

ANXIETY AND SAFETY: TWO STUDIES OF THE KENTUCKY COAL MINER



Death Perceptions of Eastern Kentucky Coal Miners

by George E. Dickinson

Mining Safety: Rallying Cry or Creed?

by Stuart Seely Sprague

Research Report No. 10
Appalachian Development Center
Morehead State University
Morehead, Kentucky

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Morehead State University

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Anxiety and Safety: Two Studies of the Kentucky Coal Miner

Death Perceptions of Eastern Kentucky Coal Miners

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Preface

Two reports offer insight into the personality and working conditions of the Kentucky Coal miner.

Dr. George E. Dickinson's survey measures death anxiety among miners; Dr. Stuart S. Sprague's correlated report tracks the often volatile effort to legislate and enforce safety regulations.

Both reports arrive at one perhaps startling conclusion: many miners agree—and are somewhat supported by statistics—that they themselves are most frequently to blame for accidents.

Are coal miners fatalistic, or simply realistic about the dangers of working underground? These two reports explore the answers to that question, and offer suggestions for increased safety awareness programs.

Garry Barker, Editor

Abstract

Coal mining is among the most hazardous of occupations in the United States today. Yet, thousands of men and women hold jobs in the coal fields. This study is concerned with coal miners primarily in Eastern Kentucky and some in West Virginia.

The major objectives were to ascertain who causes mining accidents and to relate death anxiety of coal miners to various independent variables. Data was gathered through interview schedules with 78 miners. Most miners blame themselves and other miners for mining accidents and feel that miners are most responsible for mine safety. While the majority of respondents had a relatively high death anxiety as measured by the Templer Death Anxiety Scale, miners tend to look out for each other and maintain a strong sense of social solidarity.

Death Perceptions of Eastern Kentucky Coal Miners

By George E. Dickinson

Introduction

Coal mining is a way of life in Eastern Kentucky. Historically, coal has been king in the mountains of Eastern Kentucky. Like farming, however, coal mining has its ups and downs, its good and bad years, its booms and busts. Whether in fat or lean years, coal remains the vital heartbeat of the region.

Frequency of Mining Accidents

Coal mining, however, has a reputation as an unhealthy occupation. Some studies have found that coal miners die at twice the rate of other manual workers from tuberculosis, general arteriosclerosis, other myocardial degeneratives, cancer of the prostate, ulcer of the stomach, accidents and homicide (Althouse, 1974). Their mortality is four times that of the general population. It is estimated that one of ten miners will meet death as a result of black lung.

The coal industry is characterized by a number of potential accident sources. The miner is faced with the possibility of such dangers as a roof cave-in, a rock fall, flooding, an explosion due to methane buildup or a 90,000-pound continuous miner suddenly turning against the operator. Studies indicate that miners must work with heavy, complicated equipment beneath tons of earth in a confined, poorly lighted, noisy environment (Althouse, 1974). In 1981, for every 2.5 million hours worked in underground and surface mining a miner died (Brown, 1982). The death-rate figure for the United States for 1981 in coal mining was 0.08 (based on the number of mine fatalities per 200,000 employee hours) according to the federal Mine Safety and Health Administration. Kentucky's 1981 death rate in mining was 0.11 (Brown, 1982).

Deaths in coal mines today occur less often than a few decades ago as the count has dropped to less than 200 annually compared to a thousand or more per year in the 1940's (Bowman, 1982). Others report that the rate of bituminous coal mine fatalities per million hours worked in mines between 1932 and 1976 declined from 1.7 in 1932 to 0.4 in 1976 (Lewis-Beck and Alford, 1980).

Causes of Mining Accidents

Lewis-Beck and Alford conclude that mine safety laws have led to a decline in fatality rates. Likewise, Perry (1981) concludes from his analysis of coal mine fatality rates from 1930 to 1979 that strong safety laws reduce coal mine fatalities and that, if laws are stringent, coal mine fatalities decrease with increases in federal spending on mine health and safety. While Lewis-Beck and Alford show that fatality rates vary with the safety law in force, this is not consistent with the idea that miners' carelessness is the major cause of fatalities since the fatality rate would be more random. Perry further notes that mine safety spending has been strongly

related to fatality rates when laws were effective—this is also inconsistent with the idea that carelessness causes fatalities.

Individuals like Senator Harrison Smith of New Mexico, however, believe that most mine accidents are due to individual carelessness (Brown, 1981). Some suggest that the people of Appalachia tend to have the attitude of “what will be, will be”—an attitude of fatalism (Latz, 1958; Lucas, 1969; Weller, 1965; Debusman, 1962). As Debusman notes, death is the end of earthly life and the beginning of eternal life; there is no fear of death if prepared. Perry (1981) states that perhaps many miners have died because of carelessness. The dangerous working conditions in the coal industry often cause fatalities to be the result of occupational carelessness. Such careless behavior is unlikely to entail such grave consequences for persons in other occupations.

Althouse (1974) says that while miners are aware of the dangers, they feel powerless to alter the course of future events. Therefore, to release tension about the dangers of the mines, some miners react by “putting it (danger) out of mind” through horseplay, joking, and story telling.

Whether mine accidents are due to bad luck, chance, or miners’ errors, the notion of fatalism frequently portrays the people of Appalachia. They are stereotyped as stoic and tight-lipped, meekly accepting life as it is, powerless to affect change (Dunlop, 1982).

Parker (1969) notes that hardships have dimmed the hopes of southern Appalachians, and fatalism has been a buffer against disappointment. Everyday happenings—good and tragic—become the “will of God,” and the only hope seems to be the world beyond. Parker argues that fatalism and traditionalism, however, are receding. He suggests that people in the lower economic group have stronger feelings concerning fatalism. He also states that while fatalism has roots in rigid Calvinism, it is difficult to determine if its continued popularity is based on that, frequent hardships, or both. Thinking that God causes everything does resolve many problems in life. Roberts (1977) finds that the rural people of Appalachia hold a fatalistic view of death notable for its apparent absence of death fear.

Stereotypes are often based upon false impressions. Several (Ford, 1962; Lewis, 1970; Ross, 1971) have challenged this interpretation of the miners’ attitude as fatalistic. Chiappone and Kroes (1979) in a study of West Virginia miners conclude that miners are not fatalistic. They argue that the miner keeps working in a potentially hazardous occupation in spite of the stress because this is the best paying job in the area.

Ross (1971) disagrees that coal miners stay in the mines just because it is their best paying option. He argues that they have a proud sense of occupational identity—an identity lacking in other industrial workers and one which extends to ex-miners. He suggests that many select coal mining for the following reasons:

- (1) pride in their work as craftsmen
- (2) considerable freedom and little direct supervision in the mines
- (3) avoidance of the boredom of identical factory work
- (4) achievement of *esprit de corps* of the mine face crew
- (5) less worker alienation from the product
- (6) development of social solidarity recognizing individualism
- (7) upward mobility potential
- (8) adventuresome spirit in opening and developing territory never seen before.

Althouse (1974) notes from his survey of miners that many accidents result from human errors or a breakdown in safety procedures. Thus, a fatalism that blames miners’ deaths on miners’ carelessness seems to be a significant attitude among many related to coal mining (Perry and Ritter, 1981). Another survey of over 600 underground miners in 1976 by Westinghouse Behavioral Services Center (Dunlop, 1982) concluded that miners are not fatalistic and feel they have some control over their destiny.

Instead of fatalism, the Westinghouse study reported “being careless and not following safety rules, just not giving a damn and not using good common sense and judgement” as leading to mine accidents.

“If we think miners are going to be safe, eventually they are. If we think they are going to be killed, then more will be,” said Joseph Brennan, president of the Bituminous Coal Operators Association (Dunlop, 1982). Brennan’s quote fits the social psychologist W.I. Thomas’ “definition of the situation”—define a situation as real and it becomes real in its consequences. If one believes mine fatalities are due to carelessness of miners, a strong incentive to improve safety conditions will be lacking. Thus, there will be accidents—and more deaths.

Behavioral scientists could increase our understanding of how coal miners face unpredictable dangers on a daily basis (Ross, 1971). Ross notes that the belief in one’s buddies in this dangerous environment is part of the “web of verbal history, folklore and legend” which also has to do with an overall sense of security. By contributing to a better understanding of the coal miner’s unique combination of occupational and biographical characteristics, the behavioral scientist can help relate death anxiety in this hazardous field. The miner must deny in a personal way—as does a combat soldier—that death or a serious personal injury will occur. Ross argues that considerable social significance results from coal miners’ supportive factors as among soldiers. The thought, that if anything happens in the mines one’s buddies will soon be engaged in ceaseless rescue efforts, is at the heart of the interdependent morale system in which everyone underground takes part.

Platt and Black (1978) suggest that studies are especially needed which examine individual and group beliefs regarding death and dying in a variety of occupational and situational settings rather than the traditional medically-oriented surveys. This work will involve interviews with coal miners to address two specific issues. Miners will be asked for their perceptions of the causes of mine accidents, and their death anxiety will be measured. This information will provide a basis for a better understanding of the social psychology of a hazardous occupation—coal mining.

Methodology

The Interview

Data for this study were gathered through interview schedules using an instrument composed of 38 questions (see p. 12). The miners were interviewed in Pike and Martin counties in Southeastern Kentucky in 1981 and 1982 and in Southwestern West Virginia in Mingo County in 1981. The majority worked underground; some were surface miners. A snowball sampling technique was used—coal miners would suggest other miners to interview and they in turn would suggest others. A total of 78 miners completed the interview schedule.

Characteristics of the Sample

Job titles of the miners (71 male and 7 female) varied considerably as can be seen in Table 1. The most frequently named job was “foreman” (boss) with “maintenance” being second and “electrician” third. While two of the seven women were clerks, the other five held traditionally-occupied male jobs.

Table 1. Job Titles of the 78 Coal Miners*

Title of Job	Frequency
1. Belt line Operator	4
2. Bulldozer Operator	1
3. Chisolm Miner	1
4. Clerk	2
5. Crusher Operator	1
6. Drill Operator	1
7. Electrician	11
8. Engineer	1
9. Foreman	15
10. Grease Machinery	1
11. Loader Operator	2
12. Maintenance	12
13. Mine Operator	7
14. Pumper	3
15. Repair Machinery	2
16. Roof Bolter	6
17. Scoop Operator	1
18. Shuttle Car Operator	5
19. Superintendent	1
20. Surface Supervisor	1

*The seven females were drill operators (2), shuttle car operators (2), surface supervisor (1), and clerks (2).

The age of the miners ranged from 20 to 75 with the average age being 37 years. The number of years worked in the coal mines ranged from 2 to 40 with the average being 11.4. Educational background was 47 percent with less than a high school diploma, 36 percent with a high school diploma, and 17 percent with some college work or a college degree. Eighty-three per-

cent of the miners interviewed were working at the time, and 17 percent were unemployed or retired.

Seventy-four percent of the respondents were married at the time; the others were single (13 percent), widowed (10 percent), or divorced (3 percent). Of those married, 75 percent had a spouse not working outside the home, 18 percent had spouses working full-time, and 7 percent had part-time working spouses. The number of dependents ranged from none to 5 with the average being 1.55.

Means of Analysis of Death Anxiety

The Templer Death Anxiety Scale, consisting of 15 statements, was used to determine the degree of death anxiety of the miners. Each interviewee was asked to respond with "True" or "False" to each statement. The statements are listed below:

1. T I am very much afraid to die.
2. F The thought of death seldom enters my mind.
3. F It doesn't make me nervous when people talk about death.
4. T I dread to think about having to have an operation.
5. F I am not at all afraid to die.
6. F I am not particularly afraid of getting cancer.
7. F The thought of death never bothers me.
8. T I am often distressed by the way time flies so very rapidly.
9. T I fear dying a painful death.
10. T The subject of life after death troubles me greatly.
11. T I am really scared of having a heart attack.
12. T I often think about how short life really is.
13. T I shudder when I hear people talking about a World War III.
14. T The sight of a dead body is horrifying to me.
15. F I feel that the future holds nothing for me to fear.

If the respondent answered all 15 items as marked above, a total score of 15 would result as they are coded with a "1". This would indicate high death anxiety. Completely opposite answers to the above would yield a score of 30 as they are coded with a "2" and would suggest low death anxiety. Thus, with a range of possible composite scores of 15 to 30, the midpoint of the range, 23, was the breaking point. Respondents with composite scores less than 23 had "high anxiety"; those with scores of 23 or higher had "low anxiety".

The Death Anxiety Scale (DAS) was tested by D.I. Templer (1970) for reliability and validity. Internal consistency of the 15 items and test-retest reliability were determined. The validity of the DAS was investigated by two separate procedures and found to be acceptable.

Dependent variables were death anxiety as measured by the DAS and mining accident cause and responsibility. Independent variables were years worked in the mine, current work status, age, fear of black lung disease, religion, frequency of thoughts on one's health, and having an accident. The Chi-square test was used to determine if the distributions were significant. Pearson's correlations revealed the degree of relationship between variables.

Findings

Responsibility for and Causes of Mine Accidents

When asked, "Who is most responsible for mine safety?", the majority of miners (72 percent) state that miners are responsible (see Table 2). The others (28 percent) responded that the boss or company operator is responsible for safety in the mines.

Table 2. Responsibility for Mine Safety by Working Status of Miners (Percents in Parentheses)

Current Working Status	Most Responsible for Mine Safety		
	Myself/Other Miners	Boss/Company Operator	
Working	45 (76)	14 (24)	
Not Working	7 (54)	6 (46)	
N = 72	X ² = 2.67	df = 1	p = NS

When relating responsibility for mine safety with working status of miners, age of miners and years worked, no statistically significant differences were found (see Tables 2-4). Though not statistically significant, non-miners were split on mine safety responsibility with about half stating "miners" are responsible and the other half naming bosses and company operators (see Table 2).

Table 3. Responsibility for Mine Safety by Age of Miners (Percents in Parentheses)

Age in Years	Most Responsible for Mine Safety		
	Myself/Other Miners	Boss/Company Operator	
20-33	25 (74)	9 (26)	
34-75	27 (71)	11 (29)	
N = 72	X ² = .055	df = 1	p = NS

**Table 4. Responsibility for Mine Safety
by Years Worked (Percents in Parentheses)**

Years Worked	Most Responsible for Mine Safety	
	Myself/Other Miners	Boss/Company Operator
2- 8	25 (76)	8 (24)
9-40	27 (69)	12 (31)
N = 72		X ² = .124
		df = 1
		p = NS

While the majority of miners responded that most mining accidents are caused by miners (62 percent), others (23 percent) felt that lack of mine safety features caused accidents, while others (15 percent) felt that mining accidents are inevitable (see Tables 5-7). When causes of mining accidents were related to miners' working status, age, and years worked, statistically significant differences were found (see Tables 5-7). Over one-third of older miners and those having worked the longest stated that most mining accidents were caused by lack of mine safety features, whereas less than ten percent of younger miners and those working less than nine years in the mines blamed lack of mine safety features (see Tables 6-7). On the other hand, almost a fourth of younger miners and those working less than nine years said mining accidents were inevitable, whereas only seven percent of older miners and those working nine or more years stated such. Non-working miners more often blamed accidents on lack of mine safety features (61 percent) whereas working miners (68 percent) blamed miners (see Table 5).

**Table 5. Cause of Most Mining Accidents by
Working Status of Miners*
(Percents in Parentheses)**

Current Working Status	Causes of Most Mining Accidents		
	Miner's Errors	Lack of Mine Safety Features	Inevitable
Working	44 (68)	10 (15)	11 (17)
Not Working	4 (31)	8 (61)	1 (8)

*While the Chi-square test revealed significance at the .0015 level, 33 percent of the cells had expected frequencies of less than 5.

Table 6. Cause of Most Mining Accidents by Age of Miners (Percents in Parentheses)

Age in Years	Causes of Most Mining Accidents		
	Miner's Errors	Lack of Mine Safety Features	Inevitable
20-33	28 (74)	1 (2)	9 (24)
34-75	20 (50)	17 (43)	3 (7)
N = 78 $X^2 = 18.516$ df = 2 p = .0001			

Table 7. Cause of Most Mining Accidents by Years Worked (Percents in Parentheses)

Years Worked	Causes of Most Mining Accidents		
	Miner's Errors	Lack of Mine Safety Features	Inevitable
2- 8	25 (68)	3 (8)	9 (24)
9-40	23 (56)	15 (37)	3 (7)
N = 78 $X^2 = 10.907$ df = 2 p = .0043			

Death Anxiety

Death anxiety as measured by the Death Anxiety Scale (DAS) did not show statistically significant differences by number of years worked in the mines. As noted in Table 8, while approximately two-thirds (69 percent) of the miners had a high death anxiety and one-third (31 percent) low anxiety, there were no differences by number of years worked in the mines (equal to or less than 8 or greater than 8).

Table 8. Death Anxiety by Years Worked (Percents in Parentheses)

Years Worked	Death Anxiety	
	High	Low
2- 8	22 (67)	11 (33)
9-40	24 (71)	10 (29)
N = 67 $X^2 = .119$ df = 1 p = NS		

When age is related to death anxiety, no statistically significant relationship is shown (see Table 9). However, a slightly greater percent of younger miners (less than 34 years of age) have a high death anxiety (76 percent) than older miners (equal to or greater than 34 years of age) have (62 percent).

**Table 9. Death Anxiety by Age of Miners
(Percents in Parentheses)**

Age in Years	Death Anxiety	
	High	Low
20-33	25 (76)	8 (24)
34-75	21 (62)	13 (38)
N = 67		X ² = 1.524
Pearson's R = .151		p = NS
		df = 1
		p = NS

Current working status (82 percent were working at the time of the survey) of the miners also did not reveal statistically significant differences by death anxiety scores. While the number of non-working miners is too small to draw valid conclusions, a greater percentage of non-working miners (83 percent) had a high death anxiety than did working miners (65 percent). (See Table 10).

**Table 10. Death Anxiety by Working
Status of Miners (Percents in Parentheses)***

Current Working Status	Death Anxiety	
	High	Low
Working	36 (65)	19 (35)
Not Working	10 (83)	2 (17)

*Twenty-two percent of the cells had expected frequencies of less than 5, thus a Chi-square test cannot be used, N = 67.

When asked if they considered themselves to be religious, 60 percent agreed (see Table 11). While not statistically significant, 74 percent of those who subjectively evaluated themselves as religious also had a high death anxiety as compared to 26 percent who were "religious" and had a low death anxiety. The Pearson correlation between the DAS and one's degree of religion revealed a statistically significant correlation—the one who is religious has a higher death anxiety.

**Table 11. Death Anxiety by Response to the Question
"I Consider Myself to be a Religious Person"*
(Percents in Parentheses)**

Religious Person	Death Anxiety	
	High	Low
Disagree	4 (40)	6 (60)
Neutral	12 (75)	4 (25)
Agree	29 (74)	10 (26)

*Thirty-three percent of the cells had expected frequencies of less than 5, thus a Chi-square test cannot be used, N = 65.

Pearson's R = .22032 p = .0389

Miners who were afraid of black lung disease (57 percent of all miners surveyed) also revealed a high death anxiety (see Table 12). Eighty-two percent of miners stating they were afraid of black lung disease also had a high death anxiety.

**Table 12. Death Anxiety by Fear of Black Lung Disease
(Percents in Parentheses)**

I am not afraid of black lung disease.	Death Anxiety	
	High	Low
Disagree	31 (82)	7 (18)
Neutral	6 (50)	6 (50)
Agree	9 (53)	8 (47)

N = 67 $X^2 = 6.841$ df = 2 p = .0327
Pearson's R = 0.28697 p = .0093

As one might expect, the miner who thinks more often about an accident in the mines also tends to have a greater death anxiety. While this relationship was not statistically significant at the .05 level (see Table 13), the majority (65 percent) of those who thought of an accident—even a fatal one—daily or frequently had a high death anxiety.

Table 13. Death Anxiety by Frequency of Thoughts of Mining Accidents (Percents in Parentheses)

The thought of my having an accident in the mines, even a fatal one, occurs	Death Anxiety	
	High	Low
Daily/Frequently	11 (65)	6 (35)
Occasionally	28 (80)	7 (20)
Seldom/Never	7 (47)	8 (53)
N = 67		X ² = 5.587
		df = 2
		p = .0612

Likewise, the miner who thinks about his/her health more often has a higher death anxiety (see Table 14). Of those who think of their health "often" or "everyday" 78 percent have a high death anxiety. A statistically significant correlation ($p = .0046$) exists between DAS and frequency of thinking about one's health. The more one thinks of his/her own health, the greater their death anxiety.

Table 14. Death Anxiety by Frequency of Thoughts of One's Health (Percents in Parentheses)*

I think about my health.	Death Anxiety	
	High	Low
Everyday/Often	32 (78)	9 (22)
Sometimes	12 (63)	7 (37)
Only Occasionally/Never	2 (29)	5 (71)

*Thirty-three percent of the cells have expected frequencies of less than 5, thus a Chi-square test cannot be legitimately used.

N = 67 X² = 7.174 df = 2 p = .028
 Pearson's R = .3162 p = .0046

Attitudinal Survey of Eastern Kentucky Coal Miners

Please answer the following questions by putting the appropriate response in the space provided. Your cooperation is greatly appreciated.

1. Number of years worked in coal mines_____.
2. Are you now
 1. _____working
 2. _____retired
 3. _____not working
3. I am
 1. _____married
 2. _____single
 3. _____divorced/separated
 4. _____widowed
4. Is your spouse currently employed outside the home?
 1. _____full time
 2. _____part time
 3. _____does not work
5. List the ages of all persons who are financially dependent upon you for support.

Daughters _____, _____, _____, _____, _____.

Sons _____, _____, _____, _____, _____.

Parents _____, _____, _____, _____, _____.

In-Laws _____, _____, _____, _____, _____.

Unrelated persons or relatives _____, _____, _____, _____, _____.

On the following questions, please place a "T" next to the question if you feel it is true (if you agree with the statement). Place an "F" next to the question if you feel it is false.

6. _____ I am very much afraid to die.
7. _____ The thought of death seldom enters my mind.
8. _____ It doesn't make me nervous when people talk about death.
9. _____ I dread to think about having to have an operation.
10. _____ I am not at all afraid to die.
11. _____ I am not particularly afraid of getting cancer.
12. _____ The thought of death never bothers me.
13. _____ I am often distressed by the way time flies so very rapidly.
14. _____ I fear dying a painful death.
15. _____ The subject of life after death troubles me greatly.
16. _____ I am really scared of having a heart attack.
17. _____ I often think about how short life really is.
18. _____ I shudder when I hear people talking about a World War III.
19. _____ The sight of a dead body is horrifying to me.
20. _____ I feel that the future holds nothing for me to fear.

Check the answer that is closest to how you really feel.

21. I am not afraid of black lung disease.
1. _____strongly disagree
 2. _____somewhat disagree
 3. _____neutral
 4. _____somewhat agree
 5. _____strongly agree
22. I consider myself to be a religious person.
1. _____strongly disagree
 2. _____somewhat disagree
 3. _____neutral
 4. _____somewhat agree
 5. _____strongly agree
23. My religious beliefs help me deal with feelings toward death.
1. _____strongly disagree
 2. _____somewhat disagree
 3. _____neutral
 4. _____somewhat agree
 5. _____strongly agree
24. How often do you attend church services?
1. _____never
 2. _____a few times a year
 3. _____about once a month
 4. _____every week
 5. _____every day
25. Within the past 5 years or so have you witnessed or been a part of a situation in which someone died or was seriously injured?
1. _____yes
 2. _____no
26. If yes, how many times has this happened?
1. _____once
 2. _____twice
 3. _____three times
 4. _____more than three times
27. Who is the most responsible for safety in the mines? Check only one.
1. _____myself
 2. _____other miners
 3. _____the safety committeeman
 4. _____the boss
 5. _____the company operator
28. The thought of my having an accident in the mines, even a fatal one occurs.
1. _____daily
 2. _____frequently but not every day
 3. _____occasionally
 4. _____seldom/rarely ever
 5. _____never
29. Most mining accidents are
1. _____caused by miner's errors
 2. _____caused by lack of mine safety features
 3. _____inevitable in mining

30. Within the past year a close friend or relative has died.
1. ____yes
 2. ____no
31. How do you rate your health at the present time?
1. ____excellent
 2. ____good
 3. ____fair
 4. ____poor
 5. ____very poor
32. I think about my health.
1. ____every day
 2. ____often
 3. ____sometimes
 4. ____only occasionally
 5. ____never
33. My health interferes with my ability to work.
1. ____strongly disagree
 2. ____somewhat disagree
 3. ____neutral
 4. ____somewhat agree
 5. ____strongly agree
34. How often do you visit a doctor?
1. ____every week
 2. ____at least twice a month
 3. ____every month
 4. ____every couple months
 5. ____a few times a year
35. ____Age
36. Sex 1. ____male
2. ____female
37. Education 1. ____0-8 years
2. ____9-11 years
3. ____High School Diploma
4. ____Vo-tech School
5. ____Some College
6. ____College Graduate
38. What is the title of your current (or if retired, last) job in the mines?
-

Conclusions

The history of coal mining reveals that forty or fifty years ago the accident and death rates were extremely high and mine safety laws were absent or unenforced. The advent of important mine safety legislation did not occur until 1946. At this point, it was widely agreed that the primary responsibility for improving mine safety and reducing the accident rate had to rest with the mining companies rather than with the miners themselves. This emphasis on safety legislation and enforcement paid big dividends. The death rate in the coal industry has fallen from 1.7 per million hours worked in 1932 to 0.4 per million hours in 1976.

An important question which must be addressed is whether continued emphasis on company side regulations and enforcement is likely to result in continued significant reductions in the rate of accidents.

When miners were asked whether miners or the company are most responsible for mining-related accidents, nearly three-fourths of those interviewed claimed that they themselves or other miners were primarily to blame rather than the boss or the company. The basic problem identified by the younger miners was that of carelessness, while the older miners cited neglect of safety features and procedures.

These results imply that the focus of further efforts to reduce the number of mining accidents should be on the miners themselves rather than on additional safety regulations on the company. Education and training programs on the dangers of carelessness and misuse of safety equipment would seem the most promising. Some examples would be: posting signs in the mines, education for foremen on the importance of enforcing safety regulations, and films on possible accidents due to carelessness. Hopefully, such measures will help to reduce the number of mine accidents.

Some writers (Dumont and Foss, 1973; Charmaz, 1980) have suggested that many Americans are death denying. Such an assertion is probably accurate with our use of death euphemisms, moving death away from the home to a hospital or nursing home, and calling on professionals to handle the body. An interesting, related question has been examined in this work: Are coal miners less death denying than others due to their more frequent exposure to death and near death experiences?

A study by Fiefel (1967) of physicians' death anxiety compared to a control group found that physicians were more fearful of death than the non-physicians. Occupations dealing with death on a daily basis make one more aware of his/her own mortality. Whereas physicians largely relate to the death of others, coal miners deal with the possibility of their own deaths.

This study found that approximately two-thirds of the miners had high death anxiety. This finding appears to support the work of Garrity and Wyss (1976). In comparing death and bereavement practices in Eastern Kentucky and non-Appalachian Kentucky, they suggest that death denial, avoidance and invisibility are not the norms in Eastern Kentucky. Due to the relative isolation because of geographic barriers to transportation, a *Gemeinschaft*-type society developed in Eastern Kentucky—a unique folk culture based on frontiersman, self-sufficiency, and individualism tempered by strong kinship and neighborhood ties.

In summary, the miners interviewed felt they, rather than the mining company, are primarily to blame for accidents. Education and training for miners on the possible results of carelessness would seem useful. Since most miners interviewed experienced high death anxiety, efforts to reduce the number of accidents is likely the best way of reducing their level of anxiety.

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Mine Safety: Rallying Cry or Creed?

By Stuart Seely Sprague

As long as coal is mined, there will be fatalities. Only the annual magnitude will change. The buzzword after a major mine disaster is "mine safety," like motherhood, is an emotional, positive, somewhat nebulous bundle of values that is rarely concretely defined. Does mine safety mean that each miner will be careful? Or does it relate to training, equipment design, and elimination of hazardous conditions?

The former belief leads to the mining equivalent of "the nut behind the wheel being the most dangerous part of the automobile." The latter series assesses blame upon coal companies, equipment manufacturers, and lawmakers. Normally such assessments are made in the emotionally charged, finger-pointing days following a disaster—hardly the optimum environment for clear thinking. Nowhere is the complexity of the problem better argued than in the *Kentucky Coal Journal's* "In the Wake of Disaster," which appeared in May 1976 after the Scotia mine disaster, which reads in part:¹

Before we hasten to convict the Scotia Coal Company, let us consider that it is not alone on trial in the Scotia disaster. Many others are on trial: the coal industry, the federal and state agencies responsible for mine safety, the Scotia employees, the news media, the public, Congress, and the Kentucky legislature.

All can be blamed in some degree for the loss of 26 lives in explosions March 9 and 11 at Oven Fork in Letcher County.

The bill of particulars for indictment could read as follows:
 . . . the coal industry for not policing its members more effectively
 . . . the federal and state agencies whose safety standards and enforcement obviously are not adequate in the interest of safety;
 . . . the mine employees, for tolerating unsafe conditions in the mine and unsafe practices among fellow workers;
 . . . the news media, for coming awake to mine hazards only after disaster strikes, instead of pressing relentlessly for reforms;
 . . . the public, whose callous indifference to mine tragedies (except in their own communities) is surpassed only by their indifference to slaughter on the highways;
 . . . the Congress, for failure to monitor sufficiently the enforcement of those safety laws it enacts; and
 . . . the legislatures of Kentucky whose neglect of the Commonwealth's No. 1 industry, through failure to appropriate adequate funds for its safety, is jeopardizing the industry's well-being and future development.

All of them, if they examine their conscience, would have to admit to a measure of guilt for the Oven Fork dead.

In addition to all this, there is the issue of fatalism—mining as Russian roulette, albeit with more chambers or, as put by 48-year-old Joe Sturgill, "You're going to die, period. If you die, you die. So what?"² This is a relative of the company line that coal mining is a dangerous business, a line that has been heard in a thousand permutations over the years.

Action on mine safety correlates well with major mine disasters. The December 1907 Monongah, West Virginia explosion that killed 361 men,

coupled with later, lesser explosions in the years immediately following, led to the formation—in 1910—of the Bureau of Mines in the Department of the Interior. Within a decade, the carnage caused by spectacular explosions diminished markedly (though, when 1920 is compared with 1907, the number of fatalities in three categories—falls of roof and coal, haulage, and electricity—had each increased).³

In the 1920's, the doctrine of individual responsibility for accidents was preeminent. The 1923 Coal Commission's three volume, two thousand page reports devoted 133 pages to "mine health and safety" but much of that regarded earlier workmen's compensation laws rather than accident analysis. Indeed, though roof falls were the leading accident cause, such events were not detailed until 1925.⁴ State laws tended to be weak and honored in the breach; federal laws met pretty much the same fate.⁵

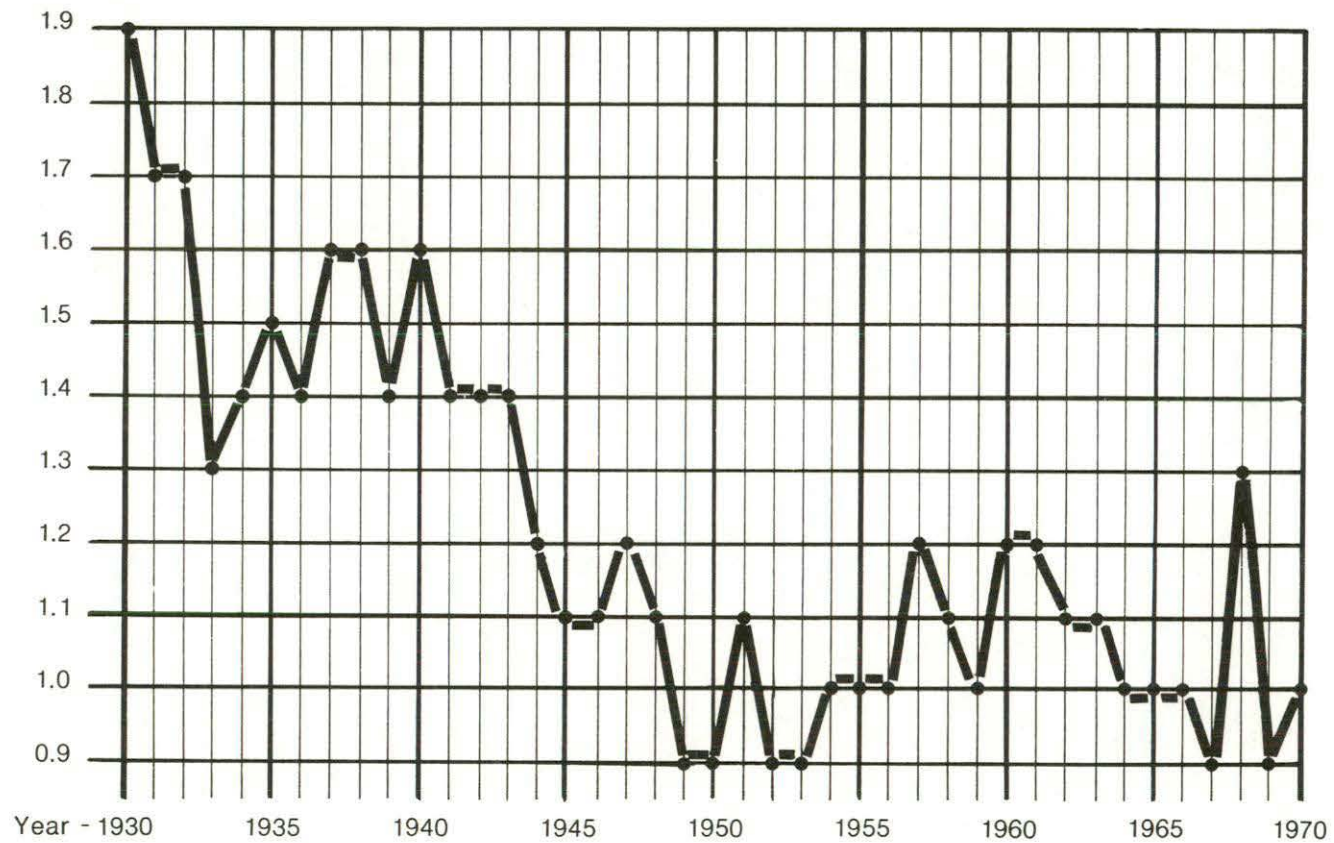
Due to the availability of statistical series for 1930-1970 for both fatal and non-fatal (but disabling) injuries per million man hours, one can chart rates over time and compare them with conventional wisdom. Two caveats—an audit of non-fatal injuries at 105 mines showed that for the mid-1970's perhaps 60% of such accidents went unreported;⁶ and a drop in fatalities or injuries may be related to factors other than mine safety. Under-reportage is a problem for comparative purposes only if the rate of non-reporting changes. On the other hand, because it is far more difficult to conceal a fatality, more faith can be placed in those figures. (See figure 1).

The fatality rate per million hours worked decreased from 1.9 in 1930 to 1.3 in 1933. Possibly this reflects shorter work week (reducing fatigue), less pressure for productivity (the market was very dull), and the bankruptcy of marginal mines (often associated with higher accident rates). But from 1934 to 1943, the rate remained within a narrow band of 1.4 to 1.6, despite moving from depression to war economy and the re-entry of older miners into the work force.⁷ In 1944 the rate dropped to 1.2, the *lowest* on record. Yet, except for 1968, the 1944 figure matched the *highest* from then to the end of the statistical series, 1970.

Such figures contradict the view that—when the UMWA signed the 1946 agreement whereby the UMWA would be paid per ton royalties—the union turned its back on mine safety. Such charges were commonplace following the 1968 Farmington Disaster.⁸ Curiously, that year followed eight consecutive years during which the fatality rate did not increase. (See figure 2.)

The statistics for non-fatal injuries (Figure 2) are striking—the rate declines dramatically from 1938 to 1959. Even making allowances for a change in the degree of under-reportage, the directional thrust is so strong as to defy any other interpretation. The figures deviate from the anticipated outcome the royalty agreement. Technological advances—including the roof bolt and better mining machinery—played a role. The decline of the piece rate (being paid on a per ton basis) ameliorated the safety/income dilemma, since safety work had previously been seen as financially unproductive for the miner.⁹

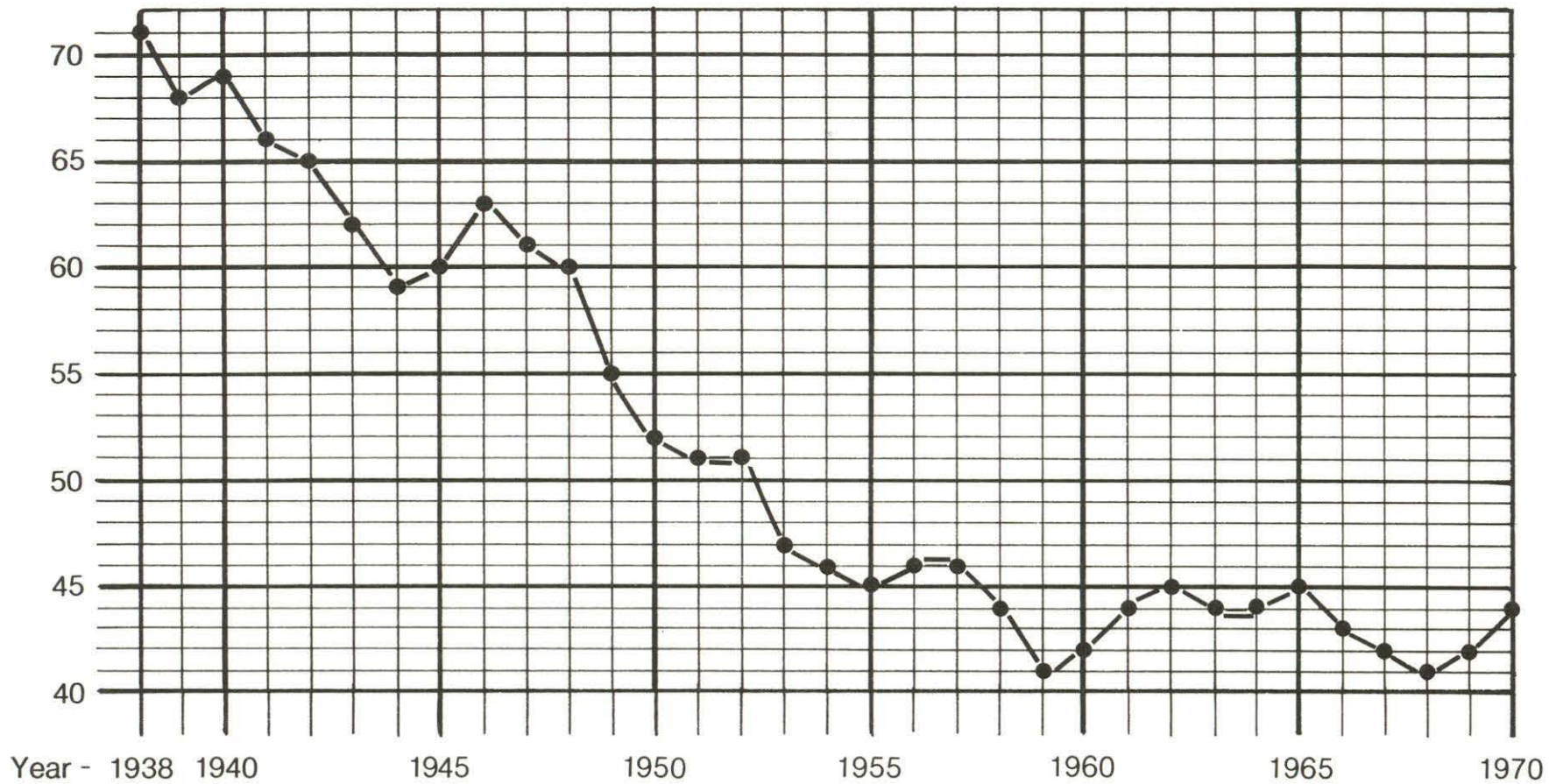
Concern about mine safety correlates well with major death-dealing explosions. Indeed, the modern era of mine safety was introduced by the November 20, 1968, Farmington Disaster. The event was so powerful that it also helped launch the Black Lung movement and a successful bid to overthrow Tony Boyle. What stunned the nation into action was not the UMWA president's declaration that "as long as we mine coal, there is always this inherent danger," but his unbelievably insensitive state ment—albeit one that ironically may well have been true—that Consolidation, the company at whose mine 78 men had just died, was "one of the best companies to work with as far as cooperation and safety are concerned." Soon Ralph Nader wrote a stinging letter declaring that "the record is overwhelming that Mr. Tony Boyle has neglected his responsibility to protect coal miners."¹⁰

Figure 1. Number of Fatalities

THE STATISTICAL HISTORY OF THE UNITED STATES TO 1970

Fatalities Per Million Man-hours

Figure 2. Number of Injuries



THE STATISTICAL HISTORY OF THE UNITED STATES TO 1970

Non-fatal Injuries Per Million Man-hours

Before the sordid drama was played out fully, Boyle's challenger's family would be murdered in their beds. But even before that, pressure built up for Black Lung and mine safety legislation. The result was the 1969 Coal Mine Health and Safety Act, the first significant safety legislation for the industry since 1952-1953. The mood was so pro-safety that even Tony Boyle made a health and safety speech at Welch, West Virginia in July 1969. More to the point are two statistics. The UMWA's Safety Department in Washington consisted of but a single man; in Northern West Virginia, between 1933 and 1954, only two of 500 arbitration decisions related to safety. Though the arbitration statistics are earlier, the miniscule fraction relating to safety seems to indicate a low UMWA priority for this matter.¹¹

Soon, public interest declined. Arnold Miller, an unabashedly reform UMWA president, wrote in 1973 that "recent evidence. . . indicates that the public's interest in the plight of the miners is declining."¹² He cited the spotty media coverage given to recent disasters.

The lack of sustained attention to mine safety can be mitigated by reviewing thousands of Kentucky coal related clippings from 1975 to date. The newspapers in question include three dailies—the Louisville *Courier Journal*, the Lexington *Herald-Leader*, and the Ashland *Daily Independent*. Some dozen or more Eastern Kentucky weeklies, including the important Whitesburg *Mountain Eagle*, were also monitored. Of the hundreds of coal articles per year, only a relative few concerned mine safety. Far more "newsworthy" were the vicious intra-UMWA bickerings and strikes, and the economic health of the cyclical coal industry. This is consistent with an analysis of UMWA articles in the 1917-77 Louisville *Courier-Journal Index*.¹³

Articles for 1975 (relative to mine safety) fall into two convenient categories, state and national. In Kentucky, great concern was shown over the increased death rate in the western coalfield. Though MESA (the United States Mining Enforcement and Safety Administration) failed to discover statistical patterns—underground vs. surface, small operations vs. large ones, neophytes vs. experienced miners—people with axes to grind found their respective scapegoats. The UMWA blamed the "unsafe conditions at small, *non-union* operations." Others declared that inexperienced youngsters were dying; still others claimed that experienced men were being switched from one job to another and thus—in terms of the task at hand—were inexperienced.¹⁴

In Western Kentucky the mine death issue became entangled in the fierce infighting within the UMWA leadership. Houston Elmore, a former Eastern Kentucky UMWA organizer, blamed District #23's representative on the union's International Executive Board for inaction, declaring that "fourteen miners have been killed in Western Kentucky and Patterson has not raised his voice against unsafe practices by the coal companies."¹⁵ Patterson criticized UMWA reform president Arnold Miller, and for his heresy was summarily ordered to a tour of duty in Alaska, the UMWA's equivalent to Siberia. Patterson supporters claimed that Miller, not Patterson, was responsible for unsafe practices, citing the instance of a safety coordinator sent to the district against the wishes of the district with the result that a widow lost extra benefits.¹⁶

At the national level, interest centered on MESA specifically (1) the resignation of James M. Day as its head; and (2) the possible movement of the agency from Interior to Labor. The Lexington *Herald* called Day "one of the Nixon administration's unwanted legacies," predicted that "the new head of MESA will have a lot to say about how safe the nation's mines are," and opined that "by appointing a dedicated mine-safety expert Mr. Ford could do a lot to end the pit's long tradition of death and disability."¹⁷

MESA was created in 1973 to stifle criticism that having mine safety in the Bureau of Mines doomed it to failure as the primary emphasis of the Bureau was production, not protection. Now, three short years later, the same argument was used to move MESA from the Department of Interior to

the Department of Labor. Representative John Dent, (D-Pa.), expressed a commonly held view when he declared, “We gave Interior a very meaningful health and safety statute in 1969, and they’ve literally blown it with their enforcement and legal interpretations.”¹⁸ Yet, when it came to coal research, neither the National Coal Association nor the UMWA wanted to give that responsibility to MESA.¹⁹ In the eyes of the UMWA, as expressed by Secretary/Treasurer Harry Patrick, “what we really need. . . is to have good enforcement of the laws we already have. It doesn’t do any good to have laws if they are not enforced.”²⁰

New MESA head Robert Barrett, in the course of confirmation hearings in 1976, claimed that “There is no earthly reason why a man has to die in a mine.” Barrett called 1975 a bad year for mine safety, relating it to the highest production total since 1947 and a workforce that increased by 34,000 miners to 182,000.²¹ The year was also memorable for the Scotia Mine disaster at Oven Fork, Kentucky (actually two separate disasters) that rocked the nation.

The feisty Whitesburg *Mountain Eagle* said of Scotia:²²

Like most mine accidents, this one appears—at this stage of the various investigations—to have been a classic case of routine defiance of the law by a money-hungry company run by absentee owners with no concern for the men who made the profits possible. They appear to have had a silent partner in MESA itself; inspectors routinely cited violations and the violations were just as routinely reduced by assessment officers in Washington.

The *Mountain Eagle* anticipated little from the investigation, remembering that:²³

It wasn’t so long ago that Finley Coal Company’s mines in Leslie County—deathtraps from the day they opened, as federal records clearly showed—blew up and killed 38 men. We all had a ringside seat at the circus that followed: a bungled investigation, a gutless prosecution, and the successful defense of the mine’s operators by Bert Combs, a former governor and former judge with no visible concern for the underdogs who once voted him into office. Unfortunately, the judge is good at what he does, and it’s clear as can be that there will be no justice—now or ever—for the victims of the Scotia tragedies unless the federal government decides to break with the past and commit its resources to enforcing the law.

L. Thomas Galloway of the Center for Law and Social Policy declared that MESA’s enforcement policy had become “a shambles in six short years due to being ‘poorly administered’ and having penalties that are ‘far too low.’²⁴ Powerful Eastern Kentucky congressman the late Carl D. Perkins, led the charge for moving MESA from Interior to Labor.²⁵ Scotia had, since 1970, been cited for 855 violations, yet MESA failed to shut it down. Debate—as to whether enforcement was growing stiffer or more lax, and whether moving MESA from Interior to Labor would improve things—continued well into the fall.²⁶

Kentucky’s Governor Julian M. Carroll, by Executive Order 76-288, established the Deep Mine Safety Commission, March 29, 1976. The fifteen member commission—four representing the General Assembly; three each from the UMWA, Mining Industry Management, and the Kentucky Department of Mines and Minerals; one each from MESA and the Universities—was to report and disband by October 15, 1976.²⁷

Staff developed a one page “Focus for Commission,” agenda, and a work program for the commission (including notes for agenda items). In this manner, staff facilitated the accomplishment of the objectives. Due to its shortness and significance in defining areas of interest, the “Focus for Commission” is printed in full:²⁸

Focus For Commission

Department of Mines and Minerals

1. Role and function
2. Authority
3. Relationship to MESA
4. Adequacy to staff
5. Effectiveness of department

Supervisor Certification and Miner Training

1. Responsibility
2. Adequacy
3. Validity
4. Currentness

Adequacy of Regulations and Enforcement Process

1. Objective statements of mine safety requirements
2. Clear assignments of responsibility
3. Authority to fulfill responsibility

Full-time Safety Inspectors

1. Feasibility
2. Responsibility
3. Authority

The more detailed pages asked specific questions, sometimes searching, for example:

- When overlapping authority and responsibility exist [between MESA and Kentucky's Department of Mines and Minerals], is there adequate coordination?
- Where are the soft spots in authority? What gaps exist in the mine safety responsibilities of the two agencies?
- How effective have the programs of the Department of Mines and Minerals and MESA been in the past? What objective data is available to substantiate this assessment?
- How valid are the training programs at all levels?
- Should all miners and supervisors be required to satisfactorily complete a safety refresher course each year? On whose time? As a condition for continued employment?
- Where there is evidence that a miner's carelessness contributed to an accident. . . should the miner be subject to penalty in the same manner as the company?
- Are current regulations (Federal and State) sufficiently comprehensive and comprehensible to provide a safe working environment?
- If a full-time safety inspectors program was implemented, what current safety functions or efforts would be eliminated?
- How many inspectors are needed? Should there be a relationship between the number of miners employed in a mine and the number of inspectors?

Obviously, much work had already been done before the first meeting. A task force approach was urged as was the concept of using a variety of meeting formats ranging from site inspections to expert witnesses to public hearings.

The commission set up three task forces at their initial meeting: Regulatory Agencies and Procedures, chaired by Senator Gene Huff; Mine Training and Certification, headed by University of Kentucky Professor of Mining and Engineering Ted D. Haley and a Resident Mine Safety Inspector task force chaired by Representative Glenn R. Freeman. The meeting did

not end until 3 p.m., as there was considerable discussion as to how the commission should proceed and what data needed to be collected. A second meeting was set for June 1, 1976.²⁹

Press coverage of the June 1 meeting centered upon the split over the resident inspector issue. Glenn Freeman, (D-Cumberland), who initiated such a bill in the 1976 legislature (one that was killed in the closing days of the session) and Cloyd McDowell, President of the National Independent Coal Operators Association and Vice-Chairperson of the subcommittee, took opposite sides of the issue. Joining Freeman was Bobby Dukes of the UMWA; S. Johnson, an Executive Assistant to H.N. Kirkpatrick, took the side of Cloyd McDowell. Predictably—on the issue as to who should pay for the inspectors—the UMWA felt that was the mine management responsibility, while Cloyd McDowell, representing the independent coal operators believed that the cost should be borne by the miners.³⁰

As is often the case, what made the papers was the controversial clashes of opinion. What failed to reach public notice were many items that could have given the public an understanding of what mine safety was all about and how it was handled. For example, there was MESA's accident prevention program, where those mines employing more than 150 (more than 200 prior to April 1975) with accident rates greater than the national average became part of the program. After three months, if the mine's safety record improved to the point where the accident rate was below the national average, MESA personnel would be pulled out.

When asked whether MESA's Accident Prevention Program demonstrates the validity of the resident inspection concept, John Crawford, Assistant Administrator of MESA, replied:

Not necessarily. The MESA accident prevention personnel remain at the mine only long enough to reduce the accident rate to the national norm. A full-time inspector on site may have the effect of shifting safety responsibilities from the individual miner and the mine management to the inspector. There is ample evidence to demonstrate that this phenomenon could occur, and, if so, the whole purpose of the effort is defeated. We want to change behavior to make mine safety an automatic concern and priority—not something that happens simply because an inspector just might be around.

MESA's John Crawford fielded numerous other questions. Included in them were the following exchanges:

Q To what do you attribute the high accident frequency rate in one mine over the other?

A Poor training. This is the real value of the Accident Prevention Program. You work one-on-one with the miner. If a law violation is observed, it is cited; however, you also take time to point out the real significance of the violation and explain how the miner can overcome the unlawful and potentially dangerous work habit.

Q Do most accidents occur because of pre-existing (fixed) conditions or due to "transit" or "instant" violations of the law?

A The Madisonville Office (MESA) completed a recent analysis that demonstrated that a minimum of 60 percent of mine accidents were attributable to careless work habits. A recent Department of Mines and Minerals' report confirmed this finding.

Q Can a high fatality rate be pinpointed to any certain time frame?

A Yes, the greatest number of fatalities occur during a miner's first year of employment on a new job in the mine.

This again probably points to the lack of training as a major contributing factor to mine accidents.

[Comment: An "observation and contact" procedure is utilized in coal mines and is very similar to the MESA Accident Prevention Program. The primary goal is to change behavior (work habits). The miner is observed, deficiencies noted, and corrective instruction provided. After a first violation warning, various levels of penalties are assessed.]

Q Why does MESA inspection average 12 days in duration for two sections of a mine as compared to 12 hours for the Department of Mines and Minerals?

A Because of inspection requirements. MESA inspectors, for example, must observe each function on each working section; must walk all escapeways; inspect all tracks and belts, etc. The state law doesn't necessarily specifically require many of these activities.

Kentucky's Commissioner H.N. Kirkpatrick, Department of Mines and Minerals, in answer to a query, declared that the annual number of mine closures due to safety violations in Kentucky averaged between 130 and 150. There followed other exchanges, for example:

Q Does the Mine Foreman's Training Program include mine law?

A Yes, one of the eight sections pertains to the mine law.
[Comment: The Federal law is not adequately covered. Certainly, the foreman's exam doesn't adequately test an individual's knowledge to interpret and enforce the law.]

Q Who establishes the curriculum used in training?

A The Department. Training programs are geared toward MESA's certification requirements.

[Comment: The curriculum seriously lacks good general safety training. The Commission needs a comparison of the MESA and Department of Mines and Minerals' training curriculums.]

Q Is an up-to-date record kept on all certified mine foremen?

A No. The only record is when the exam is taken and the results.

[General observation by numerous Commission members: The Federal law is far too complicated and legalistic for the average person to understand. The Commission should do everything possible to expedite the development of a version of the Federal law, using layman's terms, so the average coal miner can know what the law requires of him and his employer, and why.]

Bobby Dukes of the UMWA, after passing out copies of the *National Bituminous Coal Wage Agreement of 1974* and going over with the Commission, Article III, the health and safety section, answered questions such as:

Q Is the Health and Safety Committee idea really working?

A Not to its maximum potential. The primary shortcoming is that safety committeemen have regular full-time jobs. He has to perform that job; therefore, he is confined to one location or area. He is not free to move around the mine and observe all operations and conditions.

Q How would a resident on-site safety inspector tie into the safety committee?

A They would probably be one and the same. If a mine (because of size) rated only one inspector, he would probably be the miner who was chairman of the Health and Safety Committee.

Q Do committeemen get special training?

A Yes. They must have at least a quarterly update, but the training programs called for in the contract have never really gotten off the ground. There are a few formal programs around. The University of Kentucky, for example, has a training program for safety committeemen.

A Peabody Coal Company Inter-Company Memorandum on Safety was included with the minutes. The company's program objectives were:

1. To help instill safety practices and proper operating methods.
2. To promote productivity with efficiency and safety.
3. To comply with the National Bituminous Coal Usage Agreement, 1974.
4. To promote compliance with Federal and State Laws.

According to the Peabody Coal Company's analysis, "the emphasis on safety has been greatly increased during the past few years and especially since the Health and Safety Act of 1969. The improvement of safety conditions have been brought about by Safety Engineering, the Human Element; worker-job environment." Safety engineering led to better equipment—safety helmets, safety toe shoes, safety glasses, color coded wires, but had a "drawback, in that workers took on a false sense of security, intended to be more relaxed in other areas of safety." The human element centered on the individual and led to first aid and mine rescue programs. The worker, job, environment classification had to do with "occupational diseases, illnesses and recurring accidents."³¹

The June 21-22 meetings at Madisonville in the Western Coal Field were preceded by a two hour tour of Peabody Coal Company's recently opened Sinclair #2 mine. That tour elicited as much newspaper comment as the meeting itself. Indeed the Courier-Journal's lead paragraph was:³²

MADISONVILLE, Ky.—Rep. Glenn Freeman said he is more convinced than ever of the need for resident inspectors in Kentucky's coal mines after visiting a Peabody Coal Company underground operation yesterday.

The Central City *Times Argus* did not take kindly to Freeman's slam and headlined their account "Auto dealer-legislator has low opinion of coal mine safety in Muhlenberg."³³ The Lexington *Herald's* account devoted considerable space to the Peabody Coal Company's level of safety training as follows:³⁴

Both Gibson and Charles Head, a United Mine Workers executive and a commission member, complimented the safety training program at the Sinclair No. 2 mine, one of the 11 underground mines operated by Peabody Coal Co. in Western Kentucky.

"The company has gone beyond what is required by law or in the union contract," Head said.

For example, Peabody requires that, in addition to annual safety courses, a man must take a job specific hazards course if he changes jobs inside a mine, the official noted. . .

Gibson also said that Peabody's method of holding most of its safety training on the job, rather than in classrooms, was a good policy.

The fullest coverage of the meeting was in the *Madisonville Messenger* and one can perhaps get a flavor of the gathering from the following extracts:³⁵

A good crowd, strong testimony, and questioning that bordered on courtroom cross-examination were the main ingredients during the four hours of the Kentucky Deep Mine Safety Commission's public hearing held Monday night in the auditorium of Madisonville Community College.

With 13 of the commission's 15 members present, including one proxy, the panel heard testimony from eight management officials and five others, including representatives of the United Mine Workers, a consulting engineer, and a mining student whose frank comments won him several job offers.

The question most often put to those testifying was how best to continuously motivate the miner to think safety at all times. Training programs are the most effective, about half the speakers felt, with most others saying regular inspections are needed to keep principles learned in training in practice on the job. . .

Each of the 125 or so attending the hearing registered in advance and the names of those who said they wished to address the commission were handed to Gibson, who called their names, alternating between management and non-management spokesmen as much as possible.

Some spoke from prepared statements, but the most helpful information came during stiff questioning from the panel members. The UMW representatives had the opportunity to quiz the highest-ranking company officials, just as management was able to question union spokesmen.

In general, management pointed to stepped-up training programs and reductions in mine accident frequency and severity rates. The union men said there was not enough safety training.

The operators steered away from putting blame and responsibility on the individual miner, but the consulting engineer and the mine student did not.

Just as later public meetings in Eastern Kentucky would have a predominance of union people in the audience, at Madisonville it was mine management's men that filled the auditorium—the largest registered contingent came from Peabody Coal; the second largest represented Island Creek.³⁶

Don Walker of MESA's Health and Safety Division declared that the agency analyzes over 20,000 accident forms per year. Among factors that were statistically insignificant were age and shift. With respect to supervisors, MESA found that:

Supervisors have a high rate of injuries and fatalities; [they are] usually injured or killed doing something not usually part of their job [and they are] more apt to be fatally injured than slightly injured.

With regard to the chief variety of mine accidents, roof falls, 1975 MESA statistics indicated that—87% of the time—these falls occurred in crosscut or intersection locations. With regard to the injured, "miners with over fifteen years **total** experience are the largest group of roof fall fatalities" and that "short experience at the mine closely correlates with roof fall accidents."

Don Walker, when given the open-ended question of "What suggestions would you give the commission?" replied:

Training; motivation and certainly enforcement of the law; [in addition the] Commission should not overlook [the] engineering aspect of safety, i.e. equipment design.

Joe Mosgrove of the Kentucky Coal Association analyzed the thirty-three fatalities in underground mines for 1975. Six men were under 25; 18 were over 45. Eleven had less than five years experience; ten more than twenty. The most significant factor in becoming an accident victim seemed to be a "short length of service on job task." One-third were performing tasks other than their named duties at the time of the fatality. Shortcuts and "unsafe work habits" were commonplace.

James R. Hawkins of the UMWA was asked "what are the most frequent complaints you confront during inspections?" He replied, "performance of others; concern about work habits of fellow miners." George E. Plemmons, also of the UMWA, claimed that "training is an assist in safety but not the total answer"; Plemmons felt that safety men must have close contact with the workers.

Numerous coal company spokesmen stressed training. The following represents a sampling:³⁷

- Jerry Omer, Pittsburgh & Midway Coal Company
Views quality training as the primary safety measure; P&M have a full-time professional educator (with mining) experience in charge of training.
- Adolph Petzold, Island Creek Coal Company
Safety training programs were a major factor in cutting fatalities over 50%. . .severity of accidents reduced over 90%.
- John Stachura, Amax Coal Company
The greatest potential for mine safety is training and motivation; also [there is] much potential in better equipment design; however, training gives immediate return.

A month later public hearings were held at Pikeville and Cumberland. In the interim Glenn Freeman announced that he would not seek re-election, believing that this would improve the chances of legislation requiring resident inspectors.³⁸ Considered a maverick, Freeman had been removed from the key House Appropriations and Revenues Committee. Likewise:

"he was excluded from negotiations for a continuation of the 1974 coal severance tax refund program—a program he was instrumental in guiding through the legislature. . ."³⁹

Governor Julian M. Carroll suggested that Freeman had been playing politics with mine safety to improve his chances for re-election. The *Harlan Daily Enterprise* carried Freeman's side of the story, quoting the legislator as saying:⁴⁰

"The Governor might believe everybody is a creature of politics and politics is the only reason they do things. But he misjudged me if he thought that was the case here," Freeman said.

Freeman became emotionally involved in the mine safety issue after the Scotia disaster. He knew most of the men killed in the explosions and their families.

He says the issue is important enough to become emotionally involved with.

"We're talking about lives. We're talking about the people you and I live with. It's important enough an issue that we involve ourselves in it," he said.

While Freeman's decision to step out of politics can be immediately tied to his pushing the resident inspector program, there are other factors which led to his action.

"When the Governor accused me of playing politics with the mine safety bill, it was the straw that broke the camel's back," he said. "It's been really difficult for me anyway before this came

along. I haven't been really pleased with the relationship I've had with the administration. . ."

Freeman said the Governor wants absolute loyalty from those around him to both him and his programs. "He wants it all the time, not part of the time, but all the time. I'm not saying he's wrong. If I were governor, I might demand the same thing.

"But really, if you have blind loyalty, there's bound to be a lot of things you're not going to do that you should be doing for the people. There has to be," he said.

At Pikeville, Edward Moss, Training Director of the West Virginia Department of Mines, testified that training materials had been inadequate—not merely out-of-date, but also costly, written in language that was incomprehensible, and often the material was not specific to coal mining. His experience was that the trainer's "educational background was most important," more important than whether or not the man had mining experience. The West Virginia system would be suitable for Kentucky, requiring only "very minor modifications."⁴¹ In West Virginia, by means of Senate Concurrent Resolution #12, in 1973, a broad study of the West Virginia coal industry had been directed. But,⁴²

"As the study progressed into the summer months, the committee was made aware of selected fatality and lost time accident statistics, [as a result] considerable alarm arose over the accident trend in young, inexperienced miners."

At the Cumberland public meeting James Hackworth, a federal mine inspector whose brother died at Scotia, said:⁴³ They (the State of Kentucky's inspectors) need

to get out of the inspection business and hire people for education and training. Why should you have the state when you have the federal inspectors doing the same thing? The coal operators will tell you the same thing.

He added that the inspector concept was not a panacea:

But I can't visualize the operators being against someone in the mines to spot imminent danger situations. Currently there is very little money being put back into mine safety. The men have a reluctance to tell federal inspectors of safety concerns for fear of getting fired.

By late August, enough of the pieces of the safety puzzle had been put together for the *Courier-Journal* to express its views editorially. Portions follow:⁴⁴

What has emerged, after months of diligent effort by men of widely varying points of view, is a workable program that can, at substantial but reasonable cost, make Kentucky the nation's leader in reducing the human toll that always has been part of the cost of mining coal.

The heart of the program is based on state Representative Glenn Freeman's plan for resident mine inspectors. This was first offered in the waning moments of the legislature last March, after explosions had killed 26 men at the Scotia Mining company in Letcher County. Governor Carroll, despite emotional pressure to adopt some kind of a law immediately rejected that proposal in favor of a thorough study that would lead to legislation at a special session of the General Assembly this fall. . .

If the task force's recommendations are accepted, a corps of highly qualified safety analysts will work in the mines with both miners and supervisors. They will study work habits and foremen's procedures to find potential accidents before they happen. . .

The report recognizes that the federal Mining Enforcement Safety Administration (MESA) is the primary inspection and enforcement agency for coal mines (MESA normally has more than 200 inspectors in Kentucky, nearly 10 times the size of the present duplicative state inspection force.)

The task force plan would make the state effort supplement, rather than duplicate, the federal inspection function. The plan would provide a valuable check on MESA's often criticized work, just as the MESA inspections would help assure the state program's quality.

Recommendations by the other two task forces, on the present mine laws and on training and certification, also offer major advances. One of several valuable proposals was that a new miner must complete a 40-hour program of education and training, and an additional 90 days as a trainee under close supervision, before gaining a certificate of competency as a full-fledged miner. Annual retraining, in a strengthened program, would be provided for all certified miners.

A controversial feature of the plan among panel members is its proposed assignment of safety analysts according to the size of the work force. The range would vary from 120 hours a week of analyst time at a mine with more than 300 employees down to four hours at mines with fewer than 10 employees.

A coal industry representative, Norman Yarborough, argued that assignments should be based on safety records, not on size. Yet a blunder by one or two miners in a mine with the finest of safety records can cause disaster, and the overall plan calls for special attention to mines with bad safety records. Representative Freeman's reply was more to the point: "they inspect the packing house every time they slaughter meat. . .What we want is a preventive program." Most of the argument centered on implementation of the plan. The major cost, \$8.5 million a year to pay the safety analysts, isn't trivial. But compared with the \$90 million a year that the coal severance tax is producing, in addition to corporate and other taxes paid by mines, it is modest.

Mr. Yarborough also questioned, not unreasonably, whether enough qualified personnel can be hired to fill the analyst jobs. That's a bona fide question, because the program depends on the quality of the analysts. They would have to meet the qualifications of a mine inspector and, as the panel observed, ideally would have engineering degrees. . .

Coal industry representatives, though critical of some proposals, played a constructive role, possibly because it was apparent that no one was seeking punitive legislation. The main idea was to solve a problem through cooperation rather than coercion.

The safety program has far to go before it becomes reality. It must be approved by the full commission and given final form by the General Assembly and the Governor. And funds must be found. But the need is urgent, as the 31 mine deaths in Kentucky during the first half of this year attest. The plan may never bear full fruit if it is allowed to dribble its way into operation.

The Deep Mine Safety Commission on August 26 passed a resolution requesting "Congress to appropriate additional funds for the purpose of improving the training of the Nation's coal miners."⁴⁵ The commission also approved language regarding recommendations. Two concepts, both of which had been discussed at great length, were approved:

Concept

The State shall institute a program of safety instruction for underground coal miners, designed to (1) train, test and certify all beginning miners; (2) retrain and recertify annually all miners, and (3) provide specific job related safety training to all miners assuming a new job or task

and

Concept

The State shall initiate a mine safety program that places trained safety analysts in underground coal mines to observe and evaluate the work habits of all persons involved in coal production and to contact, advise and assist these individuals in correcting unsafe, careless or potentially hazardous actions. [With respect to training the Director would have both five years of underground mining experience **and** an educational background. The Department of Mines and Minerals would administer the training program] determining needs, planning programs, monitoring and evaluating training, testing and certifying applicants, etc.

With respect to the safety analyst, the following were some of the principles approved, though **finalized** recommendations were to be passed later.

Principles

1. The analyst shall be a State employee having qualifications equal to those of a State mine inspector.
2. The analyst shall have all powers and authority granted a mine inspector under State law.
3. The analyst will function primarily as an evaluator of work habits and a teacher or helper to the individual miner in developing safe work habits—and the inspector authority will always be available but, hopefully, very infrequently utilized or publicized. . .

Twice Cloyd McDowell added language strengthening recommendations. Fearing a shortage of inspectors he moved (Glenn Freeman seconded) that “the Commission shall give priority attention to high risk mines for program implementation.” Likewise McDowell moved (William D. Blair seconded) that “The Commissioner shall report annually to the Governor and the General Assembly on the effectiveness of the Mine Safety Analyst Program.” Under other recommendations two items were approved, namely that:⁴⁶

- Salaries of employees of the Department of Mines and Minerals should be competitive with the coal industry and the Federal Government.
- The Department of Mines and Minerals will utilize the facilities of the Kentucky Energy Research Center for supportive laboratory services.

David V. Hawpe, who had covered coal for the *Courier-Journal* since 1969, interviewed a number of labor and mine owner spokesmen and concluded that:⁴⁷

The operator’s seeming attitude was best expressed by Rita Coal Company’s Elmer Belcher. He is “quite concerned” about the new safety proposals but “fairly unclear” about the directions the proposals are taking.

Belcher is sure of one thing: “You can’t hold a miner’s hand. I think it’s great to train young miners. I’m for that. But you can only go so far. You can’t hold a man’s hand as he does his job.

"We sure don't want anybody to get hurt in the coal mines," Belcher said. . . "But safety programs only go so far. We haven't stopped people from getting killed on the highways, have we?"

When asked why they have been so agreeable about the commission's proposals, coal men emphasized in separate interviews that they are as dedicated as anybody to the safety of coal miners.

David Zegeer, who manages Bethlehem Steel's extensive Eastern Kentucky mining properties, made that point, and added, "You can't afford not to operate safely."

Interpretation: Lost-time accidents mean lost production.

Labor spokesmen privately have said that a year in which 26 men died at the Scotia mine is not a good year in which to oppose safety programs. Others have suggested that it would not be good politics for the coal industry to oppose safety programs to which the governor seems committed. Some point out that the coal operators are not going to be required to foot the bill.

In late September, Governor Julian M. Carroll addressed the UMWA Convention in Cincinnati, mentioning the disasters in the Scotia Mine and telling the crowd:⁴⁸

"I want you to know the office of governor is a very lonely spot when a tragedy of this nature occurs. You can't help asking yourself time and time again—what could I have done—was there some action I could have taken that might have prevented such an occurrence."

The Governor spoke of the victims of roof falls and electrocutions, those who die singly, without media attention. He declared:

"I am not willing to accept the premise that even one miner should die. Yes, Kentucky is No. 1 in coal production, but as I have said before—I do not want to sell coal that is stained by the blood of Kentucky miners. We must find the reasons behind these accidents and stop these needless deaths."

Carroll placed his faith in safety analysts, not more rules, stating that:⁴⁹

A 1975 study on coal mine fatalities indicates that as many as two-thirds of the deaths were caused by miners taking shortcuts or having careless work habits. . .

This program would "zero in on this problem. . . (for) the idea is not to catch a person doing something wrong and assess a penalty or fine, but rather to reduce the number of accidents." In addition, according to Kentucky's governor:

The mine safety analysts would be in a key position to help identify training needs of miners.

"He will also be in a prime spot to evaluate the effectiveness of training efforts, since the real test of any educational venture must center on behavior change," he said.

Carroll said he is convinced effective training can make a "significant impact" on reducing mine fatalities and accidents.

The governor said testimony presented before the commission indicates training programs are generally poorly organized and administered.

While the Governor was in Cincinnati, the chairperson of the Deep Mine Safety Commission was one of those gathered at Lexington's MESA Training Center where Senator Walter (Dee) Huddleston arranged a meeting of state and federal officials with coal industry leaders. At issue was the annual cost of certifying underground miners, an idea whose time seemed to have come. The extra cost to the state was estimated at about \$575,000.⁵⁰

The seventh meeting of the Deep Mining Safety Commission began tamely enough with the unanimous approval of the minutes of the past two meetings. But then Paul E. Patton, representing the small operators, offered a motion (seconded by Cloyd McDowell) that "No organization shall be represented by more than one member" on the board to certify miners. In Patton's view, "the larger coal companies may be more influential and could dominate appointments to the Board and thereby greatly influence decisions of the Board." Patton argued that big companies might "accept programs too costly or unmanageable for small firms." The three UMWA representatives saw the motion as a power play on the part of the operators to reduce the UMWA's representation to one. According to Charles Head of the UMWA, the mine owners would

"have two operators (on the board) who would work together. Then they'd get their non-union miner appointed, and he'd do like they told him. And then where would we be?"⁵¹

If the proceedings of October 4th were disconcerting to some commissioners, they were nothing compared to the body blows suffered by Commissioner Glenn Freeman (D-Cumberland) the following day. The *Courier Journal's* lead read:⁵²

FRANKFORT, Ky.—State Rep. Glenn Freeman, D-Cumberland, yesterday apparently lost his emotional six-month crusade to have resident safety analysts placed in Kentucky's underground coal mines.

Freeman charged later that Governor Julian Carroll had engineered his defeat.

Carroll told a *Courier-Journal* reporter in Ashland that Freeman was "totally off base."

Freeman was the news and the article reflected it. Among the points made were that:

Freeman began his campaign in March after 26 men died in explosions in Eastern Kentucky's Scotia mine near his district. Carroll then created the commission to make mine-safety proposals to a special session of the General Assembly, which will meet later this year.

Freeman said he did not know if he will continue pushing his plan.

Supporters of the commission's decision said the measure will help the state concentrate its limited resources on mines with safety problems. They also said that Freeman's plan probably was too expensive to be accepted by the legislature.

Freeman bitterly disagreed, however, saying that the commission had "cut the heart" out of his proposal to prevent accidents. He said the panel's program reacts to accidents and problems.

Freeman later angrily stalked out of the meeting.

Freeman then told reporters that he suspected Carroll was responsible for the commission's action, but he said he had no proof.

"I have always felt like he's behind this whole place," Freeman said in a Capitol hallway. "I'm not that naive."

"My feeling all along has been that somewhere along the line this thing was going to get the ax, and I guess this was the place," he added.

Carroll and Freeman in recent months have exchanged charges of "playing politics" over the analyst program.

Carroll, denying having swayed the commission, said there are not now enough qualified prospective analysts to staff Freeman's project.

"At such time that more analysts are available for hiring, we'll find the money to hire them," Carroll said.

Other commission members said they hadn't heard from the governor.

"The fact is that Freeman had an ill-conceived program," said Pike County coal operator Paul Patton, a commission member.

"We've come up with what we think is the most efficient use of the state's resources to promote mine safety, which is what the governor asked us to do," Patton said.

The bitterness of Freeman was understandable. On March 16 (with the blessing of Julian M. Carroll) his amendment favoring a "safety inspector plan. . . and increased ventilation at the working face" passed 86-1. But on the 20th, the amendment was dropped. The *Mountain Eagle* headlined its account: REPRESENTATIVE WEEPS AS BILL FOR STRICTER MINE SAFETY FAILS.

According to this account:⁵³

The turnaround was largely the result of Carroll's withdrawing his support. The governor explained his sudden change of mind by saying that the amendments needed more research, that the qualifications and responsibilities of the proposed safety men had not been adequately defined.

Carroll maintained that he fully supported Freeman's idea of full-time employees whose only job would be ensuring the safety of their workmates. He promised to appoint a committee to study safety legislation and to make safety proposals at a special session scheduled later on this year.

Freeman, who said he had drawn up his amendments after long hours of talk with Cumberland area miners after the Scotia disaster, wept on the House floor when his plan was killed by a 45 to 24 vote.

Coal operators started a storm of criticism against Freeman's amendments. Cloyd McDowell, head of the Harlan Coal Operators Association, said the legislation would slow production and disrupt the mines. "This would cause a disruption in safety inspections at the mines. We already have two levels of inspection in state and federal." McDowell said.

It was estimated that the in-mine safety inspectors, to be chosen by miners, unions, or the state Department of Mines and Minerals would cost \$4.9 million a year to hire.

Having twice failed, Freeman blamed the Carroll administration stating that "ultimately nothing can be done without the governor's approval. There's nothing he can't tap. There's nothing he can't influence." The conflict between Freeman and Charles Head, regarded as the UMWA's chief state lobbyist, was read by some as a move by the Union's secretary/treasurer to make a bid for UMWA President in 1977.⁵⁴ The word which best described UMWA politics—since John L. Lewis—may be the word "chaotic."

Safety played but a minor role in the 1977 UMWA presidential race. The view of an unidentified Eastern Kentucky miner may have been typical. He declared:⁵⁵

"I think the most important issues in the new contract (the item on which the election might hinge) will be a raise in pay. Better health care, a dental plan, eye care is important too. It's real hard for me to decide who to vote for. I read the UMWA Journal and I can't figure out who's telling the lies."

It was left to dark horse candidate Billie Duty, President of West Virginia local #633, to develop the safety issue. In the Mountain State there had been wildcat strikes, which duty claimed:⁵⁶

Resulted from the grievance procedures. More often than not an umpire's decisions favor the company. Words don't mean a thing. A company lawyer takes the contract and twists it around.

As might have been anticipated when the UMWA learned that both Scotia and the Blue Diamond Coal Company of Knoxville had been ineligible for federal supply contracts as a result of unsafe working conditions (an under-secretary of labor wrote up a complaint charging sixty-nine violations of the Federal Mine Safety Act) they spread the word widely.⁵⁷ Such a disclosure cost the UMWA nothing; yet made the union appear to be deeply concerned about mine safety.

On March 6, 1977, the anniversary of the first of the Scotia explosions, a reporter for the *Mountain Eagle* interviewed a brother of one of the men who died that day. The article, reprinted in part in Question and Answer format explains in part the attitude towards death in the mines:⁵⁸

Q Why would anyone want to work in a gassy mine?

A For the money. I made about \$62 a day there, the best money I ever made in my life.

Q Are you bitter about what happened?

A No, not really. It was the workers' fault as much as it was the mines. They shouldn't have been working in the gas, and the mine should have pulled them out when gas was detected.

Q What about the second explosion on March 11, 1976? Do you think it could have been prevented?

A Yes, by that time, all the curtains had been blown down, allowing the methane to build up again. Those men should have known better. The place should have been ventilated before they went in.

At the federal level, Jimmy Carter supported the idea of moving MESA from Interior to Labor.⁵⁹ MESA made the news again in June as under the Freedom of Information Act, the ratings of 23 Eastern Kentucky mines were made public. An ingenious "mine profile system" had been developed to pinpoint "problem mines"—a variant of the exception method of management. The National Average rating was 700, Eastern Kentucky's ranged from a high of 965 for a mine of the Leslie Coal Mining Company to 423 for one owned by the Peter Care Coal Company. MESA officials noted that:

- The real test of the ratings would come in twelve months, when mines would be re-evaluated. (For then) adjustments the mines make in response to their initial ratings would show up.
- (That) while Eastern Kentucky had a better rating than any other district for holding down disabling injuries, it got the lowest score for compliance with federal health and safety regulations.

From the standpoint of newspaper coverage and mine safety, 1978 was an extremely quiet year. No doubt the fact that the number of fatalities was halved (from 36 to 18) within Kentucky and that two mine inspection districts (West Kentucky and Hazard) were fatality free had something to do with the calm, as did a 110 day coal strike. Two editorials indicate just how differently two Kentucky papers viewed the situation. The Lexington *Herald* claimed that the:⁶²

COAL INDUSTRY (IS) A MAJOR ROADBLOCK IN AN EFFECTIVE U.S. ENERGY POLICY. Among the major points made by the *Bluegrass Daily* were:

(Congress's) energy package contains important incentives for industries to switch from oil and natural gas to coal, this country's most abundant energy resource. But these incentives

cannot completely override the fears generated in the business community by the coal strike about the vulnerability of an industry that converts to coal. . . besides the labor problem associated with the mining of coal, there are environmental and transportation problems that accompany its use.

The Lexington paper made no mention of mine safety at all. Compare that to the *Mountain Eagle's* MINERS ARE HUMAN:⁶³

It was mid-day two years ago that the first of two explosions hit Scotia Coal Co. at Oven Fork. When it was all over, 26 men were dead. Now, two years later, a distraught miner stops by the Eagle office, and tells us that "they're up to the same old tricks, playing with men's lives" and that a lot more men are going to be killed over there.

Coincidentally, a mine safety official stops in to tell us we ought to know things are back where they started at Scotia.

"They keep it up, there's going to be another explosion at Scotia. It could kill a hundred or more if it comes when there's a full shift on."

"I tell you, Tom. There ain't no use in your writing anything. The state won't do anything. MESA won't do anything. Even if they tried, the courts wouldn't let them. That's one thing we've learned. Hell, they won't even let the widows sue for the murder of their husbands. Why the courts won't even let MESA tell what happened."

The Scotia disaster anniversary comes as miners throughout the Appalachian area await a federal court order at the end of the week under provisions of the much-hated Taft-Hartley labor law, ordering miners to mine coal or go to jail on contempt-of-court-charges.

President Carter, with an insensitivity to the problems of the coal miner that is astonishing, assumes a role as the nation's No. 1 strike breaker.

You really have to wonder where Mr. Carter has been these past few years. We've been told, over and over, that the nation faces an energy crisis of unprecedented proportions, a crisis of wartime proportions. We also are told that Mr. Carter and his federal experts view coal as the nation's best answer to that energy crisis.

Now let's see. If the president is supposed to be concerned about the nation's problems and energy is the No. 1 problem and coal is the answer, you ought to be able to assume that the President has made some effort to find out something about the coal industry. Right?

We fail to understand, however, the kind of White House action that treats coal miners as some kind of simple-minded idiots who have to be threatened at gunpoint by state police, U.S. marshals, sheriffs and their deputies, the National Guard, the U.S. Army, and numerous private armies on private coal company payrolls. Cut off the food stamps, starve the children, bring out the Guard, use live bullets, mine the coal!

All this from a President who has brought world attention upon himself by talking about Human Rights. Coal miners are not human?

As has been pointed out by many miners, whenever anybody has bothered to ask, the strike is not and never has been over wages. Mine safety is much more the issue. Every miner knows he might be killed tomorrow. He knows that state and federal mine safety laws are all too often ignored, that just about every coal operator will risk all for an extra margin of production, a little

more profit. The coal miner knows that when all is said and done he has only himself and his fellow workers to look to for safety, and that his most powerful weapon is his right to walk away from his job over safety issues.

Far from being the wild, irresponsible child that many, including the President, want to portray him, today's miner is much more likely to be a young, sincere, sensitive person who wants to do a responsible job and who insists it is not the miner, but the operator, who must shape up.

Mr. Carter's naive swallowing of the coal operator line laid down by the Bituminous Coal Operators Association is, to put it mildly, shocking. And you have to wonder, is he handling other issues affecting the nation as badly?

This might be as good a time as any; to point out that, while at one time we thought transferring mine safety enforcement from the Department of the Interior to the Department of Labor was a good idea, we can recall no sorrier performance by a cabinet member than that of Secretary of Labor Ray Marshall in the coal strike emergency. May God protect the coal miner's safety in the future as Mr. Marshall obviously is not up to the job.

Mine safety, care for aged or disabled pensioners, medical care, dignity and, yes, human rights, these are what the strike is all about. President Carter and his man Marshall insult the miners when they talk about high wage offers, then criticize the miners for turning down the contract containing those "high" wages. Miners feel they are being held up nationally for contempt and ridicule by the President, who should know better.

It must be remembered that, under the rejected contract, miners working for UMW mines still would be earning less than miners working for such non-union companies as South East Coal Co., and, yes, Scotia Coal Co. And their health plans would not be as good as those at non-union mines. Even so, we repeat, money has not been the issue. Instead, miners are insisting upon something that could be summed up in that phrase "Human Rights," at least as we understand the term. As miner Steve Brewer put it, "I'm no second class citizen and I'm not going to be treated like one."

We can only hope that Mr. Carter will decide to be President of, by, and for all the people, not just the President of the utilities companies and the coal conglomerates. He is about to plunge the Appalachian coal fields into something approaching civil war. May God protect us all.

The impact of mine-safety and schooling was clearly delineated in a newspaper interview with the head of Pikeville College's Department of Mining and Technology, James P. Ramsey. Portions of the interview in a Question and Answer format are reproduced below:⁶⁴

Q How much does it cost a student for a year full-time?

A \$195 for tuition.

Q Why is mining so much less than tuition for other programs at Pikeville College?

A The Federal Health and Safety Act of 1969 was an effort by Congress to protect underground coal miners. They also made funds available for health and safety education through a state's grants program with Commissioner Kirkpatrick, program director, Kentucky Department of Mines and Minerals. So, we receive a strong contribution from federal and state funds to offset the high cost. This

is an effort to place young men and women in the coal industry with the proper attitudes and training toward health and safety.

This may not have a tremendous impact in the short term, but I personally feel that for the long-term, (education and training), this is the only way to reduce accidents and fatalities in coal mining.

Q Does a person without formal mining studies have as good an opportunity for jobs if the market does expand?

A No! Coal mining has advanced so fast with sophisticated, highly technical, and complex machinery and equipment that the coal miner today that hopes to advance into a position of management must have formal training in mining technology. . .

Our objective is to train people for supervisory and management positions. We do not prepare a young person to run a continuous miner or a cutting machine, but a lot of our graduates end up in the work force.

What pleases me the most is to see 60 percent of our graduates in safety training departments of large coal mines: some are in engineering departments, several have been assigned specific tasks of handling penalties and assessments as a result of violations of the federal mine laws.

Depending on the graduate's personality and desires, there is no restriction on what position they can qualify for. Several of our graduates are already managing coal operations; one has the position of superintendent of mines for a major coal company.

Q What about jobs in mining-related fields?

A In 1974 I would have answered this question by saying yes, there are jobs in mine-related fields. Since the 1977 Surface Mine Act and other related federal legislation, the Clean Air Act and Clean Water Act, these jobs are no longer mine related, but an intricate vital part of mining and permitting process itself. Even in the late 60's safety program people were at the bottom of the ladder in the mining industry. Now they are holding executive vice president positions right along with the vice presidents of production and engineering. These safety and environmental fields have become extremely important. In the future more of our graduates will be entering this facet of the mining industry.

The comment that in 1974 "safety program people were at the bottom of the ladder in the mining industry" but now in just five years, all that has changed, is an indicator of the growing importance of safety. Mention of the 1977 Surface Mine Act and environmental concerns suggests the increasing role of Surface Mining. Indeed, in 1979, the central theme was one of regulations and enforcement thereof, and not limited to deep mining. OSM (Office of Surface Mining) Director Walter N. Heine proclaimed that the agency "made a big difference" in coal mining practices and their impact upon the environment in large part because states sought primacy. In order to become prime enforcers, the states must prove that "they can do it without OSM." In Kentucky's case "more operators' reclamation bonds were forfeited [in 1978] than in the previous nineteen years."⁶⁵

Paul Patton, former chairman of the National Independent Coal Operators Association, proclaimed at a coal conference that the combination of strip mine regulations and a coal glut will put Kentucky's small operations out of business within five years, as "under the new rules, in five

years, strip mining in steep-slope Appalachia will be insignificant.” He called the small operators “the backbone of the industry,” yet admitted that if oil interests took over, markets would stabilize as “they won’t be induced to produce at an outrageous capacity.”⁶⁶

A month and a half earlier the Senate had voted to relax strip mine regulations. Wendell Ford (D-Ky.) used the type of rhetoric that later helped bring Ronald Reagan to the White House, declaring that “People are fed up and tired and sick of federal regulations. Here was a perfect example of congressional intent being thwarted by an agency that used regulations to write new legislation.” Mark D. Hatfield, (D-Ore.) remarked that “Coal may be America’s energy ace in the hole, but OSM dealt us a joker instead.”⁶⁷

Though the pendulum seemed to be swinging towards relaxing laws and their enforcement, such a move did not go unchallenged. MSHA was hit with a lawsuit charging lax enforcement of mine safety laws. There were only 1800 mine closures. Plaintiffs were the Council of the Southern Mountains (CSM) and two UMWA locals. Three attorneys from the Washington-based Center for Law and Social Policy represented the plaintiffs—L. Thomas Galloway, J. Davitt McAteer and Richard I. Weeb.⁶⁸

Nineteen eighty saw fewer mine-safety stories than any other year since 1974. The closest thing to a safety story was a Lexington *Herald* editorial in the “too bad, sorry” tradition, written in the wake of three deaths in a Whitley County dog hole. After revealing that Knox and Whitley counties contained more *illegal* deep mines than legal ones, the editorial explained why such practices existed:⁶⁹

The reason men go to work in the unsafe wildcat mines is just as simple. Although their pay for work is often below the minimum wage, it is a job, in an area that is still economically depressed despite the predictions that a coal boom is just around the corner, that is enough. . .

As long as there is coal to be mined cheaply and illegally, the wildcat operations will continue. As long as there is no other work to be had, miners will continue to go into the wildcat mines. And as long as basic rules of safety are ignored in those mines, as they apparently were in the mine where Monday’s deaths occurred, miners will die.

Mine safety statistics often fail to correlate well with what one might anticipate from mine safety efforts. Carol Hymowitz wrote a thoughtful article in the *Wall Street Journal* attempting to make some sense out of disturbing statistics. She wrote that:⁷⁰

Nearly everyone in the industry agrees that much of the progress in mine safety stems from the 1969 act, enacted after an explosion killed 78 workers at a Consolidation Coal Co. mine near Farmington, W.Va. For the first time, the act set standards for ventilating explosive mine gas and coal dust and preventing roof falls.

Since then, the number of fatalities has dropped substantially, and the death-frequency rate, which measures fatalities in terms of hours worked, has fallen even more sharply. Last year, the rate stood at 0.30 death per million work hours, down from one death per million work hours in 1970.

But a presidential commission study released last year said most of MSHA’s safety gains were achieved in the early 1970’s. Some “80 percent of the reduction in fatality incidence had been achieved by 1974,” the report said, while “the incidence of disabling injuries in mines has been increasing since 1975.”

One can construe the results many ways—everything from greater *reportage* of accidents (similar to the incidence of rape once the crime began to be taken seriously by the police) to the belief—by the

mid-1970's—that the easy answers to death in the mines had been reached. There was also the belief, useful to Ronald Reagan that one must get government off the backs of business. According to Consolidation Coal, the 1979 Mine Safety Act and other regulations led to a 38% drop in productivity. Coal operators claimed that:⁷¹

Many of MSHA's regulations are senseless and say many federal inspectors are more intent on issuing citations for violating safety regulations than on preventing accidents. Many managers say that having fewer inspectors won't diminish safety—and might even improve conditions.

"We're averaging 11 inspectors a day in our seven mines, and all a lot of them do is loaf around," says an executive at one Ohio company. Most of the citations issued by inspectors, he says, are for roof control, ventilation and electrical problems—"which are all serious matters; but a lot of inspectors will cite you for the silliest things in these areas, like one broken headlight on a machine, while never bothering to see if the brakes are working."

Other industry officials say some government safety regulations actually create hazards. An example: the requirement that certain pieces of mine equipment be fitted with protective canopy covers. In low seam-mines that may be only two or three feet high, the canopies "resulted in reduced visibility and very cramped operating compartments," according to the Bituminous Coal Operators Association, which concluded that the canopies are "more hazardous than the dangers they were intended to prevent."

With the pro-deregulation sentiment emanating from the White House, there was a move to cut funding for MSHA. In the Senate, Orrin Hatch (R-Utah), proposed cutting the number of mine inspectors per deep mine from four to two; shortening hours of training for new miners from 40 to 16; limiting the number of fines given by MSHA inspectors; and eliminating items from the list of what constitutes a violation of mine safety. As could have been expected, the UMWA was infuriated. One of their safety representatives declared that, "We'll be going back to the days of mine disasters." UMWA President Samuel Church Jr. said that Reagan's cut-backs "promise carnage in the nation's coal mines." Safety was important to the union not only per se, but also as a strong card in their organizing efforts. According to one UMWA official, "Being able to say we've got strong safety compliance at our mines is our drawing card."⁷²

* * * * *

The calendar year and the mine safety year do not coincide. Explosions occur most frequently during the late fall and winter. Thus the deaths of eight miners at Topmost in December were unexpected in terms of locality, but 'twas the season. That and a Tennessee disaster led to an editorial in the *Courier-Journal*.⁷³

THAT CYCLE OF TRAGEDY IN THE MINES

The unhappy irony of coal mining and other dangerous occupations is that safer times come, if ever, only after tragedy. Very often, a period of relative safety breeds complacency that sets the stage for a new calamity. And the cycle begins again: Such calamities over the years have prompted every major gain in mine safety.

No one can say, before investigations are complete, that complacency was at the root of two explosions that killed eight miners in Kentucky and 13 in Tennessee this week. But mine accidents, like most other mishaps, often are caused by seemingly harmless shortcuts that don't seem all that risky at the time.

It's human nature to take the easy way, particularly when profits are involved. The difference between mining and most other pursuits is that the hazards of the former are innumerable and the risks greater.

That's why vigorous enforcement of safety laws is necessary, and why it's particularly disconcerting that the Reagan administration's mine safety chief was talking only last week about weakening safety enforcement. The director, Ford B. Ford, said fines for violations may divert the operator's attention from abating safety hazards. He also talked of such money-saving ideas as fewer follow-up inspections to see if violations have been corrected.

The number of federal inspectors already has been reduced and more cuts seem likely. It's doubtful that the legally required four inspections yearly for underground mines can be sustained. And Mr. Ford also contemplates reducing the minimal amount of safety training now required for miners.

Present safety requirements in the mines are a product of the Coal Mine Safety Act of 1969, which was spurred to passage by the death of 78 miners in a Farmington, West Virginia accident the previous year. Nobody knows how many lives that law has saved. But the death rate in mining soon dropped to a third of the previous level.

The price of coal in terms of human life always has been high. Mining will never be a safe occupation, at least until all underground operations can be carried out by machinery. But a decade of relatively strict emphasis on safety has reduced the price.

The grief of miners' families in Kentucky and Tennessee will hardly be lessened by realization that their tragedies are a warning. But if the warning is taken seriously, the deaths of yet another 21 miners won't have been entirely in vain.

In January at Craynor, an additional seven lives were snuffed out. Although both mines (on paper, according to federal records) were safe, union inspectors soon after the accidents found "flagrant violations" of mine-safety laws. Willard Stanley, Commissioner of Kentucky's Department of Mines and Minerals, could explain the discrepancy between inspection results and the condition of the mines at the time of the explosions; only if someone tipped off the company that an inspection was imminent. The UMWA attacked the practice of shooting from the solid, a technique used at the sites of the mine disasters.⁷⁴

The day after the question of violations at Topmost and Craynor was raised by the UMWA, Kentucky's Governor John Y. Brown Jr. issued executive order 82-75, appointing eighteen men to the Governor's Review Commission on Deep Mine Safety. The first meeting of the commission was held the day the executive order was signed. The commission issued its final report on February 24, 1982, less than a month later. The extreme speed was mandated by the need to advise the in session 1982 General Assembly of the needs for changing "current laws and regulations."

It is worth noting that Willard Stanley, Brown's Commissioner of the Kentucky Department of Mines and Minerals, had been a member of the 1976 Deep Mining Safety Commission. As the previous commission had done, the new commission used the subcommittee system—in this case, covering:

- a. solid shooting
- b. state programs, personnel and mine related accidents
- c. state mining laws.

Perhaps reflecting the rift between Glenn Freeman and Governor Carroll in 1976, though two legislators were commission members, state senator

Benny Ray Bailey nor state representative Herbert Deskins Jr. chaired subcommittees. As in 1976, the single representative of the academic community (Joseph Malesky, Pikeville College mining instructor)⁷⁵ chaired a subcommittee. Two of the three UMWA representatives had attended 1976 public meetings—Ernie Justice (at Pikeville) and Joseph “Hugh” Jones (at Cumberland). Though Everett Brown of Pikeville, Executive Secretary of Coal Operations and Associates, was not involved in 1976, the organization which “represents the small independent operations in Pike County, and to a small extent the surrounding counties” had made its presence known then.⁷⁶

Well covered open hearings on solid shooting were held February 3 at Martin, Kentucky. Additional hearings were held February 11 at Hazard Community College; and February 17 at the University of Kentucky. The committee charged with Kentucky Mining Laws and Regulations held two public hearings at the University of Kentucky (February 5 and 17, 1982) while the Subcommittee on State Programs and Personnel and Mine Related Accidents held a single open hearing at University of Kentucky February 5, 1982.

Small scale operators felt threatened. Ronnie Hatfield of Drift testified that:⁷⁷

If all the precautions are taken, it's safe. The proper use of handling of explosives should be the topic here today, not the method of mining.

To which Morris Isaac, supervisor of a “mostly family mine” added his “Amen.” “The reason I’m concerned,” he declared, “is that solid shooting means jobs.”⁷⁸ *The Floyd County Times* editorialized:⁷⁹

If the “shooting from the solid” is eliminated, the small coal operation will cease to exist. The cost of cutting machines, continuous miners and such equipment is too great. In that event, only strong, well-financed companies, many of which have out-of-state ownership, would be able to operate.

This contingency, nevertheless, will not justify a shooting practice if it, indeed, is found to invite disaster. But it does justify the closest scrutiny and the best thinking before such a stern measure is put into effect.

The editorial made several other points, namely that:

One gets the feeling that those who were victims in last week's explosion died despite their best efforts to practice safety. For these victims included the owners themselves of the mine; their lives were at stake. Neglect of employees' safety cannot, in this case, be ascribed to management.

At best, coal mining can never be a safe occupation. Nature itself can be said to rebel as the removal of coal creates a huge vacuum deep in the interior of a mountain. The imponderables outweigh man's knowledge.

No one knows this better, perhaps, than Kentucky's commissioner of mines and minerals, Willard Stanley, whose dedication to mine safety is unquestioned.

The rash of coal mine tragedies may well have been the chief factor forcing the Reagan administration to return half of its proposed \$4 million cut in the MSHA budget. Indeed an additional \$15 million was proposed for 1983. According to the *Lexington Herald*:⁸⁰

The impact in the coal fields should be beneficial, if for no other reason than a change in attitude on the part of miners and mine operators. For if there was a cause-and-effect correlation between the scaling back of federal mine safety programs and the rash of disastrous accidents in recent months, the most

significant factor was probably the atmosphere that was produced by the cutbacks.

When Washington shows less concern about mine safety, miners and mine operators begin to think they can cut corners and get away with it. During such times, there is obviously less danger of being cited and having to pay costly fines as a result of federal inspections.

The fines are not the only monetary consideration involved. Time is money, and it takes time to put down the rock dust that reduced the risk of setting off the volatile coal dust so prevalent in the mines. It takes time to observe safe blasting techniques. So rock dust is forgotten, explosives are set off simultaneously in two or more adjacent coal seams—and miners die.

The Lexington *Herald-Leader* reacted to Brown's Review Commission on Deep Mine Safety's report characteristically, with an editorial. The headline read *Guidelines For Mine Safety: Is This Enough Protection?* The editorial spoke of the key recommendations which included:⁸¹

. . . requiring mine operators to submit detailed blasting plans to the state Department of Mines and Minerals before "shooting from the solid" would be allowed. In addition, there would be increased penalties for safety violations relating to the use of explosives. Mines could be temporarily closed on the first and second violations. Any further violations would result in revocation of the mining permit. . .

Other recommendations of the commission include the formation of a "SWAT" team to find and close down illegal mining operation; tighter standards for certification of mine inspectors, miners and mine foremen; adoption of a law that protects the right of a miner to refuse to operate unsafe equipment; continuation (at state expense) of the training and analysis programs formerly paid for by the federal government; and stricter enforcement of existing safety laws and regulations.

All of these recommendations—with the glaring exception of allowing simultaneous blasting of two coal seams—have merit. The fact that it will cost the state a couple of million dollars a year to put the recommendations into effect should not be a deterrent. As state Public Protection and Regulation Secretary Tracy Farmer put it, "I think when you are talking in terms of lives, \$1 million is not too much money."

However, adoption of all these recommendations does not end the issue. As noted earlier, the commission declined to address some of the more controversial proposals. These include hiring more state inspectors, conducting more inspections, imposing fines for safety violations, and establishing a point system for miners similar to that used to revoke driver's licenses.

The *Herald-Leader* was disturbed by the lack of attention given to the issue that had attracted most of the media attention and controversy, solid shooting. For surely:

If Kentucky is not yet ready to join most other mining states in banning "shooting from the solid," it certainly should be ready to impose more restrictions on this inexpensive, but dangerous, method of mining in which explosives are used to break up coal for extraction from underground mines.

The closing paragraphs of the editorial blasted the solid shooting process, declaring that:

. . . there is the question of "shooting from the solid" itself. When a mining method is so dangerous that almost all other min-

ing states have banned it, its continued use here must—at the very least—be suspect. Serious consideration should be given to banning “shooting from the solid.”

Admittedly, that would mean a financial hardship for small, family mines (such as those that have experienced the recent disasters). However, Tracy Farmer’s remark is singularly appropriate: How much is a human life worth?

The Mine Safety Issue in 1982, unlike 1976, refused to fade away. This was caused both by events and by *Courier-Journal* decision to put its resources, both of money and manpower, into the issue. This resulted in a nine part series in May entitled “Dying for Coal” and a three part “Update” in late November.⁸²

March 1, the *Courier-Journal* carried a story entitled “1981 Coal-Mine Death Rate Nation’s Highest Since 1975”, and approximately a month later the *Herald-Leader* reported that “Critics Link Mine Deaths to Reduced Federal Vigilance.”⁸³ Perhaps the potentially confrontational nature of the issue and the shock value of the deaths helped sustain the safety issue this time. Obviously 1982, unlike 1976, was not a presidential election year, leaving more space for non-presidential items including mine safety.

The *Courier-Journal* effort turned up some interesting statistics. For example, in Kentucky, the average age of the miner who died from 1975-78 was 33.4 years and their average experience was 8.3 years. However, in terms of working the particular mine where the individual died, the percentage who had been employed there for less than a year was 29% for 1981, 34% for 1980.

MSHA statistics indicated the fatality rate for mines with 10-19 workers was 62% above the national rate. The President’s Commission on Coal reviewing underground fatalities between January 1978 and June 1979 reported that 43% of the fatalities occurred in mines employing less than fifty persons which account for just 15% of underground work hours. A 1979 Office of Technology Assessment study reported that the fatality rates at mines running less than 25,000 tons annually was ten times the national average.⁸⁴

Though the UMWA claims union mines are “far safer” than non-union mines, the *Courier-Journal* declared that “that assertion, although difficult to prove, is debatable, if not doubtful.” An Office of Technology Assessment study found “no clear relationship is demonstrated between safety and unionization.” This paralleled the 1978 observations of Harvard economist Leslie I. Boden. The author was quick to add that under-reporting of accidents by non-union mines was possible.

In 85% of the accidents, a supervisor was either on the scene or had been so within the hour. More foremen and superintendents die “than roof-bolters or any other rank-and-file group.” According to the *Courier-Journal*’s analysis of 236 fatalities, based on federal reports, in approximately two-thirds of the cases, “mine management was either wholly or partially responsible” for the mishaps. That assessment was qualified by leading off with the words “while admittedly subjective” . . . The article concluded with a quote from the president’s coal commission about the prevention of mine accidents followed by the *Courier-Journal*’s editorial comment:⁸⁵

“The safest underground coal mines. . . are those in which the commitment of top management to safety is strong and well-known; efforts to achieve good labor-management relations and open communication are practiced; regular equipment maintenance is performed, and training of miners in safe practices is stressed.”

If those conditions were the norm in U.S. coal mines, and if each miner viewed safe work habits as the life preserver that they

are, there would be far fewer statistics like Kelly Wayne Scott [a casualty that the *Courier-Journal* spotlighted.]

Inadequate training, a push for production, and mine equipment inappropriate for working conditions (though efficient in terms of production) were among other reasons given as causes for mine accidents. James M. Peay, supervisory engineering psychologist for the Bureau of Mines, stated bluntly that "mining-equipment design traditionally has been notorious for its lack of concern for its human operator." Indeed, a MSHA study of 1146 shuttle car accidents during 1978-80 revealed that 148 of them were the result of poor visibility or inadequate over-head clearance.⁸⁶

An earlier article in the "Dying for Coal" series spoke of alleged cases of foremen being fired for following safety rules. As the paper phrased it:

Top company officials talk safety outside, but there is another set of rules under the hill, according to many of those interviewed. Many times company executives don't know what's going on underground because they never go into the mines; many don't want to know, the foremen say.

Indirectly that view was supported by the following:⁸⁷

There are two sets of rules. "Outside they tell you to go by the book, but you can't produce high volume coal with a rule book," one Martin County section foreman said.

Raymond A. Bradbury, president and general manager of Martin County Coal, says the biggest obstacle to making coal mines safe is the failure of company officials and foremen to insist on safety.

Bradbury said his experience in hiring miners who have worked at other mines has been that they must be retrained in their attitudes toward safety rules.

"We ask them leading questions. . . whether they go under unsupported top. And they'll say, 'We've been told never to do it if an inspector is there. We tell them right now that we don't do it. And we'll have it no other way.'"

"They look amazed somewhat. I can tell," Bradbury said.

"Coal can be mined safely and without getting people killed or injured."

Martin County has demonstrated the importance of company attitudes toward safety by producing more than 8 million tons of coal at its two underground mines without a miner being killed and with a lost-time injury rate of less than one-half the national average over a 10 year period, company officials say.

Mine operators and foremen insist that the last thing they want is to have a miner killed or seriously hurt.

A mine death means a bevy of state and federal inspectors, days without working and probably specially assessed fines. Beyond that many operators are friends or relatives of their miners.

It should be noted that Martin Coal Company's No. 1-C mine scored 784 (or 13th) on the list of 23 rated Eastern Kentucky mines in 1977. The score was above the 700 national average but substantially below the leaders.⁸⁸

In 1977, the anticipated Keystone in the arch of mine-safety training, was approved by Congress, but did not live up to expectations. Pike County Judge-Executive Paul Patton declared, "I am as convinced now as when I served on the (1976) deep-mine safety commission that training of the work force is the major problem."⁸⁹

Though the Lexington *Herald* did not produce a mine-safety series, it did vent its concern in editorial form, with an attack on federal laxness:⁹⁰

Mine Safety? In Washington, They've Forgotten About It

The recent, and horrifying, increase in fatal coal mine accidents emphasizes once again the casual disregard with which some miners and mine operators view minimum safety standards. Sadly, each investigation into an accident seems to point to the same conclusion: The tragedy could have been avoided if safety procedures had been followed.

It has long been known that safety is given short shrift in the coal fields. Federal and state rules are ignored by operators who take the attitude that paying fines for safety violations is just another expense of doing business—a minor annoyance. And miners under pressure to produce take short cuts that only shorten their lives.

Now, a report by the inspector general of the U.S. Department of Labor shows that the federal government itself has contributed to this dangerous indifference to safety. In short, the report tells us the federal Mine Safety and Health Administration has been lax in collecting the fines for citations issued by the agency's inspectors.

According to the report, one part of the problem is that the department's attorneys are willing to settle for "a fraction" of the assessed fines. As a result, the report concluded that mine operators "have no incentive to pay the penalty." Another part of the problem is that U.S. attorney's office, 817 cases involving penalties of more than \$347,000 had to be dropped because the statute of limitations on the violations had expired.

With that kind of record, is it any wonder that coal mine operators have a tendency to ignore MSHA rules and regulations?

But while the inspector general's report suggested that MSHA develop new procedures designed to show that it is serious about processing citations and collecting fines, the agency's own recent actions give the impression that enforcement of safety laws will be even more relaxed in the future.

By its recent adoption of a flat \$20 penalty for all "minor" infractions, the MSHA has added to the perception that paying fines for safety violations is only a business expense. And it is contemplating even more changes, including elimination of follow-up inspections for minor violations, and a provision for issuing "notices of violations" instead of citations. (The notices would not involve any fine at all).

Such backward steps on the enforcement of safety laws are hardly the proper response to the recent increase in mining accidents, and the findings of the inspector general's report. By taking those steps, the MSHA will only encourage more mine operators and miners to ignore minimum safety standards, and the result will be a further increase in the death toll from mine accidents.

In short, the Mine Safety and Health Administration is a misnomer. It is indifferent to safety and dangerous to the health of miners.

Eight days after the 14th anniversary of the Farmington Disaster, the *Courier-Journal* began running a three part update of "Dying For Coal." The explosion season had arrived, but this time the articles were timely solely in the seasonal sense. The coal market was dull, as the paper put it, although:⁹¹

Many mine operators and government inspectors express doubt that the bleak coal market will lead to an increase in the number of dead and maimed miners.

Many miners are not so sure, however, and some admit to thinking more—and being told by their bosses to think more—about Friday's paycheck than about safety regulations.

"I think a lot of them—especially now—think you've got to get the coal out, or we're going to close down," said Ron Clothier of Beaver Dam, a safety committee-man at a Peabody Coal Co. mine.

"If they have something wrong, they wait until the end of the shift to get it fixed—which is fine until somebody gets hurt."

But "let a miner get hurt, and I've heard the foreman say, 'Old George should have known better than that.' "

On the positive side, according to the same source:

Kentucky has gotten tougher with mines using the underground blasting process known as shooting from the solid and with wildcat operators who neglect to observe such legal niceties as obtaining a license.

The federal Mine Safety and Health Administration has added nearly 150 inspectors and assigned many of them to Eastern Kentucky.

Drillers and shot-fires must be certified by the state, and both are required to have at least one year of on-the-job experience.

Kentucky Mines and Minerals Commissioner Willard Stanley estimates that 90 percent of the solid shooting mines have improved their blasting practices. And sales of rock dust and stemming—which keeps explosive charges confined within the coal face where they are set off—have increased.

Excessive amounts of highly volatile coal dust triggered the explosions at both Topmost and Carynor, and the state has since refined its technique for sampling the amount of dust present in any given mine.

No longer are haked-eye surveys relied upon to determine whether adequate amounts of rock dust have been used to suppress coal dust below potentially explosive levels.

And people who collect and analyze dust samples now have been assigned to each of the department's six regional offices.

In a related story the *Courier-Journal* trumpeted a conclusion of the National Research Council, namely that safety and production do mix and mix well:⁹²

"Overall mines with highest productivity have lower injury rates than do less-productive mines. . . Productivity and safety are compatible qualities in underground coal mine."

There is a widespread belief among coal-industry executives, the council found, that safety and productivity are incompatible. Stress safety and productivity suffers. Resources devoted to safety are resources taken away from production.

That belief is analogous to the Depression era article of faith that "Paint don't mine no coal,"⁹³ an idea that ignored the psychological, morale side of productivity. The *Courier-Journal* update came close to debunking the idea of the efficiency of union safety committees, declaring that:⁹⁴

Although miners are quick to cite the union safety committee as their most powerful ally underground, the power and effectiveness of those committees frequently is diluted by recalcitrant workers, unqualified committee members and family ties in small mines that discourage vigorous challenges to safety infractions.

The year 1983 was almost devoid of mine safety news in the Kentucky press, no doubt in part brought on by a dramatic drop in both accidents and death. The nationwide total of 70 deaths marked the first time—since records were first kept in 1869—that the national total was less than 100. Not only that, but this was the second year of decrease in a row (1982 = 122, 1981 = 153).⁹⁵ Was there a correlation between layoffs and the drop? Perhaps this was a statistical fluke, akin to rolling snake eyes in a dice game.

MSHA spokesman Frank O’Gorman credited the miners for making safety programs work. “The difference is,” he added “that there is no one involved in mining now who is not aware of the need for safety and safety training. There’s no longer a carelessness on the part of operators or miners.”⁹⁶ Such self-confidence proved misplaced. Indeed, in nine days in January, there were four separate fatal accidents in Kentucky, an amount equal to one-third of 1983’s total for the year.

Particularly disconcerting was the fact that 50% of the accidents were due to roof falls. Willard Stanley, Kentucky’s Commissioner of Mines and Minerals, had been pleased that but one-third of the state’s fatalities were due to roof falls vs. a national average between 50 and 60%. He felt Kentucky’s lower roof fall ratio was due to a 1982 decision to add roof control specialists to each of Kentucky’s five inspection districts.⁹⁷

Within a week, a pre-planned Lexington, Kentucky, meeting with mining officials from nine states occurred. In the intervening week, a fifth Kentucky mine death was added to the tally. David Zegeer, assistant secretary of labor for mine safety and health, declared:⁹⁸

“We’re getting to the point where, no matter how well you engineer a property, no matter how well you enforce the rules, regulations and laws, you have to consider the fact that there are 500,000 people in the mining industry in this country. We’re getting to the point where we have to work on these human factors, whoever’s at fault.”

The safety analyst program, begun in 1977 in Kentucky, the purpose of which is “to observe and teach accident prevention to individual miners on the job” was deemed a national model. As Zegeer put it:

We’ve seen Kentucky as an example hoping that the other states will pick it up. Our responsibility is to enforce the federal law. . .

Beyond that, we will work with the mining community in training to help the companies that can’t help themselves (adding that the MSHA did not want to compete with private consultants).

If a mine has a ventilation problem, for example, and can’t cope with it, it’s much better for us to go help them solve the problem than to wait for an explosion to go in and recover the bodies and investigate and write some report on what happened.

In April, both Oklahoma and Tennessee lost primacy over surface mining. In Tennessee, the \$14,000 salary for inspectors proved insufficient and “local health folks” took up the slack.⁹⁹ Meanwhile, in Kentucky, Judge Joseph B. Kennedy accused federal mine safety inspectors in Eastern Kentucky of dereliction of duty for failing to cite a MAPCO subsidiary, Pontiki Coal Company’s No. 2 mine, for excessive dust the day they appeared on the scene. MSHA supported their inspectors.¹⁰⁰

This would have been the end of it, probably, had the administrative law judge, characterized by the *Courier-Journal* as “combative and controversial” let things stand. But as the Louisville paper put it:¹⁰¹

In a series of well-publicized legal documents, Kennedy strongly suggested that MSHA’s Pikeville district is rife with corruption.

"Confidential informants of known reliability," he wrote on May 14, had told him of a payoff system in which companies were getting favored treatment, including warnings of upcoming inspections and a "wholesale" reduction in the number of citations.

Kennedy, who tries mine-safety disputes for an independent government commission, has refused to publicly identify his sources.

He told the *Courier-Journal* that he first had to have a written agreement promising him and the sources anonymity and indemnifying him against lawsuits—a condition the newspaper would not meet.

But in an effort to assess the validity of Kentucky's sensational charges—which have been referred to the Justice Department—the *Courier-Journal* conducted its own investigation.

The *Courier-Journal* used statistics from ten districts across the nation for significant and substantial citations (low: Barbourville, KY 13.0%; high: Pittsburgh 53.3%), special assessments (low: Pikeville, KY 0.0%; high: Morgantown, WV: 2.8%), citations vacated (low: Vincennes, IN 0.2%; high: Denver, CO 14.0%) to indicate sharp regional differences. As the paper phrased this finding:

Enforcement from one MSHA district to another—even from office to office in the same district—differs greatly. Such disparities may promote the appearance that something is amiss, even if it isn't.

The decline of fines from \$16 million during the last fiscal year under the old system to \$6.3 million under a more lenient system two years later raised questions and eyebrows. Some inspectors became convinced their supervisors want fewer citations. As one inspector stated bluntly, "We're coal miners, but we're not stupid. Hit us with a ball bat a few times and we get the point." A supervisor sent a memo in early March declaring:

"Past experience has indicated to me that if an operator believes that a violation exists and it is considered to be a non-S&S violation, that unit or area (of the mine) will not be shut down and the violation corrected, since it would only be a \$20 fine if found by an inspector."

In a separate article, the view was aired that inspectors sometimes felt they were "mere paper tigers" as in MSHA, "cooperation has replaced enforcement as the agency's watchword."¹⁰² MSHA's view was different, summed up by the *Courier-Journal* as a belief "that they have simply struck a balance that achieves compliance without antagonizing the industry." The report suggested that "the line between cooperation and appeasement can be a fine one indeed, depending in part upon one's vantage point."

The prime example given occurred in Martin County where inspector R.C. Hatter believed he was being hurried along. According to the article:

Hatter's notes suggest why Martiki management might have wanted the inspection hurried along, and why he was determined not to do so:

"It is only after (citations are issued) that much (corrective work) is done, and then it is not properly done or is done grudgingly."

"I do not believe this operation's good faith is credible, nor the intent honorable, as many examples throughout this report show. They are not interested in preventive maintenance and do not work well, one department with another, and very little improvement can be expected until persons are held totally accountable for acts of omission or commission as the case may be."

Of the more than 90 citations issued to Martiki during the seven week inspection, about 65 were designated by the three inspectors as "significant and substantial."

That designation made them eligible for penalty assessments that are much higher than the \$20 fines imposed by MSHA for non "S&S" violations.

When Martiki contested them, however, MSHA supervisors either reduced or vacated—wiped out—more than a third of the "S&S" violations issued.

The *Courier-Journal* "found no evidence to substantiate recent allegations of pay offs or other systematic corruption in MSHA." It did reveal two cases outside of Kentucky in which whistle-blowers (who objected to harassment or reported bribes) were punished for their efforts.¹⁰³

Three days later the *Courier-Journal* editorialized.¹⁰⁴

Mine Safety Agency Bspatters Its Own Image

The best efforts of *Courier-Journal* reports to investigate charges against the U.S. Mine Safety and Health Administration turned up no evidence to support claims that systematic corruption exists in the agency. But that's not overly consoling. The verifiable facts show a situation that is only marginally better.

The reports of writers Mike Brown and R.G. Dunlop showed an atmosphere in which charges and rumors of wrongdoing were bound to arise, whether true or not. Mine inspectors who hear more talk from the higher-ups about "cooperation" with safety law violators than about firmness are likely to feel that safety isn't the first order of business. When their citations frequently are thrown out or watered down—often without consultation with those who issued them—suspicions seem confirmed.

And when enforcement practices vary widely from one district to another—and even from office to office in the same district—either the efficiency or the integrity of the whole process is suspect. More than 53 percent of citations in MSHA's Pittsburgh District are classified as "significant and substantial," compared to 13 percent in the Barbourville district. It's doubtful that anyone believes that this and other such disparities represent the real situation.

Coal operators, on the whole, doubtless are better satisfied with MSHA's current emphasis on leniency and cooperation. In the fiscal year ending September 30, 1981, the industry was fined \$16 million for health and safety violations. Under new procedures adopted for the following year, penalties totaled only \$6.3 million.

Maybe the new-found spirit of cooperation has reduced the need for fines, though many observers will be skeptical on that point. But the erratic way the penalties are levied—and the attitude of MSHA toward its own inspectors—leave little doubt that enforcement of mine health and safety rules still needs much improvement.

In the next seventeen days two more Kentucky miners would die, bringing the year's total to sixteen, half of which were caused by roof falls.¹⁰⁵

Conclusions And Thoughts

— A dramatic decrease in fatalities occurred during the Nixon years, a legacy of the November 20, 1968, Farmington Disaster and the resultant legislation.

— Emphasis on training and safety awareness in Kentucky came into its own as a legacy of the Scotia explosions of 1976.

— Safety involves a variety of variables—environment, equipment, the human element, and all three elements need to be considered in a comprehensive program.

— Fatalities occur to experienced miners who have “recently” changed the work they do in mines or are working in an unfamiliar mine.

— Press attention respecting coal tends to be far more geared towards infighting within the UMWA, strikes, the state of the coal economy than in mine safety.

— Often it takes a major multi-fatality disaster to attract the attention of the media though safety, by definition, cannot be a sometime thing.

— As in the case of the Glenn Freeman controversy in 1976, conflict is more newsworthy than is information and understanding.

— The UMWA cannot resist making a case for greater safety in union mines rather than making a case for safety per se.¹⁰⁶

— The safety analyst program, though promising, [and thanks to the increased percentage of surface mining] does not need as many personnel as originally suggested in 1976, yet it is still substantially understaffed.

— New machines are being designed to cut down the coal dust level, to provide safer roofing, etc.¹⁰⁷

— Statistics are difficult to evaluate. For example, the years in a mine, years experience are sometimes given for those involved in accidents, but no similar figures are available for the entire workforce. Thus, it is next to impossible to determine if such statistics are significant or not.

— The techniques and problems in obtaining safer mines changes from year to year. Enforcement, training, blitz inspections, raiding illegal operations, safety awareness.

— The unmined mineral tax¹⁰⁸ may be passed in 1986, 1988, or 1990. Perhaps a portion of those funds could be used for mine safety, thus tying funding to coal reserves rather than to political clout.

— There is no simple answer to mine safety.

— Variables such as change in the workforce, state of the coal economy appear significant.

— The mining equivalent of defensive driving or of Murphy’s Law needs to become instinctual.

— Mine safety is not the primary concern of miners, the UMWA, nor of mine management, save for the brief period following explosions. This presents problems politically.

Footnotes

1. *Kentucky Coal Journal* May 1976, "In the Wake of Disaster."
2. *Ashland (Ky.) Independent* March 13, 1976.
3. William Sievers Graebner, "Coal Mining Safety: National Solutions in the Progressive Period," (doctoral dissertation, University of Illinois at Urbana-Champaign, 1970), 1-9.
4. Keith Dix, *Work Relations in the Coal Industry: The Hand-Loading Era, 1880-1930* as West Virginia University Bulletin Series 78, No. 7-2, January, 1978, 73, 93-96.
5. David Alan Corbin, *Life, Work, and Rebellion in the Coal Fields: The Southern West Virginia Mines 1880-1922* (Urbana, *University of Illinois Press, 1981), 16-17; Ron Eller, *Miners, Millhands, and Mountaineers: Industrialization of the Appalachian South, 1880-1930* (Knoxville, University Press, 1982), 180-82, 218-19.
6. *Huntington Herald-Dispatch* January 11, 1976.
7. *The Statistical History of the United States; From Colonial Times to the Present* (NY, Basic Books, 1976), 606-607; Harry M. Caudill, *Night Comes to the Cumberlands: A Biography of a Depressed Area* (Boston, Little, Brown & Co., 1962), 225.
8. Joseph E. Findley, *The Corrupt Kingdom: The Rise and Fall of the United Mine Workers* (New York, Simon and Schuster, 1972), 233 "No production, no money to the fund." See also *Most Hazardous Occupation: A Comparative Study of Coal Mine Health and Safety in Europe and the United States* (Washington, Center for the Study of Responsive Law 1971) quoted by John Gaventa, *Power and Powerlessness, Quiescence and Rebellion in an Appalachian Valley* (Urbana, University of Illinois Press, 1980), 174-175; J. Davitt McAteer et. als, *Coal Mine Health and Safety: The Case of West Virginia* (New York, Praeger Publishers, 1970), 95-96 law case "provides further indications of the UMWA's orientation to the goal of maximum tonnage rather than the safety of the men who produce it."
9. Caudill, *Night Comes* 261, 306; Dix, *Work Relations*, 102.
10. Finley, *Corrupt Kingdom*, 256; Brit Hume, *Death and the Mines; Rebellion and Murder in the United Mine Workers* (New York, Grossman Publishers, 1971), 16.
11. Finley, *Corrupt Kingdom*, 266, 232; Gerald G. Somers, *Grievance Settlement in Coal Mining* (Morgantown, West Virginia, 1956?) 13, see also 16.
12. McAteer, *Coal Mine Health*, 252; another indication is that the Strand Book Store, 828 Broadway, New York City remaindered Finley's *Corrupt Kingdom* for \$2.50.
13. The article was "U.M.W. Opposes Cooper Mine-Safety Measure" *Louisville Courier-Journal* March 29, 1955. The body of the article reveals that actually the Union favored a stronger bill.
14. *Lexington Herald* July 11, 1975, Terry Anderson (AP) "Official Worried: Mining Deaths Cause Speculation."
15. *Louisville Courier-Journal* November 15, 1975, Don Walker, "UMW Group Faults Leader in Madisonville."
16. *Louisville Courier-Journal* November 17, 1975, Don Walker, "UMW Members Cheer Critic of Union Chief."
17. *Lexington Herald* March 26, 1975, (editorial) "Exit James M. Day, Finally." President Ford chose Robert Barrett to head MESA. Of this the Whitesburg *Mountain Eagle* editorialized April 8, 1976 that "After a long dismal procession of political hacks and timid souls in a job that requires a special honesty and toughness of spirit, Barrett looked like the ideal man for the job. As a regional mine safety enforcement official, he had a reputation for refusing to compromise and for a degree of thoroughness not often found at MESA or its predecessor agency, the Bureau of Mines."
18. *Mountain Eagle* December 4, 1975.
19. *Mountain Eagle* May 29, 1975.
20. Williamson (W.Va.) *Daily News* November 11, 1975. According to the UMW Journal "until the companies obey the law, and until the government enforces it, there will be more miners killed in West Kentucky and in every other coal-field district," quoted in *Huntington (WV) Herald-Dispatch* December 1, 1975.
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22. *Mountain Eagle* April 8, 1976, "Barrett's Crisis."
23. *Mountain Eagle* April 8, 1976, for a jaundiced view of Bert Combs.
24. *Mountain Eagle* April 8, 1976, Isabel Boyles University of Missouri Washington Report ing Program. "Attorney Scores 'Appalling Pace' of Deaths and Injuries of Coal Miners and Failure of MESA to Enforce Safety Rules."
25. *Mountain Eagle* August 5, 1976, Geoffrey O'Gara, "House transfers MESA."
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27. Deep Mine Safety Commission Records, State Library, Frankfort, Kentucky.
28. Deep Mine Safety Commission Records — work papers for the Chairman, May 10, 1976.
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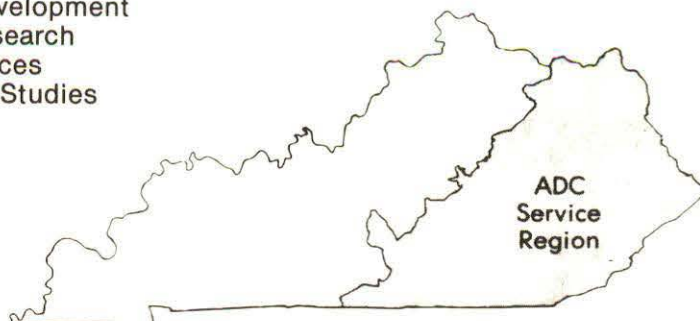
30. "Deep Mining Task Force: Inspection Issue Splits Commission" by Maria Braden (AP) Frankfort (KY) *State Journal* June 2, 1976; "Mining Safety Commission Deadlocked" (UPI), Madisonville (KY) *Messenger* June 2, 1976.
31. Deep Mine Safety Commission Records—Minutes of the June 1, 1976 meeting.
32. Louisville *Courier-Journal* June 22, 1976, David V. Hawpe, "Inspection Proposal Supported by Mine Tour, Freeman Says."
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34. Lexington *Herald* June 22, 1976, Don Walker, "Mine Safety Priority Viewed Differently."
35. Madisonville (Ky.) *Messenger* June 22, 1976, Stewart Jennison, "Mine Safety: Panel Ponders More and Better Training or Inspectors." See also Ashland *Daily Independent* July 26, 1976, Ferrell Wellman's Frankfort Watchline "Governor's Commission Swaying New Mine Bill, Report by October 15."
36. Deep Mine Safety Commission Records—Public Meeting.
37. Deep Mine Safety Commission Records, Minutes June 21-22.
38. Frankfort (Ky.) *State Journal* July 13, 1976 (AP) "Freeman Won't Seek Re-election."
39. Harlan (Ky.) *Daily Enterprise* August 1, 1976, Ewell Balltrip, "Politics Charge. . . Was Last Straw" Freeman: Freeman: Scotia Mine Disaster's Political Victim."
40. *Ibid.*
41. Deep Mining Safety Commission Records, Minutes July 26-27, 1976.
42. *Ibid.* Appendix I Governor Arch A. Moore Jr., March 20, 1974. Senate Bill 503, "The West Virginia Mining Training, Education and Certification Act."
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44. Louisville *Courier-Journal* August 22, 1976, "Carroll's Mine Panel Draws a Blueprint for Saving Lives."
45. Deep Mining Safety Commission Records, Minutes, August 25, 1976, Appendix I "A RESOLUTION requesting the United States Congress to appropriate additional funds for the purpose of improving the training of the Nation's Coal Miners." Appendix II, for safety analysts Appendix V, for other recommendations Appendix VII.
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48. Lexington *Herald* September 24, 1976, (VPI) "State Won't Sell 'Blood-Stained' Coal, Carroll Vows."
49. Frankfort *State Journal* September 24, 1976, "More Rules Won't Cut Accidents, Minter Told."
50. Lexington *Herald* September 24, 1976, Don Walker, "Turning Miners Into Students Will Cost Extra \$1 Million."
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56. Huntington (W.Va.) *Herald-Dispatch* February 18, 1977, "Grievances Resolving Problems UMW Hopeful's Priority."
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58. *Mountain Eagle* March 10, 1977, Jim Cornett, "You Just Go On Working and Hope it Doesn't Explode."
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71. *Ibid.*
72. *Ibid.*
73. Louisville *Courier-Journal* December 10, 1981, "The Cycle of Tragedy in the Mines" (editorial).
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75. *Review Commission on Deep Mine Safety: Final Report* February, 1982 *passim*.
76. Deep Mining Safety Commission, Records, Public Meetings. Includes list of attendees. For Coal Operators & Associates, Inc. see Burlin Coleman, President to Kenneth Gibson, Chairman July 26, 1976 and Bennie Sloane, Director to Gibson July 26, 1976. Emphasis was on training not inspection. Sloane had written in part:
- I believe that before we can be effective in eliminating coal mine accidents, that we must have effective training for the individual miner. I believe that at least part of this training should be conducted by a *qualified* man at the drift and face of the mine. I would suggest that the department, instead of concentrating on issuing citations, provide qualified men that would go into the mines with the men and point out the hazards as they encounter them, impressing on the men their responsibility not only for themselves, but for their fellow workers.
- Knowing the current pay structure of the Department of Mines and Minerals, I am certain that the department cannot attract men of these capabilities. I would suggest that consideration be given to provide the department with the necessary funds to attract qualified people for their training program.
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78. (Prestonsburg, Kentucky) *Floyd County Times* January 27, 1982, editorial, "Mine Tragedies Make Demands."
79. *Ibid.*
80. Lexington *Herald* February 8, 1982, editorial, "Safety in the Coal Mines: Reagan's Change of Heart."
81. Lexington *Herald-Leader* February 28, 1982, editorial, "Guidelines for Mine Safety: Is this Enough Protection?"
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84. *Courier-Journal* May 3, 1982, "Dying for Coal: Statistics Paint Picture of How, Where, Why Miners Die."
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86. *Courier-Journal* May 5, 1982, R.G. Dunlop, "Critics Trace Deficiencies in Mine Equipment to Desire for Increased Productivity."
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92. *Courier-Journal* November 28, 1982, R.G. Dunlop, "The Facts Bear It Out: A Safe Mine is Also a Productive Coal Mine."
93. Caudill, *Night Comes*, 171.
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95. *Courier-Journal* February 14, 1984, Mike Brown, "Safety in Coal Mines Last Year was Best on Record"; Lexington *Herald-Leader* January 4, 1984, Lee Mueller, "Coal-mining deaths plummeted in 1983."
96. Lexington *Herald-Leader* January 4, 1984, Lee Mueller, "Coal-mining Deaths Plummeted in 1983."
97. *Herald-Leader* January 14, 1984, Pay Cohn, "Four Mining Deaths This Month Prompt Call For Safety Meeting."
98. Ashland *Daily Independent* January 21, 1984 (AP) Anne S. Crowley, "Mining States Urged to Adopt Safety Programs."
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100. *Courier-Journal* April 7, 1984, Mike Brown, "Administrative Judge Assails MSHA Staff in Martin Mine Case; *Courier-Journal* April 14, 1984, R.G. Dunlop, "U.S. Mine-Safety Chief Defends Agency Inspection in Martin."
101. *Courier-Journal* July 7, 1984, Mike Brown, and R.G. Dunlop, "Problems Are Found in Mining Agency, but not Corruption."
102. *Ibid.* R.G. Dunlop, "Mine Inspectors Claim Agency Left them Toothless." The article was reprinted in the (Hindman, Kentucky) *Troublesome Creek Times* July 11, 1984. Hatter's notes ran eighty-five handwritten pages.
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The Appalachian Development Center was established in 1978 as Morehead State University's regional service arm. Committed to economic, social, and educational development in partnership with the people and institutions of Appalachian Kentucky, the center's major program areas are:

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