has failed to properly assess and collect fines in some cases. This is a weakness that the research found during the research phase of this study. An audit conducted by the Inspector General from the US Department of Labor concluded that the MSHA was not managing their fee collection system properly. The MSHA was not aware of the age and the amount of their uncollected civil penalties (Industrial Safety and Hygiene News, 2011, as cited in US Department of Labor Office of Inspector General Office of Audit, 2011). It was pointed that in early 2008, the MSHA admittedly failed to assess a fine by an error of over 5000 citations that they had issued between January 1995 and July 2006 (ibid.). It was reported that 97 percent of those citations did not get a civil penalty assessment because the five-year statute of limitation for those citations had lapsed (US Department of Labor Office of Inspector General Office of Audit, 2011).

The blame for not assessing a civil penalty for citations issued in a timely manner must be placed on the coal mine inspectors and MSHA management. Therefore, it is reasonable (rational choice) to expect coal mine inspectors to assess a fine for any citations that they issued during the coal mine inspections because it is reasonable to believe that such a task is or/and should be one of their job duties. It is reasonable to expect (rational choice) the management to ensure that the coal mine inspectors under their supervision are performing their job duties by auditing the citations issued by their

coal mine inspectors. This ensures that they assess the fine for an issued citation in a timely manner and that the citations are correctly issued for violations to safety and health policies created by US Congress in The Federal Mine Safety and Health Act of 1977 and the later amendments (U.S. Department of Labor Office of Inspector General Office of Audit, 2011).

It is also reasonable (rational choice) to believe that the US Congress can only go as far as creating policies to allow the MSHA to do their jobs, and it is the MSHA's responsibility to enforce the policies created by the US Congress. If MSHA inspectors and management failed to do their jobs (enforcement) then the policies written by the US Congress will be ineffective and useless. Therefore, policies are just words and actions (enforcement) are more powerful than words. Perhaps the most concerning findings reported by the Office of the Inspector General were that "the MSHA did not always timely apply payments against outstanding debt of violators, failed to refer delinquent debt to the Treasury in a consistent and timely manner, and fail to ensure penalties were actually uncollectable before writing them off" (U.S. Department of Labor Office of Inspector General Office of Audit, 2011).

One of the main findings of this research is that coal mining company owners have the upper hand since they have the resources to hire lawyers who can appeal approved black lung disease benefits cases for a decade in some cases and can successfully appeal MSHA inspection violations fines that could reduce monetary fines. This research also illustrated that there are some coal companies that let their MSHA inspections violations fines become delinquent and, in some cases, the MSHA is not able to keep track of such delinquent violations fines.

As of 2019, mining companies clearly wish (rational choice) to appeal their MSHA inspections violations fines, all the way to the Federal Mine Safety and Health Review Commission, in some cases. In *Secretary of Labor of MSHA v. Stone Zone* (2018), decided on June 19, 2019, Stone Zone was seeking to reopen 12 penalty orders that had become final orders between October 2014 and July 2017 under section 105(a) of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. and 815(a) (Federal Mine Safety and Health Review Commission, 2019). Under Section 105 (a), mining companies are given 30 days to contest a proposed penalty assessment after receiving it (ibid.). The proposed penalty assessments that are not contested at the Secretary of Labor's office within 30 days become final orders to the Federal Mine Safety and Health Review Commission: 30 U.S.C. and 815(a) (ibid.).

It was mentioned that "Rule 60(c) of the Federal Rules of Civil Procedure allows coal companies to file a Rule 60(b) motion" within a year of receiving an order, judgment, or procedure to reopen it for "reasons of mistake, inadvertence, or excusable neglect" (Federal Mine Safety and Health Review Commission, 2019). The coal company initiated this motion one month after entering a payment plan with the MSHA for their 12 penalty order delinquent fines (ibid.). The Federal Mine Safety and Health Review Commission (2019) concluded that the coal company filed a Rule 60(b) for ten out of their 12 penalty orders that had already surpassed the one year of limitation after becoming final orders, as legally allowed.

The Federal Mine Safety and Health Review Commission (2019) felt Stone Zone had not been acting in good faith when they filed their motion to the commission since the company has a record of "disregarding final payments assessments

for years.” The commission felt that it was the operator’s duty to pay attention to MSHA penalties assessments "especially for serious violations and high penalties” (ibid.). The commission mentioned that they had only opened final orders when operators had shown that they were “not familiar with procedures and shown a unique interest in understand their obligations and penalties” (ibid.).

The commission denied Stone Zone’s motion on the ground that the mining company had failed to show that “they follow up with the MSHA or US Department of Treasury in order to get a clarification on the deadline to contest penalties and the commission felt the coal company was running on the wrong belief (rational choice) that they can contest penalties years after they had been proposed” (Federal Mine Safety and Health Review Commission, 2019). The only way the MSHA can deter coal companies from violating coal mining safety and health codes is through MSHA inspections violations’ fines. However, it seems the MSHA is not effectively enforcing the fines for their violations. This is because the coal companies seem to want (rational choice) to challenge MSHA’s authority by appealing the inspections fines’ violations. However, as mentioned earlier, in the administration of justice, everyone has the right to appeal. Additionally, it seems that the coal companies believe (rationale choice) that they either should not have to pay any fines or should pay lower fines for their MSHA inspections violations’ fines. An examination of coal mine records revealed that, indeed, coal mine companies tend to fight MSHA inspections violations’ fines to the point that they successfully get fines reduced. In some instances, such fines are even dropped (Koff, 2013, updated 2019).

Coal mining companies are significantly challenged by them tending to “clog up the appeal process and the system lacks the resources to match the coal mining companies challenge” (Koff, 2013, updated 2019). Regardless of the coal mining companies challenging the fines, it seems the MSHA tends to believe (rational choice) in MSHA inspections and fines improving the safety of the coal mines (ibid.). Nonetheless, one can rationally believe, based on the research findings, that the appealing process might actually save costs and probably protect their public image to the coal mining companies due to their willingness to spend money in lawyers in the appealing process rather than just paying their fines.

In fact, research has suggested that appeals can make the review commission reduce fines by fifty percent by (Koff, 2013, updated 2019). Additionally, there is a belief that MSHA inspections and fines have worked to some degree because the death rate in coal mines has decreased since the Federal Coal Mine Health and Safety Act of 1969 and its revision in 1977 (ibid.). Apparently, coal mining companies believe that the MSHA is out to get them and that they “are responsible owners that maintain their own proactive safety programs” (ibid.). However, some experts believe that MSHA does not issue assessments or violations without a proper reason (ibid.).

However, we should not believe that it is unreasonable for coal companies to contest questionable fines, especially when fines have increased due to the new Mine Improvement and New Emergency Response Act of 2006 (Koff, 2013, updated 2019). Not allowing coal companies to contest questionable fines might be considered dictatorial of the government, especially when the administration of justice is democratically run, where all the involved parties are allowed to contest.

As mentioned earlier in the literature review and research findings, a major finding of this research is that the MSHA's oversight of coal mines through inspections and fines can be impacted by the executive branch's decision to cut their budget. This can reduce the number of inspectors. It is possible to believe that the executive branch's decision to cut MSHA's budget is possible if the following conditions are met: their party is in charge of both the US House of Representative and the US Senate, and their party supports their budget and policy decisions.

Therefore, in situations where they are facing or have undertaken a project, they would experience budget cuts. The researcher believes the MSHA is forced to develop methods to decide which companies to inspect while adequately overseeing the coal mining industry holistically. The MSHA's decision to inspect coal mines is facing for the following factors: repeat violator, coal mines committing violations that can seriously harm coal miners, and leads for possible violations being obtained from complains (Koff, 2013; updated 2019). However, the coal mining industry apparently wants to challenge the MSHA's authority for oversight using a loophole that has allowed them the right to appeal their citations before March 2013 to prevent the MSHA from counting the citations under appeal, as part of the substantial and significant citations count used by the MSHA to meet a chronic violator threshold label. This label can cause companies to be shut down until they fix their safety issues (Koff, 2013; updated 2019).

Nonetheless, the MSHA's duty to protect coal miners resulted in the US Department Labor adopting a new pattern of violations (POV) federal rule that allows the MSHA to count all the significant and substantial citations within the past 12-month period including those being appealed (*ibid.*). Such a rule could make coal mining

companies believe that their due process is being violated (ibid.). However, this is hard to believe when they can easily go to court to get an emergency order if they feel that the MSHA's closure of their fines was unjustified (ibid.). If coal companies have the funds to hire lawyers to appeal their citations, once can believe that they also have the funds to challenge a MSHA mine closure in court.

Clearly, any of MSHA's attempts to seal any loopholes for appealing their citations, which can financially benefit the coal mines, the coal mines may perceive as unfair. In fact, a coal mine closure by the MSHA can end up costing large coal mines between \$14,000 to \$44,000 per hour of the mine being closed (Ogletree Deakins, 2013). Closure costs for the coal companies depend on how long they take to fix the significant and substantial citations according to the MSHA expectations (ibid.). The researcher believes (rational choice) that the coal mining industry will find ways to challenge the US Department of Labor's new POV federal law implemented in March 2013 in court.

The new POV federal rule might seem unfair, but one can rationally argue that such a rule is necessary to improve MSHA's oversight of coal mines since it cannot afford to wait for months or years until the coal companies court appeals for fines are resolved because the lives of coal miners are in stake (Koff, 2013; updated 2019). One recommendation will be for the MSHA to develop mechanisms to assess whether inspections violations are deterring coal mining companies from undertaking unsafe operations. The above recommendation is not unreasonable because the US Department of Labor Office of Inspector General Audit ruled that the MSHA was unable to prove that their Civil Monetary Penalties (CMP) program deterred mines from unsafe mine operations (US Department of Labor Office of Inspector General-Office of Audit, 2019).

In fact, the US Department of Labor Office of Inspector General- Office of Audit (2019) stated that the MSHA had not evaluated the “impact of their CMP program.” In fact, the US Department of Labor Office of Inspector General- Office of Audit (2019) found that most of the fatal injuries or accidents were concentrated in coal mines that had fully paid their monetary penalties. Finally, the US Department of Labor Office of Inspector General- Office of Audit (2019) concluded that even though the MSHA was doing an adequate job of collecting monetary penalties, the “MSHA failed to demonstrate the CMP program was actually improving mine safety.”

Another finding of this research is that coal mining has been declining for several years and has been taken over, mainly, by natural gas and other forms of cheaper energy. Coal mining has been kept on a lifeline due to President Trump’s desire to bring coal mines jobs by eliminating environmental policies for coal mining, established by President Obama and other administrations. Although jobs in the coal mining have been steadily declining, mostly in the recent years, people, especially in the Appalachian, still wish to work in coal mines. This is probably because they have a family history of working in the coal mining industry.

Additionally, people tend to believe that coal mining jobs are high paying, which can help them meet their livelihood needs despite coal mining jobs no longer being secure. In some cases, the salaries for coal mining jobs have been declining. Efforts have been made to retrain coal miners from the Appalachian in other areas, such as coding, as discussed in the literature review. However, apparently, coal miners are not too enthusiastic about retraining in other areas, as evidenced by their low participation rate in retraining programs. One can infer that the coal miners believe that a training program

should lead to a job right after completing it. However, training programs and higher education can only give them the tools to be competitive in the work force, but no one can guarantee a job after graduation.

It may be assumed that coal miners not committing to training program, will lead to companies being less committed to open their operations in the Appalachian states. This would be because these states would have a significant number of unemployed coal miners or have coal companies that have gone out of business or are at a risk of going out of business. The literature review revealed that coal miners want jobs that are close to their homes which might explain their reluctance in getting jobs in other industries. However, the literature review also revealed that if coal miners want to be a part of the workforce, they will have to commute daily, just like the majority of American workers.

Additionally, the literature review and research revealed that coal mining operations are placing coal miners at a higher risk of contracting black lung disease as evidenced by the recent increase of black lung disease in young coal miners'. Therefore, one can believe that the best way to protect coal miners from black lung disease is for them to work in other industries to reduce their risk of contracting the disease. Working in other that are not related to coal mining is reasonable because some industries offer competitive salaries, in some cases, it might even be higher than those offer by the coal mining industry. For example, the salaries in the construction sector grew by 3.1 percent, in technology sector by 2.8 percent, and in the transportation and warehousing sector by 2.7 percent when the salary growth from quarter four in 2018 was compared to quarter 4 in 2019(payscale.com,2020). Comparatively, there was a 0.4 percent growth in the salary in the energy and utilities sector which includes coal mining (payscale.com, 2020).

It is recommended for coal miners to consider joining other coal mining industry competitors, such as solar energy. For example, Solar Photovoltaic Installers are expected to increase by 105 percent from 2016 to 2026 while Wind Turbine Service Technicians are supposed to increase by 96 percent from 2016 to 2026 (Doyle, 2019). It is reasonable to believe that coal miners can currently consider other work options. One wonders whether the coal miners are willing to work in other industries or do they still have the will to continue working in the coal mines?

One major finding is that coal mining companies might use the tactics suggested by their lawyers, irrespective of their fairness and rationality, so long as the tactics win cases on their behalf in court. Conversely, the public and sick coal miners might find using such unfair legal tactics irrational because they go against the principle of fair play. Fair play means that all sides (plaintiff and defense) must share all the findings, such as medical experts' opinions about examinations of x-rays, with the court regardless of such findings favoring one's case. Finally, it is rational to expect that an impartial judge will use all the findings, along with all the testimonies presented in the court, to come up with a rational, fair decision about whether the sick coal miners are entitled to black lung disease benefits.

Another major finding is that lawyers representing the coal mining industry hire doctors with prestigious affiliations and experts who continue to "trump the opinions of coal miners' physicians decisions" (Hamby, 2013; updated 2014). However, it is rational for lawyers representing the coal mining industry to hire doctors from any institution, so long as their clients pay such experts' fees without costing the taxpayers. Thus, it is irrational for judges to use a doctor's prestige as the sole basis for establishing

their credibility instead of relying on the level of honesty and accuracy of the doctor's medical opinions about case(s). It is irrational to assume that medical experts' opinions are true just because of their medical credentials, years of service in the medical field, and expertise in the subject, such as black lung disease. However, research show that judges "rely heavily on medical experts' credentials to resolve disputes" (Hamby et.al, 2013; updated 2015). In fact, some judges deferred to "Dr. Wheeler's interpretation due to his superior credentials" (ibid.).

Despite Dr. Wheeler's superior credentials (perceived so by some judges) research has found that in over 1,500 cases since 2000 for which Dr. Wheeler read at least one x-ray, he failed to detect black lung disease in a single case (ibid.). However, other doctors that read the same x-rays could conclude advanced stages of black lung disease in 390 cases while finding the presence of black lung disease in over 800 cases (ibid.). It is rational to believe that regardless of whether a coal miner had black lung disease, Dr. Wheeler was entitled to his opinion, earned through his many years of research and service in the medical area of black lung disease. Nonetheless, it is irrational to believe that other medical experts who reviewed the same x-rays as Dr. Wheeler and concluded on the presence of black lung disease were incorrect regardless of their credentials being equivalent to or lower than Dr. Wheeler.

It is rational to believe that the dispute about whether Dr. Wheeler's assessments or other medical doctors' assessments of the same x-rays were correct could be settled through an autopsy or biopsy. Research showed that in over 100 cases where Dr. Wheeler diagnosed no black lung disease, autopsies and biopsies show undisputable evidence of black lung disease (Hamby et.al, 2013; updated 2015). Therefore, it is rational to believe

that the above findings, using autopsies and biopsies, prove that judges should not solely rely on medical experts' credibility in their decisions because it could lead to erroneous decision. This means delayed justice for coal miners, as experienced by over 100 sick coal miners, as mentioned earlier.

Research indicates that some judges rely heavily on Dr. Wheeler's medical opinion about the cases that coal miners lose seventy percent of time (Hamby et.al, 2013; updated 2015). There have been times that some judges have found Dr. Wheeler's opinions on cases as "disingenuous, erroneous, unethical, and troubling to regulatory policy" (Hamby et.al, 2013; updated 2015). Some judges also felt that Dr. Wheeler and his colleagues' x-rays reading errors were not occasional but were a form of oversight (ibid.). Additionally, research mentioned that there were judges who had doctors come to their courts on various occasions and never found black lung disease. However, such judges could not factor their experiences with such doctors in their decisions about the cases in front of them (ibid.). When judges challenged Dr. Wheeler's opinions, their decisions were vacated by the appeals board (ibid.).

It is rational for judges to not include their experiences in the case to remain impartial. In addition, it is rational for appeals courts or boards to weigh in on whether the evidence of the case supports the judge's decision and whether the judge solely relied on the law rather than their personal opinions—accurate or otherwise. However, it is recommended for appeals courts and appeal boards to allow judges to consider medical experts' opinions patterns in their decisions, especially those who have provided their medical opinions in various cases where the judge has presided. For example, a pattern of finding no black lung disease being considered in the judges' decisions because they are

the only ones that get to witness and experience such patterns. It is also rational that the legislative branch should pass legislation giving judges the legal avenue to consider medical opinion patterns in their decisions in order to make the legal process fairer and more equitable for sick coal miners who tend to be working class. It is rational for judges to be able to consider patterns of medical experts' opinions in their decisions because judges are legally allowed to consider community ties and prior criminal records of a convicted individual to come up with an appropriate sentence for the crime, he/she committed and was convicted for.

However, it is irrational to assume that doctors that have prestige or/and work for prestigious hospitals such as Johns Hopkins do not make errors or misdiagnose individuals. Even though Dr. Wheeler is responsible for the diagnosis he made during his tenure at Johns Hopkins, it is rational to believe that John Hopkins had the duty to ensure that he and his colleagues accurately and honestly read the coal miners x-rays, especially when their "charges for X-rays could be up to ten times higher than what coal miners paid to their physicians" (Hamby et.al, 2013;updated 2015). Although John Hopkins has claimed that, for over 40 years, their radiologists have confirmed cases of black lung disease, it is irrational to believe that John Hopkins can guarantee their radiologists not missing a single case of black lung disease presented to them. This is because occasional errors are possible as humans.

Just like it is irrational for prosecutors to guarantee a conviction for every case that they have tried because every case is different and the decision to convict is in the hands of the jury and not the prosecutor. Research has indicated that Dr. Wheeler recommended biopsies for coal miners to prove their cases (ibid.). This recommendation

is irrational because biopsies are not required for black lung disease diagnosis, and they can be risky for sick coal miners whom are currently alive (ibid.). It is rational to believe that, like the administration of justice, the goal of any researcher or medical procedure is to reduce and avoid unnecessary risks to human beings. Regardless, it is rational for the public to believe that either John Hopkins or/and Dr. Wheeler should be civilly liable for Dr. Wheeler's actions that caused at least 100 coal miners to be wrongfully denied black disease benefits when they had black lung disease.

In Michael S. Day and Christi Ann Jordan Jarrett V. Johns Hopkins Health System Cooperation and the Johns Hopkins Hospital, Inc., filed in 2016, the plaintiffs argued that the hospital “intentionally defrauded hundreds of sick coal miners out of compensation and health benefits while pocketing large sums from coal companies” (Hamby, 2016). However, as mentioned earlier, Dr. Wheeler was solely responsible for his actions. Therefore, it is irrational to believe that Johns Hopkins was responsible for Dr. Wheeler's actions because he only worked for the hospital and the hospital did not provide medical opinions on the miners' black lung disease benefits cases—Dr. Wheeler did.

In 2017, a federal judge in Maryland claimed that Dr. Wheeler “had immunity as an expert witness for the coal companies under Maryland and Federal Law,” during the lawsuit (Lavoie, 2018). It is rational to believe that the accuracy of Dr. Wheeler's x-rays readings is relevant because the law protects all the aspects of his testimony. In addition, it is irrational for the plaintiffs to accuse Johns Hopkins of intentionally defrauding them when they have failed to prove that Dr. Wheeler issued x-ray readings of a finding of no

black lung disease in collusion with the coal companies in court to prevent coal miners from getting black lung disease benefits.

The federal judge was appealed in front of the Fourth US Court of Appeals in 2018. This time the plaintiffs argued that “ Dr. Wheeler and the Johns Hopkins black unit believed that they were above the law when Dr. Wheeler disregard federal regulations on how to interpret x-rays to diagnose black lung disease” (Lavoie, 2018). However, one of the main findings was that it is rational to believe that if the federal government, which is in charge of establishing the regulations mentioned above, does not enforce them then it is unreasonable to hold Dr. Wheeler or any other doctor accountable for not following such regulations.

One of the appeal court judges, Judge J. Harvie Wilkinson III, argued that “exposing expert witnesses to liability could have a chilling effect” (ibid.). Therefore, another finding is that is rational to believe that if the courts granted citizens the right to take witnesses for civil court, either because they disagree with them or because they feel the witness is harming them or being injustice then lesser people will be willing to testify as witnesses, including medical experts. In addition, there is no law making the testimony from experts legally mandatory. Instead, experts become witness experts voluntarily while receiving a fee for their testimony. Judge Wilkinson III argued that immunity was a privilege need for people who get to testify (Lavoie, 2018). It is rational to equate the use of immunity with prosecutors’ offering a reduced sentence or a drop in charges to get individuals in criminal courts to testify, thereby securing a conviction on behalf of the people.

The Fourth US Court of Appeals, in 2018, ruled in favor of the defendant by dismissing the lawsuit and concurring with the federal judge ruling that “expert witnesses are shield from civil liability under Maryland and Federal Law” (Associated Press, 2018). In addition, research indicated that doctors who diagnosed black lung disease by reading x-rays need to have a B-Reader Certification from the NIOSH (Hamby et.al, 2013; updated 2015). Another major finding is that doctors must pass an exam every four years to keep their B-Reader Certification (ibid.). However, after being certified, there is no indication that NIOSH monitors such doctors to ensure that they are following proper protocol for diagnosing black lung disease as they had demonstrated to the board while reading x-rays for them every four years, when they take the exam for recertification.

For example, Dr. Wheeler passed the recertification exam for decades, but he did not read x-rays for coal companies the same way he read x-rays to the NIOSH certification board every four years (Hamby et.al, 2013; updated 2015). Thus, it is rational to believe that NIOSH does not ensure that the doctors they certified are enforcing the federal-established protocol while reading x-rays to detect black lung disease. Rather, doctors are given the green light to create and follow their own protocol just like Dr. Wheeler did, as mentioned earlier. Therefore, the research proposes that, to decrease the number of black lung disease benefits claims wrongfully denied due to the absence of black lung disease, the NIOSH needs to annually audit randomly selected x-rays read by their certified doctors. The randomly selected x-rays must be read by the NIOSH panel to ensure that the doctors are effectively identifying black lung disease.

The research also found that the coal mining companies can lobby legislators in state and federal legislatures to pass legislation benefitting them and protecting their

interests. Most of the political donations from the coal mining industry includes coal mines and, in some cases, coal mining companies tend to benefit Republicans, as mentioned earlier. The problem is that political donations from the coal mining industry have not benefited coal miners because federal and state legislature have not passed serious legislation addressing the black lung disease epidemic and adequately funding coal miners' benefits for black lung disease through the Black Lung Disability Trust Fund.

In fact, state legislatures' have passed policies that have benefit coal mining companies, such as decreasing the number of required annual inspections for coal mines and place restrictions for which doctors can certify possible black lung disease patients. As mentioned earlier, the US Congress let the coal tax rate lapse in 2018, even though evidence has shown that a higher tax rate is necessary to cover the costs for the Black Lung Disability Trust Fund. One possible reason for the Congress legislators' lack of support to address the black lung epidemic and the deficient Black Lung Disability Trust Fund may be that they believe there is no need to address such problems. This may be motivated by their states not relying much on coal mining for their energy needs. Especially since the production of coal reduces as one moves from the east to the west of the country.

One main reason for the coal lobby's needs and interests being favored by state and federal policies is the coal industry believes they need a break because they have been making losses due to declining coal production. This has made it difficult for them to meet their obligations, such as their contributions to the Black Lung Disability Trust Fund. However, it is not reasonable for legislators to change policies in favor of the coal

mining industry since existing policies are constantly amended to address the changes in the country's environment (evolution). In addition, one can believe that the coal mining industry might be entitled to a break, just like an ordinary individual since they have contributed to this country by hiring thousands of coal miners over many decades. These miners, in turn, contribute to the economy when they purchase goods and services with their salaries from the coal mines.

However, one might believe that the coal mining industry is not entitled to a break since they have been producing coal despite being aware of the high risk of silica dust from their mines causing black lung disease among coal miners since the Clinton Administration (pbs.org, 2019). The coal mining industry probably desired higher profits over a combination of profits and safety and protection of coal miners. However, it is also reasonable to believe that coal miners are to be blamed for taking the risk of contracting black lung disease. This is because they work in the coal mines voluntarily and, in most cases, refuse to participate in the free federal government testing for black lung disease as mentioned earlier. However, it is reasonable to believe that coal miners who contract black lung disease are paying a higher price for their decision to work in the coal mines than the coal mining industry's decision to hire them since they pay with their lives.

However, the most concerning finding was that in one of the cases, a coal mining company executive and a lawyer from a law firm representing the coal mine paid a state legislator to help them convince residents from his district to oppose the clean-up efforts of a superfund in the district, as requested by the Environment Protection Agency and to save the coal company a significant amount in cleanup costs. Clearly the coal company desired a profitable business but did not want the liabilities created by it. It is rational to

believe that any company whose operations damage the environment should be responsible for such damages. Additionally, companies, including coal mining companies, should get insurance cover for any liabilities that results from their operations. Regardless of such liabilities being expected or otherwise. Therefore, it is recommended for legislators to pass legislation making it mandatory for all coal companies to have liable insurance covering environmental liabilities resulting from their businesses.

Demanding liability insurance is not something new and unreasonable because the administration of justice already deals with ordinary people who violate policies requiring all drivers to have liability insurance. Another liability insurance that coal companies must have as well as their coal miners is long term disability insurance in which both coal companies and coal miners contribute the same amount. A long-term disability insurance will give coal miners some type of funding they need in case they become ill with black lung disease. If coal miners have a desire to continue to work in coal mine than it is reasonable to belief that they should contribute to long-term disability as well to cover themselves from black lung disease which is a possible risk associated with working in coal mining. It is unreasonable for legislators to make the taxpayers bail out coal mining companies by paying their liabilities, especially when they go bankrupt. It obvious the legislator who helped the coal mine executive, and one of the coal mine lawyers, wanted to make a quick buck rather than protecting the well-being of their constituents. It reasonable to believe that a minority lawmaker is capable of harming his/her minority constituents, which is like a white lawmaker being capable of harming their white constituents.

One rationally wonders if there have been other cases where the coal mining industry along with/without their lawyers have bribed legislators to act a certain way or pass legislation on their behalf without being caught by the authorities. The only reason the legislator got caught in the case discussed earlier was the US Department of Justice launched an investigation. It is unreasonable for the US Department of Justice to launch an investigation into all coal lobbying since it requires money and manpower which the department lacks. Launching an investigation without probable cause is against the law and can be a way for the federal government harass the coal mining industry. Therefore, just like in the administration of justice, the only way the coal mining industry's possibly illegal lobby activities can be targeted is if they are caught by law enforcement or are reported to the law enforcement. It is recommended for the US Congress to pass a federal law that funds the US Department of Justice to randomly audit all registered lobbyists activities annually as a form of checks and balances for lobbyists and the legislators they lobby.

Another finding was that after incidents of coal mining fatalities, coal miners' families are not compensated for their loss in a time manner and must resort to the civil courts to be compensated. It seems that coal mining companies want coal miners' families to sue them in civil court to be able to negotiate the lowest possible settlement which benefits them the most and not the families of the deceased coal miners. In some cases that have been discussed in the previous chapter, the settlements between the deceased coal miners' families and the coal mines were non-disclosure settlements making it difficult for any researcher to analyze them to see if they benefited the coal miners' families or the coal mine companies.

Another major finding was that the MSHA allows coal mining companies to average coal dust level reading samples which give them a loophole to get away with coal dust level reading samples that are above the acceptable federal coal dust level. It seems the MSHA wants to work with the coal companies by relaxing coal dust reading samples. However, the sick coal miners and the public may want the MSHA to hold coal mines accountable for all the dust level reading samples instead of averaging them because coal miners have been severely affected by black lung disease without discrimination since the mid-1990s, as mentioned earlier. It is reasonable to pressure MSHA to consider all the coal dust level samples submitted by the coal mining operators because coal dust/silica is the primary indicator that places coal miners at risk of contracting black lung disease.

It is reasonable to believe that if the MSHA does not constantly monitor all the coal dust level reading samples and address any abnormal coal dust level reading samples, then the federal government will have a hard time controlling the black lung disease epidemic in coal miners. Additionally, it is reasonable to believe that if black lung disease spreads uncontrolled, more coal miners may contract black lung disease and we, the taxpayers, will be stuck with their bill, having to fund the Black Lung Disability Trust Fund. This is because there is a high risk of coal mining companies going out of business, as mentioned earlier.

The study also found that the federal government wants to grant coal mining companies permits without consulting the public for comments and/or conducting an environmental impact study before granting them, as seen in one of the cases discussed in the previous chapter. It is reasonable to expect that the public, as taxpayers, are entitled to

express their opinions in favor of or against the coal mine seeking a permit from the federal government. It is reasonable for the public to demand the federal government to study the ways in which the operations of the mining company seeking a permit are going to affect their environment, such as the drinking water and air quality.

An environment impact study is a reasonable demand because the federal government is obligated to ensure that any company operations do not harm the wellbeing of the people living in the area where the company is conducting its operations. This current administration cannot believe that they can do anything they want without notifying or seeking the inputs for the public because the president was not elected with one percent of the votes. It is reasonable to believe that, without the presence of watchdog non-profit organizations, the public might be left in the dark about the deals that the federal government makes with the coal mining, industry such as the approval of permits. It is recommended that the US Congress pass legislation making it obligatory for the government to ask for the public's input on coal mine permits in a timely manner and requiring the federal government to conduct fair and adequate environmental impact studies of the areas that can be potentially affected before issuing a permit to a coal mine.

The research found that operators and coal workers who were criminally indicted for their actions in the fatal accidents that occurred in coal mines, where coal miner's loss their lives, were convicted for less severe offenses while receiving lenient sentences such as the combination of prison and probation and, in some cases, only receiving probation. It is reasonable to believe that regardless of the convictions and the fairness of the sentences, they were judge by a jury of community members. Therefore, the jury was responsible for deciding what charges to convict them for and what type of sentences to

give them in the administration of justice. It is reasonable to believe that the US Department of Justice was responsible for the lenient convictions and sentencing since they failed to convince the juries to convict the alleged perpetrators of serious offenses. In the administration of justice, the burden of proof lies on the prosecution and not the defense.

The final major finding was that the MSHA has had a history of inspectors not conducting adequate inspections and, in some cases, approving inadequate roof plans which has contributed to some of the fatal accidents in coal mines. Obviously, the MSHA might believe that they should not be fully held accountable since they might be understaffed due to budget cuts. It is reasonable to believe that such a defense by the MSHA might have some merit because the US Congress cannot expect the MSHA to do an adequately and appropriately oversee the coal mines without giving them the financial resources to do their job. Regardless of the level of funding, most federal, state, and local agencies might be understaffed. Therefore, it is reasonable to believe that the top management of any organizations, such as the MSHA, are responsible for addressing organizational issues by finding ways to appropriately and effectively allocate their resources to target such issues. It is reasonable to believe that just because they are understaffed, does not mean that the current MSHA inspectors have the right to conduct inspections any way they please. This is because they are being paid for their services with public tax money. The MSHA inspectors are working for the MSHA of their own free will.

It is reasonable to believe that the coal miners should also share the responsibility of reporting any safety issues in the coal mines where they work to the MSHA. Coal

miners may be less willing to report any safety issues due to possible retaliation from their employers. The MSHA needs the cooperation of coal miners to target safety issues in the mines in a timely manner, just like law enforcement agencies do to be aware of any criminal activity. Therefore, it is recommended for the US Congress to pass legislation that prohibits coal mining companies from retaliating against any coal miners who report safety issues to the MSHA. It is reasonable to believe that coal companies might resort to shutting down the mines and relocating to another area if they sense any possible whistleblowers in their mine. This would mean possible job losses. It is reasonable to believe that shutting down a mine is not reasonable because the coal mine owners who have a financial investment in the mine and are allowed to do whatever they please with their investment.

In conclusion, it is obvious that the MSHA has not done its job of overseeing the coal mines appropriately. However, their oversight has been hindered by the federal government's actions that tend to favor the coal mining industry's interests and their unwillingness to sufficiently fund and pass legislation targeting the problems associated with the black lung disease epidemic. For instance, properly funding the Black Lung Disability Trust Fund. Clearly, that MSHA's oversight has also been hindered by the coal mining industry's ability to lobby federal and state legislators to pass legislation benefitting their interests. However, MSHA is also to blame for their own lack of oversight due to their errors in their inspections, inadequate tracking of overdue inspections fines, and unwillingness to fully implement some of their safety and health policies. For example, allowing coal companies to average coal dust level reading samples. The coal mining industry's appeal efforts have allowed them to further

undermine the MSHA's oversight by successfully appealing the fines that pay sick coal miners' black lung disease benefits in court for years. Even though sick coal miners pay the ultimate price by losing their lives, they are also to blame for the black lung disease epidemic since they decide to work in the coal mines knowing the risk of contracting black lung disease. Additionally, no coal miner is forced to work in the mines. He/she can take up any job in any industry they want.

Criminality in Coal Mining Communities

An inquiry from this research was finding a close picture of the actual criminality in communities once rich in coal mining jobs. Such communities have lost a significant number of coal mining jobs due to lack of demand for coal and the creation of cheaper alternative energy sources such as gas and wind, to name a few. For example, in West Virginia, one of the former leading coal-state producers in the USA has experienced a decline in coal production by 38 percent along with a 71 percent decrease in coal prices since 2008, leading to significant losses in coal jobs (Kent, 2016). The following three coal counties in West Virginia experienced a substantial decrease in coal production from 2011 to 2015: Boone County (67 percent decline in coal production), Logan County (50 percent decline in coal production), and Mingo County (40 percent decline in coal production) (Kent, 2016). In addition, a decrease in coal production and coal prices "has resulted in a reduction in personal income received by those living in the three above coal-producing counties in West Virginia" (Kent, 2016). "Boone County experienced a decline in personal income of less than seventy percent of its 2011 level, Mingo County experienced a decrease in percent income of 67 percent of its 2011 level, and Logan

County experienced a decline in personal revenue of 85 percent of its 2011 level "(Kent, 2016).

Has any of the three coal counties in West Virginia criminality has increased due to job losses in the coal mining industry in such counties?. As of the end of January 2021, ten counties in the state of West Virginia were over 90 days overdue in paying their jail debt since they had experienced overcrowded in their jails leading such counties not to be able to pay their jail debts (Pierson,2021). Two of the coal counties made the list of the ten counties overdue in paying their jail debts. Those two coal counties were as follows: Logan County owes more than 1.2 million dollars in outstanding jail debt, and Mingo County owes more than \$350,000 in overdue jail debt (Pierson, 2021). Therefore, it is inferred based on the above data that coal counties such as Mingo County and Logan County in West Virginia have experienced a rise in crime after facing significant losses in coal mining jobs.

In 2015 during a span of three years, more than 800 miners failed drug tests in West Virginia(Pritt, 2015). Also, in 2015 alone, at least 214 coal miners had their mining certificates suspended due to drug abuse caused mainly by prescription drugs abuse and marijuana use in West Virginia (Pritt,2015). Drug abuse in the coal mining in West Virginia is a concern because of those that failed drug drugs, "107 had foreman licenses, and 49 were acting supervisors" (Pritt,2015). It is unclear how many coal miners come to work with drugs in their systems in the coal mines in West Virginia since not all coal mines in the state tests their employees for drugs (Pritt,2015). Some coal mines test 25 percent of their employee force for drugs annually, while some coal mines test their entire labor force annually (Pritt,2015). As of 2018, West Virginia had conducted random

drug tests in coal mines for the last six years resulting in more than 1500 coal miners failing drug tests (Beck,2018).

Bill Tucker, a mine safety office administrator from West Virginia, felt that perhaps coal miners had drug abuse problems after getting injured in the job, and taking prescribed pain pills, leading coal miners to become addicted to pain pills (Beck,2018). The coal mining industry, such as Bill Raney, President of the West Virginia Coal Association, cannot explain the drug abuse among coal miners that have led to drug overdose deaths (Beck,2018). Drug abuse among coal miners in West Virginia was a significant issue. Coal miners did not want coal miners under the influence of drugs working next to them since they considered the coal mine profession an "equipment-intensive industry" (Beck,2018). There is a concern with coal miners that work in rural areas since they can become susceptible to drug abuse since their towns lack resources to treat drug abuse problems (Beck,2018). Helping unemployed coal miners get a job in another industry is not always bulletproof in protecting them from drug abuse risks since for some coal miners, coal mining is the only job they are willing to do (Beck,2018). For such coal miners, coal mining is part of their heritage, and they are eager to work the coal mines as long as their bodies allow them to (Beck,2018). Usually, when coal miners lost their job in West Virginia after failing a drug test, they were not aware of the state's available drug abuse treatments (Beck,2018). A significant number of coal miners are not aware of the drug abuse treatments offered by thirteen mental health providers in the state of West Virginia who are state funded to serve low-income communities (Beck,2018). It can be inferred that physicians in West Virginia prescribe pain killers to coal miners without educating them about the "addictive nature of opiates" (Beck, 2018). Coal

miners tend to take pain killers if their doctors tell them that those pills will help them with their pain (Beck,2018). It was suggested that the West Virginia coal mining industry should help coal miners with a drug addiction accept their problem and help them combat their drug abuse instead of firing them and eliminating them from the coal mining workforce (Beck, 2018).

Jeff Pack, a former coal miner in West Virginia, felt that the coal mining industry did offer help to coal miners that self-reported a drug abuse problem (Beck, 2018). Mr. Pack reported that several coal miners would disappear during random drug tests (Beck,2018). West Virginia Office of Miners Health, Safety, and Training suggested that drug use is one of the factors contributing to the rise of coal mining accidents (Beck, 2018). Coal miners fired from their jobs after failing random drug tests are more prone to have problems with drug abuse since they tend to lose their health insurance and unemployment benefits after being fired from coal mines (Beck,2018).

Besides West Virginia, Virginia, another coal-producing state, also suffered from drug abuse among coal miners working in the mines and after being layoff from the coal mines due to a decline in coal. The counties that produce coal in Virginia are as follows: Buchanan, Dickenson, Russell, Lee, Tazewell, and Wise (Department of Mines, Minerals, and Energy, 2021). Research shows that millions of opioids pills prescribed by doctors had made their way in Wise County in Virginia, a coal county that has become a county problem (Achenbach,2019). From 2006 to 2012, a Walmart in Wise County filled pain killer prescriptions totaling more than 3.5 million opioids pills (Achenbach,2019). A CVS pharmacy in Wise County in Virginia filled pain killer prescriptions totaling more than 1.3 million opioids pills from 2006 to 2012

(Achenbach,2019). Social Services in Norton city, Virginia in Wise County had to remove children from unsafe living conditions cause mainly by parents or guardians drug addiction(Achenbach,2019).

Unfortunately, there is no drug rehabilitation facility in Norton City in Wise County, forcing drug addicts to seek help in a private drug rehabilitation facility at their own expense one hour away from the city (Achenbach,2019). It is suggested that people rely on drugs because there is nothing to do in Wise County (Achenbach,2019). Coal mine unemployment in Wise County might be because the coal left to retrieve is in profound areas of the mine and too expensive to mine (Achenbach,2019). Slemp, Norton City Prosecutor, claimed that "the population has declined while population prison has more than doubled" (Achenbach,2019). The opioid epidemic in Wise City has slightly been reduced due to the prosecutor's efforts in cracking down on doctors that "prescribed large quantities of opioids to patients without examining them (Achenbach,2019). Besides the county dealing with addictions to drug pills, Wise County has recently been dealing with increased addiction and use of methamphetamine (Achenbach,2019).

Yet, it seems that the pain pills addiction of unemployed coal miners in Virginia started while working in the coal mines. Research shows that despite some coal mines having a zero-tolerance drug abuse policy, some coal miners managed to abuse pain pills to the extent that led to their termination after failing random drug tests(Mullins,2017). Coal miners addicted to pain pills had to make the following choice every day they went to work in the coal mines: "continue taking the pain pills to be able to work or leave the coal mines and fight to obtain a small disability compensation that was not enough to cover their families needs" (Mullins,2017). To fight drug addiction,

someone needs to accept they have a problem and seek treatment. However, in Virginia, many coal miners were hesitant to admit they had a drug abuse problem because they were afraid their drug problem revelation would result in being layoff from the coal mines(Mullins,2017). Even though some coal companies in Virginia offered a recovery program for coal miners with a drug abuse problem, finding drug abuse treatment facilities were hard to come by(Mullins,2017). Coal miners with drug addictions in Clintwood, Kentucky, in Dickenson County, had access to one "rehabilitation detox facility that is one hour away from Clintwood, Kentucky whom has a long waiting list and only takes private insurance or direct payment" (Mullins,2017).

Coal miners in Virginia who manage to get treatment for their drug abuse and return to work in the coal mines have constantly worked with pain daily without resorting to pain killers, which can be a tall order to accomplish (Mullins,2017). Drug addiction caused by the abuse of pain killers among coal miners in Virginia has resulted in people from various coal mining communities in Virginia witnessing suicides, drug overdoses, and broken families dealing with drug-addicted members (Mullins,2017). Besides Virginia, Kentucky, another of the three primary coal producer states, also is experiencing drug abuse among unemployed coal miners. Research shows that Hazard ARH Medical Center, a coal city in Kentucky, identified a Hepatitis C virus epidemic that caused concerned among medical experts in the town (Kavilanz,2017). It was mentioned that unemployment in the coal industry resulted in a high unemployment rate and worsened the opioid drug abuse crisis (Kavilanz,2017). Hazard City and other coal-producing cities in the eastern part of Kentucky have lost more than 11,000 coal mining jobs(Kavilanz,2017). A significant loss of coal mining jobs in the east part of Kentucky

resulted in the loss of other businesses dependent on the coal mining industry (Kavilanz,2017). High unemployment in Hazard and other coal mining areas in the eastern part of Kentucky has resulted in a sense of hopelessness among the residents leading to the opioid abuse epidemic to remained uncontrol(Kavilanz,2017). Opioid addiction is common among children, parents, and grandparents in Hazard City (Kavilanz,2017).

Unemployed coal miners drug addictions are a result of becoming addicted to prescribed pain pills in order to cope with working long hours in the coal mines in small holes such as "OxyContin " hillybilly cocaine" (Kavilanz,2017). In addition, Hazard City recently experienced a high use of meth and cocaine and "a rise in prostitution in the last four to five years, "which the area had not experienced previously (Kavilanz,2017). In the first ten months of 2017, 13 percent of babies delivered at Hazard Medical Center were found to have been exposed to opiate drugs by their mothers (Kavilanz,2017). Hazard City medical experts were concerned that mothers could transmit the Hepatitis C virus to their babies in their wounds by sharing a needle with other drug users or having sex drug prostitution with someone infected with the Hepatitis C virus (Kavilanz,2017). It was suggested that to reduce prostitution and drug abuse in the area, jobs need to be created to get people back to work (Kavilanz,2017).

Letcher County, Magoffin County, and Leslie County are three coal-producing coal counties in the eastern part of Kentucky(Kentucky Energy and Environment Cabinart,2019). In 2016, the unemployment rate in the state of Kentucky was 5.8 percent while Letcher County's unemployment rate was 13.4 percent, Magoffin County has a 21 percent unemployment rate, and Leslie County had an unemployment

rate of 13.7 percent (Corbin,2016). The Letcher County Food Pantry helped feed more than 1000 people in the county whom "most are unemployed or have incomes below the poverty line" (Corbin,2016). Letcher County has at least 1700 people work in the coal mining industry thirty years ago compared to 100 people working the coal mines today(Corbin,2016). In Letcher County, crime has increased but not significantly because people are leaving the county searching for jobs in other areas(Corbin,2016). Letcher County has started to resort to tourism instead of coal mining to reboot its economy (Corbin,2016). The federal government attempted to help Kentucky and other states to revive their economies by providing resources to combat drug abuse in 2019 (Rogers,2019). One of the resources provided by the federal government was the High-Intensity Drug Trafficking Areas program that gave money to states such as Kentucky to clean trafficking drug spots in the southern and eastern part (part of coal county) of Kentucky (Rogers,2019).

Clean trafficking drug spots in Kentucky is very crucial. Louisa, Kentucky, located in Lawrence County, a coal-producing county in the eastern part of Kentucky, suffered from opioid addiction due to addiction to pain pills(Williams, 2020). Families in Lawrence County help family members addicted to pain pills for years to prevent drug overdoses (Williams, 2020). Now Louisa Kentucky is dealing with methamphetamine addiction(Williams,2020). As more methamphetamine users become homeless in Louisa, Kentucky, its residents are becoming angry and less patient with such users to the point some residents have thoughts of hanging users(Williams,2020). A pure form of methamphetamine has become more accessible since it is inexpensive to acquire (Williams,2020).

In Kentucky, the following coal counties are located in the eastern part of Kentucky and listed from highest coal production county to lowest coal production county from April to June 2019: Perry, Pike, Harlan, Floyd, Bell, Leslie, Johnson, Knott, Whitley, Martin, Letcher, Magoffin, Knox, Morgan, Lawrence, and Breathitt (Kentucky Energy and Environment Cabinet, 2019). Kentucky State Police arrests data for 2019 was used to get a picture of the criminality of the coal mines counties listed above in eastern Kentucky. When it comes to Perry County, the county had the following four highest Group A offenses arrests: drug/narcotic offenses (876 arrests), pornography/obscene material (399 arrests), assault offenses (308 arrests), and larceny/theft offenses (164 arrests) (Kentucky State Police, 2020). When it comes to Pike County, the county had the following four highest Group A offenses arrests: drug/narcotic arrests (915 arrests), assault offenses (302 arrests), larceny/theft offenses (271 arrests), and burglary/breaking and entering (72 arrests) (Kentucky State Police, 2020). Harlan County had the following four highest Group A offenses arrests: drug/narcotic offenses (700 arrests), assault offenses (268 arrests), larceny/theft offenses (128 arrests), and destruction/damage/vandalism of property (65 arrests) (Kentucky State Police, 2020). Floyd County had the following four highest Group A offenses arrests: drug/narcotic offenses (709 arrests), assault offenses (461 arrests), pornography/obscene material (106 arrests), and larceny/theft offenses (100 arrests) (Kentucky State Police, 2020). Bell County had the following four highest Group A offenses arrests: drug/narcotic offenses (784 arrests), assault offenses (179 arrests), larceny/theft offenses (178 arrests), and weapon law violations (41 arrests) (Kentucky State Police, 2020). Leslie County had the following four highest Group A offenses arrests: drug/narcotic offenses

(307 arrests), assault offenses (69 arrests), burglary/breaking and entering (32 arrests), and larceny/theft offenses (31 arrests) (Kentucky State Police,2020).

Johnson County had the following four highest Group A offenses arrests: drug/narcotic offenses (692 arrests), assault offenses (243 arrests), larceny/theft offenses (90 arrests), and burglary/breaking and entering (41 arrests) (Kentucky State Police,2020). Knott County had the following four highest Group A offenses arrests: drug/narcotic offenses (495 arrests), assault offenses (137 arrests), burglary/breaking and entering (38 arrests), and destruction/damage/ vandalism of property(34 arrests) (Kentucky State Police,2020). Whitley County had the following four highest Group A offenses arrests: drug/narcotic offenses (1342 arrests), assault offenses (332 arrests), larceny/theft offenses (143 arrests), and weapon law violations (61 arrests) (Kentucky State Police,2020). Martin County had the following four highest Group A offenses arrests: drug/narcotic offenses (303 arrests), assault offenses (89 arrests), burglary/breaking and entering (15 arrests), and weapon law violations (14 arrests) (Kentucky State Police,2020). Letcher County had the following four highest Group A offenses arrests: drug/narcotic offenses (480 arrests), larceny/theft offenses (261 arrests), assault offenses (223 arrests), and counterfeiting/ forgery (154 arrests) (Kentucky State Police,2020). Magoffin County had the following four highest Group A offenses arrests: drug/narcotic offenses (313 arrests), assault offenses (141 arrests), larceny/theft offenses (36 arrests), and destruction/damage/ vandalism of property (16 arrests) (Kentucky State Police,2020).

Knox County has the following four highest Group A offenses arrests: drug/narcotic offenses (1260 arrests), assault offenses (412 arrests), larceny/theft offenses

(199 arrests), and destruction/damage/vandalism of property(74 arrests) (Kentucky State Police,2020). Morgan County has the following four highest Group A offenses arrests: drug/narcotic offenses (149 arrests), assault offenses (71 arrests), larceny/theft offenses (19 arrests), and pornography/obscene material (11 arrests) (Kentucky State Police,2020). Lawrence County had the following four highest Group A offenses arrests: drug/narcotic offenses (351 arrests), assault offenses (84 arrests), larceny/theft offenses (51 arrests), and weapon law violations (24 arrests) (Kentucky State Police,2020). Finally, Breathitt County had the following four highest Group A offenses arrests: drug/narcotic offenses (384 arrests), assault offenses (100 arrests), larceny/theft offenses (73 arrests), and weapon law violations (33 arrests) (Kentucky State Police,2020).

In addition, the following coal counties are in the western part of Kentucky and listed from highest coal production county to lowest coal production county from April to June 2019: Union, Hopkins, Ohio, Webster, Muhlenberg, McLean, and Daviess (Kentucky Energy and Environment Cabinet,2019). Kentucky State Police arrests data from 2019 was used to get a picture of the criminality of the coal mines counties listed above in eastern Kentucky. Union County had the following four highest Group A offenses arrests: drug/narcotic offenses (257 arrests), assault offenses (104 arrests), fraud offenses (92 arrests), and larceny/theft offenses (72 arrests) (Kentucky State Police,2020). Hopkins County had the following four highest Group A offenses arrests: drug/narcotic offenses (1017 arrests), assault offenses (411 arrests), larceny/theft offenses (360 arrests), and weapon law violations (64 arrests) (Kentucky State Police,2020). Ohio County had the following four highest Group A offenses arrests: drug/narcotic offenses

(1018 arrests), assault offenses (314 arrests), larceny/theft offenses (194 arrests), and sex offenses (176 arrests) (Kentucky State Police,2020).

Webster County had the following four highest Group A offenses arrests: drug/narcotic offenses (153 arrests), assault offenses (114 arrests), larceny/theft offenses (29 arrests), and destruction/damage/vandalism of property (18 arrests) (Kentucky State Police,2020). Muhlenberg County had the following four highest Group A offenses arrests: drug/narcotic offenses (541 arrests), assault offenses (265 arrests), larceny/theft offenses (129 arrests), and burglary/breaking and entering (37 arrests) (Kentucky State Police,2020). McLean County had the following four highest Group A offenses arrests: drug/narcotic offenses (163 arrests), assault offenses (65 arrests), stolen property offenses (10 arrests), and destruction/damage/vandalism of property (6 arrests) (Kentucky State Police,2020). Finally, Daviess County has the following four highest Group A offenses arrests: drug/narcotic offenses (2475 arrests), larceny/theft offenses (700 arrests), assault offenses (684 arrests), and pornography/obscene material (271 arrests) (Kentucky State Police,2020).

Besides Kentucky coal mining communities having criminal activity, West Virginia coal mining communities did not fare well in illegal activity. Boone County, Logan County, and Mingo County are coal mining counties in West Virginia that are police by Troop 5 of the West Virginia State Police (West Virginia State Police, 2019). Troop 5 drug seizure value for the 2018 to 2019 fiscal year was the highest among West Virginia State Police eight police troops (West Virginia State Police,2019). Logan County, made of Logan City, had drug seizure value by West Virginia State Police for the 2018-2019 fiscal year of \$ 317,851,728 (West Virginia State Police, 2019). The total

value of drug seizure value in Logan County alone exceeded the total value of drug seizure of all the other seven troops of West Virginia State Police combined (West Virginia State Police). Mingo county, which is part of Williamson City, had a drug seizure value from the 2018-2019 fiscal year by West Virginia State Police of \$15,368,190 (West Virginia State Police, 2019). Finally, Boone County that covers Madison, had a drug seizure value from the 2018-2019 fiscal year by West Virginia State Police of \$500.153 (West Virginia State Police,2019). The high value of drug seizure value by police might reflect the current drug addiction problems that coal mining communities in West Virginia face as of late 2019.

Virginia coal companies also experienced problems with drug addiction, just like West Virginia coal counties. Next, the research will discuss the criminality of Virginia coal counties during 2019. Buchanan County had the following top three offenses arrests in 2019: simple assault (119 adult arrests and one juvenile arrest), drug/narcotics violations (99 arrests), and drunkenness (74 arrests) (Virginia State Police,2020). Dickenson County had the following top four offenses arrests in 2019: drunkenness (16 arrests), simple assault (15 arrests), aggravated assault (6 adult arrests, one juvenile arrest), and drug/narcotic violations (5 arrests) (Virginia State Police, 2020). Lee County had the following top three offenses arrests in 2019: drug/narcotic violations (53 arrests), drunkenness (41 arrests), and simple assault (38 arrests) (Virginia State Police, 2020). Russell County had the following top three offenses arrests in 2019: simple assault (105 adult arrests, and three juvenile arrests), drug/narcotic violations (68 adult arrests and four juvenile arrests), and drunkenness (41 arrests) (Virginia State Police, 2020). Tazewell County had the following top four offenses arrests in 2019:

drug/narcotic offenses (174 adult arrests and one juvenile arrest), simple assault (127 adult arrests and four juvenile arrests), shoplifting (81 arrests), and drunkenness (64 adult arrests and two juvenile arrests) (Virginia State Police, 2020). Finally, Wise County had the following top three offenses arrests in 2019: drunkenness (102 arrests), drug/narcotic violations (94 adult arrests, and one juvenile arrest), and simple assault (92 adult arrests, and one juvenile arrest) (Virginia State Police, 2020). Based on the criminality analysis above, coal counties in Virginia faced severe issues such as drunkenness, drug/narcotics, and assault. Tazewell County was the only coal county in Virginia that also had to face a shoplifting issue.

The criminality of West Virginia, Virginia, and Kentucky were analyzed above since they were the three central coal-producing states in the Appalachian discussing in this dissertation. Other coal-producing Appalachian states such as Ohio and Pennsylvania were also examined to find out if they are also experiencing problems with drugs which seems to have been caused partially by drug addiction due to painkillers coal miners took in order to be able to subside their pain caused by the job conditions, they experienced in the coal mines and be able to continue to work in the coal mines as previously mentioned. In 2010, the top five coal-producing counties in Ohio were Belmont, Harrison, Perry, Jefferson, and Tuscaraws (Ohio Coal Mining Association, 2021). Despite coal production, Harrison County, Perry County, and Bell County were some of the five top coal-producing counties in Ohio, while coal production was still taking place in Tuscaraws County but not in Jefferson County (US Energy Information Administration, 2019). In the following five coal-producing counties in Ohio, criminality was analyzed to see if there were any differences in criminality based on the level of coal

production: Belmont, Harrison, Perry, Jefferson, and Tuscaraws. In 2019, Belmont County experienced the following crime in 2019 reported by the Ohio State Highway Patrol:

415 OVI (driving under the influence of drugs or alcohol) arrests, 69 felony arrests, 140 drugs arrests, 16 illegal weapons arrests, ten resisting arrests, and 1 identify theft arrest (Ohio State Highway Patrol, 2020). In 2019, Harrison County experienced the following criminality in 2019 reported by the Ohio State Highway Patrol: 33 OVI (driving under the influence of drugs or alcohol) arrests, three felony arrests, five drugs arrests, one illegal weapons arrest, 0 resisting arrests, and 0 identify theft arrest (Ohio State Highway Patrol, 2020). In 2019, Jefferson County experienced the following criminality in 2019 reported by the Ohio State Highway Patrol:

228 OVI (driving under the influence of drugs or alcohol) arrests, 41 felony arrests, 80 drugs arrests, nine illegal weapons arrests, seven resisting arrests, and 1 identify theft arrest (Ohio State Highway Patrol, 2020). In 2019, Perry County experienced the following criminality in 2019 reported by the Ohio State Highway Patrol: 68 OVI (driving under the influence of drugs or alcohol) arrests, eight felony arrests, 13 drugs arrests, one illegal weapons arrest, 0 resisting arrests, and 0 identify theft arrest (Ohio State Highway Patrol, 2020). Finally, in 2019, Tuscaraws County experienced the following criminality in 2019 reported by the Ohio State Highway Patrol: 312 OVI (driving under the influence of drugs or alcohol) arrests, 65 felony arrests, 169 drugs arrests, ten illegal weapons arrests, eight resisting arrests, and 1 identify theft arrest (Ohio State Highway Patrol, 2020).

The researcher expected Jefferson County to have the highest drug arrests of all the five coal-producing counties in Ohio examined, which is not the case. However, Jefferson County did have significant drug arrests by having the third-highest drug arrests and the third-highest OVI arrests among the five counties examined. Tuscarawas County had the highest number of drug arrests which might be a result from a lack of good-paying opportunities available to unemployed coal miners and possible drug addiction obtained during their gigs as coal miners, possibly leading them to resort to crime such as drug crimes. All five counties examined top three arrests were for OVI, felonies, and drugs. Four counties that include three of the top five coal-producing counties in Ohio experienced criminality such as drugs, felonies, and OVI due to a lack of available jobs for all the coal miners in those counties who might be relying on crime to cope with their unemployment crisis. It might be possible that coal miners that still work in coal mining in those four counties out of the five counties in Ohio examined that still produce coal might come into contact due to problems they might have with alcohol and drug use.

Finally, the research looked at the criminality in coal counties in Pennsylvania. Coal counties in Pennsylvania that were examined were five coal counties that had the lowest coal production in 2019 that range from 0 to 41,000 short tons of coal, and the two coal counties with the most coal production in 2019 that range from 10,076,000 short tons of coal to 28,306,000 short tons of coal (US Energy Information Administration, 2019). The five counties with the lowest coal production in Pennsylvania in 2019 were as follows: Elk County, Dauphin County, Fayette County, Mercer County, and Clarion County(US Energy Information Administration, 2019). The two highest coal-producing counties in Pennsylvania were Greene County and Washington County(US

Energy Information Administration, 2019). The researcher was able to find data for opioid arrests by county in Pennsylvania through the commonwealth of Pennsylvania open data for the year 2019. The following is the opioid arrests for the year 2019 for the seven coal counties in Pennsylvania mentioned above: Clarion County (6 opioid arrests), Dauphin County(108 opioid arrests), Elk County (2 opioid arrests), Fayette County (59 opioid arrests), Greene County (2 opioid arrests), Mercer County (25 opioid arrests), and Washington County (74 opioid arrests) (Commonwealth of Pennsylvania Open Data, 2021).

Interestingly, Elk County (a low producing coal county in Pennsylvania)tied Greene County(one of the two highest coal-producing in Pennsylvania) with the lowest number of opioid arrests for 2019 among the seven coal counties in Pennsylvania examined. Perhaps Elk County saw a low number of opioid arrests since unemployed coal miners might have found coal jobs in other coal-producing coal counties in Pennsylvania or unemployed coal miners move out of the county in search of other work opportunities since as previously mentioned, unemployed coal miners in Appalachian were moving to other areas in search for work. Greene County's low number of opioid arrests was expected since they are among the two highest producing coal counties in Pennsylvania. Therefore, Greene County might have offered more coal job opportunities than other coal-producing counties in Pennsylvania, leading to a possible low number of opioid arrests. Yet that does not mean that coal miners in Greene County do not have an addiction to drugs. It could be possible that police did not catch coal miners in Greene County that might have drug addictions in their act of consuming drugs.

Washington County in Pennsylvania was one of the other two highest producing coal counties that experienced the second-highest number of opioid arrests in 2019 among the seven coal counties examined. Washington County probably experienced a significant number of opioid arrests due to the possible both working and unemployed coal miners in the county were caught consuming drugs due to a potential drug addiction problem that they might be experiencing. Finally, Dauphin County and Fayette County were two counties with the top three opioid arrests in 2019, as expected since those two counties probably lack job opportunities. Possible lack of job opportunities and possible drug addictions among unemployed coal miners might have led those two counties to experience a significant number of opioid arrests.

Unemployed coal miners probably became addicted to drug painkillers while working in the coal mining since they took painkillers at their own choice to cope with the pains associated with the working conditions of the coal mines instead of finding jobs in other job sectors. Before losing their jobs as coal miners, their possible drug addiction probably put them at a higher risk of coming in contact with police after losing their jobs as the unemployed coal miners' drug addiction probably got worse after losing their positions in the coal mines. Unemployed coal miners' drug addictions can have become worse as they lack medical insurance. In addition, their counties might not have enough resources to provide them assistance with drug rehabilitation programs as previously mentioned. Coal counties in several coal-producing states experienced crime problems such as significant drug/narcotics, assault, and larceny-theft arrests in 2019, to name a few, as previously illustrated. Creating jobs in other job sectors in coal mining-producing states would not eliminate the risk of drug addict unemployed coal miners

coming into contact with police, possibly due to narcotics, assault, or larceny-theft, to name a few. Getting unemployed coal miners fully employed will not eliminate their drug addiction. Fully employed former coal miners with previous drug addictions might have a relapse at any given period. Even after being clean for years, relapses can occur since previous chronic alcohol or drug use can cause brain changes that can last for years after a former addict quits (Hardee,2017).

Coal mining communities' culture, education, and poverty

The culture of Appalachia has been changing significantly since 2019 as coal miners have come to accept more the idea the coal is dead after former President Trump failed to deliver his promises to bring coal back (Sainato,2019). Coal miners have been searching for new economies to replace coal, such as the new green deal (Sainato,2019). Coal miners believe that "coal is not there to mine" and coal will never return to its glory days(Sainato,2019). In 2018, West Virginia University forecasted that coal would continue to decline in the next two decades (Sainato,2019). Appalachia's culture experience has experienced a loss of more than 30,000 coal mining jobs in the last decade, with only 52,000 jobs remaining in the coal mining industry(Sainato,2019). Coal miners did believe Trump when he promised them during his 2016 presidential campaign that he would bring coal mining jobs back (Sainato,2019). In Lynch, Kentucky, "there were about 500,000 coal miners that were part of unions in the 1920s compared to only retired coal miners being part of the local United Mine Workers of America local chapter today" (Sainato,2019). Former coal mining union organizers such as Carl Shourpe recommended that Appalachia communities stop relying on coal for their economies and find an alternative economy to replace coal (Sainato,2019).

When it comes to the New Green Deal, the republican party and news outlets such as Fox News are against the idea, while former President Trump claimed the New Green Deal was "going to kill millions of jobs and affect the poor and disproportionately harm minorities" (Sainato,2019). However, the Appalachian coal communities' culture disagrees with such negative views of the New Green Deal (Sainato,2019). Former coal miner Carl Shourpe believes that many lies have been said against the New Green Deal and feels the New Green Deal "has different meanings to people from different parts of the country" (Sainato,2019). Stanley Sturgill, who has worked in the coal mines for more than 40 years, believes the New Green Deal will force politicians to come up with solutions to meet the needs of the Appalachian communities(Sainato,2019).

Despite the republican party opposing the New Green Deal because they feel it cannot be paid for, miners such as Stanley feel the New Green Deal can be funded by taxing the right people, such as the rich (Sainato,2019). Besides the Republican Party, Appalachian culture feels politicians do not take them seriously, which could explain why trump presidential campaign pledge to bring coal mine jobs back and make America great again resonated with many Appalachian communities (Sainato,2019). Trump brought hope to the Appalachian culture whom communities experience their livelihoods, and proud disappearances as coal mining as an economic dependence disappear in their communities (Sainato,2019). Appalachian communities are not against improving the environment as part of the New Green Deal (Sainato,2019). They do not want to be left behind and want assistance in helping them transition to other better-paying jobs(Sainato,2019).

Current Appalachian coal miners and their kids are afraid about the future (Sainato,2019). Currently, former coal miners that manage to find jobs need to work at least three jobs to match the salary they used to make in the coal mining industry (Sainato,2019). Appalachian coal mining communities want good-paying renewable energy jobs to be brought to their communities as a replacement for coal mining, and coal miners want good jobs for their kids as well(Sainato,2019). Many coal mining companies in Appalachian coal mining communities are going bankrupt, going out of business without paying salaries to coal miners for their work in the mines, and leaving coal mines without paying cleaning costs (Sainato,2019). In Pike County, Kentucky, the coal mining culture has experienced an increase in coal miners being terminated or layoff due to a decline in coal orders, and recently the covid pandemic has contributed to the problem (Sainato,2020). The covid pandemic caused a loss of more than 6000 coal mining jobs in the Appalachian communities between March and April 2020 (Sainato,2020).

Layoff coal miners in Pike County in Kentucky have sought unemployment benefits but are still struggling after being layoff from the coal mining industry (Sainato,2020). Laid-off coal miners in Pike County complained that there are not many jobs available in the area, and they cannot find jobs that offer competitive pay and benefits like the coal mining industry (Sainato,2020). Despite a decline in coal mining jobs, coal miners' families still want to work in the coal mining industry, such as a fifth-generation coal miner Myles Bates who was terminated after working for more than three years in Redhawk Mine (Sainato,2020). Finally, coal miners can be terminated or laid off at any moment without notice, without severance payment, and with immediate termination of their health insurance benefits(Sainato,2020). Coal underground mining in

West Virginia had thousands of good-paying jobs for many generations (Schwartz & Cohen,2021).

West Virginia Appalachian coal counties saw both prosperity and environmental damage to their rivers being contaminated, and mountains were blown up to make coal mining possible in their communities (Schwartz & Cohen,2021). After three of the four largest coal companies that produced half of the coal production in the USA collapsed into bankruptcy, Appalachian coal communities such as West Virginia significantly suffered because other forms of economies failed to develop and materialize due to coal industry dominating the economies of such Appalachian communities (Schwartz & Cohen,2021). In other words, Appalachian coal communities did not have economic backup plans in case one day they could no longer rely on coal to sustain their economy. It seems they probably never taught or even considered the idea of living with coal mining one day in the future. Some experts claimed the culture of the Appalachian coal communities could not just change for the better by placing laid-off coal miners in training programs (Schwartz & Cohen,2021). Experts feel the Appalachian communities' culture can be improved by placing former coal miners in good-paying jobs by "generating new local economies from the ground up" (Schwartz & Cohen,2021). Coalfield Development, a nonprofit through the assistance of grants from West Virginia and private contributions, has built local economies from the ground up to replace the coal economy by developing business enterprises in areas such as "land reclamation, construction, organic farming, woodworking, tourism, and solar installation" (Schwartz & Cohen,2021).

Coalfield Development workers in West Virginia coal mining communities gain job skills through a paid thirty-three-hour job gig (Schwartz & Cohen,2021). Such workers are also required to take six hours of free tuition courses in a local community per semester to get their associate degree to make them more competitive in the workforce and ultimately help them land a better paying job (Schwartz & Cohen,2021). Experts believe the wealth in the Appalachian communities is not in the coal industry but in the decisions of the people of the community to come up with solutions to create new forms of the economy to replace coal that "best fit their communities and culture" (Schwartz & Cohen,2021).

Yet, coal mining jobs are still prevalent in the Appalachian culture. Despite losses in coal mining jobs, Ohio former coal miners such as Ron Baker would not think twice and return to work in coal mining if closed bankrupt coal companies reopened for business (Doyle & Hendrix,2020). The culture of Appalachian coal communities had been to work in the coal mining industry just like the family members did previously after high school (Doyle & Hendrix,2020). Ron Baker went to work in the coal mining after graduating from high school, just like his grandfather did since the pay was good(Doyle & Hendrix,2020). For the Appalachian coal culture in Ohio, coal mining jobs provided coal miners and their families a middle-class lifestyle(Doyle & Hendrix,2020). Ohio's coal mining industry was once at its high peak, but now it only makes up one percent of the state's total workforce(Doyle & Hendrix,2020). Appalachian communities such as Ohio now accept the reality that coal mining would not make a comeback to its golden years (Doyle & Hendrix,2020).

Ohio's coal mining communities gave Trump a vote of confidence when he said he was bringing coal jobs back since he was seen as a businessman and not a politician (Doyle & Hendrix,2020). Renewable energy jobs as a possible solution to replace coal mining is not something new and were proposed by Hillary Clinton to coal miners in the Appalachian coal communities during her 2016 presidential campaign, but it was not taken seriously by the Appalachian culture due to her negative popularity and the negative comments, she made about the coal mining industry (Doyle & Hendrix,2020). The Appalachian culture believed that the Obama administration was responsible for the decline in coal mining due to the tough climate and environmental policies he put in place(Doyle & Hendrix,2020). When Trump reversed Obama's Climate and environmental policies, the coal mining industry did not return to its golden era (Doyle & Hendrix,2020). The Appalachian culture realized then that it was not environmental regulations that were killing coal mining but the low demand for coal in the market instead(Doyle & Hendrix,2020).

The low demand of coal has caused many coal communities in Ohio to travel outside their communities to work in other industries (Doyle & Hendrix,2020). The Ohio Appalachian culture currently does not have any coal miners unionized; they are proud of what their current coal communities have and are hopeful their coal communities' economies will bounce back without depending on coal (Doyle & Hendrix,2020). The Appalachian culture has given high support to coal mining despite coal mining "degrading the environment, destroyed material infrastructure, exploited workers for their economic gain, subjecting coal miners to dangerous working conditions, expropriated residents' land, and exposing residents to health risks related to the pollution their

business created" (Lewin,2019). Appalachian culture favors pro-coal and against environmental laws (Lewin,2019 cited Scott,2010).

The Appalachian culture believes that the federal government neglects them and devalues them (Lewin,2019). An attack against coal production is view by Appalachian culture as a way to deny them an economic opportunity, deny them a role in the labor force, do not accept their identity as rural Americans, and do not value their morality (Lewin,2019). The coal mining industry takes advantage of their high support in the Appalachian region by promoting the idea of "coal heritage" by eliminating threatens to their domination and position in the region (Lewin,2019). Such an approach has led the Appalachian culture to get a false sense that the coal industry is fighting for Appalachian culture's political interests(Lewin,2019). However, the reality is that the coal mining industry is only looking for its economic interests.

The coal industry looking out for their own interests has brought negative impacts to the Appalachian culture such as "scarring landscapes, killing ecosystems, and pollute their water sources" that resulted from coal mining companies using mountaintop removing mining to be able to extract the coal for their monetary gains (Lewin,2019). The coal mining industry has place Appalachian culture with community members that live close to coal mines at significant risk of developing health complications such as "respiratory illnesses, cardiovascular conditions, birth defects, cancers, chronic illnesses, and mortality" (Lewin,2019). The research mentioned that the Appalachian culture believes that the coal mining industry provides good-paying jobs despite their communities having limited economic opportunities(Lewin,2019). They also perceive that other forms of renewable energy are more expensive than coal in terms of electricity

costs (Lewin, 2019). In addition, research indicated that Appalachian culture feels the coal mining industry upheld community values and the rural image of their communities (Lewin,2019). Research showed that the Appalachian culture felt that only coal mining could offer them economic prosperity and was under the impression that the Obama administration's environmental regulations were unfairly targeting the coal mining industry and in return putting their economy prosperity at risk (Lewin,2019).

Some Appalachian coal miners were angered since they believed the Obama Administration Environmental Protection Agency was responsible for the closure of coal mines and eliminating the only good economic viable option for individuals without a high school diploma like themselves (Lewin,2019). A significant portion of Appalachian communities tends to rely on federal government assistance due to the lack of jobs available in the region (Lewin,2019). People in Appalachian communities make a living while they are unemployed or/and do not make enough to support their families through charity donations and drug dealing (Lewin,2019). Available Jobs in the Appalachian communities tend to cater to primarily female occupations such as nursing and teaching (Lawson,2019). Unemployed Appalachian coal miners that are unemployed that received federal government supplementary security income, and have a wife working struggle to meet their family needs even with two sources of income (Lewin,2019). Coal miners in Appalachian that still are lucky to have a job feel a sense of independence from the state and feel protected from marginalized cultural values (Lewin,2019). Finally, Appalachian culture supports the coal mining industry because coal mining jobs' dangerous working conditions and physical labor demands allow coal miners to showcase their masculinity(Lewin,2019 cited Maggard 1994; Scott,2010).

Appalachian culture has a hard time accepting that other renewable energy sources had taken over coal since environmental groups tend to downgrade the profession of coal mining as "antiquated and dirty" (Lewin,2019). In reality, coal miners are viewed as "sacrificed heroes" by the Appalachian communities (Lewin,2019). The Appalachian culture fears that if the coal mining industry collapses, they will be forced to leave the communities and the lands that their "dads, grandfathers, and great grandfathers work" to move to urban communities in search of other job opportunities (Lewin,2019). In addition, the Appalachian culture feels that leaving their communities and "hillbilly" lifestyle behind is a violation of their values such as "community, family, and loyalty" (Lewin,2019). Appalachian communities do not mind declining coal production to protect the environment if the government provides the resources they need to transition to other economic opportunities (Lewin,2019).

The Appalachian coal miners had a false impression that if the Environmental Protection Agency issued new permits, the coal mining industry would revive its golden years (Lewin,2019). The more educated unemployed coal miners are, the better their odds are in finding a good-paying job in other industries. According to the US Department of Agriculture, the five-year average from 2015 to 2019 of adults 25 years old and older that have completed a college degree in US rural areas is 20 percent and 24.2 percent for the entire state of Kentucky (US Department of Agriculture). The following is the five-year average from 2015 to 2019 of adults 25 years older that have completed a college degree in the coal counties in the eastern part of Kentucky: Perry county five-year average was 14.4 percent, Pike county five-year average was 13 percent, Harlan county five-year average was 10.8 percent, Floyd county five-year average was

11.3 percent, Bell county five-year average was 9.2 percent, Leslie county five-year average was 8.7 percent, Johnson county five years average was 16.3 percent, Knott county five-year average was 14.9 percent, Whitley county five years average was 20.4 percent, Martin county five-year average was 11.7 percent, Letcher county five-year average was 12.1 percent, Magoffin county five-year average was 9.5 percent, Knox County five-year average was 14.2 percent, Morgan County five-year average, was 12.5 percent, Lawrence County five year was 9.8 percent, and Breathitt County five-year average was 15.2 percent (US Department of Agriculture, 2021).

The highest percentage of people 25 years and older who have completed a college degree was apparent in the 2015-2019 period than previous periods in the coal counties in the eastern part of Kentucky that the US Department of Agriculture collected education county-level data (US Department of Agriculture, 2021). The above fact probably indicates that perhaps more younger generations in the coal counties in the eastern part of Kentucky are getting educated. In addition, the percentage of people with a college education in coal counties in the eastern part of Kentucky was lower than the percentage of people with a college education for the entire state of Kentucky. Also, all coal counties in the eastern part of Kentucky except for Whitley County had a lower percentage of college-educated people than the average percentage of people with a college education in the rural areas of the United States. Therefore, it can be inferred that unemployed Appalachian coal miners in the eastern part of Kentucky might face a hard time getting good-paying jobs like the good-paying jobs they formerly had in the coal mining industry due to their lack of higher education beyond high school. Lack of good-paying jobs opportunities might have worsened the problem of drug addiction in coal counties in the

eastern part of Kentucky, which might have led such communities to have high police arrests for drug crimes and other crimes previously mentioned.

Next, the research will compare the percent of college-educated people in the coal counties in the western part of Kentucky with the percentage of college-educated people in the whole state of Kentucky and the average percent of college-educated people in the rural areas in the US. The following coal counties in the western part of Kentucky had the following five-year average percent of college-educated people that are 25 years and older from 2015-2019: Union County had a five year average of 11.1 percent, Hopkins County had a five year average of 16.5 percent, Ohio County had a five year average of 13.6 percent, Webster County had a five year average of 10 percent, Muhlenberg County had a five year average of 12.6 percent, Mclean County had a five year average of 13.5 percent, and Daviess County had a five year average of 22.9 percent (US Department of Agriculture, 2021). It seems that coal counties in the western part of Kentucky had a higher percentage of college-educated people that are 25 years and older from 2015-2019 than previous periods of education county-level data collected by the US Department of Agriculture seems to suggest that perhaps younger generations in coal counties in the western part of Kentucky are becoming more educated.

In addition, coal counties in the western part of Kentucky had a lower percentage of college-educated people that are 25 years and older than the entire state of Kentucky. Also, all coal companies in the western part of Kentucky except Daviess County average percentage of college-educated people 25 years and older from 2015-2019 was much lower than the average percentage of college-educated people 25 years and older from rural areas in the US for the same time period. Therefore, the lack of higher education

beyond high school in coal counties in the Western part of Kentucky can explain the limited opportunities of accessing good-paying jobs that coal miners in those coal counties are facing. Limited opportunities to access good-paying jobs might have worsened drug addiction in the coal counties in the western part of Kentucky, which can explain the significant number of arrests for drug crimes and others in such counties.

The percentage of college-educated people in coal counties in the state of West Virginia was also examined. The average five-year percent of college-educated people that are 25 years old and older from 2015-2019 in the state of West Virginia was 20.6 percent (US Department of Agriculture,2021). The following coal counties in West Virginia had the following average five-year percent of college-educated people from 2015-2019 that are 25 years old and older: Boone County had an average five-year percent of college-educated people of 9.7 percent, Logan County had an average five-year percent of college-educated people of 10 percent, and Mingo County had an average five-year percent of college-educated people of 9.9 percent (US Department of Agriculture, 2021). All three coal counties in the state of West Virginia had a lower percentage of college-educated people than the average percent of college-educated in the entire state of West Virginia and rural areas in the US from 2015-2019. Yet, all three coal counties had an average percent of college-educated people from 2015-2019 that was higher than any other periods in which education county-level data was collected by the US Department of Agriculture, suggesting that perhaps young generations in the three coal counties in West Virginia are getting more educated.

The percent of college-level educated people in the three coal counties in West Virginia is significantly low, which could explain the limited opportunities of good

paying jobs available to unemployed coal miners due to their lack of education beyond high school. Limited options of good-paying jobs might explain the significant drug addictions that the three coal counties in West Virginia are facing, which probably has led to the high value of drugs confiscated by West Virginia State Police during arrests and traffic stops. Next, the education level of Virginia coal counties was examined. The state of Virginia as a whole had a five-year average percentage of people with a college education that are 25 years or older from 2015 to 2019 of 38.8 percent (US Department of Agriculture, 2021). The following Virginia coal counties were examined in terms of the percent of college-educated people that are 25 years and older from 2015-2019: Buchanan County, Dickenson County, Lee County, Russell County, Tazewell County, and Wise County. Buchanan County had a five-year percent average of college-educated people that are 25 years old and older of 11.8 percent (US Department of Agriculture, 2021). Dickenson County had a five-year percent average of college-educated people that are 25 years old and older of 10.7 percent (US Department of Agriculture, 2021). Lee County had a five-year percent average of college-educated people that are 25 years old and older of 11.2 percent (US Department of Agriculture, 2021). Russell County had a five-year percent average of college-educated people that are 25 years old and older of 12.2 percent (US Department of Agriculture, 2021). Tazewell County had a five-year percent average of college-educated people that are 25 years old and older of 14.9 percent (US Department of Agriculture, 2021). Finally, Wise County had a five-year percent average of college-educated people that are 25 years old and older of 15 percent (US Department of Agriculture, 2021).

All coal counties in Virginia examined had a percent of college-educated people that are 25 years of age and older that was lower than the percentage of college-educated people that are 25 years of age and older for the whole state of Virginia and rural areas in the USA from 2015 to 2019. In addition, all coal counties examined in Virginia had the highest five year average of college-educated people that are 25 years old and older from 2015-2019 than other previous periods in which education county-level data was collected by the US Department of Agriculture suggesting that perhaps young generations in coal counties in Virginia are getting more educated. The low percentage of college-educated people that are 25 years old and older in coal counties in Virginia probably explains the limited opportunities for high-paying jobs similar to coal mining jobs available to unemployed coal miners due to their limited higher-level education beyond high school education. Limited access to high-paying jobs might lead unemployed coal miners to resort to drugs, assault, and alcohol, ultimately leading them to be caught and arrested by police.

The next Appalachian coal state that will be discussed in terms of education is the state of Ohio. The following coal counties in Ohio were reviewed in terms of education: Belmont County, Harrison County, Jefferson County, Perry County, and Tuscarawas County. The five-year percent average of people that are 25 years old and older that have a college degree from 2015 to 2019 for the State of Ohio was 28.3 percent (US Department of Agriculture, 2021). Belmont County had a five-year percent average of college-educated people that are 25 years old and older of 16.7 percent (US Department of Agriculture, 2021). Harrison County had a five-year percent average of college-educated people that are 25 years old and older of 11.6 percent (US Department of

Agriculture, 2021). Jefferson County had a five-year percent average of college-educated people that are 25 years old and older of 15.8 percent (US Department of Agriculture, 2021). Perry County had a five-year percent average of college-educated people that are 25 years old and older of 12.2 percent (US Department of Agriculture, 2021). Finally, Tuscarawas County had a five-year percent average of college-educated people that are 25 years old and older of 17.4 percent (US Department of Agriculture, 2021).

All five coal counties examined for the state of Ohio had a five-year average percentage of college-educated people that are 25 years old and older from 2015-2019 that is below the five-year average percentage of college-educated people that are 25 years old and older for the entire state of Ohio and the rural areas of the USA. In addition, all five coal counties in Ohio have the highest five-year percentage of college-educated people that are 25 years old and older than previous periods in which education county-level data was collected by the US Department of Agriculture suggesting that perhaps younger generations in the coal counties are getting more educated. In addition, the low five-year percentage of college-educated people in coal counties might explain the limited opportunities of good-paying jobs similar to jobs in the coal mining due to the coal miners' limited higher-level education beyond high school education. Lack of access to good-paying jobs might explain the criminality in terms of driving under the influence of alcohol or drugs and drug arrests currently being experienced by the coal counties in Ohio.

The last Appalachian state examined in terms of education was Pennsylvania. The seven coal counties in Pennsylvania examined in terms of education were as follows: Clarion County, Dauphin County, Elk County, Fayette County, Greene County, Mercer

County, and Washington County. The five-year average percentage of college-educated people who are 25 years old and older from 2015-2019 in Pennsylvania was 31.4 percent (US Department of Agriculture, 2021). Clarion County had a five-year average percentage of college-educated people that are 25 years old and older from 2015-2019 was 22.1 percent (US Department of Agriculture, 2021). Dauphin County had a five-year average percentage of college-educated people that are 25 years old and older from 2015-2019 was 30.8 percent (US Department of Agriculture, 2021). Elk County had a five-year average percentage of college-educated people that are 25 years old and older from 2015-2019 was 19.6 percent (US Department of Agriculture, 2021). Fayette County had a five-year average percentage of college-educated people that are 25 years old and older from 2015-2019 was 17.3 percent (US Department of Agriculture, 2021). Greene County had a five-year average percentage of college-educated people that are 25 years old and older from 2015-2019 was 17.6 percent (US Department of Agriculture, 2021). Mercer County had a five-year average percentage of college-educated people that are 25 years old and older from 2015-2019 was 22.8 percent (US Department of Agriculture, 2021). Finally, Washington County had a five-year average percentage of college-educated people that are 25 years old and older from 2015-2019 was 30 percent (US Department of Agriculture, 2021).

Only Dauphin County is considered an urban county, while the remaining six coal counties in Pennsylvania examined are considered rural counties (Center for Rural Pennsylvania, 2014). All coal counties examined in Pennsylvania had an average five-year percentage of college-educated people from 2015-2019 below the average five-year percentage of college-educated from 2015 to 2019 for the state of Pennsylvania. Elk

County, Fayette County, and Greene County were the only three rural counties out of the six rural coal counties examined for the state of Pennsylvania that had a five-year average percentage of college-educated people that are 25 years old and older from 2015-2019 that was higher than the five-year average percentage of college-educated people that are 25 years old and older from 2015-2019 for rural areas in the USA. The urban areas in the USA had a five-year average percentage of college-educated people that are 25 years old and older from 2015-2019 of 34.2 percent (US Department of Agriculture,2021).

Dauphin County, an urban coal county in Pennsylvania, had a five-year average percentage of college-educated people 25 years old and older from 2015-2019 below the five-year average percentage of college-educated people 25 years old and older from 2015-2019 for urban areas in the USA. In addition, all coal counties examined for the state of Pennsylvania had the highest five-year average percentage of college-educated people that are 25 years old and older from 2015-2019 than previous periods in which education county-level data was collected by the US Department of Agriculture suggesting perhaps that younger generations in coal counties are getting more educated. Pennsylvania coal counties have a much higher percentage of college-educated people than other coal counties from other Appalachian coal states examined, suggesting that perhaps unemployed coal miners in Pennsylvania might have access to more high-paying jobs than other Appalachian coal states examined. Yet, it could be possible that older generations of unemployed coal miners in Pennsylvania might lack a higher level of education beyond high school, which could explain their lack of access to high paying jobs similar to coal mining jobs which probably led them to resort to drugs that might

have caused from a drug addiction which could explain the significant number of opioid arrests that some coal mines in Pennsylvania experienced in 2019.

Finally, the researcher examined the poverty rate of coal counties in Appalachian Coal states previously discussed. The overall poverty percent for the USA in 2019 was 12.3 percent (United States Census Bureau,2020). The overall poverty percentage for West Virginia in 2019 was 16.2 percent (United States Census Bureau,2020). The overall poverty percent for the coal counties in West Virginia in 2019 was as follows: Boone County (18.9 percent), Logan County (21.9 percent), and Mingo County (27.3 percent) (United States Census Bureau,2020). The poverty rate in coal counties in West Virginia is much higher than the entire state of West Virginia and the US in 2019. A significant percent of poverty in coal counties in West Virginia might have push coal counties communities to rely on drugs to earn extra money to meet their family needs which might explain the high-value amount of drugs seized by police in West Virginia in 2019 in coal counties. The next coal Appalachian state poverty rate examined was Kentucky. Kentucky had an overall poverty rate in 2019 of 16 percent (United States Census Bureau,2020). The following is the poverty rates of the coal counties in eastern Kentucky in 2019: Perry County (24.2 percent), Pike County (24 percent), Harlan County(31.1 percent), Floyd County (27.4 percent), Bell County (30.3 percent), Leslie County (32.3 percent), Letcher County (28.9 percent), Lawrence County (23.4 percent), Magoffin County(29.4 percent), Martin County (34.4 percent), Morgan County (26.5 percent), Knott County (30.5 percent), Knox County(31.5 percent), Johnson County (25.8 percent), Breathitt County (29.2 percent), and Whitley County(22.6 percent) (United States Census Bureau,2020).

The coal counties in the eastern part of Kentucky have poverty rates higher than the whole state of Kentucky and at least two times higher than the poverty rate of the USA. Therefore, it seems to suggest a lack of job opportunities for coal communities in the eastern part of Kentucky. Lack of job opportunities might make coal communities resort to alcohol, drugs, and assault to deal with their economic problems. Besides coal communities in the eastern part of Kentucky dealing with poverty, coal communities from the western part of Kentucky are not immune from poverty. The poverty rates for coal communities in the western part of Kentucky are as follows: Daviess County (15.4 percent), Hopkins County (18.1 percent), Mclean County (14 percent), Muhlenberg County (18.8 percent), Ohio County (15.6 percent), Union County (17.3 percent), and Webster County (16.3 percent) (United States Census Bureau, 2020). It is clear that coal counties poverty rates in the west part of Kentucky are lower than coal counties in the eastern part of Kentucky and slightly higher than the poverty rate for USA, which can probably suggest that communities in coal counties in the western part of Kentucky might have more access to jobs, unemployed coal miners still live in the communities but commute to work in other job sectors in other counties outside their primary residence county, or unemployed coal miners left the county entirely in search for jobs in other areas. Mclean County, Daviess County, and Ohio County in the western part of Kentucky had poverty rates lower than the poverty rate for the entire state of Kentucky. Criminality problems being experienced in counties in the western part of Kentucky might be due to alcohol and drug addictions caused partially due to poverty from their constituents not earning enough to meet their daily needs or being currently unemployed.

Besides Kentucky, coal counties in Virginia are not immune to poverty. Virginia had a poverty rate of 9.9 percent in 2019(United States Census Bureau,2020). The poverty rate for the state of Virginia in 2019 was lower than the overall poverty rate of the USA. The following are the 2019 poverty rates for coal counties examined in the state of Virginia: Buchanan County(21.7 percent), Dickenson County (24.2 percent), Lee County (27.1 percent), Russell County(20 percent), Tazwell County (21.7 percent), and Wise County(20.4 percent) (United States Census Bureau,2020). The coal counties in Virginia had a poverty rate in 2019 that was at least two times higher than the poverty rate for the entire states of Virginia, suggesting that perhaps coal counties in Virginia had limited access to job opportunities in their communities which could have pushed their constituents to rely in assault, drugs, and alcohol as a way to cope with their monetary problems, to make extra cash for their family daily needs or caused by a previous addiction to drugs and/or alcohol. Finally, coal counties in Virginia had a poverty rate that was slightly higher than the poverty rate for the entire USA in 2019, probably suggesting that coal counties were doing slight worse economically than the whole USA while the whole state of Virginia might have been doing much better economically than the whole USA.

Besides Virginia, coal counties in Ohio also had problems with poverty in 2019. The state of Ohio had a poverty rate in 2019 of 13 percent(United States Census Bureau,2020). The following are poverty rates of coal counties examined in the state of Ohio: Belmont County(11.6 percent), Harrison County (14.5 percent), Jefferson County (17.1 percent), Perry County(15 percent), and Tuscarawas County (11.2 percent) (United States Census Bureau,2020). Belmont County, and Tuscarawas County has poverty rate

in 2019 lower than the poverty rate for both the state of Ohio and entire USA which might suggest those counties probably had more job opportunities for the constituents than the other three coal counties examined in Ohio. Unemployed coal miners still living in those two counties might commute to other counties to work in other job sectors, or unemployed coal miners moved out searching for job opportunities in other areas of the USA. Harris County, Jefferson County, and Perry County had poverty rates in 2019 slightly higher than the entire of Ohio and the entire USA, probably suggesting that they might have fewer economic opportunities than the state of Ohio and the USA. Lack of job opportunities causes constituents in counties such as Harrison County, Jefferson County, and Perry County to resort to drugs and drive under the influence of drugs or alcohol to cope with economic problems or make extra cash to meet their family needs.

The last Appalachian coal state that was examined in terms of poverty was Pennsylvania. Pennsylvania had a poverty rate in 2019 of 12 percent (United States Census Bureau, 2020). The following poverty rates for 2019 was obtained for the following seven coal counties in Pennsylvania examined: Clarion County (14.1 percent), Dauphin County (11.3 percent), Elk County (9.8 percent), Fayette County (17.5 percent), Greene County (14.2 percent), Mercer County (13.1 percent), and Washington County (9.9 percent) (United States Census Bureau, 2020). One interesting finding was that Elk County and Dauphin County who are two of five low coal-producing counties in Pennsylvania, had poverty rates in 2019 below the poverty rate for the state of Pennsylvania and the entire US suggesting that perhaps unemployed coal miners left the counties to other areas in search for jobs or unemployed coal counties stay in the counties but commute to other counties to work in other jobs from different job sectors or coal

mining jobs. Washington County one of the two highest producing coal counties in Pennsylvania had a poverty rate in 2019 below the poverty rate for the state of Pennsylvania and the entire USA suggesting that perhaps a very low number of coal miners were unemployed in the county and/or constituents had access to more economic opportunities in terms of available job openings. Clarion County, Fayette County, Greene County, and Mercer County had poverty rates in 2019 that were slightly higher than the poverty rates for the state of Pennsylvania and the entire USA. It is surprising that Greene County, one of the two highest producing coal counties in Pennsylvania, had a poverty rate slightly higher than the state of Pennsylvania and the entire USA, which suggests that perhaps there were not enough coal mining jobs in the county. Fayette County and Mercer counties had the third and four highest opioid arrests in 2019, as previously mentioned, which might have been triggered by the slightly high poverty rates than the poverty rate the state of Pennsylvania and the US were experiencing in 2019.

When it comes to Appalachian culture, it seems the Appalachian coal counties did not adequately prepare for alternative economic opportunities to replace coal and fail to accept evolution. Evolution in terms of the Appalachian culture was their refusal to accept the inevitable, which was that other cheaper sources of energy would take over the coal industry. Evolution in terms of administration of justice can affect anyone, such as the Appalachian communities that refuse to accept the new order of doing things preventing anyone from growing/developing. Evolution has led to the extinction of species that refused to evolve. The Appalachian communities' extinction can be referred to in terms of their culture, tradition, and values being lost as more of their constituents are forced to find jobs in other areas. The good news is that Appalachian communities

and coal miners of such communities have realized that the coal mining industry will soon become extinct. As previously explained, Appalachian communities are on board with any new idea, such as the New Green Deal, that can create new sources of employment in their communities. In addition, Appalachian Communities are in favor of protecting the environment as long as the government helps them create new sources of jobs to replace former coal jobs in their area instead of being left behind. In other words, Appalachian communities want to be treated equally since in the administration of justice; the US Constitution makes it clear that we all are created equally.

In fact, the federal government might control the rise of black lung disease among coal miners by investing and creating jobs in the Appalachian Communities that replace coal mining jobs that have been lost due to the decline in coal demand in the markets. All coal counties examined in the states of Virginia, West Virginia, Kentucky, Ohio, and Pennsylvania had a low percentage of people that are 25 years or older that have a college education meaning that they lack higher education beyond high school to be able to have more access to high paying jobs that their constituents used to have. In addition, the majority of coal counties examined in the states of Virginia, West Virginia, Kentucky, Ohio, and Pennsylvania have a significant percentage of poverty that tends to be slightly higher than the national average and with some coal counties having a poverty rate that is twice as high as the national average. Some coal counties have a lower poverty rate than their states and national average probably because unemployed coal miners either left to other parts searching for jobs or commuting to other nearby counties to work in other jobs from other sectors or work in some cases in the coal mines.

Yet, it is in the best interest of the federal government to invest and create good-paying jobs in Appalachian coal communities since Appalachian communities who lack necessary higher education needed to have access to more good-paying jobs and tend to live in significant poverty might continue to commit crimes such as drugs, assault, and driving under the influence of drugs or alcohol to name a few of the federal government ignores the needs of this communities. As previously mentioned, Appalachian communities feel politicians tend to ignore this need. In fact, President Biden asked the democratic party to create an infrastructure bill that could pass without any republican support as infrastructure talks with key Republican senators collapsed (Wilkie & Pramuk,2021). Negotiations collapsed after key Republican senators disagreed with President Biden" on what constitutes infrastructure and how much money to allocate for it" (Wilkie & Pramuk,2021). Appalachian coal communities can benefit from Biden infrastructure by voting for politicians that support Biden infrastructure.

Future Studies

After doing this dissertation, the researcher feels that a future study would be to survey fifteen to twenty-five coal miners that are sick from black lung disease that current work in the coal mines or no longer work in the coal mines regarding their point views in topics such as the federal government free black lung disease screening program, coal mining employers following coal mining safety and health regulations, and reasons why they work in the coal mines despite the higher risk of contracting black lung disease due to higher exposure to silica to name a few. One question to ask regarding the free black lung disease screening program offered by the federal government is have you taken advantage of the free black lung disease screening program provided by the federal

government?. If you have not taken advantage of the program, were you aware of the program's existence?. If you were aware of the free black lung disease program and have not taken advantage of the program, why have you not taken advantage of the program? The above questions are crucial because screening of black lung disease at an early stage is crucial since there is no medical cure for the condition except for getting a lung transplant that is expensive and does not guarantee survival.

Another question to ask about the federal government free black lung disease screening program is were you afraid of retaliation from your supervisors if they became aware of you using the free federal black lung disease federal program?. The following questions are related to following the coal mining safety and health regulations in the workplace. The first question is, did your employer provide you with a breathing mask to provide you protection from coal mine dust and silica?. If they provided you with a breathing mask, did you consistently wear the mask while working in the coal mines? Such questions are crucial because an employer can provide a breathing mask, but that does not mean they will always wear it. The employer must provide a breathing mask but not constantly babysit their employees to ensure they always wear their masks since they are adults.

Are you aware if your employer properly measures coal dust levels as required by federal law without using any cheating mechanisms to alter their collection of coal dust levels to make it seem that they followed federal safety coal dust levels even if they were not in compliance? (for example: turning off coal dust levels machine readers during different times of their collection of coal dust levels). Proper and fair collection of coal dust levels in coal mining is crucial to help deter black lung disease among coal miners.

Did your employer provided you with protection equipment while working in the coal mines?. Did your employer cut corners in a federally approved ventilation plan or/and roof plan to save money, such as using cheaper parts such as not using the federally approved rods?. The above questions are crucial because from the research, we learned that many mine explosions, as discussed in the research, were due to not adequately followed federal approved ventilation or roof plan and/or not provided workers with adequate safety equipment. The next question is, how often did federal coal mine inspectors inspect the coal mine you work in? (For example, once a week, once a month, once every three months, or once a year, to name a few). It is crucial to know if federal coal mine inspectors were inspecting the mines consistently since they are the ones in charge of identifying any safety issues in the mine and assigned appropriate fines for safety violations.

How many years did you work in the coal mining industry? If you were diagnosed with black lung disease, did you attempt to find a job in other sectors to significantly reduce the risk of your black lung disease progress if you continued to work the coal mines? Before you got black lung disease, why did you continue to work in the coal mines knowing that you ran a risk of contracting black lung diseases?. After you were diagnosed with black lung disease, did your employer provided you accommodations such as modifying or assign you other job duties that significantly reduce your contact with silica or coal dust?. The above questions are crucial since we need to find out why coal miners continue to work in the coal before and after getting black lung disease even do they were probably aware that they run a risk of getting black lung disease.

The last questions are related to getting black lung disease benefits after being diagnosed with black lung disease. Did you have a pro bono or private attorney represent you in a black lung disease claim? As previously mentioned in the research, a significant number of pro bono attorneys were reluctant to take black lung disease claim cases since they can take a long time to resolve and were not sure if they were ever going to receive some compensation for their work. Have you been awarded and are receiving black lung disease benefits? If you have not received black lung disease benefits, is it because your employer keeps appealing decisions that awarded you black lung disease? How long have you been waiting to receive black lung disease benefits after your employer keeps appealing decisions that awarded you black lung disease? The above questions are relevant because research indicated that some coal miners have waited for at least a decade to received black lung disease benefits after the coal mining industry continues to appeal favorable black lung disease benefits decisions for the sick coal miners.

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Glenda Owens, in her official capacity as Director of U.S. Office of Surface Mining; and Joseph Balash, in his official capacity as Assistant Secretary of Land and Minerals Management of the U.S. Department of the Interior(defendants).

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