THE CULTURE OF APPALACHIAN COAL MINERS AND

ITS AFFECT ON THEIR FUTURE

by

Joanna Ferrell

Liberty University

A Dissertation Presented in Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy in Communication

School of Communication and the Arts

Liberty University

2022

THE CULTURE OF APPALACHIAN COAL MINERS AND

ITS AFFECT ON THEIR FUTURE

by Joanna Ferrell

A Dissertation Presented in Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy in Communication

School of Communication and the Arts

Liberty University

Lynchburg, VA

2022

APPROVED BY:

Carol Hepburn, Ph.D. Committee Chair

Carey Martin, PhD. Committee Member

Robert Mott, PhD. Online Program Chair

Abstract

The purpose of this ethnographic study was to understand and describe the culture and history of the Appalachian coal mining community and how the culture is impacting their future if they face a mine closure. The theory guiding this study is the Cultural Identity Theory by Mary Jane Collier as it explains that the miners' culture is influenced by those around them and can change based on their surroundings. There is also influence from mining history, which was explored in detail. Surveys, interviews, and observations were utilized to collect data as well as historic artifacts.

Keywords: Appalachia, coal mining, West Virginia, Pennsylvania, culture, identity, education

Dedication

I dedicate my manuscript to my family and my friends, because without them, I would not be who I am today.

Sincerest gratitude to my parents, Robert and Janet Ferrell, whose support, votes of confidence and push for tenacity are a constant reminder to never take your foot of the gas. My whole education is built on the base you gave me. Thank you for always believing in my wild ideas.

To my husband, Michael, I will never be able to put into words the appreciation I have for you. You push me to be the best version of myself and love me regardless of what version that is at any given moment. You are my biggest cheerleader, and my muse for this work, and I am so grateful to have you in my corner. Everyone should be so lucky.

To Manda, my soul sister. You are the epitome of what it means to be a best friend. I couldn't go through life without you. So many world tours, laughs and tears have made us inseparable. You are my family I got to choose, and I have pretty good taste.

To Heather and Norma, you two keep me sane every single day. I can't imagine what it would be like to not have you two on my counsel. Thank you for always listening to me and reminding me that I can do anything. My world is a much better place with you two in it.

To Juke, my fuzziest confidant. Without him, my life would be a much duller place. He's been with me through thick and thin – and doesn't know how much of an impact he has on me.

Finally, I dedicate this piece of literature to all the coal miners, past, present, and future in the Appalachia. You all have taught me so much about what it means to work hard, love hard and the belief in doing the right thing.

Per aspera ad astra

Acknowledgements

Throughout the study and writing of this dissertation I have received a great deal of support.

I would first like to thank my dissertation chair, Dr. Carol Hepburn for everything she has done for me. Her belief in me and my study was always unwavering and positive, and she put up with a lot of wild things from me, like eloping in the middle of my study. Dr. Hepburn, you inspire me as a woman in academics, and I will be forever grateful for all your help and our chats, and I look forward to having you as a part of my life forever.

I would also like to thank Dr. Carey Martin for his guidance and excitement for my dissertation. Your positivity about my topic kept me going, and reminded me that it is important, and will help people throughout the Appalachian region, or as we call it, our home.

To Matt and Allan, thank you all for your belief in my theories, and for helping me throughout my work. You both have been instrumental in making my dissertation a success.

Finally, I would like to thank Jordan Maze, my amazing editor for fixing all the mistakes and being one of few people I would trust to help me on this journey. You have no idea how much your help means to me, and how grateful I am for you!

Table of Contents

List of Figures

CHAPTER ONE: INTRODUCTION

"God made coal for the men who sold their lives to West van Lear - and you keep on digging 'til you get down there where is darker than your darkest fears."

Overview

Chapter One tells the history, experiences, and traditions of coal mining-related to West Virginia and Southwestern Pennsylvania. The immigration of people from all over Europe is explored, the significance of which is still felt today. The nature of a coal miner's work in the past is explained, showing the beginnings of fatalism and reliance on religion in coal miners and their families. Taken together, this information creates a backdrop for further investigation of the culture of coal miners of today.

Background

History of Mining in West Virginia

There is a significant amount of history and lore surrounding coal mining in West Virginia that begins in the early 1700s. The first production of coal was in the Southwestern Pennsylvania region, around Pittsburgh, and helped the United States military forge weapons. By the early 1800s, settlers had made their way deeper into the Appalachian region. They quickly noticed an opportunity for production in the area, though this was hindered by the lack of infrastructure through Appalachia's newly developed expanses. However, this challenge was solved by better-engineered steam engines and soon resulted in infrastructure beginning to grow across West Virginia and the region. According to Lasson (1972), the creation of the steamboat helped to alleviate the pressure that was being felt to connect this bountiful countryside with places across the West that lacked the resources needed to smelt the metal, create bricks, and heat homes which were spreading further into the western areas of the United States. The year

1811 brought the first steamboat laden with a load of coal down the Monongalia River from Pennsylvania through West Virginia and out to the Western United States, establishing a route that is still in use (p. 17).

Just over fifty years later, during the Civil War, mining in West Virginia took a massive dive. Hostilities between the North and South had taken a toll on the industry, as each army cut off the other's supply lines. This stoppage caused the infrastructure in the area to fall into disrepair.

The rural nature of the mining areas and this decline in upkeep took a toll on mining when it began to ramp up again after the war was over. The vast forests and mountains were hard to navigate and far removed from any larger cities with the resources and staffing necessary to repair the roads and rivers to prepare them for future transportation. It took the creators of the transportation systems significant time to carve their way back through these woods and hills, and it seemed that the best places to mine were often in the middle of some of the most rugged topography there was (Lasson, 1972).

Companies who took the burden of this cost felt that to create the most benefit for the money they were pouring into the rebuilding of the transportation systems, they would focus their efforts on finding the most plentiful amount of coal. This created four distinct segments of the area, two in the southern part of West Virginia and two in the north. The West Virginia Archives and History (2020) explains that the two in the southern part of the state were called the New and Kanawha River fields and the Pocahontas fields, also known as the Flat Top fields. The two in the north were named the Fairmont field, also known as the Fairmont or Upper Monongahela, and the Elk Garden, or the Upper Potomac districts (para. 3). While the northern region was made up of mines that were much smaller than those in the south (and Tucker County

alone produced most of the coal mined in this area), the south was more extensive and still

makes up what many people believe to be the heart of coal mining country.

Demographics

Currently in the United States there is an estimated 81,491 coal mining jobs

(statista.com). West Virginia holds the most jobs in the industry, with 11,418 coal jobs as of

2020. This number has dropped in the last ten years, from 21,091.

State	2010	2012	2014	2016	2018	2020
WV	21,091	22,786	18,330	11,561	13,962	11,418
WY	6,857	7,004	6,624	5,756	5,558	4,867
PA	8,268	8,927	7,938	5,202	5,385	4,818
KY	17,996	16,351	11,834	6,729	6,502	4,006
AL	4,341	5,041	3,694	2,124	2,904	2,530
IL	3,649	4,512	4,218	3,219	3,079	2,175
VA	4,957	4,998	3,627	2,417	2,730	2,094

Figure 1: Leading US Sates for Coal Mining Jobs 2010-2020

There are few women who go underground to mine. Most of the women who are

employed by mines work above ground in roles such as Human Resources or Administration.

According to Statista, only 10 percent of the people employed by mines were women.

Characteristic	Number
Number of Mine Workers Total	63,649
Percentage of Female Employees	10%
Number of Mining Operations	1,008
Median Age	44
Mean Age	44
Average Hours Worked Weekly	44
Earnings Average (Hourly)	$30.42
Earnings Average Weekly	$1,607
Earnings Annual Salary	$89,707
Education High School Diploma	75%
Education Bachelor's Degree or Beyond	3%
Safety Training New Miners (Hours)	24
Annual Refreshing of Safety (Hours)	8
Annual Job Related Training (Hours)	10
Work Experience Median Years	16

Figure 2 Statista 2020 Data

The figure above examines the Statista.com data about coal mining as of 2020. It looks at the average age, earnings, and number of employees in the United States. This data is helpful for research, as it provides insight into how many people are affected by any changes happening in the industry, as well as an idea of the typical salary that is necessary for people to maintain the lifestyle they have created by working in the mines.

Immigration in West Virginia

West Virginia had seceded from Virginia during the Civil War, making it a place of refuge for African American people looking to escape the south's violence and build a better life for themselves and their families. NPS.gov (2020) explained that these men often worked as coal loaders because it gave them the freedom to leave once, they had finished loading as much coal as necessary for that day (para. 3). This was important to them, as they felt a sense of freedom that was not an option in the areas they were escaping from (para. 2). The NPS also states that by 1909, more than 26 percent of all West Virginia miners were African American (para. 1).

Being a loader in this era's mines was one of the most dangerous positions in the mine. The loader did more than load the coal. Loaders were responsible for cutting, drilling, blasting, and loading the coal from the seam. The loader was also responsible for ensuring that the coal was clean. Once he ensured that the coal in his car was clean, he would then work with a mule or horse, and a break man to get the coal to the mouth of the mine and return to do unpaid work, including installing roof cribs, ensuring that the ventilation was adequately maintained and extending the tramway these coal cars would ride on. Today, these jobs are all handled by teams of miners employed to focus on just one of those tasks. These miners could cut and load five tons of coal a day and make $2.00–$5.00 for eight hours of laborious work (nps.gov, 2020).

Following the Civil War, there was a massive boom in the industry. A need arose for coal to run the plants that were popping up all over the Midwest, and the creators of this industry looked to the coal mines that were taking shape in the mountains of West Virginia, Pennsylvania, and Kentucky. There was, however, one significant issue that mines faced: the lack of manpower was evident in these areas. Appalachia was and still is a very rural part of the nation,

and the area's people were often farmers. As mining continued to grow through the Appalachian Mountains, coal towns were established in West Virginia, Ohio, and western Maryland. As these towns started popping up, there was a pressing need for qualified men who understood the process of digging for coal. Southern West Virginia coal companies grew, and in short order the local citizenship stopped being sufficient to run the mines. Immigration was the key to solving both problems. Men and their families immigrated from across Europe to fill this gap, particularly from Wales. Wales is the epicenter of coal in Europe, and miners choosing to immigrate to the United States brought with them the knowledge and traditions from their home country. The miners in Wales came with a century's worth of experience that was passed to the newly minted miners from the hills of Appalachia.

Other countries saw men and their families immigrating as well, and mining towns became diverse, with people from all over Europe and African Americans from the southern part of the United States. The migration of people to West Virginia is a part of the state's rich history, with glimpses of that heritage visible to this day. The boom of coal not only brought men from Wales to help get the mines off the ground but included Italians, Slovaks and Poles, Croatians, and Russians along with smaller segments belonging to other nationalities. The Italian immigrants were the largest population of migrants to come and work the coalfields, specifically in the northern half of the state (WVCulture.org, 2021).

According to wvculture.org (2021), the Italian immigrants stayed mainly in Fairmont and Clarksburg, West Virginia, coal towns along the Monongalia River. This area still features a prominent Italian legacy, with Clarksburg playing host to the Italian Heritage Festival every year. Delicacies that were brought to the area are still found today and are becoming a part of popular culture.

Fairmont is the home of the world-famous pepperoni roll, a delicacy known to the state as a hearty treat that miners could take underground. This food has become West Virginia's state food, and its history is rich with folklore and pride. Anderson (2021) provides the supposed history of the pepperoni roll. According to the author, the pepperoni roll was created by Giuseppe Argiro, an immigrant from Calabria, Italy in 1920 to strike it rich in the coal mines of Marion County. He originally traveled alone to America but eventually made enough money to bring his family over. He originally started a soda pop business but then decided to open a bakery. He explained that a typical meal for an Italian immigrant in the mines was a slab of bread, a hunk of pepperoni, and a bucket of water. Sometime between 1927 and 1938, Agriro began to create these rolls that created a practical meal for the miners that made them harken to their home in Italy. He sold them originally for five cents apiece, and since then, the pepperoni roll has become a part of the West Virginia narrative. People of the state pride themselves on pepperoni rolls and try to introduce them to outsiders as much as possible. This is only one of the traditions that came with the immigrants stuck around in West Virginia long after their time. Southern West Virginian coal mines experienced immigrants coming from Slovakia, Poland, and Germany. The traditions of this heritage are prevalent in the areas such as Helvetia, West Virginia. Located in Randolph County, this tiny town is designed to look like the eastern European homes of early Swiss and German settlers longing for a piece of home. Helvetia's natives work to preserve their heritage and host yearly events to celebrate. There are food and craft competitions and the celebration of Fasnacht, a spring tradition of wearing elaborate masks to chase away winter (Whetstone, 2017).

As the demand for coal continued to increase significantly during World War I, the areas that were home to these mines began to see unprecedented growth. A coal boom began to take

shape, and there was an even greater need for more miners to come work. Immigrants from Europe continued to flock to the area. The migration of people from the south continued to fill these small coal towns, called patches, many of which can still be seen today throughout West Virginia and Pennsylvania. The Moonlit Road Team (2020), which is an individual group of storytellers from Appalachia, explained that at the height of the coal boom of World War I, more than 12,000 mines were active in this small area and employed over 700,000 men (moonlitroad.com, para. 5). The coal companies created the patch towns as a place for families to call home while the men of the household worked. They were far from elaborate, often only having one drop light on the porch, with walls made of clapboard. The coal companies kept their thumb on these towns and supplied the coal for cooking. The food was purchased from a company store, if not grown by the women of the patch. These stores were run by the company supplying the housing and had their currency form, called scrip. These company towns used scrip as a token of an advance against wages that were to be earned by miners. According to Tabler (2018), many of the miners in these coal towns were never able to repay their scrip debt fully. This scrip debt was only one of the many situations that led to future changes in the coal industry.

History of Mining in Pennsylvania

Pennsylvania is known for having two different types of coal, anthracite and bituminous. Anthracite coal burns extremely hot and is excellent for heating and metal production but is scarce (and therefore expensive). It is also found in the surface mines, not requiring miners to venture underground. Bituminous coal is more abundant and can be mined in 21 counties in Pennsylvania. However, mining this coal Southwestern Pennsylvania forces miners to go underground to reach this bounty.

Pennsylvanian coal mining started in the 1700s in Pittsburgh. The original mine was a drift seam above ground from which coal was transported by canoes in support of local military efforts. Pittsburgh grew with the production of domestic steel, and the demand for coal rose. The need for immigrants began when companies began to utilize new mining styles, including roof and pillar, which required manual labor to cut the coal out of the rock and be hauled out of the mine by horses. Though now modernized, this is still one method of coal mining used today in Pennsylvania mines, and it is the most popular mining style in this region. The Pennsylvania Department of Protection (2020) explained that "The major types of underground coal mining conducted in Pennsylvania's bituminous coalfields are room-and-pillar with retreat mining, and longwall mining" (para. 4).

Immigration in Southwestern Pennsylvania

Pennsylvania also saw a significant influx of immigrants coming into the areas to become miners. Coal companies were offering to pay the passage of master miners from England and Ireland to ensure the proper mining of their coal while at the same time there was an influx of Slavic people from Poland and Czechoslovakia. All these immigrants planted their roots in the Southwestern Pennsylvania region, and this heritage is still left in the area to this day. Families in the region boast last names stemming from these Slavic backgrounds. Perogies, halushki, and kielbasa are often found on the menu at local establishments. The people who keep these recipes are often very proud of the heritage—festivals celebrating the Slovak foods that take place nearly every year in Pittsburgh and draw huge crowds. The connection to this heritage can also be found in sporting events, including the pierogi races at Pittsburgh Penguins hockey games and the Pittsburgh Pirates baseball games.

Pittsburgh is a melting pot of heritage, including a specific accent and slang words that have taken shape from their immigrant past. While the Slavic traditions of food have become a mainstay of Southwestern Pennsylvania, the Scots Irish and German immigrants' language has a firm hold. The colloquial language is something unique to Southwestern Pennsylvania and is another source of pride for the area's people. "Pittsburghese" is a collection of words created by the Scots Irish immigrants who spoke English but brought their dialects to the area. Examples of this direct effect of the language that is still very apparent today in the area—and a source of pride for anyone who is from Southwestern Pennsylvania—are the terms "n'at", "redd up;" "nebby;" "slippy;" and the most popular of all the Pittsburgese words, " yinz." Per Pittsburghspeech.edu (2020) "yinz" is a term shortened from you-ins, a Scot Irish phrase. The accent often associated with Pittsburgh and the surrounding areas stems from the style of phrasing from Germany, often with speech rising then falling off at the end of a sentence. This harkens back to the broken English brought from the variety of immigrants to the area.

There were some similarities to the coal towns in West Virginia. The living situations for these immigrants were very similar to that of the people who settled in West Virginia; miners lived in company towns in clapboard houses provided by the company. The mining company would often hire a local contractor to build as many as three hundred homes. Some of these contractors took shortcuts and would build them from leftovers or with no foundations. The company then made these people rent these homes, with the rent coming from their wages. These homes were not even outfitted with the meager comforts of some of the patch homes in West Virginia. Often these homes had no running water and no electricity. The boss's homes would have these luxuries, including an indoor bathroom with a faucet. Overall, the bituminous

mining communities faced much harsher living conditions than their northern counterparts in the anthracite regions near Scranton, Pennsylvania.

These coal patch towns also faced extremes that the northern miners in Pennsylvania did not feel. Often there was only one place these southwestern patches with potable water, forcing the women of the community to haul it back and forth to their homes every day. Even worse, the water was often unsafe and resulted in outbreaks of typhoid fever, forcing residents to boil their water before using it, and. Another situation that the companies that created these towns tended to ignore was waste and trash disposal. This led to towns that would become overrun with trash.

Often, the coral communities would be tasked with raising the children and caring for the homes, but many women sought employment of their own. Many of the women worked in the factories near the coal towns to supplement their family's wages. Women were also a significant source of the continuation of traditions from their home countries. Immigrants would often self-separate, making many of the coal towns solely of those of one heritage. These groups of people would continue traditions from their native lands. One of these was to bring the traditions of drinking and their favorite cultural liquor to celebrations such as weddings. These events were top on the social calendars. One interesting difference from the different mining towns is the presence of saloons in the northern Pennsylvania towns. In the Southwest, the laws were stricter, and the drinking was contained more to the home, with people being able to purchase kegs of beer for their home every few days. This led to the creation of social clubs in these coal mining towns. These cultural groups worked to maintain their heritage, and many of the social clubs such as the Polish Club, Czech Club, and Italian Club remain to this day. People of these heritages can provide their connection to the past and become members of these social clubs. These patch towns are still visible in today's Southwestern Pennsylvania. Many of these small

communities are named for the area of a mine, and the community's shape can still be seen. Many of the houses in some of these towns are still the company houses that are original to modern upgrades.

Pennsylvania Folklore

Many Pennsylvania coal miners come from a line of miners before them. Folklore, superstitions, and traditions are often passed down from one family member to another. One of the differences between Pennsylvania and West Virginia is that much of the folklore in Pennsylvania focuses on religious beginnings. An example of this is that, before starting a shift in the mines, many Pennsylvanian miners will say a prayer to Saint Barbara, the patron saint of coal miners. Immigrants to the area were often very religious, and many come from Orthodox traditions. Father Michael Van Sloun (2018) explains one story of Saint Barbara, a young virgin woman who defied her father and chose not to be married (thecatholicspirit.com, 2018). Her father disapproved of this and kept her in a tower, which she requested workers to come to alter. Upon discovering this, her father chased her into the hills, where she was swallowed up into the earth's bowels. Miners have a prayer that many of them recite before going underground. The miners join and state: "As I now descend into the dark bowels of the earth, I beseech thee, sweet Barbara, that I will be kept safe from harm, for it liketh me not that I rush unbidden into God's presence" (marcavitch.com, 2020, para. 3. Additionally, there is also lore surrounding St. Barbara that says 25 miners followed a bright light out of the darkness to safety after a roof collapse in the mine. According to Aaron Marcavitch's (1998) research, "One miner responded with a story related to religion. In his words, "It's been said that she [St. Barbara--patron saint of coal miners.] led about 25 miners out of the mine after a collapse of the mine roof. They followed a bright light." Though he gave no indication of where he found this story, it does show

some evidence of this practice. Richard Marcavitch also stated that outside the Maple Creek Mine entrance, there is an icon of Saint Barbara (A. Marcavitch, marcavitch.com, 1998). Robinson (2015) states, "The strong religious identity in Central Appalachia, for example, promotes the importance of living for the next stage of life and the idea that God only gives you what you can handle" (p. 84). This often resonates with miners, who may face situations that are difficult for outsiders to imagine. They see their friends get injured or killed. They face cave-ins and roof collapses nearly every day. Having a strong faith helps many of them to navigate these unfathomable situations they come across. This solid religious identity reaches past the bounds of the mine. These miners' families often possess a strong faith and pray each day for their miner's safety and return home.

People in the Appalachian region utilized animals for various purposes, from farming to travel to the mine. Animals play an essential part to miners, and the Pennsylvanian miners are no exception. The role of mules is a prominent part of miners from West Virginia and Pennsylvania alike. The death of a mule was often seen as more catastrophic than a man's death because they were such an integral part of the miner's work. Mines would often fill with highly explosive methane gas overnight. In the mornings before any miners went below ground, a mule was sent carrying an open flame on its back. Miners would listen to hear an explosion or see if the mule came back out singed and smoky. If not, the mine was considered clear for the miners to go in and work.

Other animals that are of note in the lore of miners are canaries. These birds were taken into the mine with the men because they were more susceptible to the carbon monoxide that would sometimes become present in the mines. The men would note the bird's melodies stopping or the bird becoming sleepy as a signal to get out of the area because the carbon dioxide

would soon be at a level that would be harmful to them. Today's miners often call their Carbon Monoxide sensor a canary, harkening back to their past. One final animal that was an essential part of the miner's lore was the rat. Often rats would find their way into the mines, seeking safety and scraps from the miner's lunches. Miners often considered the actions of the animal. Rats would sense something happening in the mine, such as a cave-in beginning. If the miners noticed the rats running from the mine, they would also begin running because a cave-in was imminent.

Repetitiveness also plays a part in mining folklore. Miners from the past often ate their lunches in dinner holes or small spaces along the wall to eat their lunches. Today, miners often try to eat their meals in the same places. Miners often choose to sit in the same place on the mantrip or stand in the same place in the elevator. These small superstitions help put miners at ease while doing a job that is high stress.

West Virginia Folklore

The rich traditions and stories that the people of West Virginia come to know, and share is a thread that ties the state together. Many popular stories reach back to the coal mines for their beginnings.

While he was not a traditional coal miner, the C&O railroad was important to the mining community, and their lore follows the path of the miners in Southern West Virginia. Perhaps the best example is John Henry. The story of John Henry is known worldwide, and the songs that depict this legend stem from West Virginia. According to legend, John Henry could outwork any man or machine (onlyinyourstate.com, 2021) who found himself working for the C&O railroad building railroad lines. He was put to the test in West Virginia while drilling through the Appalachian Mountains. Legend states that John Henry challenged the new machines that were

being utilized in the tunnel, seeing them as an affront to the hard-working men in the tunnels. He was placed up alongside a steam engine to see if he could outwork it and get to the middle of the mountain first. The legend also states that Henry won the race "beating the steam engine by a mile" (para. 3). The folklore of John Henry surrounds the Big Bend tunnel in Hinton, West Virginia. This tunnel is a part of the C&O railroad and has a twin tunnel, adding even more validity to the legend. This story is a homage to the men who worked to create the train tracks that carried the coal from these small rural areas to the larger port towns, making it possible to keep up with the demand, and it illustrates the pride that the men in the mines and the tunnels had in their work. In Hinton, West Virginia, there is a statue of John Henry that represents the men who worked on the C&O project and explains this legend.

Another one of the most relevant stories told is the ghost of Big John, who is said to be a Russian immigrant who died in Federal Mine No. 1, which was among one of the largest and most long-running coal operations in the world (Sibray, 2019). The legend has it that men who would ride the elevator down into Federal Mine No. 1 would witness a man in the corner of the elevator holding his head in his arm, and the miners could shine their light down into the headless man's body. Legend has it that this is a man called Big John, an explosives expert who got careless and blew himself up underground in the mine.

Sibray (2019) also explains that Dr. Ruth Ann Musicks' collection of tales, The Tell-Tale Lilac Bush, helped to popularize some of the folklore stemming from the melting pot that was a coal town. She described these coal towns as a place of isolation that could create a supernatural quality and explained that the immigrants of so many nationalities emphasized the stories written in these towns. Immigrants brought folklore from their own home countries and

proceeded to meld them together with the land where they were residing to create stories unlike any other.

For example, the story of the Tommyknockers varies throughout the different cultures that are a part of the mining world. The Welsh people describe it as a small person, similar to a leprechaun, that commits mischief in the mine, such as stealing tools and miner's lunches. Some believe that these are evil spirits trying to cause cave-ins in the mine while others believe that they are well-meaning, and the knocking sounds are them trying to warn the miners of impending cave-ins or other disasters. The story of the Tommyknockers is centralized more towards the mines in Pennsylvania rather than those in West Virginia because these miners came from England rather than their Italian counterparts who settled in West Virginia.

Today, coal mining is still one of the highest-paid careers in the area, even without a college degree, but miners are being forced to decide about their future due to a decline in the mining industry. Explorations into renewable energy and the closure of American coal-fired power plants have put a strain on the industry, forcing layoffs and, in some cases, have led to total mine closures.

Coal has become a hot button issue, starting in the previous presidential election, and continues today. The amount of news regarding the industry is overwhelming, and it becomes difficult for people to sift through to determine what is real news and what is false. The sharing of these news articles on social media can create false hope that the industry will come back. The creation of filter bubbles among friend groups helps perpetuate biased ideas, often skewing to one side of the political aisle.

History of Miners' Health

The early developers saw coal mining as a blessing, and they looked for it to be the next great industrial revolution. However, this industry came with a price. Pittsburgh, Pennsylvania, was one of the epicenters of coal-burning areas, seeing the dawn of the steel town that it is today. However, before it was Steel City, it was deemed the "Smoky City" (Lawson, 1972). People coming to the city noted a strong sulfur scent that permeated the city limits and fog that hung over the city, shrouding it in pollution. The pollution got more profound, causing Pittsburgh to experience what Lawson (1972) explained as an "atmospheric inversion" (p. 11). This phenomenon happens when the atmosphere traps a cold air layer by a bubble of warm air above it. Inversions also trap smog, as well as other expectorants from other pollutants in the atmosphere as well. This pollution caused the people who resided in the city and the surrounding area to be forced to wear goggles. Those that chose not to would find their eyes watering, with no way to stop it to but to buy goggles and join the crowd.

According to the Smithsonian's Lorraine Boissoneault (2018), the city's surrounding areas experienced another atmospheric inversion surrounding Donora, Pennsylvania, in the early 1940s. Donora's situation was much direr, and many people died due to the poisonous gases that were inhaled. More than 5,000 people had symptoms that resonated with that of poisonous gas warfare (para. 10). This prompted one of the first Clean Air Acts, presented in 1950.

Danger and Fatalism

The coal boom did not come without its share of danger. Early mining was hazardous, and miners were faced with the possibility that that day would be their last every time they stepped into the mine. Miners and their families have faced this daily routine of constant worry about injuries and major catastrophes since the beginning of mining. While the mines have become safer through the years, there is always a chance that something could happen. The

fatalism of miners and their families' needs further investigation, but the connection between fatalism and miners' cultural identity is clear.

Cultural Identity Theory

The Cultural Identity Theory, developed by Mary Jane Collier, helps to understand further that coal mining is more than a job; it is a lifestyle. Miners describe themselves as such, and mining is a central part of their avowal. There is also a connection to miner's modes of expression, or "the use of core symbols, names, labels, and norms that a cultural community share and follow in order to show that they belong to a particular group, demonstrating (sic) shared identity" (Cultural Identity Theory, 2019, para.9). There is a shared identity of miners. Their shared identity is visible throughout the Appalachian region, whether it is a bumper sticker, a license plate, or a shirt, miners often express their career in outward-facing styles.

Social Media and Miners

It has been hypothesized that in the Appalachian region coal miners rely on information gathered on their social media sites, causing a social bubble, which is creating a situation leading to lack of use of retraining opportunities in the face of the coal industries downturn.

Situation to Self

My motivation for conducting this research is that it is in my blood. I hail from West Virginia and reside in Southwestern Pennsylvania, in the heart of coal country. I fell in love with a coal miner and am exposed to the coal industry's realities every day. The miners in this area face a moment that could change the culture completely. The rise of cleaner, green energy is putting coal mines at risk. While there will likely always be a need for coal, the demand has decreased, forcing mines to shut down and their employees to choose a new path.

The study I will be conducting will be an ontological study focusing on the miners' current lifestyle and how they view the idea of a new career, including specific thoughts from some current coal miners. There is an abundance of information to consider when confronting the reality that the miners and their families live in, and the historical perspective that is related to their current lifestyle. I feel that understanding the daily reality of those who work in the mines is imperative for people who are considering helping those miners with retraining and education. The following research will investigate the miners' thoughts and understanding of the programs they are being offered and help see why they are balking at the opportunities.

The paradigm for this research centers on pragmatism. There are consequences to the action taken by these miners, and there are real problems that are being faced every day by families, having to choose cultural pride and historic relevance versus going against everything they know in a career and choosing something different.

Problem Statement

Coal miners in southwestern Pennsylvania and West Virginia are facing a choice dilemma of accepting jobs that are wildly different from their chosen path; these jobs could pay more or perhaps simply offer more future security but often come at the expense of ostracizing their cultural identity. The lack of research into the current perspectives of coal miners is forcing career agencies that exist to help retrain miners to rely on dated information. There is a need for this study to help government agencies and groups offering training a look at the cultural identity of coal miners and show that this identity and permeates their views on the work. My research seeks to explain this history and culture so retraining agencies understand what considerations should be taken when marketing retraining programs to coal miners of Appalachia in particular.

Simeone, Okiro, and Bennet (2018) found that "…coal mining jobs in Pennsylvania offer a $30,000 wage premium compared to other industry jobs in the state" (p. 28). I will determine whether the allure of the high-paying industry is part of why retraining is not being utilized or if it is due to the information, they see on social media which often promises a resurgence of the coal industry.

It is critical that miners and their families make sure the news they are getting will help to make informed decisions for their future. They need to utilize all platforms of news gathering to ensure that they are getting all viewpoints. It is essential to the miners and their families to make sure they are receiving real news and not conspiracy theories or fake news because there needs to be a real-time understanding of the industry's economic climate, regardless of what is said in the media. This will help them avoid missed opportunities for retraining that could help them should the industry continue to falter. Conversations such as this have created long-term issues that have plagued the industry for years. There is a sense of loyalty to the job from the beginning, and the political discussion of the industry's fate does not help paint a clear and honest picture of where it stands. Often, the information shared is biased one way or the other based on peer groups.

This research's significance is the need for miners in the Appalachian Region to understand the platforms that their news comes from, the threats of filter bubbles and biased news, and the best methods to make sure they are gathering news that will help them make informed decisions. There needs to be more pressure placed on local agencies and industry leaders alike to make sure miners know that they need to have a backup plan if the industry continues in the same decline as in recent years.

Industry professionals need to consider all the sides of today's miner and consider each facet carefully when looking at how best to reach this unique group of people and propose retraining with a more appealing look. Today's miners need to be asked precisely why they choose not to take these opportunities and what factors influence their decisions.

Purpose Statement

The purpose of this qualitative ethnographic study is to understand why coal miners are choosing not to accept retraining opportunities offered to them by state and local governments. At this stage in the research, the reasoning will be generally defined as a coal miner's cultural identity. The theory guiding this study is the Cultural Identity Theory developed by Mary Jane Collier.

Significance of Study

The study's significance to current research is the updated information regarding the insight into current day coal miners. A variety of research focused on the miners historically, but there is little that embraces the new miners. They are culturally linked but the world has changed, and there is a need to bridge the gap between the new mining mindset and culture. This new study will help incorporate ideas from historical perspectives while focusing on using innovations for giving and receiving information.

There will be an impact on the general population being studied, as there is a chance for both sides to learn about each other. The miners will learn the significance of the retraining, while the agencies responsible for the training pieces will see how best to communicate with their clients. Valrie Volcovici (2017) found miners noted that they do not get paid during the retraining and that there is no guarantee of a job after it is completed. There was a goal in southwest Pennsylvania of 700 people completing training, but it was met with a dismal response

of 120 (para. 12). There is an opportunity for this study to help the miners see that there are possibilities within their realm of work in which they could find job satisfaction that would not require them to sacrifice their identity to work in a new industry. The potential economic impact is that the miners may not be forced to go onto unemployment and risk not having a job if their mine closes. Lindström, Golkar, Jangard, Tobler, and Olsson (2019) studied the impact of indirect experiences and behaviors. This research can be used to further this part of my study because the negative impact of hearing that there is no pay during retraining could explain the lack of enrollment in these programs. Miners are often the household's main breadwinner, and not paying them to take the retraining could be one setback for choosing a new career.

Research Questions

R1. How does the news coal miners receive from social media, friends, and family influence their careers decisions?

R2. What are the familial and cultural ties that connect the coal miners to the careers?

R3. What do coal miners know about the options that are offered for retraining?

R4. Are coal miners able to explain why or why not they would choose to utilize retraining options?

Summary

Coal miners are facing down the barrel of a potentially life-changing moment for themselves and their families. The rise of green energy is forcing mines to close and putting many miners out of work. Many miners have relied on the industry for many years and often feel that it is part of their personality and culture. The rise of reeducation programs seemed promising initially, but these programs are finding themselves at a loss when it comes to attracting interest from those they seek to help. My study seeks to understand if a miner's culture

is a direct reason for this phenomenon or if there are other reasons why they are facing such

dismal numbers.

Chapter Two: Literature Review

"Now lemme tell you something about the gospel, and make sure you mark it down – when God spoke out "let

there be light" he put the first of us in the ground"

Overview

The following literature review encompasses the theoretical framework and tradition of future research as well as the literature that examines the research that has already taken place in past years in the world of coal mining, and the way people are choosing to gather their news. Regarding the reeducation programs, both sides of the opportunities were studied (programs offered to miners that are successful as well as those that unsuccessful at attracting members). The following research also includes an exploration into the power of social media and the utilization of the platforms as a way for people to gather news and information. These different avenues of research will be helpful for the future research that will take place over the next chapters.

Theoretical Framework

Coal mining can be considered its own culture. The experiences of miners and their families have created stories that stand the test of time and have made their way into today's culture. The theoretical framework that will guide the research into the culture of miners and the connection between culture and reeducation is the Cultural Identity Theory. Collier and Thomas conceived Cultural Identity Theory in 1988, and in 1998, it was extended by Collier and then later was extended by Collier. Collier (1998) explained that cultural identities are socially constructed; structurally enabled or constrained; and discursively constituted of being, speaking, and acting as if they are enduring and constantly changing. "Culture" in this study encompasses

group identities such as profession, geographic location, generation, political affiliation, and socioeconomic class.

Cultural Identity Theory examines how individuals utilize communicative processes to create and explore their cultural group identities when communicating with people from different backgrounds. Communicationtheory.org (2020) suggests that "Cultural identity is negotiated, co-created and reinforced in communication with others when we socially interact" (para. 3). The theory explains that people seek to create connections with others, and by communicating with others, they begin to bolster these connections through similar experiences and situations.

Littlejohn, Foss, and Oetzel (2017) explained that Collier and her colleagues were interested in the way diversity is realized within groups, giving them their own identity. Sometimes, traits are not at the forefront of their cultural identity until it becomes their identifier. For example, to coal miners, it is atypical to see women underground. This pushes the trait of being a woman toward the top of the cultural identity of that person (p. 78) in this group.

Craig (1999) explored communication theory and their relevance in common education and discipline. The paper explains that the study of communication stems from a multidisciplinary history, and each of these disciplines are important in creating an individual study of communication to better understand its place in the world. Craig divided communication theory into seven individual traditions: cybernetic, sociopsychological, sociocultural, critical, rhetorical phenomenological, and semiotic (p. 133).

Future research found itself falling into both sociopsychological and sociocultural and critical buckets of Craig's traditions. According to Craig, the sociocultural tradition explains that an individual is part of a society, and each of these societies have different cultures. Each person

experiences the identity to self, so this tradition will be helpful to explain that being a coal miner is not only part of an individual's personal culture, but also of the culture of a society.

The sociopsychological tradition includes a person's expression, action, and influence (Craig, 1999, p. 133). Sociopsychology is being considered for future research because of the inclusion of personality and beliefs and will be focused on the traditions with the consideration that people in each group will influence each other. It is important for future research to consider how the miners work together and influence each other, and this data will help to solidify the inclusion of this tradition. The idea that influence can cause a change in the culture of a group will be helpful for future study regarding the theory that social media is creating new ways to gather news and that the filter bubbles that are created can directly influence the culture and experiences of a group.

Craig's critical tradition includes the language and ideology of a group. The group that can control the language can control the culture. This will be key when considering the communication that comes to the miners through social media posts and through communication that takes place at the workplace. It is important to consider this tradition because media communication is becoming more prevalent as technology continues to break down the walls of communication. It will also be important for future research to consider the critical condition because dialect and resistance and emancipation are significant parts of the qualitative research that will be taking place. Craig's traditions are key to understanding where the research that will be taking place fit in when considering the cultural identity of this unique group of people.

Cultural identity can come from a variety of pieces of a person's life. Not only does their cultural identity include their heritage as it relates to the country or location, such as being of Greek heritage but living in the United States, it can also come from everyday interactions that

take place in their lives. These factors (including hobbies such as being a golfer or enjoying bird watching) can become part of a person's identity. CommunicationTheory.org (2020) explains that "Cultural identity is negotiated, co-created and reinforced in communication with others when we socially interact" (para. 4). A person's cultural identity can change based on who they find themselves spending time around. Miners spend hours together every day, both in and outside of the mine. The cultural expectations of southern West Virginia create another chance for the mining culture to dig even further. It is often expected that if a family lineage includes mining, future generations will be miners.

Lindstrom et al, (2019) explored the influence of another person's decision on another person based on an individual's expression of their personality and experiences. This decision can create situations of spirals of silence that can be utilized in the future to examine how miner's interactions with each other influence the way they express themselves and divulge personal information to other members of their mining team. Kushin et al. (2019) provided some further input on the connection to spirals of silence and the current political landscape. This input included the polarization of people from opposite sides of the aisle. He also noted that often, people who dissent with their peers sink into a spiral of silence regardless of their personal opinions to maintain friends. Noelle-Neumann (2016) states that "people tend to hide their opinion away when they think that they will expose themselves to "isolation pressure" with their opinion" (para. 3). There needs to be more research regarding this spiral of silence surrounding the Appalachian area.

The coal industry is facing some of the strictest scrutiny it has ever experienced. There is a push for clean energy, and the industry and the people who work in coal country have faced backlash. Mining operations companies need to consider this experience and examine the needs

of the miners in the world outside of the mine. Birukous, Blanzieri, Georgini, and Giunchiglia (2009) explain, "On the one hand, such interaction leads to blurring boundaries between cultures, while on the other hand, it leads to the increasing need of cultural-aware managers and professionals" (p. 5). This study is relevant to future research because cultural awareness and managing people are vital to being a successful leader. The coal industry is no different, and people in management and leadership positions need to understand the culture to connect with their employees. They must recognize the struggles that mining families face, including working for, what some consider an enemy to the earth, and what the layoffs and closures do to a family that relies heavily on the miner's income. They must also consider what people believe true of being miners, including how they are represented to the outside world.

According to Kideckel (2018), there is a sense of fetishism experienced in Appalachia regarding coal mining. Fetishism is utilized as ethnographical research of the power and joy bringing that a specific thing or person may have over someone. When describing the Appalachian region's desire for wealth, coal mining is a fetishized way to get the reward of money. He explains that fetishism can stem from the impressive salary earned by miners and the experience miners have of being viewed as either heroes or villains. An example of the hero mentality is the striking miners and the West Virginia Mine Wars battles. This fetishism celebrates the miner's role in the community as well. West Virginia's residents know and understand the role that coal has played in the state's history and many families that live here's legacy. West Virginia University includes coal mining in its sporting events. These traditions include the football tradition "The Mountaineer Mantrip," where fans will walk with the team from the locker rooms to the stadium, each placing their hand on a piece of large coal as they

walk by its homage to the heritage of the state. They also play many games in grey and yellow uniforms, representing the coal dust and the canary.

Collier expanded her studies in 2005 and began to consider the idea of salience, ascription, and avowal. Chen and Collier (2012) explain that "Avowals refer to how group members present themselves to others. Ascriptions are representations of other groups or representations by others about one's own group identities. Salience refers to the importance of particular cultural identity enactment relative to other potential identities" (p. 5). Miners describe themselves as such. Mining is a central part of their avowal. Littlejohn, Foss and Oetzel (2018) explain, "Personal avowels are often responses to ongoing ascriptions, which are often stereotypic presentations of cultural groups" (p. 78).

There is also a connection to miner's Modes of Expression, or "the use of core symbols, names, labels, and norms that a cultural community share and follow to show that they belong to a particular group, demonstrating (sic) shared identity" (Cultural Identity Theory, 2019, para. 9). There is a shared identity of miners, and their shared identity is visible throughout the Appalachian region; whether it is a bumper sticker, a license plate, or a shirt, often miners express their career "out loud." Pasley's (2019) look underground helps to see the experience of being a miner. The miners Pasley interviewed explain how exciting it is to see a part of the earth that not many others get to see. They also explain some of the superstitions and rituals that take place underground. This includes the tradition of never saying goodbye but instead saying God bless to fellow miners or ensuring that a specific boot gets put on first when they get dressed for their day. These small rituals are steeped in the long-standing idea that maintaining the status quo and doing things precisely as the day before will ensure the miners a safe return above ground after their shift is over.

Fatalism in coal mining has become an integral part of the culture of being a coal miner. Law (2012) explains that coal miners experience situations that many would never fathom experiencing at a job. This includes witnessing a significant injury or death to someone they work close to every day or even experiencing an injury themselves. However, there is a cultural expectation that after experiencing something so tragic, miners should tend to hide their feelings and continue their work and not seek help to cope with these situations. Maercker, Ben-Ezra, Esparza, and Augsburger (2019) explain, "Fatalism can more generally be defined as the propensity of individuals or groups to believe that their destinies are ruled by an unseen power or are played out inevitability rather than by their will" (para 4.) Law (2012) explains, "These are men who make sure to say I love you to their spouses before they leave each morning because they might never see them again" (p. 10). Sewell's (2019) research of the historic coal mines further explores fatalism. Her study posited that underground everyone is the same, regardless of their heritage. Unlike most industries, this sociocultural experience and the dangers experienced by mining are unique to their field. It is difficult for people outside of the mining community to understand what a miner goes through, and future research hopes to explain it in detail.

While mines are hazardous themselves, it has become another piece of Appalachian mining culture to expect that the mining companies that run them are cutting corners, creating opportunities for situations that can lead to fatalities. This extreme distrust of these companies is not rooted in lore but has deep-seated roots in history. The idea that mining companies see them as nothing more than a number leads miners to feel like their lives are not worth anything to their employers. Channell's (2011) research examines the history of disasters in West Virginia coal mines provides insight into how the factors leading to the Upper Big Branch explosion developed and how this can potentially be prevented, as well as investigating the culture of

impunity. There is a negative association that miners from the Appalachian region hold toward my owners. It also examines the disregard for mine safety taken by the corporation until the disasters in the mining community began to add up. The anthropological commentary on these disasters can create interest for a future qualitative study. It will also be used to compare the qualitative research stemming from in-depth interviews.

Miners not only come face to face with death and injury on the job. Outside of the job, they are faced with health issues that can plague them beyond their time underground. Cortes-Ramirez et al. (2018) studied the health outcomes associated with coal miners. Their research presents a systematic review of morbidity and mortality studies in populations living near coal mines. It was noted that there is an increase in cancers in the residents of mining towns and especially in miners. The knowledge and expectation that a person is essentially setting themselves up for future health issues coincide with fatalism.

Coal mining culture has a strong sense of family. In Parsley's (2019) interviews with men at a Pennsylvania coal mine, they discussed the idea of food and meals together. He explains that often a miner will bring a pan of lasagna to share with the whole crew, especially when they are working holidays because they are spending more time during the season with their coworkers than their families. This culture of family is a crucial element for future research. It will be imperative to explore the connections that miners of today have with each other and see if there was a connection to the past when men used to work together and live together in coal patches. The blending of cultures began to take shape in these situations, and it will be interesting to put these past experiences against the new ones to see the connections.

Taylor (1992) explained in their research that part of a person's identity could come from their neighborhood. It also examines allegories related to life in southern West Virginia. The

author explores how the small nuances of a person's everyday life exemplify being in a coal camp and today's society and examine the cultural connection to mining that still runs deep today, even if the people are more spread out.

Today's cultures stem from immigrants from all over the world coming together to form new communities surrounding the mines. These rural mining towns created unique situations that led to the creation of the Appalachian culture. Pennsylvania and West Virginia saw a variety of countries represented in the mining towns. West Virginia was heavily populated by Italian immigrants and African American migrants from the deep south looking to escape the throws of slavery after the newly formed free state took shape. As Loc.gov (2020) explains, "West Virginia seceded from the Union in 1861, the residents of several contiguous western counties, where there were few slaves, decided to remain in the Union. Congress accepted these counties as the state of West Virginia on the condition that its slaves be freed. "Montani Semper Liberi," "mountaineers always freemen," became the new state's motto" (para. 1).

WVLegislature.org (2020) explains that Montani Semper Liberi, meaning Mountaineers Are Always Free, is the state motto, adopted as part of the state seal, which also bears a large stone in the center, representing strength, as well as a farmer and a miner, representing agriculture and industry. There are also two rifles crossed and the Phrygian cap, indicating that this liberty was earned and defended by force of arms.

Coal mining is a symbol of the Appalachian region. Leslie Baxter's explanation of "chronotopic similarity" (Littlejohn, Foss, Oetzel, 2017, p. 246) helps one understand the dynamics of families in this region. Often, current miners come from a long line of miners, and often people who are not in the industry have mining in their background. The stories told by

families create a similarity to others, help build relationships between miners, and weave the fabric of the region.

There are many museums dedicated to this history of mining in West Virginia, which will help investigate the past's coal mining culture. One of the most important museums for future research is The West Virginia Mine Wars Museum. This museum houses a rich history exploring a battle that was unlike any other. Its location in Matewan, West Virginia, is the central location of the mine wars. The collection of historical artifacts of what life was like in the mine camps, early mining practices, safety, and an extensive collection of data and artifacts from the West Virginia Mine Wars. The museum includes oral histories, and its website provides links to a variety of books and videos that take a deep dive into those wars. The museum explains that the families from all over the region came together, including the African American, Italian, and Hungarian immigrants, to fight for the right to unionize the mines and their constitutional rights. Wvminewars.org (2020) explains, "From the Paint Creek & Cabin Creek Strikes (1911–12) to the Battle of Blair Mountain (1921) — the largest insurrection in U.S. history outside the Civil War — the West Virginia Mine Wars are a collection of rich, historical treasures tucked away in these mountains" (para 4). Andrews (2016) explains the Battle of Blair Mountain, one of the most important and one of the final bouts putting the coal miners against the coal companies. According to Andrews (2016), "The tipping point in the Mine War finally came on August 1, 1921, when Sheriff Sid Hatfield was shot dead by the Baldwin-Felts agents as he entered the McDowell County Courthouse" (para. 4). This event sparked outrage among the miners because Hatfield was a champion for the miners. This battle was the beginning of one of the most prolific wars stemming from Appalachia. According to Andrews (2016),

"By August 28, some 10,000 union men had massed near the border of Logan County and begun trading gunfire with company supporters. To distinguish one another in the dense forests, many of the miners tied red handkerchiefs around their necks. They soon became known as the "Red Neck Army" (para. 6).

Redneck is a term that is still used widely today. Huber (2006) explains that redneck was originally a cultural terminology used to describe a poor, white southerner. However, in the first four centuries of the 1900s, this was used colloquially to describe coal miners who were members of labor unions and miners on strike. Huber explains, "As far as can be determined, the earliest printed use of the word redneck in a coal mining context date from 1913–1914 Paint and Cabin Creek Strikes in West Virginia (p. 196). The United Mine Workers association utilized this meaning to foster solidarity and unity among racially divisive miners. This term has been seen in many cultural items all over Appalachia. It is found in songs, as well as in writings and propaganda from United Mine Workers. Today's definition of redneck differs from the original; however, the title remains connected with today's coal miners. Huber's body of work will be a significant artifact to show the connections to the past currently in the mining world today.

Other coal mining museums in West Virginia provide opportunities to see what it is like to go into a coal mine. One opportunity to do this is in Beckley, West Virginia, a southern city that lies deep in coal country. According to Beckley.org (2021), the exhibition coal mine provides a view inside of a drift mine, which goes about 1500 feet up and into mined-out areas. In addition to the experience of going into a mine with a coal miner, at the exhibition coal mine, people have the opportunity to experience a coal company house, the superintendent house, coal camp school, church, and a miner's shanty. These unique pieces of history allow people to understand what families of miners of the era experienced, not just the mining itself. This unique

look into mining culture will help create a view of the culture that many of the past miners experienced and a glimpse into the familial side of the culture. Experiencing this mining town as it was in the olden times will allow future research to compare the similarities and differences for today's miners.

Additionally, a similar experience can take place in Pennsylvania. Right outside of downtown Pittsburgh in Tarentum, Pennsylvania. The Tour-Ed Museum's website explains, "The Tour-Ed Museum is a Pittsburgh attraction that has thousands of authentic, historical pieces on display for our visitors. Visitors can go 160 feet below the surface and experience a mine by riding in a mantrip similar to those used in the mines today. There is an opportunity to experience what it is like to be in the mine with no light and learn from the museum's miners. Each of these people has lived the life of a coal miner, so their descriptions of their day-to-day activities are as accurate as possible. They discuss the history of the Pennsylvania coal communities, and there is a miners' patch house recreation on the premises. One unique thing about this mining museum is that includes an opportunity to witness strip mining (tour-edmine.com, 2021). The ability to see the differences in mining styles creates a unique opportunity to understand both situations. It can perhaps help explain why so many West Virginians and Pennsylvanians are against strip mines. There is also an opportunity to talk with historians and miners to get their take on the culture of mining in Southwestern Pennsylvania.

Pennsylvania became home to many Slavic, Irish and Scottish immigrants, making their home along the rivers that make up Southwest Pennsylvania. These influences are a substantial part of the culture of both states, with significant research that has taken place to examine them. Shackel and Roller (2012) studied the anthracite region in Southwest Pennsylvania and the immigrants that became a part of the region. This examination of the 1890s era coal patch towns

in Pennsylvania discusses the immigration of Slavic and Italian immigrants to the area, including the living situations in the coal patches. Miners staged protests and battles similar to the battles in West Virginia, solidifying the heritage of miners in both areas. The researchers also explored the derogatory terms that have become a part of the ordinary language of miners. This project consists of archival work, oral histories, and ethnography as well as archaeological investigation.

Another part of the cultural experience is the expectation of women in the mining culture. Historically, women were expected to work alongside the other women in the coal patches to maintain the community. Green (1990) explains, "Their primary work was critical to the coal production; they fed the miner, washed his close, took care of him when sick or injured, and raised children who would become the next generation of mineworkers" (para 2.). The women also helped supplement the family's income by cleaning homes for mining supervisors, producing goods such as soaps and spices, and canning their produce and bartering.

Puckett's (1992) research focuses on examining the cultural expectations of a community in Kentucky, including the expectation of men versus women and the differences between the sexes regarding literacy. This research will be helpful in future studies because it can help examine the expectation of men in Appalachia and the desire to work in the coal industry. The men in the coal camps experienced the typical gender roles of men and women of the greater United States. Women typically focused on learning things like reading and writing, while men and boys would concentrate on working. Puckett (1992) explained, "They assert that it is more natural for a woman to read and write than it is for a man. They assume that women "take to it better" and have more of a "need" for it" (p. 139). This study is influential for future research because there is a connection to coal mining being a lucrative career for people who do not wish to go to college or focus on education. It will be beneficial to see if there is a possibility for a

connection between today's miners and their expectations about education and this cultural experience of miners living in the coal camps. This correlation could also help to understand further why miners today are hesitant to consider reeducation.

The wages were not stable during the prevalence of coal camps, which forced families to get creative when utilizing what was around them to create items the family needed. Women took on most of the homemaking duties on uncertain wages and what they could gather from the mine stores. Green (1990) stated, "To meet the challenges of uncertain wages and work shut-downs, women raised gardens on available lands, preserved food, and, if necessary, sewed underwear for their children out of flower sacks" (para. 6). Many West Virginians can tell stories of their grandparents' experiences of being raised in these coal camps or raised shortly after the era of coal camps and the culturally ingrained frugality. West Virginians may pass down their recipes, canning tips, and ways to ensure that every piece of a meal or cut of meat is used to the best of its ability. This culture continues into today's world, and it would be interesting to see which pieces of culture from mining communities have made it into today's culture. Through interviews and historical artifacts, the researcher can include some questions about these experiences with their family members and their current relationships.

The uniqueness of the coal industry has created the rich cultural significance that is felt through the Appalachian region. Mayer (2018) explained, "Community economic identity refers to a situation wherein a community, or perhaps an entire region, has embraced one industry or another as a cornerstone of their collective sense of self" (p. 3). Examples such as the Friends of Coal campaign in West Virginia exemplify the central role in the state's culture. The amount of reliance on the coal industry as a part of the tradition is evident in all Appalachian regions. With the impact that technology has on the world today, it is being felt across more than just road

signs and t-shirts. The idea of community economic identity will need further exploration, as it could be a solid foundation for the investigation of towns that are reliant on the coal industry. There is a need for future research into the role that social media plays in a coal miner's identity and how the algorithms were created to ensure the connections to their peers were easily obtained. These algorithms have made a lack of information from people outside of the industry who may help them get into a position that can allow their family to continue living the same life as they do now, but perhaps in a different trade.

Related Literature

Social Media

In related literature, the following types will be examined: social media's role in the way news and information is being distributed as well as retraining and reeducation opportunities in West Virginia and Pennsylvania. There was significant research done regarding what types of reeducation programs are already available to the miners, as well as what these programs are experiencing.

Social media's indoctrination into everyday life has created a significant need for study related to the use by the community that is being studied. People are using social media now more than ever for all types of information gathering aside from simply checking in with their friends and family, so it is essential to understand what parts it plays in a person's culture. Due to the algorithms utilized by social media platforms, people only see information that falls into their personal beliefs rather than experiencing a full range of news.

Social media has created a communication method that has allowed people to reach each other across the globe. The reliance on social media has created a need to understand better how people communicate on the platforms. Berger and Iyengar (2013) explain five critical functions

of word of mouth, impression management, emotion regulation, information acquisition, social bonding, and persuading others. This research also focuses on how social bonding drives people to share. This research will be relevant to future research because of the social construct of a mining community.

Filter bubbles were explored by Cardenal, Aguilar-Paredes, Galais, and Perez-Montoro (2019). Their research dives into direct news, search engines, and social media and the role each play in the experience of selective exposure. Data gathered was used to measure selective exposure, media slant, political leanings, political interest, education, and origins. Flaxman, Goel, and Rao's (2016) research is based on scholar's argument that online publishing, social networking, and web searches have lowered the costs of producing, distributing, and discovering news articles. This research was done through the Bing Toolbar and examined the web browsers of 50-thousand U.S.-based people who regularly read news online. Findings concluded that most online news consumption is accounted for by people visiting their favorite mainstream news outlets. Limitations were noted regarding misinterpretations of news preferences of people who limit their news to primarily one side of the political stream or the other. It is also stated that precisely defining causation in this section is a complex issue. It was confirmed that social media technologies expose users to more diverse perspectives.

Cardenal, Aguilar-Paredes, Galais, and Perez-Montoro's (2019) research explores direct news, search engines, and social media's role in selective exposure. The researchers used a multilevel approach to investigate different factors, including engagement, interest, and ideology, and how people can create selective exposure experiences with the news. Data gathered was then used to measure selective exposure, media slant, political leanings, political interest, education, and origins. According to the authors, there were several limitations with this study,

including exposure being measured at a media level, not content level, only desktop users were observed, not on mobile devices, and the exposure was limited to the top 42 most visited outlets. The research showed many results, but one of the more interesting ones dealt with the interaction between origin and ideology, which can benefit future research.

This data explores selective exposure, which will be a central topic of future research. The connection between platforms like Facebook and ideology and the way ideology shapes selective exposure regarding political news. According to Cardenal et al. (2019), "… Facebook increased the probability of selective exposure in opposite ways — Facebook increased the probability of selective exposure among left-leaners and decreased it among right leaners, and Google decreased the probability of selective exposure among left-wing ideologues and increased it among right-wing ideologues" (pp. 478–479). This study will create an interesting comparison, if recreated among the coal miners, using similar modes and platforms. This data will be beneficial to future research because of the discussion of miners who use news sites specific to their political stances to gather education regarding the future of mining and the reeducation programs they are offered. Flaxman Goel and Rao (2016) state, "One might wonder, though, to what extent are partisans exposed to any cross-cutting sources, including exposure to moderate news outlets" (p. 317).

Bergström and Belfrage's (2018) research reveals how young people use news in their social network sites, whether the use is incidental or deliberate and what role friends and followers play for news consumption in Sweden. The researchers utilized two data collection methods, including a survey that has been collected routinely in Sweden since 1986, as well as in-person interviews at two high schools, collecting data from respondents aged 16–25. Results showed that online news habits might influence news use via social networking sites among

youths studied and incidental consumption because news does not regularly appear on a user's social media site. A multivariate analysis was conducted, and the most critical factor, the habit of using online news services, is positively correlated to news use on social media. These findings suggest that more in-depth studies of social media users and their exposure to news in that context need to be completed.

The use of social media as a news source in young people is also interesting for future research. The age range is younger than what is necessary for research on college-educated individuals versus vocationally educated. Still, it is interesting to see that "young adults express that they acquire news from their feeds. Further, they even count on this content to keep them updated about current affairs" (Bergström & Belfrage, 2018, p, 593). This research helps to solidify the idea that coal miners utilize social media to keep up with news and current affairs, rather than turning to sources that are seen historically for that purpose.

There has been a significant amount of research conducted regarding social media as a news source and the situations that can be created by utilizing it as such. Kalogeropoulos, Fletcher, and Nielsen (2019) considered the dramatic shift in how people find their news. Their focus on news brand attribution, or the ability for people to remember where they got the information they are sharing from, can be vital to future research because it shows that people rely heavily on what they are receiving from social media. The authors explain, "Significant variation in brand attribution is therefore likely to influence both what kinds of information people seek out, how they process it, and hence its effects" (p. 584). The authors also discovered a significant difference between news brand attribution and the discovery methods studied. It was found that when the news story was found directly, people could almost always remember the origin. The ability to do so was significantly less when the news comes from a search engine

or social media. The Pew Research Center has included Mitchell, Gottfried Barthel, and Shearer's (2019) data set to help explain American's preferences regarding how they gather their news. While television is still the most dominant platform, it was found that, based on 2016 research, most younger Americans ranging in age from 18–49 get their news online, while older generations use television, radio, and print media. The researchers also noted a significant increase in mobile consumption and that personal contacts are a common source of news, and their role is amplified online (p. 9). One interesting data point to note is that a slim number of people trust social media. It is also stated that 69% percent of people asked say that news from friends and family is often biased, and they would prefer that they post or send things that represent a greater mix of views (p. 11). This data is essential to future research because it shows the connection between people's political stance and their acceptance of being in an echo chamber. This closed system can be studied regarding peer groups online and its role in how much news is shared throughout that group, whether by word of mouth or by sharing it online. Mitchell et al. (2019) state, "While people get news online at very high rates, the conversation about the news is not happening there at nearly the same rate as it is offline – people still overwhelmingly share the news with others in person or over the phone" (p. 17). This data can also be included in the conversation about incidental exposure to news.

Fletcher and Neilson (2018) focused a portion of their research on incidental interactions that social media users have with news rather than people who do not use social media. It is suggested that globally, three leading social media sites, Facebook, YouTube, and Twitter, are becoming intermediaries increasingly for news. Fletcher and Neilson's research is essential because it helps to provide some background on incidental exposure to news on social media. It goes into detail about explaining what incidental exposure is and provides a data set that can be

50

cross-examined against the information found in further research. One interesting concept that

Fletcher and Neilson stated was that "The effect of incidental exposure on Twitter and YouTube

appears to be stronger than on Facebook" (p. 2462). This information was an unexpected find, as

it seems that Facebook would be the place to encounter news stories that are shared and warrants

more research.

Kalogeropoulos, Negredo, Picone, and Nielson (2017) understood who was sharing news

on their social media platform. The participatory culture of social media allows for research to

be done by collecting data across the globe. The researchers utilized Reuters research to do a

comparative analysis framework to relate sharing and commenting on these news articles to age,

gender, and region. The ability to use this information created a chance to use research that had

already been conducted to compare their theories. One disadvantage they found when

conducting this study was the underrepresentation of older, less affluent, and under-educated

people. This research will be helpful in future research to realize that utilizing research data that

is already available may only be a cross-section of the target research community and that more

research may need to be done to create a complete picture.

Newman, Fletcher, Levy, and Nielson's (2016) report encases essential information

regarding the use of social media as a news source, the growth in the use of mobile devices, and

the decline of print media. Research taking place in this era will be reliant on resources such as

this, as it shows the rapid uptick on the use of social media for more important items rather than

purely for entertainment. This shift shows the changes in people's expectation of what is on

their social media. The authors also studied the personalization of what kind of news is seen by

an individual, creating concern over what news is being missed because of the specific

algorithms used to create a social media feed. Information about the United States provides

insight into the use of social media as a platform, showing that 46% of people surveyed use social media for news. This increase is interesting compared to previous years, stating a sharp increase, almost double since 2013. It was noted by survey takers in the US that the ability to get their news from social media makes it easier to gather, rather than having to go to different primary sources to get the information.

Future research will be assisted by this dataset, as it contains valuable information about the United States as a whole. Newman et al. (2016) pose some unique questions to their survey takers, such as the time during the day people use their social media for news. "For those who start their day with a smartphone, almost half in the U.S. turn first to a social network like Facebook (37%) or Twitter (6%) with only a quarter (23%) going to a branded news app or website" (Newman et al., 2016, p.18). Thinking about how people use their social media on mobile devices can be considered for future research and can explain how indirect exposure to news can happen.

Chadwick, Vaccari, and O'Loughlin (2018) state that "To understand the interdependence between digital platforms, tabloid news organizations, and social media users, we start from the premise that, more than ever before, news media provide resources for citizens to participate in politically significant behaviors" (p. 52-57). This data is essential to future research because it creates a justification for studying the amount of fake news spread throughout the chosen sample. The use of Twitter is an option, but the use of Facebook to study the dispersion of news will provide a different outlook on the subject.

The authors of this study worked to understand the connection between tabloid news and misinformation and disinformation that is shared on social media. The four datasets constructed during the 2017 United Kingdom election campaign include individual-level data on news

sharing, website data, news article data, and data from a survey of Twitter users. They focused

on the user's motivations for sharing news on social media, the kinds of networks used and

shared content types. The method for gathering data for the study included monitoring five of

the most read UK tabloids and using Twitter's search capability to look for the hyperlinks to

these articles. Twitter users that fit their search criteria were sent a survey which 1,422 users

completed. Results included many respondents who admitted to sharing problematic news, with

8/9% reporting that they shared news that was made up and 17.1% sharing news that was

exaggerated. There were limitations to their project, as they were using one specific social

media outlet and had a limited sample of people who answered their survey. This study is

beneficial to future studies because it provides a baseline for the use of social media to compare

against the miner's use.

Training and Education

Bowen and Christaldi (2018) explain that between 2005 and 2015, the coal industry saw

a 27% decrease. They also note that the rate of unemployment in these coal-reliant regions is

significantly higher than that of the rest of the United States. This data also explores the idea

that while the coal mining jobs pay quite a bit higher than non-mining positions in the state, the

average salary for miners was still well below the national average. This information shows how

far under the wages for the rest of the United States. These information points create an

argument that the Appalachian region faces a significant situation with the declination of coal.

Still, this situation is more significant than that, with the rates of pay creating conditions of

poverty. Bowen and Christaldi explain, "In terms of industrial mix, Central Appalachia has a

bigger concentration of lower-paying industries such as government and retail trade" (p. 35).

Education in West Virginia is another point that will be important to future research. Bowen and

Christaldi's study showed that the coal-producing regions saw lower attainment of a bachelor's degree than the remaining portions of the state. Their research explains that in 2015 the rest of the United States had about 30.4% of college-age people attaining a bachelor's degree, while in mining areas, that number dropped to 22.7%. This drop in education has been directly connected to the ability to make a wage higher than those with a college education in the coal industry. Christaldi and Bowen's research will be necessary when explaining the lack of desire for education in place of an opportunity to have a very successful career.

Robinson's (2015) research focuses on living in Central Appalachia. The researcher explores the history of Central Appalachia, which helps bolster the historical research contained in the current study. Robinson (2015) also examines the digital society and the poverty of Central Appalachia. Robinson (2015) states, "In an isolated region like Central Appalachia, which had been primarily dependent on coal mining, there is little to fall back on. Concurrent to industry mechanization, however, advances in computers and communication have created another reality for the disenfranchised (p. 80). This research also explains digital inequality. Digital inequality explains that people in places such as Appalachia are not provided the network connections to explore and expand the digital world, essentially removing them from the global village. This inequality creates gaps in the educational opportunities that people in other geographic areas may be able to utilize. The phenomenon of digital inequality will be interesting for future research, as there is a possibility for a connection between it and the lack of desire of the miners to take retraining courses.

However, the landscape of West Virginia is changing dramatically, and there has been a rise in tech giants making their way to the Mountain State. Commerce Secretary Ed Gaunch (2021) said, "We're pushing the right buttons to attract new businesses, and they're discovering

how great it is to work in West Virginia" (para. 9). The low cost of living and locations outside

of a city, creating opportunities for large campuses, are both draws for companies to bring their

work to West Virginia. Another perk for people looking to join the tech industry in West

Virginia is the newest incentive packages for people who work remotely to come to live in the

state. Farmer (2021) explains, "West Virginia became the latest place to do so this week, and it's

offering one of the largest incentives yet: $12,000 cash to relocate to the "Wild and Wonderful"

state for at least two years. Approved remote workers also get a year-long pass to the state's

grandest natural destinations, access to coworking space and continuing education programs at

West Virginia University — all for free" (para. 2). This incentive package is an incredible

opportunity to draw professionals to the state, placing West Virginia right in the middle of the

shift of many technology companies to switch their employees to telecommuting. This package

is valued at well over $20,000 and will hopefully draw a group of people who are less vested in

the fossil fuel industries into the area. These shifts in industry in West Virginia will help to

explain some of the opportunities that can become available to miners that have lost their jobs

who wish to take advantage of the retraining that is available.

Pennsylvania is experiencing the same retraining challenges as West Virginia. Miners

are getting displaced due to mine closures and downsizing. According to Governor Tom Wolf's

press release (2018), The United Mine Workers of America Career Center has received backing

from the state government in the amount of $3 million for the purpose of retraining displaced

coal miners for new high-priority careers. This program collaborates with local community

colleges to allow for training in different trades, such as jobs that require a commercial driving

license, advanced manufacturing, or cybersecurity. The expectation for this first round of

training was to have 85% placement in new careers. According to Governor Wolf's press release (2018):

The United Mine Workers of America Career Centers, Inc. (UMWACC) was established under the United Mine Workers of American (UMWA) in 1996 to service dislocated workers. The UMWA Career Centers, Inc. has provided comprehensive job training and placement services to more than 6,807 dislocated miners in Pennsylvania and West Virginia. Of the 6,807 dislocated miners enrolled in UMWA Career Centers, Inc. programs, more than 4,480 of them received training, and 4,342 of them returned to the workforce in jobs earning an average wage of $18.74 plus benefits. (para. 9)

The U.S. Department of Labor's website (2020) explains three of the available grants to help these miners get the training needed in West Virginia, Ohio, and Kentucky, some of the hardest-hit areas when it comes to job loss. The website explains "In response to the loss of jobs and negative impact on these mining communities, President Obama introduced the Partnerships for Opportunity and Workforce and Economic Revitalization (POWER + Plan) to help the communities and individuals affected diversify their economics and create jobs and workforce services and skills training" (dol.gov, para. 2). This program provides $65.8 million to help diversify the economy of the coal-dependent communities. The program hopes that this investment into these communities will provide options outside of coal mining. This reeducation program also is one example of opportunities that are available to the displaced workers. Future research can utilize these examples of reeducation programs to look deeper into what the miners know about such programs and can help business owners understand some of the positives their investments would create.

Another example of retraining opportunities that are taking place is based out of the Community College of Allegheny County Workforce Development Division. The college has teamed up with the United Mine Workers of America Career Centers, Inc. to devise a program that trains workers in advanced manufacturing and mechatronics. The program's location is in Prosperity, Pennsylvania, a gateway to many of the coal mines in Southwestern Pennsylvania. Umwacc.com (2019) explains, "The 16-week, 360-hour non-credit course will cover electrical, mechanical and programmable logic controller components" (para. 2). These students will work in a brand-new facility and learn to develop and upgrade hydraulic systems and pumps and design new programs. This information will be helpful when creating survey questions that relate to the information the miners have regarding new career paths. It also provides an opportunity to show miners that not all the retraining will involve sitting behind a desk.

Bottino's (2018) research considers three of the retraining opportunities for retraining in the Appalachian region and the effectiveness of the response. The research explains that Workforce West Virginia was given a $7.4 million grant to provide retraining due to layoffs and mine closures. Bottino explains that these massive attempts by groups outside of Appalachia have fallen on deaf ears. There is an opportunity to connect this part of the research with the culture of Appalachian miners.

Bottino studied three cases, each with its pieces of information relevant to future research. First, Coalfield Development was created by a native West Virginian with the hope that people who were unemployed due to the decline of coal could be put to work building affordable housing in the area. Bottino explains, "The organization follows the 33-6-3 model, meaning that trainees commit to completing 33 hours of paid work, six hours of community college classes and three hours of life skill mentorship classes every week" (p. 16). After two

years, these people would earn an associate degree and professional certification in a variety of fields that could suit a range of interests. This program has created more than 40 on-the-job training positions and 200 professional certification opportunities and has worked to rebuild over 150,000 square feet of built-in-complete disrepair. Coalfield is sponsored by grants and makes money itself by selling back reclaimed pieces of their construction projects.

Bottino notes something that could be a dampener for some people looking for retraining. They often recruit students directly out of high school or those in their twenties. This leaves out a large segment of people who have been displaced from their work and may also need to seek a new career. Many miners are older than their twenties, and the opportunities may not be as available to them. Future research can look into these different retraining programs to see if they are more geared toward a younger generation, or if there is a chance for people of all ages to work to find a new path in life.

The second case study Bottino investigates is Solar Holler. This company was created by a West Virginia native who felt that it was time for West Virginia to step into the world of solar-powered homes and businesses. Bottino interviewed the creator to understand the program's funding, and the use of crowdfunding was the primary source of funding for the program. This program led to a large number of projects taking place simultaneously and found Solar with a need for trained professionals to handle the work. Solar Holler began a partnership with the Coalfield as mentioned earlier Development to provide the electrical apprenticeship needed to work in the solar industry. Bottino notes that only a handful of coal miners were utilized in this training program, leading to a question for future research. There is a need to look at the idea that these training programs exist and are relying heavily on the grants and benefits given to retraining of the miners who are currently without work but are not providing the necessary

training to the people who need it most, and instead are seeking people who have never been employed before. These factors could be some of the main reasons these training programs are not in favor with the miners. Future research about this program will need to be conducted to see if that is what is taking place.

Bit Source is the final case study provided by Bottino. Rusty Justice is a former coal miner and feels that he can take advantage of the untapped capabilities of coal miners and their skills with machinery. Justice and his team understood that one of the significant drawbacks to miners changing careers is the lucrative pay that comes with being a miner. The team discovered that junior developers in Kentucky make roughly the same wages, so they began to seek out miners who had lost their jobs to form Bit Source, a coding business. The Bit Source team put together training for HTML, CSS, and JavaScript training programs, all of which are main tools for developing code that is used in a variety of landscapes today. The first ten applicants who passed the aptitude test to become a member of the Bit Source team came from underground mining and surface mining. Some came from maintenance positions in the mine, proving that being an engineer was not necessary to get placed into a role often considered reserved for technology gurus. The people went on to complete a 22-week training program and are now employed full time by the company. Bit Source also continues education, with each developer choosing a track that is suitable to their interests and allows them to continue to grow and change.

Pearce (2016) considered what would happen if all coal miners switched gears and started to work within the solar field. He took each type of coal position and compared it with the equivalent position in the solar industry, based on the skill sets required and their salary. It was found that all of the positions except managers and executives would see at minimum a 7%

increase in salary if they were to switch to solar. There would also be a minimum investment into the reeducation of these people. Pearce explained, "The results of the study show that a relatively minor investment ($180 million to $1.8 billion, based on the best and worst-case scenarios) in retraining would allow the vast majority of U.S. coal workers to switch to solar-related positions" (para. 11). Pearce also investigated the ways this retraining could be funded. They explored the ideas of coal miners funding their own training, coal companies funding the training prior to the layoff of their employees, with Pearce noting that it would only take 5% of coal company revenue from one year to fund a scholarship to their workers to fully pay for the retraining they would need, and finally, each individual state providing the funding to see their state switch from coal reliance to solar. This information will be beneficial for future research because it can help to show miners that while they may find solar unappealing due to their cultural expectation to be a coal miner, the switch to solar can be just as lucrative, if not more. However, it is important to tread lightly due to the current feelings regarding green energy and the change from the reliance on fossil energy to green energy. There is an opportunity for an interview to begin to go negatively and more into a political front than simply information gathering.

While it seems that Bit Source is the most applicable to providing opportunities to miners, it seems still that it is not inclusive. This information creates a question that will need to be studied further. These training programs, while incredible opportunities, may not be so unbelievable for every coal miner who no longer has a job. It will be essential to explore the impact of exclusivity on people's ability to utilize the reeducation programs offered.

An attractive option has been thrown into the mix of retraining options for families who are devastated by the loss of one of the highest paid jobs in the region. Workforce West Virginia

(2021) has expanded the training opportunities to the family members who are providing unpaid services to the household of someone who has lost their job. Workforcewv.org (2021) explains, "The term 'displaced homemaker' means an individual who has been providing unpaid services to family members in the home and who has been dependent on the income of another family member but is no longer supported by that income; and is unemployed or underemployed and is experiencing difficulty in obtaining or upgrading employment" (para. 3).

Workforce West Virginia explains the benefits that come along with the plan in place to help homemakers as well as any person that has lost their job due to foreign imports or shift of production outside of the United States. They are providing training, a travel allowance and assistance with travel costs, room and board during the trainings, supply allowance, 130 weeks of Trade Readjustment Benefits, job search allowances, relocation allowances, and for those aged 50 years or older, a reemployment trade adjustment assistance (workforcewv.com, 2021). These benefits are numerous and can be used during future interviews to recognize if the people who are dealing with potential job loss in the mines realize the opportunities that are available to themselves as well as their families.

Marston's (2018) research explains that many industry leaders in sectors such as batteries and manufacturing are looking to coal country for a new home. States in the Appalachian region (such as Kentucky) are giving significant tax breaks to companies bringing their work to their area. This, along with an already skilled workforce in trades such as direct current power and mechanics, makes the region a perfect place for these companies to call home. Marston also explained, "EnerBlu noted in a recent blog post because Pikeville, Kentucky is rooted in the challenging coal country, it has a population with a strong work ethic, loyalty, and tenacity – all qualities employers look for" (para. 4). He also explains that the wind industry provides free

training to laid-off coal miners in places outside of the Appalachian region. In Wyoming, Goldwind Americas is looking to provide service to the vast number of turbines in the area. They are seeking out coal miners because they are used to the harsh work environments. The same can be said for two other examples Marsten provides, LockHeed Martin and CSX, both leaders in aeronautics and locomotives. The nod to the culture of the region will be important to future research, as it shows that sometimes employers are looking for hard workers that they can train, and not so much the skills they already have. This information can show that the culture of coal country can become something that is positive for job seekers, rather than focusing on the lack of formal education.

Peterson's (2019) research sheds light on what coal miners are experiencing in these training programs today. The research explains that while these trainings are wonderful and provide an opportunity to see miners working in different fields, it may not mean that they are going placed in an actual job that pays a wage comparative to being a coal miner. The research goes on to explain that it is difficult for a miner to go from making $75,000 a year to making $12–$15 an hour. The research points out that there is a need for workers to be able to do something they have already done, such as creating a mine reclamation project. The demand for projects like this is high, and the ability to not have to train the miners allows for the pay to be comparable to what they were making before. This new career path would be a win for both employers and employees, and these paths could provide jobs for years. This is important for future research. It shows that there are opportunities for miners outside of learning to code or working on solar farms, which may play further into what they would prefer to do, making it a chance to be successful while not losing their identity.

Coal mining in the Appalachian region may see its demise at some point, however, the history of the trade runs deep and will be a part of the region's identity forever. The pride of coal country is alive and well and is exemplified throughout the region in various ways. The tenacity of coal miners is evident through the work they do and their desire to ensure a good life for themselves and their families. Employers are beginning to realize that, while they made need to train them, coal miners are typically hard workers and willing to put the time in to get the job done. What they aren't considering is the miner's individual self and the cultural identity that comes with being a coal miner. Future research will hope to show that while these men would work in different trades, it is essential not to forget where they came from and make sure that the jobs, they are training for fall in line with what these men have been doing for decades, not putting them behind a desk where they will not flourish.

The next chapter will explain the methods that will be necessary to continue the research that has been explained above. Some excellent opportunities are available for future research to help continue making Appalachia successful, and it is the hope of the researcher that expounding on the examples above will create a compelling story for not only the miners who participate but for the government agencies and businesses that will be reading the findings.

CHAPTER THREE: METHODS

"And we'll keep on digging 'til the comin' of the Lord, Gabriel's trumpet sounds – cause if you ain't minin'

for the company, boy there ain't much in this town"

Overview

The purpose of chapter three is to present the procedures, research design, and analysis for the study of the cultural identity of Appalachian coal miners. The chapter includes the design of the study, the setting of the study, the participants, procedures, and my role as the researcher. It will also have a look at the data collection techniques used and the interview questions and survey questions that helped me gather the data needed to create quality qualitative research that benefits not only the readers but also the participants well.

Design

My research design was considered because I felt that I could best encapsulate the stories and experiences of miners from all different generations in the best possible way. I chose to do a qualitative study in the ethnography research design. Qualitative studies provide a look into a culture in a way that quantitative research could not provide. There is a greater ability to achieve a more humanistic, social study of the subject, rather than forcing it to fit into a specific box. The ability for the culture to naturally occur and for the researcher to become more engulfed in the ethos creates a unique opportunity for an in-depth dive into the reality that is the culture being studied. Punch (2014) states, "The concept of culture is central in ethnography" (p. 127). I chose ethnography for this reason. The study of the miner's culture can hopefully create a better understanding of their choices when it comes to their employment and their future career.

According to Punch (2014), "The term ethnography itself comes from cultural anthropology" (p. 125). Ethnography is essentially the description of people and their culture

and the way of life within the culture. Ethnography focuses on describing the culture of a group, which requires the group to be intact long enough to have similar experiences. Ethnographers focus on patterns in interviewees' cognitive behaviors, such as beliefs. Ethnographers also focus on a theory, and this theory helps direct the research and allows for patterns to be more easily recognized. They must then create a cultural interpretation based on these patterns. Creswell and Poth (2018) defined cultural interpretation as "the description of the group and themes related to the theoretical concepts being explored in the study" (p. 92).

LeCompte and Goetz (1982) explained, "Characteristics of ethnographic research include participant and nonparticipant observations, focus on natural settings, use of participant constructs to structure the research and investigator avoidance of purposive manipulation of study variables" (pp. 31–32).

Ethnography begins by locating a group of people with a shared culture and finding an appropriate theory to study the group. Researchers must then conduct fieldwork, including collecting interviews, artifacts, or anything relevant to explaining the idea. Researchers must then interpret the group's culture from the data collected and the patterns that present themselves. Creswell and Poth stated that describing the set of rules or generalizations about how a group functions is called a cultural portrait (p. 94). The cultural portrait is the framework that can set a researcher up to create deep dives into certain phenomena within the culture. Regarding ethnography, one of the first issues that researchers may face is ensuring that they have a solid base in understanding cultural anthropology. Creswell and Poth explained that researchers must provide their definition of culture for people to understand the perspective provided in the research (p. 96). Researchers must be sensitive to the culture they are studying and understand the needs of the individuals. For example, a researcher immersing themselves in

an indigenous tribe needs to consider the tribe's culture and abide by the expectations of the tribe that is allowing them to come into their home.

Another issue regarding ethnography is the style of data reporting that the style takes. It is more focused on the storytelling of the narrative and relies much more on the ability of the researcher to retell these stories rather than relying on data provided. Hammersly (2006) stated, "Another area of disagreement, again sometimes framed in terms of debates about what is and is not ethnography, concerns whether the researcher must locate what is being studied in the context of the wider society, or whether instead he or she should concentrate on studying in great detail what people do in particular local contexts" (p. 5). Researchers must understand that their research needs to resonate with a large audience, not just with the area being studied. Researchers must make sure they explain everything in straightforward terms rather than in colloquial terms.

The point of ethnography is to study and understand the aspects of a culture's behavior. Yin (2018) explains that "Ethnographies usually require long periods in the field and emphasize detailed observational and interview evidence" (p. 21). Observation in the field can come from the researcher watching how people act in their daily lives. It is essential to remember to look for specific events or features that the culture deems important. Punch (2014) explains that while studying a group of people, in this study, coal miners, it is essential to understand the group's shared cultural meanings. Interpreting these shared meanings is one of the critical steps to an ethnographical study. I had to remain sensitive to the implications of behaviors and actions that take place while I observed the miners. There is a need for an insider's perspective about these actions and contexts.

Accomplishing this means the researcher needs to become a part of the subject's natural setting. This was accomplished by engaging with the coal miners in situations I could place myself in, including group settings with miners during their off times. This allowed me to experience the miners when they are not being asked questions and do not consider me as someone who would be observing them.

Punch (2014) also explains that ethnographic research can evolve. The study may not have the same hypotheses as when it was created, simply based on the writer's experience during their time studying. Ethnography is eclectic and non-restrictive and allows for the addition of data like video and audio recording, documents, photos, or diaries. Punch also explains that ethnographic research is repetitive and can take some time. The research needs to be very detailed and often focuses on things that repeatedly happen to show that there is a cultural significance in the events.

Punch makes an important note that ethnography does not fit into one specific lane. There is a chance to overlap other theories, including grounded theory or case study approaches. Punch states, "A full-scale ethnography means carrying out a detailed and demanding study, with fieldwork and data collection running over a long period of time" (p. 129). This extensive fieldwork and data help other social science experiments in the long term, especially those that feature sociocultural or subcultures.

Research Questions

R1.   How does the news coal miners receive from social media, friends, and family influence their career decisions?

R2.   What are the familial and cultural ties that connect the coal miners to the careers?

R3.   What do coal miners know about the options that are offered for retraining?

R4.   Are coal miners able to explain why or why not they would choose to utilize retraining options?

Setting

The setting for data collection will mainly consisted of Zoom calls. Due to the COVID-19 Global Pandemic, it is unwise to conduct the interviews in person. Currently, the rollout of vaccines is making the opportunity to do in-person interviews closer to reality. However, there are still restrictions impeding the actuality of in-person interviews. Zoom calls allowed everyone involved to feel safer and also allowed me to contact people across the Appalachian region. I utilized social media to distribute the survey and will relied on friends and colleagues to spread the survey across a wide span across Appalachia. Observation will also take place in situations when it is applicable.

Participants

West Virginia and Southwestern Pennsylvania served as the geological area that the respondents reside within. Purposive sampling was used to create the respondent pool because the focus of the study was coal miners in the region, as mentioned above. The research aimed to have 100 people take the survey and 25 to do in-depth interviews. They were chosen because they fit the criteria laid out in this study's research questions and hypotheses. Miners who currently are employed by coal companies in the region were used, as well as people who have changed careers from mining or retired from a mining company. This sample ensured that there was an accurate representation of all parts of the career. This included people who have left the mining industry to pursue other trades were of particular interest because they could provide insight into the retraining possibilities that are offered by state and local governments or showed how the skills that were honed during their time in the mine can be used in other areas.

Procedures

Before the beginning of the study, the survey and interview questions were vetted, and permission granted from the Instructional Review Board. I took the CITI training and understood that it was essential for my research to understand what was expected from me regarding how to handle sensitive information. I utilized Google Docs to complete my survey, as it provided options for ways to explore my data, while maintaining the raw data in a safe space. This allowed me to quickly sort out answers and create connections from piece to piece. It also allowed me to collect consent forms and keep them on file in a safe and secure cloud space.

I had professionals review each part of my survey and interview questions, along with my consent forms, to ensure they uphold the highest quality and standards. I also ran a pilot test on a person who was not part of the survey or interview, to ensure that the questions were relevant and made sense for the context. This was be completed after I received approval from the IRB.

Consent forms were obtained from each participant, after which they were invited to complete the survey. I received 22 responses to the survey. The survey was then analyzed to create the next step, the interview.

Identifying a smaller sample for the sake of time was imperative and these interviews took place as quickly as permitted by scheduling. Zoom was utilized, and most interviews took from 30 minutes to 1 hour to complete. This length of time allowed for extended conversations, and no one felt pressed for time if they wish to tell their story. If someone does not feel comfortable completing their interview over Zoom, arrangements will be made to complete an

in-person interview. I utilized the interview software tool Nvivo to transcribe and code my data, which created a story that I analyzed for connections.

The data provided by the data mining application was scrubbed and analyzed. This provided the dataset that is the basis for statistical analysis. All the answers from the survey and the data mining datasets were combined and analyzed, and the interviews provided a qualitative outlook to help bolster the data found. I looked for themes within the code to see any connection between any of the pieces of data. The interviews were analyzed, and data extracted to help answer research questions.

The final data collection method was experiencing the exhibition coal mines and visiting the available museums. I utilized the virtual options available for some of the information, including documentaries about the mine wars and what life was like for miners in coal camps. These historical data points were scrutinized and compared with the data provided by the interviews and surveys. They provided a background for explaining some of the cultural ideals that have taken shape from the data.

The Researcher's Role

My role for this research was to observe people I am around every day and speak to them about things that perhaps we have never had the time or setting to discuss. I am married to a first-generation coal miner, and the situations that he and his friends come into every day piqued my interest in doing this study. The adjustment into their culture has been one that I still haven't fully completed, and I looked forward to hearing their words as it comes to their futures and their families.

I am also a native West Virginian, so coal mining has been a part of my life from the beginning. It is an integral part of my culture, and I feel strongly about helping the people who

are also a part of that culture. I am lucky enough to have had the opportunity to utilize the

proximity I have to a large group of coal miners who were willing to help me. I was able to

leverage some of my connections to West Virginia to reach miners from other parts of the state.

My friends in the industry reached out to their friends to help me reach my goal of surveys and

in-person interviews. Everyone I surveyed and spoke with was open and honest with me, which

I feared would be an issue. I took the time to ensure them their data is safe and confidential,

putting their main fear of being open and honest with me to rest. The worry was that they have

little trust in their company right now and that this information that they provided would be used

against them in some manner. This was addressed at the beginning of the consent form, ensuring

that their data would go no further than this research and have no distinguishing features.

I am not from a coal mining family. However, being a part of a new family that relies on

coal mining, I now understand more about what it takes to be a mining family that depends on

the wages of a miner to survive. While I did not feel that this will lead to any kind of bias related

to data, I felt like I can better understand what the families are going through and why certain

outcomes may not be the best for their families.

I also understand social media and the utilization of the platforms to reach target

audiences. I have studied social media for many years and know that there will be challenges in

ensuring that my survey is reaching the right amount of people and that the time taken for

collection may need to be extended.

Data Collection

Survey

The survey portion of my research took place over one month. The survey was

completed using the Qualtrics program, as it provides various data analysis options. The

questions included a variety of open-ended questions, yes/no questions, and nominal questions.

The survey helped me gain insights into the coal miners. I kept the survey short enough to allow

for a quick response time, so people completed the survey, rather than either not starting or

completing half then quitting. My survey aimed to get an understanding of the culture of miners

from a larger group of individuals outside of my interviews. I was able to achieve getting 22

people to take my survey.

The survey questions I included are below:

1.   Age Range

- o 18–25
- o 26–30
- o 31–35
- o 36–40
- o 41–45
- o 46–50
- o 51–65
- o 65+

2.   Gender

- o Male
- o Female
- o Prefer not to respond

3.   Years in the mine

- o 0–5
- o 6–10

o 11–15

o 16–20

o 21–25

o 26+

4. Marital Status?

o Single

o Married

o Divorced

o Widowed

o Other

5. Have you worked in different fields aside from coal?

o Yes/No

o If yes, what fields?

6. What generation coal miner are you?

o First

o Second

o Third

o Fourth

o More than fourth

▪ If more than four, how many?

7. Are you aware of the reeducation opportunities that are offered?

o Yes/No

8. Would you be willing to do unpaid training to start a new career if the mine closed?

- o Yes/No

- ▪ If yes, why?

- ▪ If no, why?

9. Would you be willing to do a paid training to start a new career if the mine closed?

- o Yes/No

- ▪ If yes, why?

- ▪ If no, why?

10. Do you think that you will retire from the mining industry?

- o Yes/No

11. What social media platforms are you a member of?

- o Facebook

- o Twitter

- o Instagram

- o Snapchat

- o TikTok

- o None

- o Other

- ▪ If other, what?

12. How do you gather your news?

- o Newspaper

- o Local news channel

- o News channel, CNN, Fox News, etc

- o   Online news channel

- o   Social media

- o   Other

13.   Are you willing to do an in-person interview?

- o   Yes/No

- o   If yes, please provide your email and name

The first four questions aimed at gathering demographic data that allowed me to explore the age range and the years in the mine that my study focused on. I also asked for the gender of the survey taker, simply to see if I had any female coal miners, who would be outliers of particular interest.

The next series of questions included generational questions. This was helpful to dive deeper into in the interviews; however, for the survey, it helped to see if the trend was first-generation miners, or if there was a trend for people to be the second generation, or even further into their lineage. Adding the point of multigenerational miners helped to further investigate the familial connection to coal mining. It allowed for a deeper dive into the understanding of why the families have become multigenerational. This helped to continue the look into the culture of miners as well as their historical perspective.

Questions 7–10 encompassed the idea of miners' awareness of reeducation programs and their thoughts of being involved with a reeducation program that is paid versus unpaid. These questions helped to lead the conversation during interviews.

The final questions were directed towards what platforms they utilize for social media and where they gather their news. This connected back to the theory that people are finding their

news on social media. It was beneficial to find out where the majority of the miners gather their news to alert the reeducation programs to the best way to reach their target audience.

The survey was a starting point to determine people who were willing to provide an in-person interview. It provided baseline numbers to see if the current coal miners are similar to those in the past, as well as provide adequate information to compare to the past research on the subject.

Interviews

The interview stage of my research was one of the most critical pieces of data collection. Punch (2014) explained, "It is a good way of accessing people's perceptions, meanings, definitions of situations and constructions of reality" (p. 144). These interviews helped me better understand the survey results and allowed a deeper dive into the most interesting answers that I was able to gather. Interviews took place over Zoom and ranged in time from 30 minutes to 1 hour. These interviews were considered semi-structured. I asked open-ended questions, and I allowed the conversation to shape itself.

The interview was a conversation rather than a back-and-forth question and answer. The goal of the discussion was to ask engaging questions that enticed the interviewee to explain their answer. It was necessary for future research to make sure that the questions did not provide yes and no answers without a follow-up question so that was easier to do more analysis going forward. My goal was to have 10 to 25 in-person interviews to get enough information to compare against each other. In total I interviewed 13 people. I interviewed people from northern West Virginia and Pennsylvania and in southern West Virginia and Ohio and was able to compare experiences from across Appalachia.

The questions I asked were:

1.   Please state your job within the coal mine:

2.   Please provide your age:

3.   How long have you been working in the coal mine?

4.   What made you interested in being a coal miner?

5.   Are you the first to be a coal miner in your family?

- If yes, what industry is your family in?

- If no, how many people in your family are in the mining industry?

7.   Are you a part of the mining union?

- If yes, why did you join the union?

- If no, why did you not?

8.   Are you a member of any of societies, such as the Masons, Shriners, etc.?

9.   Do you find that many people in the mining community are members?

- If yes: Why do you believe the miners are drawn to the group?

10.   Do you have any specific routines or superstitions that you do during your workday?

11.   What fears do you have working in the mine?

12.   Are there any mining folklore stories you are aware of?

13.   Are you on social media?

- If yes, what platforms?

- If no, why not?

14.   Do you connect with your coworkers on social media?

- If no, why not?

15.   Where do you look for your news?

16.   Do you consider social media a viable source of information?

- If yes, why?

- If no, why not?

17.   Where else do you get your news information?

18.   Do you see yourself staying in the coal mines until you retire?

19.   How do you feel about retraining options that state and local governments offer?

20.   Explain your thought about retraining options being unpaid?

21.   Explain your feelings on the types of retraining they are offering?

22.   If you could choose any new career, what would it be?

23.   Would you be willing to shift careers if given the opportunity before the mines closed if they were paid?

Questions 1–3 were demographic questions that helped to place the interviewees' experiences alongside those in the same demographic. The following series of questions allowed a more in-depth explanation regarding what makes a coal miner a miner and included inquiry into why they chose to go into the field and family history of mining if there was any. This helped to justify the past research that many miners in Appalachia came from a long line of miners or found more towards the southern part of West Virginia.

Question 5, regarding the union, helped explain how much of an influence the union had on miners that I had the opportunity to speak with. This allowed for a connection to the past miners, as I compared the level of engagement of the union and the impact, they have on today's miners versus those of the past.

Questions 6–9 explored the idea of folklore prevalent in the mining community and is an interesting part of the current mining culture compared to historic mining. I know from tribal knowledge that there are some traditions that miners of today have, such as carrying a cross or

photos of their family in their helmets or their hearing protection, and many of them will not go underground without it. From my own experience with my husband, we ensure that we say I love you, have a good day, and stay safe nearly every day before he goes underground. It was interesting to see if other families have the same traditions.

The next series of questions considered the interviewees' use of social media and how they gather their news. This data helped me correlate the use of social media and news consumption against the information provided in past research. This also helped show the reeducation programs' creators the best way to reach the people they are hoping to help. It is my hope that they will take the information I have collected and utilize it to reach people who may not have considered reeducation as an option.

The final series of questions asked about the interviewees' interest in reeducation programs. This is key to help the reeducators to gauge the interest of the miners in reeducation and evaluate the available options at this moment. The hope is that this information will help the people creating the programs will see what the mining community needs to consider a new career.

Photographic Analysis

I utilized the photographic analysis portion of my research to explore a variety of experiences that allowed me to create a more well-rounded story of what life is like for a coal miner. I utilized artifacts found online through historical sites and visited places such as museums that hold these artifacts. These artifacts allowed me to make connections from the past culture of coal miners to the present.

Observations

The observation portion of my data comes from visits to sites such as the Mine Wars Museum, Beckley, West Virginia's Exhibition Coal Mine, and the Exhibition mine outside of Pittsburgh, Pennsylvania. These opportunities allowed me to experience what the historic miners experienced as well as provided an opportunity for me to ask questions to subject matter experts in the realm of historic coal mining. This firsthand data created opportunities to dig in deeper and ask questions that I may not have considered when looking through historic data.

Another observation method was to observe the miners in different settings. This is an example of naturalistic observation, during which, according to Punch (2014), "…observers neither manipulate nor stimulate the behavior of those whom they are observing — the situation being observed naturalistically is not contrived for research purposes" (p. 153). This included listening to their conversations over dinner, hearing their music selections and interacting with each other in a setting outside of the workplace.

Data Analysis

Data analysis for qualitative research needs to be systematic and transparent. Analytic induction was important to the analytics part of my research. Punch (2014) explains, "Concepts are developed inductively from the data and raised to be a higher level of abstraction, and their interrelationships are then traced out" (p. 170). This style of data analysis is data-driven and allowed me to utilize my survey results to create relationships that was further be bolstered by the information gathered from the in-person interviews.

Another idea that I was utilized was the Miles and Huberman framework for data analysis. According to Punch, there are three main components of the framework — data reduction, data display, and drawing and verifying conclusions (p. 171). Stage one was

collecting the data, then coding the data. This created a natural reduction of the data. It was

important not to strip the data down too far, to not lose too much information.

Coding occurred during this step and served as labels for the main patterns that emerge

within the data. This also served as an index, making data easily accessible for future research. I

used two different types of coding, including descriptive and inferential codes, and utilized each

as the data continued to be broken down. I utilized conversation analysis to understand the

foundations of the culture and to pull out the underlying similarities of past and present coal

miners, as well as their expectations for the future.

Next, I determined how to display the data. I chose to examine the data by creating

charts representing the data analysis and included it in the analysis and discussion of my

findings. This style of data analysis made the data easy to read and understand while maintaining

the impact of the data. It was also determined to be the easiest method for providing the

information for future readers.

Finally, I created my conclusions and verified my information. The verification process

included the utilization of rigor within the data analysis. It was somewhat more difficult for

qualitative data to be validated since there were fewer hard numbers to work with; however, the

trustworthiness of the information was still important. The data was verified by identifying and

correcting errors in the information and making sure that the information was not all over the

place but instead was much more linear. It was important to consider that the data and

information gathered relate to the research questions. The sample was appropriate and

represented the segment of the culture being investigated. Validity also came with the

connection of the data back to the original theories that are being investigated. This occurred

naturally and was not forced. The data was able to be sorted into different buckets, allowed the natural connection back to the theories.

Trustworthiness

My research was considered trustworthy and dependable due to utilizing a variety of methods to ensure that the most truthful example of the culture was represented, and that the information gathered can be utilized in other studies. Creswell and Poth (2018) explain, "Few ethnographic resources identify criteria for quality ethnographies" (p. 276). Instead, ethnographic researchers focus on contextual descriptions of the triangulation of a variety of data sources.

Credibility

Credibility, or the ability for the data to describe reality, was determined by the inclusion of in-depth interviews and historic data that reflected the reality of what it is like to be a coal miner. I utilized creative, analytical practices to convey what it is like to be a coal miner and created a narrative of what it is like to be forced to make a life-changing decision if their mine is too close. This information came directly from what was gleaned from the interviews and will be as close to exact as possible.

Dependability and Confirmability

My data is dependable because it was recorded in ways that can be referenced at any point to ensure the details I provided were consistent with what was gathered in the data-gathering stage. The information on the study was entirely laid out, and the context was told in a format that is both engaging and accurate. According to Flick et al. (2000), "Triangulation of data combines data drawn from different sources and at different times, in different places, or

from different people" (p. 178). This happened with my data, as I asked the coal miners the same questions, but all separately, so they were not influenced by each other's answers.

Transferability

The transferability of my research is very visible. It looks at one small piece of a person's culture and its influence on their life. This can be applied to a variety of things that make up one's culture. My research can be applicable to the study of other pieces of the Appalachian culture as well, whether it comes from the research about people leaving the area but still maintaining their roots or the choice people make to live in isolation among the mountains of the region. The cultural study can be replicated, but the outcomes will vary because everyone is different and sees things from different perspectives. Creswell and Poth (2018) explain that creating a "cultural portrait" is the creation of a holistic view of a culture-sharing group (p. 319). This portrait can combine with other aspects that can be explored in the same way to create an even more extensive view of what life is like for coal miners in Appalachia.

Ethical Considerations

The highest standards of ethical consideration were utilized in this research. Respondents remained anonymous, and I ensured that privacy and confidentiality was at the front of the study. There were no names utilized, and no specific information included. The responses and interviews were held on the cloud and password protected, allowing for security and more negligible risk of data theft. Respondents were willing to complete the different portions of the research of their own free will and were be asked to be truthful about their answers to provide an accurate measurement of data. The survey was only issued to consenting parties, and they could stop at any point. The interviewees had the same option to opt out at any time. Data mining

software may be deleted, and participants can be assured the data will not be used for anything beyond the scope of this research.

Summary

Chapter three explained the steps that I took to provide the best possible data set that I could and show various experiences from different miners. It was essential to explore other avenues of their culture to paint a broad picture of what it is like to be a miner in today's tumultuous world. There was great care taken in maintaining the miner's anonymity so that none of the information provided could be used against them maliciously. I ensured that their information is kept secure and is used to provide the most accurate possible portrait of the mining culture.

I hope that this information explains why miners are not choosing to take opportunities provided to them, and it is my hope that I can see my friends become successful in something they may not have considered themselves capable of doing.

CHAPTER 4: FINDINGS
"We coulda made something of ourselves out there, if we'd listen to the folks that knew –
that coal was gonna bury you"

Overview

The following chapter examines the data collection results for my qualitative study. The findings include participants of group interviews and the survey results. The survey was sent to over 100 miners, with nearly a quarter responding. This study explores coal miners' culture and communication styles in southwestern Pennsylvania and West Virginia. If their culture leads to the lack of utilization and understanding of available retraining options, should their mine face a closure.

Participants

Geoff

Geoff is a maintenance foreman in a mine in Southwestern Pennsylvania. He is 50 years old and has been in the mine for 25 years. Before starting underground, he worked in the river division of the same company, working on barges transporting coal to different ports along the east coast. He has been a mechanic his entire career. Geoff is married and is a first-generation miner who switched from the river division for the money. Geoff receives his news from a variety of sources including the local stations and social media.

Mark

Mark is a motorman specializing in the underground railway system that transports coal, equipment, and personnel through the mine. He is a first-generation coal miner who is 39 and has been working in the mine for 14 years. He is married. Prior to working in the mine, he worked for a lumber company and switched careers due to the money available in mining. He is

a member of the local Masonic temple. He receives his news from a variety of sources but relies on social media for the bulk of it.

Fred

Fred is a former coal miner located in southern West Virginia. He is 51, and he is married. He no longer is a miner and instead has transitioned into working as a coal laboratory technician studying the effects of mining on the human body. This training was done 30 years ago with the help of the retraining program that was offered in his area. He was a miner for ten years prior to the mine closing. He chose to become a miner due to the money that the trade generates. He is a social media user who connects with old mining colleagues on Facebook and Instagram, and he receives his news from a local news channel.

John

John is a continuous miner operator for a mine in Southwest Pennsylvania. He has spent 24 years in the industry and is 54. He is married and, before taking a job in the mine, he worked as a medical field respiratory therapist. He is a fourth-generation coal miner and said family ties brought him to the industry. He uses social media but tries not to connect to colleagues too frequently.

Louis

Louis is a miner operator in Southwestern Pennsylvania. He is 33 years old and has spent 13 years working in a coal mine He is married and has worked in mining his entire working life. He is a first-generation miner who went into the field for the money that the job offers. He is a member of the Freemasons. He is a member of various social media networks and frequently talks with his colleagues on the apps. He also gathers his news from social media.

Nick

Nick is a miner operator at a Southwestern Pennsylvania mine. He is 34 years old and has spent 12 years in the mining industry. Prior to working in the mines, he held various positions, ranging from working in a glass factory to being a fireman. He is a second-generation coal miner who is planning to retire from mining. He chose to join the mining industry based on the job security it offered.

Dave

Dave is a section foreman at a mine in Southwestern Pennsylvania. He is 42 and has been in the mining industry for 13 years. Before the mine, he worked in fiber optics and the electrical industry. He is a third-generation miner, is a member of the Masons, and is married. He switched industries due to the amount of money he could make as a miner.

Frank

Frank works as an Outby P&M for a mine in Pennsylvania. He has worked in the industry for 15 years. Prior to working in the mine, he worked for a construction company. He is a first-generation coal miner, married, and chose to go into mining due to the increase in pay from his previous job. He communicates with his colleagues over social media and gets his news from social media. He would accept retraining because it is an opportunity for free education; however, he would not accept it if unpaid.

Devan

Devan is a foreman at a mine in Southwestern Pennsylvania. He is single and chose to go into mining after some time at a longwall repair shop. He chose mining due to the thrill of the job and is a first-generation miner. He explained that he was willing to take unpaid training

87

because he likes to learn new things. He interacts with his coworkers on social media and gets his news from a local news station.

Tomas

Tomas is an assistant mine superintendent. He is married and has been a coal miner for 18 years. He is a third-generation miner who previously worked in the electrical union at a local power plant. He chose to go into mining due to it paying more and having better benefits. He explained that if the nonpaid training intrigued him, he would take it but would rather have it be paid to continue to support his family. He is not on social media and chose not to divulge where he gets his news.

William

William is a side bolter that works for a mine in Southwestern Pennsylvania. Before starting his career in the mine, he worked as a truck driver and chose to change jobs due to the money. He is single and a first-generation coal miner. He explained that he would take paid or unpaid training because he must have a job to survive. He is active on social media and connects with his coworkers frequently on these sites.

Rob

Rob was a longwall operator who worked in a coal mine in Southwestern Pennsylvania until he was laid off. Prior to working in the mine, he worked in construction. He was a first-generation miner that chose to go into mining due to the money. When he was laid off, he decided to go back to something he enjoyed doing and went to school to become a barber. He is now running a successful barbershop. He interacts with his old colleagues via social media and gets his news from mainstream media.

Kris

Kris is a mine examiner located in Southwestern Pennsylvania. He is married and is a

first-generation coal miner. Before working in the mine, he was a funeral director and chose to

switch careers due to money. He explained that he would not want to do unpaid training because

he feels that if the miners do not have a choice in the closure, the company should be willing to

help them find a new career. He is not on social media and chooses to gather his news from

mainstream stations and the local channels.

<div align="center">

In-Person Meetings

</div>

Meeting 1: Dave, Mark, and Louis

I met Dave, Mark, and Louis for dinner. I was able to ask many questions regarding their

feelings about their current jobs and the questions from my interview. It seemed that they were

much more open and candid when not being recorded and had other people there to discuss their

answers. The group talked about work without being prompted and addressed that they are

insecure about the state of their current workplace. Dave and Louis both have families and

children, and they are constantly worried about being laid off. Both have been furloughed

before, and it was a struggle for their families. Their wives do not work, which is common in the

coal mining community. This places an enormous burden on them to keep secure employment.

This stress is evident in each man, even Mark, married, whose wife also works full time. He is

still the primary breadwinner, and the reliance on the paychecks is very evident. When asked

about unpaid training, they all agreed that, regardless of their feelings on it, it would be nearly

impossible for them to do; they rely too heavily on receiving a paycheck to allow for the lifestyle

that their family is accustomed to enjoying. One stated example is that Dave's children — they

are in a prestigious private school with a tuition of $25,000 per year. Without his pay, there would be no way for them to keep their children enrolled.

It was interesting to talk with them about what they would like to do if the mine no longer employed them. The miners felt that they were all suited for other things; however, they thought that a trade was more suited for their work styles rather than being behind a desk. They all feared that they would be forced to be retrained in careers they would not enjoy and felt that this would be what the retraining teams would be pushing them towards, rather than jobs that would keep them out from behind a desk. None of the men felt that they would be successful in an office job.

Discussing the culture of being a miner with these men was interesting. They feel that they do have their own culture. No others can understand what it is like to work underground every day and face situations that many others would never face during their career. These situations bond them together and allow them to feel like they are connected to their colleagues forever.

They do feel like theirs is a dangerous job; however, it seems that they have become relatively desensitized to the fact that they risk their lives every day. They started talking about the fact that they had witnessed severe injuries, and while it doesn't ever get easier to see a colleague get hurt, it becomes easier to jump into action quickly.

When asked about how they get their news, they explained that they received it in various ways, including social media, mainstream news, and their local channel. Mark also mentioned that there are often rumors underground among the workers, and sometimes those can get out of hand. When asked to elaborate on that, all three of them chimed in with examples such as layoffs, things elected officials said, or the impact of an election or a new hire on the mine.

Meeting 2: Geoff, John, Rob, Kris, and Mark

This meeting took place in the garage of my home. I treated the men to dinner before they all found their way to the garage, where they were working on Mark's vintage truck. This is not an unusual occurrence as many of Mark's colleagues find themselves at our home on many weekends. The men were discussing work, as they often do when together, and I sat and listened to them. Geoff explained that they got a new mantrip, a vehicle that can transport people and equipment through the mine. The rest of the men began making fun of him, stating that his portal is the company's favorite, so they always get new things while the rest are stuck working with equipment held together with tape and zip ties. The company they work for has three portals, or entry points, to the same mine, each with its own team of employees. Geoff is the only one from the visiting group that works at a different portal, making him a target. I noticed a lot of competition between the portals to determine who is mining the most coal and who is working the most efficiently. There is always a drive to be the best.

When I started asking questions about the different portals, the conversation jumped into the differences between mines. John and Rob had worked at different mines throughout their time as miners and explained how other companies place more emphasis on different parts of mining. For example, Rob explained that when he worked in a West Virginia mine, they were expected to meet a specific tonnage quantity per day. At the same time, there was no tonnage expectation per day in Pennsylvania. He said he felt that the expectation created a bit of an unsafe workplace as men would find workarounds to the safety mechanisms on equipment to make it work faster and produce more. I asked him if that meant he felt safer working in Pennsylvania and he explained that he did not, as the mine he worked for in Pennsylvania gave them equipment that was continuously breaking. I found this to be an interesting topic, as it

relates to miners from the past, who were constantly in a battle of trying to produce enough coal to make money while trying to remain safe and the choices that were made against their safety to meet the demands.

They then began discussing the uncertainty of their job, a frequent topic among the miners. There is always a concern with the current political structure of the United States and its impact on mining. The push for green energy is always a concern, as they feel like their mines will eventually be impacted by the push to go green. I find it interesting that many of the men try to utilize reusable drink containers and storage for their lunches and try to recycle and upcycle when possible. When I asked them about their feelings regarding green energy, they all felt that there would never be a time when the world would go entirely to green energy; there will always be a need for fossil fuels.

This was a transition into the conversation regarding whether the mines were to ever close and what they could see themselves doing. Kris noted that he would absolutely investigate working with solar panels or wind. Rob s that had he not gotten into barbering; he would have chosen green energy too, simply because it seems that the green industry's longevity could outlast the time before his retirement. Mark agreed with them, saying that if green energy work would pay similar to what he makes as a miner, he would be willing to do it.

Meeting 3: Devan, Frank, Fred, Mark

The third informal conversation began with a discussion about a then-recent situation at a limestone mine in Southwest Pennsylvania. Though not coal mine related, there is sometimes crossover between the two, and the incident had been a troubling one. The limestone mine experienced a collapse in its underground portion. There were significant injuries, and one miner became trapped. Rescue teams from the mines closest to the accident were called to try to

extract the miner and worked for an entire day to rescue him, but unfortunately, he passed away before they could get him out. The men were speaking about being on a mine rescue team, as they have all spent time on either the rescue team or have been volunteer firefighters. I found it a unique situation that all of them had served as a rescuer. The men discussed the various deadly situations they have faced in the mines. While it can be expected that this discussion would be grim, it instead seemed like any normal conversation among friends. I equated this to the theory of fatalism. They understand that their job is incredibly risky and are willing to run into danger to help their fellow miners, however, if death does come, they must quickly move on.

After this, the conversation shifted towards the stories about mining, including folklore. Devan said that he always puts his uniform on in a specific order and always tends to stand in the same place on the elevator going underground. Frank agreed, saying that he often stands in the same place on the elevator and always gets out of his car and walks along the same side when heading into work. Mark carries a few tokens with him (one of Saint Barbara, the Patron Saint of Coal Miners in his helmet, along with other tokens that his family has given to him). He puts them in the muff of his headphones, so they remain safe. The other men explained that they too had either a photo in their helmet or a small token that they carry with them to remind them of their family.

Another portion of the conversation was concerning their underground jobs. While they all feel that they should be making more, they are all relatively content with their careers and work hard to ensure that their mine is the most successful.

I also observed that many of the miners are users of tobacco and alcohol. I found that most of them often have a few beers or cocktails after work, and often on the weekends, they are drinking. I have also found that most of them utilize snuff or another form of oral tobacco.

When asked why they use it, they all have a similar answer: it keeps them awake at work when working long hours. When asked about their alcohol and tobacco use, they all say that they drink to relax but then utilize tobacco to either stave off their appetite from boredom or to keep them awake underground. The pragmatic but casual use of these substances was again something I tied into the fatalism often seen in miners.

Meeting 4: Tomas, William, Nick, and Mark

This meeting was interesting because these men, aside from Mark, were unwilling to divulge their information. They were all sitting and chatting together, acting normal. However, when I asked if I could ask my questions, they started to provide one-word answers. Even with prompts to get them to elaborate more on things, they were very closed off. After they left, I spoke to Mark. He said that this group of men were particularly into maintaining their secrecy and felt that providing too much information led to the possibility of the data getting into the wrong hands. Though in many ways unhelpful, this conversation is a prime example of the closed-off community coal miners tend to gravitate towards.

Visit to Tour-Ed Exhibition Coal Mine and Museum, Tarentum, Pennsylvania

In October 2021, I visited the Tour-Ed Exhibition Coal Mine and Museum, a site that was a working mine from 1850 until 1970. We went through the mine via mantrip and then walked through parts inaccessible by rail. While on the mantrip, I noted that the seats sit low to the ground and are reclined back. When I asked about the seating, our guide, a retired miner, explained that their mantrips are reclined to that point to make sure that the miners could have coverage over their head while still maintaining the low profile of the vehicle, which is necessary to enter some of the locations with lower coal seam height.

The trip through the mine was educational. It was much larger inside than I expected it to be, and the interior of the mine is cold and damp. The miner providing the tour explained that there is constant leakage due to the naturally occurring springs. The structure of the mine was substantial, and we were assured that we were safe. However, we made it to the end of the mine that was accessible and were told that it was less structurally sound beyond that point. They could not bring guests any further without proper safety training that is only accessible through a mine. Even throughout the main portion of the mine, each person must wear a hard hat in case of falling rock.

We also learned more about the miner's culture underground, as the guide explained that it was each of the miner's jobs to ensure that the rest of the men were safe. It is a team effort, which each person takes responsibility for their colleagues. We also learned about the historical uses of animals within the mine. The use of mules and donkeys was key before creating the rail systems that are used underground in many mines today. They would use these mules and donkeys along with the younger miners, sometimes even children, to gather the coal and bring it to the mouth of the mine. They also utilized canaries in mines to test the levels of dangerous toxins. Today they still use equipment that they call the canary to do the same thing.

I also got the opportunity to visit the museum, general store, and traditional home for a coal mining town or patch town. I got to see company scrip, which was the only form of payment accepted at the store. The curator of the museum explained that coal companies did this so they were able to control the cost of things and control the way their employees spent their money. The scrip forced the people living in the often-remote patch town to rely heavily on the company and allowed it to keep its thumb on top of the people in the town.

When walking to the home on the property, the curator explained that the patch towns often had enormous central gardens which women and children from all over the community tended together. Families often came together and helped one another, utilizing each other's strengths to make living in a hard place a little easier. There was a need for the community to work together to survive, a trait that continues into today's mining lifestyle.

Research Question Responses

R1. How does the news coal miners receive from social media, friends, and family influence their career decisions?

R1. Responses

When discussing news and communication within the coal miners I interviewed, many of them explained that they got their information from main media outlets. When I pressed further for them to explain which outlets they used, most responded with conservative news sources (such as Fox News). Only a few noted that they listened to more centralized outlets in their political stances, such as NPR or the British Broadcasting Network. Many of them also stated that they used social media to gather their news, explaining that it was easy to gather from their Facebook or Twitter.

I asked the men I interviewed why they thought getting their social media was a reputable place to gather their news. They said that they trusted the information that their friends were sharing and felt that they had the sense to understand when they needed to do their research into a topic. For example, during this interview, Frank said "I know that my social media shows only the information that my friends share, but I think that it is important to know what they are talking about, and sometimes you see important things that you may not have found yourself"

(Ferrell 2021). This sentiment was echoed throughout the groups that I observed, and I often heard that they saw the information on Facebook.

Many of the meetings I observed included a lot of information passed through their colleagues. The stories often changed based on what level of person was telling the story. The communication between the miners was constantly shining a negative light on their industry, with them often speaking about potential shutdowns and layoffs, even when the mine was projecting record numbers for the fiscal year. There seems always to be a level of distrust and contempt for their employers.
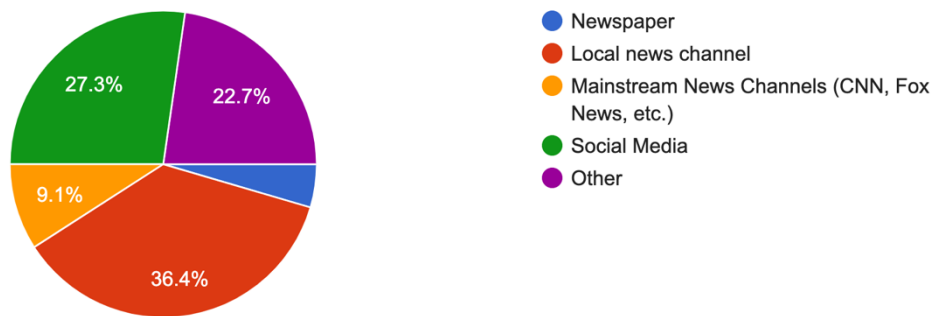

Figure 3: How Miners Gather Their News

R2. What familial and cultural ties connect the coal miners to their careers?

R2 Responses:

Family ties are one of the primary connections people tend to correlate to miners. An interesting result that I gathered from my research was that most of the miners that took the survey and interviewed were first-generation coal miners. However, the research discovered that southern miners, located in the lower portion of West Virginia and Kentucky, are typically multi-generation coal miners. Of the 22 surveyed, 12 miners were first-generation, 1 was second

generation, 5 were third generation, and 4 were fourth generation. There was no one with a family connection beyond fourth generation. Of these men, only two cited family ties as the reason for their interest in the mining profession. There was a difference when researching the miners in the southern part of West Virginia. It was found that many men just assumed they would join the mining industry right out of school simply because it was what their father and grandfather had done. McArdle (2021) explains, "Coal mining is not just about the money. There is a deep-rooted history to the profession as well. Generations will pass through the same mines, and there is a strong sense of unity and brotherhood within the depths of those mines. Many men will know no other profession, they will live in the same town, and raise families who will follow in their footsteps" (para. 3).

I found that most of the miners I observed were working in the mine because of the pay scale that the mine provides. It allows their families to live comfortably in an area where their career is one of the highest-paying jobs. The first question that is often asked the men when they tell others what they do usually is about the danger of the job, and the second is always the pay. People know that mining pays a significant wage, and it is easy to see why people choose to go into the field. Luis explained, "I could go into the mine out of high school and make $100 thousand off the bat. To a young kid that presents a lot of fun opportunities" (Ferrell, 2022).

Many of the men have allowed their wives to stop working and live off their salary. Dwyer (2010) found proof of this in his interview with West Virginian miners. He spoke to two stay-at-home mothers, living from their husbands' wage (paras. 9–10). Allowing their wives to stay home and care for the children and homestead is stereotypical of mining, and it has been this way for generations. Miners of the past worked underground while their wives worked at home, taking care of the miners to the best of their ability. These homemakers became invaluable to the

miners. This is interesting in today's world because many of the women behind the miners make

sure their husbands have hearty meals and are indulged in a sense because they do not work.

There are, however, differences. In the modern mining community, many of these couples

divorce due to the stress of the job and the amount of time that the miners are work causing

fractures in the relationship. According to the survey, 9.1% of the miners who took the survey

were divorced.

While most of the miners interviewed were first-generation coal miners, they all felt like

their coworkers were their family. They look after one another both in and out of the mine.

They can often be found helping each other or spending time together outside of work — the

sense of community created in the patch towns in the early years of mining. Many men I

experienced would drop everything to help someone and are always willing to help their fellow

miners. Miners often possess the personality trait always to be willing to help and the first to

jump in and help someone in need. One example of this is Geoff and Louis fixing the electricity

in Mark's home when the breaker blew and never asking for anything other than a few beers and

some dinner for payment or stopping to help someone who is broken down alongside the road on

their way home from work. They also support each other in other ways; almost all the men that

live near Rob's barbershop get their hair and beards cut by him and usually spend hours there

chatting or helping him work on his shop. Another miner (unnamed due to not being part of this

study) has created a line of fishing lures, and all the men that are fishers own at least one if not

more of them.

The miners are members of societies such as the Masonic Temple. Out of the men

interviewed, 27.3% are members of the Masons. Masons hold the tenants of brotherly love,

relief, and truth. Addison (2010) explains that Masons are expected to help people who need it

and to live with integrity. The miners who are members of the Masons all worked to get one another into the society and push each other to play more prominent roles in their lodges. These men profess that they will always have each other's backs, and their commitment to their brotherhood is important to maintaining their culture.

It is a well-known fact that coal mining is a dangerous career. My survey asked why they chose mining as a career, one of the options being the thrill of the job. 18.2% of the men chose that as their reason. The thrill of the job is a key reason that these men continually choose to go underground. Mark explained that every day is different, and there is always a chance that things will go sideways. Certain times of the year it is more dangerous. There are creaks and groans serving constant reminders that they are 1000 feet underground, at the mercy of the earth above them. During the interviews, I asked if they ever got nervous or scared underground, and each of them said there are moments, but overall, they are confident in their skills and know that it is part of the job. Dwyer (2010) found that miners in Southern West Virginia felt that being a coal miner was like wearing a badge of honor. Dwyer also found that the men he interviewed felt that "Once you get coal dust in your lungs, you want to go back. I craved that dust like nicotine" (Dwyer, para. 15).

I asked the men about this quote, and they tended to agree. Mark explained, "Yeah, I could see that. It's weird to think about doing anything else, and not going underground seems like something that would take some getting used to. It's a goal of all of ours to make the most money you possibly can, and mining is the way to do it, so I think it's the money that's the addiction".

R3.   What do coal miners know about the options that are offered for retraining?

R3 Responses:

When asked about retraining, nearly two thirds (59%) of the miners interviewed had at least some knowledge about the available retraining opportunities. I found this interesting because many of them said they did not have much information regarding retraining when discussing this with the men I spoke with in person. Further investigation is needed to determine if more information is available to miners who work for union mines versus nonunion mines. All the men I spoke with and those who took the survey were nonunion miners.

I asked them what they knew about the training, and many of them interviewed said what they did know was that the groups offering the retraining did not understand who they were hoping to reach. Geoff clarified, "These people who are creating these trainings need to send people in that we understand. We would react much better to someone who is like us, rather than someone who is coming from the government to explain our options" (Ferrell, 2021). It was interesting to see how they felt about the options. Mark explained that he knew of only one option for training, which was to get their CDL driving license, which he felt was not a comparable job. Mark explained that he knew about some of the offerings but felt like if the mines closed, he would instead go for something such as HVAC rather than their options.

R4. Are coal miners able to explain why or why not they would choose to utilize retraining options.

R4. Responses:

When spoken to about retraining options, I received a variety of answers. Mark felt that he would accept retraining because it is free schooling and thought he could possibly find a career that matched the pay he receives as a miner, something he could likely not do otherwise. However, he stated that he has also had conversations with Dave regarding starting a company and working for themselves in the off-road racing industry and/or the house flipping market.

Both feel that they could succeed at either one of these two endeavors or feel that if their mine were to close, they would probably end up working for themselves. This rings true with another miner who took the survey and was interviewed, Rob, who as previously stated chose to work for himself and is now thriving as a barber.

When asked about paid versus unpaid training, there was an intriguing mix of responses. It was split 50/50 whether the miners surveyed would accept unpaid training, with responses ranging from one man who took unpaid training 30 years ago when his mine shut down, or another that was stating that the training would be valuable. Many of the miners surveyed cited the necessity of a job.

Paid training was much more acceptable to the miners surveyed, with 95% of them saying they would be willing to do so. The only person saying no was William, who explained that he had already taken paid training. Many of the men explained that they would prefer paid training since they still have a family to take care of and would need income. Devan explained, "My wife stays home with our two little boys, so I'm the only source of income right now" (Ferrell, 2022). Others cited that getting a free education was the reason they would be willing to take the training. When talking about paid training with the men I interviewed, all of them said they would be willing to do it. There was, however, one interesting caveat. They felt that the training options that were currently offered were not something that would suit them. For example, when discussing the idea of learning to code, many of them were immediately against it. They feel that a desk job would not fit them, and they would not be successful. Most of them explained that they could not see themselves sitting behind a desk and that they were more suited for laborious jobs, which is where they thought the pieces of training should be more focused. They said that if the trainings were in fields such as construction or welding, they would be

willing to become involved. However, the training they knew of were for jobs that made them feel "inside a box," making them lose their identity as a miner.

When speaking to the miners, there was a feeling of insecurity about being able to do a different job, especially ones that included something outside of doing manual labor. This became more interesting to me as I started to learn what it took to be a miner. They are all very highly trained in a variety of very complex jobs, including being responsible for controlled explosions underground, bolting up a roof to alleviate the chance of a collapse, understanding the mixture of oxygen needed to work, and knowing the specific amount of hydrogen that is an unsafe amount for them to work in. They also handle a variety of equipment that requires a specialized license to operate. These unique skills become more apparent the more time spent with them. They are all far more intelligent than they give themselves credit. This unique trait seemed to be a learned response to what society sees them as. There were various times that the term "dumb coal miner" was used. Many of them felt that this was the job they were destined to do.

Lack of Response

One interesting situation was that people were not willing to interact with me once they determined what I was doing. This included people who are my friends and visit my home regularly. The moment they found out that I was doing an academic survey and interviews, many shut me out and stated that they did not wish to be involved. In addition, not only did the people who I speak to regularly not want to be included, but the people who work alongside my friends and family simply refused to respond to any email. This included people in leadership positions. Request for interviews were either refused or received no response whatsoever. I

believe that this is due to the fear of repercussions from their higher ups, or perhaps the use of a nondisclosure agreement, or something similar.

The following graphs represent the responses to the survey that was sent to the miners:
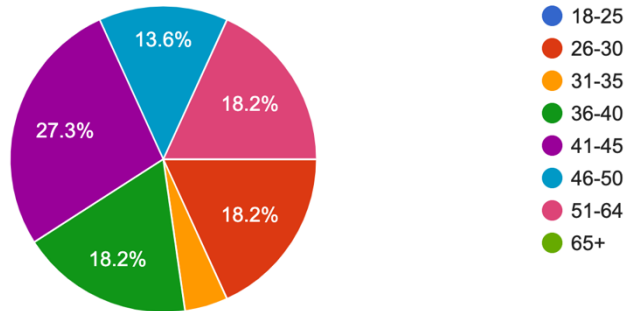
What is your age range?
22 responses

Figure 4: Ages of Coal Miners Responding to Survey
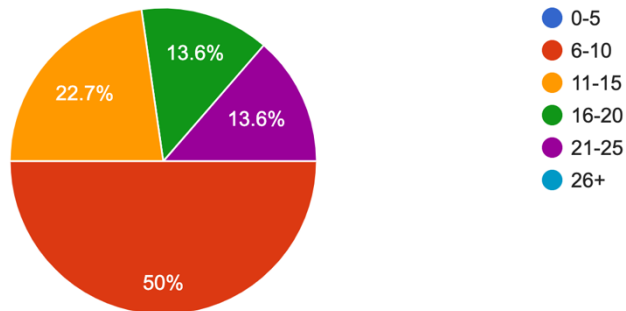
How many years have you spent in the mine?
22 responses

Figure 5:Years Spent in the Mine

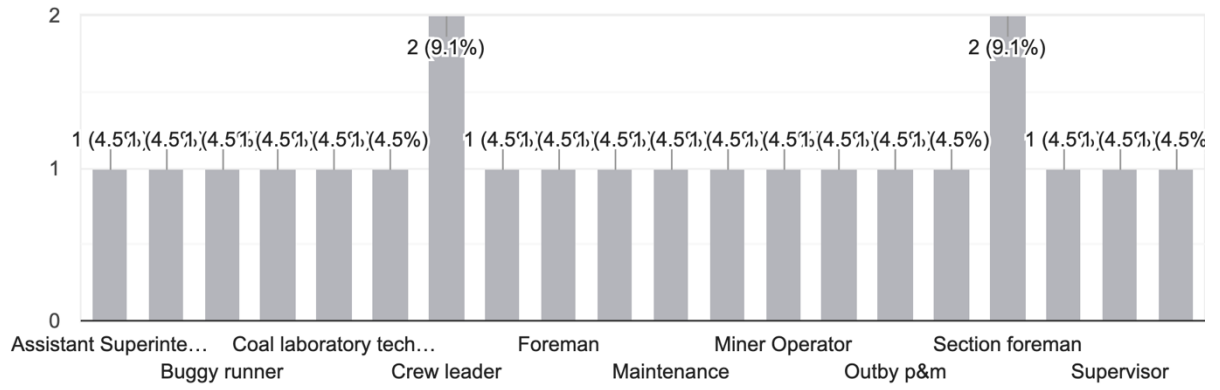## What is your job title?

22 responses

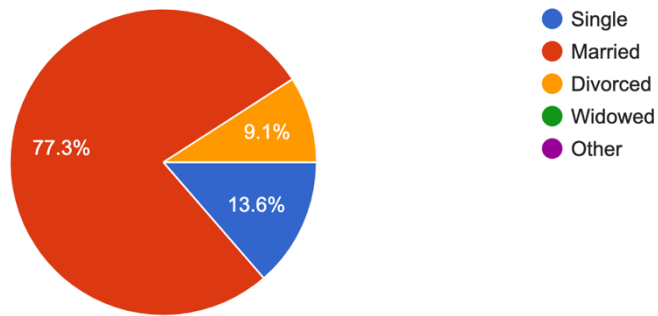*Figure 6: Job Titles*

What is your marital status?

22 responses

Figure 7: Marital Status

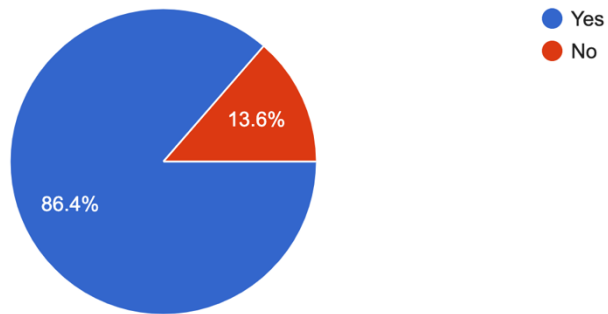## Have you worked in different fields aside from coal?
22 responses

- Yes
- No

13.6%

86.4%

Figure 8: Other Fields of Work

What generation coal miner are you?
22 responses

- First
- Second
- Third
- More than third

22.7%

18.2%

54.5%
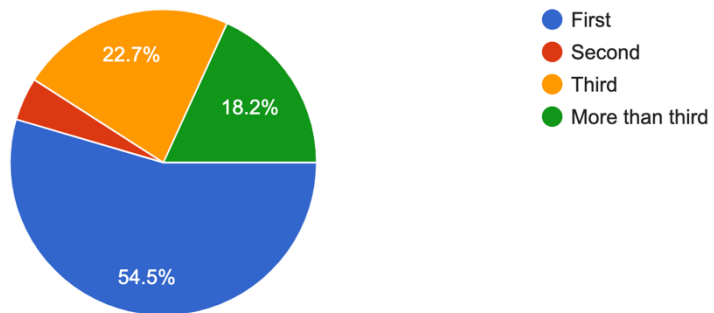
Figure 9: Generational Information

What made you interested in becoming a coal miner?
22 responses

- Money
- Job Security
- Family Ties
- Thrill of the job
- Other - If other, please explain

68.2%
9.1%
18.2%

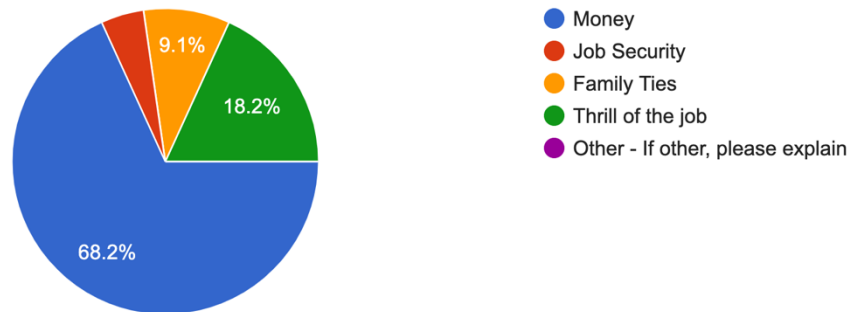*Figure 10: Miner's Interest*

Are you a member of any societies or clubs such as the Masons, Shriners, etc?
22 responses

- Yes
- No

72.7%
27.3%

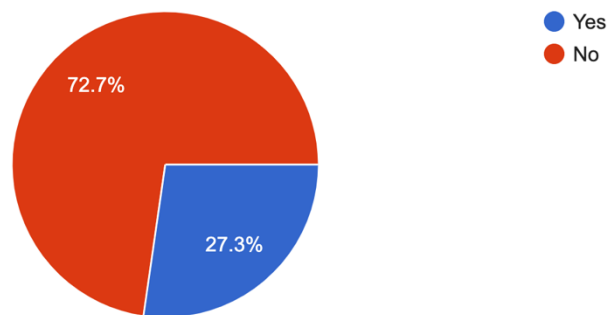*Figure 11: Societal Membership*

Are you aware of the reeducation opportunities that are offered to miners?
22 responses

Legend:
- Yes
- No

40.9%

59.1%

Figure 12: Reeducation Awareness

Would you be willing to do unpaid training to start a new career if the mine closed?
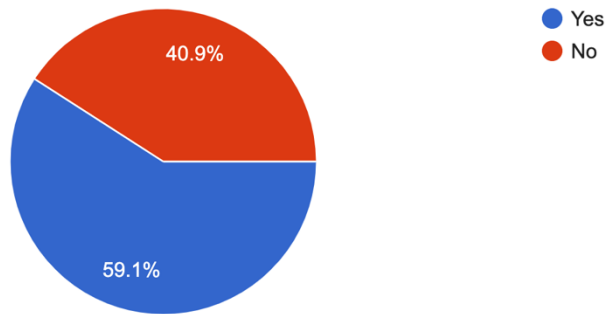22 responses

Legend:
- Yes
- No

50%

50%
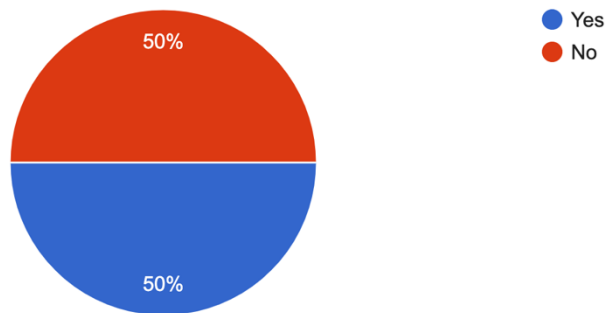
Figure 13: Unpaid Training Awareness

Would you be willing to do a paid training to start a new career if the mine closed?
22 responses
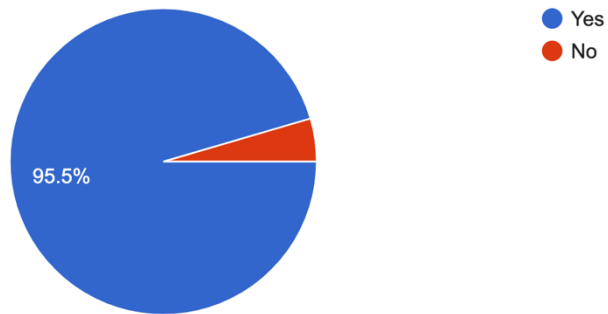
Figure 14: Paid Training Awareness

Do you think that you will retire from the mining industry?
22 responses
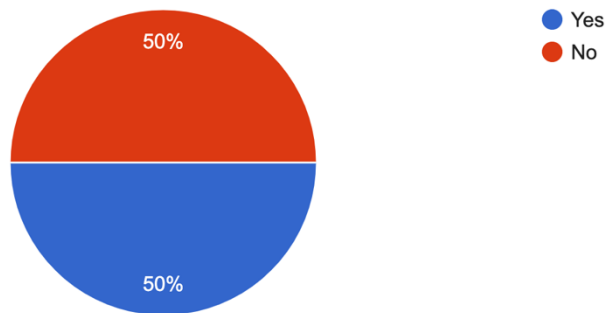
Figure 15: Retirement

What social media platforms are you a member of?
22 responses

Figure 16: Social Media Platforms

Do you connect with your coworkers on social media?
22 responses

Figure 17: Social Media Connections

How do you gather your news?
22 responses

Legend:
- Newspaper
- Local news channel
- Mainstream News Channels (CNN, Fox News, etc.)
- Social Media
- Other

27.3% — 22.7% — 9.1% — 36.4%

Figure 18: How Miners Gather News

CHAPTER FIVE: CONCLUSION

"Now it's darker than a dungeon, and it's deeper than a well, so sometimes I imagine that I'm getting pretty close to Hell. And in my darkest hour, I shout out to the Lord. He says, "Keep on a-mining boy, 'cause that's why you were born."

Overview

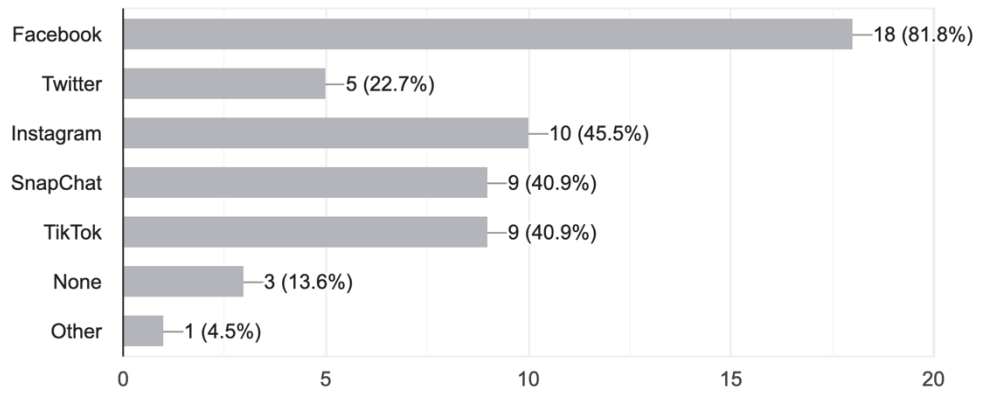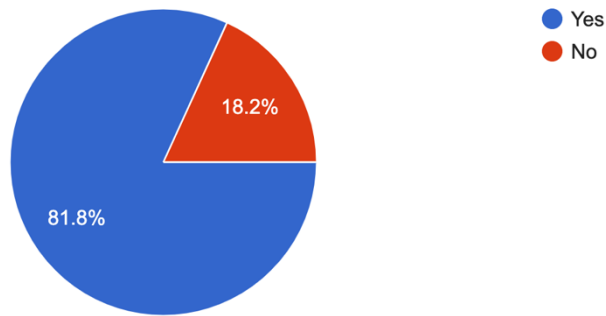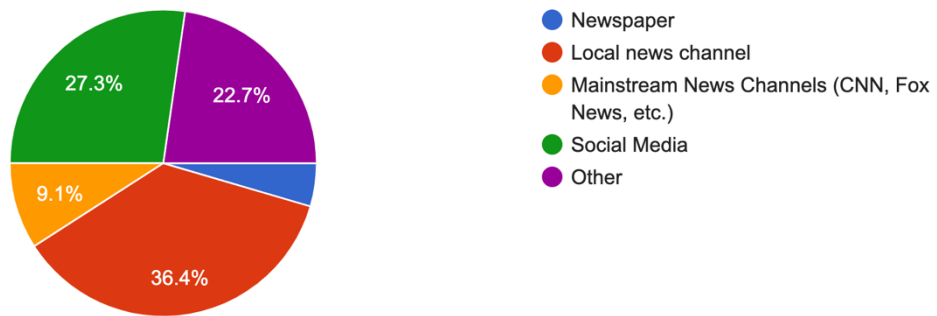The purpose of this qualitative ethnographic study was to investigate the relationship between the culture of coal miners, the communication of the mining community, and the way the culture affects their desire to utilize the retraining programs that are offered to miners who lose their jobs due to mine closure or layoffs. The problem is that coal miners in southwestern Pennsylvania and West Virginia face a choice of accepting jobs that are wildly different from their chosen path and ostracizing their cultural identity. The prioritized theoretical framework stems from the Cultural Identity Theory, first examined by Collier and Thomas in 1988. The study's significance to current research is the updated information regarding insight into today's coal miners and their culture.

Chapter Five includes a summary of the relevant literature and theory findings, methodological and practical implications, an outline of the study limitations and delimitations, and future research recommendations. I hope this chapter explains my experience with this study and my hope for future studies on this subject.

Summary of Findings

R1. How does coal miners' news from social media, friends, and family influence their career decisions?

Berger and Iyengar's (2013) research included the five critical functions of worth of mouth, impression management, emotion regulation, information acquisition, social bonding, and persuading others. Their study was vital in considering the news miners receive from these different outlets. I discovered that many men utilized social media for their news acquisition,

and they felt that the news that comes from their friends is more trustworthy than major news outlets. I noticed that many of them thought very poorly of mainstream media outlets, and I believe that this stems from their political views.

Based on their conversations, I observed that most miners find themselves on the conservative side of the political aisle. The sentiment of many of the coal miners I spoke to is seemingly that of a fear that a more liberal political party will cause them to lose their jobs. This is also pushed at their workplace, with the conservative parties chartering buses and paying the day wages of miners to bring them to a presidential campaign rally. These events seem to create a sense that the other side of the political world is untrustworthy and full of conspiracies. I found this to be an essential part of their culture.

There was also a significant amount of gossip that was brought to the meetings, which I found to be interesting. It was essentially the same "water cooler" talk that other companies see, except they are unable to talk while at work. Many of the discussions during my observations were simply exchanging theories about what was going to happen, or the latest drama. It seemed that the men always had something new to discuss when they saw each other, with each of them having a different story for the same event due to their different placement within the mine and their leadership positions.

Cardenal, Aguilar-Paredes, Galais, and Perez-Montoro (2019) discussed the consideration of filter bubbles on social media was considered when thinking about social media's role in the miner's newsgathering. The algorithms used to determine the information a given person sees on social media create situations where a person may not get a wide range of news. I compared my social media with those miners who would allow me to see theirs, and it was evident that the algorithms created selective exposure. The information that was on their

social media was very different than mine. Their news focused more on the negatives around politics and featured many conspiracy theorists. It was interesting to see the difference between them and consider the impact of this selective exposure on getting information about reeducation across some of the most prevalent ways people gather their news and information. The media slant that is experienced due to these algorithms makes it nearly impossible to use traditional forms of marketing that agencies may consider utilizing to disseminate information about their reeducation programs. Future research needs to consider the way algorithms provide information to people on social media and consider other methods of dispersing data.

Interactions Underground

Another interesting point about newsgathering is the amount of gossip and news sharing at the mine. My observations included having many conversations with friends and family about the talk of the mine almost daily. Some were outlandish conversations like the mine closing the day of the inauguration of the newest president, others were rumored layoffs simply based on the hearsay that travels around the mine. The miners tend to have an overwhelming feeling of negativity towards their employers and most people in any position aside from blue-collar workers. Watching these men interact with one another when sharing news circles back to Craig's (1999) tradition of sociopsychology. It has become a part of the culture for these men to feel that the odds are stacked against them regarding their career and that people in political positions will turn their back on the miners.

Miners often begin talking about these situations when an event has happened at the mine, such as dignitaries coming to visit the mine or when a companywide meeting is called. Even the employees who were just beginning their career exhibited this trait. It seemed that they

adopted this mindset to fit in with their colleagues who have been in the mining field for some time.

Interactions for New Miners with Tenured Miners

Lindstrom et al. (2019) explained that people could influence another person's decision based on an individual's expression of their personality and experiences. The more tenured miners tell the newer miners all the negative situations in their mines. These conversations negatively impact the new miner's experience before it even begins. This was explored when observing the miners' conversations. Some were newer to the trade, and when speaking with the more tenured miners, there was rarely a positive experience discussed. When a positive was discussed, it was always about the pay and never about the job itself.

Interactions with the more experienced miners significantly influence the new miners to the career. This is relevant to the study because it is often perceived that the people who have been in a position longer try to show the best parts of the job to new employees rather than the negatives. I believe that this sharing of knowledge about the less pleasing aspects of the job is part of the culture of coal miners. I assume that the more experienced miners want the newer miners to understand the culture of the mine and that it is a hard place to work. It seems that they wish the new miners not to be overconfident or have too high of expectations.

Social Media as an Influence

I find this interesting because I did not think about the negative effect of being in a work position that is more focused on science and my education when considering my topic of study. Many people found out what it would be used for and shut me out. They felt that they could not trust me not to judge them or make them feel inferior simply because I was academic. This struck me because I have been friends with many of these men for over a decade and have had

countless conversations with them over the years. Kushin et al. and Noelle-Numann's (2016) research bring light to this phenomenon. It seems that the spiral of silence happened during the attempts to have conversations with these men. They seemed to feel that they would be goaded or shunned if word got out that they spoke to me about their future with mining, or even simply about their culture. Even when pushed by their colleagues who shared a conversation with me, there was still pushback to the survey.

The idea that this information may be used to spotlight them as individuals was a constant worry regardless of the confidentiality of the conversations. There was fear that this information would make its way back to their superiors at the mine. This made it nearly impossible to gather any fruitful information during interviews, except the two that I acquired. Many of the questions were answered with a simple "yes" "no", and if pushed for a further explanation, the answer would not be clear. Interestingly, the miners closest to me were unwilling to be interviewed, explaining that they were told by other miners not to be exploited by my research just because of their connection to me.

This was one of the most frustrating parts of my journey, as it was expected that these people would be more than happy to provide information. Another frustrating situation arose from people saying they were willing to do an in-person or over-the-phone interview who would later prove unwilling once the scheduled time arrived. When asking my friends and family about this phenomenon, they said that the miners were lazy about things outside their everyday lives. I found this interesting because I witnessed something different regarding things that pique their interest, such as working on a vintage car or spending the day fishing.

R2. What familial and cultural ties connect the coal miners to their careers?

Exploring the familial and cultural connections among the miners proved to be a well of information. Mining is woven into the people of Southwest Pennsylvania and West Virginia — from language to food and even to the expectations of young people in the area.

Southwestern Pennsylvania History and Culture

Southwestern Pennsylvania's mining history is much older than I understood before starting my research. Through the conversations I had with the miners at the Tour-Ed mine and the historical research, I learned of its deep and old roots. This was one of the most exciting parts of my study.

I assumed that mining in Pennsylvania was much newer, as it seems that there is much less of a generational expectation of the people in Pennsylvania. Many more people are first-generation coal miners, and it appears that there is less of a familial connection to the industry than in West Virginia. Interestingly, Pennsylvania mining started in the 1700s at an above-ground drift mine. This mining style is still prevalent in this region but is no longer the most important mining method in the area. Today, longwall mining is the leading mining style. I asked about the drift mining that became the most prevalent, and many of the miners did not have much information about this mining style. The only bit of information I could glean about the drift mines was from the Tour-Ed Museum. These mines are very similar to the underground mines, and they simply remain above ground and dig into the side of a mountain rather than going in. It is reminiscent of strip mining across many places in the United States and abroad.

One of the most exciting parts of the study that I found was how much of an influence coal mining has had on the Appalachian region. Immigration was highlighted frequently during my research. The Appalachian region is a melting pot of different cultures, and I discovered that

mining was the primary propellant for people to move to this unforgiving region throughout the region. Both West Virginia and Pennsylvania experienced an influx of people from Europe, many of whom were experienced miners in their home countries. They felt that they would find wealth and a better life in the United States. It was found that often many of the mining companies would pay the passage for the men to come to the United States to utilize their skills.

In Pennsylvania, many people who sailed the ocean came from Poland and Czechoslovakia. West Virginia saw most immigration starting in the middle and the state's southern end. Many who migrated to the area brought many heritage pieces when they crossed the ocean. These pieces of tradition are still visible today. Many places across the Appalachian region celebrate their heritage by holding festivals. One example is the Italian Heritage Festival held in September in Clarksburg, West Virginia. This festival is heavily attended by people all over the region. I have participated in this event many times and enjoy being immersed in the culture. The streets are shut down, and vendors serving everything from wine to pasta line the streets. There are contests during the event, including best homemade pasta and sauces to the crowing of a festival queen. The contestants must be of Italian heritage. This event is one of the centerpieces of the community.

Another example of this is the German and Swiss village of Helvetia, West Virginia. The town was founded in the 1860s by immigrants to the area. Helvetia remains a traditional Swiss village, with the citizens speaking Dutch and English. There is a rich history of mining in this village, and the museums and art in the area are happy to explain how they found their way to the region.

Aside from the festivals that take place, the heritage of these coal miners can be seen in the household names found in the region. Many of them have ties back to these original

immigrants. Many surnames have remained alive in the area, and as one travels through Appalachia, the different locations the immigrants came from become visible. For example, in Southwestern Pennsylvania, many of the names have strong Czech and Polish ties, such as Sczypta, Hmura, and Zoldak. The Italian heritage is outwardly visible when traveling further south into West Virginia, such as Fairmont and Clarksburg. This continues further south, but one begins to see more of a melting pot of names and heritages, including Irish names such as McCleary and many names from the southern enslaved people who found freedom in the area, such as Brown.

Family ties not only continue in the artistic side of the region. Many people work alongside parts of their family in the mine. These multigenerational miners are found all over the area; however, the research found it more often in the Southern West Virginia mines. In Southwestern Pennsylvania, most of the miners I interviewed were first generational miners. There are few exceptions, with one family having two sons in the same mine. One of the miners that took the survey was a fourth-generation miner. It was discovered that the families in the southern part of West Virginia were more likely to have multigenerational experiences in the mining community. This result fits into Leslie Baxter's theory of chronotropic similarity. Families tell stories that help create a dynamic that is unique to the area and create a specific relationship to coal mining within families and communities in the region are something special and would be a topic for future research.

When I asked the men, I spoke to about why they felt like multigenerational mining was more prevalent in southern West Virginia they explained that they think it is due to the mines in this area being much newer than those to the south. There is more of a chance that people will

see their families in the lucrative mining position there and want to become a part of that trade. I agree with them, as many of the mines in the area are less than ten years old.

The last part of the mining culture I explored was the lore passed down between the miners. There are many instances of sightings of people who are not there and hearing things while immersed in the pitch blackness of the mine. I asked the men about any lore they are aware of within their mine and was told a few stories. One is the mention of a miner that was killed underground many years ago. Geoff, one of the miners I spoke to mentioned that he has heard his team talk about their sightings of the deceased miner, and they often tell the new miners about the story. When I asked him about his consideration of the actuality of seeing the miner, he explained that to him, anything is possible underground. I asked Mark about the same legend, and he said while he has heard tell of it, he finds it hard to believe, and feels that what people are seeing is a figment of their imagination.

My favorite story in my research was that of the tommyknockers. Supposedly these creatures live in the mines and are there to protect the miners by warning them about cave-ins or explosions that are coming. This story is my favorite because many of the miners talked about how they equate the popping and cracking in the mine to these mystical beings and often thank them when they get out of harm's way fast enough to avoid a situation that could potentially hurt or kill them.

Another favorite that was discussed among the miners is that of Big John. All of the miners know this story, and often they refer to it when talking about other miners who have work ethics similar to that in the story. These men understand and respect the story, and the idea that a person can outwork a train is a testament to the work ethic expected from themselves and their teammates. The Appalachian region is full of legends and myths, many centered around the

mining community. Time should be taken in further research to understand the newer stories and how they continue the along the route that miners have followed for over a century.

R3: What do coal miners know about the options that are offered for retraining?

Many of the coal miners I interviewed were aware that some of the training exists, however they did not know how to get information about it. The miners I spoke with are all non-union miners and all felt that unionized mines have more communication regarding available options. All the miners I interviewed would be interested in retraining options but were leery of the alternative careers they proposed. They all felt that switching roles to something such as coding computers would be a huge change that would prove incompatible with their personalities. Most of them felt that they were much better suited for trades such as construction, because they enjoy working with their hands and felt that they were not smart enough for the switch to something in computers. I found this to be interesting because they use computers daily in their current positions and in much more stressful situations than they would be in while working at an office. The miner tool is an excellent example of the complex computing that takes place underground, and most of the men I interviewed have achieved the qualifications to operate and work on the machine. The miner must be programmed to exact measurements when it is actively pulling shale rock down and takes readings during operation in order to ensure that the temperature and hydrogen remain at a safe level.

I believe that the idea that the miners have that they would not be able to be successful in the reeducation programs regarding anything other than a trade is due to the thought that many of the miners have that they do not have the capability to do anything beyond mining. The term "dumb coal miner" gets used frequently, which I believe stems from the gender roles that were taken from the coal camps in the 1800s. There was an expectation for the men to focus on the

more laborious jobs, while women were to take the time to learn to read and write. I feel that this is a part of the issue because mining is often seen as a lucrative way to make money without being forced to take the time for college. Past research included the idea of fetishism. The notion that miners can be heroes or villains because they can make an impressive salary, and they do something that is totally different than any other type of career. Coal mining is one of the highest paid jobs a person can get directly out of high school.

Other flashes of this fetishism can be seen across West Virginia, including black and white Friends of Coal license plates that are or a local miniature golf course called Mine Country that uses mine equipment for the challenges at the holes. Miners often find themselves answering a lot of questions when they tell people they are miners, making them feel different and that their culture is different than those around them.

There seems to be a chip on the shoulder of many miners regarding academics, and it seems as if they feel that academics act superior to the working class. This was evident when people that I was hoping to speak with found out that I was doing research for a study. They explained that there was no way for a person who does not understand what they go through to be able to help them in the future and that people who focus on education could not possibly understand the struggles that miners who lose their jobs face. When pressed further about this topic, it seemed that they felt that taking the time to get formal education was a waste of time and money, and they felt that their time could be better spent making money in the mine. Many of the men who took my survey explained that they would only do retraining if it was paid and would enable them to make the same or more as they were making at the mines. Many of the men interviewed expressed concerns over doing unpaid training because their family relies on their pay to survive. One example of this is Dave's children attending their private school.

Without his job, they would be forced to switch schools. The priority for people who are providing these trainings to the men is to understand the needs of a typical mining family and help be able to continue their normal life while learning a new trade.

Understanding how to ensure that the miners who wish to take these trainings can do so and still maintain taking care of their families is the most important dynamic that any future researcher needs to focus on.

R4: Are coal miners able to explain why or why not they would choose to utilize retraining options?

Miners explained that they would take the retraining options only if they were given the chance to do something that would be as lucrative as mining, and that trade was one in which they felt comfortable. The miners I interviewed offered suggestions to help the retraining programs fit more in line with what they would expect to see, with careers focused more on trades that are utilized underground such as mechanic work and drilling, rather than focusing on something that would pin them behind a desk for the rest of their lives. It seemed to me that the miners I interviewed felt that their lives would not be complete if they were not working some version of manual labor.

The interviewees also felt like they needed more information about what would be expected during these training opportunities. Many of them knew they existed but had no knowledge of the options. The miners explained that they would be willing to do a training so long as they had enough understanding to make sure they were doing something that would help them in the future — not put them back into a position that would cause them to have to take even more training in order to be a success.

Devan explained, "I would take the unpaid training because I like to learn things, but I want to make sure that I am learning a trade that I actually want to be a part of. Right now, the trainings I know about are all about driving the sand and salt trucks for the oil and gas companies and getting my CDL doesn't interest me. I would want to learn something that would make me as much money as the mine does, and driving could never compete" (Ferrell, 2022).

<div align="center">**Discussion**</div>

The relationship to many of the theories and literature discussed in Chapter Two confirms much of the previous research.

Cultural Identity Theory

I chose the Cultural Identity Theory as the guiding framework for my study. As discussed by Collier (2019), the Cultural Identity Theory explains that a culture's identity is socially constructed, and that people utilize communicative processes to create their own cultural group. My study provided insight into what makes the mining culture what it is, from the history of the culture through today's miners, and explored the idea that people seek to create connections with others through experiences and situations. Frequently during my study, people explained that it is hard to explain what it is like to be a miner and what it is like to go underground. This shared experience is one of the cornerstones of their culture.

A person's cultural identity can be influenced by those who they have contact within social interactions. The miners experience this when they spend time together in the mines as well as outside on their time off. Spending time with each other influences the way they interact and communicate, as well as how immersed into the culture they become. Many miners show that they are a part of the mining industry on their trucks, on shirts, or even in body art — many

of the miners interviewed have tattoos that include a piece of their culture, including canaries,

pickaxes, or mining helmets.

Sociopsychological Tradition

The Sociopsychological tradition of the miners that I studied proved that they hold

influence over one another as it relates to their culture and tradition. Listening to the

conversations during my research helped to further understand how the culture of mining

changes based on the lack of trust of their employers, as well as the use of social media.

Traditional mining culture still exists, but the addition of social media has created a

revision of the way the miners spread the news. The use of social media allows for different

outlets to be included in their conversations, whether online or in person. I considered the

creation of resistance to their employers and to others based on what the miners experienced on

their social media pages. When looking at one of their pages, it was interesting to notice how

different the news and information included was compared to my own. It was evident that the

algorithms that are used to create the social media page focused heavily on their careers and who

they are friends with, often sending them recommendations for clothing that is associated with

mining and sending them news articles that align with their political and career views. I believe

that these social media pages hold influence over the miner's culture and experiences and will

continue to do so as the reliance on social media continues to grow and change.

<div align="center">

Implications

</div>

Theoretical Implications

My research led me to explore the theoretical implication of the Cultural Identity Theory.

It was confirmed that the coal miners I observed did gather a lot of their culture from their

surroundings, including work and social settings. Their use of the communicative process had

significant impact on their personal cultural identity. The way the men spoke with each other changed based on what setting they were in. While I did not get to see them underground, I was able to gather data from the interviews that took place. It was explained that often the men used call names for each other, and those names were given to them by their colleagues. It was rare to hear them call each other by them outside of the mine, which was an indication of the shift of culture from one location to the next. The men also often include being a coal miner as a self-descriptor. This happens throughout their time in the mine and continues after their retirement. Many of the men still don hats and shirts with coal miner emblazoned on them, and many of the miners have renderings of mining helmets or pickaxes on their vehicles.

Another implication that was discovered centered around Noelle-Neumann's (2016) theory that people tend to hide their opinions to better fit into their peers. I believe that this theory has been proven as it relates to people in the Appalachian region. When observing the miners, when having a conversation between them, they often tended to change their opinions or ideas based on the group of people they were with, but then explain that they didn't want to deal with the repercussions of having a dissenting opinion. Noelle-Neumann explained that this isolation pressure could cause people to hide their true self away to fit in the culture they are currently immersed inside.

Empirical Implications

It was observed that the coal miners do in fact have their own culture. These men and women speak and act differently and feel that there is no way that a person who has not spent time underground could fathom what it is like. This creates a closed community and only includes those who have had the opportunity to go underground. They have parts of their dialect and lifestyles that are specific to being miners. Some of these include the stories they tell each

other and to outsiders about the scary things that happen underground, and how these stories are tempered to the audience they are speaking to.

Another example is the superstitions that take place with each miner. The men I interviewed all had their own superstitions. While I do not believe in any way that this is unique to miners, I believe the things they do are specific, such as keeping their miner's light on a particular hook or putting their family's photo in their hard hat. I also believe that these superstitions are an interesting part of the culture because most people who work a typical desk job do not observe superstitions. I believe that it ties into the fatalism of coal miners, and their expectation that something terrible may happen at any moment in time underground.

Practical Implications

Practical implications for this study include providing the study to the people in positions that control the creation and execution of the mine reeducation programs. I hope that the information gathered from this study will show them a way to understand what they need to do to make sure the program is being used. I also think that it will be beneficial to the mine leaders, because it sheds light on what the men feel is problematic. This could help them understand what needs changed to make the miners feel like they can be more successful not only in their mining career, but beyond.

Many of the miners are religious, and I feel that my Christian worldview was expanded by talking with them. They helped me personify "I can do all things through Christ who strengthens me" (Philippians 4:13, KJV). These men are some of the strongest men I have met, and they work very hard every day.

Delimitations and Limitations

I limited my research to coal miners located in the regions of West Virginia and Southwestern Pennsylvania because I was able to observe and interact with them more readily. Focusing the study to a smaller group allowed me to better understand the underground mining culture versus the variety of mining styles that are available. I also selected to do an ethnographic study because it felt like storytelling felt like it would tell the story in a much more engaging manner. I felt that keeping the study in more of a story style makes the research more approachable to people who are not in academics (such as many of those I interviewed).

The limitations of my study were ones that I could not have predicted. The coal miners were very resistant to completing the survey and doing an interview. Many of the men I did have the chance to interview explained that once miners get home from work, they do not want to do anything further that isn't outside or with their families. I expected to have 50 to 100 interviews and was disheartened to have so few. Further research on this topic should be aware of these limitations and seek to bring in supervisors in order to gain a different perspective on the culture of the mine, and to find out how the supervisors view reeducation programs.

Another limitation was that I was unable to talk with the supervisors of the mines. It was a hope of mine to be able to include all levels of positions to be included in the study, however, my requests for time went unnoticed.

Future Research

It is my suggestion for future research that there is more emphasis on working with all levels of people in the mine to understand the disconnect between the men working in the mines and the people who are making the decisions. There needs to be more time spent with both sides understanding the communication issue between them.

Another point of future research is to study the culture more and see how social media continues to change the culture of the miners. Most of the men are avid users of social media, and I think that the usage will change the culture of the mining community. It would be interesting to explore the connection of the community spirit of the miners from the 1700s to the community of miners from today. There is a more research to be done in the field of coal mining, and while it is a unique and niche culture, it is a very important part of the Appalachian region.

Finally, I believe that there needs to be time taken to understand the gender roles taking place in the mines. While there are not many women in the mining industry, there are some, and it is important to understand the difference in communication, if any, between the men and women underground. Future researchers need to understand that there will be a challenge to find women miners who are willing to discuss their experience as an underground coal miner.

Summary

 My study explored the culture of the coal miners of Appalachia. They are connected to the miners of the past in many ways and continue to grow the culture today. Mining is currently in a situation that seems to be lurching towards the end of an era with the focus on green energy shifting people's views of the best method for fueling the future. Currently there are some facilities in place to help the miners who are losing their jobs to the push to green, however many of them are left empty and the people in charge are blaming the miners. The men feel like their voices are not heard by the people who are supposed to be helping them, so it was my goal to explore the culture of mining and connect it to the reason why these programs are being shuttered. It was discovered that the miners feel that there is a need to have someone like their culture teach them, rather than trying to push someone who has never been underground into a

situation where the two parties do not communicate well. The miners also felt that they are not being heard when asked about what they would like to do outside of the mine. Many of the programs are providing studies in coding and desk work jobs, which do not fit the culture of a miner (according to the ones I interviewed). I believe that this study can help everyone involved by instigating conversations that could lead to necessary changes before it's too late for the mining community to find their way out of a potentially bleak future.

References

Anderson, B. (2018). Influence of education, income, and age on newspaper use and platform

preference. *Elon Journal of Undergraduate Research in Communications, 9*(1), 108–114.

Andrews, E. (2016, August 25). The Battle of Blair Mountain. Retrieved from

https://www.history.com/news/americas-largest-labor-uprising-the-battle-of-blair-

mountain

Bergström, A., & Belfrage, M. J. (2018). News in social media. *Digital Journalism*, *6*(5), 583–

598. doi: 10.1080/21670811.2018.1423625 Retrieved from:

https://www.tandfonline.com/doi/pdf/10.1080/21670811.2018.1423625?needAccess=true

Bodenhamer, A. (2016). King coal: a study of mountaintop removal, public discourse, and power

in Appalachia. *Society & Natural Resources*, *29*(10), 1139–1153. doi:

10.1080/08941920.2016.1138561

Bowen, E., Christiadi, Deskins, J., & Lego, B. (2018). *An overview of the coal economy in*

Appalachia. (pp. 28-44) Appalachian Regional Commission.

Cardenal, A. S., Aguilar-Paredes, C., Galais, C., & Pérez-Montoro, M. (2019). Digital

technologies and selective exposure: how choice and filter bubbles shape news media

exposure. The International Journal of Press/Politics, 24(4), 465–486.

Chadwick, A., Vaccari, C., & O'Loughlin, B. (2018). Do tabloids poison the well of social

media? Explaining democratically dysfunctional news sharing. New Media & Society,

20(11), 4255–4274.

https://doi.org/10.1177/1461444818769689

Chen, Y.-W. (2010). NEGOTIATING INTERSECTING CULTURAL IDENTITIES,

DIALECTICAL TENSIONS, AND STATUS RELATIONSHIPS: INTERCULTURAL

RELATIONSHIPS IN TWO NONPROFIT ORGANIZATIONS IN THE SOUTHWEST. *Univeristy of New Mexico*.

Chen, Y.-W., & Collier, M. J. (2012). Intercultural Identity Positioning: Interview discourses from two identity-based nonprofit organizations. *Journal of International and Intercultural Communication*, *5*(1), 43–63. https://doi.org/10.1080/17513057.2011.631215

Craig. (1999). Communication Theory as a Field. *Communication Theory*, *9*(2), 119–161. https://doi.org/10.1111/j.1468-2885.1999.tb00355.x

Cultural Communication, I. C. (2014, September 8). Cultural Identity Theory. Retrieved from https://www.communicationtheory.org/cultural-identity-theory/

Damron, J. (2019, October 21). *Gov. Justice announces 100 new jobs as tech company Infor opens doors in West Virginia*. Office of the Governor. Retrieved March 16, 2022, from https://governor.wv.gov/News/press-releases/2019/Pages/Gov.-Justice-announces-100-new-jobs-as-tech-company-Infor-opens-doors-in-West-Virginia-2.aspx

Farmer, L. (2021, April 14). *West Virginia offers $12,000 to remote workers to move there*. Forbes. Retrieved March 16, 2022, from https://www.forbes.com/sites/lizfarmer/2021/04/14/west-virginia-is-offering-12000-to-remote-workers-to-move-there/?sh=24062cc73a05

Flaxman, S., Goel, S., & Rao, J. M. (2016). Filter bubbles, echo chambers, and online news consumption. *Public Opinion Quarterly*, *80*(S1), 298–320. doi: 10.1093/poq/nfw006 Retrieved from: https://5harad.com/papers/bubbles.pdf

Fletcher, R., & Nielsen, R. K. (2018). Are people incidentally exposed to news on social media?

    A comparative analysis. New Media & Society, 20(7), 2450–2468.

    https://doi.org/10.1177/1461444817724170

Garside, M. (2020). *Topic: Coal mining in the U.S.* Statista. Retrieved April 6, 2022, from

    https://www.statista.com/topics/5165/coal-mining-in-the-us/#dossierKeyfigures

Gov. Wolf announces funding for United Mine Workers Training Facility. Governor Tom Wolf.

    (2018, October 29). Retrieved March 16, 2022, from

    https://www.governor.pa.gov/newsroom/governor-wolf-announces-funding-repurpose-

    united-mine-workers-america-career-centers-training-center-connect-dislocated-workers-

    family-sustaining-employment/

Greene, J. W. (1990). *Strategies for Survival: Women's Work in the Southern West Virginia Coal

    Camps*. Strategies for survival: Women's work in the Southern West Virginia coal camps.

    Retrieved March 16, 2022, from https://archive.wvculture.org/history/journal_wvh/wvh49-

    4.html

Huber, P. (2006). Red Necks and Red Bandanas: Appalachian Coal Miners and the Coloring of

    Union Identity, 1912-1936. *Lessons of Work: Contemporary Explorations of Work Culture*,

    65(1), 195–210.

Kalogeropoulos, A., Fletcher, R., & Nielsen, R. K. (2019). News brand attribution in distributed

    environments: Do people know where they get their news? New Media & Society, 21(3),

    583–601. https://doi.org/10.1177/1461444818801313

Kalogeropoulos, A., Negredo, S., Picone, I., & Nielsen, R. K. (2017). Who shares and comments

    on news? A cross-national comparative analysis of online and social media

    participation. *Social Media Society*, *3*(4), 205630511773575. doi:

    10.1177/2056305117735754

Kideckel, D. (2018). Coal Power: Class, fetishism, memory, and disjuncture in Romania's Jiu

    Valley and Appalachian West Virginia. *Creative Commons*, *7*(1), 67–88.

Kushin, M. J., Yamamoto, M., & Dalisay, F. (2019). Societal majority, Facebook, and the spiral

    of silence in the 2016 US Presidential Election. *Social Media Society*, *5*(2),

    205630511985513. doi: 10.1177/2056305119855139

Lasson, K. (1972, May). *A history of Appalachian coal mines - scholarworks: Ub law ...*

    University of Baltimore Law. Retrieved October 8, 2021, from

    https://scholarworks.law.ubalt.edu/cgi/viewcontent.cgi?article=1789&context=all_fac

Law, B. M. (2012, April). *Coal miners' dilemma*. Monitor on Psychology. Retrieved August 15,

    2020, from https://www.apa.org/monitor/2012/04/coal-miners

Lindström, B., Golkar, A., Jangard, S., Tobler, P. N., & Olsson, A. (2019). Social threat learning

    transfers to decision making in humans. *Proceedings of the National Academy of*

    Sciences, *116*(10), 4732–4737. doi: 10.1073/pnas.1810180116

Maercker, A. (2019, September 2). *Fatalism as a traditional cultural belief potentially relevant*

    to trauma sequelae: Measurement equivalence, extent, and associations in six countries.

United States Library of Medicine. Retrieved August 25, 2020, from

      https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6735334/

Marcavitch, A. (1998). *Types of Folklore*. Folklore in SWPA bituminous coal miners. Retrieved

      February 24, 2022, from http://www.marcavitch.com/research/hppgc/mining/coalfolk.htm

Marston, J. (2018, May 8). *Why these companies turn to coal country for skilled workers*.

      Environmental Defense Fund. Retrieved March 16, 2022, from

      https://www.edf.org/blog/2018/05/08/why-these-companies-turn-coal-country-skilled-

      workers

Mayer, A. (2018). A just transition for coal miners? Community identity and support from local

      policy actors. *Environmental Innovation and Societal Transitions*, *28*, 1–13. doi:

      10.1016/j.eist.2018.03.006

Mitchell, A., Gottfried, J., Barthel, M., & Shearer, E. (2019, September 18). How Americans get

      their news. Retrieved from https://www.journalism.org/2016/07/07/pathways-to-news/.

Newman, N., Fletcher, R., Levy, D., & Nielson, R. (2016). *Reuters Institute Digital News Report*

      2016. Reuters Institute for the Study of Journalism.

Pasley, J. (2019, October 5). *Stunning photos show what it's really like to work deep*

      underground in an American coal mine. Business Insider. Retrieved March 15, 2022, from

      https://www.businessinsider.com/life-working-in-coal-mines-in-america-photos-2019-

      10#a-big-draw-for-miners-is-the-high-pay-as-debbie-baker-who-lived-in-letcher-county-

      kentucky-told-the-new-york-times-you-could-always-tell-if-someone-was-a-miner-in-her-

      town-because-they-had-money-20

"Pathways to News." Pew Research Center, Washington, D.C. (July 7, 2016)

    https://www.journalism.org/2016/07/07/pathways-to-news/.

Pearce, J. (2016, August 8). *What if all U.S. coal workers were retrained to work in Solar?*

    Harvard Business Review. Retrieved March 16, 2022, from https://hbr.org/2016/08/what-

    if-all-u-s-coal-workers-were-retrained-to-work-in-solar

Pennycook, G., & Rand, D. G. (2019). Fighting misinformation on social media using

    crowdsourced judgments of news source quality. *Proceedings of the National Academy of*

    Sciences, *116*(7), 2521–2526. doi: 10.1073/pnas.1806781116. Retrieved from:

    https://www.pnas.org/content/pnas/116/7/2521.full.pdf

Peterson, E. (2019, October 7). *Why worker training programs alone won't save coal country*.

    89.3 WFPL News Louisville. Retrieved March 16, 2022, from https://wfpl.org/rethinking-

    retraining-why-worker-training-programs-alone-wont-save-coal-country/

Pennsylvania Department of Environmental Protection. (n.d.). *PA mining history*. Department of

    Environmental Protection. Retrieved March 16, 2022, from

    https://www.dep.pa.gov/Business/Land/Mining/Pages/PA-Mining-History.aspx

Public Broadcasting Service. (2021, January 12). *The mine wars*. PBS. Retrieved March 16,

    2022, from https://www.pbs.org/wgbh/americanexperience/films/theminewars/

Puckett, A. (1992). "Let the Girls Do the Spelling and Dan Will Do the Shooting": Literacy, the

Division of Labor, and Identity in a Rural Appalachian Community. *Anthropological Quarterly*,

65(3), 137–147. https://doi.org/10.2307/3317778

Punch, K. (2014). *Introduction to social research: quantitative & qualitative approaches* (3rd
    ed.). Los Angeles, CA: SAGE

Quattrociocchi, W., Scala, A., & Sunstein, C. R. (2016). Echo chambers on Facebook. *SSRN
    Electronic Journal*. doi: 10.2139/ssrn.2795110

Rathnayake, C., & Winter, J. S. (2017). Examining the link between social media uses and
    gratifications and political tolerance and dogmatism. *Policy & Internet*, *9*(4), 444–466.
    doi: 10.1002/poi3.157

(2019). Retrieved from http://www.wvculture.org/history/archives/minewars.html

Robinson, C. (2015). An exploration of poverty in central Appalachia: Questions of culture,
    industry, and technology. *Kome*, *3*(2), 75–89. doi: 10.17646/kome.2015.26

Rucker, P. (2016, August 5). *The rise and demise of a West Virginia coal mine*. Reuters.
    Retrieved September 22, 2020, from https://www.reuters.com/investigates/special-
    report/usa-coal-hobet/

Schaubergwerk. Kupferplatte. (n.d.). Retrieved December 5, 2021, from
    https://www.kupferplatte.at/en/mining-3000-years-ago/saint-barbara

Simeone, C., Okiro, T., & Bennet, D. S. (2018). *Reimagining Pennsylvania's Coal Communities
    - Stakeholder Perspectives and Strategies for Economic Revitalization*. (pgs. 27-30)
    University of Pennsylvania.

St. Barbara - Virgin, martyr. TheCatholicSpirit.com. (2021, February 1). Retrieved January 5,
    2022, from https://thecatholicspirit.com/commentary/hotdish/st-barbara-virgin-martyr/

Today in history - june 20. The Library of Congress. (2020, June 20). Retrieved March 15, 2022, from https://www.loc.gov/item/today-in-history/june-20

Coal mine map. Tour-Ed Mine. (2021, October 30). Retrieved March 16, 2022, from https://tour-edmine.com/coal-mine-map/

Underground tour. Underground Mine Tour. (2021, October 25). Retrieved March 16, 2022, from https://beckley.org/underground-tour/

U.S. Department of the Interior. (n.d.). *African American coal miners: Helen, WV*. National Parks Service. Retrieved September 14, 2021, from https://www.nps.gov/neri/planyourvisit/african-american-coal-miners-helen-wv.htm

Volcovici, V. (2017, November 1). Awaiting Trump's coal comeback, miners reject retraining. Retrieved from https://www.reuters.com/article/us-trump-effect-coal-retraining-insight/awaiting-trumps-coal-comeback-miners-reject-retraining-idUSKBN1D14G0

West Virginia Culture. (n.d.). *West Virginia Mine Wars*. West Virginia's mine wars. Retrieved March 8, 2020, from https://archive.wvculture.org/history/archives/minewars.html

West Virginia Mine Wars Museum. (n.d.). *What were the mine wars?* West Virginia Mine Wars Museum. Retrieved March 18, 2021, from https://wvminewars.org/what-were-the-mine-wars

Whetstone, R. (2017, September 29). *This tiny, isolated West Virginia village is one of the last of its kind*. OnlyInYourState. Retrieved September 9, 2021, from https://www.onlyinyourstate.com/west-virginia/helvetia-village-wv/

Work jobseekers PDF - workforcewv.org. Workforce West Virginia. (n.d.). Retrieved March 16,

2022, from

https://workforcewv.org/images/greenbook/print/WORKjobSeekers_PDF_LaidOffWorker

s.pdf

Wright, K. B. (2017, July 17). Researching Internet-Based Populations: Advantages and

Disadvantages of Online Survey Research, Online Questionnaire Authoring Software

Packages, and Web Survey Services. Retrieved from

https://academic.oup.com/jcmc/article/10/3/JCMC1034/4614509

wvculture. (n.d.). *Recruitment of immigrants - wvculture.org*. West Virginia Culture. Retrieved

May 21, 2020, from http://wvculture.org/history/government/immigration03.html

Yang, J., & Grabe, M. E. (2011). Knowledge acquisition gaps: A comparison of print versus

online news sources. *New Media & Society*, *13*(8), 1211–1227. doi:

10.1177/1461444811401708

Appendix A

Below is IRB approval of my project scope.

IRB #: IRB-FY20-21-1072
Title: The Culture of Coal Miners and Its Impact on Their Future
Creation Date: 6-26-2021
End Date:
Status: Approved
Principal Investigator: Joanna Ferrell
**Review Board:** Research Ethics Office
Sponsor:

Study History

Submission Type	Initial	Review Type	Limited	Decision	Exempt - Limited IRB

Key Study Contacts

Member	Carol Hepburn	Role	Co-Principal Investigator	Contact	chepburn1@liberty.edu
Member	Joanna Ferrell	Role	Principal Investigator	Contact	jferrell13@liberty.edu
Member	Joanna Ferrell	Role	Primary Contact	Contact	jferrell13@liberty.edu
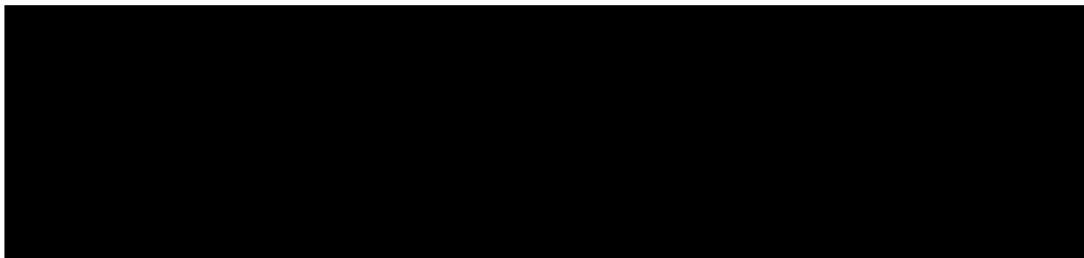
LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

August 24, 2021

Joanna Ferrell
Carol Hepburn

Re: IRB Exemption - IRB-FY20-21-1072 The Culture of Coal Miners and Its Impact on Their Future

Dear Joanna Ferrell, Carol Hepburn,

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under the following exemption category, which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:104(d):

Category 2.(iii). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met: The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by §46.111(a)(7).

Your stamped consent form(s) and final versions of your study documents can be found under the Attachments tab within the Submission Details section of your study on Cayuse IRB. Your stamped consent form(s) should be copied and used to gain the consent of your research participants. If you plan to provide your consent information electronically, the contents of the attached consent document(s) should be made available without alteration.

Please note that this exemption only applies to your current research application, and any modifications to your protocol must be reported to the Liberty University IRB for verification of continued exemption status. You may report these changes by completing a modification submission through your Cayuse IRB account.

If you have any questions about this exemption or need assistance in determining whether possible modifications to your protocol would change your exemption status, please email us at irb@liberty.edu.

142

Appendix B

Below is the consent form that was included in the survey that the miner's received. They

had to say ok before they continued through the survey.

Consent

Title of the Project: The Culture of Coal Miners and Its Impact on Their Future
Principal Investigator: Joanna Ferrell, Ph.D. Candidate, Liberty University

Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be a person who either currently works or has previously worked in the coal mines in West Virginia or Southwestern Pennsylvania. Taking part in this research project is voluntary.

Please take time to read this entire form and ask questions before deciding whether to take part in this research.

What is the study about and why is it being done?

The purpose of the study is to understand why coal miners are not accepting retraining opportunities. I hope to learn what makes up a miner's culture, explore the past of coal mining, and use these findings to show miners as well as the people offering reeducation programs what is needed to make everyone successful.

What will happen if you take part in this study?

If you agree to be in this study, I will ask you to do the following things:

1. Answer the survey questions, which should take approximately 10 minutes.
2. After you have completed the survey, if you are willing, participate in an in-depth interview. It should take approximately 1 hour and can be either a recorded zoom call, or a recorded in-person interview. If you are interested in participating in the interview, please contact me using the information provided at the end of the survey. You will be sent a separate consent document via email to review and sign for the interview.

How could you or others benefit from this study?

Participants should not expect to receive a direct benefit from participating in this study. The direct benefits participants should expect to receive from taking part in this study are a deeper understanding of the culture they are a part of, as well as more information regarding training opportunities that are available.

Benefits to society include showing government agencies and reeducation programs the best way to reach their target audience, and how best to communicate with them. It will also help coal miners an opportunity to express their side of the dilemma regarding reeducation.

What risks might you experience from being in this study?

The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

How will personal information be protected?

The records of this study will be kept private. Research records will be stored securely, and only the researcher will have access to the records.

- Participant responses will be anonymous.
- Participant interview responses will be kept confidential through the use of pseudonyms.
- Data will be stored on a password-locked computer and may be used in future presentations. After three years, all electronic records will be deleted.
- Interviews will be recorded and transcribed. Recordings will be stored on a password locked computer for three years and then erased. Only the researcher will have access to these recordings.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time, prior to submitting the survey, without affecting those relationships.

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please exit the survey and close your internet browser. Your responses will be not be included in this study.

Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Joanna Ferrell. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at ▆▆▆▆▆▆ or ▆▆▆▆▆▆. You may also contact the researcher's faculty sponsor, Dr. Carol Hepburn at ▆▆▆▆▆▆.

Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu.

Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

Your Consent

Before agreeing to be part of the research, please be sure that you understand what the study is about. You can print a copy of the document for your records. If you have any questions about the study later, you can contact the researcher using the information provided above.

Appendix C
Below is the Consent from Matthew Clark to utilize his photos and videos.

Consent

Title of the Project: The Culture of Coal Miners and Its Impact on Their Future
Principal Investigator: Joanna Ferrell, Ph.D. Candidate, Liberty University

Invitation to be Part of a Research Study

The researcher, Joanna Ferrell, is requesting to utilize parts of works created by Matthew Clark to enrich the cultural perspective of coal miners and the people of West Virginia.

What is the study about and why is it being done?

The purpose of the study is to understand why coal miners are not accepting retraining opportunities. I hope to learn what makes up a miner's culture, explore the past of coal mining, and use these findings to show miners as well as the people offering reeducation programs what is needed to make everyone successful.

What will happen if you take part in this study?

If you agree to be in this study, I will ask you to do the following things:

1. Allow Joanna Ferrell to utilize your photos and videos within her dissertation and dissertation defense.

How could you or others benefit from this study?

Participants should not expect to receive a direct benefit from participating in this study. The direct benefits participants should expect to receive from taking part in this study are a deeper understanding of the culture they are a part of, as well as more information regarding training opportunities that are available.

Benefits to society include showing government agencies and reeducation programs the best way to reach their target audience, and how best to communicate with them. It will also help coal miners an opportunity to express their side of the dilemma regarding reeducation.

What risks might you experience from being in this study?

The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

How will personal information be protected?

The records of this study will be kept private. Research records will be stored securely, and only the researcher will have access to the records.
- Data will be stored on a password-locked computer and may be used in future presentations. After three years, all electronic records will be deleted.
- Interviews will be recorded and transcribed. Recordings will be stored on a password locked computer for three years and then erased. Only the researcher will have access to these recordings.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time, prior to submitting the survey, without affecting those relationships.

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please inform Joanna at your earliest convenience.

Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Joanna Ferrell. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at ███████████ or ████████████████. You may also contact the researcher's faculty sponsor, Dr. Carol Hepburn at ████████████████

Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu.

Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

Your Consent

Before agreeing to be part of the research, please be sure that you understand what the study is about. You can print a copy of the document for your records. If you have any questions about the study later, you can contact the researcher using the information provided above.

DocuSigned by:

███████████

7EF7EB711D0144F...

Below is a sample interview with one of the miners.

Joanna Ferrell 0:30

Thank you for doing this and taking your time. I really appreciate it. It's no problem. It's helping

me out. Alright, let's start with where are you located?

George 0:44

Brownsville PA.

Joanna Ferrell 0:46

Perfect. All right. Um, now we're gonna get a little totally off of subject here. Do you do any

specific routines or have any superstitions that you do during your workday?

George 1:00

Oh, no, I don't.

Joanna Ferrell 1:01

Okay, that's fine. Do you have any fears from working in the mind? I mean, it could be anything

from like cave ins to anything?

George 1:11

You know? Absolutely. Absolutely. One thing I stay aware of is my surroundings when I'm

underground. Mainly like the face. I always, I'm always aware of the ribs and the roof. Okay. All

right. Not too long ago, we had a co worker that was killed from a rib blowout in G one tailgate.

And his name was Tanner McFarland. He was 27 years old. He had a three-year-old at home,

and his wife was pregnant at the time. And they blew out and killed him instantly.

Joanna Ferrell 1:52

So those things are, are very prevalent in your mind, then?

George 1:56

 Yes, yes. It is very possible. Right.

Joanna Ferrell 2:01

Um, do you have any others? Any other kind of fears? While you're down there?

George 2:05

No, no, that's about it.

Joanna Ferrell 2:07

All right. Are there any mining folklore stories that you're aware of?

George 2:13

Ah, yeah. Actually, there is a there was a guy that took his own life. At least, that's what we was told. And actually, it was at Enlow. And they claim that they've seen a light. They've seen footprints like it was only a weekend. And they send what they call early dusters in to dust the section. And that's, that's a motor with a diesel duster on it that blows rock dust. And they had went in those section early. The section was supposed to be empty. No, but no, nobody up there. And they was blowing dust up on the section. And even it was another Foreman that actually pulled up to the end of the track, you know, back to the motors. And he said that there's a cap lamp that they see up there. And they said you better shut them dusters off. Well, they finally shut them off. And they all walked up there and they said there was footprints. And they had seen the cap light. And nobody was around.

Joanna Ferrell 3:32

Huh? That's wild. Hmm, that's good. That's a good one. Perfect. Um, do you see yourself staying in the minds until you retire?

George 3:57

You know what, I'll probably leave the mine. And I'll still have a job. You know what I mean? Because I've had a job all my life. I need something to do. Sure. But it'll be easier than what I do at work.

Joanna Ferrell 4:11

Right. Okay. Awesome. How do you feel about some of the retraining options that state and local governments offer for miners that get furloughed or that the mines closed? Do you have any feelings about those?

George 4:25

I don't, I'm not even aware of them.

Joanna Ferrell 4:34

I mean, would you be willing to do it if you if you were given the option like if you were to if something were to happen to the mine or something, would you consider getting retraining?

George 4:46

You know what, Jo? Probably not. Because I've been a mechanic all my life. I've been in heavy industry for over 35 years as a mechanic. And that's probably all I'll ever do.

Joanna Ferrell 5:00

Cool. Um, so my next question is explain your thoughts on retraining, often being unpaid. Do you think that that's something that should be done? Or do you think that they should offer some kind of payment that's that that compensates the guys for, you know, still trying to have a job.

George 5:20

My thoughts on that is they should offer something for retraining purposes. Because due to the way the government and the way things are gone, and they're doing away with coal fired power plants, like all these people want them shut down. And they need to realize that it offers what it

brings to our economy. Coal miners, yeah, they do make a lot of money. And you know, what they like to spend it.

And, yeah, I mean, when it comes to like side by sides, and quads and campers and trucks, they need to look at the market and see who's buying the majority of them in these towns, you know, around the coal mines and stuff. Sure, because that's, that's the main income, it really is. And I think if they're gonna shut down the coal mines, they need to compensate these guys while they are being trained. And see where it goes from there.

Joanna Ferrell 6:27

So, some of the kind of training opportunities are coming up with our there's a variety of things, a lot of a lot of trainings are headed towards more tech industry, things like coding, and, you know, the new electric, hydroelectric and wind and solar and things like that.

Do you have any feelings about those kinds of like them offering those kinds of trainings to miners? Do you think it's good? Do you think it's bad?

George 6:59

No, I think it would be good. I think it would be good. There's there's a lot of guys working underground that would adapt well to other jobs. I mean, they, you know, they a lot of them has come out of high school when went straight into the coal mine. I mean, let's face it, that's, that's pretty much all they know. And yet, they have more talent than just, you know, working in a coal mine, doing the jobs that they do, like some guys are on track. Some guys are on motor, some guys are up on sections. But they have more talent than just that. But that's all they know, at the time. Right. And if they take that away, they I think they should be somewhat compensated and trained. And they would adapt well.

Joanna Ferrell 7:42

Okay, good.

George 7:44

One, one of the things that the coal mine does instill in a person is good work ethics, due to the fact that the call offs and stuff like that that's a big problem nowadays. People don't want to work, right? They don't want to work. Understand?

Joanna Ferrell 8:03

Absolutely. All right. My next question is, if you could choose any new career, what would it be? And why? Anything?

George 8:16

It'd be a mechanic. I just said, That's it. That's all been life. And that's pretty much all I know.

Joanna Ferrell 8:22

All right. Would you be willing to shift careers if you were given the opportunity, before the mines closed? If the retraining was paid?

George 8:31

You know what? Yeah, yeah, I would go away from being a maintenance foreman in a coal mine, I could work above ground. Throughout my career, I have been a electrician mechanic at a brick making plant. I've been a mechanic and become the assistant port engineer in the river division. I have worked on rail equipment for willingly carry railway. So yeah, I mean, I consider other avenues. You know, they use mechanics and electricians on pretty much just about anything.

Joanna Ferrell 9:07

And do you think that your training that you have from the past is useful? I mean, obviously, it's useful in the minds, but do you think that is? What got you your job in the mine?

George 9:19

Yes. Absolutely

Joanna Ferrell 9:21

Alright. Um, I know, we just talked about this a few minutes ago, but how do you feel about the communication that you've received about retraining? I know, you said that you haven't heard any. So I assume that you haven't. That kind of grim on any kind of reeducation?

George 9:35

No, I haven't heard anything about that.

Joanna Ferrell 9:38

All right then this is my last question Do you think that the institutions that would be providing these retraining opportunities would understand the miners that they wish to work with? And do you think that they would be successful? Do you think there's any kind of specific types of communication that would help? You know, as an educator come across to a miner, and everybody be on the same playing field?

George 10:58

Yes, yes, I do. One of the things is the advertiser or instructor, whoever it may be, be blue collar down to earth guy. I mean, that's usually what coal miners are. They're drawn to these people. And what you don't want is a suit coming in and talking to them and preaching to you need to have the average Joe. I think that would be much better, that they would communicate with their they're more down and more respectful to that type of person.

Joanna Ferrell 11:34

Right. Okay. All right. That's perfect. All right. Well, that's all I had. Do you have anything else that you wanted to add in any other cool stories or funny story?

George 11:45

Well, tell you what I would like to add something into it. I think I think this country has a bleak look on coal mines. I don't think they should be shutting them down. I think they should be investing in them. Because of the money that is that's there to be made. I think they should enhance them. I think they need a lot more support than what they get in this country needs to stop frowning upon the coal mines.

Joanna Ferrell 12:18

Well, I'm hoping that I can at least shed a little bit of light on it with my with my research. Well, that's all I had question wise.

George 12:29

 Okay. Thank you.

Joanna Ferrell 12:31

I really appreciate it. And when I get done, I'll send you a copy. Thank you very much.

George 12:36

Thanks for your time, Jo.

Joanna Ferrell 12:37

Thanks, George. We'll talk soon. Bye bye.