The human cost of clean energy policies: An ethnographic study on the declining coal industry in Lynch, Kentucky

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Abstract

An increasing amount of top-down policies regarding clean energy are being implemented in the United States. This research explores the effects of these policies on a small former coal mining town in Appalachia: Lynch. I have conducted fieldwork in this town by using methods as participant observation and in-depth interviews to gain an insight into the effects of the decreasing coal industry on this community, as well as on the way this community envisions their future. This research demonstrates that the decreasing coal industry has a big effect on this community. The main effects I demonstrate include a decrease in population, a loss of identity, frustration towards the (local) government and a division that results in different groups within the town: Old coal miners, missionaries, and people living in Lynch because of convenience. I found that each of these groups envisions the future of this town in a different way, which may create a division. However, they all felt frustrated towards the top-down policies that are being implemented and agreed that they need to be heard by the government to provide for more opportunities in the future. All in all, this thesis uses the decreasing coalmining industry in Lynch as a means to showcase the importance of recognizing and acknowledging the effects of these policies on the groups that are affected.

Keywords: Post-industrial communities, coal mining culture, top-down policies, Appalachia, Kentucky

Introduction

"And old Granddad knew what he'd do to survive

He went and dug for Harlan coal

And sent the money back to grandma

But he never left Harlan alive"

(You'll Never Leave Harlan Alive, Patty Loveless)

Harlan County, Kentucky has been known for its long history of coal mining. Coal mining has been part of the local culture and identity for generations long, and mineworkers often made long days to provide for their families (Kentucky Coal Mining Museum, 2024). However, this way of living is no longer possible due to the decreasing coal industry in the United States (Ferrell, 2022). This thesis aims to showcase the effects of the decreasing coal industry of the United States on local communities, to shine light on the effects that some top-down policies may have on local communities (Homsy & Hart, 2019). This thesis will use the shift towards a more sustainable energy transition as an example to showcase the importance of taking local communities into consideration when creating policies that may affect them. I will use ethnographic research in Lynch - A small former coal mining town in Harlan County - to shine light on the effects of these decisions. Lynch has been highly impacted by the shift towards clean energy, as the coal industry - on which they used to be very dependent - has almost completely left the region. This research aims to explain the effects of the shift towards a more sustainable energy transition in the United States on a local level.

In the last decade, efforts, awareness, and policies for sustainability have significantly increased (Köhler et al., 2019 & Hotta et al., 2021). These efforts have shown a positive effect when looking at the majority of the population, due to an increased perceived quality of life, health, and opportunities (Cohen et al., 2016). However, this shift has not been perceived as entirely positive by groups such as indigenous

communities, or rural areas, as these efforts for sustainability are often applied by using a top-down approach. Therefore, the benefits of sustainability are shared by the whole world's population, but the costs of that sustainability are disproportionately borne by some more than others (Homsy & Hart, 2019). Even though several top-down policies have been very successful in addressing severe issues, it has been shown that global challenges regarding sustainability need solutions to offset the costs to specific areas and communities (Homsy et al., 2018). It has been shown that residents of places that are facing new sustainability policies are often not engaged in the process of this decision-making, which can cause a gap between these new policies and the affected communities (Leach, 2008).

An example is the shift to a more sustainable energy transition in the United States. In the past years, renewable energy sources have taken a significant rise, which is necessary for creating a habitable world to live in (Bird & World Resources Institute, 2024). This shift results in the fact that clean energy sources, such as solar and wind energy are increasing and becoming more economically viable (Coglianese et al., 2020). Before these clean energy sources were making their way into the energy transition of the United States, the main source of energy was coal. With the increasing industries of clean energy, a decrease in the coal industry has been observed; as of 2022, renewable energy sources exceeded coal-based energy for the first time (Rivera, 2023). This can be seen in Figure 1.

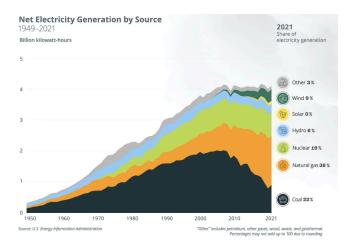


Figure 1; Graph showing the annual share of total US energy generated by source (Bhutada, 2023).

The decreasing coal industry is taking a toll on several communities involved in the production of this commodity. An example can be found in Appalachia. The coal industry in Appalachia started in the 1800's, and mainly took off due to coal camps being built by mining companies in remote areas. As there was a big amount of coal to be found in this region, the industry boosted quickly (United States Department of Agriculture, n.d.). Coal's rapid rise was matched only by its rapid decline, particularly from 2008 onward, mainly due to environmental regulations, economic viability, increasing productivity of coal production and political decisions (Culver & Hong, 2016; Mendelevitch et al., 2019). This decline has a major impact on the economy because many towns depended entirely on coal-related jobs. Combined with the ongoing poverty in the area, it has led to fewer job opportunities, limited access to healthcare, and fewer educational resources (Lowrey, 2014 & Rojas et al., 2022).

For these reasons, this research focuses on how local communities in Lynch are looking at the future of the area, after the decrease of the coal production in the United States. A research gap exists on an ethnographic level when taking a look at the future of post-industrial towns. Therefore, this thesis will seek to answer the following research question: "How has the decline in the coal mining industry been experienced within Lynch's local social and cultural context, and how do people there envision their post-coal future?"

This research question will be answered through ethnographic research. Ethnography is an important way to showcase the experiences and livelihoods of people affected by the decreasing coal industry (Nardi, 1997). The decreasing coal industry is connected to many different social structures, dynamics and dependencies, which can only be seen through the eyes of the population experiencing this shift. If we pay attention to people's experiences, we can find ways to go forward and to find bottom-up approaches to sustainable energy and resources. During this research, I have looked at the past of the town, as well as people's visions for the future of the area. I quickly learned that the coal industry gets tangled up in other trends in global and political factors. Many complex social dynamics and individual

conflicts arise because of the stress on this industry. In this thesis, I will identify three different groups¹ of people in Lynch that play an important role in in the town's social structure, and who all have different ideas about the absence of coal in the area. These three groups, consisting of (1) old residents, (2) people from the missionary and (3) people living in Lynch out of convenience, face a similar situation, however they experience this in a completely different manner. These different groups are the result of the declining industry and attempts to create more opportunities in Lynch. This thesis will showcase how these groups experience fasctors like a declining population, the loss of identity, the preservation of history, the importance of religion and frustrations towards the government in a different manner.

This thesis starts by a brief literature review diving into already existing ethnographic research about mining and on the experience of communities of post-industrial towns. This is followed by describing the methodology in which the research took place. This is done by explaining the methodological approach, specific methods I used to gather my data and ethical considersations. After this, I dive into the different chapters to explain my findings. The first chapter draws the broader setting of the town, by looking at historical background, the location and the local residents. Chapter two takes a look into today's life in Lynch, and of how people are affected by this decreasing industry. Chapter three dives into the way that people in Lynch envision their future. After the results, I aim to discuss and analyze my findings in the discussion. Here, I will also draw the situation in Lynch back to the bigger picture of post-industrial towns and policies regarding these.

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¹ These groups cannot be seen as three distinct groups, as they may overlap and interact with each other. During this thesis I have generalized these groups to grasp a proper understanding of the situation, however these groups can be seen as more complex in reality.

Literature review

The following section dives into existing research on the culture around mining and the effects on the destruction of a big industry. These two topics are crucial to understanding as this thesis will discuss the post-mining community in Lynch. In order to properly understand their emotions towards the decreasing coal mining industry, it is necessary to have an understanding of culture and identity within mines, as this plays an important role in the rest of this thesis.

Research has shown that mining towns experience a very strong sense of community, pride and identity (Carley et al., 2018). This sense of community starts in the mines where you depend on each other to provide safety, and extents to out of the mines due to the shared values and way of life (Bell & York, 2010). The sudden decline of an important industry for a local community has been shown to have a massive impact on local communities due to this strong sense of identity connected to the industry. Research by Walker (2021) explored the way in which industrial pasts are rooted in the communities of a former coal-town in Wales. They found that communities tend to build an identity around their shared past of the industry and are often struggling to adapt to the loss of the industry. Walley (2018) states that the industrial past can be used to hold people together. This has also been shown in a theory regarding collective memory. The theory states that a collective memory can be used to create a identity in post-industrial times. As summarized by Walker (2021), this theory offers a method for understanding and interacting with the connections between groups and their histories (Halbwachs & Coser, 1992). It shows how people build a sense of identity in post-industrial times. Furthermore, a post-industrial town in the Netherlands called Spijk can also show the relevance of this theory. An article by de Cort (2024) explains that the schools, grocery store and other facilities have left Spijk, leaving former residents with an empty feeling. The main population of Spijk now exsists of people looking for cheap housing in an area with nature. These people often do not feel connected to the town or the activities of the community. This can be connected to the theory of collective memory as well, since people who have been living in Spijk experience a collective memory and identity around the industrial times. People coming to Spijk from the 'outside' do not share this collective memory.

Furthermore, research explains that rural post-industrial areas often feel left-behind by the state, and gain the feeling that they need to do everything by themselves. Even though this creates a feeling of community, it also creates a feeling of frustration and helplessness (Lovell et al., 2018). Research by Carley et al., (2018) has shown that many former coal communities are beginning to transition away from the idea of coal coming back to the area. They are focussing on the revitalization of their town by looking at other opportunities. Even though many of them hope that coal makes a comeback, they are realistic that this might not be the case in current society. This realization helps them in the development of their town.

The obovementioned literature mainly explores the effects on communities of post-industrial towns. However, the effects of the decreasing coal industry in Appalachia have not been researched from a an ethnographic perspective. When looking at existing literature, we can see that Tierney (2016) has explained the economic implications of the declining industry, Baek (2016) dove into the environmental shifts, and Mendelevitch et al. (2019) have discussed the political aspects of this decline. However, a research gap exists on an ethnographic level. Perspectives of communities in Appalachia dependent on the coal industry have been lacking throughout research. Furthermore, previous studies about the decreasing coal industry have failed to address the future of the affected areas. Most studies have only focussed on how the decreasing industry is affecting life nowadays, but have not suggested a way forward by taking the viewpoints of affected communities into consideration.

All in all, research has been done on post-industrial industries and its effect on the local population. It has been shown that mining towns experience a very strong sense of identity, which often gets transferred to the post-mining times to build community. Local residents tend to create a collective memory, which allows them to build a sense of identity around their industrial times. This research will be used as a starting point to explain the struggles and experiences of people in Lynch.

Methodology

I conducted fieldwork for three weeks in Lynch, Kentucky, in January 2024, using ethnographic methods including participant observation, in-depth interviews and informal conversation. In order to

answer my research question, I stayed at a separate apartment in the house of a local resident. As my goal was to use a thick description (Geertz, 1975), I had an open view that allowed for a description of the residents through interviews and conversations.

Recruitment and sampling

Recruitment of participants was done through snowball sampling. The resident I stayed with, had numerous contacts throughout the town. I contacted her before coming to the town and she informed people in Lynch of my visit and prepared some contacts. One of these contacts were Brandon and Joanne; a couple that has lived in Lynch for their entire lives. On one of the first days I met with them and they helped me connect with other people in Lynch. Furthermore, with Lynch being a very small town, people started to approach me, as they wanted to be a part of the research. In total, twenty people were part of my research; I conducted in-depth interviews with 12 of them. These interviews were with old-mine workers, missionaries, and people from the local government. I spoke to the other participants in informal conversations and by participant observation. Even though I was aiming to have an as broad as possible sample, getting in contact with people involved with drugs or poverty was shown to be very difficult.

In depth interviews

I conducted twelve in-depth interviews, which were all semi-structured, to allow the participant to steer the conversation to what they found important. These interviews took between forty minutes and two hours, depending on the participant. After asking permission, I took extensive notes during the interviews, also focussing on their non-verbal communication and patterns of topics they wanted to discuss. I did not record anything due to the personal nature of the topics, and because I wanted the participants to have the feeling they could talk as freely as possible. The interviews touched upon the experiences of people living in Lynch, on the shift people have explored and how they are looking at the future. Often, participants added topics which they found important, such as the political implications, the

social dynamics in the town and their families. All interviews were held either at the home of the participants or the place we were staying, to ensure privacy and a safe space.

Participant observation and informal conversation

During the three weeks in Lynch, I conducted participant observation to grasp what life is like for residents of the town. I attended community events, spent time in the local café and joined residents in their daily life activities. Furthermore, I got a lot of information by having informal conversations with people in the local café, shops and museums. As people were aware that I was in the town, many people wanted to share their stories and tell me about their experiences, as well as about the history of the town. By having these informal conversations, participants felt very comfortable, and it was an easy way of talking to people, as I did not experience the role of 'researcher' and 'participant' as much. Naturally, they were aware of my position as researcher and knew that their stories could be used for the research.

Data analysis

After each interview, I wrote down everything I remembered from the interview, while using my notes as a backup. As I did not record anything, this was important to do immediately. After all interviews were done, I identified recurring themes and topics, and coded these in this document. I was able to apply these recurring themes to clear patterns that explained the social dynamics of the town. However, I also valued taking individual experiences into account that did not necessarily form a big pattern with the other participants to give a deeper understanding of the daily life of individuals in Lynch. Data saturation was eventually reached, as many people experienced similar things surrounding the declining mining industry in the region. In the time after my research I sometimes contacted Joanna (as she offered to help me) to fill in some gaps. She sent me several documents I could use, to clarify some of my findings.

Ethical considerations

The process of conducting ethnographic research includes several ethical considerations. Firstly, all participants signed informed consent, in which they stated that they understood the purpose of the interviews and that I could use their input in my research. Furthermore, I decided to not make any recordings, due to the personal nature of the interviews. I wanted to create an environment where participants felt safe to share their perspective. Therefore, I ensured that the interviewee understood that they were free to leave at any time, and they could skip any question or topic if they wanted. To safeguard the interests of the participants, the interviews are anonymized and remain confidential. In this paper, aliases are used for the people I talked to. Lastly, ethical approval was granted by the ethics board of Campus Fryslân.

1. Historical background and setting

Before diving into the stories and experiences of people in Lynch, it is important to gain an understanding of the historical background and setting of the town. I start by an historical and political overview of Lynch, in which the rise and fall of the coal industry will be discussed, combined with its political implications. After this, I will describe the setting of the town, in which I firstly describe the location and role of coal mining in the town. This is followed by an overview of the people living in Lynch; I will distinct three groups of people who all have different visions and experiences about life in Lynch.

1.1 The rise and fall of coal in Lynch: A historical overview

Lynch has a long history of coal mining and has adapted in many ways during the past decades. The following section will provide a historical background of the town, as this is of high relevance to understanding the interplay between coal mining, communities, and opportunities in the town.

Lynch is an old coal mining town, built in 1917 by the United States Steel Corporation (US Steel), to supply the coal demand in the country. US Steel was the biggest provider of steel at this time

and needed a lot of coal, for which they needed coal miners (Johnson, n.d.). In order to recruit coal miners, they put a lot of effort into providing for their workers by setting up a town and providing houses for their workers (United States Department of Agriculture, n.d.). The town had several churches, multiple schools, a big corporate store, a hotel, a bowling alley, a hospital, and a theater. Lynch had two mines, with approximately 4000 workers at its peak. By the early 1960s, processes in the mines became more automated, and a big lay-off took place due to these new machines that could replace many people in the mines. Subsequently, those workers and their families had to leave Lynch, as they lived in company housing (Riley & Brown, 2019). Ever since the 1960's, Lynch has decreased, due to the decreased working opportunities. In today's day and age, the population of Lynch has declined from 10.000 people in 1940, to 635 people in 2023, as shown in Figure 2.

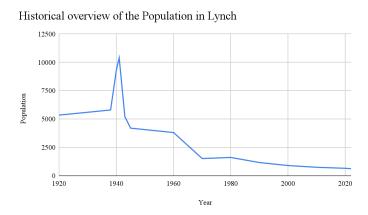


Figure 2: Overview of the population in Lynch from 1920 to 2022²

Furthermore, it is important to gain a brief insight into the current political situation in Lynch, Harlan County and the state of Kentukcy to understand the nuances of people's experiences. As stated, Lynch is part of Harlan County, which is located in Kentucky, as shown in Figure 3. The judge executive of Harlan County takes care of different financial and political decisions within the county. He explains that he has experienced a decline of the economy and budget he is able to use during an interview. The state of Kentucky works with a coal severance tax, which is a tax that all coal producing counties in the

² This graph was made by different archives (Johnson, n.d) and with help from local community members.

state get; due to the decline of coal not only jobs and therefore the economy decline, but also the direct budget decreases due to the decrease in this tax. The federal government created plans for the revitalization of coal towns, mainly by the Reclaim act. This act aims to "Revitalize the Economy of Coal Communities by Leveraging Local Activities and Investing More (Reclaim act, 2021)". However, views on this act remain mixed, especially since residents experience this as a top-down approach.



Figure 3: Lynch, KY in a map of the United States (Google Maps, 2024)

1.2 A coal town without coal: The setting of the town

In order to understand the stories and perspectives of people in the town, it is important to set a clear setting. One of the things that people mentioned was the unique location of the town. The following section will dive into the location of Lynch; this is followed by an overview of the people residing in Lynch.

1.2.a Hills, hollars & hierarchy: Location of Lynch

After driving on the small mountain roads of the 'Coal Heritage Trail' for over two hours, we crossed the last mountain to drive into Lynch. Small businesses were located on the sides of the mountain; these included auto parts, repair shops and small gas stations. Later on, residents of Lynch explained to us that these were attempts of making a living without being dependent on other industries. During this drive, I noticed how everyone was related to coal, yet there was no coal to be seen. We drove past old coal

mines, stripped mountains³, railroads without trains and businesses named after the successful mining period.

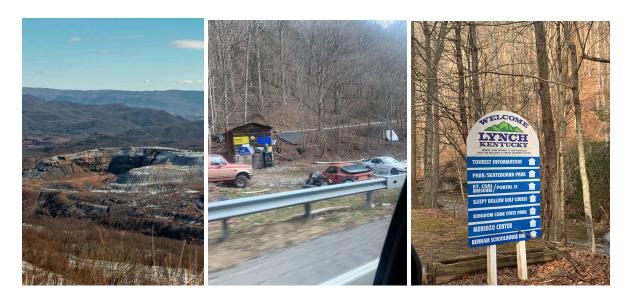


Figure 4: Stripped mountains

Picture by (Hermens, 2023)

Figure 5: A privately owned gas Figure 6: The Lynch welcome sign,

Station on the road to Lynch where the second sentence is

"where coal is our heritage"

Once driving into Lynch, this image of the area was further confirmed; The middle of Lynch is known by a huge old coal mine. This mine (Portal 31) used to be the biggest mine in town, but has now been turned into an exhibition mine, as shown in figure 7. Lynch is located in the middle of two mountains and consists of a big street, with different streets uphill - called 'Hollars' by local residents. While the main street of Lynch hosts several poorly maintained houses, ascending the hill leads to larger residences once occupied by mine superintendents. This suggests that the hierarchical order that was established during the mining period, can still be found in the town nowadays; the higher you go up in the landscape, the higher you go up in the social ladder of the town.

³ This is due to a certain method of mining in which they cut parts of the mountain to gain the coal inside (The Assay, 2023)

One of the first things I noticed was how much the history of this place was being preserved. Across the street from Portal 31, is a small café called the Lamp House. This was named to preserve the way this shop was used when the mine was still running. Above this, the old high school and convenience store still stood in the town, even though they were worn down. Everywhere in town, signs explained the history of each spot, making it feel like I was walking through a giant museum, this can be seen in figure 8. Lynch is part of the tri-cities, which consists of Lynch, Benham, and Cumberland; three small towns within a ten-minute drive. In these towns, I observed the same preservation of the history of the mining industry; there was a coal mining museum, coal miners memorial park, and the old high school was turned into a hotel.





Figure 7: The old coal mine in the middle of the town

Figure 8: Signs with an explanation of the History in Lynch

Next to the preservation of history, there were many churches in the town; 8, according to the list in the local newspaper. When driving through the main street of Lynch, I noticed a big amount of crosses and religious quotes. A big amount of people in Lynch are Christian and find this religion very important throughout their daily lifes.

1.2.b Division & Community: People in Lynch

People in Lynch were incredibly open and welcoming. Brandon and Joanna contacted many people from different groups for me and everyone was willing to participate and share many of their stories. Story after story unfolded after I asked a single question, and people took a lot of time to explain the difficulties of the shift in Lynch. Not only did people help out a lot; they were also really thankful and honored about the fact I came to Lynch for the purpose of listening to their stories. One resident mentioned that they found it very hopeful that someone like me came to the place to see the place and tell their stories. I got invited to many family dinners, church services, and homes, and can say that I truly felt like a small part of their community after the three weeks.

People were very caring and looking out for each other in Lynch. When it was snowing in the first week, I had been told several times to "drive safely" and "take care". When the people in front of us in the grocery store did not have enough money, the cassiere gave them some tips on how to save extra money and showed understanding. And when I was walking up a hill in the snow, someone asked if I needed a ride. These are just some of the many small examples in which people looked out for each other. Later on, residents told me that this was still dating back from the times in the mines; in which everyone had to care for each other as it was such a difficult job. On a first sight, Lynch seemed like one big community. However, I observed three main 'groups' of people that formed small communities themselves. These groups of people are essential to understanding, as each of them looks at Lynch and the future of the area in a different way. The following section will provide a small description of these groups.

Lifelong residents and Mineworkers: Many people living in Lynch have lived in the area their entire lives. They, or their families have worked in the mines and they have seen the town decline throughout the years. This group of people is related to coal mining and values the history of the town.

Missionaries: As religion is very important in the area, a big ministry was set up. A big part of the population went to Lynch on a mission trip and came back later because they fell in love with the area. Many of them state that "The Lord has brought us here", and that they have a purpose to help in Lynch. This group has been here approximately ten years and has never experienced Lynch as a big mining town. **Convenience:** The last 'group' are the people that have not lived in Lynch their entire lives, nor have been brought here by the missionary. This group ended up here by chance due to for example cheap housing opportunities. Many of them have a remote job, or work in the small businesses in the area—when able to find these. They do not necessarily feel have a very strong feeling to Lynch and its history as a coal mining town, and are simply here to make a living.

Many people talked about 'community'. Residents of the town experience the sense of community in different shapes and forms. Former mineworkers tend to compare the community to the camaraderie in the mines. Therefore they mainly explain that the community is not how it used to be. They do agree that people help each other out where needed, but that it is nothing compared to "what it used to be". They are frustrated to see so many people leave and therefore feel a decline of the sense of community. Brandon stated: "There used to be a good sense of community in the mines, that is completely lost now". Many old mine workers feel strongly connected to all the other old mine workers and their family as they understand each other's struggles; some might describe this feeling as community. Other people might describe the community as very close because everyone knows each other. On the other hand, I noticed that people from the missionary experience a very strong sense of community. One resident from the missionary stated that "the community in this town is amazing; everyone always looks out for each other" and another stated that she "experiences a very close community in the town". As shown, it is important to note that the different groups in Lynch have a connection, but do not consider a

big community *between* them. However, a big sense of community is experienced *within* the groups; yet these groups are not always aware of this perspective.

Chapter one dove into the rise and fall of coal in Lynch. We can see that Lynch has a long history of coal mining and was created by US Steel, however coal mining made a rapid decline due to policitical and technical developments. The consequences of this rapid decline are borne by the local communities as well as by the local government. Everything in Lynch shows the long history of coal mining; the buildings, the roads and the people, however no coal is to be found today. Furthermore, I identified three groups in Lynch: Former mineworkers, missionaries and people living in Lynch out of convenience.

2. Identity, community & opportunity: Life in Lynch nowadays

The following section will dive into the way life looks like for people living in Lynch. I will describe different effects of the decreasing coal mining industry that people are experiencing. Firstly, I will start describing the main effect from the decreasing industry; the decrease of businesses and services. This is followed by the effect of the loss of pride and identity. After this, I will dive into the importance of the preservation of history. Lastly, I will explain how people in town feel a lot of frustration.

2.1 A retirement home: A declining population

The first effect of the decreasing coal mining industry is that the majority of Lynch's residents, as well as many businesses and services left the area and relocated elsewhere. There are almost no businesses located in Lynch, or in the other tri-cities. This causes a lack of jobs and opportunities according to several Lynch residents. People seemed to have thought a lot about the situation, possible improvements, and what has caused everything to become the way it is. Ellie (old Lynch resident and mineworker) calls Lynch a retirement home; majority of the people in town are retired, and younger people move out of town. The younger people - especially those wanting to start a family - do not see enough opportunities in the town, as the only jobs available are minimum wage jobs at for example the grocery store, and those cannot support a family. This has also been the case for the children of Brandon

and Joanna; they moved out to bigger cities around the area to find better jobs. Brandon said that he is really glad that they did. The same goes for the parents of two twelve year olds in town. Alex said that he does not hope that his girls stay in Lynch: "It hurts me to say this, but I want them to have a bright future; they might not have that in Lynch". The departure of the younger generation creates a vicious cycle that might be very difficult to break, explains Brandon while looking worried. He says that due to so many people and families leaving the town, businesses are not able to open. New restaurants and hotels are closing rather than opening, as they do not see enough customers. The closure of restaurants leads to a further decrease in jobs, and this then leads to a further decrease in these services. Not only does the decrease in services lead to a decrease in jobs; it also leads to a low incentive for tourism. Ariana (our Airbnb host) explained that she is glad her Airbnb has a good kitchen, as the closest good restaurant is at least a 35 minute drive over the mountain. As there are barely any jobs to find, the area is amongst the poorest of the US (Partridge et al., 2013). A girl working at a convenience store in Cumberland explained that she notices that almost everyone in the area is on some kind of Food Stamps; this was confronting for her to see. She is one of the few young people I saw in the area that also wishes to stay; she lives here with her husband and 1-year old and wants to stay close to the mountains and her family.

Not only does the decreasing industries cause a decrease in jobs and incentives for tourism, it also raises another problem. Two residents that recently moved back into Lynch state the following: "We often regret moving back to Lynch, especially with the lack of healthcare services". They explain that they need to drive over four hours to see their specialist doctor and that it would take over an hour for an ambulance to reach their home - located in the middle of Lynch. For this reason they have an expensive subscription to an emergency helicopter, "just to be sure".

2.2 Searching for a new identity: Losing and finding identity in Lynch

Next to the people, opportunities, businesses and services moving away from the area, pride, identity and a sense of belonging are fading away as well. As there are three clear groups within the town, the concept of identity differs among these. The first group, consisting of coal miners and old

residents experiences a clear shift of identity. In the coal mining times, there was a very strong identity and pride towards coal mining. A resident and former coalminer in Lynch stated that "Coal kept my family alive, it is in my pride and identity". When talking to Brandon, I noticed how he carried so much pride towards coal mining and the people working in the mines. Coalmining was truely his - and many other Lynch residents' - entire life. With the industry decreasing, this pride and sense of belonging is decreasing as well. Mineworkers had the feeling they had a purpose; to provide for their families. Now their purpose often feels like it shifted to preserving information about this time, and to create awareness on life in the mines. This also creates a shift in the community of the town. Brandon explains how the entire town's identity was coal mining; everyone supported everyone in the mines, and therefore also outside of the mines. The second group, consisting of people from the ministry, do not necessarily identify with coal mining, but rather with creating change and following the plans that God has created for them. They have resonated with the 'identity' of religion before coming to Lynch, and are following through with this view nowadays. They live their lives according to their Christian beliefs and are driven by the idea of these. The third group, consisting of people who are living in Lynch out of convenience, do not experience a strong shared identity, but simply want to provide for their families. As there are different identities and shifts taking place within Lynch, these three groups do not identify with each other, and do not resonate with each other's ideas of the best way to live day-to-day life. This can cause division, also because of a misunderstanding of each other.

2.3 History Lesson 1: The importance of history in Lynch

Another thing that became very clear when talking to people and walking around in the town was the importance of the preservation of history. The following section is mostly applicable to 'Group 1;' the old mineworkers and residents of Lynch.

2.3.a How history shapes daily life of people

When I was driving around the towns with Brandon, he had a story to tell about almost every building. He knew who used to live where, what the purpose of every building and street used to be, and what life was like when the mines in Lynch were still open. When he talked about the history, he kept referring to "when we were somebody" and was clearly touched by the shift of the town. Brandon was not the only one with this feeling; several old mine workers confirmed this feeling. Ben, an old mine worker and lifelong resident of Lynch, explained how he tends to live in the memories of what was once there, as these are such positive memories to him. When he walks through the streets of Lynch, he visualises how it looked "back in the day". Several important locations in Lynch explain how the history plays an important role in the daily lifes of Lynch residents. This will be discussed in the following section.

Portal 31: The most prominent part of Lynch is arguably Portal 31; the old mine, that has been turned into an exhibition mine. Portal 31 is owned by Harlan County, Lynch resident Alex manages it. The tour had recently been renovated with a grant from the County, as they find it important to preserve this history and stories as well. Above this, they hope it can be a kickstart for tourism in the area. The tour included stories from several old mine workers. When I visited Portal 31, Alex did everything to make the tour as informative and personal as possible. The regular tour uses a small car that drives through the mine, however halfway through he asked if I wanted to walk back, so he could show me more things inside of the mine. He knew a lot of things about the mine, and found it very important that these stories are not forgotten. He looked very proud of how Portal 31 had turned out, and told me that it is quite busy, especially with bigger college classes and groups. See figure 9 and 10 for pictures of the mine.



Figure 9: The outside of Portal 31, with the quote "safety, the first consideration"

Figure 10: The inside of Portal 31, with Alex and my dad.

Kentucky coal mining museum: The Kentucky Coal Mining Museum is located in Benham: the town next to Lynch. This museum portraits the importance of history in the area in different ways. Brandon volunteers at the museum and shows families, college classes and other interested people around. When he gave me a tour, he showed everything with a lot of passion and pride. You could see that a lot of effort was put into the museum; it had multiple stories and in the basement 'Portal 32' was created; a fake mine to give an insight into the working circumstances during this time. He tells me that the community is very involved in the museum, and that everything that lays around in the museum was brought in my (former) residents of Lynch. He still receives multiple items on a weekly basis of things that people want in the museum; he is really thankful for this. He said that he sometimes worries about the future of the museum: He is the only volunteer that knows all the stories, and he is afraid that no one will be able to take the job over from him.

Benham Schoolhouse Inn: Also located in Benham is the Schoolhouse Inn; the old Benham High School that has been turned into a hotel. I got a tour from the women working there, and she proudly showed me almost every room in the hotel. When walking in the hallways, you can still see the lockers and pictures on how the school used to look like. She told me that the place is very busy during summer, however no room was booked in January. She explained how she is very happy that the school in Benham has been preserved, unlike the high school of Lynch.



Figure 11: The hallways of the Benham Schoolhouse Inn; still with the old lockers from the high school

2.3.b Putting on your own boots: How history shapes mentality

Not only does history play an important role in the daily lives of people, it also plays an important role in shaping the mindsets of people. Tristan, the mayor of the tri-cities, explained to me during an interview how many people have been shaped by the time in which US Steel was active in the town. It is important to note that he was quite critical on people in the town and that these views are not shared among everyone I spoke to, however it clarified many behaviors and findings of my stay in Lynch. Tristan explained how people have lived off of coal for generations long; "it is all that people knew. Now, people simply do not know how to live without coal; they have never thought about this possibility" He said that

this also connects to the fact that US Steel provided everything for them during this time; they provided work, housing, stores and fun activities. "Now that this is gone, people need to start doing things for themselves but simply do not know how; we have to put on our own boots, but we don't know how to put the boots on". He notes that many people want to see change in the town, however they do not want to be the change; They are used to the fact that US Steel provided everything. All in all, history plays a crucial role in the daily life of people in Lynch; history is shown in the values people have, in the buildings of the town and in poeple's mentality.

2.4 A kickstart for hope: The role of religion in Lynch

Another thing I noticed were the big amount of churches and Christian-related decorations in and around people's houses. During the conversations with people I found out that Christianity plays a huge role in people's life. They attend churches regularly - although not as much as people used to, according to Joanna - and see religion as hope. Especially the group with the missionaries are led by God and live "according to His plans". During a film about Lynch we watched with a couple in the town, the role of religion became very clear, which can be seen in the following quotes: "People's Christianity is what keeps people going in times like this" and "People are Looking for a Kickstart for hope".

2.5 Looking in a different direction: Frustration towards the government

Frustration was an important emotion I observed when people were talking about the decreasing mining industry, and the consequences this had for the town. People feel very frustrated and unheard of by the (local) government. This is applicable to most people residing in the town, and is not experienced in a different manner among the different groups of people. The judge executive of the county explains that there is a big disconnect between the federal government and rural communities like these. He explains that the federal government looks at the bigger picture, and therefore wants to move towards a more sustainable energy transition from a top-down approach, however this view contrasts with the view of local residents. A resident of Lynch stated the following: "Coal keeps my family alive. It is in my pride

and identity. It is the only possibility in the region to provide for the family." He also explained that the federal government makes decisions about former coal communities like these, however they do not actually speak to the people to understand their perspectives. For this reason, the trust in the government by the residents I spoke to is very low: "They don't see us, they don't listen to us, I don't have faith in the government". A clear example of the top-down approach the federal government is taking, is the placement of solar panels in the town. When I asked about these, no one really knew where they came from or who agreed to put them here. They only said that a grant was offered to put these in town. When I looked closely at the solar panels, you could see that they are positioned facing a mountain, and that they are not connected (see figure 12 & 13). These solar panels can be seen as an explanation for the bigger problems arising in town; the government is putting efforts and money in projects that do not have a positive impact or effect on the local community, as they are not discussed with residents. A resident stated that "We don't need solar panels, we need jobs, and solar panels are not giving that".



Figure 12 &13: Solar panels next to the old coal mine in Lynch; facing a mountain and not connected

The result of the top-down approach that the federal government takes, results in lack of trust, but also in the population turning against the government. I noticed how many people in Lynch are experiencing general efforts for sustainability very negatively, due to the negative connections they have with these. A resident shared that "the idiots in the government are pushing climate change". He is very frustrated that these efforts lead to such a decline in his community of which he was once so proud. Some people argue

that the federal government simply does not know what is going on in places like these due to a lack of attention, however, other people argue that they know very well what is going on, but choose not to see this; confirming the frustrated view they experience. Many people blame the government for the decline of the economy, opportunities and population. They feel disappointed that "the government is not looking in our direction". The local government is also experiencing difficulties in receiving attention on a state and federal level. They apply for a lot of grants to start projects to create jobs or opportunities, however these often end up at a dead end, as the importances and nuances of the situation are not seen on a higher level.

All in all, chapter two showcased the different effects that people in Lynch face after the decreasing coal mining industry. It has portraiged the effects of the decreasing population and opportunities, the loss of identity, the role of the history in town, the hope people get out of religion and the frustration that people experience.

3. Our pride is killing us: Future of Lynch

The following section will dive into the way that people in Lynch are looking at the future of the area. Here, the social dynamics and nuances of the different groups will be discussed, and I will describe the difficulties that this brings with creating a clear direction for the future of the area. I will start by describing the perspectives of each separate group, and will conclude by finding common ground and describing views that are shared by residents in Lynch, such as the increase of tourism, industries and basic services. An important thing to notice is that all groups value different aspects in the shaping of their future. There are big contrasts in the roles different groups want to play and in the priorities they have.

3.1 Old mineworkers and Lynch residents: Group 1

When group 1 takes a look at the future of Lynch, they seem pessimistic about the opportunities the town can face in the future. This is mainly due to the fact that they think it will never be able to live up

to the way Lynch looked like in the past. When attempting to improve opportunities, looks or services in the town, it is often compared to the way these used to be. This makes it hard for new changes to meet the high standards set by the past. When talking about specific changes that could improve the town in their perception, people in this group would like to put efforts and money into preserving the history of the town. As stated, history is what keeps people in this group going, as they experienced this as very positive, which is why they value the preservation of history. The preservation of history includes the restoration of old buildings, investing in the museum and Portal 31 and passing on stories about the past and finding people to keep telling these when the older generations are unable to. However, people in this group are aware that other things, such as the creation of jobs and improvement for tourism incentives are necessary to provide a future for the place. Ideally, these factors also play into the preservation of history, by for example telling tourists about the history of Lynch.

When I talked about the possibility of going back to coal, many people in this group stated that they would really like this idea. Because coal did so many good things for them, they are convinced that this will be the formula to make Lynch bloom again. Even though residents are being realistic about the small chance of coal making a return in the US Energy transition, most of them agree that they would go back to coal if this was possible. All in all, the way that this group envisions the future of the area is shaped by the shared value of the preservation of history. The past is seen as very positive; therefore it should be preserved and used to shape the future.

3.2 Missionaries: Group 2

In opposition to the old mine workers and residents, the group connected to the missionary is very optimistic about the opportunities that the future may hold. Due to the fresh look that these people have in the town, people see that there is a lot of potential in Lynch. The beautiful nature, interesting history and the missionary could make the place very appealing to incoming tourists. People in this group are driven by God and explain that God gives them hope. This explains why these people are very hopeful towards the future; they follow the path that God has set for them. The founder of the missionary in town

explains how he has a lot of visions about the future of the town; he envisions what it would look like in 10 years and continues to make a plan for this. These plans are often started by the missionary which has hundreds of volunteers coming in each year to work on projects within the town. He sees these volunteers as an important aspect, due to the chance of them returning to Lynch, or of telling other people about the area. These projects may also include the opening of businesses, to get jobs back into the area. This group is mainly looking at the future and does not necessarily value the historical buildings and stories in the town. They would like to reuse the old buildings for something more practical, to create jobs and opportunities. They do not see the value of going back to coal and are realistic that this is not likely to happen either. They mostly want to put all their energy in moving forward and fulfilling the plans of God to increase the opportunities for Lynch residents and their missionary.

3.3 Other residents: Group 3

People living in Lynch because of cheap housing or other conveniences are not as focused on 'improving' the future of Lynch. Even though they would like to see change, they are not very strongly connected to Lynch, which causes the fact of them not being as involved. Changes that this group would like to see often directly involve the improvement of their daily life; adding a cheaper grocery store, increasing the number of healthcare facilities and having a bigger variety of restaurants.

3.4 All of them

Even though the different groups are divided in their looks upon the future, they do have some shared thoughts and ideas. Many residents tend to vote pro-coal during the elections to create a hopeful future, as everyone shares the feeling of being scared and aware that many things need to be done to create the Lynch on which they can be proud again. These changes mainly include the improvement on aspects like tourism, facilities and accessibility. However, these have shown to be very difficult to improve due to several vicious cycles which local residents describe.

The first viscous cycle can be explained by figure 14, and describes the lack of tourism in Lynch. In order to increase the tourism in the area, facilities and restaurants are needed, but in order for these facilities to start, tourism is needed; people in Lynch expereince this as very frustrating as they are relying on tourism to give the town a boost again. Furthermore, figure 15 explains a viscous cycle regarding accessibility: Bad accessibility of the town is causing a lack of money, and this lack of money is hindering the improvement of accessibility. Figure 16 dives into the struggle of a lack of basic services such as cellphone connection and wifi. Due to the bad wifi and service in the town (there is no cellphone service in Lynch, and there is a very low-speed wifi line), people do not have an opportunity to find good online jobs, which causes them to stay away from the area. In order to turn these negative circles into positives circles, people in Lynch agree that many things need to happen. These include improving accessibility of Lynch, investing in projects to open up businesses, and investing in better services. All of these factors need funding, and as Lynch (or Harlan county) is not able to kickstart these projects themselves, grants from the government are needed. In order to receive these grants, the struggles and situation of Lynch needs to be known by the state or federal government. People have the feeling that once they are being listened to, they are able to get the resources to kickstart a better future where things are able to turn "the right way", and where negative circles are able to turn into positive ones. When these negative circles turn into positive circles, the opportunities described in figure 17 can be achieved according to Lynch residents. All in all, we can see that the different groups Lynch value different aspects when looking at the future of the town. However, they do share the idea of the need to break the vicious cycles by getting someone from higher up to understand their needs, to get some grants for the area.

Chapter three looked at the way people in Lynch look at their future. We can see that the three different groups all vision the future in a different manner; group 1 values the preservation of history, group 2 wants to move forward by leaving coal behind and by listening to God, and group 3 mainly wants conveniences, such as restaurants and grocery stories back in town. Division is created by these different visions. However, all agree that vicious cycles need to be broken in order to make some steps forward.

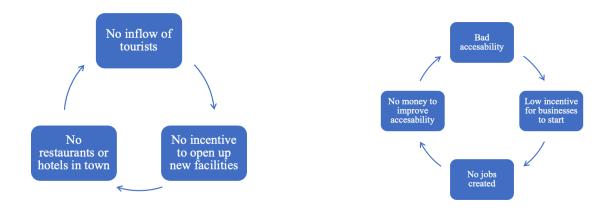
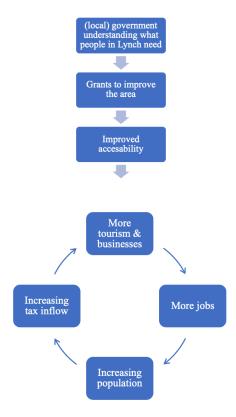


Figure 14: The vicious cycle of tourism

Figure 15: The vicious cycle of accessibility



Figure 16: The vicious cycle of bad service and wifi



Figiure 17: Different policies creating a positive cycle

Discussion

The following section aims to put the findings into a bigger context. This is done by recognizing three main themes and connecting these to existing literature. This is followed by a showcase of the limitations and options for further research. I will conclude by giving some recommendations on what can be done to improve the situation for communities like these.

The bigger picture

This thesis has shown the implications of policies regarding the transition towards a more sustainable energy transition on a local and social level. The last chapters dove into the way people are experiencing live in Lynch after the decline of the coal industry, and how they are looking at the future of

the area. The following section aims to connect the experiences of people in Lynch to the bigger picture of the way that people are affected by the policies of the transition towards clean energy in the United States. The main findings I will include are the loss of identity and the division in the town. These experiences will be combined to describe the way people in Lynch envision their future.

People in group 1 in Lynch sometimes experience a loss of identity, as coal mining is such an important aspect in their lives. They to live in the history of what was once there. The importance of the preservation of history is very significant. This has also been shown in research by Walker (2021), as well as by the theory of collective memory (Halbwachs & Coser, 1992) in which they explained that former mining communities struggle to adapt to the post-industrial times as they hold on to their history. This was clearly observed in Lynch, Especially the statement of a former mineworker in which he stated that he only visions the town how it was 50 years ago, resonates with this theory of holding on to the history of their community. This also explains the loss of community that people in group 1 face; Walker (2021) states that the community is mainly held together by their industrial history. They explain that the values of the past need to be used to "reconsitute the community in the present". However, this is difficult in Lynch, as not everyone in Lynch shares the identity of their history. This creates division in the town. In contradiction to Linkon (2018) - in which was stated that the industrial past holds people together -Lynch faces a division because of the frustration of not sharing the same past. This is also shown in Spijk - an old industrial town in The Netherlands - where the former residents do not feel a big connection to the residents coming in because of the cheap housing and nature, as they do not share the same values (De Cort, 2024).

Another finding shows that the social dynamics in Lynch have changed after the declining industry. When the coal industry was still the main industry in the area, everyone was living a similar life and everyone was looking in the same direction, however this has changed. Three separate groups were shown as a result of the declining industry, and this does not only have an effect on the way people experience life nowadays, but also on how people are looking at the future. This can also be found in a theory by Halbwachs & Coser (1992) in which was explained that there was a clear 'other' in towns

where people hang on to their history, as these 'others' do not share the same values as the rest of the town who does share the same history. This 'other' can be seen as group 2 and 3 in Lynch, which causes the groups in the town to look in a different way.

These findings can be added together to build the way that people in Lynch envision their future. Due to the feeling of being unheard, the division and the loss of identity, people in Lynch are quite nervous for the future of the area. They all agree that certain things (like the increase of tourism, improvement of accessibility and creation of more jobs) need to happen in order to grow the population and opportunities in the town. However, due to the division of the different groups, they envision the ways to do this in a different manner. People in group 1 envision the future more like the past; they would want to go back to coal if they could, they are realizing that this is not likely to happen. Research by Prideaux and Timothy (2010) has shown that other post-industrial communities are also likely to believe in opportunities like tourism to give their town a boost again. However, it has been shown that tourism is not always the solutions to situations like these (Wood, M.E., 2017), so it is important of remain critical to this possible solution. Another solution that people in Lynch propose is the improvement of accessibility and services to lead to more opportunities. Research by Powe (2018) has shown that this is indeed a very important start to increase opportunities, however the impact may vary on the context of the town. Furthermore, people in Lynch explain that they tend to vote for someone who aims to bring the coal back into the town in hope for a better future. This can be compared to the town 'Spijk' in the Netherlands. People in this town describe that voting pro-industry increases their hope for a better future (De Cort, 2024). All in all, people in Lynch share the feeling of frustration as they have the feeling they are not being listened to. They believe that when bottom-up approaches are implemented, opportunities for their town can increase again. This idea has been confirmed by research by Homsy & Hart (2019) in which they stated that policies regarding sustainability have a more positive effect on the community when they are involved in the decision making.

Limitations

Several limitations of this research need to be addressed. Firstly, I only stayed in the community for three weeks, and even though data saturation was reached, a longer stay could have resulted in more extensive results. Especially a better understanding of 'group 3', as well as the dynamic between group 1 & 2 could have been reached when staying longer in Lynch. During my stay I was mainly in contact with people from group 1 and 2, which might have created a biased view towards the entire situation. The last important limitation to consider is the fact that my personal beliefs and interpretations could have influenced the study. Even though I made efforts to be objective, I am still carrying a bias because of my positionality.

Future Research

The results of this study open a lot of doors for future research, as many questions have been raised after analyzing all the results. Within Lynch, many topics can still be further researched. Some residents touched upon the segregation that was observed in the 1960's, and how this plays a role in today's society. Due to the scope of this project, I did not get a chance to dive deeper into this. Furthermore, I did not get a chance to dive deep into the use of opioids in the area, and the way that these affect the current situation, even though this has shown to be relevant in existing literature. As stated, 'group 2' is existing of people coming from the missionary; further research could be done on the impact of people from the 'outside' on a community that is going through a shift like this. All groups provide different possible solutions to improve the possibilities in their town; more research could be done on the feasibility of these solutions. Lastly, we can conclude that Lynch became a bit of a forgotten town, further research can be done on how to put towns like these back into the picture and allow them to make a rise again.

Recommendations

Several recommendations can be made based on the results of this research. As a broad list of policy recommendations is beyond the scope of this paper, I will list some one main recommendation that can be used in similar situations. The main recommendation is to include people from the affected community when making decisions that can have an impact on the area. Many problems in Lynch are arising because of the lack of understanding of the (local) government. If these parties are correctly informed of the wants and needs of a given community, better policies can be made. Not only does the lack of understanding cause a problem in creating the policies, but also in finding solutions for the problems that arise from these policies. Especially when creating interventions (such as the solar panels in Lynch), it is important to have a proper insight in the needs of a community, to prevent a top-down approach.

Conclusion

All in all, this thesis has used the decreasing coalmining industry in Lynch as a means to showcase the importance of recognizing and acknowledging the effects of these policies on the groups that are affected. It has done so by portraying the social context that has arisen after the decline of the coal industry in the area. The research question can been answered by showcasing the different effects of the decreasing coal industry; a decrease in population, a loss of identity, the urge to preserve the history, frustration towards the (local) government and a division that results in different groups within the town. This division causes the future of Lynch to be seen in different ways. The old residents are driven by the preservation of history, and their goal is to keep the stories of Lynch alive. The missionaries are driven by God and want to start new projects as soon as possible, and the people staying in Lynch out of convenience are not very connected to the place and mainly want to more convenient daily-life. However, all agree that it is important to be understood by people from the (local) government to be able to receive grants to break the different vicious cycles in the town.

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