



Attitudes about coal development and the accompanying environmental impact in the Decker-Birney study area of eastern Montana : implications for education
by Milton Glennn Parsons

A dissertation submitted in partial fulfillment of the requirements for the degree of DOCTOR OF EDUCATION

Montana State University

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Abstract:

The purpose of this study was to identify attitudinal predilections and to develop a typology of environmental orientations held by residents of the three counties of eastern Montana (Big Horn, Powder River, and Rosebud) that will be affected if strip mining of federally owned coal is allowed in the Decker-Bimey Area. It was believed the typologies would aid in better understanding the philosophical motivations of residents as they wrestle with the pros and cons of coal development and help develop better public education strategies.

A two hundred and eighty-eight item questionnaire composed largely of five point Likert-type statements was developed by an interdisciplinary team of researchers composed of the author, Dr.

Pat Jobes from the Department of Sociology at Montana State University, and Dr. Raymond Gold and members of his staff of the Institute for Social Science Research at the University of Montana.. Because of the interdisciplinary nature of this study and combination of purposes this questionnaire was developed to serve, only those questions the author developed or was involved in developing were discussed in this research.

A complete census by family unit was completed by the author for the 900,000 acre study area with 298 potential interviews being identified. An interview was defined as the person representing the family unit., A total of 259 interviews were completed for an 87 percent completion percentage. The Statistical Package for Social Sciences (SPSS), a system of computer programs , was selected by the researcher to exploit fully the descriptive data provided by the research. Two sub-programs, CODEBOOK and FASTABS, were used to process the data.

The CODEBOOK sub-program provided the relative frequency and percentages of distribution for each item on the interview schedule. The FASTAB program provided the chi-square statistic used to measure the degree of association between the ten socio-economic factors used in the study and the statements in the questionnaire.

Occupation of the head of the household and where respondents lived were found to be the strongest associations operating within the socio-economic variables. The agricultural and public occupations versus the private business and operations and construction occupations and the rural-farm versus town-non-agricultural divisions were the most discriminating associations. The socio-economic variables of age and years of residence in the Decker-Birney Area were found to be useful in identifying value differences between older and younger respondents and short term and long term residents. It was concluded that a large majority of respondents across all the occupations and in the rural and town places of residence opposed coal development and its resulting impacts. However, a consistently lower degree of opposition to coal development was found associated with those persons residing in town and employed in a private business or operations and construction occupation.

Two bio-medical computer programs, BMDP2M, cluster analysis of cases, and BMD07M, stepwise discriminant analysis were used to develop and test a typological classification system. Forty-one variables were used in the cluster analysis program to develop the typology. The typology was then tested by the stepwise discriminant analysis program using the F statistic. The .05 level of significance was set for the rejection of the null hypotheses.

In testing the hypotheses set forth in this study, all the alternative statements were accepted. This acceptance indicated that three "types" of people were identified in the population that had different orientations about the area and the pending development. Twenty-one percent of the 259 respondents were classified in the "boomer type," 51 percent of the 259 respondents were classified in the "anti-strip mine type," and 28 percent of the 259 respondents were classified in the "developer protector type." The "boomer type" was described as having a pro-development and pro-strip mine orientation. The "anti-strip mine type" was described as having an antidevelopment orientation. The "developer protector type" was described as the group willing to see development progress if strong controls were administered and supervised.

Inconsistencies were seen to exist in people's understanding about what coal development entails and these inconsistencies point to the role education could play in the area. A comprehensive educational plan spanning all segments of the population and providing the nucleus of a strong group action program is needed. Such a plan would help to bring the Decker-Birney Area residents regardless of occupations, places of residence and attitudinal predilections together and working towards a common goal of planning for the best options available for the area.

DEDICATED TO THOSE WHO CARE,
WHO MAKE A DIFFERENCE

Since the coal will be dug, let us set up every safeguard, guided not by commercial interests but by reason and our love for the land we have so often betrayed. Let us enact laws with teeth, directed by dispassionate and informed minds. The strictest laws will not discourage development. Industry howls about the impossible and forced to, then does it -- an accomplishment much to its credit.

Let us engrave on our minds that our first concern must be water, soil and air. We can't stay progress, but we can guide it. As we do, so can we reflect that every choice entails an onus, that every decision leaves the residue of regret, that the path ahead always leaves behind something dear. (High Country News, 1974:3)

(A. B. Guthrie, Jr., Pulitzer Prize Novelist)

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IMPACT IN THE DECKER-BIRNEY STUDY AREA OF EASTERN MONTANA:
IMPLICATIONS FOR EDUCATION

by

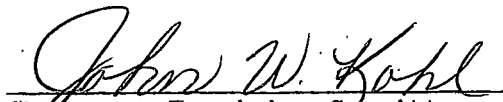
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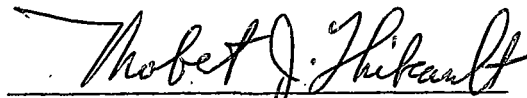
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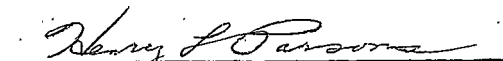
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ABSTRACT

The purpose of this study was to identify attitudinal predelictions and to develop a typology of environmental orientations held by residents of the three counties of eastern Montana (Big Horn, Powder River, and Rosebud) that will be affected if strip mining of federally owned coal is allowed in the Decker-Birney Area. It was believed the typologies would aid in better understanding the philosophical motivations of residents as they wrestle with the pros and cons of coal development and help develop better public education strategies.

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in identifying value differences between older and younger respondents and short term and long term residents. It was concluded that a large majority of respondents across all the occupations and in the rural and town places of residence opposed coal development and its resulting impacts. However, a consistently lower degree of opposition to coal development was found associated with those persons residing in town and employed in a private business or operations and construction occupation.

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In testing the hypotheses set forth in this study, all the alternative statements were accepted. This acceptance indicated that three "types" of people were identified in the population that had different orientations about the area and the pending development. Twenty-one percent of the 259 respondents were classified in the "boomer type," 51 percent of the 259 respondents were classified in the "anti-strip mine type," and 28 percent of the 259 respondents were classified in the "developer protector type." The "boomer type" was described as having a pro-development and pro-strip mine orientation. The "anti-strip mine type" was described as having an anti-development orientation. The "developer protector type" was described as the group willing to see development progress if strong controls were administered and supervised.

Inconsistencies were seen to exist in people's understanding about what coal development entails and these inconsistencies point to the role education could play in the area. A comprehensive educational plan spanning all segments of the population and providing the nucleus of a strong group action program is needed. Such a plan would help to bring the Decker-Birney Area residents regardless of occupations, places of residence and attitudinal predilections together and working towards a common goal of planning for the best options available for the area.

Chapter 1

INTRODUCTION

Montana's future is very dependent on the utilization and proper management of its natural environment. Its stream and rivers are still comparatively pure, the air is still pristine, and the views spectacular. These physical attributes of the state are highly prized by its population.

Large-scale industrialization, typical of so many states, has passed Montana by, due largely to marketing reasons. The Montana State Department of Health and Environmental Sciences (1973:1) made the following analysis of Montana's industries:

Primary industries in Montana are almost totally extractive and the sites at which they exist are also the sites at which the greatest abuse of environmental quality and the greatest examples of social problems attendant upon unplanned industrialization are apparent. The redeeming characteristic of this situation is that these problems, while recognizable, are also still manageable.

The citizens of Montana and their legislative representatives are involved in the biggest period of decision making that has faced the state. The strippable reserves of coal in Montana calculated to be more than 42.5 billion tons (Matson, 1974:2) are the targets for massive development. The extraction of Montana's strippable coal is underway with five strip mines - Peabody, Western Energy, Knife River, Decker and Westmorland - operating in eastern Montana. These mines produced 10,721,413 tons of coal in 1973, and have a projected output of

14,357,000 tons for 1974, and 20,800,000 tons for 1975. (Montana Energy Advisory Council, 1974:28) As a result, the natural resources and environment of Montana are being placed in trade-offs between "goods and bads." As stated in the Situation Report of the Montana Coal Task Force (1973:6), the pollution-environmental problems facing Montana:

. . . . can be summed up in the proposition that benefits are generally produced jointly with detriments. To fully consider all trade-offs between 'goods and bads' when decisions are made is difficult because of scientific uncertainty, a (human) tendency to suppress negative information, and the consistent failure of our mixed market price system to properly assess and assign the costs of the 'bads.' Therefore, there may exist a tendency to overestimate the 'goals,' and according to economist Kenneth Boulding '. . . indulge in processes of production that produce too many bads per good.'

The present Montana need is for information. Factual knowledge on which to base decisions concerning the impact of this technology on Montana agriculture, environment, ecology, and economics is of vital importance to residents of the state. Planners and administrators need to know the public's opinion and to get private citizens to participate in the decisions to be made that will affect resource use.

Statement of the Problem

The purpose of this study was to identify attitudinal predilections and to develop a typology of environmental orientations held by residents of the three counties of eastern Montana (Big Horn, Powder River, and Rosebud) that will be affected if strip mining of

federally owned coal is allowed in the Decker-Birney Area. The typologies will aid in better understanding the philosophical motivations of residents as they wrestle with the pros and cons of coal development and help develop better public education strategies centered around energy issues.

Need for the Study

In May of 1972, the Bureau of Land Management and the United States Forest Service (Custer National Forest), in cooperation with the State of Montana, began the task of compiling a comprehensive multi-resource analysis of the Decker-Birney Study Area which is located in southeastern Montana. The Decker-Birney Study Area as shown on the location map Figure 1, encompasses 900,000 acres, approximately 79,000 of which are administered by the B.L.M., 153,000 acres by the U.S.F.S., and 48,000 acres by the State of Montana. The remaining surface acreage comprising approximately 620,000 acres of the unit is in private ownership.

The Decker-Birney area is considered one of the most valuable areas in Montana for low-sulfur coal. According to the Montana Bureau of Mines and Geology (B.L.M. and U.S.F.S., 1972:13) "there are 227,880 acres (12 billion tons) of strippable coal in the planning area." The federal government is coming under considerable pressure from private industry to allow development to take place. The reason for

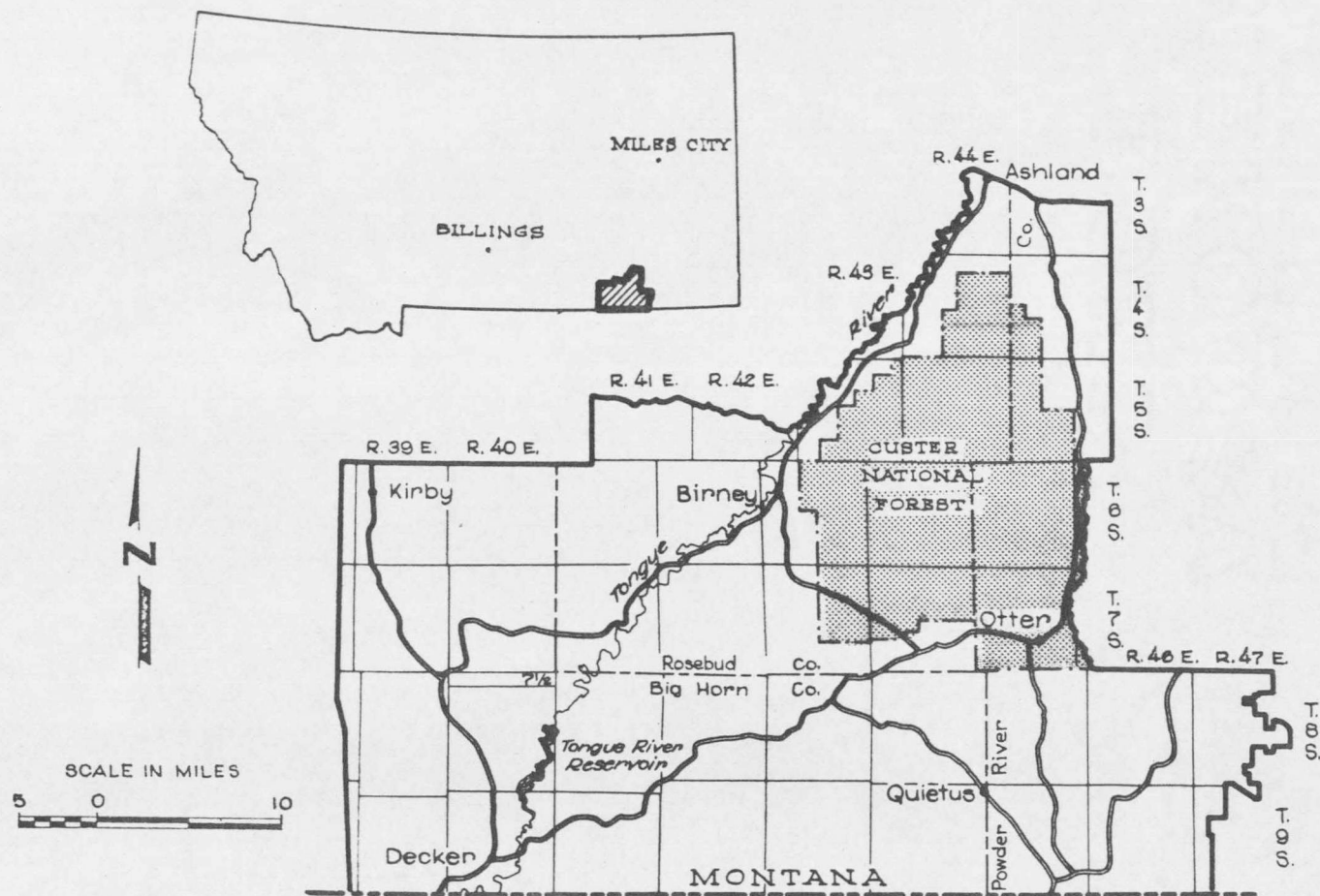


Figure 1. Decker Birney Location Map (B.L.M. and U.S.F.S., 1974:1)

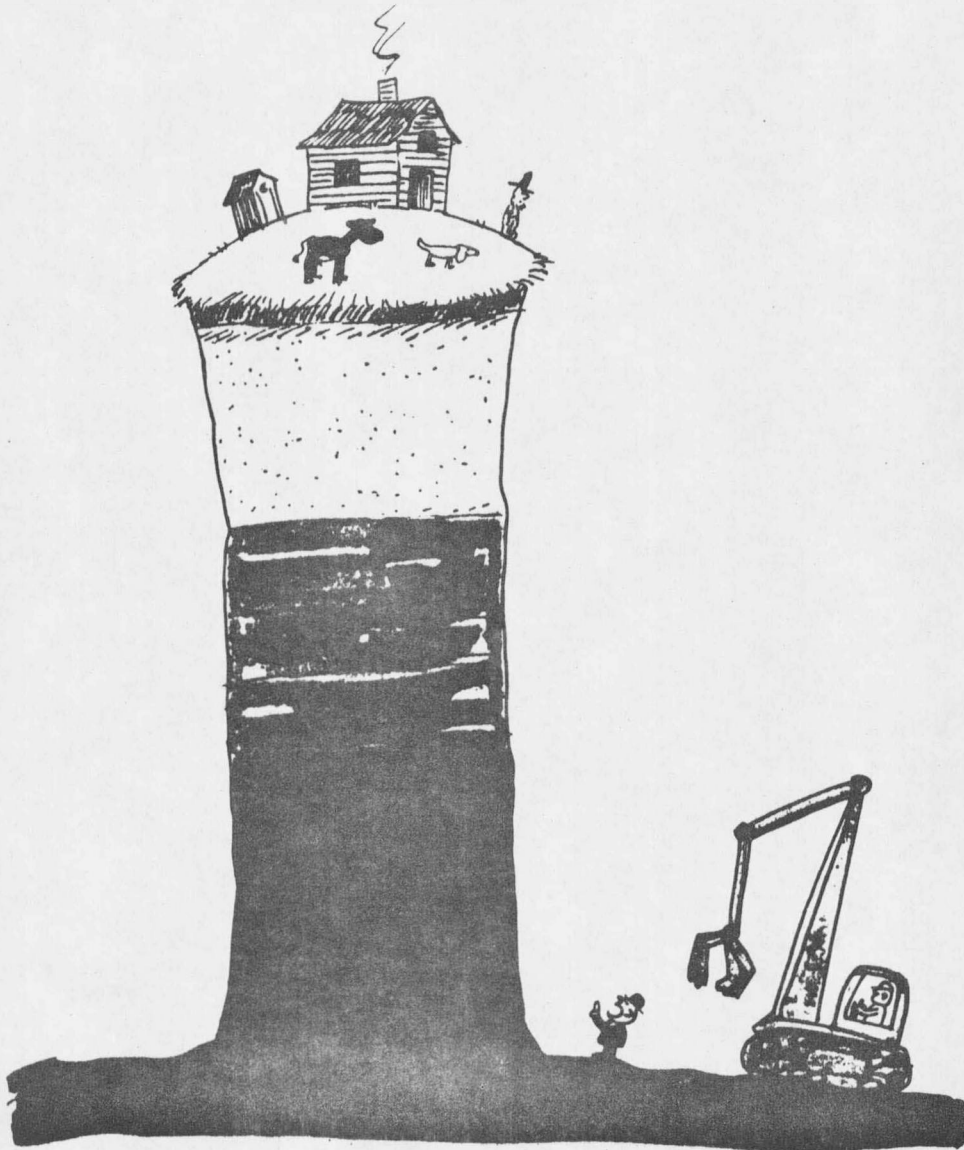
the pressure is that the federal government has mineral ownership rights to 788,957 acres of the approximately 900,000 acre study area. The following table gives the breakdown of acres by ownership within the study area. (B.L.M. and U.S.F.S., 1972:21)

Table 1. Mineral Ownership by Acres

Owner	Surface Ownership	Mineral Ownership	Strippable Coal
Federal	232,169	788,957	209,160
State	48,000	48,000	8,760
Private	618,540	61,752	9,960

Figure 2, a political cartoon distributed by the backers of the Mansfield Amendment in the First Session of the 93rd Congress, graphically displays the surface rights versus coal ownership rights issue that is a key dilemma in the Decker-Birney Study.

Presently, the Decker Coal Company is operating a strip coal mining operation on 26,870 acres it has under coal lease from the state within the study area. However, if the federal government decides to allow further development of the mineral resource to take place, the number of companies operating within the study area will increase rapidly. Based on data gathered to date, the Bureau of Land Management has proposed that 119,000 acres (6.7 billion tons) be considered



"I'm making you a final offer for the coal under your land."

Figure 2. Coal Ownership versus Surface Ownership Cartoon
(Distributed by the supporters of the Mansfield Amendment, First
Session of the 93rd Congress)

for lease for strip mining in the upper Tongue River area in Montana; the lease recommendations would open up six new areas to massive strip mining operations. If the six areas identified were to be totally strip mined, fifty-one ranch operations would be directly affected including forty-five wells, ninety-two springs, 144 reservoirs, 6,085 acres of cultivated land, and 113,395 acres of rangeland. (B.L.M. and U.S.F.S., 1974:8) With the recommendation for leasing the Bureau of Land Management has identified four possible levels of development which are shown in Table 2. (Northern Plains Resource Council, 1974:1)

Table 2. Possible Levels of Coal Development

Development Level	Extent of Activity	Total Population Increase	Peak Construction Population
Export of coal from state	up to 6 mines	9,540	12,000
Low Development	3 power plants and 1 export mine	7,890	15,000
Medium Development	3 power plants 2 gasification plants	24,822	50,000
High Development	3 power plants 9 gas plants 12 export mines	79,409	150,000

Before development is allowed, the federal government is required by law to exhaustively explore all factors needed to meet the requirements of the federal agencies land use planning process. The research conducted in this study has provided information regarding population values and attitudes associated with development for inclusion in the land use planning system.

Questions to be Answered

Although people have a variety of opinions about coal development and its environmental impact, do they react to this situation according to some pattern or type of response? If so, is there more than one type that can be identified? How are these types different from one another and how are they similar? What kinds of persons are associated with each type? For example, are ranchers associated with one attitude type and businessmen with another? Does land ownership have any bearing on how people feel about coal development? What relationship is there between age, sex, and socio-economic stratifications and attitudes towards coal development? Can patterns be seen in the attitudes about coal development portrayed by a certain type person that could be changed or influenced by educational programs? It is these questions which this research has focused on.

General Procedures

The population studied resides in the communities and rural

areas of the three counties (Big Horn, Rosebud, and Powder River) in which the Decker-Birney Study Area is located. Although the research conducted focused on the population residing in the Decker-Birney Study Area, the researcher recognizes that development will influence the entire surrounding areas.

A complete census by family unit was completed by the researcher for the 900,000 acre study area with 298 potential interviews being identified. An interview was defined as the person representing the family unit. A total of 259 interviews were completed for an 87 percent completion percentage. The study was designed as a survey, utilizing a lengthy questionnaire of 288 questions developed by an interdisciplinary team of researchers composed of the author, Dr. Pat Jobes from the Department of Sociology at Montana State University, and Dr. Raymond Gold, and members of his staff of the Institute for Social Science Research at the University of Montana. Interviewing was conducted by the researcher and trained personnel between June 28 and September 10, 1974.

Statistical Analysis

Coding and data analysis was conducted between October, 1974, and March, 1975. The Statistical Package for Social Sciences (SPSS), a system of computer programs, was selected by the researcher to exploit fully the descriptive data provided by the research. Two sub-

programs CODEBOOK and FASTABS were used to process the data. The sub-program CODEBOOK computes and presents tables containing (1) simple frequencies, (2) relative frequencies with missing values included or excluded, and (3) cumulative adjusted frequencies for categorical data. The FASTABS program computes a number of statistics for cross tabulation tables. These include chi-square with Yates correction, Cramer's V, Pearson's contingency coefficient, Kendall's tau B, Kendall's tau C, and Somer's D (symmetric). Many of these measures are not immediately useful for the purposes of this report and have not been used, but they are available should a more sophisticated analysis of data be desired at a later date.

Two biomedical computer programs, BMDP2M, cluster analysis on cases, and BMD07M, stepwise discriminant analysis, were used to develop and test a typological classification system. Forty-one variables were used in the cluster analysis program to develop the typology. The typology was then tested by the stepwise discriminant analysis program using the F statistic.

Limitations of the Study

The following limitations are placed on this study:

1. The research effort was limited to the geographic confines of the Decker-Birney Study Area that includes portions of Big Horn, Powder River, and Rosebud Counties.

2. The results and conclusions of this study are limited to the population residing in the Decker-Birney Study Area during the summer of 1974, although the conclusions can be generalized to similar populations of other counties in eastern Montana.

Definition of Terms

Attitude. An attitude is the propensity to think, feel, and act the same way in similar situations. (Schilling, 1971:25)

Overburden. All of the earth and other materials removed or excavated for the purpose of exposing a coal seam as may be necessary in order to surface mine. (U.S. Congress, 1972:2)

Reclamation. The process of restoring an area of land affected by coal mining to a condition that the land may be used for the purpose for which it was used prior to coal mining or other useful purposes. (U.S. Congress, 1972:2)

Strippable Coal. A seam of coal having a minimum thickness of six feet and with no more than 150 feet of overburden. (B.L.M. and U.S.F.S., 1972:13)

Surface Coal Mining (strip mining). All or any part of the process followed in the production of coal from a natural coal deposit whereby the coal may be extracted after removing the overburden

through a series of openings made by a machine which enters the coal seam from a surface excavation. (U.S. Congress, 1972:2)

Type. A pattern of traits of an individual, group, or culture that distinguishes it from other individuals, groups, et. al. Types are used on the assumption that they provide a means of classification of persons or cultures that are useful for the purposes of analysis. (Theodorsen and Theodorsen, 1969:444)

Summary

The Decker-Birney area of southeastern Montana has become the target of pressures exerted nationally to develop strip coal mining operations in that area. The following newspaper accounts focus on the pressures that are mounting. Joseph P. Brennan, the vice-president of economics and planning for the National Coal Association, revealed (Billings Gazette, 1974:11) that the coal industry hopes to double its bituminous coal production in the next decade to meet the nation's energy needs in 1985. Mr. Brennan attacked proposed legislation by Montana's Senator Mike Mansfield, which would ban strip mining on lands where the federal government owns the mineral rights and another party owns the surface rights.

Paul Schmechel, vice-president and general manager of the Western Energy Company, while testifying before a senate subcommittee made these remarks (Billings Gazette, 1974:3): "The alternatives to

surface mining of western coal lands including federal lands, would result in a failing economy and unemployment levels that would not be acceptable to the people of this nation."

Before any decisions are made, the federal government and the state of Montana are jointly compiling a comprehensive multi-resource analysis of the Decker-Birney area. This proposed research will help to identify the attitudinal parameters (to include examination of the issues, hopes, fears, goals, and values) of the population in the Decker-Birney area. This information will be used as input in the land use planning system.

Chapter 2

REVIEW OF RELATED LITERATURE

Introduction

The review of related literature has been divided into four sections: a look at coal development with a historic perspective; an overview of coal development in Montana; a description of Montana's rural population; and a look at some interesting components of the Decker-Birney Study Area.

A Look at Coal Development With a Historic Perspective

In June of 1971, Carl Bagge, president of the National Coal Association, told his members at a Washington conference that "the 70's will be the decade in which coal achieves its national birthright as the principal energy source for the nation." (Newsweek, 1971:69) Mr. Bagge's prediction did not take long to begin developing. Coal production in the United States as reported by the Department of the Interior has been increasing steadily since 1964. In 1964, total production of soft coal output was 487 million tons; in 1968 output was 545 million tons; and in 1975, output was estimated at 575 million tons. Coupled with this increase in coal output was the increase in strip mined coal which jumped from 31 percent of the output in 1964, to an estimated 47 percent of the output in 1972. (U.S. News and World Report, 1972:77)

With the prediction "King Coal" is coming back, the coal companies have begun moving west. In January of 1974, (Phillips, 1974: 1015), a memorandum of the American Mining Congress, noting that the nation's biggest crunch for coal would come in the 1975-80 period, said "the recognized reserves of the strip mineable areas of thick western seams provide the best opportunity of increasing coal production sufficient to meet these requirements." In January, 1973, the Montana Department of Fish and Game (Schneider, 1973:12) editorialized, "Evidently, the question of whether or not the coal will be wretched from the earth has already been answered. It will. Now we as Montanans, must decide how we should allow it to proceed and how it should be controlled."

By 1973, Montana's coal basin had undergone intensive leasing activity with seventeen leases let, embracing 37,152 acres. This does not include the sixteen thousand acres of Indian land that also was leased during that period. (Montana Coal Task Force, 1973:12) As of October 15, 1974, twenty firms (Montana Energy Advisory Council, 1974: 35-42), had received prospecting permits for coal and were actively involved in exploration. The following is a list of the companies, and they read like a page from the stock exchange: Amax Coal; Burlington Northern, Clay M. McCartney, Concho Petroleum, Consol, Consolidation Coal, Chevron, Getty Oil, Gulf Mineral, Knife River Coal, Mobil, N.R.G., Peabody Coal, Phillips, Tenneco Coal, Sun Oil, Utah Interna-

tional, Western Energy, Westmorland Resources, and John S. Wold. As of date, the following companies are operating strip mines in Montana: Consolidation Coal Company, a subsidiary of Continental Oil Company; Decker Coal Company, a subsidiary of Pacific Power and Light and Peter Kiewit and Sons, Incorporated; Knife River Coal Company, a subsidiary of Montana-Dakota Utilities; Peabody Coal Company, a subsidiary of Kennecott Copper Corporation; Western Energy Company, a subsidiary of Montana Power Company; and Westmorland Coal Company, a subsidiary of Westmorland Resources. (Montana Coal Task Force, 1973:11)

If Montanans do, in fact, decide the fate of the state's coal development, it will be the first time in the state's history that Montana has had control of its own destiny. K. Ross Toole, in 1959, published a book entitled Montana, An Uncommon Land, that unfolds Montana's history from 1680 to 1959. The book continually documents the exploitation of Montana, and the extraction of its natural resources. On page nine of his book, Mr. Toole states:

Nature, not the evil designs of men, decreed that Montana be a place with a colonial economy. The object of men had to be to trap it, mine it, shoot it, and get out. Every one of the salient industries has been extractive, from beaver through beef to copper. The capital required for frantic exploitation, whether of furs, cattle, silver, lumber, or copper, had to come from the East. And as Eastern capital flowed westward, control and the bulk of the wealth flowed eastward.

Montana's growth, in one sense, has been a series of traumas. There has been a strikingly consistent pattern which, appropriately enough, conforms to the pattern of the land itself. For every pinnacle there is an equally impressive declivity. For every sudden rise, a sudden fall. Optimism has alternated

almost monotonously with despair.

The following excerpts from Mr. Toole's book are part of the Montana story, and put in perspective the pattern that Montana's growth has taken:

The number of stock on the Montana open range had tripled by 1883. The U.S. Department of Agriculture estimated that there were nearly 600,000 cattle and 500,000 sheep in the Territory, the great bulk of which were east of the mountains. . .

This expanding business, like the mining business, required capital. And once again we see the influx of outside money. The N Bar was backed by the Niobrara Cattle Company of Boston; the Concord Cattle Company of Concord, New Hampshire; the Green Mountain Stock Ranching Company of Minneapolis (formerly of Vermont); and many companies from St. Louis and points east A vast percentage of the fortunes made between 1879 and 1887 enriched stockholders and owners who had never seen Montana and knew of it only through glowing company reports of quick profit. The nature of the business was summed up by Julian Ralph, who wrote in 1893:

The cattle owners, or cowmen, are in Wall Street, the south of France, or in Florida in the winter, but their cattle are on the wintry fields where now and then, say once in four years, half of them, or 80 percent of them, or one in three (as it happens) starve to death because of their inability to get at the grass under the snow But the cowmen do business on the principle that the gains in good years far more than offset the losses in bad years (Toole, 1959:142-143)

Toole goes on to say:

Then beginning in 1897, a significant series of consolidations in the copper industry presaged a change in the entire basis of ownership. In the early spring of 1897, the Boston and Montana Company and the Butte and Boston Company effected a consolidation. In the same year, William Andrews Clark filed incorporation papers and brought his diverse corporate interests under one head. . . .

The process caused some concern in Montana. Stockholders in the area were almost always minority stockholders. But at least in one case they proved recalcitrant. Litigation was

initiated which placed the matter before Montana's Supreme Court. The court held against such consolidations and stated that stock transfers from one company to another were illegal without the consent of minority stockholders.

In January, 1899, the legislature took a hand in the matter, and it did so when crucial developments were on the near horizon. House Bill No. 132 provided for the legality of stock transfers without minority consent, and it was introduced with tremendous power behind it. With the introduction of this bill Montana had a glimpse into the labyrinth behind some of the consolidations, and Montanans learned for the first time that Standard Oil was in some measure involved.

Concerning House Bill No. 132, W. A. Clark wrote to his close friend J. S. M. Neill: 'It is a matter of great concern to me. The First National Bank of New York, the Northern Pacific Railroad Company, Senator Carter and the Standard Oil people are all working hard to get this bill through and I am sure it will be very much to my interests if they succeed.'

Why was Standard Oil interested? Because they were planning to buy the Anaconda Company, and other Butte properties, and consolidate. With a great New York bank, a great railroad, and a great oil company aligned in concert, there was little doubt but that the bill would pass. It did, handily, guided through by the Anaconda Company's own attorney, E. D. Matts.

This show of power alerted the governor, R. B. Smith. He vetoed the bill, calling it 'vicious.' He made it clear that he deeply resented Standard Oil's intrusion into Montana politics, that he saw bad things for Montana in a Standard Oil - owned copper combine, and then, in a peroration as vigorous as it was mixed in metaphor, he concluded with the statement: 'If you do not assert your independence now and defeat this measure, it will be too late when the tentacles of this octopus have fastened their fangs on the strong limbs of this fair commonwealth.' But the bill passed easily over the Governor's veto. Anaconda became the Amalgamated Copper Company, owned and controlled by Standard Oil and financed by New York's National City Bank. (Toole 1959: 163-165)

Historians have never been able to determine who first bought votes in Montana, bribed the courts, or corrupted the legislature, but it happened and unfortunately still remains a practice that happens today in the United States, as exemplified by

the far reaching scandals of Watergate. One fact that history has repeatedly found true is the involvement of corporate industry in such tampering. The best publicized case of bribery, wholesale vote buying, and corruption of legislative representatives in Montana was written by C. P. Connally for McClures Magazine in 1906 and 1907. In a series of eight articles written during that period, five of them (see References Cited under Connally) document the wholesale corruption that was involved in the election of William A. Clark, as senator from Montana in 1898. A sixth article entitled, "The Fight for the Minnie Healey," describes the bribery attempt in 1901 of the Amalgamated Copper Company to influence the court proceedings in the "Minnie Healey" case.

Although it is not correct to say that up until the 1960's that the Anaconda Company and the Montana Power Company often referred to as "the twins," or "the company," had a monolithic control of the state, it is correct to say they were and still are, powerful corporate concerns. Frequently, the two companies have been closely identified on questions of public policy. Thomas Payne wrote in a paper entitled "Montana: Politics Under the Copper Dome," in a book edited by Frank H. Jonas (1969:220), just how the influence of the Anaconda Company has been achieved:

Long known for the excellence of its lobbying activities, Anaconda's attorneys follow with keen scrutiny the course of every measure under consideration by the legislature. Its

strength rests not only in its wealth and resources, but also in its elaborate network of relationships with key citizens, banks, legal firms, and business organizations throughout the state. Rare is that unit of local government - county, city, or school district - that does not have on its policy-making body a person associated, in some capacity, with the Anaconda Company. And Anaconda men are invariably among the leaders of the power structure in every large community in the state. Until June, 1959, the Anaconda network was further strengthened by its control of most of the leading daily newspapers. It should be a negative fashion - to prevent government actions which it opposed.

Up until June 1, 1959, the Anaconda Company owned and published eight daily newspapers in the state, encompassing 55 percent of the total daily newspaper circulation and 60 percent of the total Sunday circulation. The company-owned newspapers included the Billings Gazette, the Livingston Enterprise, the Daily Post, the Montana Standard, the Anaconda Standard, the Helena Independent Record, the Daily Missoulian and the Missoula Sentinel. The newspaper chain was established between 1906 and 1929 except for the Anaconda Standard which was established in the 1890's. (Jonas, 1969:211) The impact of the ownership of the papers by Anaconda Company is described by Payne (Jonas, 1969:212):

. . . controversial news was often suppressed entirely, when it was not buried on an inside page . . . Editorial policy became not only neutral, but sterile as well. A variety of historical, exotic, or otherwise irrelevant topics graced the editorial pages, constituting in all probability the blandest diet of editorial comment ever served to any group of American newspaper readers.

It has been this type of corporate influence described

historically that Montanans have faced perpetually. With the coming development of coal, corporations as large as the Anaconda Company and having histories just as self-serving, are moving into Montana.

Harry M. Caudill, a lawyer who lives in Whitesburg, Kentucky, became a forceful spokesman for the people of Appalachia early in the 1960's. Since that period he has written numerous articles and books on strip mining in both Appalachia and other areas of the country. These three books, Night Comes to the Cumberlands, Dark Hills to Westward, and My Land is Dying, present the most complete account that the author has found of strip mining and its effect on the social, political, and economical components of the Appalachian region that have been written.

The similarities between Montana and the Appalachian region's history is astounding. Mr. Caudill, in My Land is Dying, (1971:118), makes this analysis:

In fact, regional development in an area like Appalachia, rich in resources but impoverished by exploitation, became virtually impossible when the real masters of the region are the corporations that own and deal in these resources. The unchecked power of the corporations is, of course, a matter of concern not for Appalachia alone. As an editorial in the Manchester Guardian Weekly for March 7, 1970, noted, 'Some already see the day - not too far off - when the giant international corporations will be answerable to no nation government. The new international industrial groups threaten to grow more powerful than any one nation state.' The same observer might have gone on to note that the American states have failed consistently and ignominiously in their occasional efforts to curb the sprawling enterprises that extract, manufacture, and sell with mindless disregard for every consideration

except that of corporate profit. It might further have been asserted that the federal government is hardly less ineffectual in dealing with conglomerate entities such as A. T. & T. or Standard Oil of New Jersey. We live, in short, in a society where a telephone call from the president of a steel corporation carries more influence with those in office than a petition signed by tens of thousands of ordinary, one-vote citizens.

Today, strip mining is underway in twenty-six states and already an area twice the size of Connecticut has been stripped.

(Branscome, 1971:230) The effectiveness by which this is being accomplished is exemplified by the Hanna Coal Company's Gen of Egypt, a shovel with a two hundred ton bite, that has a boom ten stories high, and consumes more electricity each day than all of St. Clairsville, a town of 4,604, near the shovel's work site in Belmont County, Ohio.

(Newsweek, 1971:69) In 1967, the U. S. Department of the Interior sent to the Congress a detailed study entitled "Surface Mining and Our Environment," which gave a breakdown of strip mining and where it has occurred throughout the fifty states. In Kentucky, the total came to 127,700 acres of which five percent had been reclaimed. (Caudill, 1971:23, 24, 99)

During the Western States Water and Power Consumers Conference in Billings, the first week in October in 1972, Harry Caudill and Carl Bagges, president of National Coal Association, collided in debate. Newsweek (1972:81) reported the encounter in this manner:

Bagges said to the conference: 'In Appalachia, we never promised a rose garden. We do promise we will not create what

Senator McGovern calls gaping wounds that never heal.' In response, Caudill warned the conference to 'beware of your coal companies who say they will restore your land leave it dead.'

In a prophetic statement in 1971, Caudill (1971:57) said

"As the American carthage spreads west, the big names in strip mining will be Peabody Coal Company, Atlantic Richfield Company, Garland Coal and Mining Company, Pacific Power and Light Company, and Consolidated Coal Company." Of the companies Caudill named, three are presently operating strip mines in Montana. These companies come to Montana as industries, bringing with them records blemished with outright contempt and disregard for the lands they have stripped in the east. These records only emphasize the need for Montana to take control of its destiny.

Coal Development in Montana

The Fort Union Coal Formation, stretching from Saskatchewan to Colorado, is one of the largest known coal reserves in the world. Three states -- Montana, Wyoming and North Dakota -- are alone underlain with one and one-half trillion tons of bituminous and sub-bituminous coal and lignite, twenty percent of the world's total known coal reserves and approximately forty percent of the known coal reserves in the United States. (Gill, 1972:141) In the past very little of the northern plains coal of the Fort Union desposits have been mined, but by May, 1970, the need for low-sulfur coal in our

major cities began changing this. Alvin Josephy (1973:71) describes what began to happen in the northern plains country:

A large-scale rush to acquire exploration permits and leases for the low-sulfur coal in the northern plains -- together with plans on how to maximize short-term and long-range profits from the enormous deposits -- was already stirring the energy industry. It appeared evident that national policy guided by the industry, would inevitably encourage the exploitation of the western states' coal fields as an answer to the apparently diminishing supplies of fuels from elsewhere, the threat of growing dependency on the oil producing nations of the Middle East and power plant pollution in the cities.

The Bureau of Reclamation (1971:11) in collaboration with thirty-five power utilities, released a study in October, 1971, entitled The North Central Power Study. It proposed that forty-two mine mouth generating plants be constructed in the northern plains area, primarily in Wyoming, Montana and North Dakota. The Northern Plains Resource Council has been gathering and synthesizing information pertinent to the development of the Fort Union Coal deposits and has made this analysis (Muller, 1972:2):

If constructed, these power plants would produce some 403 billion kilowatts of electricity per year, more electricity than is produced annually by any country in the world save the U.S.S.R. or the U.S. (In 1969, the U.S.S.R. produced 659 billion kilowatts of electricity.) If constructed, such a complex would require 8,105 miles of right of way for transmission lines. It would require 210 million tons of coal and 2.6 million acre-feet of water each year. (The water requirements of the North Central Power Project would, by the year 2,000, exceed by 80 percent the present municipal and industrial water requirements of the city of New York.) If constructed, this generating complex would produce more air emissions than both the New York City and the Los Angeles regions combined,

even with the latest air pollution control technology.

The estimations of the population increase that would accompany this project have been between 300,000 and 500,000 people. If a population increase of this magnitude occurred, there would be a tremendous demand for more highways, more schools, more medical facilities, and more police protection. Once the strippable coal reserves had been expended in twenty-five to fifty years, the primary industry that created the population and economic growth would leave.

In 1973, a group of utility companies composed of the Montana Power Company, Puget Sound Power and Light Company, Portland General Electric Company, the Washington Water Power Company, and the Pacific Power and Light Company formed a group called the Colstrip Project Management (CPM). In 1971, this group began to evaluate the environmental impact of Colstrip. In early 1973, the Westinghouse Environmental Systems Department was engaged to conduct a comprehensive environmental analysis of the entire project. The completed environmental impact statement was released in January, 1974. The following is a summary of the project description and what has been completed to date (Westinghouse Electric Company, 1974:1):

Two parallel 500 kv transmission lines, approximately 430 miles long, will be constructed from Colstrip to Hot Springs, Montana, where they will tie in with the Bonneville Power Administration's 500 kv system. Two new substations will be required at Billings and Helena and the project transmission system will terminate at an existing substation near Hot Springs, Montana. The transmission system is expected to be in operation in 1979.

The Colstrip Project comprises a power generating complex near Colstrip, in Rosebud County, Montana, and a power transmission system. The plant complex will use Montana coal to be strip mined adjacent to the plant, utilizing the latest and best

available technology for environmental protection. Cooling towers will dissipate plant heat, using water drawn from the Yellowstone River approximately 30 miles north of the plant site. The transmission system includes dual transmission lines, substations, and compensation stations between Colstrip in Rosebud County and Hot Springs in Sanders County, Montana.

Two 330 Mw turbine generators (Units 1 and 2), owned by the Montana Power Company and Puget Sound Power and Light Company, have construction permits and are now under construction; they are planned for service in 1975 and 1976. These will be fueled with coal mined by the Montana Power Company's subsidiary, the Western Energy Company. Two additional 700 Mw generating units (Units 3 and 4), are planned for construction at Colstrip and will be completed in 1978 and 1979, respectively, for a total of four generating units. The Montana Power Company will own 30 percent of the capacity of Units 3 and 4, Puget Sound Power and Light Company -- 25 percent, and Portland General Electric Company -- 20 percent, the Washington Water Power Company -- 15 percent, and Pacific Power and Light Company -- 10 percent. Together these four units will supply about 2060 Mw of power.

This description demonstrates just how rapidly this development is happening in eastern Montana.

One key to the development of the eastern Montana coal is water. As stated earlier, this semi-arid region is a water-short area. Most of the water for this area comes from the Yellowstone Basin. This basin drains approximately 69,100 square miles of northern Wyoming, southern Montana, and a small part of western North Dakota (Westinghouse Electric Company, 1974:2-47) Within the Yellowstone Basin, river water is virtually the sole source of water for all uses. The primary use of the water, however, is for agriculture; in the Yellowstone Basin about 1.25 million acres are irrigated. In fact, surface water sources are responsible for 98.6 percent of the water

that is diverted in Montana. (Westinghouse Electric Company, 1974:2-47)

In April, 1972, the U. S. Department of the Interior released an appraisal report on Montana-Wyoming aqueducts. The report represents extensive studies on the availability of water resources in southeastern Montana and northeastern Wyoming for the development of the coal resources in the region. Projected water requirements show that 2.6 million acre feet may be required annually to meet a development level that may be attained in less than 30 years.

(U.S. Department of the Interior, 1972:31)

In a recent article entitled, "Water and Eastern Montana Coal Development" (Anderson, 1973:12-13), these observations are made:

Analysis shows that there is adequate water in the Yellowstone Basin for maximum projected diversions of up to 2.7 million acre feet per year, but only if the main stem of the free-flowing Yellowstone is regulated (by Allenspur Dam) because of critical seasonal low flows . . . The Yellowstone River, however, is virtually free-flowing in its main stem. Because it is one of the few free-flowing rivers in a land of dams, reservoirs, and canals, the Yellowstone is both fortunate and threatened. As a natural aquatic phenomenon, it offers unique values. But its free-flowing state also makes it attractive for development. The proposed Allenspur site on the Yellowstone near Livingston is the best remaining damsite in Montana and could firm up 1.7 mafy (2,350 cfs) for downstream industrial or agricultural use (2). Construction of Allenspur Dam would be one of the most massive impacts that could result from coal development, with perhaps the greatest spectrum of environmental costs.

The proposed dam site is approximately 22¹/₄ miles from Colstrip and would cover some of the most scenic areas of the Yellowstone River.

Many conservation groups have pushed to have this area of the river

included as part of the National Wild and Scenic River System.

Development of the coal resources in Montana is well underway. With this rush for "black gold" a great many problems must be faced. Among those questions to be answered are how much development is to be allowed, and what trade-offs are to be made? The answer to that question can only be arrived at by proper analysis and input of all those concerned.

Description of Montana's Rural Population

The U. S. Census Bureau divides the American population into rural and urban people on the basis of where they reside. Persons who live in towns of less than 2,500 population are said to be rural, and all others are urban. The rural population is further dichotomized into rural farm and rural non-farm. Rural farm persons are defined as those living in the open country, and rural non-farm are those persons living in villages or in the open country but not on farms. (Rogers, 1960:21)

The state of Montana has a predominantly rural population. With the fourth largest land mass in the United States and 694,409 residents, Montana ranks forty-third in population density. (MacCannel, et. al., 1973:1) Montana's population of incorporated and unincorporated places appeared as shown in Table 3 during the 1970 census. (U. S. Department of Commerce, 1970: Part 28-9) Only

Table 3. Montana's Population of Incorporated and Unincorporated Places.

Population		Places
less than 200		14
200-	500	25
500-	1,000	29
1,000	1,500	21
1,500-	2,000	8
2,000-	2,500	6
2,500-	5,000	15
5,000-	10,000	9
10,000-	25,000	5
25,000-	50,000	1
50,000-	100,000	2

twenty-three of all the incorporated and unincorporated places have a population of two thousand five hundred people or more. The largest city in Montana has a population of 61,581, the second largest has a population of 60,091 and these are the only two standard metropolitan statistical areas in the entire state. (U. S. Department of Commerce, 1970:1-17) This low density population is financing the operation of 704 public school districts and 1,040 elementary and secondary schools. (Montana Data Book, 1970, Ch. 7:6)

The State Department of Health and Environmental Services (1973:1) has described the population of Montana in a vivid manner which reflects a rural-oriented living:

Montanans reside here because they want to -- employment

opportunities are far better elsewhere. Montanans pride themselves on their self-reliance. They are prone to treat their fellow man with respect. They still feel that their problems are capable of solution and that they should solve these problems largely by themselves. Many Montanans are extremely generous with their time and devote much of it to the betterment of their communities and their state.

Dr. Carl Kraenzel, a former professor of rural sociology at Montana State University, gave the following description of the rural population of the plains area of Montana (Kraenzel, et. al., 1966:47):

To live and survive in this sparsely populated area, people need to be reasonably self-sufficient; if one lives 40 miles from town and can't start his car, it is necessary to cope with the situation by oneself. One cannot obtain or afford to have service people come and start the car. Self-sufficiency is not only a necessity but a value and an expectation of the residents.

Since status of people has most often been acquired via the work role, this self-sufficiency element has been a factor in assigning top-level status to those who manage on their own. This can be defined as an element in the extraordinary individualism of the residents of the sparsely settled area.

The thirty-seven county area east of the Rocky Mountains described by Dr. Kraenzel as the plains area of Montana is a semi-arid land receiving an average of twenty inches or less of precipitation annually. Temperature variations in the plains are more extreme than in other parts of the nation. For instance, a blizzard may be followed in a matter of hours by a chinook that completely melts the snow. The significant thing for the plains region is the low average crop season rainfall that is at or below the margin of successful agriculture as practiced in most parts of the world. (Kraenzel, 1955:12-17)

Because of the harsh unpredictable climate, a dry-land farming system of crop management and agronomic practices were developed to meet the requirements of climate and precipitation of this area. Dry-land farming is a method of building moisture reserves. Crops are grown with one year's precipitation and one or two years of stored moisture from previous non-cropping years. This type of agriculture has given rise to residents with definite characteristics. Island-like communities have grown up that are separated from each by distance and available moisture. Kraenzel (1964:1-2) identified three adapted patterns by the population for successful living in the plains region: 1) building of reserves, 2) diversification of operations, and 3) flexibility. These characteristics only add to the description of the rural Montanan - an individualist.

Decker-Birney Study Area

The northern plains encompasses parts of Montana, Wyoming, North Dakota, South Dakota, Nebraska and Wyoming. (Stoddard and Smith, 1955:372) This area has a beauty of its own, and Alvin Josephy (1973:71) describes it eloquently:

One of the most serene and least spoiled and polluted sections of the nation, it averages about 4,000 feet above sea level and stretches below the Canadian border roughly from the Badlands and Black Hills in the east to the Bighorn Mountains in the west. It is a huge, quiet land of semi-arid prairies, swelling to the horizon with yellow nutritious grasses; rich river valleys, lined with irrigated farms, low mountains, buttes, and rimrock ridges dark with cedar and

ponderosa pine; open, windswept plains covered with sagebrush, greasewood, and tumbleweed; and hundreds of meandering creeks edged with stands of cottonwoods. The rains average only 12 to 14 inches a year, the topsoil is thin and fragile, easily eroded and blown or washed away, and the vegetation in most places must struggle for life. Towns and cities are small and few and far between, and distances measured along the infrequent highways and ribbons of railroad track are great. For almost a hundred years the natural grasses and irrigated hayfields have sustained big flocks of sheep and herds of cattle, and the region has been one essentially of large, isolated ranches and farms, whose owners have fought endlessly against blizzards, drought, high winds, and grasshoppers -- and have treasured their independence and the spaciousness and natural beauty of their environment.

We forget all too easily that this part of the United States was the last to be settled. The Plains Indians held this country up until General George Cook's campaign in 1876. By the end of the year 1876, most of the Indians were removed from their ancestral homeland and were forced to live on reservations. This resulted in a virtual vacuum which was first filled by the buffalo hunters who were in turn replaced by non-Indian occupants and their domestic animals.

The geographical features and history of the settlement of the 75-80 square mile area called the Decker-Birney Study Area parallels that described above. The important physical features of the study area includes the Tongue River, Otter Creek, and Rosebud Creek drainages which dissect the region in a south-north direction. King Mountain, Poker Jim Butte, Wild Hog Butte, and Horse Creek Butte are situated in the northeastern part of the area, and the Tongue River Reservoir is located in the southwestern part of the area. The lowest

elevation of two thousand nine hundred feet is adjacent to the Tongue River near Ashland, while the highest point of four thousand three hundred feet is forty miles to the south along the Montana-Wyoming state line. (B.L.M. and U.S.F.S., 1974:1) Figures 3, 4, and 5, illustrate the variety of vegetative habitats and physical features of the study area.

Settlement in the Decker-Birney Area along the Tongue River seems to have begun around the year 1882. The historical account of Powder River County (1967:20) portrayed in the book Echoing Footsteps states:

Some of our early stockmen here, such as Charley Huckins and Charley Decker, hunted buffalo as a profession before they acquired a ranch and cattle. The last buffalo herds seen in this area are reported to have been cleaned up by the year 1882.

The Homestead Act of 1862, sanctioned the idea that every family should have an opportunity to own a 160 acre parcel of land if they had the ambition to live on it and care for it. Settlers first moving into the northern great plains soon found that wasn't enough land to make a living on in this semi-desert country. As a result Congress in 1911, passed the "enlarged" Homestead Act, allowing the grassland settler three hundred twenty acres which again proved inadequate, so Congress doubled the ante with the "stock-raising" Homestead Act of 1916. (Parson, 1972:298) These homestead acts played an important part in the settling of the Decker-Birney Area.



Figure 3. Agricultural Ecosystem

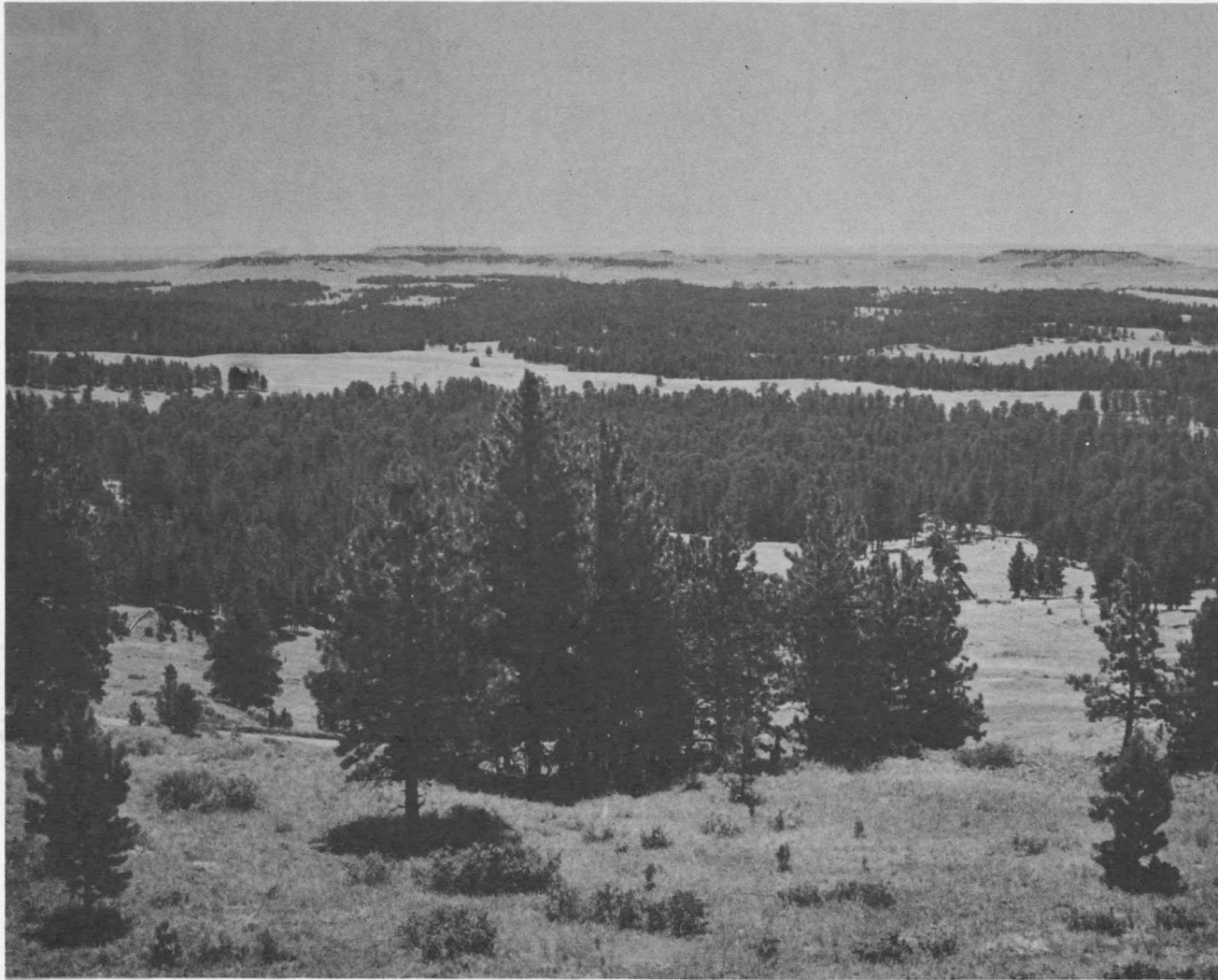


Figure 4. Ponderosa Pine Ecosystem



Figure 5. Sage - Shrub Ecosystem

Historically the area is very rich. About six miles from the town of Birney, located on Burton Brewster's Ranch is an old battlefield where General Miles fought the Cheyennes and the Ogallalas in the Battle of the Butte on January 8, 1877. Crazy Horse, Little Big Man, White Bull, Two Moon, and Spotted Wolf were some of the Indian chiefs involved with the battle. Carles B. Erlanson, (1963:21) a historian who wrote about the battle, described it as a very important battle psychologically as it showed the white man's capability to carry on a winter campaign. The Rosebud Battlefield is another interesting site in the Decker-Birney Area. Ken Walcheck (1973:18) gives this account:

While pushing north with some 1,300 men, General Crook ran into a superior force of between 2,000 and 5,000 Sioux and Cheyenne. The army shot more than 25,000 rounds of ammunition and authorities on the battle estimate the hostiles shot three to four times as much. The Montana Historical Society estimates Crook's losses at 10 killed and 21 wounded.

Crook weathered the onslaught of perhaps the most fearsome aggregate of spirited fighters ever to assemble on a battlefield. Historians say Crook thought he had met the entire Sioux nation and began withdrawing and fighting on the defensive as he slowly retreated to his base camp near Sheridan, Wyoming. Eight days later when Custer met the same forces, Crook's troops were unable to assist.

Other battles such as the Battle of Wolf Mountain, the Crow and Assiniboine Battle and the battle site of Hanging Woman Creek, remain as traces of the historical development of this area.

Being cattle country, the Decker-Birney Area had its run-in with sheepmen in 1892. Eleven masked men destroyed a band of three thousand sheep that were camped on land that belonged to the Circle

Bar Ranch owned by the late Captain Calvin Howes (former sea captain who left the ocean in the late 1870's to learn the cattle business). It was about this time that the sheepmen tried to drive the cattlemen out of the country. (Powder River County Extension Homemakers Council, 1967:148) Many of the residents that are in the eighty to one hundred year age bracket can vividly describe coming to settle in this region on horse drawn wagons filled with barb wire and will readily discuss the various accounts of the run-ins with the sheepmen.

Today in 1975 the Decker-Birney Area is still only accessible by gravel roads. It is a little piece of America that reflects a life style and value system that has been lost over the years. It's an area where people place a high value on individualism, family life, and neighbors help each other out of friendship. A statement was made by one individual I talked with that sets the tone of impending development: "I haven't locked a door in my house or taken the key out of any of my vehicles in 50 years, but I may live to see the day that I do." Money and greed are beginning to work their way into the communities. Individuals owning deeded coal are becoming instant millionnaires. However, not all residents are ready to give up without a fight. Mrs. Carolyn Alderson, a rancher's wife from Birney, gives voice to the way many residents feel (Josephy, 1973:101):

To those of you who would exploit us, do not underestimate the people of this area. Do not make the mistake of lumping us and the land all together as overburden and dispense with

us as nuisances. Land is historically the central issue in any war. We are the descendants, spiritually, if not actually, of those who fought for this land once and we are prepared to do it again. We intend to win.

This spirit and desire to protect the land and its heritage is very real among the residents of this area. During the summer of 1974, it manifested itself again as portrayed in Figure 6.

Summary

Rapid development of coal is underway in Montana as energy self-sufficiency is being sought for in the United States. The development of the coal in eastern Montana has produced a very real crisis in Montana, a crisis that threatens to alter or destroy the economic base of the state -- its natural resources. The Decker-Birney Study Area is but a small part of the northern plains area that sits atop of the coal rich Fort Union Formation. However, its rural population exemplifies the highly individualistic type of residents that live and work in this vast area and whose value systems still portray that of earlier generations.



Figure 6. Graphic Representation of Landowners Opposition to Strip Mining.

Chapter 3

PROCEDURES

Introduction

It would seem that no one favors environmental degradation or indiscriminate use of our natural resources. Opinion polls, public statements, and empirical research have all attested to the urgency of effective environmental policy. However, what constitutes "effective environmental policy" is, and will continue to be, a source of conflict. A study by the Institute of Government Affairs at the University of California states this dilemma very eloquently (Costantini, et. al., 1971:1):

. . . . the very agreement on the value of environmental quality dissipates into disagreement as to what constitutes pollution, how much of it we can or should tolerate, and what price we are willing to pay to deal with it. Viewed in this light, environmental degradation, like beauty appears to be in the eye of the beholder. Little wonder that although science and technology--in many respects villains in this modern morality play--document the various manifestations of environmental degradation and promise us the means of dealing with many of these problems, defacement of the environment continues. Different people have different interests, they value different things or even the same things differently; they have different priorities; and therefore, they see the same slice of the environment from different perspectives.

In a front page story in the Billings Gazette on May 26, 1974, a coal leasing expert, James Cannon of New York, told Montana State officials that "renewed leasing by the Interior Department next fall

will test resistance in Montana to creation of a 'national sacrifice' area for strip mining in a large part of eastern Montana." He further stated that "leasing probably will open in the Decker-Birney area before 1975."

Inevitably the question of whether the federal coal located in the 900,000 acre Decker-Birney Study Area of southeastern Montana will be strip mined is a political one. This study attempts to identify and analyze the attitudes of the population within the study area and to develop a typology of environmental orientations that will be of use in affecting environmental policy making for this area and to provide some recommendations for energy education programs. In the remainder of this chapter the procedures used in the collection, organization, and presentation of data obtained in this investigation are discussed.

Population Description and Sample Selection

The Decker-Birney Study Area as shown on the location map (Figure 1, page 4) encompasses 900,000 acres. The study area includes portions of Big Horn, Powder River and Rosebud Counties and a part of the Custer National Forest and the Miles City Bureau of Land Management District. Settlements within the area having full-time residents are Ashland, Birney, Decker, and Kirby. Ashland has the largest population of the settlements, with over 350 residents. The population

of Birney, Decker, and Kirby settlements combined is less than 80 residents. The entire population within the study area is calculated to be approximately 1,000 persons. (B.L.M. and U.S.F.S., 1974:1)

During June of 1974, a list of the entire population of households permanently residing within the study area was compiled. This list was compiled by integrating the electricity users list of the Tongue River Electric Cooperative, with existing land ownership lists, and telephone directory lists. The integrated list was then reviewed many times with long-term residents from different parts of the study area to insure its completeness and accuracy. The author feels reasonably confident that all households in the area were located.

No statistical sample was drawn for the interviewing because a complete census by family unit of permanent residents was accomplished during the data gathering state of the research. Either the husband or the wife was interviewed, depending on whoever wanted to represent the family. In all cases it was made clear that if the husband or wife had differing views both could receive an interview. This occurred in only one case. Because seasonal help is prevalent during calving and haying, any person who had not lived in the area for one year was not considered a permanent resident. Bachelors and widows were considered as a family unit. A minimum of three attempts was set for trying to locate or set up an interview with a family unit before they were classified as unable to be reached. Table 3 presents

the family unit population in tabulated form and the successful interviews by number and percent.

Table 4. Breakdown of Family Units Interviewed

Category	Number	Percent
Family units interviewed	259	86.91%
Family units rejecting an interview	32	10.74%
Family units unable to be reached	7	2.35%
Total	209	100.00%

A total of 134 men or 51.7 percent, and 125 women or 48.3 percent, completed the interview for the family unit.

Method of Collecting Data

A 288 item questionnaire (see Appendix B), composed largely of five point Likert-type statements, was developed by an interdisciplinary team of researchers composed of the author, Dr. Pat Jobes from the Department of Sociology at Montana State University, and Dr. Raymond Gold and members of his staff of the Institute for Social Science Research at the University of Montana. The items included in the questionnaire were developed from fieldwork carried out by Dr. Gold; related fieldwork by Dr. Pat Jobes; and items of specific

interest to the author, other investigators, and decision makers.

Between May 15 and 24, 1974, fieldworkers met with a number of individuals and groups in the study area, and with agency people (State of Montana Department of Natural Resources, Bureau of Land Management, United States Forest Service), in Helena and Billings for the purpose of seeking suggestions for the kinds of questions to be used in the questionnaire. An effort was made to receive input from representatives of socio-economic groups having differing viewpoints, which included construction workers, miners, ranchers, teachers, businessmen, ranchhands, and others. From June 11 through 18, 1974, Dr. Gold and Alice Steryling, from the Institute of Social Science Research, pre-tested a draft of the questionnaire in Birney, Forsyth, and Colstrip. Each item on the questionnaire was reviewed in detail during the pre-test period for wording, relevancy, and understanding. As a result, deletions and additions of questions were made. On June 19, 1974, the final draft of the questionnaire was agreed upon at a meeting in Billings with all the researchers involved in developing the questionnaire. The final draft was then sent to Bozeman, Montana, for typing and reproduction.

On June 26, 1974, the author and Dr. Jobes, conducted a two-day training session in Birney with the three local residents hired to help conduct the interviewing for the Decker-Birney Study. On July 30, 1974, three additional interviewers were brought in to

perform the interviews in Ashland and its immediate vicinity. Interviewing began on June 28, 1974, and was completed September 10, 1974. A total of 259 interviews were completed representing 86.91 percent of the family units in the study area. Over ten thousand miles were driven by the interviewers during the data collecting stage.

On the average, each interview schedule took between one and a half to two hours to administer, with four hours representing the extreme. The questionnaire contained both structured and unstructured questions covering a wide range of topics designed to shed light on attitudes about coal development, land use planning, social impacts, and perception of environmental problems in both the Decker-Birney Study Area and the surrounding area. During the interview, each question and response was read by the interviewer and the reply recorded. The interviews were scheduled ahead of time by the author, either by telephone or personal contact. An identification number was assigned to each questionnaire to enable easy analysis of the data.

Presentation of Research Conducted

Because of the interdisciplinary nature of this study and combination of purposes this questionnaire was developed to serve, only those questions the author developed or was involved in developing will be discussed in this research. Table 5 lists the number of each of those questions as they appear in Appendix B that will be discussed

and the category they were assigned.

Table 5. Question and Category Assigned

Socio-Economic and General Questions	Planning Questions	Strip-Mining Questions
1, 2, 5, 8, 10, 21, 24, 26, 53, 54, 107, 167, 213, 230, 237, 242, 243, 266, 267, 268, 270, 278, 279, 280, 285, 286, 287,	4, 16, 19, 31, 34, 37, 38, 39, 40, 41, 43, 44, 45, 49, 52, 56, 83, 86, 88, 106, 108, 109, 110, 113, 114, 115, 116, 121, 122, 123, 124, 125, 126, 151, 154, 158, 171, 173, 206, 207	50, 51, 55, 87, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 112, 129, 130, 131, 133, 136, 141, 163, 178, 179, 190, 208, 211

For further analysis of other aspects of this questionnaire the reader is referred to the following publications: "Social Impact of Existing and Proposed Coal Development: A Survey of the Rosebud County Study Area Residents," Community Service Program, August 30, 1974, University of Montana, Missoula, Montana; "Draft Environmental Impact Statement on Colstrip Electric Generating Units 3 and 4, 500 Kilovolt Transmission Lines and Associated Facilities," Energy Planning Division, Montana State Department of Natural Resources and Conservation, Volume 1, Summary, November 1974, Helena, Montana; and "Satisfaction, Coal Development and Land Use Planning: A Report of Attitudes Held by Residents of the Decker-Birney Area," Patrick C.

Jobes and Milton G. Parsons, prepared at Montana State University, Bozeman, Montana for the Montana Energy Advisory Council.

It was the purpose when the interdisciplinary team of researchers was formed, to develop a questionnaire that would be useful in providing immediate information about the attitudes of Rosebud County residents toward the proposed electrical generating units three and four. This aspect of the questionnaire was interpreted by the University of Montana for the Department of Natural Resources. All information pertaining to the Decker-Birney Study Area was interpreted by the author and Dr. Pat Jobes of the Sociology Department at Montana State University.

Experimental Design

On June 30, 1974, Dr. Raymond Gold from the Institute for Social Science Research at the University of Montana, released the final report on a research study entitled, "A Comparative Case Study of the Impact of Coal Development on the Way of Life of People in the Coal Areas of Eastern Montana and Northeastern Wyoming." Dr. Gold's report is the result of ethnographic research conducted by a team of three researchers for seven months. During this period over one thousand contacts were made with people living in the vicinities of Colstrip, Montana, Gillette, Wyoming, and Stanton, North Dakota. From these contacts the researchers conducted three hundred intensive personal

interviews with carefully selected opinion leaders. Dr. Gold (1974:1), discussed the technique used in the following manner:

This technique for gathering data is called sociological sampling, so named because it relies heavily upon the natural, social knowledge of people in the study area to assist in quickly locating the most useful and credible information sources. Accordingly, sociological sampling calls for enlisting the direct assistance of local informants in identifying significant social categories in the community and in finding ways of getting in touch with people who are locally thought to be good representatives of these categories. This technique rapidly yields data that is every bit as reliable and valid as that obtained through probability sampling, a noteworthy difference in results being that the latter procedure permits making finer numerical discriminations when comparing categories of responses. For example, sociological sampling may reveal that the great majority of ranchers oppose coal development; but a probability sample would have to be taken if it became necessary to know if this great majority consisted of exactly, say, 82 percent or 91 percent of the ranchers. In addition to producing data much faster than probability sampling can, the sociological sampling procedure has the singular advantage of revealing empirically grounded ways of explaining the data.

From the above mentioned report, the author subjectively identified three types of people that are likely to be found in the Decker-Birney Study Area. They are the following: the "boomer type," who is pro-development regardless of environmental and social costs; the "developer-protector type," who wants development with restraints; and the "anti-strip mine type," who is antidevelopment and does not want the present way of life to change.

During the interviewing stage of this research, the author identified nine individuals who fit into these three arbitrary groupings based on actions that supported the preconceived descriptions

derived from Dr. Gold's research. These individuals were identified and used as validation points in determining the typologies derived from the cluster analysis of the population of this study.

A total of forty-one questions were used as the variables in the cluster analysis program to form the typology. Most of the questions included as the variables had the widest spread of replies, and therefore, were believed to be more discriminating. A few of the questions were included that the author believed were discriminating to a small group of people. Table 6 lists the questions used as the discriminating variables in the cluster analysis on the cases program that was used to develop the typology.

Table 6. Questions Included as the Discriminating Variables of the Cluster Analysis on Cases Program

Socio-Economic and General Questions	Planning Questions	Strip Mining Questions
5, 26, 54, 266, 267, 268, 270, 278, 279, 280, 285, 286, 287,	4, 16, 19, 31, 37, 38, 39, 40, 43, 44, 49, 106, 116, 124, 125, 158	50, 51, 90, 91, 92, 93, 95, 99, 100, 102, 133,

In order to test the hypothesis advanced for the typology classification and to classify those persons who were not clustered, a step-wise discriminant analysis program was used.

Data Organization for Analysis

Environmental policy tends to be a function of the degree of concern for environmental problems on the part of those persons whom policymakers represent. Obviously, policy responses to environmental problems are related to more than the perceptions of these problems. Such things as the institutional framework, access of different groups and individuals to authoritative decision makers, and effective power relationships are also critical. However, probably the greatest concern of policy makers in regard to the Decker-Birney Study, is how frequently a particular opinion was expressed. In order to maximize the ease with which the information obtained in this research can be used by policy makers, the data has been organized for analysis in the following manner:

1. Appendix B presents the relative frequency and percentages of distribution for each item on the interview schedule. A summary of this information in the discussion of each question presented in Table form in Chapter 4 provides the reader with information on how respondents generally view the issues at hand.

2. Tables 9 through 98 display the results of the chi-square statistic used to measure the degree of association between the ten socio-economic factors used in the study and the questions shown in Table 5, page 47. Pertinent information relating to the associations revealed are discussed for each table.

3. Figures 7 and 8 graphically display the results of the cluster analysis on cases and the stepwise discriminant analysis programs used to develop and test the typal array classification developed for the study.

4. Summary table 99 presents the results of the F statistic used to test the equality of means between each pair of groups. This table and the discussion following it interpret the results for the statistical hypotheses set forth in this study.

Statistical Hypotheses

The following statistical hypotheses were advanced for this study:

Hypothesis A

H_0 There is no difference between the group means of the "boomer type" and the "developer-protector type."

H_1 There is a difference between the group means of the "boomer type" and the "developer-protector type."

Hypothesis B

H_0 There is no difference between the group means of the "boomer type" and the "anti-strip mine type."

H_1 There is a difference between the group means of the "boomer type" and the "anti-strip mine type."

Hypothesis C

H_0 There is no difference between the group means of the "anti-strip mine type" and the "developer-protector type."

H_1 There is a difference between the group means of the "anti-strip mine type" and the "developer-protector type."

The .05 level of significance was set for the rejection of the null hypotheses.

Analysis of Data

The quantity of data generated through interviewing was so large that data analysis would have been extremely difficult to complete without adequate computer and programming help. The recent adoption of the Statistical Package for the Social Sciences (SPSS), a system of computer programs, and the Biomedical Computer Programs, to the Sigma 7 computer at Montana State University permitted a rapid listing and computation of the immense quantities of data. The data was punched on IBM cards directly from the interview schedule as the schedules had card and column numbers designated on them for easy transfer. The cards were then verified, a procedure that took nearly two months because of the large volume of cards. Upon completion of key punching and verifying, the data was then transferred to disks and processed through a data cleaning program called Hobit to eliminate any errors yet undetected.

Two subprograms - CODEBOOK and FASTABS - were used from SPSS to generate the descriptive statistics used to describe how respondents generally viewed each question and to infer relationships between the characteristics of respondents and the nature of responses. The subprogram CODEBOOK computes and presents tables containing (1) simple frequencies, (2) relative frequencies with missing values included or excluded, and (3) cumulative adjusted frequencies for categorical data. This subprogram also computes the mean, median, mode, standard deviation, variance, kurtosis, skewness, and range for each table. For the purposes of this research, the relative frequencies and percentages of distribution were the only part of the statistics provided that were used.

The subprogram FASTABS computes a number of statistics for cross tabulation tables. These include chi-square with Yates correction, Cramer's V, Pearson's contingency coefficient, Kendall's tau B, Kendall's tau C, and Somer's D (symmetric). However, for the research conducted in this study, only the chi-square statistic was used. The chi-square statistic given in the tables of the FASTABS subprogram is that based upon Pearson's chi-square test of association. Nie, et. al. (1970:275) describes the statistics used in the subprogram in the following manner:

It tests the independence (or lack of statistical association) between two variables. It does not measure the degree of association; it only indicates the likelihood of having a distribution

as different from statistical independence by chance alone as the distribution. Its formula is

$$X^2 = \sum_i \frac{(f_o^i - f_e^i)^2}{f_e^i}$$

with $(r - 1)(c - 1)$ degrees of freedom, where f_o^i equals the observed frequency in each cell, f_e^i equals the expected frequency, c equals the number of columns in the table, and r equals the number of rows in the table. The expected frequency f_e^i is calculated as

$$f_e^i = \left(\frac{c_i r_i}{N} \right)$$

where c_i is the frequency in a respective column marginal, r_i is the frequency in a respective row marginal, and N stands for total number of valid cases.

The probability figure given in the table indicates on what level the difference between the observed distribution and the expected distribution can be thought as significant. It shows the probability of having as much difference between the sample distribution and the expected distribution if in fact the population distribution were independent.

For example, if the probability associated with given value of X^2 is .05, one can reject the null hypothesis that the two variables are independent at the significance level of .05 or greater.

The next step of the analysis was to develop a typology of classification for the population. The typology was derived entirely from internal relationships among the individuals without reference to any pre-existing classification system. To construct the classification system the BMDP2M cluster analysis on cases program developed at the University of California (Dixon, 1975:323) was chosen. Because of the program's limitations in size, only forty-one variables (see

Table 6) were used in developing the typology. The BMDP2M clusters cases according to a measure of distance. The two cases having the shortest distance between them are amalgamated and treated as one case and then, in turn, clustered with others. This algorithm continues until all cases and clusters are amalgamated into one cluster. The distance between cases is either the p^{th} root of the sums of the p^{th} powers of differences or $O^2 (=X^2/n)$ computed from the table formed by the two cases and the variables. Overall and Klett (1972:184) describe cluster analysis as:

a logical and systematic search procedure in which a homogeneous cluster nucleus is identified and then similar individuals are added to the cluster. The method results directly in several mutually exclusive subgroups within which individuals are relatively similar and between which individuals are relatively different.

In order to test the typology developed by the cluster analysis program, and to classify those persons who were not clustered, a stepwise discriminant analysis program, BMD07M, was used. The program computes group means and standard deviations, within groups covariance matrix, and within groups correlation matrix using Wilks' Λ (or u statistics) and the F statistic. The general description of the program provided by the University of California (Dixon, 1973:233) is as follows:

This program performs a multiple group discriminant analysis. A set of linear classification functions is computed by choosing the independent variables in a stepwise manner. The variable

entered at each step is selected by one of four available criteria, and a variable is deleted when its F-value becomes too low. Using these functions and prior probabilities the posterior probabilities of each case belonging to each group is computed. The program also computes the coefficients for canonical variables and plots the first two canonical variables to give an optimal two-dimensional picture of the separation of groups.

Overall and Klett (1972:329) clarify this procedure very nicely in the following manner:

The stepwise discriminant analysis program assumes that each individual belongs to one of several specified groups or populations but it does not know to which the individual belongs. Several relevant characteristics of the individual are observed, and on the basis of this information a classification decision is made. Assignment is based on estimates of the probabilities of occurrence of the patterns of characteristics within each of the several groups.

Summary

The Decker-Birney Study Area encompasses 900,000 acres and has an estimated population of one thousand people. A total of 298 family units or potential interviews were identified by the research in the study area by integrating a number of lists. Eighty-seven percent of the study population was interviewed. Descriptive statistics were generated by using two computer subprograms, CODEBOOK and FASTABS, from the Statistical Package for the Social Sciences. The cluster analysis on cases program BMDP2M was used to develop the classification types. Three hypotheses were then advanced for the study and tested by the stepwise discriminant analysis program, BMD07M.

Chapter 4

RESULTS

Introduction

In this chapter the analysis and results of the data are discussed. The socio-economic characteristics of the 259 persons interviewed are described first, followed by a discussion of the substantive results of the questionnaire and chi-square measures of association. The discussions are organized according to the three groupings of general, planning, and strip mining questions (see Table 4, page 44). Finally, the statistical hypotheses advanced for the study are discussed, and relationships and differences of the attitudinal types are described.

Socio-Economic Characteristics of the Population

The purpose of the demographic section of the interview schedule was to document selected factors which would help to characterize the interviewees and family units. The factors of age, sex, where respondents were raised, years lived in the Decker-Birney Area, marital status, number and ages of children, gross family income, education level of the head of the household, and the occupation of the head of the household, were recorded for each interview. Respondents were also categorized as either living in Ashland or in the rural area of the geographic boundaries.

Age, Sex, Marital Status, and Place of Residence. The ages of the interviewees ranged from seventeen to eighty-three and were grouped in five year increments (see interview schedule, question 267, page 393). A majority (59.3%) of the respondents were under fifty years of age with the five-year interval of 35-39 years having the largest percent (12.7%) of respondents. The second highest five year interval was the 25-29 years span with 10 percent. The remaining intervals and percentages for those under fifty years of age in descending order were: 45-49 years (9.3%), 40-44 years (8.8%), 30-34 years (8.8%), 20-24 years (8.1%), and under 20 years (1.6%). Among the 39.5 percent of the respondents above fifty, a very equal distribution existed of 8.5 percent for the 50-54 years span, 7.7 percent for the 55-59 years span, 8.5 percent for the 60-64 years span, and 7.0 percent for the 65-69 years span. The remaining categories in ascending order were: 70-74 years (5.4%), 75-80 years (1.2%), and above 80 years (1.2%).

The number of females and males participating in the interviews was nearly equal with 48.3 percent of the respondents female, and 51.7 percent of the respondents male. The marital status question asked of the respondents found 76.4 percent married, 12.7 percent single, 6.6 percent widowed, and 3.9 percent either divorced or separated. One respondent refused to answer the question. Ninety-eight of the respondents or 37.8 percent live in the town of Ashland

and its immediate vicinity as opposed to 161 respondents or 62.2 percent who live in the rural portion of the study area.

Years Respondents Have Lived in the Study Area. The number of years respondents have lived in the area ranged from one to eighty. The distribution in five year intervals is displayed in question 270, page 394. However, there are some interesting things to note. Those persons who have lived in the area for less than five years made up the largest group with 21.2 percent, followed by the 6-10 year residents which made up 9.7 percent of the respondents. Those who had 26-30 years of residence were the third largest group with 9.3 percent of the respondents. The rest of the distributions ranged from a low of .4 percent in the 76-80 years resident bracket to the next highest percent of 7.3 percent found in three of the five year intervals. It is of interest to note that 16.6 percent of the respondents have lived in the area for over fifty years.

Where Respondents Were Raised. A majority (62.5%) of the respondents were raised in Montana. The rest of the respondents were raised in the following regions of the country: the Rocky Mountain states, (13.9%), west coast states, (1.5%), midwest states, (13.5%), and the eastern states, (8.5%).

Number and Ages of Children. Of the 259 interviews 23.2 percent did not have children, while 76.8 percent had one or more children. The distribution of the numbers of children from descending

order were: eight or more (1.9%), seven (1.2%), six (2.3%), five (6.6%), four (10.0%), three (15.8%), two (25.9%), and one (13.1%). Only 34.4 percent of the children were living in Montana. This is easily understood after looking at the distribution of the children's ages in the following table.

Table 7. Distribution of Children According to Age Group.

Age Group	Number of Children	Percent
Preschoolers	37	14.3%
Grade School	26	10.0%
Junior High School	13	5.0%
High School	29	11.2%
College	13	5.0%
Adults	80	30.9%

Education Level of the Heads of the Households. The educational levels of the heads of the households exhibited quite a range from 10.4 percent having graduated from college to 4.2 percent that had received less than an eighth grade education. Twenty-nine percent had more than an eighth grade education but did not graduate from high school, while 27.8 percent were graduates of high school. The education spectrum also included 18.5 percent who had some college or post-high school training along with 7.3 percent that had received

postgraduate or professional school training.

Occupation of the Heads of the Households. Question 278, page 395, gives a complete breakdown of occupations that heads of households in the Decker-Birney Study Area held. As can be expected, 54.9 percent of those in the Decker-Birney Area were involved in land related occupations. Of those having land related occupations 38.6 percent were ranchers. The second largest occupation category was business with 17.0 percent of the household heads involved in this pursuit. Most of the individuals occupying this category worked in Ashland or the other smaller settlements in the study area. The third largest occupation category was public employment with 14.5 percent. Such a high percentage of public employment for a predominantly agricultural based economy was due to the location of the United States Forest Service Ranger District and the St. Labre Mission and school in Ashland. The fourth largest occupational category was that of operations and construction with 12.8 percent. A majority of these individuals were skilled personnel operating machinery in the sawmill. Only .8 percent of the household heads were employed in the occupation category of mining.

Gross Family Income. The level of income reported was monies earned annually by all family members before taxes. Table 8 shows the distribution by frequency and percent. Forty respondents or 15.4 percent declined to reply to the item related to income. The highest

Table 8. Gross Family Income Before Taxes

Income Categories	Frequency	Percent
Less than \$2,999	16	6.2%
\$3,000 - \$4,999	23	8.9%
\$5,000 - \$7,499	18	6.9%
\$7,500 - \$9,999	35	13.5%
\$10,000 - \$14,999	47	18.1%
\$15,000 - \$19,999	26	10.0%
\$20,000 - \$29,999	22	8.5%
Over \$30,000	32	12.4%
Refusal to answer	40	15.4%

percentage (18.1%) of the respondents earned between \$10,000 - \$14,999 annually. The income group with the second highest percentage (12.4%) of the respondents were those making between \$7,500 and \$9,999.

Discussion and Interpretation of General Questions

in the following discussion and interpretations, the term statement and the number following it corresponds to the numerical order of the statements in Appendix B. The table number refers the reader to the cross tabulation of the statement with the ten socio-economic variables used to infer relationships between the characteristics of respondents and the nature of responses. The .05 level of significance was set for the rejection of the null hypothesis which is that the two variables are independent.

Statement 1 (Table 9,) "This part of Montana has just about everything that is necessary for a happy life," was replied to in all 259 interviews. Of the respondents 25 percent strongly agreed, 57.9 percent agreed, 5.4 percent were neutral, 10.0 percent disagreed, and .8 percent strongly disagreed with the statement. A clear majority (82.9%) of the respondents were positive about the statement.

In the cross tabulation of the statement, the chi square statistic indicated significant P values with two of the socio-economic variables — the occupation of the head of the household and where respondents live. One hundred twenty-eight of 139 (92.1%) of those working in an agricultural occupation, 32 of 38 (84.2) of those working in a public occupation, 27 of 38 (71.0%) of those working in an operations and construction occupation, and 30 of 44 (68.1%) of those working in a private business occupation either agreed or strongly agreed with the statement. One hundred forty-six of 161 (90.7%) of those living in the rural area either agreed or strongly agreed with the statement contrasted to 71 of 98 (72.4%) of the Ashland residents.

The results of the statistics performed, show that a majority of the persons in the agricultural and public sector occupations were very happy with where they were living. Those persons working in a private business or construction and operations occupation were less satisfied with the Decker-Birney Area. As one might suspect from the

Table 9. This part of Montana has just about everything that is necessary for a happy life.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	6.06304	29.93185	18.65694	35.12434	9.25179
df	4	24	16	28	12
P Value	.1945	.1870	.2869	.1663	.6813
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	24.03917	32.45274	22.68417	44.50391	43.05652
df	28	28	24	12	4
P Value	.6795	.2565	.5385	.0000*	.0000*
χ^2 Significant at .001 χ^2 Significant at .01 χ^2 Significant at .05					

above analysis, the rural area residents were far more satisfied with where they are living than the Ashland residents.

Statement 2 (Table 10), "Of all the places I have lived, this part of Montana is the most desirable," was replied to in 257 interviews. Of the respondents 57 (22.0%) strongly agreed, 110 (42.5%) agreed, 48 (18.5%) were neutral, 37 (14.3%) disagreed, and 5 (1.9%) strongly disagreed with the statement. A majority (64.5%) of the respondents were positive about the statement.

In the cross tabulation of the statement, the chi square statistic indicated significant P values with five of the socioeconomic variables — sex of respondent, age of respondents by decade, number of children in the family, occupation of the head of the household, and where respondents live. More women [27 of 124 (21.7%)] than men [15 of 133 (11.3%)] indicated that they either disagreed or strongly disagreed with the statement. There was an association with age by decades and people's opinions. The longer a person had lived in the area the more likely the person was to believe that this part of Montana was the most desirable. Ten of 25 (40.0%) of those who had lived in the area less than ten years either disagreed or strongly disagreed with the statement as opposed to four of six (66.7%) of the respondents who had lived in the area over 61 years who agreed or strongly agreed with the statement. The more children in a family the

Table 10. Of all the places I have lived, this part of Montana is the most desirable.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	13.52782	44.03542	16.20010	40.27065	12.25141
df	4	24	16	28	12
P Value	.0090**	.0076**	.4391	.0625	.4257
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	50.28326	32.71632	34.78554	28.42366	29.75035
df	28	28	24	12	4
P Value	.0060**	.2463	.0716	.0048**	.0000*
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

more likely the individual was to agree with the statement. Nine of 36 (25%) of those respondents with no children disagreed or strongly disagreed with the statement as opposed to four of five (80%) of those who have eight or more children who either agreed or strongly agreed with the statement. One hundred six of 137 (77.3%) of those working in an agricultural occupation, 24 of 44 (54.6%) of those working in a private business occupation, 19 of 30 (50.0%) of those working in a public occupation, and 18 of 38 (47.4%) working in an operations and construction occupation either agreed or strongly agreed with the statement. One hundred seventeen of 159 (73.6%) of those living in the rural area either agreed or strongly agreed with the statement as opposed to 50 of 98 (51%) of the Ashland residents. As can be seen from the distribution, the agricultural occupation respondents and those persons living in the rural areas were more likely to feel that this part of Montana was the most desirable place to live.

Statement 5 (Table 11), "We have an excellent school system," was replied to in 250 interviews. The author noted that the nine people who did not answer the question believed that because they did not have children in school they should not reply to the statement. Of the respondents that replied, 11 (4.2%) strongly agreed, 118 (45.6%) agreed, 48 (18.5%) were neutral, 58 (22.4%) disagreed, and 15 (5.8%) strongly disagreed with the statement. The reactions to this state-

Table 11. We have an excellent school system.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	.80377	15.42351	15.39938	22.01920	12.20258
df	4	24	16	28	12
P Value	.9379	.9078	.4956	.7804	.4296
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	38.07289	26.23625	33.17766	7.96456	7.977633
df	28	28	24	12	4
P Value	.0970	.5601	.1004	.7879	.0924
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

ment varied considerably and subsequently no significant P values were indicated in the cross tabulation. The author believes that because the Decker-Birney Area does not have a high school and students must either bus to Colstrip High School, Powder River County High School, or Big Horn High School, that this may be a factor in the distribution of responses.

Statement 8 (Table 12), "This is a very safe place to live," was replied to in 258 interviews. Of the respondents 58 (22.4%) strongly agreed, 148 (57.1%) agreed, 20 (7.7%) were neutral, 32 (12.4%) disagreed, and none strongly disagreed with the statement. A clear majority (79.5%) of the respondents were positive about the statement.

In the cross tabulation of the statement, the chi square statistic indicated significant P values with three of the socio-economic variables — age of the respondents by decade, occupation of the head of the household, and where respondents live. As age of decades increased the more likely a person was to believe that this area was a very safe place to live. Six of 6 (100%) of those over 70 either agreed or strongly agreed in contrast with 7 of 25 (28%) of those under 24 years of age who disagreed or strongly disagreed with the statement. One hundred twenty-one of 139 (87.0%) of those working in an agricultural occupation, 29 of 37 (78.4%) of those working in a public occupation, 34 of 44 (77.3%) of those working in a private

Table 12. This is a very safe place to live.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	2.24907	39.29469	15.35835	29.94781	12.35884
df	3	18	12	21	9
P Value	.5223	.0026**	.2224	.0930	.1938
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	10.93815	18.19879	14.66266	40.23962	38.58952
df	21	21	18	9	3
P Value	.9640	.6364	.6850	.0000*	.0000*
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

business occupation, and 23 of 38 (57.9%) of those working in an operations and construction occupation either agreed or strongly agreed with the statement. One hundred forty of 161 (87.0%) of those living in the rural area either agreed or strongly agreed with the statement as opposed to 66 of 97 (68.0%) of the Ashland residents. As can be seen from the distributions the agricultural occupation respondents and those persons living in the rural areas were more likely to agree that "this is a safe place to live."

Statement 10 (Table 13), "My living conditions leave a lot to be desired," was replied to in 258 interviews. Of the respondents 3 (1.2%) strongly agreed, 58 (22.4%) agreed, 17 (6.6%) were neutral, 136 (52.5%) disagreed, and 44 (17.0%) strongly disagreed with the statement. A majority of 69.5% of the respondents did not agree with the statement.

In the cross tabulation of the statement, the chi square statistic indicated significant P values with five of the socio-economic variables — where respondents were raised, number of children in the family, gross family income, occupation of the head of the household, and where respondents live.

The author could not interpret any associations from the independent variable of the number of children in a family with the statement. Of those persons having seven children, 2 of 3 (66.7%) had the highest percentage of respondents who agreed with the statement.

Table 13. My living conditions here leave a lot to be desired.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	6.52771	29.78099	25.47539	34.07167	14.43673
df	4	24	16	28	12
P Value	.1631	.1921	.0619	.1985	.2737
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	34.34879	54.84686	34.66106	39.47276	37.59880
df	21	28	24	12	4
P Value	.0332***	.0018**	.0736	.0001*	.0000*
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

The rest of the categories had varying percents of respondents who agreed with the statement, but no pattern existed. As might be expected those persons in the lower income brackets of less than \$2,999 [8 of 16 (50.0%)] and \$3,000 to \$4,999 [9 of 23 (39.17%)] either agreed or strongly agreed with the statement. In contrast those in the higher income brackets of \$20,000 to \$29,999 [20 of 22 (90.7%)] and \$30,000 plus [29 of 32 (90.7%)] either disagreed or strongly disagreed with the statement. One hundred fourteen of 138 (82.6%) of those working in an agricultural occupation, 26 of 38 (68.4%) of those working in a public occupation, 22 of 44 (50.5%) of those working in a private business occupation, and 18 of 38 (47.3%) of those working in an operations and construction occupation either agreed or strongly agreed with the statement. One hundred twenty-nine of 160 (80.7%) of those living in the rural area either agreed or strongly agreed with the statement as opposed to 51 of 98 (52.0%) of the Ashland residents. As can be seen from the distribution the agricultural occupation respondents and those persons living in the rural areas were more likely to agree with the statement.

Statement 21 (Table 14), "This is a good place to bring up children," was replied to in 257 interviews. Of the respondents 38.9 percent strongly agreed, 45.6 percent agreed, 6.9 percent were neutral, 7.7 percent disagreed, and .2 percent strongly disagreed with the statement. A clear majority (84.5%) of the respondents were positive

Table 14. This is a good place to bring up children.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	4.17950	39.46880	20.25656	50.79623	20.68439
df	4	24	16	28	12
P Value	.4832	.0244***	.2089	.0053**	.0552
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	25.36847	39.36658	20.18095	85.20030	104.18369
df	28	28	24	12	4
P Value	.6077	.0752	.6864	.0000*	.0000*
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

about the statement.

In the cross tabulation of the statement, the chi square statistic indicated significant P values with four socio-economic variables. — age of respondents by decade, years lived in the area, the occupation of the head of the household, and where respondents lived. As age increased by decade there was a positive association with the statement. Only five of 25 (20%) of those under 24 years of age strongly agreed with the statement as opposed to six of six (100%) of those 75 years of age and older who strongly agreed with the statement. As can be expected the more years a person had lived in the area the more likely they were to agree with the statement. Only 13 of 79 (16.5%) of those individuals who had lived in the area under ten years strongly agreed with the statement as opposed to six of six (100%) of those who had lived in the area over seventy years. One hundred thirty-four of 138 (97.1%) of those working in an agricultural occupation, 28 of 38 (73.7%) of those working in a public occupation, 32 of 44 (72.7%) of those working in private business occupation, and 23 of 37 (62.2%) of those working in an operations and construction occupation either agreed or strongly agreed with the statement. One hundred fifty-six of 161 (96.8%) of those living in the rural area either agreed or strongly agreed with the statement as opposed to 61 of 96 (63.6%) of the Ashland residents. As can be seen from the distribution the agricultural occupation respondents and those persons

living in the rural areas were more likely to agree with the statement.

Statement 24 (Table 15), "People who live around here are more helpful than they are in most places," was replied to in 257 interviews. Of the respondents 31.3 percent strongly agreed, 52.5 percent agreed, 8.1 percent were neutral, 6.9 percent disagreed, and .4 percent strongly disagreed with the statement. A clear majority (83.8%) of the respondents agreed with the statement.

In the cross tabulation of the statement, the chi square statistic indicated significant P values with four of the socioeconomic variables — years lived in the area, marital status, occupation, and where respondent lives. A strong association existed between the years that a resident lived in the area and how they viewed the helpfulness of the people. Thirteen of 79 (16.5%) of those living in the area from one to ten years disagreed with the statement, while no one who lived in the area forty years or above disagreed with the statement. Three of 10 (30%) of those that were divorced or separated disagreed with the statement in contrast to all of the other categories (single, married, or widowed) where over 80 percent of the respondents in each of the other categories either agreed or strongly agreed with the statement. One hundred thirty-two of 139 (95.0%) of those working in an agricultural occupation, 34 of 44 (77.3%) of those working in a private business occupation, 37 of 36 (75%) of those working in a public business occupation, and 24 of 38 (63.2%) of those working in an

Table 15. People who live around here are more helpful than they are in most places.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	3.69847	23.22600	25.04846	54.88530	21.06505
df	4	24	16	28	12
P Value	.4483	.5065	.0690	.0018**	.0494***
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	12.95534	31.52396	14.27052	54.26151	44.68179
df	21	28	24	12	4
P Value	.9102	.2943	.9403	.0000*	.0000*

* χ^2 Significant at .001

** χ^2 Significant at .01

*** χ^2 Significant at .05

operations and construction occupation either agreed or strongly agreed with the statement. One hundred fifty-one of 161 (93.8%) of those living in the rural areas either agreed or strongly agreed with the statement as opposed to 66 of 96 (68.8%) of the Ashland residents. As can be seen from the distributions, the agricultural occupation respondents and those persons living in the rural areas were more likely to agree with the statement.

Statement 26 (Table 16), "The scenic resources of this area are being destroyed as the result of a variety of factors," was replied to in 256 interviews. Of the respondents 3.7 percent strongly agreed, 31.3 percent agreed, 8.1 percent were neutral, 53.7 percent disagreed, and 3.1 percent strongly disagreed with the statement. The reactions to this statement varied considerably and subsequently no significant P values were found in the cross tabulation. The author believes that since the only place any mining was taking place was in the immediate vicinity of Decker that people responded to the question as they were exposed to it at the moment in the immediate area.

Statement 53 (Table 17), "Industries should be forced to shut down if they fail to meet governmental pollution standards," was replied to in all 259 interviews. Of the respondents 25.5 percent strongly agreed, 64.9 percent agreed, 4.2 percent were neutral, and 5.4 percent disagreed, and 0.0 percent strongly disagreed with the statement. A clear majority (90.4%) of the respondents either agreed

Table 16. The scenic resources of this area are being destroyed as the result of a variety of factors.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	3.41154	34.10751	11.87136	29.53067	14.70680
df	4	24	16	28	12
P Value	.4915	.0828	.7520	.3860	.2579
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	22.12469	33.83658	22.80002	10.26328	4.36344
df	28	28	24	12	4
P Value	.7755	.2063	.5316	.5929	.3931

* χ^2 Significant at .001 ** χ^2 Significant at .01 *** χ^2 Significant at .05

Table 17. Industries should be forced to shut down if they fail to meet governmental pollution standards.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	3.16510	13.21701	11.29801	15.36393	7.90814
df	3	18	16	21	9
P Value	.3669	.7785	.5036	.8043	.5434
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	15.20470	18.28513	11.60936	22.24908	8.80255
df	28	21	18	9	4
P Value	.9762	.6309	.8667	.0081**	.0320
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

or strongly agreed with the statement.

In the cross tabulation of the statement, the chi square statistic indicated significant P values with two of the socio-economic variables — occupation, and where respondents live. Forty-four of 44 (100%) of those working in a private business occupation, 37 of 38 (97.4%) of those working in a public occupation, 122 of 139 (87.7%) of those working in an agricultural occupation, and 31 of 38 (81.6%) of those working in an operations and construction occupation either agreed or strongly agreed with the statement. From this distribution it can be seen that the group least favoring the statement was the operations and construction group. One hundred forty-six of 161 (90.7%) of those living in the rural area either agreed or strongly agreed with the statement as opposed to 88 of 98 (89.8%) of those living in Ashland.

Statement 54 (Table 18), "One person's right to a clean environment is not as important as another's right to gainful employment," was replied to in 240 interviews. Of the respondents 2.3 percent strongly agreed, 17.0 percent agreed, 20.5 percent were neutral, 44.0 percent disagreed, and 11.2 percent strongly disagreed with the statement. A slight majority (55.4%) of the respondents either disagreed or strongly disagreed with the statement. The author noted that respondents had a difficult time answering this statement because of the rather judgmental nature involving a work ethic that was very

Table 18. One person's right to a clean environment is not as important as another's right to gainful employment.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Birney Area (10 Year Increments)	Marital Status
χ^2	6.75346	20.54533	16.94458	28.19118	7.77854
df	4	24	16	28	12
P Value	.1495	.6654	.3892	.4544	.8022
	Number of Children in Family	Gross Family Income	Education Level of the Head of the Household	Occupation of the Head of the Household	Where Respondent Lives (Rural vs Ashland)
χ^2	16.97063	24.94389	25.98685	15.78350	11.59872
df	28	28	24	12	4
P Value	.9494	.6309	.3538	.2014	.0206***
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

important to the residents.

In the cross tabulation of the statement, the chi square statistic indicated a significant P value with only one of the socioeconomic variables — where respondents live. Twenty-one of 95 (22.2%) of those living in Ashland either agreed or strongly agreed with the statement as opposed to 29 of 15 (19.2%) of those living in the rural area. Both of the groups had 57 percent of their respondents that either disagreed or strongly disagreed with the statement.

Statement 107 (Table 19), "What has come to be called the 'energy crisis' is," was replied to in 258 interviews. Of the respondents 8.1 percent answered "the energy crisis is definitely a serious and widespread energy shortage," 5.8 percent answered "the energy crisis is probably a serious and widespread energy shortage," 29.7 percent answered "the energy crisis is too uncertain a matter to pass judgment on," 24.7 percent answered "the energy crisis is probably not really a serious and widespread energy shortage at all," and 31.3 percent answered "the energy crisis is not a serious shortage yet, but will be in the future."

In the cross tabulation of the statement, the chi square statistic indicated a significant P value with only one of the socioeconomic variables — gross family income. This independent variable was difficult to interpret. The income group making between \$5,000 to \$7,499 had the highest percentage of respondents [3 of 8 (16.7%)] who

Table 19. The opinions of what the energy crisis is.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	8.06288	34.72884	14.87019	30.60092	17.12053
df	4	24	16	28	12
P Value	.0893	.0725	.5342	.3351	.1451
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	31.45248	45.72574	22.83563	18.12761	3.00052
df	28	28	24	12	4
P Value	.2974	.0186***	.5295	.1119	.5577
$*X^2$ Significant at .001 $**X^2$ Significant at .01 $***X^2$ Significant at .05					

indicated they believed "the energy crisis is definitely a serious and widespread shortage." The \$3,000 to \$4,999 income bracket group had 14 of 23 (60%) of its respondents reply "there is not a serious shortage yet but will be in the future." Sixty-seven of 218 (30.7%) of all the groups believed "it is not a serious shortage yet but will be in the future."

Statement 167 (Table 20), "In general and as a rule, the people who receive energy from coal should pay the local social costs," was replied to in 223 interviews. Of the respondents 9.3 percent strongly agreed, 49.0 percent agreed, 11.2 percent were neutral, 15.1 percent disagreed, and 1.5 percent strongly disagreed with the statement.

In the cross tabulation of the statement, the chi square statistic indicated a significant P value with only one of the socioeconomic variables — where respondents live. Ninety-six of 134 (71.7%) of those living in the rural area either agreed or strongly agreed with the statement as opposed to 55 of 89 (61.8%) of those living in Ashland.

Statement 213 (Table 21), "In general, the Custer National resources are being well managed," was replied to in 234 interviews. Of all the respondents 10.0 percent strongly agreed, 54.1 percent agreed, 18.9 percent were neutral, 6.2 percent disagreed, and 1.2 percent strongly disagreed with the statement. A majority (64.1%) of

Table 20. In general, and as a rule, the people who receive energy from coal should pay the local social costs ("people pollutions," adverse affects, etc.).

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	3.80012	31.19608	12.77035	31.83531	11.13763
df	4	24	16	28	12
P Value	.4337	.1482	.6895	.2813	.5172
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	23.45766	31.51691	24.80510	20.43187	10.26800
df	28	24	28	12	4
P Value	.7098	.1394	.6384	.0593	.0361***
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

the respondents either agreed or strongly agreed with the statement.

In the cross tabulation of the statement, the chi square statistic indicated a significant P value with only one of the socio-economic variables — years lived in the area. Those persons that have lived in the area between thirty and forty years had the strongest opinion about the forest being well managed with 25 of 30 (83.3%) agreeing with the statement. The group of residents that have lived in the area over seventy years had the largest percentage of respondents [2 of 6 (33.4%)] who either disagreed or strongly disagreed with the statement.

Statement 230 (Table 22), "How important was the beauty of the area in your decision to live in this area," was replied to in 257 interviews. Of the respondents 54.8 percent replied it was very important, 32.0 percent replied it was somewhat important, and 12.4 percent replied it was not very important. A large majority (86%) of the respondents believed the beauty of the area was somewhat to very important in their decision to live in the area.

In the cross tabulation of the statement, the chi square statistic indicated a significant P value with only one of the socio-economic variables — where respondents were raised. This independent variable was an interesting one to interpret because of the eastern states respondents where in 17 of 22 (77.3%) replied that the beauty of the area was very important to them. In the other extreme,

Table 22. How important is the beauty of the area.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	4.32522	9.88670	20.15959	14.98798	5.68966
df	2	12	8	14	6
P Value	.1150	.6259	.0097**	.3790	.4588
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	14.59263	19.91652	12.16278	3.05540	2.12145
df	14	14	12	6	2
P Value	.4066	.1325	.4327	.8019	.3462
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

three of four (75%) of those persons raised in the west coast states replied that the beauty of the area was not very important to them.

Statement 237 (Table 23), "How important was inheritance in your decision to live in this area," was replied to in 255 interviews. Of the respondents 24.3 percent replied it was very important, 14.3 percent replied it was somewhat important, and 59.8 percent replied it was not very important. In an agricultural based economy that was found in the Decker-Birney Area it was easy to understand why 38.6 percent of the respondents placed some importance on inheritance.

In the cross tabulation of the statement, the chi square statistic indicated significant P values with four socio-economic variables — years lived in the area, education level, occupation, and where respondents live. Seventy of 79 (88.6%) of the residents that have lived in the area under ten years believed that inheritance was not very important in their decision for living in the area. This is explainable since the newest residents were for the most part not relying or involved in agricultural occupations and were not tied to the land. The rest of the decade spans varied from 22.2 percent to 45.2 percent replying that inheritance was very important in their decision for living in the area. The top three income groups — the \$15,000 to \$19,999 income group with 40 percent (11 of 27), the \$20,000 to \$29,999 income group with 64.0 percent (16 of 25), and the

Table 23. How important is the inheritance.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	3.53976	16.41420	13.52358	51.31691	12.21574
df	2	12	8	14	6
P Value	.1704	.1730	.0951	.0000*	.0573
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs. Ashland)
χ^2	13.70639	55.58070	12.01982	58.34959	40.34259
df	14	14	12	6	2
P Value	.4718	.0000*	.4441	.0000*	.0000*
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

over \$30,000 with 68.6 percent (24 of 35) — had the largest percentages of respondents that replied inheritance was somewhat to very important. The rest of the income groups had over 69.0 percent of the respondents expressing the opinion inheritance was not very important. As might be expected only 65 of 137 (39.4%) of those working in an agriculture occupation replied that inheritance was not very important. In contrast, 91.9 percent of those working in a public occupation, 86.5 percent of those working in an operations and construction occupation, and 79.5 percent of those working in a private business occupation believed that inheritance was not very important. Again as might be expected 83 of 97 (85.6%) of those living in Ashland said that inheritance was not very important while only 72 of 158 (45.6%) of those living in the rural area replied that it was not very important.

Statement 242 (Table 24), "How important are deep social roots in your decision to live in this area," was replied to in 257 interviews. Of the respondents 37.5 percent replied "very important," 18.5 percent replied "somewhat important," and 42.9 percent replied "not very important." A majority (56.0%) of the respondents replied that deep social roots were somewhat important to very important which the author feels is indicative of an agricultural ranching based economy that has been continued from family member to family member over the years.

In the cross tabulation of the statement, the chi square

Table 24. How important are deep social roots.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	1.10373	20.89771	15.68029	94.25703	7.46601
df	2	12	8	14	6
P Value	.5759	.0519	.0472***	.0000*	.2799
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	14.40380	17.08505	19.55097	39.32405	33.78981
df	14	14	12	6	2
P Value	.4201	.2517	.0761	.0000*	.0000*
$*\chi^2$ Significant at .001 $***\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

statistic indicated significant P values with five of the socio-economic variables — where respondents were raised, years lived in the area, gross family income, occupation, and where respondents live. Seventy-three of 159 (45.9%) of those respondents raised in Montana believed that deep social roots were an important reason for living in the area. This was the highest percentage of respondents in all of the categories. The west coast state group had the largest number of its respondents [3 of 4 (75%)] that replied deep social roots were not a very important consideration. A strong association existed between years in the area and the importance of deep social roots. Sixty-three of 79 (79.7%) of those living in the area for ten years or less and 15 of 27 (55.6%) of those living in the area from ten to twenty years replied that social roots were not very important. From 20 years and up the importance for each decade increased with 11 of 12 (91.7%) of those in the seventy years and above expressing that deep social roots were very important. As would be expected the agricultural occupation group with 72 of 137 (52.6%) replied with the highest percentage that deep social roots were very important. In contrast, 26 of 37 (70.3%) of those working in a public occupation, 24 of 38 (63.2%) of those working in an operations and construction occupation, and 25 of 44 (56.8%) of those working in a private business occupation, replied that deep social roots were not very important. One hundred twelve of 159 (70.5%) of those living in the rural area replied that

deep social roots were somewhat to very important as opposed to 33 of 97 (34.0%) of those living in Ashland.

Statement 243 (Table 25), "The way of life is an important factor in your decision to live in this area," was replied to in 257 interviews. Of the respondents 71.8 percent replied "very important," 18.5 percent replied "somewhat important," and 8.9 percent replied "not very important" to the statement. This high percentage (71.8%) of respondents who believed that the way of life is an important factor in their decision to live in the area only illustrates the importance that residents place on the social system that exists.

In the cross tabulation of the statement, the chi square statistic indicated significant P values with four of the socioeconomic variables — where respondents were raised, education level, occupation, and where respondents live. One hundred fifty-one of 160 (94.4%) of those respondents raised in Montana, and 20 of 22 (90.9%) of those respondents raised in the eastern states believed the way of life was very important. In contrast, 3 of 4 (75%) of those respondents raised in the west coast states believed that the way of life was not very important. The author was unable to make an association from the cross tabulation of income with the statement. Two income groups, the \$5,000 to \$7,499 income group with 4 of 18 (22.2%) and the \$10,000 to \$14,999 income group with 11 of 53 (20.8%), had the largest percentage of respondents that replied the way of life was not very important.

Table 25. How important is a way of life.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	1.63131	9.14683	33.29591	22.17029	8.05173
df	2	12	8	14	6
P Value	.4422	.6903	.0001*	.0752	.2343
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	8.96409	30.17284	12.23295	46.63458	35.90881
df	14	14	12	6	2
P Value	.8333	.0072**	.4272	.0000*	.0000*
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

As would be expected the agricultural occupation group with 121 of 138 (87.7%) replied with the highest percentage that the way of life was very important to them. In contrast 67.6 percent of those working in a public occupation, 54.5 percent of those working in a private business occupation, and 42.1 percent of those working in an operations and construction occupation replied that the way of life was important to them. One hundred fifty-five of 160 (96.9%) of those living in the rural area replied that the way of life was somewhat to very important to them as opposed to 79 of 97 (81.4%) of those living in Ashland.

Discussion and Interpretation of the Planning Questions

Statement 4 (Table 26), "With proper planning, I do not think an increase in population will negatively affect this area," was replied to in 258 interviews. Of the respondents 2.7 percent strongly agreed; 34.0 percent agreed; 5.4 percent were neutral, 42.9 percent disagreed; and 14.7 percent strongly disagreed with the statement. A slight majority (57.6%) of the respondents replied that an increase in population would negatively affect this area.

In the cross tabulation of the statement, the chi square statistic indicated significant P values with three of the socio-economic variables - gross family income, occupation, and where respondents live. Twenty-five of 35 (71.4%) of those respondents raised in the Rocky Mountain states; 99 of 162 (61.1%) of those

Table 26. With proper planning, I do not think an increase in population will negatively effect this area.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	.63666	30.99687	28.88863	27.14372	10.97217
df	4	24	16	28	12
P Value	.9589	.1539	.0247***	.5104	.5313
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	30.99803	64.14369	14.79794	38.99248	34.24298
df	28	28	24	12	4
P Value	.3172	.0001*	.9265	.0001*	.0000*

* χ^2 Significant at .001 ** χ^2 Significant at .01 *** χ^2 Significant at .05

respondents raised in Montana, and 12 of 22 (54.6%) of those respondents raised in the eastern states either disagreed or strongly disagreed with the statement. In contrast 2 of 4 (50%) of those respondents raised in the west coast states and 23 of 35 (65.7%) of those respondents raised in the midwest states either agreed or strongly agreed with the statement. The cross tabulations of gross family income produced an association that indicated as income went up the more the respondents felt that regardless of proper planning that an increase in population would negatively affect the area. Ten of 16 (62.5%) of those making an income of less than \$2,999 either strongly agreed or agreed with the statement asked. Twenty-one of 32 (65.6%) of those making an income of over \$30,000 either disagreed or strongly disagreed with the statement. Ninety-eight of 139 (70.5%) of those working in a public occupation, 17 of 44 (38.6%) of those working in a private business occupation, and 14 of 38 (36.8%) of those working in an operations and construction occupation either agreed or strongly agreed with the statement. One hundred twelve of 161 (69.5%) of those living in the rural area disagreed or strongly disagreed with the statement, as opposed to 37 of 97 (38.1%) of those living in Ashland. As can be seen from the distributions the agricultural occupation respondents and those persons living in the rural areas were more likely to disagree with the statement.

Statement 16 (Table 27), "An adult education program would be

Table 27. An adult education program would be useful.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	2.10453	36.43600	11.99376	40.28494	16.18701
df	4	24	16	28	12
P Value	.7165	.0498***	.7444	.0624	.1828
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	16.90483	30.72250	28.23964	41.83055	49.69742
df	28	28	24	12	4
P Value	.9504	.3295	.2501	.0000*	.0000*
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

useful," was replied to in 257 interviews. Of the respondents 5.0 percent strongly agreed, 52.3 percent agreed, 13.9 percent were neutral, 26.3 percent disagreed, and 1.2 percent strongly disagreed with the statement. A slight majority (57.3%) of the respondents replied that an adult education program would be useful.

In the cross tabulation of the statement, the chi square statistic indicated significant P values with three of the socio-economic variables — age of respondents, occupation, and where respondents live. Two age group categories — the twenty-four years and under group with 17 of 25 (68%) and the 25 to 34 years age group with 32 of 49 (65.3%) — had the largest percentages of respondents reply that an adult education program would be useful. Each age grouping as they progressed up in years replied the program would be less useful culminating with the over seventy years group with 3 of 6 (50%) who disagreed with the statement. Thirty-two of 38 (84.2%) of those in an operations and construction occupation, 29 of 37 (78.4%) of those in a public occupation, 31 of 44 (70.4%) of those in a private business occupation, and 58 of 138 (42.0%) of those in an agricultural occupation either agreed or strongly agreed with the statement. Eighty-three of 97 (85.5%) of those living in Ashland either agreed or strongly agreed with the statement as opposed to 67 of 160 (41.9%) of those living in the rural area. As can be seen from the frequency distributions the respondents most likely to agree or to strongly

agree with the statement were those in an occupation other than an agricultural one and those living in the Ashland area. The author believes this demonstrates the individualistic attitude of the rural agricultural resident who is more likely to view himself as too busy to gain value from an adult education program.

Statement 19 (Table 28), "Additional counseling services in this area would be useful," was replied to in 257 interviews. Of the respondents 1.9 percent strongly agreed; 42.9 percent agreed; 12.7 percent were neutral, 37.8 percent disagreed, and 3.9 percent strongly disagreed with the statement. The percentage of respondents (44.8%) indicating they either agreed or strongly agreed with the statement was only slightly (3.9%) higher than those who disagreed or strongly disagreed with the statement. The author believes this is due to the large number of rural residents who are very suspicious about such services.

In the cross tabulation of the statement, the chi square statistic indicated significant P values with four of the socio-economic variables - years lived in the area, number of children, occupation, and where residents live. The cross tabulation of years lived in the area produced an association that indicated as the years of residence increased the less likely the resident was to see the usefulness of counseling services in the area. Fifty-six of 79 (70.9%) of those living in the area for less than ten years strongly agreed or

Table 28. Additional counseling services in this area would be useful.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	4.75843	31.52736	15.69660	62.46765	9.66138
df	4	24	16	28	12
P Value	.3130	.1392	.4743	.0002*	.6456
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	54.47583	38.18953	16.23682	47.77209	69.50281
df	28	28	24	12	4
P Value	.0020**	.0949	.8793	.0000*	.0000*
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .001					

agreed with the statement. In contrast 6 of 6 (100%) of those living in the area for over seventy years disagreed or strongly disagreed with the statement.

The cross tabulations of the number of children produced an association that indicated as the number of children increased the more likely a resident was to see the usefulness of counseling services. Fourteen of 35 (40.0%) of those having one child agreed with the statement. In contrast 100 percent (3 of 3) of those with seven children and 100 percent (4 of 4) of those with eight or more children strongly agreed or agreed with the statement. Twenty-seven of 38 (71.0%) of those working in an operations and construction occupation, 26 of 38 (68.5%) of those working in a public occupation, 26 of 34 (60.4%) of those working in a private business occupation, and 37 of 138 (26.8%) of those working in an agricultural occupation either agreed or strongly agreed with the statement. Seventy-four of 97 (76.3%) of those living in Ashland agreed or strongly agreed with the statement as opposed to 42 of 160 (26.2%) of those living in the rural areas. Again these frequency distributions point out that those persons in agricultural occupations and living in a rural area were less likely to see any value in counseling services.

Statement 31 (Table 29), "How would you feel about a proposal for a system of paved roads into and out of this area," was replied to in 257 interviews. Of the respondents 16.6 percent strongly

Table 29. A system of paved roads into and out of this area.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	1.79717	22.93980	19.97948	40.99768	10.61074
df	4	24	16	28	12
P Value	.7730	.5234	.2211	.0537	.5625
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	52.93898	50.96184	25.07721	44.84715	54.93382
df	28	28	24	12	4
P Value	.0030**	.0050**	.4016	.0000*	.0000*
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

44.0 percent favored, 6.2 percent were neutral, 24.3 percent opposed, and 8.1 percent strongly opposed with the statement. A majority (60.6%) of the respondents either favored or strongly favored a proposal of a system of paved roads.

In the cross tabulation of the statement, the chi square statistic indicated significant P values with four of the socioeconomic variables — number of children, gross family income, occupation, and where respondents live. The author was unable to make any associations from the cross tabulation of the number of children with the statement. Twenty-six of 36 (72.3%) of those having only one child either strongly favored or favored the proposal; however, 66.6 percent of those having five, six and seven children also either strongly favored or favored the proposal. The group with the smallest percent favoring the proposal were those families having two children in which case 38 of 75 (50.7%) strongly favored or favored the proposal. Again the author was unable to make any associations from the cross tabulations of gross family income with the statement. Thirteen of 16 (81.3%) of those with an income of less than \$2,999, 16 of 22 (72.8%) of those with incomes between \$3,000 to \$4,999, 25 of 35 (71.5%) of those with incomes between \$7,500 to \$9,999, 34 of 47 (72.3%) of those with incomes between \$10,000 to \$14,999, and 15 of 22 (68%) of those with an income between \$20,000 to \$29,999 either strongly favored or favored the proposal. In contrast, only

12 of 26 (46.1%) of those with an income of \$15,000 to \$19,999 and only 11 of 31 (38.7%) of those with an income of over \$30,000 strongly favored or favored the proposal. Thirty-five of 38 (38.7%) of those working in an operations and construction occupation, 33 of 42 (78.5%) of those working in a private business occupation, 27 of 38 (71.0%) of those working in a public occupation, and 62 of 139 (44.7%) of those working in an agricultural occupation either strongly favored or favored such a proposal. Eighty-six of 97 (88.7%) of those living in Ashland either favored or strongly favored such a proposal as opposed to 71 of 160 (44.4%) of those living in the rural area. The frequency distribution pointed out that individuals in agricultural occupations and residents living in a rural area were less likely to favor a proposal for paved roads. The author interprets this as a belief that paved roads would only further hasten the change of a life style that these residents enjoy and want to keep.

Statement 34 (Table 30), "How would you feel about a proposal concentrating future building in a small number of more urbanized areas and limiting additional development elsewhere," was replied to in 250 interviews. Of the respondents 8.1 percent strongly favored; 48.6 percent favored; 18.1 percent were neutral, 20.1 percent were opposed; and 1.5 percent strongly opposed such a proposal. A slight majority (56.7%) of the respondents either favored or strongly favored

Table 30. Concentrating future building in a small number of more urbanized areas and limiting additional development elsewhere.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	2.48000	35.14436	14.43444	26.46611	15.33811
df	4	24	15	28	12
P Value	.6482	.0663	.5664	.5474	.2235
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	52.65234	27.94818	20.94560	6.05486	4.47269
df	28	28	24	12	4
P Value	.0032**	.4672	.6419	.9133	.3458
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

such a proposal.

In the cross tabulation of the statement, the chi square statistic indicated a significant P value in only one of the socio-economic variables — number of children in the family. However, the author was unable to make any associations from the cross tabulation of the number of children in the family with this statement. Twenty-one of 27 (77.8%) of those respondents with four children and 4 of 5 (80%) of those with eight or more children either favored or strongly favored the proposal with the highest percentages of all the groupings.

Statement 37 (Table 31), "How would you feel about a moratorium for a limited time on further leasing of state and federal coal lands to energy companies," was replied to in 257 interviews. Of the respondents 31.7 percent strongly favored the statement, 30.9 percent favored the statement, 17.4 percent were neutral, 16.6 percent opposed the statement, and 2.7 percent strongly opposed the statement of a moratorium on further leasing. A majority (62.6%) of the respondents either favored or strongly favored a moratorium on further leasing.

In the cross tabulations of the statement, the chi square statistic indicated significant P values in four of the socio-economic variables — sex, years lived in the area, occupation, and where respondents live. More males [36 of 134 (26.8%)] than females [14 of

Table 31. How would you feel about a moratorium for a limited time on further leasing of state and federal coal lands to energy companies.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	14.47715	22.02844	19.66632	44.22922	16.72464
df	4	24	16	28	12
P Value	.0059**	.5776	.2356	.0264***	.1603
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	24.08757	21.69341	27.14076	45.73016	31.86346
df	28	28	24	12	4
P Value	.6769	.7953	.2979	.0000*	.0000*
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

123 (11.4%)] either opposed or strongly opposed a moratorium. No strong associations could be made from the cross tabulations of years in the area with the statement. The cross tabulation did show that those living in the area from 20 to 30 years, 30 to 40 years, and 50 to 60 years, opposed a moratorium on leasing more strongly than the rest of the decade groupings. Thirty-two of 37 (86.5%) of those working in a public occupation, 93 of 138 (67.4%) of those working in an agricultural occupation, 22 of 44 (50%) of those working in a private business occupation, and 15 of 38 (39.4%) of those working in an operations and construction occupation either favored or strongly favored a moratorium on further leasing. One hundred eleven of 160 (69.4%) of those in the rural areas either favored or strongly favored a moratorium on leasing as opposed to 51 of 97 (52.5%) of those in Ashland. The author believes that this frequency distribution indicated that the more an individual was removed from a vocation and residence that brought a person close to the land on which he lives, the more likely he was to oppose a moratorium. If the reader will look at the distribution under bureaucratic employment, Statement 278, page 395. Appendix B, you will note the composition of that employment category. It is the author's contention that because a majority of the federal and state positions that are listed are persons that are working for the U.S.F.S. and B.L.M. that the category had a high

percentage of individuals that felt strong ties to the land. In the same light the author feels the respondents tied to religious pursuits also had a stronger feeling for the land.

Statement 38 (Table 32), "How would you feel about a moratorium for a limited time on the building of any more power plants in this area," was replied to in 258 interviews. Of the respondents 34.7 percent strongly favored the statement, 32.4 percent favored the statement, 11.6 percent were neutral, 18.5 percent opposed the statement, and 2.3 percent strongly opposed the statement of a moratorium on building more power plants. A majority (67.1%) of the respondents either favored or strongly favored a moratorium on the building of any more power plants.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in two of the socio-economic variables — occupation, and where respondents live. Thirty-one of 38 (81.5%) of those working in a public occupation, 101 of 139 (72.7%) of those working in an agricultural occupation, 26 of 43 (60.5%) of those working in a private business occupation, and 16 of 38 (42.1%) of those working in an operations and construction occupation either favored or strongly favored a moratorium on building any more power plants. One hundred nineteen of 161 (73.9%) of those in the rural area either favored or strongly favored a moratorium on building any more power

Table 32. How would you feel about a moratorium for a limited time on building any more power plants in this area.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Birney Area (10 Year Increments)	Marital Status
χ^2	5.66297	28.18510	23.30527	29.27927	17.35013
df	4	24	16	28	12
P Value	.2258	.2523	.1058	.3985	.1369
	Number of Children in Family	Gross Family Income	Education Level of the Head of the Household	Occupation of the Head of the Household	Where Respondent Lives (Rural vs Ashland)
χ^2	18.40230	28.01768	29.41171	35.49272	28.69612
df	28	28	24	12	4
P Value	.9156	.4635	.2050	.0004*	.0000*
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

plants as opposed to 55 of 97 (56.7%) of those living in Ashland. Again the author believes that the farther the individual was removed from a vocation and residence that brought that person close to the land on which he lived, the more likely he was to oppose a moratorium.

Statement 39 (Table 33), "How would you feel about a moratorium on the development of new strip mines in this area," was replied to in 258 interviews. Of the respondents 33.6 percent strongly favored the statement, 31.7 percent favored the statement, 14.7 percent were neutral, 16.6 percent opposed the statement, and 3.9 percent strongly opposed the statement of a moratorium on the development of new strip mines. A majority (65.3%) of the respondents either strongly favored or favored a moratorium on the development of new strip mines.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in two of the socio-economic variables — occupation, and where respondents live. Thirty-one of 38 (81.5%) of those working in a public occupation, 98 of 139 (70.5%) of those working in an agricultural occupation, 20 of 38 (52.6%) of those working in an operations and construction occupation, and 20 of 43 (46.5%) of those working in a private business occupation either favored or strongly favored a moratorium on new strip mines. One hundred eighteen of 161 (73.3%) of those in the rural area either favored or strongly favored a moratorium on new strip mines as opposed

Table 33. How would you feel about a moratorium for a limited time on the development of new strip mines in this area.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Birney Area (10 Year Increments)	Marital Status
χ^2	7.02926	22.55812	21.71632	33.63509	16.41805
df	4	24	16	28	12
P Value	.1344	.5460	.1526	.2131	.1728
	Number of Children in Family	Gross Family Income	Education Level of the Head of the Household	Occupation of the Head of the Household	Where Respondent Lives (Rural vs Ashland)
χ^2	33.14764	29.49965	27.14590	39.47720	32.54642
df	28	28	24	12	4
P Value	.2304	.3875	.2977	.0001*	.0000*
χ^2 Significant at .001 χ^2 Significant at .01 χ^2 Significant at .05					

to 51 of 97 (52.6%) of those who lived in Ashland. Here also the author believes that the farther the individual was removed from a vocation and residence that brought him close to the land on which he lived, the more likely he was to oppose a moratorium.

Statement 40 (Table 34), "How would you feel about a moratorium for a limited time on additional railroads, power lines, or pipe lines associated with coal development," was replied to in 257 interviews. Of the respondents 33.2 percent strongly favored the statement, 30.1 percent favored the statement, 15.1 percent were neutral, 18.1 percent opposed the statement, and 9.7 percent strongly opposed the statement of a moratorium on building additional railroads, power lines, or pipe lines associated with coal development. A majority (63.3%) of the respondents either strongly favored or favored a moratorium.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in two socio-economic variables — occupation, and where respondents live. Twenty-eight of 38 (73.7%) of those working in a public occupation, 96 of 139 (69.1%) of those working in an agricultural occupation, 22 of 43 (51.2%) of those working in a private business occupation, and 18 of 37 (48.6%) of those working in an operations and construction occupation either strongly favored or favored a moratorium on additional railroads, power lines,

Table 34. How would you feel about a moratorium for a limited time on additional railroads, power lines or pipe lines associated with coal development.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Birney Area (10 Year Increments)	Marital Status
χ^2	7.85857	26.19249	22.35274	32.85890	12.15880
df	4	24	16	28	12
P Value	.0969	.3435	.1322	.2410	.4330
	Number of Children in Family	Gross Family Income	Education Level of the Head of the Household	Occupation of the Head of the Household	Where Respondent Lives (Rural vs Ashland)
χ^2	26.07860	27.63449	21.33620	33.84598	36.76599
df	28	28	24	12	4
P Value	.5687	.4839	.6188	.0007*	.0000*
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

or pipe lines associated with coal development. One hundred sixteen of 161 (72%) of those in the rural area either strongly favored or favored a moratorium as opposed to 48 of 96 (50%) of those living in Ashland. Here also the author believes that the farther the individual was removed from a vocation and residence that brought him close to the land on which he lived the more likely he was to oppose a moratorium.

Statement 41 (Table 35), "Even carefully controlled industrialization is likely to upset a community," was replied to in 255 interviews. Of those respondents 20.8 percent strongly agreed, 61.8 percent agreed, 4.6 percent were neutral, 10.4 percent disagreed, and .8 percent strongly disagreed with the statement. A large majority (82.6%) of the respondents either agreed or strongly agreed with the statement.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in two of the socio-economic variables — occupation, and where respondents live. One hundred twenty-five of 138 (90.5%) of those in an agricultural occupation, 32 of 37 (86.5%) of those in a public occupation, 33 of 44 (75%) in a private business occupation, and 24 of 36 (66.7%) of those in an operations and construction occupation either agreed or strongly agreed with the statement. One hundred forty-five of 160 (90.6%) of those in the rural area either agreed or strongly agreed with the statement

Table 35. Even when carefully controlled, industrialization is likely to upset a community.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	2.35473	19.21027	22.96581	21.38959	5.35895
df	4	24	16	28	12
P Value	.6708	.7404	.1147	.8087	.9449
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	24.66724	32.48415	29.57890	37.53897	31.58344
df	28	28	24	12	4
P Value	.6459	.2553	.1991	.0002*	.0000*
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

as opposed to 69 of 95 (72.7%) of those living in Ashland. The frequency distributions point out that individuals in agricultural occupations and residents living in rural areas were more likely to believe that industrialization would upset a community even when carefully controlled.

Statement 43 (Table 36), "State professional planners should not be involved with development in Montana," was replied to in 254 interviews. Of the respondents 4.2 percent strongly agreed, 22.0 percent agreed, 10.4 percent were neutral, 56.4 percent disagreed, and 5.0 percent strongly disagreed that state professional people should not be involved with development in Montana.

In the cross tabulations of the statement, the chi square statistic indicated significant P values in three socio-economic values — age, education and occupation. The cross tabulations of age produced an association that indicated as the age increased, the more likely the individual was to either strongly agree or agree with the statement. In the age categories of 24 and under, 25 to 34, and 35 to 44, over 70 percent in each category either disagreed or strongly disagreed with the statement. In the age categories of 45 to 54, 55 to 64, 65 to 75, 75 and above, the range of those who disagreed or strongly disagreed was from 6 percent to 16.7 percent. The cross tabulation of education produced a very strong association that indicated

Table 36. State professional planners should not be involved with development in Montana.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 year Increments)	Marital Status
χ^2	5.72057	44.91168	9.19940	38.49890	11.02234
df	4	24	16	28	12
P Value	.2210	.0060**	.9050	.0893	.5270
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	22.38019	26.02753	43.98317	23.77522	7.67679
df	28	28	24	12	4
P Value	.7634	.5715	.0077**	.0218***	.1042
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

as the person's formal educational experience increased he either strongly disagreed or disagreed with the statement. Seven of 9 (77.8%) of those with less than an eighth grade education either strongly agreed or agreed with the statement, while 18 of 19 (94.7%) of those having some postgraduate work either disagreed or strongly disagreed with the statement. Thirty of 38 (79%) of those in a public occupation, 29 of 37 (78.4%) of those in an operations and construction occupation, 23 of 24 (57.2%) of those in a private business occupation, and 76 of 137 (55.5%) of those in an agricultural occupation either disagreed or strongly disagreed with the statement.

The frequency distributions point out that persons working in a public occupation were more likely to believe that state professional planners should be involved with development. In contrast those working in agricultural occupations were more likely to believe that state planners should not be involved. The author believes this is understandable as those working in agricultural occupations were more likely to feel they could do it themselves without outside help. On the other hand the respondents working in a public occupation, followed by those of the other two occupational groupings, put a great deal more faith in bureaucratic professionals.

Statement 44 (Table 37), "Federal professional planners should not be involved with development in Montana," was replied to in 254 interviews. Of the respondents 12.0 percent strongly agreed, 45.9

Table 37. Federal professional planners should not be involved with development in Montana.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Birney Area (10 Year Increments)	Marital Status
χ^2	10.92010	40.50928	28.89014	49.12103	23.68961
df	4	24	16	28	12
P Value	.0275***	.0188***	.0247***	.0081**	.0224***
	Number of Children in Family	Gross Family Income	Education Level of the Head of the Household	Occupation of the Head of the Household	Where Respondent Lives (Rural vs Ashland)
χ^2	11.65305	29.30579	40.46002	41.36617	22.22420
df	28	28	24	12	4
P Value	.9972	.3971	.0191***	.0000*	.0002*
$*X^2$ Significant at .001 $**X^2$ Significant at .01 $***X^2$ Significant at .05					

percent agreed, 7.7 percent were neutral, 29.0 percent disagreed, and 3.5 percent strongly disagreed with the statement. A slight majority (57.9%) of the respondents agreed that federal professional planners should not be involved with development in Montana. This is exactly opposite to the majority of the respondents' opinions toward state planners involvement. The point is the residents were more suspicious of federal government involvement than state government involvement in the area.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in eight of the socio-economic variables — sex, age, where respondents were raised, years lived in area, marital status, education level, occupation, and where respondents live. Seventy-six of 121 (62.8%) of the female respondents either agreed or strongly agreed with the statement. Seventy-four of 133 (55.6%) of the male respondents either agreed or strongly agreed with the statement. The cross tabulation of age with the statement produced an association that indicated as age increased, the more likely an individual was to believe that professional planners should not be involved. In the age spans of 24 and under, and 25 to 34, 50 percent and 42 percent respectively either disagreed or strongly disagreed with the statement. In the age groups above 35 years the percentage of the respondents who either agreed or strongly agreed ranged from

52.8 percent to 83.3 percent.

The author was not able to make any real associations with cross tabulations with where respondents were raised. However, two of the groupings — Montana with 100 of 159 (62.9%) and the eastern states with 14 of 22 (63.7%) — had the largest percentage of respondents who either agreed or strongly agreed with the statement. In contrast, 2 of 4 (50%) of those raised in the west coast states disagreed with the statement. The cross tabulation of years lived in the area with the statement produced a strong association that as years in the area increased, the more likely an individual was to believe that federal professional planners should be involved in the area. Thirty-nine of 79 (49.3%) of those that have lived in the area under ten years either disagreed or strongly disagreed with the statement. In contrast, 5 of 6 (83.3%) of those that have lived in the area for over seventy years either agreed or strongly agreed with the statement. Fifteen of 16 (93.8%) of the widowed respondents, 115 of 195 (59%) of the married respondents, 5 of 9 (55.6%) of the divorced or separated respondents, and 14 of 33 (42.4%) of the single respondents either agreed or strongly agreed with the statement. The cross tabulation of education with the statement produced a strong association that indicated as the individual's amount of formal education increased the more likely he was to believe that federal planners

should be involved with development in Montana. Eight of 10 (80%) of those persons with less than an eighth grade education either agreed or strongly agreed with the statement. In contrast, only 6 of 19 (31.6%) of those with a post-graduate education either agreed or strongly agreed with the statement. Ninety-nine of 138 (71.7%) of those working in an agricultural occupation, 26 of 41 (63.4%) of those working in a private business occupation, 14 of 37 (37.8%) of those working in an operations and construction occupation, and 11 of 38 (28.9%) of those working in a public occupation either agreed or strongly agreed with the statement. One hundred nine of 160 (68.1%) of those living in the rural area agreed or strongly agreed with the statement as opposed to 41 of 94 (43.6%) of those living in Ashland. The frequency distributions point out that respondents in agricultural occupations and residents living in the rural area were more likely to believe that federal professional planners should not be involved in development in Montana.

Statement 45 (Table 38), "If there is going to be additional development around here, individual communities rather than state or federal governments should control and conduct it," was replied to in 254 interviews. Of the respondents 11.2 percent strongly agreed, 51.7 percent agreed, 12.4 percent were neutral, 21.6 percent disagreed, and 1.2 percent strongly disagreed with the statement. A majority

Table 38. If there is going to be additional development around here, individual communities rather than state or federal governments should control and conduct it.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	3.92826	24.77783	6.12482	37.63205	15.57266
df	4	24	16	28	12
P Value	.4158	.0718	.9867	.1056	.2116
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	16.08722	29.45956	27.65088	12.60459	11.30049
df	28	28	24	12	4
P Value	.9645	.3895	.2750	.3984	.0234***
χ^2 Significant at .001 χ^2 Significant at .01 χ^2 Significant at .05					

(62.9%) of the respondents either agreed or strongly agreed with the statement.

In the cross tabulation of the statement, the chi square statistic indicated a significant P value in only one of the socio-economic variables — where respondents live. One hundred seven of 159 (67.3%) of the rural area residents either agreed or strongly agreed with the statement as opposed to 56 of 95 (58.9%) of those living in Ashland. The frequency distributions indicated that rural area residents were more likely to believe that if additional development was to take place that individual communities rather than state or federal governments should control and conduct it.

Statement 49 (Table 39), "Not much information concerning mining and related developments is being made available to the general public," was replied to in 254 interviews. Of the respondents 6.2 percent strongly agreed, 40.2 percent agreed, 9.3 percent were neutral, 39.0 percent disagreed, and 3.5 percent strongly disagreed with the statement. The responses to this statement were nearly equal on both sides of the continuum and cut across all the socio-economic variables which accounts for no significant P values resulting from the cross tabulations.

Statement 52 (Table 40), "As badly as we need new industry and jobs, we cannot afford to sacrifice our clean air and agricultural

Table 39. Not much information concerning mining and related developments is being made available to the general public.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	3.32860	23.49355	6.41745	37.33687	9.35453
df	4	24	16	28	12
P Value	.5044	.4908	.9829	.1116	.6724
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	19.07829	34.66988	32.48354	15.37273	4.89692
df	28	28	24	12	4
P Value	.8957	.1797	.1154	.2272	.2980
χ^2 Significant at .001 χ^2 Significant at .01 χ^2 Significant at .05					

Table 40. As badly as we need new industry and jobs, we cannot afford to sacrifice our clean air and beautiful scenery to attain them.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	5.89640	23.00735	13.60899	38.38553	8.07537
df	4	24	16	28	12
P Value	.2070	.5194	.6278	.0913	.7792
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	22.08569	43.52878	39.37334	13.84656	12.91418
df	28	28	24	12	4
P Value	.7773	.0309***	.0249***	.3106	.0117***
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

land to attain them," was replied to in 256 interviews. Of the respondents 18.1 percent strongly agreed, 54.8 percent agreed, 10.0 percent were neutral, 15.1 percent disagreed, and .8 percent strongly disagreed with the statement. A high majority (72.9%) of the respondents either agreed or strongly agreed with the statement. This majority response only further illustrates the area residents' attachment to the land on which they live.

In the cross tabulation of the statement, the chi square statistic indicated significant P values with three socio-economic variables — gross family income, education, and where respondents live. No association could be made from the cross tabulations of total family income with the statement. The income group of \$2,999 or less had the highest percentage of respondents [14 of 15 (93.3%)] who either agreed or strongly agreed with the statement. The income group of \$10,000 to \$14,999 had the highest percentage respondents [14 of 47 (29.8%)] who either disagreed or strongly agreed with the statement. The rest of the income groups had over 60 percent of the respondents in each group who either agreed or strongly agreed with the statement. No association could be made from the cross tabulation of education with the statement. The group having less than an eighth grade education had the largest percentage [81.8 percent (9 of 11)] of respondents who either agreed or strongly agreed with the

statement. The group with the second highest percentage (77.8%) of respondents who either agreed or strongly agreed with the statement was the college graduates. The category of "some college education," had the lowest percentage [68.1 percent (32 of 47)] of respondents who either agreed or strongly agreed with the statement. One hundred twenty-three of 160 (76.8%) of those living in the rural area either agreed or strongly agreed with the statement as opposed to 66 of 96 (68.8%) of those living in Ashland. The frequency distribution indicates that those living in the rural area were more likely to respond that we cannot afford to sacrifice our clean air, agricultural land for more industry and jobs.

Statement 54 (Table 41), "Where natural resources are privately owned, neither neighbors nor government should have any say over how the natural resources are used," was replied to in 254 interviews. Of the respondents 13.9 percent strongly agreed, 45.9 percent agreed, 8.1 percent were neutral, 26.3 percent disagreed, and 3.9 percent strongly disagreed with the statement. A majority (59.8%) of the respondents either strongly agreed or agreed with the statement. This majority response is just another indication of the importance of self freedom and determination. The attitude that prevailed in the Decker-Birney Area was if an individual owned the resource he should determine what was to be done with it.

Table 41. Where natural resources are privately owned, neither neighbors nor government should have any say over how the natural resources are used.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	6.26549	25.57843	38.07732	42.31203	11.98735
df	4	24	16	28	12
P Value	.1802	.3749	.0015***	.0405***	.4467
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	25.85895	40.46855	36.72816	23.22104	23.81639
df	28	28	24	12	4
P Value	.5808	.0600	.0466***	.0259***	.0001*
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

In the cross tabulation of the statement, the chi square statistic indicated significant P values with five socio-economic variables — where respondents were raised, years lived in the area, education, occupation and where respondents live. No meaningful associations could be made by the author of the cross tabulation of where respondents were raised with the statement. Twenty-five of 36 (69.5%) of those from the Rocky Mountain states, 103 of 158 (65.7%) of those from Montana, and 16 of 35 (45.8%) of those from the midwest states either agreed or strongly agreed with the statement. In contrast, 2 of 4 (50%) of those from the west coast and 9 of 21 (42.9%) of those from the eastern states disagreed or strongly disagreed with the statement. No strong association of the cross tabulation of years in the area with the statement could be identified by the author. Six of 6 (100%) of those who lived in the area over seventy years either agreed or strongly agreed with the statement. Thirty-six of 80 (44.9%) of those who lived in the area under ten years disagreed or strongly disagreed with the statement. However, the rest of the age groupings fluctuated too greatly in their responses to allow for any meaningful interpretation. The cross tabulation of education with the statement resulted in an association that indicates that with an increase in the amount of formal education the respondent was more likely to believe that government should have some say over how the

natural resources are used. Eight of 11 (72.7%) of those respondents having less than an eighth grade education either agreed or strongly agreed with the statement. In contrast, only 7 of 18 (38.9%) of those respondents having some post-graduate education either agreed or strongly agreed with the statement. Ninety-nine of 136 (72.8%) of those working in an agricultural occupation, 19 of 37 (5.13%) of those working in an operations and construction occupation, 18 of 38 (47.4%) of those working in a public occupation, and 19 of 43 (44.2%) of those working in a private business occupation either strongly agreed or agreed with the statement. One hundred nine of 157 (67.4%) of the rural area residents either agreed or strongly agreed with the statement as opposed to 46 of 97 (47.4%) of those living in Ashland. The frequency distribution just further illustrates the importance that respondents working in agricultural occupations and rural residents placed on self determination of privately owned resources.

Statement 83 (Table 42), "Who should be empowered to determine whether or not stripped land has been truly reclaimed," was replied to in 252 interviews. Of the respondents 8.5 percent replied that an appropriate state agency, like the Department of Natural Resources should be empowered, 2.7 percent replied an appropriate federal agency like the Department of Agriculture should be empowered, .4 percent replied the coal company which does the reclamation should be empowered, 73.0 percent replied a specially qualified group of Montana

Table 42. Who should be empowered to determine whether or not stripped land has been truly reclaimed.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Birney Area (10 Year Increments)	Marital Status
χ^2	7.56775	42.71286	14.20960	47.07442	7.18975
df	5	30	20	35	15
P Value	.1817	.0621	.8197	.0835	.9522
	Number of Children in Family	Gross Family Income	Education Level of the Head of the Household	Occupation of the Head of the Household	Where Respondent Lives (Rural vs Ashland)
χ^2	40.56789	38.58444	37.82761	21.33517	12.70531
df	35	35	30	15	5
P Value	.2383	.3107	.1542	.1265	.0263***
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

agricultural experts who would function as a board of reclamation review should be empowered, and 10.8 percent replied a specially qualified group of Montana agricultural experts which would include local residents should be empowered to determine whether or not stripped land has been truly reclaimed. Five respondents (1.9%) gave other answers that ranged from no reclamation to the local county extension agent. The response that indicated having local residents as part of the qualified group of agricultural experts was added after the interviewing was completed because so many respondents wanted that written in as a response.

In the cross tabulation of the statement, the chi square statistic indicated a significant P value in only one of the socioeconomic variables — where respondents live. Seventy-one of 92 (77.2%) of those living in Ashland replied that a group of agricultural experts functioning as a board of reclamation review was the best choice as opposed to 118 of 160 (73.7%) of those living in the rural area. However, 23 of 160 (14.4%) of the rural area respondents wrote in they would like to have local residents as part of the qualified group of experts.

Statement 86 (Table 43), "Decisions about coal related developments should be made on economic grounds only; consideration need not be given to effects on life styles and values," was replied

Table 43. Decisions about coal related developments should be made on economic grounds only; consideration need not be given to effects on life styles and values.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	3.29317	44.96863	32.79523	29.28056	10.14442
df	4	24	16	28	12
P Value	.5100	.0059**	.0079**	.3984	.6033
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	22.85930	53.74002	35.39293	33.22104	10.21050
df	28	28	24	12	4
P Value	.7400	.0024**	.0628	.0009*	.0370***
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

to in 257 interviews. Of the respondents .8 percent strongly agreed, 5.0 percent agreed, 6.6 percent were neutral, 52.9 percent disagreed, and 34.0 percent strongly disagreed with the statement. A large majority (86.9%) of the respondents either disagreed or strongly disagreed with the statement.

In the cross tabulation of the statement, the chi square statistic indicated significant P values with five of the socio-economic variables — age, where respondents were raised, gross family income, occupation, and where respondents live. No meaningful association could be made by the author of the cross tabulation of age of respondents by decade with the statement. The 25-34 year age category had the highest percentage with 47 of 49 (95.9%) respondents who disagreed or strongly disagreed with the statement. The 45-54 year age category had the second highest percentage of respondents [42 of 46 (91.3%)] who disagreed or strongly disagreed with the statement. The author was unable to make any associations between where respondents were raised and the statement. Twenty of 22 (90.9%) of those raised in the eastern states and 143 of 161 (88.8%) of those raised in Montana either disagreed or strongly disagreed as opposed to 3 of 4 (75%) of those raised in the west coast states. The author was unable to make any associations with gross family income with the statement. Nine of 15 (60%) of those respondents earning less than \$2,999 and 18 of 23 (78.2%) of those respondents earning between

\$3,000 to \$4,999 either disagreed or strongly disagreed with the statement. In contrast all the other income categories had from 85.7 percent to 100 percent of the respondents either disagreeing or strongly disagreeing. Thirty-seven of 38 (97.3%) of those working in a public occupation, 123 of 139 (88.5%) of those working in an agricultural occupation, 33 of 38 (86.9%) of those working in an operations and construction occupation, and 32 of 42 (76.2%) of those working in a private business occupation either disagreed or strongly disagreed with the statement. The frequency distribution indicated that respondents working in a private business occupation were more likely to place less value on life styles and values associated with the area than the other occupational groups. One hundred forty-six of 161 (90.7) of the rural area residents disagreed or strongly disagreed with the statement as opposed to only 79 of 96 (82.3%) of the Ashland residents. The frequency distribution just points to the importance most residents placed in their present life style and values.

Statement 88 (Table 44), "The need of coal by the nation is one important consideration on decision to develop Montana's coal resources," was replied to in 257 interviews. Of the respondents, 6.2 percent strongly agreed, 65.3 percent agreed, 6.9 percent were neutral, 16.6 percent disagreed, and 4.2 percent strongly disagreed with the statement. A majority (71.5%) of the respondents either

Table 44. The need of coal by the nation is one important consideration on decisions to develop Montana's coal resources.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	1.26049	25.92409	22.62112	24.66876	23.87790
df	4	24	16	28	12
P Value	.8680	.3570	.1242	.6458	.0211***
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	21.04732	31.32114	16.80316	18.77119	15.56858
df	28	28	24	12	4
P Value	.8234	.3030	.8569	.0942	.0037**
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

strongly agreed or agreed with the statement which enforces the recognition by most the area residents that at some point in time the nation's need for coal could be an important consideration on its being developed.

In the cross tabulation of the statement, the chi square statistic indicated significant P values with two socio-economic variables — marital status, and where respondents live. Nine of 10 (90%) of the divorced or separated respondents either agreed or strongly agreed with the statement as opposed to only 75.3 percent of married respondents, 68.8 percent of the widowed respondents, and 50 percent of the single respondents. Eighty of 96 (83.4%) of the Ashland area residents agreed or strongly agreed with the statement as opposed to only 105 of 161 (69.8%) of rural area residents. From the frequency distribution it would appear that Ashland residents were more likely to either agree or strongly agree with the statement than were rural area residents.

Statement 106 (Table 45), "Assuming that Montana is obliged to help the rest of the nation to meet growing energy needs, there remains the question of the reasonable limits of Montana's obligation. That is, how much coal development in Montana is enough, how much is too much," was replied to in 238 interviews. Of the respondents, 37.1 percent replied, "there should be no further development; what we have under way is enough," 32.4 percent replied, "further development

Table 45. Assuming that Montana is obliged to help the rest of the nation to meet growing energy needs, there remains the question of the reasonable limits of Montana's obligation. That is, how much coal development in Montana is enough, how much is too much.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	.62455	20.71960	13.34912	24.38297	10.98754
df	3	18	12	21	9
P Value	.8908	.2938	.3442	.2749	.2766
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	24.41446	17.45799	23.26352	21.08017	14.46104
df	21	21	18	9	3
P Value	.2734	.6830	.1807	.0123***	.0023**
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

should be confined to mining and exporting coal," 8.9 percent replied, "further development should be confined to mining and mine-mouth power generation," and 13.5 percent replied, "further development should not be restricted, but should be a direct response to what the rest of the nation says it wants."

In the cross tabulation of the statement, the chi square statistic indicated significant P values with two socio-economic variables — occupation, and where respondents live. Sixteen of 30 (53.3%) of those working in a public occupation, 58 of 134 (43.3%) of those working in an agriculture occupation, 12 of 37 (32.4%) of those working in an operations and construction occupation, and 10 of 37 (27.0%) of those working in a private business occupation believed that there should be no further coal development in Montana. One of 30 (3.3%) of those working in a public occupation, 16 of 134 (11.9%) of those working in an agriculture occupation, 9 of 37 (24.3%) of those working in an operations and construction occupation and 9 of 37 (24.3%) of those working in a private business occupation believed that further development should not be restricted. Sixty-nine of 155 (44.5%) of the rural residents and 27 of 83 (32.5%) of the Ashland residents believed that there should be no further coal development in Montana. Seventeen of 155 (17%) of the rural residents, and 18 of 83 (21.7%) of the Ashland residents believed that further development

should not be restricted.

Statement 108 (Table 46), "In general, and as a rule, who should pay the local economic costs of industrialization of coal resources (e.g., expansion of law enforcement, public health, and education services)," was replied to in 253 interviews. Of the respondents 38.6 percent replied, "industry," 3.1 percent replied, "local government," 1.2 percent replied, "state government," 6.6 percent replied, "federal government," 18.1 percent replied, "the people who directly benefit from the power produced by the coal development," 29.3 percent replied, "all of the above," and .8 percent replied, "none of the above."

In the cross tabulations of the statement, the chi square statistic indicated significant P values with two socio-economic variables — number of children and where respondents live. No strong association of the cross tabulation of the number of children with the statement could be identified by the author. It appears that those with five children [11 of 17 (64.7%)] and those with two children [30 of 65 (46.2%)] believed that industry should pay the local economic costs of industrialization more strongly than the other groupings. Seventy-eight of 159 (49.1%) of the rural residents and 22 of 94 (23.4%) of the Ashland residents believed that industry should pay the local economic costs of industrialization. Thirty-eight of 94 (40.4%)

Table 46. In general, and as a rule, who should pay the local economic costs of industrialization of coal resources (e.g., expansion of law enforcement, public health, and educational services).

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10. Year Increments)	Marital Status
χ^2	3.19856	31.85674	21.90305	35.01663	12.50014
df	6	36	28	42	18
P Value	.7835	.6660	.5851	.7688	.8204
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	69.52367	53.40840	29.95001	19.50922	20.63815
df	42	42	36	18	6
P Value	.0048**	.1115	.7510	.3611	.0021**
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

of the Ashland residents and 38 of 159 (23.9%) of the rural residents believed that a combination of all categories should share in the cost of industrialization.

Statement 109 (Table 47), "Montana laws are sufficiently strict and enforceable to permit continued power plant construction in this area," was replied to in 225 interviews. Of the respondents 1.5 percent strongly agreed, 14.7 percent agreed, 23.9 percent were neutral, 38.2 percent disagreed, and 8.5 percent strongly disagreed with the statement. Thirty-four of the respondents (13.1%) did not reply to the question because they did not believe they were well enough acquainted with Montana laws to make a judgment. The author feels compelled to point out to the reader the honesty of the respondents. No significant P values were identified in the cross tabulation of the statement with the socio-economic variables.

Statement 110 (Table 48), "We owe it to the rest of the U.S. to generate electricity here and transmit it to them," was replied to in 249 interviews. Of the respondents, .4 percent strongly agreed, 9.7 percent agreed, 8.9 percent were neutral, 51.7 percent disagreed, and 25.5 percent strongly disagreed with the statement. A large majority (77.2%) of the respondents disagreed or strongly disagreed with the statement emphasizing the unpopularity of the plan to generate electricity in Montana and transmit it to others.

Table 47. Montana laws are sufficiently strict and enforceable to permit continued power plant construction in this area.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Birney Area (10 Year Increments)	Marital Status
χ^2	7.15720	21.13257	13.77906	32.99709	17.98395
df	4	24	16	28	12
P Value	.1278	.6309	.6152	.2359	.1162
	Number of Children in Family	Gross Family Income	Education Level of the Head of the Household	Occupation of the Head of the Household	Where Respondent Lives (Rural vs Ashland)
χ^2	20.97870	34.69142	32.41008	15.24650	8.73618
df	28	28	24	12	4
P Value	.8262	.1790	.1171	.2282	.0680

* χ^2 Significant at .001 ** χ^2 Significant at .01 *** χ^2 Significant at .05

Table 48. We owe it to the rest of the U.S. to generate electricity here and transmit it to them.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	2.82901	24.12202	17.76588	33.66666	15.03006
df	4	24	16	28	12
P Value	.5868	.4546	.3378	.2883	.2398
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House-	Where Respond- ent Lives (Rural vs Ashland)
χ^2	27.79767	26.46204	25.97025	19.14900	26.21501
df	28	28	24	12	4
P Value	.4752	.5477	.3547	.0850	.0000*
χ^2 Significant at .001 χ^2 Significant at .01 χ^2 Significant at .05					

In the cross tabulation of the statement, the chi square statistic indicated a significant P value in only one of the socio-economic variables — where respondents live. One hundred thirty-seven of 158 (86.7%) of the rural residents agreed or strongly agreed with the statement as opposed to only 63 of 91 (69.2%) of the Ashland residents.

Statement 113 (Table 49), "Too little attention is being paid to the social costs of coal development which accompany whatever economical benefits coal development is bringing to Rosebud County," was replied to in 242 interviews. Of the respondents 15.1 percent strongly agreed, 52.5 percent agreed, 16.2 percent were neutral, 8.1 percent disagreed, and 1.5 percent strongly disagreed with the statement. A majority (67.6%) of the respondents replied that too little attention was paid to the social costs.

In the cross tabulation of the statement, the chi square statistic indicated significant P values with four socio-economic variables — age, where respondents were raised, occupation, and where respondents live. The cross tabulation of age with the statement indicated that those 25 years of age or over believed too little attention was being paid to the social costs of coal development. Five of 24 (20.8%) of those under 24 years of age either opposed or strongly opposed the statement, and 15 of 24 (62.5%) of the respondents in the same age group agreed or strongly agreed with the statement. In

Table 49. Too little attention is being paid to the social costs of coal development which accompany whatever economic benefits coal development is bringing to Rosebud County.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	1.65931	50.19174	27.23683	20.95618	7.61050
df	4	24	16	28	12
P Value	.7981	.0013**	.0389***	.8272	.8148
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	21.29349	16.91583	34.92526	21.57820	10.22878
df	28	28	24	12	4
P Value	.8129	.9502	.0695	.0425***	.0367***
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

contrast, over 70 percent of the respondents in all other age categories either agreed or strongly agreed with the statement. The above 75 years old category had the highest percentage of respondents [4 of 5 (80%)] that either agreed or strongly agreed with the statement.

Twenty-four of 31 (77.5%) of those respondents raised in the midwest states, 26 of 36 (72.2%) of those respondents raised in the Rocky Mountain states, 109 of 151 (72.2%) of those respondents raised in Montana, 15 of 21 (71.4%) of those respondents raised in the eastern states, and 1 of 3 (33.3%) of those respondents raised in the west coast states either agreed or strongly agreed with the statement.

Twenty-eight of 35 (80%) of those respondents working in a public occupation, 103 of 134 (76.9%) of those respondents in an agricultural occupation, 26 of 38 (68.4%) of those respondents working in a private business occupation, and 18 of 35 (51.5%) of those working in an operations and construction occupation either agreed or strongly agreed with the statement. One hundred eighteen of 156 (75.7%) of the rural residents agreed or strongly agreed with the statement as opposed to only 57 of 86 (66.3%) of the Ashland residents.

The frequency distributions of the occupations and where people live indicated to the author the concern expressed by those persons having a close relationship with land upon which they live. The concern being expressed about social costs was from a concern that the land will ultimately suffer the consequences.

Statement 114 (Table 50), "In general Montanans who live outside of the area where coal resources are being developed are poorly informed about what is actually happening in this area," was replied to in 248 interviews. Of the respondents 10.4 percent strongly agreed, 62.2 percent agreed, 7.7 percent were neutral, 15.1 percent disagreed, and .4 percent strongly disagreed with the statement. A majority (72.6%) of the respondents either agreed or strongly agreed with the statement which only emphasizes the importance that public education could play in informing the state residents about coal development.

In the cross tabulation of the statement, the chi square statistic indicated a significant P value in only one of the socio-economic variables — where respondents were raised. The author was unable to make any associations from the cross tabulation of where respondents were raised with the statement. Twenty-six of 32 (81.2%) of those respondents raised in the midwest states, 122 of 156 (78.2%) of those respondents raised in Montana, 15 of 20 (75%) of those respondents raised in the eastern states, 24 of 36 (66.6%) of those respondents raised in the Rocky Mountain states, and 1 of 4 (25%) of those respondents raised in the west coast states either agreed or strongly agreed with the statement.

Statement 115 (Table 51), "Power companies should never be granted the right to use eminent domain to obtain rights of way for power lines. Instead a negotiation procedure should be used, one

Table 50. In general, Montanans who live outside of the area where coal resources are being developed are poorly informed about what is actually happening in this area.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	1.87842	24.17114	27.69843	23.34341	4.93146
df	4	24	16	28	12
P Value	.7581	.4518	.0343***	.7157	.9602
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	23.72855	34.95009	20.24498	20.49254	8.50279
df	21	28	24	12	4
P Value	.3064	.1713	.6828	.0583	.0748
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

Table 51. Power companies should never be granted the right to use eminent domain to obtain rights of way for power lines. Instead, a negotiation procedure should be used, one which allows each landowner to have the final word concerning the use of his land.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	3.99894	25.80176	10.97757	28.39139	17.18456
df	4	24	16	28	12
P Value	.4061	.3633	.8109	.4439	.1428
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	29.24171	27.33353	23.83644	23.00531	13.37555
df	28	28	24	12	4
P Value	.4003	.5001	.4710	.0277***	.0096**
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

which allows each landowner to have the final word concerning the use of the land," was replied to in 254 interviews. Of the respondents 20.1 percent strongly agreed, 56.0 percent agreed, 6.6 percent were neutral, 14.7 percent disagreed, and .8 percent strongly disagreed with the statement. A majority (76.1%) of the respondents either agreed or strongly agreed with the statement which perhaps could be expected in a setting where land is most important.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in two of the socio-economic variables — occupation, and where respondents live. Twenty-eight of 37 (83.8%) of those respondents working in an operations and construction occupation, 30 of 37 (81.1%) of those respondents working in public occupation, 110 of 139 (79.1%) of those in an agriculture occupation, and 29 of 41 (70.7%) of those working in a private business occupation either agreed or strongly agreed with the statement. Nine of 41 (22%) of the respondents in a private business occupation disagreed with the statement which was higher than the next closest category of respondents by 7 percent. One hundred twenty-seven of 160 (79.4%) of the rural residents agreed or strongly agreed with the statement as opposed to 70 of 94 (74.5%) of the Ashland residents.

Statement 116 (Table 52), "We owe it to the rest of Montana to develop more industry for the state," was replied to in 253 interviews. Of the respondents 1.2 percent strongly agreed, 22.0 percent agreed,

Table 52. We owe it to the rest of Montana to develop more industry for the state.

	Sex of Respondent	Age of Respondent by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	4.04138	40.83887	16.54216	26.66983	12.96163
df	4	24	16	28	12
P Value	.4004	.0173***	.4158	.5363	.3718
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	51.60541	48.20070	41.97391	29.40642	39.17645
df	28	28	24	12	4
P Value	.0043**	.0102***	.0130***	.0034**	.0000*
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

12.7 percent were neutral, 49.8 percent disagreed, and 12.0 percent strongly disagreed with the statement. A majority (61.8%) of the respondents either disagreed or strongly disagreed with the statement.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in six of the socio-economic variables — age, number of children, gross family income, education level, occupation, and where respondents live.

No strong association of the cross tabulation of age with the statement could be identified by the author. Two of 5 (40%) of the respondents over 75 years of age, 20 of 42 (47.6%) of the respondents in the 55 to 64 year bracket, and 14 of 24 (58.3%) of the respondents under 24 years of age either disagreed or strongly disagreed with the statement. In contrast to the other age categories, the number of respondents disagreeing or agreeing with the statement ran from a low of 64.3 percent of the 35 to 44 year age group to a high of 75.5 percent of those in the 25 to 34 year age group. No strong association of the cross tabulation of children with the statement could be identified by the author. Two of three (66.7%) of those respondents having over seven children agreed with the statement, yet only 1 of 6 (16.7%) of those having over six children agreed with the statement. Ten of 65 (15.4%) of those having two children and 11 of 33 (33.3%) of those having only one child agreed with the statement. The cross tabulation of income with the statement indicated that as income increased the

more likely an individual was to disagree with the statement. In the income bracket of less than \$2,999, 7 of 15 (46.7%) either agreed or strongly agreed with the statement in contrast with only 3 of 31 (9.7%) of those respondents making over \$30,000 who either agreed or strongly agreed with the statement. The cross tabulations of education with the statement indicated that those having more than an eighth grade education were more likely to disagree or strongly disagree with the statement. Four of 11 (36.4%) of those respondents having less than an eighth grade education disagreed with the statement. In contrast, the percentage of those who either disagreed or strongly disagreed with the statement ranged from 51.4 percent to 80.8 percent in the other groups. Nineteen of 42 (45.2%) of those working in a private business occupation, 11 of 37 (29.7%) of those working in an operations and construction occupation, 7 of 37 (18.9%) of those working in a public occupation, and 23 of 137 (16.8%) of those working in an agricultural occupation either agreed or strongly agreed with the statement. Twenty-three of 158 (14.6%) of the rural residents agreed or strongly agreed with the statement as opposed to only 37 of 95 (39%) of the Ashland residents. The frequency distribution indicated those respondents in private business occupations and residents living in Ashland were more likely to believe that "we" should develop more industry in the state.

Statement 121 (Table 53), "Because industries have to be

Table 53. Because industries have to be competitive, it is unfair to expect them to tell the public about their expansion plans.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	9.04107	46.38959	21.40697	18.92482	14.24852
df	4	24	16	28	12
P Value	.0601	.0040**	.1634	.9004	.2851
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	23.96667	34.96364	19.46774	19.39752	15.46412
df	21	28	24	12	4
P Value	.2947	.1709	.7266	.0794	.0038**
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

competitive, it is unfair to expect them to tell the public about their expansion plans," was replied to in 251 interviews. Of the respondents 1.2 percent strongly agreed, 9.7 percent agreed, 6.9 percent were neutral, 65.3 percent disagreed, and 13.9 percent strongly disagreed with the statement. A majority (79.2%) of the respondents either disagreed or strongly disagreed with the statement.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in two of the socio-economic variables — age, and where respondents live. No strong association of the cross tabulation of age with the statement could be identified by the author. The age group of 25 to 34 years had the highest number of respondents [37 of 49 (93.9%)] who either disagreed or strongly disagreed with the statement. The age group of 65 to 74 years had the lowest number of respondents [23 of 31 (74.2%)] who either disagreed or strongly disagreed with the statement. The rest of the age groupings varied between the two percentages with no consistencies. One hundred thirty-two of 158 (83.6%) of the rural residents disagreed or strongly disagreed with the statement as opposed to only 73 of 93 (78.5%) of the Ashland residents. The percentage of the rural resident respondents who disagreed or strongly disagreed with the statement was predictable as they have more to lose if expansion takes place.

Statement 122 (Table 54), "Decisions about whether to permit further coal mining and power generation should not be influenced by

Table 5-. Decisions about whether to permit further coal mining and power generation should not be influenced by people like me.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	.65964	31.96040	13.17785	18.55916	14.83012
df	4	24	16	28	12
P Value	.9562	.1280	.6597	.9112	.2509
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	29.33067	57.58002	44.32710	35.64456	34.21223
df	28	28	24	12	4
P Value	.3959	.0008*	.0076**	.0004*	.0000*
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

people like me," was replied to in 256 interviews. Of the respondents .8 percent strongly agreed, 7.7 percent agreed, 4.2 percent were neutral, 60.6 percent disagreed, and 25.5 percent strongly disagreed with the statement. A large majority (86.1%) of the respondents believed that decisions whether to permit further coal mining and power generations to be built and opened should involve them. This overwhelming response gives notice that the people wanted to be involved.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in four of the socio-economic variables — gross family income, education level, occupation, and where respondents live. The cross tabulations of total family income with the statement produced no strong association that the author could identify. Five of 15 (33.3%) of those making an income less than \$2,999 agreed with the statement as opposed to 26 of 26 (100%) of those respondents in the \$15,000 to \$19,999 income range who disagreed or strongly disagreed with the statement. The cross tabulations of education with the statement produced a strong association that indicated as the formal education level of a respondent increased, the more likely they were to either disagree or strongly disagree with the statement. Four of 11 (36.4%) of those respondents with less than an eighth grade education either agreed or strongly agreed with the statement, as opposed to zero percent of those respondents in the post-graduate education category. In all other educational categories

the percent of respondents who agreed or strongly agreed with the statement decreased with each increase in levels of formal schooling. Six of 38 (15.8%) of those working in an operations and construction occupation, 3 of 42 (11.9%) of those working in a private business occupation, 3 of 37 (8.1%) of those working in a public occupation, and 8 of 139 (5.7%) of those working in an agricultural occupation either agreed or strongly agreed with the statement. More respondents in the operations and construction and private business occupations believed they should not be involved in decisions influencing whether to permit further coal mining and generation development. One hundred forty-eight of 161 (92%) of the rural residents either disagreed or strongly disagreed with the statement as opposed to 75 of 95 (78.9%) of the Ashland residents.

The rural residents exhibited a more aggressive attitude about involvement than did the respondents living in Ashland.

Statement 123 (Table 55), "Decisions about the rate at which further coal mining and power generation should be permitted should not be influenced by people like me," was replied to in 242 interviews. Of the respondents .8 percent strongly agreed, 8.1 percent agreed, 7.3 percent were neutral, 57.9 percent disagreed, and 19.3 percent strongly disagreed with the statement. A majority (77.2%) either disagreed or strongly disagreed with the statement again attesting to the belief of the residents that they should not be left out.

Table 55. Decisions about the rate at which further coal mining and power generation should be permitted should not be influenced by people like me.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	3.67057	35.89980	25.22401	26.24951	7.54790
df	4	24	16	28	12
P Value	.4524	.0561	.0660	.5593	.8194
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	24.69810	40.81421	49.35992	28.83411	24.50327
df	21	28	24	12	4
P Value	.2605	.0558	.0017**	.0042**	.0001*
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

In the cross tabulation of the statement, the chi square statistic indicated significant P values in three of the socio-economic variables — education level, occupation, and where respondents live. The cross tabulation of education with the statement produced a strong association that as the formal education level of a respondent increased, the more likely they were to either disagree or strongly disagree with the statement. Seven of 11 (63.7%) of those with less than an eighth grade education, 53 of 70 (75.7%) of those with more than an eighth grade but less than high school, 56 of 69 (81.1%) of those with some high school education, 37 of 44 (84.1%) with some college, 23 of 23 (100%) of the college graduates, and 18 of 18 (100%) of the post-graduate education respondents either disagreed or strongly disagreed with the statement. Thirty-three of 37 (89.2%) of those working in a public occupation, 109 of 127 (85.8%) of those working in an agricultural occupation, 29 of 37 (78.4%) of those working in an operations and construction occupation, and 29 of 41 (70.7%) of those working in a private business occupation either disagreed or strongly disagreed with the statement. One hundred twenty-seven of 146 (87%) of the rural residents either disagreed or strongly disagreed with the statement as opposed to only 73 of 96 (76%) of the Ashland residents. The frequency distribution continued to show respondents working in public occupations and agricultural occupations and residents of rural areas to be individuals who believed they should be involved in the

decision making process.

Statement 124 (Table 56), "Decisions about whether to permit further coal mining and power generation will not be affected by what people in this area think should be done, but by the pressures exerted by industrial giants," was replied to in 248 interviews. Of the respondents, 2.3 percent strongly agreed, 45.6 percent agreed, 9.7 percent were neutral, 33.6 percent disagreed, and 4.6 percent strongly disagreed with the statement. The responses to this statement were nearly evenly distributed with only 9.7 percent more respondents answering in the affirmative mode. The author interpreted this to indicate the distastefulness that big outside industry represented to the residents of the area. As a result of this wide distribution of responses, no significant P values were indicated in the cross tabulation of the statement with socio-economic variables.

Statement 125 (Table 57), "Your family ties will be affected by the coal development and the population influx," was replied to in 253 interviews. Of the respondents 5.8 percent strongly agreed, 40.5 percent agreed, 7.7 percent were neutral, 41.7 percent disagreed and 1.9 percent strongly disagreed with the statement. The responses to this statement were nearly evenly distributed on both sides of the continuum.

In the cross tabulation of the statement, the chi square

Table 56. Decisions about whether to permit further coal mining and power generation will not be affected by what people in this area think should be done, but by the pressures exerted by industrial giants.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	1.10818	20.56601	16.68738	24.24365	10.50689
df	4	24	16	28	12
P Value	.8930	.6642	.4061	.6686	.5716
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	15.20055	23.79997	16.71361	12.19432	3.88474
df	28	28	24	12	4
P Value	.9762	.6920	.8606	.4302	.4218
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

Table 57. Your family ties will be affected by the coal development and the population influx.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Birney Area (10 Year Increments)	Marital Status
χ^2	5.22196	44.97658	12.3608	27.56259	12.10801
df	4	24	16	28	12
P Value	.2653	.0059**	.7346	.4878	.4370
	Number of Children in Family	Gross Family Income	Education Level of the Head of the Household	Occupation of the Head of the Household	Where Respondent Lives (Rural vs. Ashland)
χ^2	27.75752	37.63757	24.80525	38.19984	23.34515
df	28	28	24	12	4
P Value	.4774	.1055	.4164	.0001*	.0001*
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

statistic indicated significant P values in three of the socio-economic variables — age, occupation, and where respondents live.

The cross tabulation of age with the statement produced a strong association that as age increased respondents believed that coal development and population influx would hurt their family ties. Nine of 25 (36.0%) of those in the under 24 year old category agreed or strongly agreed with the statement as opposed to 3 of 5 (60%) of those in the 75 year old and above category. All other age categories had between 42.2 percent and 60 percent of the respondents who either agreed or strongly agreed with the statement. Eighty-one of 134 (60.5%) of those working in agricultural occupations, 17 of 38 (44.7%) in an operations and construction occupation, 12 of 44 (27.3%) of those working in a private business occupation, and 10 of 37 (27%) of those working in a public occupation either agreed or strongly agreed with the statement. Ninety-two of 155 (59.4%) of the rural residents either agreed or strongly agreed with the statement as opposed to 28 of 98 (28.6%) of the Ashland residents. It would appear from the frequency distribution that those working in agricultural occupations and residents of the rural area were more likely to believe that family ties would be affected by coal development.

Statement 126 (Table 58), "Power and coal companies should be required to reveal their long-range plans so that state and local officials can evaluate the plans," was replied to in 255 interviews.

Table 58. Power and coal companies should be required to reveal their long-range plans so that state and local officials can evaluate the plans.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	8.93108	24.54428	16.79120	28.81761	4.49607
df	4	24	16	28	12
P Value	.0628	.6064	.3992	.4218	.9727
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	26.01697	33.72620	23.63269	16.89246	7.54621
df	28	28	24	12	4
P Value	.5721	.2100	.4828	.1537	.1097
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

Of the respondents 17.0 percent strongly agreed, 73 percent agreed, 4.2 percent were neutral, 3.5 percent disagreed, and .8 percent strongly disagreed with the statement. An overwhelming majority (90%) either strongly agreed or agreed with the statement. As a result of the almost total agreement among the respondents, no significant P values were indicated in cross tabulation of the statement with socio-economic variables.

Statement 151 (Table 59), "The proposed power generating units 3 and 4 would affect the water quality of the area," was replied to in 217 interviews. Of the respondents .8 percent replied "very beneficial," 1.9 percent replied, "beneficial," 27.4 percent replied "neither or neutral," 38.6 percent replied "detrimental," and 15.1 percent replied, "very detrimental," to the statement. The large percentage of individuals (16.2%) who did not answer the question did so because they did not believe they could give a realistic answer to the statement because of the lack of knowledge. Nevertheless, 53.7 percent of the respondents replied "detrimental" or "very detrimental" to the statement.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in two of the socio-economic variables — level of education, and where respondents live. The cross tabulations of education level with the statement indicated that as education level increased, the more likely an individual was to believe

Table 59. Units 3 and 4 would affect the water quality of the area.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	2.22503	23.92235	20.05508	33.10619	8.75565
df	4	24	16	28	12
P Value	.6944	.4660	.2177	.2319	.7236
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	16.36067	39.45500	44.57950	20.86925	18.74646
df	21	28	24	12	4
P Value	.7491	.0739	.0065**	.0523	.0009*
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

that the construction of the proposed third and fourth generator plants will have either detrimental effects or very detrimental effects on the water. Five of 9 (55.5%) of those with less than an eighth grade education either replied, "detrimental" or "very detrimental" as opposed to 13 of 17 (76.4%) of those with a post-graduate education. Ninety-five of 133 (71.4%) of the rural residents either replied "detrimental" or "very detrimental" as opposed to only 44 of 84 (52.4%) of the Ashland residents. The close association of the rural residents with the land increased their propensity to believe that the water quality would be affected if units 3 and 4 are built.

Statement 154 (Table 60), "The building and operation of units 3 and 4 would have what kind of an effect on the air quality of the area in general," was replied to in 213 interviews. Of the respondents none replied "very beneficial" or "beneficial"; however, 16.6 percent replied "neither or neutral," and 47.1 percent replied "detrimental" or "very detrimental" to the statement.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in four of the socio-economic variables — age, gross family income, occupation, and where respondents live. The cross tabulation of age with the statement produced no real association that the author could identify. The age group with the highest number of respondents [40 of 45 (88.9%)] answering "detrimental" or "very detrimental" was the age group of 25 to 34 years. The group

Table 60. The building and operation of units 3 and 4 would affect the air quality of the area in general.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments).	Marital Status
χ^2	.91047	22.64275	13.15721	20.79298	7.77126
df	2	12	8	14	6
P Value	.6343	.0309***	.1066	.1071	.2553
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	11.36183	31.87286	19.84631	26.69472	24.41197
df	14	12	14	6	2
P Value	.6574	.0014**	.1351	.0002*	.0000*

* χ^2 Significant at .001

** χ^2 Significant at .01

*** χ^2 Significant at .05

was followed closely by the 35 to 44 year age group with 39 of 45 (86.7%) respondents who answered "detrimental" or "very detrimental." The group with the smallest percent of the respondents answering "detrimental" or "very detrimental" was the 65 to 74 year age group with only 16 of 26 (60.8%). The cross tabulation of income with the statement produced no real association that the author could identify. The two income categories of \$15,000 to \$19,999 and over \$30,000 each had 91.3 percent of the respondents answering "detrimental" or "very detrimental." The two income categories of less than \$2,999 and \$5,000 to \$7,499 each had 69.2 percent of the respondents answering "detrimental" or "very detrimental." The other income groups varied in percentages with no significant direction of progression. Thirty-two of 35 (91.4%) of those working in a public occupation, 96 of 112 (85.7%) of those working in an agricultural occupation, 21 of 32 (65.6%) of those working in an operations and construction occupation, and 21 of 34 (61.8%) of those working in a private business occupation either answered "detrimental" or "very detrimental." Those respondents working in a public occupation or an agricultural occupation because of their closeness to the land were more likely to reply detrimental or very detrimental to the statement. One hundred eleven of 129 (86%) of the rural residents either replied "detrimental" or "very detrimental" as opposed to only 59 of 84 (70.3%) of the Ashland residents. The close association of the rural residents with the land increased

their propensity to believe that the air quality of the area would be affected if units 3 and 4 are built.

Statement 158 (Table 61), "I believe that units 3 and 4 should (4 options available)," was replied to in 239 interviews. Of the respondents 4.2 percent replied that units 3 and 4 should "be built unconditionally," 13.9 percent replied that units 3 and 4 should "be built if the state can enforce strong controls," 38.6 percent replied that units 3 and 4 should "not be built until the effects of units 1 and 2 are known," and 35.5 percent replied that units 3 and 4 should "not be built at all." The largest percentage (38.6%) of the respondents were for delaying the construction of units 3 and 4 until the effects of 1 and 2 are known; however, the second highest percentage (35.5%) of the respondents did not want units 3 and 4 built at all.

In the cross tabulations of the statement, the chi square statistic indicated significant P values in two of the socio-economic variables — occupation and where respondents live. Four of 42 (9.5%) of those working in a private business occupation, 2 of 34 (5.9%) of those working in an operations and construction occupation, and 5 of 128 (3.9%) of those working in an agricultural occupation believed units 3 and 4 should be built unconditionally as opposed to 0 percent of those working in a public occupation. Nine of 42 (21.4%) of those working in a private business occupation, 6 of 34 (17.6%) of those working in an operations and construction occupation, 19 of 128 (14.8%)

Table 61. The opinions on building power generating plants 3 and 4.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	5.09463	22.83292	10.91427	26.79739	12.95821
df	3	18	12	21	9
P Value	.1649	.1971	.5363	.1777	.1645
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	15.44628	21.67348	9.70269	17.89000	18.59564
df	21	18	21	9	3
P Value	.7999	.2468	.9825	.0365***	.0003*
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

of those working in an agricultural occupation, and 2 of 35 (5.7%) of those working in a public occupation believed units 3 and 4 should be built if the state can enforce strong controls. Twenty of 26 (58.8%) of those working in an operations and construction occupation, 18 of 35 (51.4%) of those working in a public occupation, 16 of 29 (38.1%) of those working in a private business occupation, and 46 of 104 (35%) of those working in an agricultural occupation did not believe units 3 and 4 should be built until the effects of units 1 and 2 are known. Fifty-eight of 128 (45.3%) of those working in an agricultural occupation, 15 of 35 (42.9%) of those working in a public occupation, 13 of 29 (37%) of those working in a private business occupation, and 6 of 26 (17.6%) of those working in an operations and construction occupation did not believe units 3 and 4 should be built at all. The frequency distributions of this statement presented some interesting data. The respondents working in the private business occupation were the most evenly distributed in their replies and had the highest percentages of respondents who believed that units 3 and 4 should be built unconditionally or be built if the state can enforce strong controls. The respondents of the operations and construction occupations had the lowest percentage of all the groups that believed units 3 and 4 should not be built at all. However, the same occupational category had the highest percentage of respondents that believed that units 3 and 4 should not be built until the effects of

power plants 1 and 2 are known. The respondents of the agricultural occupations group had the highest percentage of all the groups that believed that units 3 and 4 should not be built. The respondents of the public occupation group had the most skewed distribution with 94.3 percent of the group either replying that units 3 and 4 should not be built until the effects of 1 and 2 are known or that units 3 and 4 should not be built at all. Seven of 90 (7.8%) of the Ashland residents believed units 3 and 4 should be built unconditionally as opposed to 4 of 149 (2.7%) of the rural residents. Fourteen of 90 (15.6%) of the Ashland residents believed units 3 and 4 should be built if the state can enforce strong controls as opposed to 22 of 149 (14.8%) of the rural residents. Forty-nine of 90 (54.4%) of the Ashland residents did not want units 3 and 4 built until the effects of units 1 and 2 are known as opposed to 51 of 149 (34.2%) of the rural residents. Seventy-two of 123 (48.8%) of those living in the rural areas did not believe units 3 and 4 should be built as opposed to 20 of 90 (22.2%) of those in the Ashland area. The frequency distribution of this statement again documented the differences between the Ashland residents and those of the rural area, and these differences have been seen continually in the analysis of the results. More respondents from Ashland than from the rural area believed units 3 and 4 should be built unconditionally, or built if the state can enforce strong controls, or not be built until the effects of units 1 and 2 are

known. As might be expected, more respondents living in rural areas believed units 3 and 4 should not be built at all.

Statement 171 (Table 62), "We Montanans need more electricity and we should obtain it as Montana Power suggests we should, by building additional power generating facilities at Colstrip," was replied to in 229 interviews. Of the respondents, .4 percent strongly agreed, 13.9 percent agreed, 14.3 percent were neutral, 44 percent disagreed, and 15.8 percent strongly disagreed with the statement. A majority (59.8%) of the respondents disagreed or strongly disagreed that additional power generating facilities should be built at Colstrip.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in two of the socio-economic variables — occupation and where respondents live. Twenty-nine of 35 (82.9%) of those working in a public occupation, 85 of 119 (71.5%) of those working in an agricultural occupation, 23 of 39 (39%) of those working in a private business occupation, and 18 of 36 (50%) of those working in an operations and construction occupation either disagreed or strongly disagreed with the statement. One hundred of 138 (72.5%) of those living in the rural areas either disagreed or strongly disagreed with the statement as opposed to 55 of 91 (60.4%) of the Ashland residents. Those respondents working in public occupations and agricultural occupations again had the largest percentages of the occupations groupings opposing the building of power generating

Table 62. We Montanans need more electricity and we should obtain it as Montana Power suggests we should, by building additional power generating facilities at Colstrip.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	8.02979	20.80978	17.90497	27.30276	11.93054
df	4	24	16	28	12
P Value	.0905	.6499	.3295	.5018	.4513
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	22.35771	36.31989	25.33449	27.33560	20.16542
df	28	24	28	12	4
P Value	.7645	.0511	.6096	.0069**	.0005*
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

facilities. More rural residents also opposed the building of more power generating facilities at Colstrip than Ashland residents.

Statement 173 (Table 63), "Units 3 and 4 should be built close to those who will use most of the electricity which those units will generate," was replied to in 220 interviews. Of the respondents 17.4 percent strongly agreed, 46.7 percent agreed, 10.4 percent were neutral, 9.7 percent disagreed, and .8 percent strongly disagreed with the statement. A majority (64.1%) of the respondents believed that the proposed generating units 3 and 4 should be built close to those who will use the electricity.

In the cross tabulations of the statement, the chi square statistic indicated significant P values in two of the socio-economic variables — age, and gross family income.

The cross tabulation of age with the statement produced no real association that the author could identify. The age groups of 25-34 years had the highest number of respondents [41 of 47 (87.2%)] who either agreed or strongly agreed with the statement; the second highest group was the 35 to 44 year age group with 38 of 48 (79.1%) who either agreed or strongly agreed with the statement. The age group of 75 years and above had the smallest percentage [2 of 3 (66.6%)] of respondents who either agreed or strongly agreed with the rest of the age categories varied in their percentage of responses. The cross tabulation of income with the statement produced no real association

Table 63. Units 3 and 4 should be built close to those who will use most of the electricity which these units will generate.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	4.27560	40.67102	18.15457	27.51711	6.05813
df	4	24	16	28	12
P Value	.3700	.0181***	.3149	.4902	.9131
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	10.51747	37.53383	22.83292	9.31832	9.12837
df	21	24	28	12	4
P Value	.9714	.0387***	.7414	.6755	.0580
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

that the author could identify. The income group of \$15,000 to \$19,999 had 20 of 25 (80%) respondents who disagreed or strongly disagreed with the statement for the highest percentage. The group with the second highest percentage who disagreed or strongly disagreed with the statement was the \$7,500 to \$9,999 income category with 24 of 33 (72.7%). The group having the lowest percentage of respondents who either disagreed or strongly disagreed with the statement was the \$5,000 to \$7,499 income group with 9 of 17 (53%)

Statement 206 (Table 64), "Any expansion of coal development within the Decker-Birney Area would directly benefit the planning area's resident," was answered in 237 interviews. Of the respondents, 1.5 percent strongly agreed, 23.2 percent agreed, 11.6 percent were neutral, 34.4 percent disagreed, and 20.8 percent strongly disagreed with the statement. A slight majority (55.8%) of the respondents believed that coal development within the area would not directly benefit the planning area's residents.

In the cross tabulation of the statement, the chi square statistic indicated a significant P value in only one of the socioeconomic variables — where respondents live. One hundred nine of 159 (69.4%) of those living in the rural areas disagreed or strongly disagreed with the statement as opposed to 33 of 80 (34%) of those living in the Ashland area. As indicated by the frequency a majority of the rural residents believed coal development would not directly

Table 64. Any expansion of coal development within the area would directly benefit the planning area's residents.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
X^2	5.86242	21.62305	15.00697	36.69841	6.05133
df	4	24	16	28	12
P Value	.2097	.6018	.5241	.1257	.9135
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
X^2	33.55247	27.57103	21.41151	20.16039	29.56953
df	28	28	24	12	4
P Value	.2160	.4873	.6143	.0641	.0000*
$*X^2$ Significant at .001 $**X^2$ Significant at .01 $***X^2$ Significant at .05					

benefit the planning area residents.

Statement 207 (Table 65), "Any expansion of coal development within the Decker-Birney planning area will benefit the larger outlying municipalities such as Sheridan, Wyoming, or Hardin, Montana, more than the residents within the planning area," was replied to in 243 interviews. Of the respondents, 8.5 percent strongly agreed, 65.3 percent agreed, 9.7 percent were neutral, 10 percent disagreed, and .4 percent strongly disagreed with the statement. A majority (73.8%) of the respondents either agreed or strongly agreed that any expansion of coal development would benefit the larger outlying municipalities more than the residents within the planning area.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in two of the socio-economic variables — gross family income, and where respondents live. The cross tabulation of income with the statement produced no strong associations that the author could identify. However, the lower two income groups, the less than \$2,999 group with 7 of 13 (53%), and the \$3,000 to \$4,999 income group with 14 of 21 (66.7%) had the lowest percentages of all the groups who either agreed or strongly agreed with the statement. The rest of the groups ranged from 75 percent to 88 percent. One hundred thirty-four of 160 (83.7%) of those living in the rural areas either agreed or strongly agreed with the statement in comparison to 57 of 83 (68.7%) of the Ashland residents. As

Table 65. Any expansion of coal development within the Decker-Birney planning area will benefit the larger outlying municipalities such as Sheridan, Wyoming, or Hardin, Montana, more than the residents within the planning area.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	1.77651	17.27936	21.51332	28.83850	14.93173
df	4	24	16	28	12
P Value	.7768	.8365	.1596	.4208	.2452
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	15.90174	50.51746	14.73888	5.17902	10.57030
df	21	28	24	12	4
P Value	.7751	.0057**	.9282	.9517	.0318***
χ^2 Significant at .001 ** χ^2 Significant at .01 *** χ^2 Significant at .05					

indicated by the frequency distribution, a majority of the rural residents believed coal development would benefit the outlying municipalities more than residents within the planning area.

Interpretation of Strip Mining Questions

Statement 50 (Table 66), "Since the Nixon administration is pushing very hard for energy self-sufficiency by 1980, Montana coal should be mined," was replied to in 255 interviews. Of the respondents 3.4 percent strongly agreed, 38.6 percent agreed, 14.3 percent were neutral, 29.3 percent disagreed, and 12.4 percent strongly disagreed with the statement. The responses to this statement were nearly evenly distributed on both sides of the continuum with only .3 percent more respondents who either agreed or strongly agreed with the statement.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in two of the socio-economic variables — occupation, and where respondents live. Twenty of 38 (52.6%) of those working in a public occupation, 69 of 138 (50%) of those working in an operations and construction occupation, and 8 of 41 (19.5%) of those working in a private business occupation either disagreed or strongly disagreed with the statement. Seventy-eight of 159 (49%) of those living in the rural areas either disagreed or strongly disagreed with the statement as opposed to 30 of 93 (31.3%) of those living in the Ashland area. Those respondents working in

Table 66. Since the Nixon administration is pushing very hard for energy self-sufficiency by 1980, Montana coal should be mined.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	8.70182	22.33093	16.63803	28.77554	15.52096
df	4	24	16	28	12
P Value	.0690	.5590	.4785	.4240	.2142
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	21.76434	29.72287	31.97469	32.11009	17.91072
df	28	28	24	12	4
P Value	.7921	.3766	.1276	.0013**	.0013**
χ^2 Significant at .001 χ^2 Significant at .01 χ^2 Significant at .05					

public occupations and agricultural occupations again had the largest percentages of the occupational grouping opposing the mining of Montana coal. More rural residents than Ashland residents opposed the mining of Montana coal.

Statement 51 (Table 67), "The choice for strip mining in agricultural areas means there will be less food production both now and in the future," was replied to in 253 interviews. Of the respondents 13.1 percent strongly agreed, 44.4 percent agreed, 8.1 percent were neutral, 29.7 percent disagreed, and 2.3 percent strongly disagreed with the statement. A majority (58.1%) of the respondents believed that if strip mining occurs there would be less food production.

In the cross tabulation of the statement, the chi square statistic indicated a significant P value in only one of the socioeconomic variables — where respondents live. One hundred of 159 (62.9%) of those living in the rural areas either agreed or strongly agreed with the statement as opposed to 49 of 94 (52.1%) of those living in the Ashland area. More rural area residents than Ashland residents, as indicated by the frequency distribution, believed that if strip mining occurs there would be less food production.

Statement 55 (Table 68), "None of us have the right to interfere with the nation's need for western coal," was replied to in 255 interviews. Of the respondents .8 percent strongly agreed, 11.2

Table 67. The choice for strip mining in agricultural areas means there will be less food production both now and in the future.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	5.29904	18.15781	19.06386	34.71281	14.43978
df	4	24	16	28	12
P Value	.2580	.7953	.2654	.1501	.2735
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	28.30614	32.48602	15.01768	19.26938	12.79270
df	28	28	24	12	4
P. Value	.4483	.2552	.9202	.0822	.0123***
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

Table 68. None of us has the right to interfere with the nation's need for western coal.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	4.46812	29.08722	19.28560	24.38263	6.70662
df	4	24	16	28	12
P Value	.3463	.2169	.2541	.6612	.8764
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	20.32056	34.83040	15.30790	21.09750	15.26924
df	28	28	24	12	4
P Value	.8525	.1749	.9114	.0490***	.0042**
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

percent agreed, 10.8 percent were neutral, 56.8 percent disagreed, and 18.9 percent strongly disagreed with the statement. A majority (75.7%) of the respondents did not agree that none of us has the right to interfere with the nation's need for western coal.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in two of the socio-economic variables — occupation, and where respondents live. Thirty-four of 38 (89.2%) of those working in a public occupation, 109 of 138 (79%) of those working in an agricultural occupation, 27 of 38 (71.1%) of those working in an operations and construction occupation, and 26 of 41 (63.5%) of those working in a private business occupation either disagreed or strongly disagreed with the statement. It is interesting to note the pattern that has developed in the way the private business occupation group has responded to the statements. As is the case with this frequency distribution they had the lowest percentage of respondents who believed they should interfere with the nation's need for western coal. One hundred twenty-four of 159 (78%) of those living in the rural areas either disagreed or strongly disagreed with the statement as opposed to 72 of 96 (75%) of those living in the Ashland area.

Statement 87 (Table 69), "The coal companies have no compassion for the land they are attempting to reclaim, they are doing it only because it is required by law," was replied to in 251 interviews. Of

Table 69. The coal companies have no compassion for the land they are attempting to reclaim. They are doing it only because it is required by law.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	7.51350	41.64369	22.22856	26.02686	9.95543
df	4	24	16	28	12
P Value	.1111	.0141**	.1360	.5716	.6199
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	24.03525	32.63377	36.31387	22.84920	14.21300
df	28	28	24	12	4
P Value	.6797	.2495	.0512	.0290***	.0060**

* χ^2 Significant at .001

** χ^2 Significant at .01

*** χ^2 Significant at .05

the respondents 21.6 percent strongly agreed, 48.3 percent agreed, 10.4 percent were neutral, 15.4 percent disagreed, and 1.2 percent strongly disagreed with the statement. A majority (69.9%) of the respondents believed that coal companies are reclaiming the land only because it is required by law.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in three of the socio-economic variables — age, occupation, and where respondents live. The cross tabulation of age with the statement produced an association that as age increased the less likely the respondents were to either disagree or strongly disagree with the statement. Nine of 25 (36%) of the respondents in the under 24 year old category either disagreed or strongly disagreed with the statement as opposed to 0 of 6 (0%) of the respondents in the 75 years and over category. Thirty of 37 (81%) of those working in a public occupation, 104 of 138 (75.4%) of those working in an agricultural occupation, 30 of 40 (75%) of those working in a private business occupation, and 17 of 36 (47.3%) of those working in an operations and construction occupation either agreed or strongly agreed with the statement. In order to account for the high percentage of respondents (33.4%) in the operations and construction occupation who disagreed or strongly disagreed with the statement, the author contends that these respondents related much closer to the working force employed in the coal mining industry, and thus believed compassion for the land

does exist within the working force of the coal industry. One hundred nineteen of 160 (74.4%) of those living in the rural area either agreed or strongly agreed with the statement as opposed to only 62 of 91 (68.1%) of those in the Ashland area. As one might expect the rural area residents had the highest percentage of respondents who believed coal companies do not have any compassion for the land and are reclaiming it only because it is required by law.

Statement 89 (Table 70), "When mineral rights agreements were originally signed by land owners and the federal government, there was no concept of strip mining, but it was assumed underground mining might be done someday. Therefore, to strip mine the coal is to violate the original agreement between the landowners and the federal government," was replied to in 243 interviews. Of the respondents 14.3 percent strongly agreed, 39.8 percent agreed, 21.2 percent were neutral, 17 percent disagreed, and 1.5 percent strongly disagreed with the statement. A slight majority (54.1%) of the respondents either agreed or strongly agreed with the statement.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in two of the socio-economic variables — occupation, and where respondents live. Eighty of 133 (60.1%) of those working in agricultural occupations, 21 of 36 (58.4%) of those in an operations and construction occupation, 21 of 38 (55.2%) of those in a public occupation, and 18 of 36 (50%) of those in a

Table 70. When mineral rights agreements were originally signed by land owners and the federal government, there was no concept of strip mining, but it was assumed underground mining might be done someday. Therefore, to strip mine the coal is to violate the original agreement between the landowners and the federal government.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	2.42197	29.31210	16.36478	30.66644	9.77954
df	4	24	16	28	12
P Value	.6587	.2086	.4278	.3321	.6353

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	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House-	Where Respond- ent Lives (Rural vs Ashland)
χ^2	16.55084	38.67326	29.19542	25.46999	26.33212
df	28	28	24	12	4
P Value	.9569	.0863	.2129	.0127***	.0000*

* χ^2 Significant at .001

** χ^2 Significant at .01

*** χ^2 Significant at .05

private business occupation either agreed or strongly agreed with the statement. It is only natural that the agricultural occupation group had the largest percentage of respondents who believed the original agreement between landowners and the federal government had been broken over mineral rights. Ninety-two of 155 (59.3%) of those living in the rural area either agreed or strongly agreed with the statement as opposed to 48 of 88 (54.5%) of those living in the Ashland area. Although the difference was slight, more rural residents than Ashland residents agreed or strongly agreed with the statement.

Statement 90 (Table 71), "Residents are being made to feel guilty for trying to save their lives in the battle against the nation's alleged need for coal versus the lifestyle of a few," was replied to in 252 interviews. Of the respondents 10 percent strongly agreed, 46.3 percent agreed, 12 percent were neutral, 26.6 percent disagreed, and 2.3 percent strongly disagreed with the statement. A majority (56.3%) of the respondents believed that residents are being made guilty in trying to preserve their lifestyle.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in two of the socio-economic variables — age, and where respondents live. The author could not make any association from the cross tabulation of age with the statement. The under 24 year age group had the largest percentage of respondents [13 of 24 (54.2%)] who either disagreed or strongly

Table 71. Residents are being made to feel guilty for trying to save their lives in the battle against the nation's alleged need for coal versus the life-style of a few.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	3.10465	37.36896	14.78994	20.00107	3.09979
df	4	24	16	28	12
P Value	.5405	.0402***	.5401	.8644	.9948
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	22.62381	32.07675	13.18780	9.65344	9.59884
df	28	28	24	12	4
P Value	.7516	.2714	.9629	.6463	.0478***
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

disagreed with the statement. The 35-44 year age group had the largest number of respondents [36 of 52 (67.9%)] who either agreed or strongly agreed with the statement. The other five age categories had from 50 percent to 66.7 percent of the respondents who either agreed or strongly agreed with the statement. Ninety-three of 159 (58.5%) of the rural residents either agreed or strongly agreed with the statement as opposed to 53 of 93 (57%) of the Ashland residents. Although the differences were slight more rural residents than Ashland residents either agreed or strongly agreed with the statement.

Statement 91 (Table 72), "Too many rivers and creeks in eastern Montana will be dammed up due to coal industrialization," was replied to in 251 interviews. Of the respondents 12 percent strongly agreed, 39 percent agreed, 20 percent were neutral, 24.3 percent disagreed, and 1.5 percent strongly disagreed with the statement. A slight majority (51%) of the respondents either agreed or strongly agreed with the statement.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in two of the socio-economic variables — age, and where respondents live. The author could not make any association from the cross tabulation of age with the statement. The under 24 year age group had the smallest percentage of respondents [8 of 23 (34.8%)] who either agreed or strongly agreed with the statement. The 35-44 year age group had the largest per-

Table 72. Too many rivers and creeks in Eastern Montana are being dammed up due to strip mining.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	3.13672	37.03549	10.43283	33.07077	7.65915
df	4	24	16	28	12
P Value	.5352	.0434***	.8431	.2331	.8112
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	25.53084	36.40590	23.30229	17.22729	13.29832
df	28	28	24	12	4
P Value	.5988	.1326	.5020	.1412	.0099**
$*X^2$ Significant at .001 $**X^2$ Significant at .01 $***X^2$ Significant at .05					

tage of respondents [37 of 53 (69.8%)] who either agreed or strongly agreed with the statement. The other five categories had from 42.2 percent to 66.6 percent of the respondents who either agreed or strongly agreed with the statement. One hundred four of 180 (57.8%) of those living in the rural area either agreed or strongly agreed with the statement as opposed to 41 of 91 (45.1%) of those living in the Ashland area. With water being an integral part of the rural life in eastern Montana, one might expect that more rural residents than Ashland residents would either agree or strongly agree with the statement.

Statement 92 (Table 73), "There are presently enough developed strip mines in eastern Montana," was replied to in 246 interviews. Of the respondents 17.4 percent strongly agreed, 35.1 percent agreed, 23.6 percent were neutral, 17.4 percent disagreed, and 1.5 percent strongly disagreed with the statement. A slight majority (52.5%) of the respondents believed there are enough developed strip mines in eastern Montana. It is the author's contention that the large percentage of respondents who replied neutral to the statement just did not believe they had been exposed enough to the pros and cons to take a stand at this time.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in two of the socio-economic variables — occupation, and where respondents live. Twenty of 32

Table 73. There are presently enough developed strip mines in Eastern Montana.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	5.41198	25.86203	17.07988	29.71281	10.54246
df	4	24	16	28	12
P Value	.2476	.3602	.3804	.3771	.5685
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	16.98538	33.22314	35.96141	23.42116	24.95401
df	28	28	24	12	4
P Value	.9489	.2276	.0554	.0244***	.0001*
$*X^2$ Significant at .001 $**X^2$ Significant at .01 $***X^2$ Significant at .05					

(62.5%) of those working in public occupation, 79 of 136 (58.1%) of those working in an agricultural occupation, 20 of 41 (48.8%) of those working in a private business occupation, and 17 of 37 (45.9%) of those working in an operations and construction occupation either agreed or strongly agreed with the statement. As we have seen continually, the respondents in public and agricultural occupations have taken the more hard line approach about coal development and believed there are presently enough developed strip mines in eastern Montana. Ninety-three of 159 (68.5%) of those living in the rural areas either agreed or strongly agreed with the statement as opposed to only 43 of 87 (49.4%) of those living in the Ashland area. Again as one might suspect, more rural area residents than Ashland residents believed there are enough developed strip mines in eastern Montana.

Statement 93 (Table 74), "Strip mining is compatible with your views of sound land use management," was replied to 251 interviews. Of the respondents 1.5 percent strongly agreed, 24.7 percent agreed, 11.6 percent were neutral, 34.4 percent disagreed, and 24.7 percent strongly disagreed with the statement. A majority (59.1%) of the respondents disagreed or strongly disagreed that strip mining is compatible with their views of sound land use management.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in three of the socio-economic variables — gross family income, occupation, and where respondents

Table 74. Strip mining is compatible with your views of sound land use management.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	6.88439	31.63641	16.33601	32.74849	19.90802
df	4	24	16	28	12
P Value	.1421	.1363	.4298	.2451	.0688
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	23.31544	44.35507	35.11389	39.20466	28.75380
df	28	28	24	12	4
P Value	.7171	.0256***	.0667	.0001*	.0000*
χ^2 Significant at .001 ** χ^2 Significant at .01 *** χ^2 Significant at .05					

live. The author could not make any associations from the cross tabulation of income with the statement. The \$15,000 to \$19,999 income group had the largest percentage of respondents [19 of 26 (73.1%)] who either disagreed or strongly disagreed with the statement. The \$5,000 to \$7,499 income group had the largest percentage of respondents [8 of 17 (47.1%)] answering neutral to the statement. The \$10,000 to \$14,999 income group [18 of 45 (40%)] had the largest percentage of respondents who either agreed or strongly agreed with the statement. Twenty-seven of 37 (72.9%) of those working in public occupations, 96 of 138 (69.5%) of those working in agricultural occupations, 16 of 40 (40%) of those working in a private business occupation, and 14 of 36 (38.9%) of those working in an operations and construction occupation either disagreed or strongly disagreed with the statement. The respondents in public and agricultural occupations again had the largest percentages that expressed dislike for coal development as they expressed the belief that coal development was not compatible with their views of sound land use management. One hundred ten of 159 (69.2%) of those living in the rural areas either disagreed or strongly disagreed with the statement as opposed to 43 of 92 (46.7%) of the Ashland residents. As might be expected more rural area residents than Ashland residents believed that coal development was not compatible with their views of sound land use management.

Statement 94 (Table 75), "Eastern Montana coal should be deep

mined rather than strip mined," was replied to in 240 interviews. Of the respondents 3.1 percent strongly agreed, 29 percent agreed, 24.3 percent were neutral, 31.7 percent disagreed, and 4.6 percent strongly disagreed with the statement. The responses to this statement were nearly evenly distributed on both sides of the continuum with only 4.2 percent more respondents who either disagreed or strongly disagreed with the statement. The author found during interviewing that many of the respondents believed they did not know enough about deep mining to make a judgment.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in two of the socio-economic variables — marital status, and gross family income. The author was unable to make any association from the cross tabulation of marital status with the statement. Eighteen of 31 (58%) of the single respondents, 5 of 9 (55.6%) of the divorced or separated respondents, 7 of 15 (46%) of the widowed respondents, and 53 of 185 (28.6%) of the married respondents either agreed or strongly agreed with the statement. The author was unable to make an association from the cross tabulation of income with the statement. The less than \$2,999 income group had the largest percentage of respondents [11 of 15 (73.3%)] who agreed with the statement. The \$10,000 to \$14,999 income group had the largest percentage of respondents [23 of 43 (53.5%)] who either disagreed or strongly disagreed with the statement. The over \$30,000

Table 75. Eastern Montana coal should be deep mined rather than strip mined.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	7.55188	30.75850	15.44177	34.52528	21.39587
df	4	24	16	28	12
P Value	.1094	.1609	.4926	.1841	.0449***
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	26.06432	43.08998	27.90279	12.89364	.24231
df	28	28	24	12	4
P Value	.5695	.0341***	.2642	.3768	.9932
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

income group had the smallest percentage of respondents [5 of 30 (16.7%)] who agreed with the statement.

Statement 95 (Table 76), "It is difficult to discuss the coal issue frankly, trustingly, and uninhibitedly with friends who hold opposing views, positions, or commitments concerning coal development," was replied to in 254 interviews. Of the respondents 8.9 percent strongly agreed, 43.2 percent agreed, 12.7 percent were neutral, 13.3 percent disagreed and 1.9 percent strongly disagreed with the statement. A slight majority (52.1%) of the respondents replied it was difficult to discuss the coal issue with friends who held opposing views.

In the cross tabulation of the statement, the chi square statistic indicated a significant P value in only one of the socio-economic variables - where respondents live. Fifty of 94 (53.2%) of the Ashland residents either agreed or strongly agreed with the statement as opposed to 85 of 160 (53.1%) of the rural area residents. The coal issue and difficulty of discussing it with friends with opposing views as shown in the above frequency distribution was found to be true by a slight majority in both Ashland and rural residents.

Statement 96 (Table 77), "There is a lot of effort going on by coal, power, and construction company officials to try to bluff, coerce, and even intimidate local residents into doing their bidding," was replied to in 244 interviews. Of the respondents 11.2 percent

Table 76. It is difficult to discuss the coal issue frankly, trustingly, and uninhibitedly with friends who hold opposing views, positions, or commitments concerning coal development.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	5.03234	26.78085	10.50384	36.47348	7.53711
df	4	24	16	28	12
P Value	.2840	.3148	.8390	.1309	.8202
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	24.84230	27.92603	36.35361	18.45683	14.54514
df	28	28	24	12	4
P Value	.6364	.4684	.0507	.1025	.0057**
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

Table 77. There is a lot of effort going on by coal, power, and construction company officials to try to bluff, coerce, and even intimidate local residents into doing their bidding.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	3.76755	21.92436	28.49854	44.46544	7.49378
df	4	24	16	28	12
P Value	.4384	.5838	.0275***	.0250***	.8233
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	22.12848	41.62157	21.73412	15.30111	11.73941
df	28	28	24	12	4
P Value	.7753	.0470***	.5951	.2254	.0194***
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

strongly agreed, 41.3 percent agreed, 20.1 percent were neutral, 19.3 percent disagreed, and 2.3 percent strongly disagreed with the statement. A slight majority (52.5%) of the respondents either agreed or strongly agreed with the statement.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in four socio-economic variables — where respondents were raised, years lived in the area, gross family income, and where respondents live. The author could not make any associations from the cross tabulation of where respondents were raised with the statement. Twenty-two of 36 (61.1%) of the respondents raised in the midwest states, 20 of 33 (60.6%) of those respondents raised in the Rocky Mountain states, 93 of 169 (55%) of those respondents raised in Montana, 12 of 22 (54.6%) of those respondents raised in the eastern states, and 0 of 4 (0%) of those respondents from the west coast states either agreed or strongly agreed with the statement. The author could not make any associations from the cross tabulation of years lived in the area with the statement. Those residents having lived in the area for 61 to 70 years had the largest percentage [8 of 13 (69.2%)] who either agreed or strongly agreed with the statement. The group having lived in the area from 51 to 60 years had the smallest number of respondents [9 of 24 (37.5%)] who either agreed or strongly agreed with the statement. The remaining six groups ranged from 50 percent to 68 percent of the respondents who

either agreed or strongly agreed with the statement. The author could not make any associations from the cross tabulation of income with the statement. The \$15,000 to \$19,999 income group had the largest percentage of respondents [19 of 25 (76%)] who either agreed or strongly agreed with the statement. The over \$30,000 income group had the smallest percentage of respondents [13 of 32 (40.6%)] who either agreed or strongly agreed with the statement. The remaining six income groupings ranged from 50 percent to 68.1 percent of the respondents who either agreed or strongly agreed with the statement. Ninety of 158 (56.9%) of the rural residents either agreed or strongly agreed with the statement as opposed to 46 of 84 (53.5%) of the Ashland residents. The author found that many of the rural residents that he interviewed said that a great deal of the scare tactics used to intimidate residents occurred in 1973-74 when brokers were trying to get residents to sign leases. The author was shown letters that were sent to landowners substantiating some of the incidents related to him.

Statement 97 (Table 78), "Coal companies have established inroads and beachheads in coal laden land by buying or leasing key places and then developing scare rumors and pincer movements to gain control over large chunks of the land for development," was replied to in 239 interviews. Of the respondents 8.1 percent strongly agreed, 42.1 percent agreed, 22.4 percent were neutral, 18.5 percent disagreed, and 1.2 percent strongly disagreed with the statement. A slight majority

Table 78. Coal companies have established inroads, and beachheads in coal laden land by buying or leasing key places and then developing scare rumors and pincer movements to gain control over large chunks of the land for development.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	4.34095	20.86041	22.08946	45.64561	5.19414
df	4	24	16	28	12
P Value	.3618	.6469	.1403	.0190***	.9512
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	24.30989	45.32318	28.68370	25.18684	12.06589
df	28	28	24	12	4
P Value	.6651	.0205***	.2323	.0140***	.0169***

* χ^2 Significant at .001

** χ^2 Significant at .01

*** χ^2 Significant at .05

(50.2%) of the respondents either agreed or strongly agreed with the statement.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in four socio-economic variables — years lived in the area, gross family income, occupation of the head of the household, and where respondents live. The author could not make any associations from the cross tabulation of years lived in the area with the statement. Those residents having lived in the area for 31 to 40 years had the smallest percentage of respondents [14 of 30 (46.7%)] who either agreed or strongly agreed with the statement. The group having lived in the area for 61 to 70 years had the largest number of respondents [8 of 12 (66.7%)] who either agreed or strongly agreed with the statement. The remaining 6 groups ranged from 49.3 percent to 66.6 percent of the respondents who either agreed or strongly agreed with the statement. The author could not make any associations from the cross tabulation of income with the statement. The \$20,000 to \$29,999 income group had the largest percentage of respondents (71.4%) who either agreed or strongly agreed with the statement. The \$5,000 to \$7,499 income group had the smallest percentage of respondents [5 of 17 (29.4%)] who either agreed or strongly agreed with the statement. The remaining six categories ranged from 52.2 percent to 65.2 percent of the respondents who either agreed or strongly agreed with the statement. Nineteen of 32 (59.4%) of those

working in a public occupation, 79 of 136 (58.1%) of those working in an agriculture occupation, 22 of 38 (57.9%) of those working in a private business occupation, and 10 of 33 (30.3%) of those working in an operations and construction occupation either agreed or strongly agreed with the statement. The fact that the three occupation groups that would be close to the land lease and buying deals had a majority of their respondents who either agreed or strongly agreed with the statement appears to give creditability to the statement. Eighty-nine of 154 (57.8%) of those living in the rural area either agreed or strongly agreed with the statement as opposed to 44 of 85 (48.3%) of those living in the Ashland area. More rural residents than Ashland residents either agreed or strongly agreed with the statement.

Statement 98 (Table 79), "Land condemnation threats have been issued to scare ranchers into giving up the fight against coal development," was replied to in 235 interviews. Of the respondents 5.4 percent strongly agreed, 35.9 percent agreed, 22.8 percent were neutral, 25.1 percent disagreed, and 1.5 percent strongly disagreed with the statement. Although 14.7 percent more respondents either agreed or strongly agreed with the statement, the large percentage (22.8%) of neutral responses emphasizes that people were unsure if land condemnation threats have been used.

In the cross tabulation of the statement, the chi square statistic indicated a significant P value in only one of the socio-

Table 79. Land condemnation notices have been issued to scare ranchers into giving up the fight against coal development.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10- Year Increments)	Marital Status
χ^2	1.26760	21.35509	23.16808	42.44194	10.02162
df	4	24	16	28	12
P Value	.8668	.6177	.1093	.0394***	.6141
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	29.27763	38.36923	25.22018	20.91309	6.20374
df	28	28	24	12	4
P Value	.3985	.0916	.3939	.0517	.1844

* χ^2 Significant at .001 ** χ^2 Significant at .01 *** χ^2 Significant at .05

economic variables — years lived in the area. The author could not make any associations from the cross tabulations of years lived in the area with the statement. Those residents having lived in the area from 11 to 20 years had the largest percentage of respondents [16 of 25 (64%)] who either agreed or strongly agreed with the statement. The group having lived in the area for 21 to 30 years had the smallest percentage of respondents [14 of 39 (35.9%)] who either agreed or strongly agreed with the statement. The remaining six groups ranged from 40 percent to 58.3 percent of the respondents who either agreed or strongly agreed with the statement.

Statement 99 (Table 80), "Water that is needed for crops will be used up by the power plant operations," was replied to in 249 interviews. Of the respondents 10.8 percent strongly agreed, 49.6 percent agreed, 13.1 percent were neutral, 22.0 percent disagreed, and 1.5 percent strongly disagreed with the statement. A majority (60.4%) of the respondents believed that water needed for crops would be used up by the power plants.

In the cross tabulation of the statement, the chi square statistic indicated significant P values with two of the socio-economic variables — years lived in the area, and where respondents live. The author could not make any associations from the cross tabulations of years lived in the area with the statement. The residents having lived in the area for 61 to 70 years had the largest percentage of

Table 80. Water that is needed for crops will be used up by the strip mining operations.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	5.69126	23.62018	14.92877	46.02444	10.07632
df	4	24	16	28	12
P Value	.2234	.4835	.5299	.0173***	.6093
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	38.79060	34.00124	23.78331	20.71689	16.23422
df	28	28	24	12	4
P Value	.0844	.2008	.4740	.0547	.0027**
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

respondents [11 of 13 (84.6%)] who either agreed or strongly agreed with the statement. The group having lived in the area for 21 to 30 years had the smallest percentage of respondents [16 of 41 (39%)] who either agreed or strongly agreed with the statement. The remaining six groups ranged from 52.5 percent to 74.1 percent of the respondents who either agreed or strongly agreed with the statement. One hundred eight of 159 (68%) of those living in the rural areas either agreed or strongly agreed with the statement as opposed to 66 of 90 (51.1%) of those living in the Ashland area. As might be expected more rural area residents either agreed or strongly agreed with the statement than Ashland residents.

Statement 100 (Table 81), "In the long run, I am sure that area residents will be better off if strip mines are developed," was replied to in 252 interviews. Of the respondents 1.5 percent strongly agreed, 22.4 percent agreed, 15.4 percent were neutral, 37.1 percent disagreed, and 20.8 percent strongly disagreed with the statement. A majority (57.9%) of the respondents disagreed that residents would be better off if strip mines were developed.

In the cross tabulation of the statement, the chi square statistic indicated significant P values with three of the socio-economic variables — age, occupation, and where respondents live. The author could not make any associations from the cross tabulations of age with the statement. The residents in the 35 to 44 years old group

Table 81. In the long run, I am sure that area residents will be better off if the strip mines are developed.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Birney Area (10 Year Increments)	Marital Status
χ^2	2.11714	36.71751	19.94379	28.10303	12.54229
df	4	24	16	28	12
P Value	.7142	.0467***	.2228	.4590	.4032
	Number of Children in Family	Gross Family Income	Education Level of the Head of the Household	Occupation of the Head of the Household	Where Respondent Lives (Rural vs Ashland)
χ^2	17.64838	41.21597	30.30176	35.90442	32.29326
df	28	28	24	12	4
P Value	.9347	.0513	.1750	.0003*	.0000*
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

had the largest percentage of respondents [37 of 54 (68.5%)] who either disagreed or strongly disagreed with the statement. The age group of 55 to 64 had the smallest percentage of respondents [21 of 40 (52.5%)] who either disagreed or strongly disagreed with the statement. The remaining five groups ranged from 54.2 percent to 66.7 percent of the respondents who either agreed or strongly agreed with the statement. Twenty-six of 37 (70.3%) of those working in a public occupation, 95 of 138 (68.8%) of those working in an agricultural occupation, 15 of 37 (40.5%) of those working in an operations and construction occupation, and 14 of 40 (35%) of those working in a private business occupation either disagreed or strongly disagreed with the statement. One hundred thirteen of 160 (70.6%) of those living in the rural areas either disagreed or strongly disagreed with the statement as opposed to 36 of 92 (39.1%) of those in the Ashland area. The frequency distribution of the occupations and where people live indicated to the author the concern being expressed by those having a close relationship with the land upon which they work or live. These individuals did not believe residents would be better off if strip mines were developed.

Statement 101 (Table 82), "A shift in political power from the ranchers to the new mining industrialists is becoming evident," was replied to in 242 interviews. Of the respondents 5.4 percent strongly agreed, 42.9 percent agreed, 21.2 percent were neutral, 22.4 percent

Table 82. A shift in political power from the ranchers to the new mining industrialists is becoming evident.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	3.35441	13.39181	15.53374	29.22766	8.72000
df	4	24	16	28	12
P Value	.5004	.9592	.4859	.4010	.7266
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	33.99150	22.08023	23.98901	15.76278	14.19074
df	28	28	24	12	4
P Value	.2252	.7776	.4622	.2023	.0067**
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

disagreed, and 1.5 percent strongly disagreed with the statement. Although 24.4 percent more respondents either agreed or strongly agreed with the statement, the larger percentage (21.2%) of neutral responses emphasizes that people were unsure if a shift in political power was occurring.

In the cross tabulation of the statement, the chi square statistic indicated a significant P value in only one of the socio-economic variables — where respondents live. Eighty-seven of 155 (56.1%) of those living in the rural area either agreed or strongly agreed with the statement as opposed to 38 of 87 (43.7%) of those in Ashland. In the history of the rural areas of Montana the ranchers have been the source of political power. The frequency distribution indicated that many rural residents believed this was changing within the study area.

Statement 102 (Table 83), "Coal development entails a sacrifice of recreational values and of future land use possibilities," was replied to in 248 interviews. Of the respondents 8.9 percent strongly agreed, 49.0 percent agreed, 10.8 percent were neutral, 25.5 percent disagreed, and 1.5 percent strongly disagreed with the statement. A majority (57.9%) of the respondents either agreed or strongly agreed with the statement. No significant P values were indicated in the cross tabulation of the statement with socio-economic variables.

Statement 103 (Table 84), "The removal of the coal seams may

Table 83. Coal development entails a sacrifice of recreational values and of future land use possibilities.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Birney Area (10 Year Increments)	Marital Status
χ^2	1.99866	22.58160	14.71821	30.66588	19.78975
df	4	24	16	28	12
P Value	.7360	.5446	.5454	.3321	.0712
	Number of Children in Family	Gross Family Income	Education Level of the Head of the Household	Occupation of the Head of the Household	Where Respondent Lives (Rural vs Ashland)
χ^2	28.34675	21.63779	21.58932	17.95314	7.96931
df	28	28	24	12	4
P Value	.4152	.7978	.6038	.1171	.0927
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

cause meadows to dry up and springs to disappear," was replied to in 250 interviews. A large majority (76%) of the respondents believed that meadows and springs may be affected by the removal of the coal seams.

In the cross tabulation of the statement, the chi square statistic indicated significant P values with four of the socioeconomic variables — years lived in the area, education level, occupation, and where respondents live. The author could not make any associations from the cross tabulations of years lived in the area with the statement. The residents having lived in the area for 21 to 30 years had the smallest percentage of respondents [29 of 42 (69%)] who either agreed or strongly agreed with the statement. The group having lived in the area for 61 to 70 years had the largest percentage of respondents [12 of 13 (92.3%)] who either agreed or strongly agreed with the statement. The remaining six groups ranged from 76.6 percent to 88.3 percent of the respondents who either agreed or strongly agreed with the statement. The author could not make any associations from the cross tabulations of education with the statement. The post-graduate group had the highest percentage of respondents [18 of 19 (94.7%)] who either agreed or strongly agreed with the statement. The group having some college education had the lowest percentage of respondents [35 of 46 (76.1%)] who either agreed or strongly agreed with the statement. The remaining four groups ranged from 76.4 percent to

Table 84. The removal of the coal seams may cause meadows to dry up and springs to disappear.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	3.85205	21.67116	15.34350	48.37332	11.55940
df	4	24	16	28	12
P Value	.4264	.5989	.4996	.0098**	.4817
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	20.33943	31.12070	39.70779	39.30212	27.48651
df	28	28	24	12	4
P Value	.8518	.3117	.0230***	.0001*	.0000*

* χ^2 Significant at .001 ** χ^2 Significant at .01 *** χ^2 Significant at .05

88.9 percent of the respondents who either agreed or strongly agreed with the statement. Thirty-three of 38 (86.9%) of those working in a public occupation, 119 of 138 (86.2%) of those working in an agricultural occupation, 24 of 38 (63.1%) of those working in a private business occupation, and 21 of 36 (58.4%) of those working in an operations and construction occupation either agreed or strongly agreed with the statement. One hundred thirty-nine of 159 (87.4%) of those living in the rural area either agreed or strongly agreed with the statement as opposed to 58 of 91 (63.7%) of those living in Ashland. The frequency distribution of the occupational categories and where people live indicated that those respondents having a close relationship with the land either by occupation or where they live were the ones that believed that removal of coal seams may cause meadows to dry up and springs to disappear.

Statement 104 (Table 85), "The development of strip mines would be one of the best things that ever happened in our part of the state," was replied to in 252 interviews. Of the respondents 1.2 percent strongly agreed, 9.7 percent agreed, 15.8 percent were neutral, 40.5 percent disagreed, and 30.1 percent strongly disagreed with the statement. A majority (70.6%) of the respondents did not believe that development of strip mines would be one of the best things that ever happened in the Decker-Birney Area.

In the cross tabulation of the statement, the chi square

Table 85. The development of strip mines will be one of the best things that ever happened in our part of the state.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	6.64984	26.04265	19.24020	29.65814	18.07704
df	4	24	16	28	12
P Value	.1556	.3510	.2564	.3797	.1134
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House-	Where Respond- ent Lives (Rural vs Ashland)
χ^2	22.61499	27.30763	32.94624	41.19664	28.28130
df	28	28	24	12	4
P Value	.7521	.5015	.1052	.0000*	.0000*

* χ^2 Significant at .001 ** χ^2 Significant at .01 *** χ^2 Significant at .05

statistic indicated significant P values with two of the socio-economic variables — occupation, and where respondents live. Thirty-one of 38 (81.6%) of those working in a public occupation, 112 of 138 (81.2%) of those working in an agricultural occupation, 23 of 38 (60.5%) of those working in an operations and construction occupation, and 17 of 38 (44.8%) of those in a private business occupation either disagreed or strongly disagreed with the statement. One hundred twenty-eight of 158 (81%) of those living in the rural area either disagreed or strongly disagreed with the statement as opposed to 55 of 94 (58.5%) of those living in the Ashland area. The frequency distribution of the occupational categories and where people live indicated that those respondents having a close relationship with the land either by occupation or where they lived were the ones that believed that strip mines would not be one of the best things to happen in the Decker-Birney Area.

Statement 112 (Table 86), "Judging from what can be observed at Colstrip, Montana Power Company's advertised reclamation claims are certainly believable," was replied to in 229 interviews. Of the respondents 1.2 percent strongly agreed, 18.1 percent agreed, 23.6 percent were neutral, 29.3 percent disagreed, and 16.2 percent strongly disagreed with the statement. Although 25.9 percent more respondents believed the Montana Power Company reclamation claims were not believable, it is important to take notice of the high percentage of

Table 86. Judging from what can be observed at Colstrip, Montana Power Company's advertised reclamation claims are certainly believable.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	2.23024	24.38248	9.14441	25.67572	17.80127
df	4	24	16	28	12
P Value	.6935	.4399	.9073	.5909	.1219
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	24.65639	27.86639	24.97333	24.75027	24.31644
df	28	28	24	12	4
P Value	.6465	.4715	.4072	.0161***	.0001*
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

respondents who did not answer or were neutral. The author found in the interviewing process that many people believed that not enough time had elapsed to see if reclamation would be successful.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in two of the socio-economic variables — occupation, and where respondents live. Seventy-nine of 129 (61.2%) of those working in an agricultural occupation, 17 of 31 (54.8%) of those working in a public occupation, 12 of 33 (36.4%) of those working in an operations and construction occupation, and 10 of 36 (27.8%) of those working in a private business occupation either disagreed or strongly disagreed with the statement. Eighty-nine of 147 (60.5%) of those living in the rural area either disagreed or strongly disagreed with the statement as opposed to 29 of 82 (35.3%) of those living in Ashland. The frequency distribution of the occupational categories and where people live indicated that those respondents having a close relationship with the land either by occupation or where they live were the ones that believed Montana Power Company's advertised reclamation claims were not believable.

Statement 129 (Table 87), "It is likely that the four power generating units and the related strip mining activities which Montana Power Company wants could operate in this area without harmfully affecting existing ranching operations," was replied to in 247 interviews. Of the respondents 1.9 percent strongly agreed, 22.0 percent

Table 87. It is likely that the four power generating units and the related strip mining activities could operate in this area without harmfully affecting existing ranching operations.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	5.36151	23.30092	15.45251	26.28012	21.73047
df	4	24	16	28	12
P Value	.2522	.5021	.4918	.5577	.0407***
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	24.98271	29.91049	22.60242	35.12694	35.68703
df	28	28	24	12	4
P Value	.6288	.3645	.5434	.0004*	.0000*
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

agreed, 12.7 percent were neutral, 42.1 percent disagreed, and 16.6 percent strongly disagreed with the statement. A majority (58.7%) of the respondents did not believe that the four power generating units Montana Power Company wants at Colstrip could operate without harmfully affecting existing ranching operations.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in two of the socio-economic variables — marital status, and where respondents live. The author could not make any association from the cross tabulation of marital status with the statement. Twenty-eight of 32 (87.6%) of the single respondents, 10 of 14 (71.4%) of the widowed respondents, 111 of 192 (57.8%) of the married respondents, and 2 of 8 (25%) of the divorced or separated respondents either disagreed or strongly disagreed with the statement. Twenty-six of 35 (74.3%) of those working in a public occupation, 98 of 137 (71.5%) of those working in an agricultural occupation, 14 of 37 (37.8%) of those working in operations and construction occupation, and 14 of 38 (36.8%) of those working in a private business occupation either disagreed or strongly disagreed with the statement. One hundred sixteen of 159 (73%) of those living in the rural area either disagreed or strongly disagreed with the statement as opposed to 36 of 88 (40.9%) of those living in Ashland. The frequency distribution of the occupational categories and where people live indicated that those respondents having a close

relationship with the land either by occupation or where they live were the ones that did not believe that the four power generating units Montana Power Company wants at Colstrip could operate without harmfully affecting existing ranching operations.

Statement 130 (Table 88), "Strip mining would be just as expensive as deep mining if coal companies paid the full costs of such things as rendering the stripped land useless for agriculture for many years, displacing agricultural people from their land for many years, putting the stripped land into low tax status for many years, and the like," was replied to in 230 interviews. Of the respondents 6.2 percent strongly agreed, 47.5 percent agreed, 21.6 percent were neutral, 12.4 percent disagreed, and 1.2 percent strongly disagreed with the statement. A majority (53.7%) of respondents either agreed or strongly agreed with the statement.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in two of the socio-economic variables — sex, and where respondents live. The author could not make any associations from the cross tabulation of the sex of the female respondents either agreed or strongly agreed with the statement as opposed to 65 of 121 (53.8%) of the male respondents. Eighty-four of 144 (58.3%) of those living in the rural area either agreed or strongly agreed with the statement as opposed to 55 of 86 (64%) of

Table 88. Strip mining would be just as expensive as deep mining if coal companies paid the full costs of such things as rendering the stripped land useless for agricultural people from their land for many years, putting the stripped land into low tax status for many years, and the like.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	10.01514	30.47534	13.13118	26.31717	8.50542
df	4	24	16	28	12
P Value	.0402***	.1695	.6631	.5556	.7445
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	22.23924	26.48720	25.23119	12.15246	10.83886
df	28	28	24	12	4
P Value	.7701	.5463	.3933	.4335	.0284***
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

those living in the Ashland area,

Statement 131 (Table 89), "Strip mining Montana coal is preferred to deep mining it because stripping is more economical for the coal company and safer for the miners," was replied to in 248 interviews. Of the respondents 5.0 percent strongly agreed, 74.9 percent agreed, 10 percent were neutral, 3.5 percent disagreed, and 2.3 percent strongly disagreed with the statement. A large majority (79.9%) either agreed or strongly agreed with the statement.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in five of the socio-economic variables — sex of respondent, age, where respondents were raised, marital status, and where respondents live. One hundred of 119 (84%) of the female respondents either agreed or strongly agreed with the statement as opposed to 107 of 129 (82.9%) of the male respondents. During the interviewing process the author had many female respondents say because of the publicity of deaths in deep mines they would rather see strip mines developed if mining had to occur. The author could not make any strong associations from the cross tabulation of age with the statement. The residents in the 65 to 74 years old group had the largest percentage of respondents [30 of 32 (93.8%)] who either agreed or strongly agreed with the statement. The age group of 75 years and over had the smallest percentage of respondents [3 of 5 (60%)] who either agreed or strongly agreed with the statement. The remaining

Table 89. Strip mining Montana coal is preferred to deep mining it because stripping is more economical for the coal company and safer for the miners.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	11.69879	44.29189	29.45241	39.35576	23.19841
df	4	24	16	28	12
P Value	.0197***	.0071**	.0211***	.0754	.0261***
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	33.64111	22.99902	22.26401	10.84395	10.06147
df	28	28	24	12	4
P Value	.2129	.7331	.5635	.5423	.0394***
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

six groups ranged from 72.9 percent to 89.8 percent of the respondents who either agreed or strongly agreed with the statement. Thirty-two of 34 (94.1%) of those respondents raised in the midwest, 20 of 22 (90.9%) of those respondents raised in the eastern states, 125 of 152 (82.2%) of those respondents raised in Montana, 28 of 36 (77.8%) of those respondents raised in the Rocky Mountain states, and 2 of 4 (50%) of those respondents raised in the west coast states either agreed or strongly agreed with the statement. The largest percentages of respondents who either agreed or strongly agreed with the statement were from areas of the United States where coal mining does occur which could account for their strong support for strip mining over deep mining. The author could not make any associations from the cross tabulation of marital status with the statement. Fifteen of 16 (93.8%) of the widowed respondents, 8 of 9 (88.9%) of the divorced or separated respondents, 161 of 191 (84.3%) of the married respondents, and 23 of 32 (71.9%) of the single respondents either agreed or strongly agreed with the statement. Seventy-nine of 91 (86.8%) of those living in Ashland agreed or strongly agreed with the statement as opposed to 128 of 157 (81.5%) of those living in the rural areas. It is the author's belief that respondents who live in Ashland will more likely be involved in coal mining activities and therefore, would prefer strip mines over deep mines.

Statement 133 (Table 90), "National energy needs can best be

met by," was replied to in 244 interviews. Of the respondents 9.7 percent replied, "increasing strip mining activities in this area," 1.9 percent replied, "increasing the number of generating plants in this area," 11.2 percent replied, "individuals and families conserving energy," 10.4 percent replied, "industry and commercial institutions conserving energy," 55.2 percent replied, "developing alternative energy sources such as sun and wind," and 5.8 percent replied, "all of the above." It is interesting to note that a majority of the respondents (55.2%) believed that alternative energy sources such as sun and wind were the best methods to meet our national energy needs. Only 30 respondents (11.6%) replied that increasing strip mining and generating plants in the area was the best way to meet national energy needs. No significant P values were indicated in the statement with the socio-economic variables.

Statement 136 (Table 91), "Ranch land which has been strip mined can be considered reclaimed when," was replied to in 256 of the interviews. Of the respondents .4 percent replied, "when it turns green again," .4 percent replied, "when the mining company says it is reclaimed," 89.2 percent replied, "when native grasses are restored and the land can withstand normal grazing pressure without being irrigated or fertilized," 2.3 percent replied, "when it meets government standards for reclamation," and 4.6 percent replied, "don't know." A large majority (89.2%) of the respondents replied with the third

Table 90. How can national energy needs best be met.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	8.42919	22.13307	17.48381	43.55551	12.81151
df	5	30	20	35	15
P Value	.1341	.8492	.6214	.1520	.6169
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	29.12875	34.18849	31.11903	19.32932	2.10495
df	35	35	30	15	5
P Value	.7468	.5071	.4096	.1992	.8344
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

Table 91. When can ranch land, which has been strip mined, be considered reclaimed.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	2.99473	31.56871	22.00923	47.76808	14.00361
df	5	30	20	35	15
P Value	.7008	.3878	.3400	.0736	.5253
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	14.66613	49.82533	23.38591	32.29082	17.52841
df	21	35	24	15	5
P Value	.8393	.0498***	.4971	.0059**	.0036**
χ^2 Significant at .001 ** χ^2 Significant at .01 *** χ^2 Significant at .05					

choice which the author feels indicates that most residents recognized the ecological importance of native grasses to the livestock industry within the Decker-Birney Area.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in three of the socio-economic variables — gross family income, occupation, and where respondents live. The only income group whose respondents did not overwhelmingly support the third choice with at least 82 percent was the less than \$2,999 income group. Of this group 9 of 15 (60%) picked the third choice. The other six respondents were divided between the other choices. One hundred twenty-nine of 138 (93.5%) of those working in an agricultural occupation, 35 of 38 (92.1%) of those working in a public occupation, 33 of 36 (91.7%) of those working in an operations and construction occupation replied that the third choice was the best possible one. The third choice if it was required by law would put the cost of reclamation on the mining companies and would perhaps slow down the rate development occurs because of the high cost of reclamation. It is the author's contention that this realization accounted for the private business occupational group having the smallest percentage of respondents who picked the third choice. One hundred forty-nine of 160 (93.1%) of those living in the rural areas replied that the third choice was the best as opposed to 82 of 96

(85.4%) of those in the Ashland area. It is the author's contention that rural residents who have a close relationship with the land upon which they live respected the natural ecosystem a little more so than Ashland residents.

Statement 147 (Table 92), "How concerned about the environment (air, soil, water, plants, animals) do you think the power and coal companies in the Colstrip vicinity really are," was replied to in 250 interviews. Of the respondents 5.4 percent replied, "very concerned," 25.1 percent replied, "concerned," 22.0 percent replied, "neutral, neither concerned, nor unconcerned," 30.5 percent replied, "very unconcerned," and 13.5 percent had no opinion. A slight majority (52.5%) of the respondents replied on the negative portion of the continuum of replies.

In the cross tabulation of the statement, the chi square statistic indicated a significant P value in only one of the socio-economic variables — occupation. Seventeen of 41 (41.1%) of those in a private business occupation, 14 of 36 (38.9%) of those in an operations and construction occupation, 38 of 137 (27.8%) of those in an agriculture occupation, and 10 of 36 (27.8%) of those in a public occupation replied that coal and power companies were either very concerned or concerned about the environment. Fifty of 137 (26.5%) of those in agricultural occupation, 12 of 36 (33.3%) of those in a public occupation, 10 of 36 (27.8%) of those in an operations and

Table 92. How concerned about the environment (air, soil, water, plants, animals) do you think the power and coal companies in the Colstrip vicinity really are.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	4.08526	12.31855	20.05508	25.23151	14.55158
df	4	24	16	28	12
P Value	.3946	.9761	.2177	.6152	.2669
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	19.33969	35.35065	33.82198	22.51971	7.88342
df	28	28	24	12	4
P Value	.8873	.1599	.0879	.0321***	.0959
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

construction occupation, and 7 of 41 (17.1%) of those in a private business occupation felt that coal and power companies were very unconcerned about the environment.

Statement 163 (Table 93), "How successful do you think the land reclamation program in this area is going to be," was replied to in 229 interviews. Of the respondents 1.9 percent replied, "very successful," 24.3 percent replied, "successful," 15.8 percent replied, "neither successful nor unsuccessful," 24.3 percent replied "unsuccessful," and 22 percent replied, "very unsuccessful." Twenty percent more respondents believed that the land reclamation program would be unsuccessful.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in two of the socio-economic variables — occupation, and where respondents live. Fourteen of 34 (41.2%) of those in a private business occupation, 13 of 33 (39.4%) of those in an operations and construction occupation, 10 of 21 (28.6%) of those in a public occupation, and 31 of 77 (24.4%) of those in an agricultural occupation believed that a land reclamation program would be either successful or very successful. Seventy-seven of 127 (60.7%) of those in an agricultural occupation, 21 of 35 (60%) of those in a public occupation, 12 of 34 (35.3%) in a private business occupation, and 10 of 33 (30.3%) of those in an operations and construction occupation believed that a land reclamation program would be either unsuccessful or very unsuccessful. The split in the occupation

Table 93. How successful do you think the land reclamation program in this area is going to be.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	.94954	29.24165	14.62813	36.90961	20.92004
df	4	24	16	28	12
P Value	.9173	.2112	.5520	.1209	.0516
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	29.71678	25.59921	21.24336	26.06015	25.89938
df	28	24	28	12	4
P Value	.3769	.3738	.8151	.0105***	.0000*
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

categories that have been reported throughout the results chapter again appear in the replies to this statement. On one end of the continuum we have the private business and operations and construction occupational categories with a greater number of their respondents replying that the land reclamation program would be successful. On the other end of the continuum we have the agricultural and public occupational categories with a greater number of their respondents replying the land reclamation program would not be successful. Thirty-four of 82 (41.4%) of those living in Ashland and 34 of 147 (23.1%) of those living in the rural areas believed that a land reclamation program would be either successful or very successful. Ninety of 147 (61.3%) of those in the rural area, and 30 of 82 (36.6%) of those in Ashland believed that a land reclamation program would be either unsuccessful or very unsuccessful. As one might expect more Ashland residents believed the land reclamation program would be successful than did rural area residents.

Statement 178 (Table 94), "When units 1 and 2 become operational, air quality will not be greatly affected," was replied to in 220 interviews. Of the respondents 1.9 percent strongly agreed, 12.4 percent agreed, 13.5 percent were neutral, 42.5 percent disagreed, and 14.7 percent strongly disagreed with the statement. A majority (57.2%) of the respondents either agreed or strongly agreed with the statement.

In the cross tabulation of the statement, the chi square

Table 94. When units 1 and 2 become operational, air quality will not be greatly affected.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	4.17749	36.38632	19.07156	62.98756	25.70498
df	4	24	16	28	12
P Value	.3825	.0503	.2650	.0002*	.0117***

	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	15.44069	35.09302	26.26961	18.84906	15.63032
df	28	24	28	12	4
P Value	.9734	.0670	.5582	.0922	.0036**

* χ^2 Significant at .001 ** χ^2 Significant at .01 *** χ^2 Significant at .05

statistic indicated significant P values in three of the socio-economic variables — years lived in the area, marital status, and where respondents live. The author could not make any associations from the cross tabulation of years lived in the area with the statement. The residents having lived in the area for 11 to 20 years had the largest percentage of respondents [18 of 23 (78.2%)] who either disagreed or strongly disagreed with the statement. The group having lived in the area for 71 to 80 years had the smallest percentage of respondents [2 of 6 (33.4%)] who either disagreed or strongly disagreed with the statement. The remaining six groups ranged from 47.4 percent to 75.4 percent of the respondents who either agreed or strongly agreed with the statement. The author could not make any correlations from the cross tabulation of marital status with the statement. Twenty-eight of 31 (90.3%) of the single respondents, 4 of 5 (71.5%) of the divorced or separated respondents, 106 of 167 (63.5%) of the married respondents, and 8 of 14 (57.2%) of the widowed respondents either disagreed or strongly disagreed with the statement. Ninety-nine of 139 (71.3%) of those living in the rural area either disagreed or strongly disagreed with the statement as opposed to 49 of 81 (60.5%) of those living in Ashland. Again it is the author's contention that those persons having a closer relationship with the land upon which they live such as the rural residents, were more likely to believe that air quality would be affected when units 1 and 2 become operational.

Statement 179 (Table 95), "When units 1 and 2 become operational, water quality will not be greatly affected," was replied to in 216 interviews. Of those respondents 2.3 percent strongly agreed, 10.0 percent agreed, 17.8 percent were neutral, 39.4 percent disagreed, and 13.9 percent strongly disagreed with the statement. A majority (53.3%) of the respondents either disagreed or strongly disagreed with the statement.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in two of the socio-economic variables — years lived in the area, and where respondents live. The author could not make any associations from the cross tabulation of years lived in the area with the statement. The residents having lived in the area for 61 to 70 years had the largest percentage of respondents [9 of 12 (75%)] who either disagreed or strongly disagreed with the statement. The group having lived in the area for 71 to 80 years had the smallest percentage of respondents [2 of 6 (33.4%)] who either disagreed or strongly disagreed with the statement. The remaining six groups ranged from 52.6 percent to 70.2 percent of the respondents who either agreed or strongly agreed with the statement. Ninety-six of 138 (69.5%) of those living in the rural area either disagreed or strongly disagreed with the statement as opposed to 42 of 78 (53.9%) of those living in Ashland. Again it is the author's contention that those persons having a closer relationship with the land upon which

Table 95. When units 1 and 2 become operational, water quality will not be greatly affected.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments).	Marital Status
χ^2	6.08744	36.16969	14.09716	53.00931	11.78436
df	4	24	16	28	12
P Value	.1927	.0528	.5915	.0029**	.4631
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	20.39720	28.30275	35.48590	16.21394	21.33762
df	28	24	28	12	4
P Value	.8496	.2475	.1562	.1816	.0003*
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

they live such as the rural residents were more likely to believe that water quality would be affected when units 1 and 2 become operational.

Statement 190 (Table 96), "Eastern Montana's resources (land, minerals, water, recreational opportunities) are being exploited by outsiders," was replied to in 223 interviews. Of the respondents 16.6 percent strongly agreed, 49.4 percent agreed, 11.2 percent were neutral, 8.1 percent disagreed, and .8 percent strongly disagreed with the statement. A majority (66%) of the respondents believed that eastern Montana's resources were being exploited by outsiders.

In the cross tabulation of the statement, the chi square statistic indicated a significant P value in only one of the socio-economic variables — where respondents live. One hundred ten of 136 (80.9%) of those living in the rural area either agreed or strongly agreed with the statement as opposed to 61 of 87 (70.1%) of those living in Ashland. More respondents from the rural area than from Ashland believed that eastern Montana's resources were being exploited by outsiders.

Statement 208 (Table 97), "Most public lands within the Decker-Birney planning area have little agricultural development potential, therefore, they should be strip mined," was replied to in 239 interviews. Of the respondents 0 percent strongly agreed, 8.5 percent agreed, 9.7 percent were neutral, 45.6 percent disagreed, and 28.6 percent strongly disagreed with the statement. A majority (74.2%) of

Table 96. Eastern Montana's resources (land, minerals, water, recreational opportunities) are being exploited by outsiders.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	.43793	26.83615	18.16475	24.61525	9.95561
df	4	24	16	28	12
P Value	.9793	.3121	.3143	.6487	.6199
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	25.38092	29.41968	32.91785	20.98598	18.50763
df	28	28	24	12	4
P Value	.6070	.3915	.1058	.0506	.0010*
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

Table 97. Most public lands within the Decker-Birney planning area have little agricultural development potential, therefore, they should be strip mined.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
χ^2	2.88107	26.90416	17.74341	25.35864	8.71565
df	3	18	12	21	9
P Value	.4103	.0808	.1237	.2320	.4639
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
χ^2	18.94783	25.00494	30.96832	44.89046	46.86790
df	21	21	21	9	3
P Value	.5885	.2470	.0290	.0000*	.0000*
$*\chi^2$ Significant at .001 $**\chi^2$ Significant at .01 $***\chi^2$ Significant at .05					

the respondents either disagreed or strongly disagreed with the statement.

In the cross tabulation of the statement, the chi square statistic indicated significant P values in two of the socio-economic variables — occupation, and where respondents live. One hundred twenty-one of 135 (89.6%) of those working in an agricultural occupation, 30 of 34 (88.3%) of those working in a public occupation, 22 of 36 (61.1%) of those working in a private business occupation, and 19 of 34 (55.9%) of those working in an operations and construction occupation either disagreed or strongly disagreed with the statement. One hundred forty of 155 (90.4%) of those in the rural area disagreed or strongly disagreed with the statement as opposed to 52 of 84 (61.9%) of those in the Ashland area. As has been evident throughout the results chapter, the respondents working in agricultural occupations or a public occupation and the residents of the rural area expressed a much stronger protective opinion about the land than did the other occupational respondents and Ashland residents.

Statement 211 (Table 98), "Most public domain timber in the Decker-Birney planning area does not have the capability of being managed and if it is in the way of strip mining, it should be sacrificed," was replied to in 237 interviews. Of the respondents .4 percent strongly agreed, 10.8 percent agreed, 9.3 percent were neutral, 52.5 percent disagreed, and 18.5 percent strongly disagreed with the

Table 98. Most public domain timber in the Decker-Birney planning area does not have the capability of being managed and if it is in the way of strip mining, it should be sacrificed.

	Sex of Respondent	Age of Respondents by Decade	Where Respondents Were Raised	Years Lived in the Decker-Bir- ney Area (10 Year Increments)	Marital Status
X ²	8.55699	35.95204	23.79895	31.76714	10.52028
df	4	24	16	28	12
P Value	.0732	.0555	.0940	.2841	.5704
	Number of Children in Family	Gross Family Income	Education Level of the Head of the House- hold	Occupation of the Head of the House- hold	Where Respond- ent Lives (Rural vs Ashland)
X ²	21.32724	37.10547	22.85152	17.21146	11.24254
df	21	28	24	12	4
P Value	.4391	.1166	.5286	.1418	.0240***
*X ² Significant at .001 **X ² Significant at .01 ***X ² Significant at .05					

statement. A majority (71%) of the respondents either disagreed or strongly disagreed with the statement.

In the cross tabulation of the statement, the chi square statistic indicated a significant P value in only one of the socio-economic variables — where respondents live. One hundred twenty five of 156 (80.1%) of those in the rural area disagreed or strongly disagreed with the statement as opposed to 59 of 81 (72.8%) of those in Ashland. A greater percentage of respondents from the rural area than from Ashland disagreed or strongly disagreed with the statement. The pattern of rural area residents who expressed a strong protective opinion about the land was one that has been established throughout the results chapter.

Summary of the Socio-Economic Variables Associations Identified

Introduction. Thus far in the results chapter each socio-economic variable that was significant has been discussed as its association relates to the individual statement. It is, therefore, helpful at this point to look at the associations that have been identified in terms of causation. This search for causation is directed toward the understanding of the processes of interaction that are taking place in the Decker-Birney Area. The present inhabitants and their culture are as much a part of the environment as is the surrounding world of natural ecosystems, and this realization makes it

important that the social patterns of the residents be studied.

Sociological theorists have contended that human groups are not mere sums of aggregates, but are differentiated in systematic ways and have patterns of relationships that have emergent qualities not present in separate persons. Robert Faris (1964:7) has elaborated this contention in the following statement:

By virtue of being born into a system that is well established a person is necessarily bound to be influenced by it. Individuals are real enough, to be sure, but the manifold linkages of relationship of various kinds produce functioning unities--families, corporations, governments, associations, and the like which keep their special characteristics through the passage of generations of members, and constantly assimilate new members, altering their personal characters in the process.

Patterns of associations within the socio-economic variables used as measures of dependence in this study can be seen and are helpful in gaining insights about the functioning units or types of individuals identified.

Sex of the respondent. The sex of the respondent when cross tabulated with the dependent variables was significant in only five cases indicating a very weak association. Among the respondents 134 were men and 125 were women. Except for the age group of twenty-four and under, each successive age category shows the percentage of men was greater than women. The geographical roots of the sexes were essentially the same; however, more women than men (52 to 42) were raised outside of the area. One difference that did appear

significant was that women were more likely to reside in Ashland than in the rural area of the planning unit. The fact that more women were likely to live in Ashland accounted for the town-rural split on how women felt about living in the area. More women than men disagreed that of all the places they had lived that the Decker-Birney Area was the most desirable. However, at the same time rural women were very satisfied with the area in which they lived. More women than men wanted a moratorium on development and agreed that federal planners should be involved with the pending development in Montana. On the other hand, more men than women preferred deep mining of coal over strip mining if it was feasible. It appears with this population that sex was not a very discriminating socio-economic variable.

Age of the respondent. The age of the respondents by decade when cross tabulated with the dependent variables was significant in nineteen cases. However, age of respondents was very helpful in identifying value differences between the older and younger respondents. In the study area the older the persons were the more likely they were to be men. Sixty-nine percent of the respondents under twenty-five were women compared to forty percent above sixty years of age. A majority of each age category were raised in Montana or another western state. The older the respondent the less likelihood of high school graduation and more likelihood of being in an agricultural occupation. In contrast the under twenty-four year old category had a majority of

its members spread throughout other occupations. Older persons were more likely to feel the Decker-Birney Area is the most desirable place to live and that the area is a safe place to bring up children, opposed adult education programs and counseling services, opposed the idea of state and federal planners coming in, and believed that development and population influx would hurt family ties. Younger people, on the other hand, were more likely to see education programs and counseling services as helpful and needed, believed state and federal planners may be helpful, were more willing to move from the area, strongly agreed companies should reveal development plans, and were for building electrical generating plants in the areas where the people would be using the electrical power.

Where respondents were raised. Where respondents were raised when cross tabulated with the dependent variables was significant in eleven cases was not very useful as its associations were weak and difficult to interpret. Most respondents (62.5%) were natives of Montana. The greater the distance between the area in which they grew up and Montana, the fewer the number of respondents. Forty respondents (15.4%) were from other western states, thirty-five respondents (13.5%) were from the midwest, and 22 (8.5%) were from eastern states. Educational level does not appear to be strongly related to where respondents were raised, although midwesterners and easterners were a little more likely to have attended college in comparison to all other

categories of respondents. The percentages of respondents with less than high school graduation ranged between 28.6 percent for easterners and 34.8 percent for native Montanans. Midwesterners and easterners were more frequently employed in a private business occupation (25.7% and 31.8% respectively) or a public occupation (25.5% and 31.8% respectively) than were persons raised in other regions. Most Montanans and westerners (63.9%) were employed in agriculture. Persons raised in Montana held the largest percent of those respondents that worked in an operations or construction job with 23 of 38 (60.5%).

In all cases, where respondents were raised appears to have had little bearing on their satisfaction of the area. Most respondents, no matter what their origin, agreed the Decker-Birney area is a desirable place to live, that additional counseling services are needed, and adult education would be helpful, that the area is a safe place to bring up children, and in general are satisfied with their living conditions.

Years lived in the Decker-Birney Area. Years lived in the Decker-Birney Area by decades when cross tabulated with the dependent variable was significant in seventeen cases, and like age it was useful in identifying value differences between short term and long term residents, helpful in pointing out the transition beginning to come, and useful as an indicator of attachment to the area. Thirty-one percent (75 of 259) of the respondents have lived in the Decker-Birney

Area for less than ten years with 21.2 percent (55) having lived in the area for less than five years. A majority (54.4%) of the residents who have lived in the area less than five years were under thirty years old and were less likely to view themselves as Montanans.

This is explainable as 55 percent of those under five years residents were raised outside of Montana. In contrast, 68.8 percent of the respondents who have been residents over fifty years were over sixty years of age and who were raised in Montana (90%) viewed themselves as Montanans and had no intention of leaving. Differences between long term residents and short term residents are also seen when comparing the type of community in which they were raised. Ninety-two percent of the long term residents (over fifty years) were raised on a farm compared to only 43.6 percent of the recent arrivals (under five years).

Some strong associations were seen between years of residence and a variety of variables. The more years in residence the more likely the respondent was to feel the area is a most desirable place to live, that the area is a good place to bring up children, deep social roots are important, and that the national forest is not being as well managed. The more recent comers to the area were more likely to believe that adult education and counseling services would be helpful and that inheritance was not very important.

Marital status. Marital status when cross tabulated with the

dependent variables was significant in only seven cases indicating a very weak association. In the Decker-Birney Area nearly everyone weds, and marriage is the norm. Only 33 of the 259 (12.8%) respondents were not married. Of the remainder 198 (76.4%) were currently married, 10 (3.9%) were divorced or separated, and 17 (6.8%) were widowed. As is true in most rural areas in the United States a majority (72.7%) of the single persons were males and were from geographic origins similar to the place in which they reside. Throughout all the marital categories a majority of the respondents came from Montana and were raised on a farm. Most persons in each category expected to remain in the Decker-Birney area; however, the single and divorced or separated persons show the greatest variation in this respect with 20 percent of the divorced or separated and 12.1 percent of the single respondents planning to move. Parenthood is important in the Decker-Birney Area as is obvious with a quick perusal of the statistics. Ninety percent of the married and divorced persons had children as had 70 percent of the widowed respondents.

Married persons were more likely to be more satisfied with some measures of the area than were single, divorced, and widowed persons. Perhaps because of their greater social interaction with others which accompanies marriage, married persons felt local persons were more helpful than in most places. More widowed respondents believed federal planners should not be involved, believed air quality would

not be greatly affected by power generating facilities at Colstrip, and believed strip mining is preferred to deep mining of coal. More divorced or separated respondents believed the need for coal is an important consideration on the decision to develop Montana's coal resources, and believed that the proposed power plants could operate without harmfully affecting the existing ranching operations.

Number of children in the family. The number of children in the family when cross tabulated with the dependent variable was significant in only seventeen cases indicating a very weak association. The most common number of children for respondents to have was from one to three. These family sizes account for 54.8 percent of all the children in the area, and whether the respondents were from east or west or from the country or the city, the most prevalent sizes of family were from one to three children. No single persons reported having children whereas 88.4 percent of the married, divorced, separated, and widowed persons have had children. A majority of each educational category have between one and three children although more families with more than four children have heads of households with less than a high school education. A few strong associations were noted; as the number of children increased, the more likely the respondents were to believe that the Decker-Birney area was the most desirable place to live, that counseling services would be of value, and that industry should pay the local costs of industrialization.

Gross family income. Gross family income when cross tabulated with the dependent variables was significant in 16 cases. Although this number of associations is relatively high in comparison with the socio-economic variables discussed thus far, it proved to be a weak association in terms of causality. A majority (41.6%) of the respondents earned between \$7,500 and \$19,999 income. Family income does not appear to be associated with other socio-demographic characteristics such as sex, education, age, or where respondents were raised or lived before coming to the area. It does appear, though, that higher income persons were more likely to live on rural farms which was documented by the fact that a strong correlation existed between the three highest income groups, and the importance that inheritance was to them. Some other associations of interest were as family income increased, the more likely the individual was to believe that regardless of proper planning that population would negatively affect the area, and believed that we do not owe it to the rest of Montana to develop more industry for the state.

Education level of the head of the household. Education level of the head of the household when cross tabulated with the dependent variable was significant in nine cases indicating a weak association. The modal educational achievement for respondents was graduation from high school (46.3%). Over one-third (33.3%) of the respondents had less than a high school education while the remaining (17.7%) have

graduated from college and/or have attended some post-graduate training or professional school. No strong associations in educational achievement occur for sex or where respondents were raised. The size of place in which respondents were raised was associated with educational achievement. Persons raised on farms constitute 40.0 percent of the category who did not graduate from college while 39 percent of the college graduates grew up in towns of populations of more than 10,000. This is understandable, though, as 59.4 percent of those working in a public occupation either were college graduates or have post-graduate training, and 44.7 percent of this group were raised outside of Montana. Some other associations of interest were found; as educational achievement increased, the more likely the respondent was to believe state and federal planners should be involved with the development plans, that where natural resources are privately owned that government and neighbors should have some say over how they are used, that decisions about whether to permit further coal mining and power generation should include them, and that the proposed generating plants would affect the water quality of the area.

Occupation of the head of the household and where respondents live. Occupation of the head of the household and where respondents live when cross tabulated with the dependent variables were significant in forty-nine and seventy-one cases respectively and represented the strongest associations of all of the socio-economic variables.

Because they are so closely related in terms of causation the author has elected to discuss them together. The most striking characteristic of the research finding presented in this chapter was that one measure of socio-economic status — occupation — differentiates far more clearly between respondents in the Decker-Birney Area than all the other measures. Even though the rural versus Ashland associations occurred more times, the occupation measure was viewed by the author to be more discriminating because it forced respondents into more precise categories. However, it is from the differentiation of agricultural and public occupations versus private business and operations and construction occupations along with rural-farm versus town non-agricultural divisions that this following discussion was based.

The occupational structure reflects the character of the population in which 54.9 percent for the most part were ranchers, 17.0 percent for the most part were businessmen and professionals, 14.5 percent for the most part were employees of the United States Forest Service or teachers, and 12.8 percent were in operations and construction occupations. The Decker-Birney Area has only one community, Ashland, which can be designed non-rural. Ninety-eight of the respondents resided in Ashland compared to one hundred sixty-one residing throughout the Decker-Birney rural area. As might be expected non-agricultural occupations were more heavily represented among town dwellers. Even though only 3.6 percent of the respondents in an

agricultural occupation lived in Ashland, most other occupations were aggregated there. Seventy-five percent of the private business, 84.2 percent of the operations and construction, and 7.5 percent of the public occupation respondents resided in Ashland. The low number of the public occupation sector living in Ashland is explainable because many of the Forest Service employees live on Otter Creek and work out of the Fort Howe Ranger District which is 25 to 30 miles from Ashland.

The research thus far has documented the similarity of thoughts expressed by the agricultural and public occupation respondents. The author has expressed earlier in the analysis of the tables that he believes this similarity can be explained by the fact their occupations reflect attachment to the land. In this instance the author is referring to forest service and other resource management personnel in the area. However, the author also believes the religious and teacher occupation respondents may also on a personal values level feel more attached to the land than those respondents of the other two occupational categories. This seems to be the only plausible explanation that accounts for their similarities in thought.

Many of the associations of agricultural and public occupations versus private business and operations and construction occupations and rural versus town were easy to identify. Some of the associations identified the beliefs expressed by agricultural and public occupation

respondents and rural residents were: the area has everything necessary for a happy life, is a most desirable place to live, is a very safe place to live and bring up children, that people are more helpful, a population influx might negatively influence family ties, industrialization may upset local decisions making, that neither the nation nor the administration have the right to interfere with coal development, that residents have no duty to generate electricity or to develop Montana industry, that coal decisions are based more on economic than human reasons, that coal companies are responding only to the law when reclaiming land rather than compassion for the land, that development should not occur just because power companies claim a need for more electricity, agricultural land should not be strip mined, that power plants cannot operate without harmfully affecting ranching operations, that removal of coal seams will cause springs and meadows to dry up, that claims for reclamation are unbelievable, that area residents would not be better off if strip mines are developed, that no more coal development is needed for Montana, that a moratorium should be enacted on any proposal for a system of paved roads, that a moratorium on leasing any federal lands should be extended, that a moratorium on more power and strip mines should be enacted, and that no rail or power lines should be built in the area.

In summary, despite considerable attachment to the Decker-Birney Area by town residents and those respondents working in a

private business or operations and construction occupation, as a category these attachments are less embedded than are rural persons or respondents of the other two occupational categories. It is important, however, that the reader recognizes that a large majority of the respondents across all the occupations and in the rural and town places of residence oppose coal development and its resulting impacts. The summary statement then is: persons residing in town and employed in the private business or operations and construction occupation are consistently associated with lower opposition to coal development than rural residents and those respondents in agricultural and public occupations. However, the majority of all respondents in the area are against coal development and its impacts.

Development of the Typology and Testing the Hypotheses

From the ethnographic research conducted by Dr. Raymond Gold and members of his staff from the Institute for Social Science research at the University of Montana and field interviewing done by the author during the summer of 1974, three types of people that are likely to be found in the Decker-Birney Study Area were identified. The three types identified were given the following names: "boomer type," "developer-protector type," and "anti-strip mine type." During the interviewing process nine individuals were identified by the author who fit into the three groupings based on actions and attitudes that

the author felt supported his preconceived descriptions. These individuals were used as validation points of the typology after its determination.

The typology was developed by using a biomedical computer program called cluster analysis on cases written at the University of California. A total of forty-one statements were used as the variables in the cluster analysis program to form the typology. The reader is referred to Table 6, page 50 for identification of the numbers of the statement used. The cluster tree, the output showing the groupings designated by the cluster analysis program, has not been included in this text because of its enormous length which measured over four feet. Furthermore, the groupings developed by the cluster analysis are graphically displayed in Figures 7 and 8, pages 277 and 278 in output generated by the stepwise discriminant analysis program and are easily recognizable.

Once the cluster analysis had developed the groupings, the author identified the groupings according to type. Eight of the nine individuals identified as validation points during the interviewing process fell within the grouping of which the author believed they were members. In order to test the typology, three hypotheses were advanced for the study (see page 52) and tested by a stepwise discriminate analysis program. In all three of the hypotheses the null statement was rejected, and the alternative statement was accepted.

The alternative hypothesis states that the group means of each of the three types — "the boomer-type," "the developer-protector type," and "the anti-strip mine type" — were different when compared to each other. The .05 level of significance was set for the rejection of the null hypothesis. Table 99 displays the group probabilities calculated by the approximate F statistic in a matrix with thirty-seven and sixty degrees of freedom.

Table 99. F Matrix of P Values for Testing Equality of Group Means.

Group		Group	
	Boomer Type	Developer-Protector Type	
Developer-Protector Type	2.55673*		
Anti-Strip Mine Type	8.92216*		6.24118*

* Approximate F significant at .01 level

From the table it can be seen that the values of P were large enough to reject the null hypotheses at the .01 level of significance thus indicating that the groups were in fact distinctive units or aggregates of individual respondents.

The final step in the development of the typology was to test the classification of the groups or types developed by the cluster analysis program and to classify those persons who were not grouped in

the cluster analysis program. This testing and classification was accomplished by using a stepwise discriminant analysis program (BMD07M) developed at the University of California. This program looks at relevant characteristics of the individual and how the individual responded to statements asked. On the basis of this information, a classification decision was made. The assignment to a particular type as stated by Overall and Klett (1972:329), "is based on estimates of the probabilities of occurrence of the patterns of characteristics within each of the several groups." Figure 7 displays a scattergram of the respondents grouped in the cluster analysis program, and Figure 8 displays a scattergram of the unclassified respondents as denoted by the cluster analysis program.

Discussion of the Forced Classification

It is important that the reader recognizes that the stepwise discriminate analysis program forces a classification of all unclassified respondents and reclassifies any cases the program believes have been misclassified. Because of the forced classification, attention should be given by the reader to the probabilities that are assigned for possible occurrence of that individual within one of the other types. The higher the probability that a particular case or respondent belongs to a specific type or group, the closer to 1.000 the number assigned will be. Tables 100, 101, and 102 lists the respondents or cases of each of three types respectively and denotes the probability that the

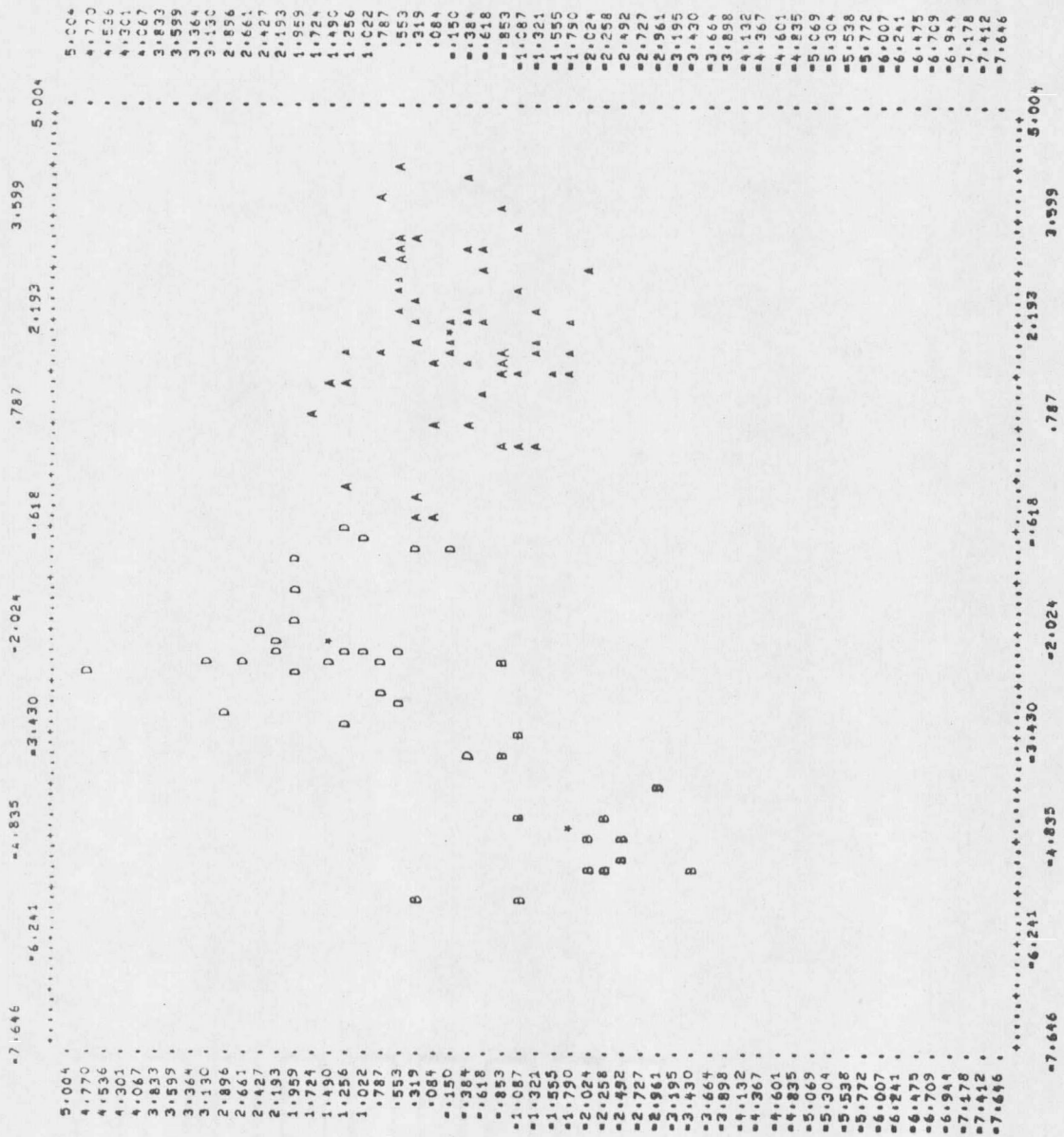


Figure 7. Scattergram of types grouped by cluster analysis and plotted by stepwise discriminant analysis. (*Denotes group means)

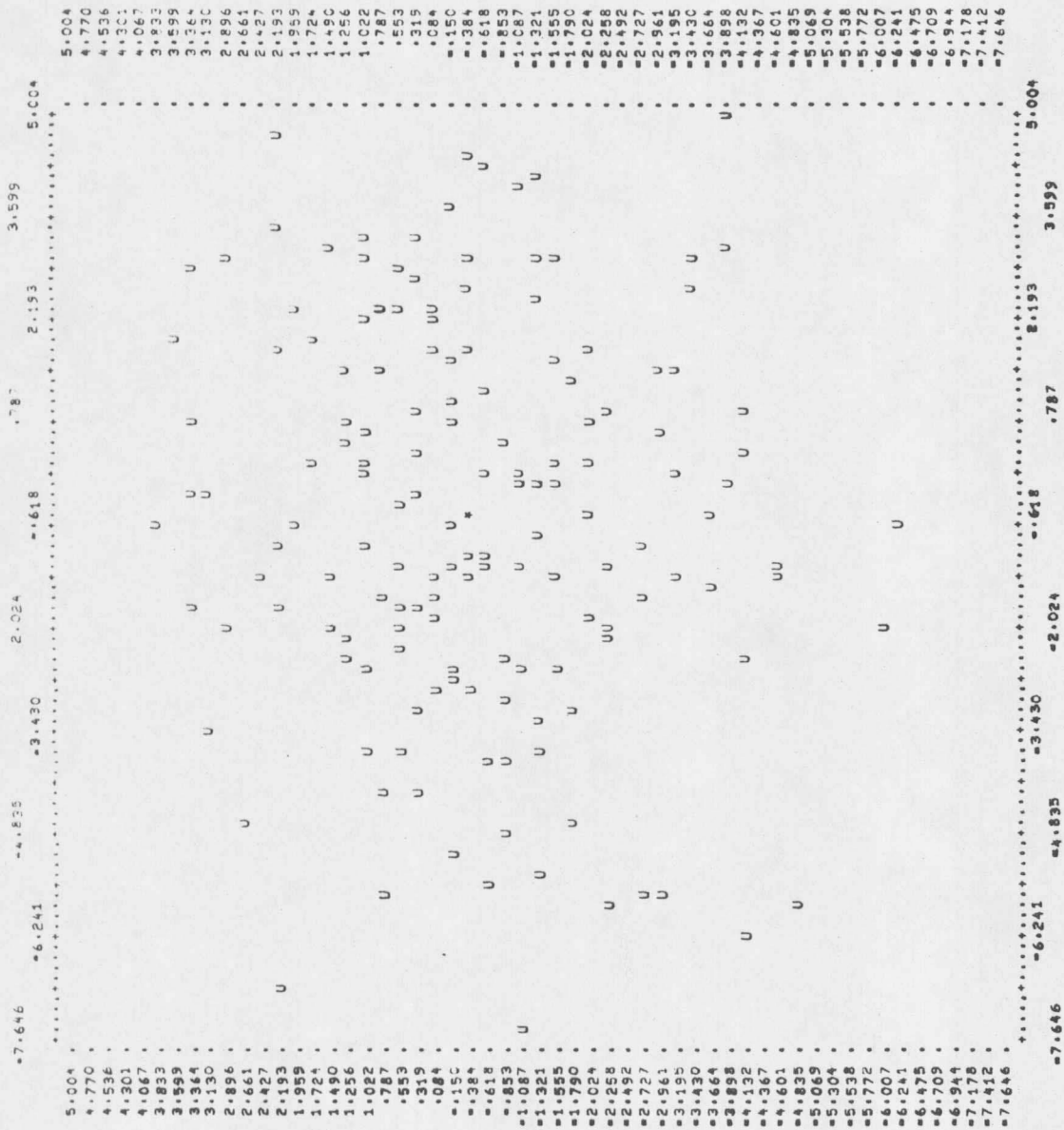


Figure 8. Scattergram of unclassified respondents denoted by cluster analysis and plotted by stepwise discriminant analysis. (*Denotes group means)

Table 100. Stepwise Discriminant Analysis of the Boomer-Type Formed by the Cluster Analysis Program.

Number of Cases	Type With Largest Probability	Square of Distance From and Posterior Probability for Each Type					
		Boomer		Developer Protector		Anti-Strip Mine	
1	Boomer	29.909	1.000	47.584	.000	88.916	.000
2	Boomer	29.016	1.000	49.460	.000	76.490	.000
3	Boomer	65.141	1.000	89.176	.000	120.232	.000
4	Boomer	28.558	.998	41.079	.002	72.580	.000
5	Boomer	23.153	1.000	46.234	.000	80.050	.000
6	Boomer	35.307	.955	41.435	.045	62.980	.000
7	Boomer	13.811	.963	20.332	.037	44.858	.000
8	Boomer	19.947	1.000	39.985	.000	70.324	.000
9	Boomer	30.645	1.000	53.484	.000	81.935	.000
10	Boomer	45.228	1.000	66.321	.000	100.345	.000
11	Boomer	26.766	.979	34.441	.021	80.377	.000
12	Boomer	34.793	.510	34.873	.490	49.814	.000
13	Boomer	58.061	1.000	81.473	.000	102.637	.000
14	Boomer	89.142	1.000	119.722	.000	149.388	.000

Table 101. Stepwise Discriminant Analysis of the Developer-Protector Type Formed by the Cluster Analysis Program.

Number of Cases	Type With Largest Probability	Square of Distance From and Posterior Probability for Each Type					
		Boomer		Developer Protector		Anti-Strip Mine	
1	Boomer	28.299	.860	31.931	.140	58.880	.000
2	Developer Protector	55.098	.000	31.930	1.000	58.415	.000
3	Developer Protector	63.452	.000	41.942	1.000	61.184	.000
4	Developer Protector	34.376	.008	24.847	.991	43.271	.000
5	Developer Protector	54.314	.000	32.551	1.000	66.771	.000
6	Developer Protector	54.577	.000	32.200	1.000	48.517	.000
7	Developer Protector	39.377	.001	24.579	.947	30.387	.052
8	Developer Protector	41.759	.000	20.586	.973	27.735	.027
9	Developer Protector	28.869	.017	20.707	.983	44.025	.000
10	Developer Protector	48.667	.000	25.299	.968	32.123	.032
11	Developer Protector	54.607	.000	33.144	1.000	56.487	.000
12	Developer Protector	23.085	.026	15.851	.974	39.856	.000
13	Developer Protector	55.457	.000	37.533	1.000	63.773	.000
14	Developer Protector	68.310	.000	44.558	1.000	67.922	.000
15	Developer Protector	86.175	.000	49.558	1.000	85.609	.000
16	Developer Protector	56.482	.000	30.802	.998	43.361	.002
17	Developer Protector	40.846	.006	30.664	.994	60.275	.000
18	Developer Protector	38.536	.001	24.890	.999	45.306	.000
19	Developer Protector	48.367	.045	42.253	.955	66.449	.000
20	Developer Protector	51.196	.000	35.267	1.000	58.166	.000
21	Developer Protector	52.633	.000	32.385	1.000	56.205	.000
22	Developer Protector	39.249	.000	13.975	1.000	42.405	.000
23	Developer Protector	34.978	.002	23.225	.853	26.779	.144
24	Developer Protector	53.078	.001	39.408	.999	59.430	.000
25	Developer Protector	44.754	.007	34.816	.993	55.017	.000

Table 102. Stepwise Discriminant Analysis of the Anti-Strip Mine Type Formed by the Cluster Analysis Program.

Number of Cases	Type With Largest Probability	Square of Distance From and Posterior Probability for Each Type					
		Boomer		Developer Protector		Anti-Strip Mine	
1	Anti-Strip Mine	81.791	.000	53.418	.000	21.261	1.000
2	Anti-Strip Mine.	63.065	.000	30.338	.082	25.517	.918
3	Developer Protector	61.406	.000	46.016	.558	46.483	.442
4	Anti-Strip Mine	90.880	.000	76.513	.000	51.657	1.000
5	Anti-Strip Mine	60.971	.000	47.085	.005	36.610	.995
6	Anti-Strip Mine	56.266	.000	44.418	.003	32.709	.997
7	Anti-Strip Mine	70.465	.000	44.029	.000	21.437	1.000
8	Anti-Strip Mine	88.603	.000	70.834	.000	35.172	1.000
9	Developer Protector	53.769	.000	28.141	.786	30.744	.214
10	Anti-Strip Mine	97.003	.000	56.023	.000	22.580	1.000
11	Anti-Strip Mine	77.566	.000	60.702	.000	40.634	1.000
12	Developer Protector	35.129	.000	18.064	.718	19.932	.282
13	Anti-Strip Mine	94.198	.000	58.311	.000	29.826	1.000
14	Anti-Strip Mine	114.008	.000	77.108	.000	51.234	1.000
15	Anti-Strip Mine	108.574	.000	77.756	.000	46.583	1.000
16	Anti-Strip Mine	71.869	.000	51.256	.000	24.263	1.000
17	Anti-Strip Mine	84.108	.000	55.760	.000	25.912	1.000
18	Anti-Strip Mine	72.782	.000	54.367	.000	38.750	1.000
19	Anti-Strip Mine	93.864	.000	65.984	.000	29.999	1.000
20	Anti-Strip Mine	79.409	.000	45.589	.007	35.618	.993
21	Anti-Strip Mine	67.987	.000	46.195	.010	36.972	.990
22	Anti-Strip Mine	74.989	.000	57.979	.000	34.263	1.000
23	Anti-Strip Mine	78.555	.000	66.444	.000	43.951	1.000
24	Anti-Strip Mine	90.981	.000	56.966	.000	33.572	1.000
25	Anti-Strip Mine	119.844	.000	77.429	.000	40.278	1.000

Table 102 Continued

Number of Cases	Type With Largest Probability	Square of Distance From and Posterior Probability for Each Type					
		Boomer		Developer Protector		Anti-Strip Mine	
26	Anti-Strip Mine	91.815	.000	61.369	.000	41.535	1.000
27	Anti-Strip Mine	82.991	.000	59.964	.000	31.357	1.000
28	Anti-Strip Mine	94.000	.000	76.349	.000	51.734	1.000
29	Anti-Strip Mine	113.520	.000	78.666	.000	39.464	1.000
30	Anti-Strip Mine	80.086	.000	66.257	.000	40.782	1.000
31	Anti-Strip Mine	99.393	.000	69.029	.000	53.590	1.000
32	Anti-Strip Mine	84.740	.000	55.275	.000	37.653	1.000
33	Anti-Strip Mine	125.380	.000	89.101	.000	59.117	1.000
34	Anti-Strip Mine	95.802	.000	63.858	.000	42.247	1.000
35	Anti-Strip Mine	144.129	.000	118.535	.000	94.399	1.000
36	Anti-Strip Mine	80.751	.000	61.150	.000	39.927	1.000
37	Anti-Strip Mine	73.877	.000	42.736	.000	19.616	1.000
38	Anti-Strip Mine	73.877	.000	42.736	.000	19.616	1.000
39	Anti-Strip Mine	99.254	.000	76.952	.000	58.190	1.000
40	Anti-Strip Mine	95.492	.000	65.665	.000	28.091	1.000
41	Anti-Strip Mine	86.107	.000	49.794	.000	23.020	1.000
42	Developer Protector	51.587	.000	33.162	.525	33.365	.475
43	Anti-Strip Mine	63.495	.000	43.991	.000	23.866	1.000
44	Anti-Strip Mine	74.225	.000	45.429	.000	26.576	1.000
45	Anti-Strip Mine	91.755	.000	56.715	.000	32.375	1.000
46	Anti-Strip Mine	81.171	.000	55.188	.000	32.389	1.000
47	Anti-Strip Mine	77.585	.000	43.900	.001	30.251	.999
48	Anti-Strip Mine	68.572	.000	53.891	.000	32.020	1.000
49	Anti-Strip Mine	65.775	.000	32.562	.007	22.548	.993
50	Anti-Strip Mine	78.382	.000	48.151	.001	33.054	.999
51	Anti-Strip Mine	70.517	.000	45.091	.000	25.521	1.000

Table 102 Continued

Number of Cases	Type With Largest Probability	Square of Distance From and Posterior Probability for Each Type					
		Boomer		Developer Protector		Anti-Strip Mine	
52	Anti-Strip Mine	57.381	.000	44.020	.003	32.478	.997
53	Anti-Strip Mine	87.697	.000	61.390	.000	44.965	1.000
54	Anti-Strip Mine	89.930	.000	70.622	.000	51.965	1.000
55	Anti-Strip Mine	140.961	.000	114.154	.000	91.094	1.000
56	Anti-Strip Mine	88.456	.000	51.849	.000	22.773	1.000
57	Anti-Strip Mine	89.862	.000	74.098	.000	45.703	1.000
58	Anti-Strip Mine	80.162	.000	61.901	.003	50.409	.997
59	Anti-Strip Mine	94.426	.000	69.876	.000	50.525	1.000
60	Anti-Strip Mine	77.989	.000	53.434	.000	29.247	1.000

individual had of being assigned to each of the groups. The individual case is then assigned to the type in which the largest probability occurred.

In Table 100 no discrepancies were noted by the stepwise discriminant analysis of the "boomer type" group formed by the cluster analysis program, although case 12 has a low probability of being in the "boomer type" grouping. In Table 101 one discrepancy was noted in case one, and the respondent was reclassified as a "boomer type." In Table 101 four discrepancies were noted, and in the cases 3, 1, 12, and 42, the respondents were all reclassified as "developer-protector types." In Table 103 all of the unclassified respondents as denoted in the cluster analysis program were classified. A comparison of placement of respondents in the typology by the cluster analysis and stepwise discriminant analysis programs was made in Table 104.

Although a large percentage (61.8%) of the respondents were not grouped by the cluster analysis program the author believes this is explainable. In the formation of the cluster three groupings were distinctive, and then cases were added to the three one at a time. On page 277, Figure 8 displays a scattergram of the ungrouped respondents, and the reader should note the location of the mean of the ungrouped respondents and mentally compare the mean's location with the means of the "anti-strip mine type" and the "developer protector type" in Figure 7. One should note that the mean of the ungrouped respondents

Table 103. Classification by Stepwise Discriminant Analysis of the Unclassified Cases Grouped by the Cluster Analysis Program.

Number of Cases	Type With Largest Probability	Square of Distance From and Posterior Probability for Each Type					
		Boomer		Developer Protector		Anti-Strip Mine	
1	Anti-Strip Mine	63.231	.000	52.267	.019	44.422	.981
2	Anti-Strip Mine	49.829	.000	31.702	.350	30.466	.650
3	Boomer	23.449	1.000	41.049	.000	78.382	.000
4	Boomer	255.847	.707	257.605	.293	290.833	.000
5	Anti-Strip Mine	105.207	.000	70.336	.000	44.817	1.000
6	Anti-Strip Mine	272.016	.000	239.468	.000	213.433	1.000
7	Anti-Strip Mine	69.328	.000	49.561	.000	34.336	1.000
8	Anti-Strip Mine	69.183	.000	39.033	.001	25.842	.999
9	Developer Protector	121.788	.000	78.736	.780	81.265	.220
10	Anti-Strip Mine	114.485	.000	80.292	.000	39.160	1.000
11	Anti-Strip Mine	105.759	.000	67.767	.001	53.986	.999
12	Boomer	116.979	1.000	134.298	.000	163.666	.000
13	Boomer	120.019	1.000	146.785	.000	202.022	.000
14	Boomer	108.436	.975	115.737	.025	134.896	.000
15	Developer Protector	155.069	.000	134.914	.998	147.740	.002
16	Developer Protector	256.608	.000	218.008	.996	228.848	.004
17	Boomer	82.935	.980	90.804	.019	97.393	.001
18	Boomer	57.931	.843	61.285	.157	80.587	.000
19	Anti-Strip Mine	60.338	.035	56.190	.282	54.425	.682
20	Developer Protector	61.762	.005	41.482	.892	45.803	.103
21	Developer Protector	68.595	.001	53.685	.999	73.568	.000
22	Anti-Strip Mine	59.591	.000	28.884	.081	24.034	.919
23	Anti-Strip Mine	39.175	.000	29.551	.046	23.500	.953
24	Developer Protector	72.686	.145	69.130	.855	89.270	.000
25	Anti-Strip Mine	146.986	.000	134.136	.000	109.105	1.000

Table 103 Continued

Number of Cases	Type With Largest Probability	Square of Distance From and Posterior Probability for Each Type					
		Boomer		Developer Protector		Anti-Strip Mine	
26	Developer Protector	80.910	.001	66.493	.998	80.164	.001
27	Developer Protector	117.121	.031	110.466	.878	115.007	.091
28	Developer Protector	154.964	.000	133.891	1.000	170.044	.000
29	Developer Protector	69.063	.338	67.716	.662	87.749	.000
30	Anti-Strip Mine	160.007	.000	118.167	.000	102.884	1.000
31	Developer Protector	81.611	.000	54.601	1.000	71.097	.000
32	Anti-Strip Mine	131.771	.000	102.792	.000	80.918	1.000
33	Boomer	76.750	.746	78.903	.254	92.992	.000
34	Developer Protector	126.747	.020	118.978	.978	131.990	.001
35	Boomer	167.894	.995	178.542	.005	195.348	.000
36	Developer Protector	164.674	.404	163.894	.596	178.013	.001
37	Boomer	139.323	.971	146.314	.029	172.428	.000
38	Developer Protector	90.785	.081	85.934	.919	110.364	.000
39	Anti-Strip Mine	153.975	.000	124.501	.000	81.651	1.000
40	Anti-Strip Mine	107.836	.000	105.061	.000	78.137	1.000
41	Boomer	108.013	.937	113.407	.063	127.037	.000
42	Anti-Strip Mine	129.428	.000	100.052	.000	69.240	1.000
43	Boomer	142.504	.522	148.174	.031	142.816	.447
44	Developer Protector	256.741	.000	229.660	.989	238.610	.011
45	Developer Protector	137.944	.000	98.441	.999	113.267	.001
46	Developer Protector	116.184	.002	103.524	.997	116.287	.002
47	Anti-Strip Mine	113.328	.000	90.065	.006	79.845	.994
48	Anti-Strip Mine	177.797	.014	176.584	.027	169.412	.959
49	Boomer	125.673	1.000	169.002	.000	197.087	.000
50	Developer Protector	101.119	.000	81.931	.712	83.744	.288
51	Boomer	129.654	.968	140.249	.005	136.839	.027

Table 103 Continued

Number of Cases	Type With Largest Probability	Square of Distance From and Posterior Probability for Each Type					
		Boomer		Developer Protector		Anti-Strip Mine	
52	Anti-Strip Mine	79.862	.000	71.173	.005	60.563	.995
53	Developer Protector	38.724	.004	27.446	.994	39.868	.002
54	Boomer	79.937	.634	83.203	.124	81.861	.242
55	Anti-Strip Mine	209.473	.000	167.635	.000	143.211	1.000
56	Boomer	238.709	1.000	274.858	.000	329.117	.000
57	Developer Protector	52.396	.006	42.012	.991	53.313	.003
58	Anti-Strip Mine	95.308	.000	73.554	.000	38.455	1.000
59	Anti-Strip Mine	146.787	.000	139.725	.000	102.727	1.000
60	Anti-Strip Mine	97.997	.000	73.191	.440	72.708	.560
61	Anti-Strip Mine	117.874	.000	97.836	.000	68.566	1.000
62	Anti-Strip Mine	168.208	.000	137.963	.000	97.197	1.000
63	Anti-Strip Mine	162.643	.000	126.408	.000	84.553	1.000
64	Anti-Strip Mine	79.842	.000	55.340	.000	38.459	1.000
65	Anti-Strip Mine	114.584	.000	119.556	.000	94.151	1.000
66	Boomer	112.344	.993	126.202	.001	122.542	.006
67	Anti-Strip Mine	139.414	.000	106.432	.003	95.062	.997
68	Anti-Strip Mine	140.479	.000	117.127	.000	97.484	1.000
69	Anti-Strip Mine	119.727	.000	84.357	.000	54.874	1.000
70	Anti-Strip Mine	157.159	.000	101.564	.000	66.898	1.000
71	Developer Protector	64.033	.004	52.901	.980	61.141	.016
72	Anti-Strip Mine	112.261	.000	78.037	.000	59.507	1.000
73	Anti-Strip Mine	122.845	.206	131.931	.002	120.156	.791
74	Anti-Strip Mine	148.184	.000	93.808	.000	78.022	1.000
75	Developer Protector	71.806	.000	54.203	1.000	73.887	.000
76	Boomer	294.290	.974	301.627	.025	307.976	.001
77	Developer Protector	126.414	.003	115.149	.963	121.873	.033

Table 103 Continued

Number of Cases	Type With Largest Probability	Square of Distance From and Posterior Probability for Each Type					
		Boomer		Developer Protector		Anti-Strip Mine	
78	Anti-Strip Mine	127.547	.000	98.146	.000	75.989	1.000
79	Anti-Strip Mine	139.936	.000	112.651	.000	86.511	1.000
80	Anti-Strip Mine	162.714	.000	121.812	.000	94.425	1.000
81	Anti-Strip Mine	374.407	.000	349.837	.000	277.448	1.000
82	Anti-Strip Mine	202.853	.000	197.471	.000	171.881	1.000
83	Anti-Strip Mine	117.502	.001	111.391	.018	103.366	.981
84	Anti-Strip Mine	92.954	.002	95.749	.001	80.630	.997
85	Anti-Strip Mine	154.827	.000	147.162	.000	128.103	1.000
86	Anti-Strip Mine	121.924	.000	89.132	.000	68.130	1.000
87	Boomer	107.283	.909	111.991	.086	117.720	.005
88	Boomer	146.276	.671	147.706	.329	210.427	.000
89	Boomer	135.441	1.000	175.625	.000	210.942	.000
90	Boomer	44.042	.985	52.466	.015	92.513	.000
91	Developer Protector	58.098	.000	36.346	1.000	74.055	.000
92	Anti-Strip Mine	115.489	.000	85.760	.096	81.266	.904
93	Developer Protector	152.373	.000	122.586	.663	123.936	.337
94	Anti-Strip Mine	75.273	.000	50.350	.243	48.075	.757
95	Anti-Strip Mine	166.685	.011	174.731	.000	157.655	.989
96	Anti-Strip Mine	125.562	.000	117.777	.000	100.202	1.000
97	Anti-Strip Mine	136.309	.000	85.242	.000	66.091	1.000
98	Anti-Strip Mine	175.911	.000	163.084	.042	156.816	.958
99	Developer Protector	100.194	.130	96.398	.870	114.966	.000
100	Developer Protector	196.941	.001	183.802	.999	205.518	.000
101	Boomer	131.354	.926	136.415	.074	183.905	.000
102	Developer Protector	96.481	.000	69.062	.998	81.319	.002
103	Boomer	69.748	.999	82.928	.001	124.366	.000

Table 103 Continued

Number of Cases	Type With Largest Probability	Square of Distance From and Posterior Probability for Each Type					
		Boomer		Developer Protector		Anti-Strip Mine	
104	Boomer	205.267	.990	224.656	.000	214.431	.010
105	Anti-Strip Mine	70.714	.000	57.976	.000	37.726	1.000
106	Boomer	85.911	1.000	107.160	.000	110.478	.000
107	Anti-Strip Mine	113.836	.000	87.107	.000	69.366	1.000
108	Anti-Strip Mine	125.663	.000	96.741	.000	75.442	1.000
109	Developer Protector	247.476	.014	239.111	.948	245.592	.037
110	Boomer	58.223	1.000	86.271	.000	121.304	.000
111	Boomer	101.591	.992	115.195	.001	111.539	.007
112	Anti-Strip Mine	100.188	.000	77.037	.000	44.123	1.000
113	Anti-Strip Mine	136.604	.000	136.123	.000	116.634	1.000
114	Boomer	142.876	.988	151.730	.012	174.973	.000
115	Boomer	129.980	1.000	159.272	.000	193.222	.000
116	Anti-Strip Mine	148.313	.000	98.571	.032	91.782	.968
117	Anti-Strip Mine	122.027	.000	112.032	.000	71.376	1.000
118	Anti-Strip Mine	113.043	.000	99.767	.000	74.084	1.000
119	Anti-Strip Mine	53.126	.000	44.193	.023	36.732	.976
120	Developer Protector	122.898	.004	111.917	.996	134.286	.000
121	Anti-Strip Mine	75.236	.000	47.786	.065	42.452	.935
122	Anti-Strip Mine	91.445	.000	70.889	.005	60.402	.995
123	Anti-Strip Mine	108.410	.000	67.292	.005	56.823	.995
124	Developer Protector	91.880	.001	78.181	.659	79.501	.341
125	Developer Protector	60.885	.228	58.443	.772	93.698	.000
126	Anti-Strip Mine	225.637	.000	210.199	.000	150.995	1.000
127	Boomer	108.418	.967	116.304	.019	116.787	.015
128	Anti-Strip Mine	91.877	.000	63.235	.224	60.747	.776
129	Boomer	156.041	.954	182.987	.000	162.084	.046
130	Developer Protector	145.435	.013	137.082	.843	140.610	.144

Table 103. Continued

Number of Cases	Type With Largest Probability	Square of Distance From and Posterior Probability for Each Type					
		Boomer		Developer Protector		Anti-Strip Mine	
131	Anti-Strip Mine	282.046	.000	274.538	.000	230.354	1.000
132	Developer Protector	186.174	.005	175.449	.995	190.302	.001
133	Developer Protector	75.843	.116	72.259	.697	74.896	.187
134	Developer Protector	55.663	.008	46.095	.992	63.429	.000
135	Anti-Strip Mine	98.545	.000	60.053	.000	34.960	1.000
136	Developer Protector	111.824	.000	85.380	1.000	110.218	.000
137	Anti-Strip Mine	145.744	.000	123.590	.001	110.533	.999
138	Anti-Strip Mine	132.663	.000	126.819	.002	114.610	.998
139	Boomer	93.741	.951	99.655	.049	125.893	.000
140	Boomer	217.040	.997	237.263	.000	228.402	.003
141	Developer Protector	208.825	.000	185.044	1.000	204.443	.000
142	Developer Protector	62.216	.151	58.759	.849	88.513	.000
143	Anti-Strip Mine	81.810	.000	67.111	.006	57.035	.994
144	Developer Protector	156.982	.373	156.613	.448	158.447	.179
145	Developer Protector	178.413	.000	157.991	.980	165.763	.020
146	Boomer	74.057	1.000	100.269	.000	138.016	.000
147	Boomer	218.021	1.000	250.113	.000	242.107	.000
148	Developer Protector	97.823	.000	66.332	1.000	90.107	.000
149	Anti-Strip Mine	158.864	.000	110.911	.000	86.241	1.000
150	Developer Protector	217.279	.000	179.501	.991	188.873	.009
151	Developer Protector	102.209	.001	87.168	.988	96.002	.012
152	Anti-Strip Mine	98.698	.000	66.424	.000	41.491	1.000
153	Anti-Strip Mine	154.469	.000	120.125	.000	84.800	1.000
154	Developer Protector	75.288	.003	63.891	.997	110.038	.000
155	Anti-Strip Mine	221.035	.000	187.182	.000	166.487	1.000
156	Boomer	88.612	.997	100.178	.003	134.919	.000

Table 103 Continued

Number of Cases	Type With Largest Probability	Square of Distance From and Posterior Probability for Each Type					
		Boomer		Developer Protector		Anti-Strip Mine	
157	Developer Protector	203.143	.181	200.128	.819	221.541	.000
158	Developer Protector	268.401	.038	261.919	.962	293.954	.000
159	Anti-Strip Mine	155.211	.002	162.728	.000	142.342	.998
160	Anti-Strip Mine	96.735	.000	81.377	.000	59.399	1.000

Table 104. A Comparison of Placement of Individuals in the Classification System by Cluster Analysis and Stepwise Discriminant Analysis.

Types	Grouping by Cluster Analysis in Cases Program		Grouping by Stepwise Discriminant Analysis Program	
	Frequency	Percent	Frequency	Percent
Boomer	14	5.4	52	20.1
Developer Protector	25	9.6	75	28.9
Anti-Strip Mine	60	23.2	132	51.0
Unclassified	160	61.8	0	0
Total	259	100.0	259	100.0

in Figure 8 falls between the means of the "anti-strip mine type" and the "developer protector type" groups. That fact in itself does not mean a great deal, but the fact that 47.9% of the 61.8% of the unclassified respondents were classified by the stepwise discriminant analysis program as either "developer protector type" (19.3%) and "anti-strip mine type" (27.8%) does make a point. Most of the unclassified respondents answered some statements like the "developer protector type" respondent might and some statements like the "anti-strip mine type." These distributions confirm the author's feelings he had during the interviews that some aspects of development are viewed as favorable, but at the same time some aspects of developments are viewed very unfavorable by the residents in the Decker-Birney Area. It should be noted because of its importance for decision making purposes that according to the classification system 79.9 percent of the population viewed strip mining as either permissible if either strong controls are available or not permissible at all. A quick perusal of the frequency distributions and percentages of the questions reviewed in depth early in the chapter reinforces the fact that more respondents answered the statement in a seemingly anti-development mode.

Introduction of the Description of the Types Within the Typology

The purpose of this study was to identify attitudinal predilections and to develop a typology of environmental orientations held

by residents of the Decker-Birney Study Area. In order to accomplish this purpose it has been necessary to look analytically at the socio-economic characteristics and at the respondents' opinions about coal development and planning. The following descriptions are based on the analysis of the ninety-nine interview schedules of the respondents who were grouped into three groups by the cluster analysis program. The identification of the three groups into types was accomplished by comparing the profiles of the groups with preconceived descriptions developed by the author through the ethnographic research conducted by Dr. Raymond Gold and field research done by the author during the summer of 1974. These descriptions are an attempt to accomplish the descriptive and analytical goal set forth in this research.

Socio-Economic Characteristics of the Three Types

Among the "boomer" respondents 86 percent were male and 14 percent were female, 79 percent were raised in Montana, 14 percent were raised in one of the other Rocky Mountain states, 7 percent were raised in the midwest, 93 percent were married and 7 percent were single. Of the "boomer" respondents 78 percent had from two to four children, 14 percent had no children, and seven percent had eight or more children. "Boomer" respondents were found in every age decade grouping except the 75 and above age category. Seventy percent of

the "boomer" respondents were found in the decade groupings between 45 and 74 years of age with the 55 to 64 year age grouping having the largest percentage of respondents with 28 percent. Years lived in the area by "boomer" respondents ranged from 1 to 60 years with the 1 to 10 years, 31 to 40 years, and 41 to 50 year groupings each having 21 percent of the respondents in that grouping. Fifty-seven percent of the "boomer" respondents lived in Ashland as opposed to 43 percent who lived in the rural area of the study unit. Of the "boomer" respondents 35 percent were in an agricultural occupation, 28 percent in a business occupation, 28 percent in an operations and construction occupation, and 7 percent in a public occupation. Of the "boomer" respondents 14 percent had less than an eighth grade education, 29 percent had more than an eighth grade education but were not high school graduates, 43 percent were high school graduates, and 7 percent had some college but were not college graduates. None of the "boomer" respondents were college graduates or had received any post-graduate training. "Boomer" respondents were found in all income groups except two in the less than \$2,999 and the \$7,500 and \$9,999 group. Of the "boomer" respondents 14 percent made between \$3,000 to \$4,999, 7 percent made between \$5,000 to \$7,499, 14 percent made between \$10,000 to \$14,999, 7 percent made between \$15,000 to \$19,999, 21 percent made between \$20,000 to \$29,999, and 21 percent made over \$30,000. A total of 14 percent did not reply to the income question.

Among the "developer protector" respondents, 44 percent were male and 56 percent were female, 60 percent were raised in Montana, 20 percent were raised in one of the other Rocky Mountain states, 12 percent were raised in the midwest, 8 percent were raised in the west coast states, 92 percent were married, and 8 percent were single. Of the "developer protector" respondents 76 percent had from two to four children, 12 percent had no children, 8 percent had two children, and 4 percent had five children. "Developer protector" respondents were found in every age decade grouping except the 65 to 74 years and 75 years and above categories. Seventy-six percent of the "developer protector" respondents were found in the decade groupings 25 to 54 years of age with the 45 to 54 year age having the largest percentage of respondents with 36 percent. Years lived in the area by the "developer protector" respondents ranged from 1 to 60 years, and the 21 to 30 year group with 32 percent and the 1 to 10 year group with 28 percent had the highest percentages of respondents. Fifty-two percent of the "developer protector" respondents lived in Ashland as opposed to 48 percent who lived in the rural area of the study unit. Of the "developer-protector" respondents, 48 percent were in an agricultural occupation, 32 percent were in an operations and construction occupation, 16 percent were in a business occupation, and 4 percent were in a public occupation. Of the "developer protector" respondents, 36 percent had more than an eighth grade education but

were not high school graduates, 32 percent were high school graduates, 24 percent had some college but were not college graduates, and 8 percent were college graduates. "Developer protector" respondents were found in all income groups except two — the less than \$2,999 and the \$3,000 to \$4,999 group. Of the "developer protector" respondents 4 percent were made between \$5,000 to \$7,499, 24 percent made between \$7,500 to \$9,999, 36 percent made between \$10,000 to \$14,999, 16 percent made between \$15,000 to \$19,999, 8 percent made between \$20,000 to \$29,999, and 12 percent made over \$30,000.

Among the "anti-strip mine" respondents 60 percent were males and 40 percent females, 65 percent were raised in Montana, 17 percent were raised in one of the other Rocky Mountain states, 3 percent were raised in the west coast states, 8 percent were raised in the midwestern states, 4 percent in the eastern states, 83 percent were married, and 17 percent were single. Of the "anti-strip mine" respondents, 55 percent had from two to four children, 25 percent had no children, 17 percent had one child, and 2 percent had five children. "Anti-strip mine" respondents were found in every age decade grouping. Fifty-eight percent of the "anti-strip mine" respondents were found in the following two groups: the 24 to 34 year group with 25 percent, and the 35 to 44 year group with 33 percent. Years lived in the area by the "anti-strip mine" respondents ranged from 1 to 80 years, and the 1 to 10 year group with 32 percent, and

the 31 to 40 year group with 16 percent had the highest percentages of respondents. Seventy-three percent of the "anti-strip mine" respondents lived in the rural area as opposed to 27 percent who lived in Ashland. Of the "anti-strip mine" respondents, 71 percent were in an agricultural occupation, 18 percent were in a public occupation, 7 percent were in an operations and construction occupation, and 4 percent were in a business occupation. Of the "anti-strip mine" respondents, 2 percent had less than an eighth grade education, 32 percent had more than an eighth grade education but were not high school graduates, 23 percent were high school graduates, 18 percent had some college but were not college graduates, 17 percent were college graduates, and 7 percent had post-graduate training. "Anti-strip mine" respondents were found in all income groups. Of the "anti-strip mine" respondents, 5 percent made less than \$2,999, 5 percent made between \$3,000 to \$4,999, 7 percent made between \$5,000 to \$7,499, 13 percent made between \$7,500 to \$9,999, 25 percent made between \$10,000 to \$14,999, 10 percent made between \$15,000 to \$19,999, 5 percent made between \$20,000 to \$29,999, and 7 percent made over \$30,000. A total of 23 percent did not reply to the income question.

In comparing the socio-economic characteristics of the three types, some distinctive differences were apparent. In all comparisons the "boomer type" and "anti-strip mine type" were at opposite extremes, and the "developer protector type" was in the in-between position.

The "boomer" group exhibited the following distinctive characteristics: the group was composed of the highest percentage (86%) of men; this group's highest percentage (70%) of respondents were 45 years old and above; this group's highest percentage (79%) of respondents were raised in Montana; the group's highest percentage (78%) of its respondents had two to four children; the group had the highest percentage (63%) of its respondents earning \$10,000 and above; this group had the lowest level of educational achievement; the group was composed of the highest combined percentage (56%) of its respondents working in private business and operations and construction occupations; and this group had the highest percentage (57%) of its respondents living in Ashland.

The "anti-strip mine" group exhibited the following distinctive characteristics: this was the only group in which every age decade was represented and was the group having the largest percentage (58%) of the respondents in the 25 to 44 year category; this was the only group which had respondents who were raised in every part of the country; this was the only group in which every 10 year resident increment was represented (from 1 to 80 years of residents); this group had the highest percentage (17%) of single respondents; the group had the lowest percentage (55%) of its respondents having two to four children; this group had the highest percentage (25%) of its respondents with no children; this was the only group in which every

gross family income category was represented; this was the only group in which every educational category was represented and the group having the highest percentage (17%) of college graduates and the highest percentage (7%) of respondents who had post-graduate education; this group had the highest percentage of respondents in agricultural (71%) and public (18%) occupations; and this group had the highest percentage (73%) of its respondents residing in the rural area.

The "developer-protector" group exhibited the following distinctive characteristics: this was the only group with more women respondents (56%) than male respondents (44%); this group had the highest percentage (76%) of its respondents between 25 and 54 years of age; the majority of this group's respondents (32%) lived in the area between 21 to 30 years; the majority of this group's respondents (76%) earned an income between \$7,500 and \$19,999; this group was the middle group on educational achievement; this was the only group in which the combined percentage (52%) of those in agricultural and public occupations was greater than the combined percentage (48%) of those working in a private business or operations and construction occupation; and this group's residents were nearly evenly distributed between Ashland (52%) and the rural area (48%).

Comparisons of the General Planning and
Strip Mining Questions as Seen by the
Three Types of Respondents

The reader is referred to Appendix C, page 400 for personal analysis of the absolute frequencies and percents of responses for the respondents that were classified into the three types. The following perceptions and discussions are based on these questions.

General questions. Three general category statements were included as part of the discriminating variables for developing the three types. The "boomer" group answered these statements differently than the other groups, and these differences are outlined in the following series of statements: the group had the highest percentage of respondents (36%) who disagreed that the area had an excellent school system; all of the respondents (100%) disagreed that the scenic resources of the area were being destroyed; and the group also had the highest percentage of respondents (36%) who agreed one person's right to a clean environment was not as important as another's right to gainful employment.

The "anti-strip mine" group answered these statements differently than the other groups, and these differences are outlined in the following series of statements: the group had the highest percentage of respondents (52%) who agreed or strongly agreed that the area had an excellent school system; the group had the highest percentage of respondents (55%) who agreed or strongly agreed that the scenic

resources of the area were being destroyed; and the group had the highest percentage of respondents (74%) who either disagreed or strongly disagreed that one person's right to a clean environment was not as important as another's right to a gainful employment.

The "developer protector" group answered these statements differently than the other groups, and these differences are outlined in the following series of statements: the group had the highest percentage of respondents (28%) who were neutral about the excellence of the school system; the group had the highest percentage of respondents (24%) who were neutral about whether the scenic resources of the area were being destroyed; and the group had the highest percentage of respondents (28%) who were neutral about one person's right to a clean environment not being as important as another's right to gainful employment.

Planning questions. Sixteen planning statements were included as part of the discriminating variables for developing the three types. The "boomer" group answered these statements differently than the other groups, and these differences are outlined in the following series of statements: the group had the highest percentage of respondents (71%) who either agreed or strongly agreed that if proper planning occurred they did not believe an increase in population would negatively affect the area; the group had the largest percentage of respondents (79%) who opposed a moratorium on further leasing of state

and federal coal lands to energy companies; the group had the largest percentage of respondents (64%) who opposed a moratorium on the building of any more power plants in this area; the group had the largest percentage of respondents (79%) who opposed a moratorium on the development of new strip mines in this area; the group had the largest percentage of respondents (79%) who opposed a moratorium on the development of additional railroads, power lines, or pipe lines associated with coal development; the group had the highest percentage of respondents (36%) who agreed that state professional planners should not be involved with development in Montana; the group had the highest percentage of respondents (72%) who believed further development should be confined to mining and mine-mouth power generation or further development should not be restricted; the group had the highest percentage of respondents (43%) who agreed that we owed it to the rest of Montana to develop more industry for the state; the group had the highest percentage of respondents (71%) who agreed that decisions about whether to permit coal mining and power generation would not be affected by what people in this area think should be done, but by the percentage of respondents (64%) who agreed family ties would be affected by the coal development and the population influx; and the group had the highest percentage of respondents (36%) who believed power plant units 3 and 4 should be built unconditionally.

The "anti-strip mine" group answered these statements differ-

ently than the other groups, and these differences are outlined in the following series of statements: the group had the highest percentage of respondents (75%) who either disagreed or strongly disagreed that even with proper planning that an increase in population would negatively effect this area; this group had the highest percentage of respondents (23%) who disagreed that an adult-education would be useful; the group had the largest percentage of respondents (54%) who either opposed or strongly oppsed a system of paved roads into and out of this area; the group had the largest percentage of respondents (97%) who either favored or strongly favored a moratorium on further leasing of state and federal coal land to energy companies; the group had the largest percentage of respondents (100%) who either favored or strongly favored a moratorium on the development of new strip mines in this area; the group had the largest percentage of respondents (97%) who either favored or strongly favored a moratorium on any additional building of railroads, power lines, or pipe lines associated with coal development; the group had the largest percentage of respondents (67%) who either disagreed or strongly disagreed that state and professional planners should not be involved with development in the state of Montana; the group had the largest percentage of respondents (57%) who either agreed or strongly agreed that professional planners should not be involved with development in Montana; the group had the largest percentage of respondents (62%) who believed that there should be no

further development and that what we had underway was enough; the group had the largest percentage of respondents (86%) who either disagreed or strongly disagreed that we owed it to the rest of Montana to develop more industry for the state; the group had the largest percentage of respondents (60%) who were neutral about whether decisions to prevent coal mining and power generation would be affected by what people in this area thought should be done or by the pressures exerted by industrial giants; the group had the largest percentage of respondents (60%) who agreed that family ties would be affected by coal development and the population influx; the group had the largest percentage of respondents (57%) who believed that coal strip power generating units 3 and 4 should not be built at all; and the group had the largest percentage of respondents (58%) who either agreed or or strongly agreed that not much information concerning mining and related developments was being made available to the general public.

The "developer protector" group answered these statements differently than the other groups, and these differences are outlined in the following series: this group had the largest percentage of respondents (76%) who agreed an adult-education program would be useful; the group had the largest percentage of respondents (52%) who agreed that additional counseling services in this area would be useful; the group had the largest percentage of respondents (80%) who either favored or strongly favored a system of paved roads into

and out of the area; the group had the largest percentage of respondents (40%) who were neutral to the proposal of further leasing of state and federal coal lands to energy companies; the group had the largest percentage of respondents (56%) who were neutral towards the proposed moratorium on building any more power plants in this area; the group had the largest percentage of respondents (60%) who were neutral towards the moratorium on the development of new strip mines in this area; the group had the largest percentage of respondents (60%) who were neutral towards the moratorium that would disallow additional railroads, power lines, or pipe lines associated with coal development; the group had the largest percentage of respondents (28%) who were neutral towards state planners being involved with the development in Montana; the group had the largest percentage of respondents (40%) who disagreed that federal planners should not be involved with the development of Montana; the group had the largest percentage of respondents (48%) who believed further development should be confined to mining and exporting coal; the group had the largest percentage of respondents (36%) who were neutral to the statement that we owed it to the rest of Montana to develop more industry for the state; the group had the largest percentage of respondents (75%) who disagreed that the decisions about whether to permit further coal mining and power generation would not be affected by what people in this area thought should be done but by the

pressures exerted by industrial giants; the group had the largest percentage of respondents (40%) who disagreed that their family ties would be affected by coal development and the population influx; the group had the largest percentage of respondents (52%) who believed that units 3 and 4 should not be built until the effects of units 1 and 2 were known; and the group had the largest percentage of respondents (80%) who either disagreed or strongly disagreed with the statement that not much information concerning mining and related developments was being made available to the general public.

Strip mine questions. The "boomer" group answered these statements differently than the other groups, and these differences are outlined in the following series of statements: the group had the largest percentage of respondents (86%) who agreed with the statement that since the Nixon administration was pushing very hard for energy self-sufficiency by 1980, Montana coal should be mined; the group had the largest percentage of respondents (86%) who disagreed that the choice for strip mining in agricultural areas meant there would be less food production both now and in the future; the group had the largest percentage of respondents (50%) who disagreed that residents were being made to feel guilty for trying to save their lives in the battle against the nation's alleged need for coal versus the life style of a few; the group had the largest percentage of respondents (100%) who disagreed that too many rivers and creeks in eastern Montana would

be dammed up due to coal industrialization; the group had the largest number of respondents (79%) who disagreed there were enough strip mines in eastern Montana; the group had the largest percentage of respondents (79%) who agreed that strip mining was compatible with their views of sound land use management; the group had the largest percentage of respondents (79%) who disagreed that water needed for crops would be used up by the power plant operations; the group had the largest percentage of respondents (86%) who agreed that in the long run area residents would be better off if the strip mines were developed; the group had the largest percentage of respondents (71%) who disagreed coal developments entailed a sacrifice of recreation values and the future land use possibilities; and the group had the largest percentage of respondents (29%) who believed the best way to meet the national energy needs was to increase the number of generating plants in this area.

The "anti-strip mine" group answered these statements differently than the other groups, and these differences are outlined in the following series of statements: the group had the largest percentage of respondents (70%) who either disagreed or strongly disagreed that since the Nixon administration was pushing very hard for energy self-sufficiency by 1980, Montana coal should be mined; the group had the highest percentage of respondents (87%) who either agreed or strongly agreed that the choice for strip mining in agricultural areas meant

there would be less food production both now and in the future; the group had the largest percentage of respondents (77%) who either agreed or strongly agreed that residents were being made to feel guilty for trying to save their lives in the battle against the nation's alleged need for coal versus the life style of a few; the group had the largest percentage of respondents (76%) who either agreed or strongly agreed that too many rivers and creeks in eastern Montana would be dammed up due to coal industrialization; the group had the largest percentage of respondents (77%) who either agreed or strongly agreed there were enough strip mines in eastern Montana; the group had the largest percentage of respondents (87%) who either disagreed or strongly disagreed that strip mining was compatible with their views of sound land use management; the group had the largest percentage of respondents (88%) who either agreed or strongly agreed that water that was needed for crops would be used up by the power plant operations; the group had the largest percentage of respondents (90%) who either agreed or strongly disagreed that in the long run area residents would be better off if the strip mines were developed; the group had the largest percentage of respondents (85%) who either agreed or strongly agreed that coal development entailed a sacrifice of recreational values and the future land use possibilities; and the group had the highest percentage of respondents (65%) who believed

the national energy needs could best be met by developing alternative energy sources such as sun and wind.

The "developer protector" group answered every question in the strip mining section with the highest percentage of respondents answering in the neutral category. This group also had the largest numbers of respondents split between agreed or disagreed on almost every question that was asked in the strip mining question section. Because of this split it was apparent to the author that the "developer protector" group was taking the middle stand on most all mining issues. The reader is referred to Appendix C, page 400 for personal analysis of the distributions which show the apparent consistency of the respondents of this type in answering the statements.

Summary of the Three Types

"Boomers" were characterized by their pro-development beliefs that Montana coal should be mined and that residents would be better off if strip mines were developed. At least a third of the "boomers" believed that further coal development should not be restricted, but should be a direct response to what the rest of the nation says it wants. Most "boomers" believed there was not enough developed strip mines in Montana. "Boomers" tended to view development as an opportunity for profitable expansion of personal wealth with little regard for the environment and most believed that strip mining was

compatible with their views on sound land use management. Most "boomers" did not believe that coal development would entail a sacrifice of recreational values or endanger future land use possibilities or that the scenic resources of the area were being destroyed. "Boomers" tended to have a fatalistic attitude about the impact that local residents would have on the decisions of whether to permit further coal mining and power generation development. Most "boomers" believed decisions would be made as a result of pressure exerted by industrial giants. Most "boomers" believed that the proposed electrical generating plants 3 and 4 should be built. The majority of "boomers" were against any moratoriums that might be opposed to the further leasing of state and federal coal lands to energy companies, to the building of power plants in the area, to the development of new strip mines in the area, and to the building of any additional railroads, power lines, or pipe lines associated with coal development. "Boomers" did, however, favor any proposals that would bring a system of paved roads into and out of the Decker-Birney Area.

"Boomers" as a group were predominantly men, married, raised in Montana and had families of two to four children. "Boomers" as a group had a majority of its respondents between 45 and 74 years of age, and had resided in the area between 21 and 60 years. "Boomers"

were the lowest educated of all three types with 43 percent having less than a high school education. "Boomers" were more likely to be residents of Ashland and be working in a private business or an operations and construction occupation. The agricultural occupation respondents that were "boomers" were most apt to be ranchers or farmers who stood to make a great deal of money if development occurred as planned. "Boomers" tended to be concentrated (63%) in an income bracket that earned over \$15,000 a year.

The "boomers" represented 21 percent of the 259 respondents classified and represented a segment of the Decker-Birney population who were characterized as pro-development regardless of environmental and social costs.

"Anti-strip mine" respondents were characterized by their anti-development beliefs that Montana coal should not be mined and that residents would not be better off if strip mines were developed. A majority of the "anti-strip mine" respondents (62%) believed there should be no further development of coal and that they did not owe it to Montana or to the nation to develop the coal resources. Most "anti-strip mine" respondents viewed development as a degradation to a life style and a set of values that places the land and the social integrity of the family in a position to be lost if development occurred. These respondents believed that one person's right to a clean environment was as important as another person's right to gain-

ful employment. They believed residents were being made to feel guilty for trying to save their lives in the battle against the nation's alleged need for coal versus the life style of a few and believed that family ties would be affected by coal development and the population influx. Most of the "anti-strip mine" respondents believed that the choice for strip mining in agricultural areas meant there would be less food production, that too many rivers and creeks in eastern Montana would be dammed, that scenic resources of the area were being destroyed, water that was needed for crops would be used up by the power plant operations, and that even with proper planning that any increase in population would negatively affect the area. Eighty-seven percent of the "anti-strip mine" respondents viewed strip mining as incompatible with their views of sound land use management. A majority of the "anti-strip mine" respondents would like to see state professional planners involved with development but did not want to see federal planners involved. Most "anti-strip mine" respondents did not want to see a system of paved roads into and out of the area. "Anti-strip mine" respondents would favor any moratoriums that would prevent further leasing of state and federal coal lands to energy companies, the building of any more power plants in the area, the development of new strip mines in the area, and the building of additional railroads, power lines, or pipe lines associated with coal development. The majority of "anti-

strip mine" respondents did not believe that the proposed power generating units 3 and 4 should be built and that national energy needs could best be met by developing alternative energy sources such as the sun and wind.

The "anti-strip mine" respondents as a group were composed of 60 percent men and 40 percent women, and 83 percent were married. The 17 percent of single persons was the highest percentage recorded among all the types. The "anti-strip mine" respondents were in all age groups, all decades of residency, all income categories, and all categories of where respondents were raised. This was an important fact as it showed the diversity of persons who have these feelings and beliefs. The "anti-strip mine" group was the only type that had respondents in every grouping of the mentioned socio-economic variables. A majority of the respondents, however, were from 25 to 44 years of age, were from Montana, and had lived in the area from 1 to 50 years. The "anti-strip mine" group had the highest percentage of respondents with no children, which correlated with the high percentage of single respondents within the group. "Anti-strip mine" respondents were the most highly educated of all the types with 42 percent having received some formal education beyond high school. "Anti-strip mine" respondents were most likely to be living in the rural area and pursuing an agricultural occupation although the "anti-strip mine" group had the highest percentage of respondents in

public employment.

The "anti-strip mine" type represented 51 percent of the 259 respondents classified — a majority of the Decker-Birney population — and these respondents were opposed to strip mining and coal development. The "anti-strip mine" group was composed largely of agricultural respondents and rural residents.

"Developer Protector" respondents were characterized by their beliefs that development may be permissible as long as development of the coal resources was planned and carefully controlled. Many respondents in this type took a very neutral position on the issues and had adopted a wait-and-see attitude. In some areas of concern the group as a whole took the anti-development stand and on others the group took the development stand. Most of the "developer protector" respondents believed Montana coal should be mined, that further development should be confined to mining and exporting coal (a compromise position), but yet only 36 percent disagreed that there were enough developed strip mines in eastern Montana. A majority of the "developer protector" respondents disagreed that they owed it to the rest of Montana to develop more industry for the state, and most believed that power generating plants 3 and 4 at Colstrip should not be built until the effects of one and two were known. Most of the "developer protector" respondents viewed strip mining as compatible with their views of land use management and disagreed that strip

mining would mean less food production or that too many rivers and creeks would be dammed due to coal industrialization. At the same time, 48 percent were neutral when asked if they thought residents would be better off if strip mines were developed. Forty-eight percent of the group disagreed that residents were being made to feel guilty for trying to save their lives in the battle against the nation's alleged need for coal versus the life-style of a few, and yet 56 percent of the respondents found it difficult to discuss the coal issue with friends who held opposing views. Another paradox of the "developer protector" group was that 75 percent disagreed that decisions about whether to permit further coal mining and power generation would not be affected by what people in this area thought should be done, but by the pressure exerted by industrial giants. This belief was an indication of optimism that was not expressed by the other types. The majority of the respondents in the "developer protector" group were neutral when asked how they viewed a moratorium on further leasing of state and federal coal lands to energy companies, on building any more power plants in the area, on the development of new strip mines in the area, and on the building of additional railroads, power lines, or pipe lines associated with coal development. The "developer protector" group did have the largest percentages of all three types that believed an adult education program and additional counseling services would be useful.

The "developer protector" respondents as a group was composed of 56 percent man and 44 percent women, and 92 percent were married. The majority of the "developer protector" respondents were between 25 and 54 years of age, had families of two to four children, and had been raised in Montana. The 1 to 10 year and 21 to 30 year residents of the area composed 60 percent of the respondents. The "developer protector" group was the in-between group in educational achievement when comparing the three types. The majority of the "developer protector" respondents earned a gross income between \$7,500 and \$19,999 and either worked in an operations and construction or in an agricultural occupation. The Ashland rural resident split was the most evenly balanced of all the types with 52 percent Ashland and 48 percent rural residences.

The "developer protector" respondents represented 28 percent of the 259 respondents classified. This group was willing to see development progress if strong controls were administered and supervised.

Summary

In the research performed, ninety questions were cross tabulated with ten socio-economic variables in order to appraise and discover viable social patterns that might be operating in the population that could help the researcher understand the population. Occupation of the head of the household, and where respondents lived

were found to be the strongest associations operating within the socio-economic variables. The agricultural and public occupations versus the private business and operations and construction occupations and the rural-farm versus town-non-agricultural divisions were the most discriminating associations. The socio-economic variables of age and years of residence in the Decker-Birney Area were found to be useful in identifying value differences between older and younger respondents and short term and long term residents. It was concluded that a large majority of respondents across all the occupations and in the rural and town places of residence, opposed coal development and its resulting impacts. However, a consistently lower degree of opposition to coal development was found associated with those persons residing in town and employed in a private business or operations and construction occupation.

In testing the hypotheses set forth in this study, all the alternative statements were accepted. This acceptance indicated that three "types" of people were identified that had different orientations about the area and the pending development. Twenty-one percent of the 259 respondents were classified in the "boomer type," 51 percent of the 259 respondents were classified in the "anti-strip mine type," and 28 percent of 259 respondents were classified in the "developer protector type." The "boomer type" was described as having a pro-development and pro-strip mine orientation. The "anti-strip mine

type; was described as having an anti-development orientation. The "developer protector type" was described as the group willing to see development progress if strong controls were administered and supervised.

Chapter 5

CONCLUSIONS, IMPLICATIONS FOR EDUCATION AND RECOMMENDATIONS

Introduction

In May of 1972, the Bureau of Land Management and the United States Forest Service (Custer National Forest), in cooperation with the state of Montana, began the task of compiling a comprehensive multi-resource analysis of the Decker-Birney Study Area. The study was begun in response to the great Montana coal rush which has resulted in vast acreages of federal land being leased, triggered by nationwide demands for clean energy which requires low sulfur coal, a commodity found in abundance in the Decker-Birney Area.

The research undertaken in this study was conducted to provide information regarding population values and attitudes associated with coal development and their educational implications. The author received funding for the study through an environmental fellowship awarded by the National Wildlife Federation and was also able to become part of an interdisciplinary team of researchers from Montana that combined resources to study coal development and land use planning in Rosebud County and the Decker-Birney Area of south-eastern Montana.

The Study and Its Conclusions

The purpose of this study was to identify attitudinal predelictions and to develop a typology of environmental orientations held by residents of the Decker-Birney Area toward coal development and its resulting environmental impacts. It is hoped the typologies developed will aid in better understanding the social forces operating within the population of the Decker-Birney Area and help develop better public education strategies centered around energy issues.

A 288 item questionnaire composed largely of five point Likert-type statements, was developed by an interdisciplinary team of researchers composed of the author, Dr. Pat Jobes from the Department of Sociology at Montana State University, and Dr. Raymond Gold and members of his staff of the Institute for Social Science Research at the University of Montana. The items included in the questionnaire were developed from fieldwork carried out by Dr. Gold, related fieldwork by Dr. Pat Jobes, and items of specific interest to the author, other investigators, and decision makers. Because of the interdisciplinary nature of this study and combination of purposes this questionnaire was developed to serve, only those questions the author developed or was involved in developing were discussed in this research.

During June of 1974, a list of the entire population of

households permanently residing within the Deckér-Birney Study Area was compiled. This list was compiled by integrating the electricity users list of the Tongue River Electric Cooperative, with existing land ownership lists, and telephone directory listings. The integrated list was then reviewed many times with long-term residents from different parts of the study area to insure its completeness and accuracy. Interviewing began on June 28, 1974, and was completed September 10, 1974. No statistical sample was drawn for the interviewing because a complete census by family unit of permanent residents was accomplished during the data gathering stage of the research. Either the husband or wife was interviewed, depending on whoever wanted to represent the family. A minimum of three attempts were set for trying to locate or set up an interview with a family unit before they were classified as unable to be reached. A total of 259 interviews were completed representing 86.91 percent of the family units in the study area. A total of 134 men or 51.7 percent, and 125 women or 48.3 percent, completed the interview for the family unit.

Coding and data analysis was conducted between October, 1974, and March, 1975. The Statistical Package for Social Sciences (SPSS), a system of computer programs, was selected by the researcher to exploit fully the data provided by the research.

Two subprograms - CODEBOOK and FASTABS - were used from SPSS

to generate the descriptive statistics used to describe how respondents generally viewed each question and to infer relationships between the characteristics of respondents and the nature of responses.

In the research performed, ninety questions were cross tabulated with ten socio-economic variables in order to appraise and discover viable patterns that might be operating in the population that could help researchers understand the population. Occupation of the head of the household and where respondents lived were found to be the strongest associations operating within the socio-economic variables. The agricultural and public occupations versus the private business and operations and construction occupations and the rural-farm versus town-non-agricultural divisions were the most discriminating associations. The socio-economic variables of age and years of residence in the Decker-Birney Area were found to be useful in identifying value differences between older and younger respondents and short term and long term residents. It was concluded that a large majority of respondents across all the occupations and in the rural and town places of residence opposed coal development and its resulting impacts. However, a consistently lower degree of opposition to coal development was found associated with those persons residing in town and employed in a private business or operations and construction occupation.

Two biomedical computer programs, BMDP2M, cluster analysis

on cases, and BMD07M, stepwise discriminant analysis, were used to develop and test a typological classification system. Forty-one variables were used in the cluster analysis program to develop the typology. The hypotheses about the typology were then tested by the stepwise discriminant analysis program using the approximate F statistic. The .05 level of significance was set for the rejection of the null hypotheses.

In testing the hypotheses set forth in this study, all the alternative statements were accepted. This acceptance indicated that three "types" of people were identified in the population that had different orientations about the area and the pending development. Twenty-one percent of the 259 respondents were classified in the "boomer type," 51 percent of the 259 respondents were classified in the "anti-strip mine type," and 28 percent of 259 respondents were classified in the "developer protector type." The "boomer type" was described as having a pro-development and pro-strip mine orientation. "Boomers" tended to view development as an opportunity for profitable expansion of personal wealth with little regard for the environment and most believed that strip mining was compatible with their views on sound land use management. "Boomers" were more likely to be residents of Ashland and be working in a private business or an operations and construction occupation. The agricultural occupation respondents that were "boomers" were most apt to be ranchers or

farmers who stood to make a great deal of money if development occurred as planned. "Boomers" tended to be concentrated (63%) in an income bracket that earned over \$15,000 a year.

The "anti-strip mine type" was described as having an anti-development orientation. The "anti-strip mine" respondents believed that Montana coal should not be mined, that no further development of coal resources should occur and that Montana does not owe it to the nation to develop the coal resources. "Anti-strip mine" respondents viewed development as a degradation to a life style and a set of values that places the land and the social integrity of the family in a position to be lost if development occurred. The "anti-strip mine" respondents were in all age groups, all decades of residency, all income categories, and all categories of where respondents were raised. This was an important fact as it showed the diversity of persons who have these feelings and beliefs. "Anti-strip mine" respondents were the most highly educated of all the types with 42 percent having received some formal education beyond high school. "Anti-strip mine" respondents were most likely to be living in the rural area and pursuing an agricultural occupation although the "anti-strip mine" group had the highest percentage of respondents in public employment.

The "developer protector type" was described as the group willing to see development progress if strong controls were adminis-

tered and supervised. Many respondents in this category took a very neutral position on the issues and had adopted a wait-and-see attitude. In some areas of concern the group as a whole took the anti-development stand and on others the group took the development stand. Most of the "developer-protector" respondents believed Montana coal should be mined, and that further development should be confined to mining and exporting coal (a compromise position).

The "developer protector" group was the in-between group in educational level when comparing the three types. The majority of the "developer protector" respondents earned a gross income between \$7,500 and \$19,999 and either worked in an operations and construction or in an agricultural occupation. The Ashland-rural resident split was the most evenly balanced when comparing the three types with 52 percent residing in Ashland and 48 percent residing in the rural areas.

Implications for Education

A great deal of effort both by individuals, state agencies, and federal agencies have gone into the study of the Decker-Birney Area. The studies to date represent three years of extensive research of the natural resources and one year of study concerning social factors operating in the study area. This information presents an opportunity for the state of Montana and its decision makers to develop a conscious and deliberate effort aimed at meeting observed educational needs of the area. Dr. Patrick Jobes (1975:183), when reporting on

research about the Decker-Birney Area said:

In presenting the information collected for this research the author has continually had to ask what kind of information would be useful to persons engaged in directing the future uses of the study area. Aware that no research report can determine the future diversion of an area, the solution to the question was to provide a plethora of information from the perspectives of different sub-categories of respondents. The decision-maker, upon reading this report, should have sound bases for knowing how particular types of persons, i.e., rural or town, agricultural or non-agricultural, elderly or youthful, feel regarding the issues and information addressed in the interviews. This knowledge should help decision makers be aware of how particular varieties might respond to aids in decision-making provided from different sources as well as how respondents might react to different decisions. Given this knowledge, decision-makers should further be capable of correcting misinformation, where held, providing new information, where necessary, and thereby resolving inconsistencies and contradictions, where possible.

The fact that inconsistencies exist in people's understanding about what coal development entails only points to the role education could play in the area. A comprehensive educational plan is needed which is designed to help the Decker-Birney Area residents begin working together regardless of occupations, places of residence and attitudinal predilections. The "boomer" and "anti-strip mine types" described earlier in this chapter have orientations in thought that represent extremes as far as development is concerned. Yet between them, according to the classification system, they compose 72 percent of the population. Efforts must be made to resolve differences between groups and involve residents of the entire area in the decision making process.

It is the future that residents of the Decker-Birney Area must plan. If the residents of the area do not become involved in the planning process, then decisions will be made by people who have no direct contact with the area, do not understand or appreciate the local situation, and are apt to make decisions harmful to the local environs.

A plan for the future could be accomplished by developing an environmental education program that would provide information and be the nucleus of a strong group action program. A program should provide an operational structure within which all individuals interested would have opportunities for active participation. Planning would need to be aimed at providing a focus for cooperation and coordination among the residents of the area. Such a program offers the hope of getting grass roots public involvement started that could stimulate a coordinated effort to insure that local residents have significant input into planning matters.

A broad environmental education program should provide a forum for public discussion through public meetings, lectures, dissemination of material, and a newsletter for residents of the area. The program envisioned is one that would permeate all levels of the study area from public education in the schools to pressure groups such as the Tri-County Ranchers Association. A dynamic program should provide people with sufficient information to determine environmentally.

desirable options.

The information gained from this research project, along with that provided by the Gold and Jobes studies can serve as a point of departure for such a program.

Recommendations

The following recommendations are derived from this study:

1. An open meeting should be held for residents of the Decker-Birney Area with the author, Dr. Raymond Gold, Dr. Pat Jobes, and Ted Clack from the Montana Lieutenant Governor's Office to discuss the results of the research conducted to date.
2. The Lieutenant Governor's Office should be assigned the task of developing a community based education and action program for the Decker-Birney Area.
3. The objectives of such a program should be to provide planning capabilities for the citizens of the Decker-Birney Area. The program could become a model for the establishment of similar programs in other areas of eastern Montana.
4. The typologies developed in this study should be tested with similar populations in other areas of eastern Montana.

Suggestions for Further Study and Uses of the Data

1. A longitudinal research project of the Decker-Birney

Study occurring in evenly spaced time increments would be helpful in observing changes in feelings that residents have over the years.

This type of study would be very helpful if a comprehensive educational program was developed for the area.

2. A re-analysis of the present data with more sophisticated statistical measures would be helpful in synthesizing the descriptive data that has been presented. Statistical methods such as scaling, factor analysis and analysis of variance could be used and would increase the strength of predictability.

3. The questions posed in this study were primarily addressed to how the respondent felt about selected issues at the present time. Questions that ask the respondent to deal with the future might tap a different reservoir of feelings.

4. Although the study was directed to the adult population of the Decker-Birney Area, the conclusions and their implications will affect future generations. Any education or information program should address the needs of children in the public schools as well as adults in the study area. Therefore, I suggest that data derived from this and similar studies be incorporated into education programs of the public schools.

APPENDICES

APPENDIX A

COVER LETTER

Center for Interdisciplinary Studies
Montana State University
Bozeman, Montana 59715

Development in Southeastern Montana

Good afternoon! I am _____. I am interviewing
(Name)

persons in this area as part of a project being conducted by the University of Montana and Montana State University. As you probably have heard, the State of Montana is attempting to find out how people in this area feel about coal mining and development associated with coal development. We also are interested in how people like living here and in what they might like done now and in the future.

The following pages contain questions concerning these matters. The answers which you provide will be valuable in helping to understand public opinion. You have been selected as part of a random sample of the area. It is very important to interview each person who has been selected.

We think the interview is interesting. All answers you provide will be seen only by our staff and will be treated confidentially. All data will be statistically treated to prevent the identification of any individuals' responses. Anonymity is promised.

APPENDIX B

QUESTIONNAIRE AND RESPONSES

Note: The absolute frequency and relative frequency percent are displayed beside each possible response for each question. The category N.A. was not a category used on the questionnaire. The category N.A. has been displayed for analytic purposes only.

We now have several specific questions concerning how you feel about this area. Please state whether you Strongly Agree, Agree, Are Neutral, Disagree, or Strongly Disagree with each of the following statements.

1. This part of Montana has just about everything that is necessary for a happy life.

1. Strongly Agree	67	25.9%
2. Agree	50	57.9%
3. Neutral	14	5.4%
4. Disagree	26	10.0%
5. Strongly Disagree	2	.8%
6. No Answer	0	0

2. Of all the places I have lived, this part of Montana is the most desirable.

1. Strongly Agree	57	22.0%
2. Agree	110	42.5%
3. Neutral	48	18.5%
4. Disagree	37	14.3%
5. Strongly Disagree	5	1.9%
6. No Answer	2	.8%

3. I would rather pay high taxes and live in this area than pay lower taxes and live somewhere else.

1. Strongly Agree	12	4.6%
2. Agree	119	45.9%
3. Neutral	58	22.4%
4. Disagree	57	23.0%
5. Strongly Disagree	8	3.1%
6. No Answer	5	2.0%

4. With proper planning, I do not think an increase in population will negatively affect this area.

1. Strongly Agree	7	2.7%
2. Agree	88	34.0%
3. Neutral	14	5.4%
4. Disagree	111	42.9%
5. Strongly Disagree	38	14.7%
6. No Answer	1	.3%

5. We have an excellent school system at this time.

1. Strongly Agree	11	4.2%
2. Agree	118	45.6%
3. Neutral	48	18.5%
4. Disagree	58	22.4%
5. Strongly Disagree	15	5.8%
6. No Answer	9	3.5%

6. Shopping facilities in this area are adequate.

1. Strongly Agree	7	2.7%
2. Agree	92	35.5%
3. Neutral	15	5.8%
4. Disagree	124	47.9%
5. Strongly Disagree	21	8.1%
6. No Answer	0	0

7. The quality of road construction and maintenance is very high in this area.

1. Strongly Agree	5	1.9%
2. Agree	42	16.2%
3. Neutral	28	10.8%
4. Disagree	150	57.9%
5. Strongly Disagree	31	12.0%
6. No Answer	3	1.2%

8. This is a very safe place to live.

1. Strongly Agree	58	22.4%
2. Agree	148	57.1%
3. Neutral	20	7.7%
4. Disagree	32	12.4%
5. Strongly Disagree	0	0
6. No Answer	1	.4%

9. Traffic has become a real problem in this area.

1. Strongly Agree	0	0
2. Agree	33	12.7%
3. Neutral	18	6.9%
4. Disagree	184	71.0%
5. Strongly Disagree	24	2.3%
6. No Answer	0	0

10. My living conditions here leave a lot to be desired.

1. Strongly Agree	3	1.2%
2. Agree	58	22.4%
3. Neutral	17	6.6%
4. Disagree	136	52.5%
5. Strongly Disagree	44	17.0%
6. No Answer	1	.4%

11. Police protection in this area is of high caliber.

1. Strongly Agree	6	2.3%
2. Agree	73	28.2%
3. Neutral	43	16.6%
4. Disagree	106	40.9%
5. Strongly Disagree	16	6.2%
6. No Answer	15	5.8%

12. More outdoor recreational facilities would be desirable.

1. Strongly Agree	7	2.7%
2. Agree	95	36.7%
3. Neutral	19	7.3%
4. Disagree	109	42.1%
5. Strongly Disagree	26	10.0%
6. No Answer	3	1.2%

13. More indoor recreational facilities would be desirable.

1. Strongly Agree	15	5.8%
2. Agree	117	45.2%
3. Neutral	23	8.9%
4. Disagree	87	33.6%
5. Strongly Disagree	15	5.8%
6. No Answer	2	.8%

14. This area has excellent health and medical care.

1. Strongly Agree	5	1.9%
2. Agree	57	22.0%
3. Neutral	21	8.1%
4. Disagree	138	53.3%
5. Strongly Disagree	35	13.5%
6. No Answer	3	1.2%

15. More sex education in the schools is unnecessary.

1. Strongly Agree	13	5.0%
2. Agree	85	32.8%
3. Neutral	86	33.2%
4. Disagree	57	22.0%
5. Strongly Disagree	6	2.3%
6. No Answer	12	4.6%

16. An adult education program would be useful.

1. Strongly Agree	13	5.0%
2. Agree	137	52.3%
3. Neutral	36	13.9%
4. Disagree	68	26.3%
5. Strongly Disagree	3	1.2%
6. No Answer	2	.8%

17. This area needs a more fully developed health program.

1. Strongly Agree	13	5.0%
2. Agree	133	51.4%
3. Neutral	34	13.1%
4. Disagree	74	28.6%
5. Strongly Disagree	4	1.5%
6. No Answer	1	.4%

18. There are not enough job opportunities for young people in this area.

1. Strongly Agree	15	5.8%
2. Agree	134	57.7%
3. Neutral	12	4.6%
4. Disagree	79	30.5%
5. Strongly Disagree	17	6.6%
6. No Answer	2	.8%

19. Additional counseling services in this area would be useful.

1. Strongly Agree	5	1.9%
2. Agree	111	42.9%
3. Neutral	33	12.7%
4. Disagree	98	37.8%
5. Strongly Disagree	10	3.9%
6. No Answer	2	.8%

20. Senior citizens have adequate facilities in this area.

1. Strongly Agree	12	4.6%
2. Agree	93	35.9%
3. Neutral	17	6.6%
4. Disagree	117	45.2%
5. Strongly Disagree	16	6.2%
6. No Answer	4	1.5%

21. This is a good place to bring up children.

1. Strongly Agree	99	38.9%
2. Agree	118	45.6%
3. Neutral	18	6.9%
4. Disagree	20	7.7%
5. Strongly Disagree	2	.2%
6. No Answer	2	.8%

22. This would be a better place if more minorities lived here.

1. Strongly Agree	2	.8%
2. Agree	18	6.9%
3. Neutral	51	19.7%
4. Disagree	145	56.0%
5. Strongly Disagree	39	15.1%
6. No Answer	4	1.5%

23. Public housing is not a problem here.

1. Strongly Agree	9	3.5%
2. Agree	109	42.1%
3. Neutral	16	6.2%
4. Disagree	110	42.5%
5. Strongly Disagree	13	5.0%
6. No Answer	2	.8%

24. People who live around here are more helpful than they are in most places.

1. Strongly Agree	81	31.3%
2. Agree	136	52.5%
3. Neutral	21	8.1%
4. Disagree	18	6.9%
5. Strongly Disagree	1	.4%
6. No Answer	2	.8%

25. This area is getting too crowded.

1. Strongly Agree	5	1.9%
2. Agree	65	25.1%
3. Neutral	31	12.0%
4. Disagree	148	57.1%
5. Strongly Disagree	7	2.7%
6. No Answer	3	1.2%

26. The scenic resources of this area are being destroyed as the result of a variety of factors.

1. Strongly Agree	7	2.7%
2. Agree	81	31.3%
3. Neutral	21	8.1%
4. Disagree	139	53.7%
5. Strongly Disagree	8	3.1%
6. No Answer	3	1.2%

27. Industrial interests in this area are too powerful.

1. Strongly Agree	38	14.7%
2. Agree	89	34.4%
3. Neutral	21	8.1%
4. Disagree	105	40.5%
5. Strongly Disagree	4	1.5%
6. No Answer	2	.8%

28. There is not enough highway and other construction around here.

1. Strongly Agree	9	3.5%
2. Agree	96	37.1%
3. Neutral	31	12.0%
4. Disagree	106	40.9%
5. Strongly Disagree	15	5.8%
6. No Answer	2	.8%

29. Something should be done to stop population growth in the U. S. as soon as possible.

1. Strongly Agree	24	9.3%
2. Agree	102	39.4%
3. Neutral	68	26.3%
4. Disagree	58	22.4%
5. Strongly Disagree	2	.8%
6. No Answer	5	1.9%

30. Population growth in this area presents no problem.

1. Strongly Agree	5	1.9%
2. Agree	167	64.5%
3. Neutral	14	5.4%
4. Disagree	63	24.3%
5. Strongly Disagree	10	3.9%
6. No Answer	0	0

The following ideas regarding this area have been presented at one time or another. Please indicate how you feel about proposals relating to these ideas.

31. A system of paved roads into and out of this area.

1. Strongly Favor	43	16.6%
2. Favor	114	44.0%
3. Neutral	16	6.2%
4. Oppose	63	24.3%
5. Strongly Oppose	21	8.1%
6. No Answer	2	.8%

32. Moratorium on all and any coal-related building in this area.

1. Strongly Favor	0	0
2. Favor	0	0
3. Neutral	0	0
4. Oppose	0	0
5. Strongly Oppose	0	0
6. No Answer	0	0

33. Creating of additional wilderness areas near here.

1. Strongly Favor	11	4.2%
2. Favor	67	25.9%
3. Neutral	39	15.1%
4. Oppose	117	45.2%

340

- | | | |
|--------------------|----|------|
| 5. Strongly Oppose | 23 | 8.9% |
| 6. No Answer | 2 | .8% |

34. Concentrating future building in a small number of more urbanized areas and limiting additional development elsewhere.

- | | | |
|--------------------|-----|-------|
| 1. Strongly Favor | 21 | 8.1% |
| 2. Favor | 126 | 48.6% |
| 3. Neutral | 47 | 18.1% |
| 4. Oppose | 52 | 20.1% |
| 5. Strongly Oppose | 4 | 1.5% |
| 6. No Answer | 9 | 3.5% |

35. Requiring builders to dedicate for public use a prescribed number of acres.

- | | | |
|--------------------|-----|-------|
| 1. Strongly Favor | 26 | 10.0% |
| 2. Favor | 113 | 43.6% |
| 3. Neutral | 37 | 14.3% |
| 4. Oppose | 70 | 27.0% |
| 5. Strongly Oppose | 9 | 3.5% |
| 6. No Answer | 4 | 6.5% |

36. Closing additional lands to snowmobile and trailbikes.

- | | | |
|--------------------|----|-------|
| 1. Strongly Favor | 17 | 6.6% |
| 2. Favor | 77 | 29.7% |
| 3. Neutral | 54 | 20.8% |
| 4. Oppose | 94 | 36.3% |
| 5. Strongly Oppose | 13 | 5.0% |
| 6. No Answer | 4 | 1.5% |

How would you feel about a moratorium for a limited time on:

37. Further leasing of state and federal coal lands to energy companies.

- | | | |
|--------------------|----|-------|
| 1. Strongly Favor | 82 | 31.7% |
| 2. Favor | 80 | 30.9% |
| 3. Neutral | 45 | 17.4% |
| 4. Oppose | 43 | 16.6% |
| 5. Strongly Oppose | 7 | 2.7% |
| 6. No Answer | 2 | .8% |

38. Building any more power plants in this area.

1. Strongly Favor	90	34.7%
2. Favor	84	32.4%
3. Neutral	30	11.6%
4. Oppose	48	18.5%
5. Strongly Oppose	6	2.3%
6. No Answer	1	.4%

39. The development of new strip mines in this area.

1. Strongly Favor	87	33.6%
2. Favor	82	31.7%
3. Neutral	38	14.7%
4. Oppose	43	16.6%
5. Strongly Oppose	8	3.1%
6. No Answer	1	.4%

40. Additional railroads, power lines or pipe lines associated with coal development.

1. Strongly Favor	86	33.2%
2. Favor	78	30.1%
3. Neutral	39	15.1%
4. Oppose	47	18.1%
5. Strongly Oppose	7	2.7%
6. No Answer	2	.8%

41. Even when carefully controlled industrialization is likely to upset a community.

1. Strongly Agree	54	20.8%
2. Agree	160	61.8%
3. Neutral	12	4.6%
4. Disagree	27	10.4%
5. Strongly Disagree	2	.8%
6. No Answer	4	1.5%

42. Man should use scientific knowledge to deal with problems whenever and wherever possible.

1. Strongly Agree	40	15.4%
2. Agree	176	68.0%
3. Neutral	20	7.7%
4. Disagree	20	7.7%
5. Strongly Disagree	1	.4%
6. No Answer	2	.8%

43. State professional planners should not be involved with development in Montana.

1. Strongly Agree	11	4.2%
2. Agree	57	22.0%
3. Neutral	27	10.4%
4. Disagree	146	56.4%
5. Strongly Disagree	13	5.0%
6. No Answer	5	1.9%

44. Federal professional planners should not be involved with development in Montana.

1. Strongly Agree	31	12.0%
2. Agree	119	45.9%
3. Neutral	20	7.7%
4. Disagree	75	29.0%
5. Strongly Disagree	9	3.5%
6. No Answer	5	1.9%

45. If there is going to be additional development around here, individual communities rather than State or Federal governments should control and conduct it.

1. Strongly Agree	29	11.2%
2. Agree	134	51.7%
3. Neutral	32	12.4%
4. Disagree	56	21.6%
5. Strongly Disagree	3	1.2%
6. No Answer	5	1.9%

46. There is very little that persons like me can do to stop inflation.

1. Strongly Agree	14	5.4%
2. Agree	154	59.5%
3. Neutral	17	6.6%
4. Disagree	63	24.3%
5. Strongly Disagree	8	3.1%
6. No Answer	3	1.2%

47. A lasting world peace can be achieved by those of us who work towards it.

1. Strongly Agree	13	5.0%
2. Agree	150	57.9%
3. Neutral	25	7.7%
4. Disagree	63	24.3%
5. Strongly Disagree	3	1.2%
6. No Answer	5	1.9%

48. This world is run by the few people in power and there is not much a person like me can do about it.

1. Strongly Agree	9	3.5%
2. Agree	103	39.8%
3. Neutral	22	8.5%
4. Disagree	115	44.4%
5. Strongly Agree	7	2.7%
6. No Answer	3	1.2%

49. Not much information concerning mining and related developments is being made available to the general public.

1. Strongly Agree	16	6.2%
2. Agree	104	40.2%
3. Neutral	24	9.3%
4. Disagree	101	39.0%
5. Strongly Disagree	9	3.5%
6. No Answer	5	1.9%

50. Since the Nixon administration is pushing very hard for energy self-sufficiency by 1980, Montana coal should be mined.

1. Strongly Agree	10	3.4%
2. Agree	100	38.6%
3. Neutral	37	14.3%
4. Disagree	76	29.3%
5. Strongly Disagree	32	12.4%
6. No Answer	4	1.5%

51. The choice for strip mining in agricultural areas means there will be less food production both now and in the future.

1. Strongly Agree	34	13.1%
2. Agree	115	44.4%
3. Neutral	21	8.1%
4. Disagree	77	29.7%
5. Strongly Disagree	6	2.3%
6. No Answer	6	2.3%

52. As badly as we need new industry and jobs, we cannot afford to sacrifice our clean air and agricultural land to attain them.

1. Strongly Agree	47	18.1%
2. Agree	142	54.8%
3. Neutral	26	10.0%
4. Disagree	39	15.1%
5. Strongly Disagree	2	.8%
6. No Answer	3	1.2%

53. Industries should be forced to shut down if they fail to meet governmental pollution standards.

1. Strongly Agree	66	25.5%
2. Agree	168	64.9%
3. Neutral	11	4.2%
4. Disagree	14	5.4%
5. Strongly Disagree	0	0
6. No Answer	0	0

54. One person's right to a clean environment is not as important as another's right to gainful employment.

1. Strongly Agree	6	2.3%
2. Agree	44	17.0%
3. Neutral	53	20.5%
4. Disagree	114	44.0%
5. Strongly Disagree	29	11.2%
6. No Answer	19	5.0%

55. None of us has the right to interfere with the nation's need for western coal.

1. Strongly Agree	2	.8%
2. Agree	29	11.2%
3. Neutral	28	10.8%
4. Disagree	147	56.8%
5. Strongly Disagree	49	18.9%
6. No Answer	4	1.5%

56. Where natural resources are privately owned, neither neighbors nor government should have any say over how the natural resources are used.

1. Strongly Agree	36	13.9%
2. Agree	119	45.9%
3. Neutral	21	8.1%
4. Disagree	68	26.3%
5. Strongly Disagree	10	3.9%
6. No Answer	5	1.9%

57. More and more I feel helpless in the face of what is happening in the world today.

1. Strongly Agree	12	4.6%
2. Agree	155	59.8%
3. Neutral	23	8.9%
4. Disagree	63	24.3%
5. Strongly Disagree	3	1.2%
6. No Answer	3	1.2%

58. In general, I am satisfied with my situation in life.

1. Strongly Agree	33	12.7%
2. Agree	183	70.7%
3. Neutral	8	3.1%
4. Disagree	32	0
5. Strongly Disagree	2	0
6. No Answer	1	.4%

One of the most critical issues in this area involves coal development. The following questions deal with area-wide planning, which would involve coordination of necessary services with development. Planning also would involve the decision to develop or not to develop.

59. As far as you know, has there been any community or area-wide planning in this area?

1. Yes	98	37.8%	
2. No	158	61.0%	(Skip to response No. 64)
3. No Answer	3	1.2%	

60. How did you find out about these efforts?

1. Direct participation	43
2. Friend, relative or acquaintance	37
3. Newspaper or magazine	29
4. Radio or television	13
5. Other (specify)	11
6. Formal contact	5

61. When did the earliest planning occur, that you heard of?

1. During the past year	28	10.0%
2. Two or three years ago	58	22.4%
3. Four or five years ago	6	2.3%
4. Over five years ago	4	1.5%
5. No Answer	163	62.9%

62. Who or what organization(s) was responsible for the planning?

1. BLM and USFS	32	12.4%
2. Tri County Ranchers Association	4	1.5%
3. Rosebud County Planning Board	12	4.6%
4. County Commissioners	1	.4%
5. Northern Cheyenne Indian Tribe	7	2.7%
6. Concerned Citizens	8	3.1%
7. Northern Plains Resource Council	5	1.9%
8. Coal Companies	6	2.3%
9. Big Horn County Planning Board	2	.8%
10. State of Montana	6	2.3%
11. Montana Dakota Utility	1	.4%
12. Eastern Montana Economic Development Council	1	.4%

63. As far as you know, has any result occurred from the planning?

1. Yes	47	18.1%
2. No	47	18.1%
3. No Answer	165	63.7%

Suppose that professional planners wanted to get involved with planning this area, how would you feel about this idea? How do you think others would feel? (Note: If respondent answers self with Strongly Agree or Agree go to response 68, if respondent answers self with Neutral, Disagree or Strongly Disagree go to response 71.)

64. Self

1. Strongly Agree	25	9.7%
2. Agree	88	34.0%
3. Neutral	62	23.9%
4. Disagree	42	16.2%
5. Strongly Disagree	37	14.3%
6. No Answer	5	1.9%

65. Your best friends

1. Strongly Agree	15	5.8%
2. Agree	46	17.8%
3. Neutral	71	27.4%
4. Disagree	47	18.1%
5. Strongly Disagree	30	11.6%
6. No Answer	50	19.3%

66. The powerful and influential people in this area, i.e., businessmen, politicians, large ranchers.

1. Strongly Agree	12	4.6%
2. Agree	52	20.1%
3. Neutral	59	22.8%
4. Disagree	58	22.4%
5. Strongly Disagree	27	10.4%
6. No Answer	51	19.7%

67. Most people in this area.

1. Strongly Agree	10	3.9%
2. Agree	46	17.8%
3. Neutral	73	28.2%
4. Disagree	70	27.0%
5. Strongly Disagree	26	10.0%
6. No Answer	34	13.1%

(If respondent has indicated support of scientific help for planning) (If not, go to response 71)

68. If opposition to comprehensive planning of this area developed, would you do anything to support the planning?

- | | | | |
|--------------|-----|-------|---------------------|
| 1. Yes | 62 | 23.9% | |
| 2. Uncertain | 48 | 18.5% | (Go to question 76) |
| 3. No Answer | 140 | 54.1% | |

69. If YES, what one or two things would you most likely do?

- | | |
|--|----|
| 1. Call or write or talk to someone involved with the planning | 50 |
| 2. County Agent | 5 |
| 3. Other County Official | 6 |
| 4. State legislator | 11 |
| 5. Governor | 3 |
| 6. Federal legislator | 6 |
| 7. Other federal official | 1 |
| 8. Lawyer | 3 |
| 9. Other (specify) | 3 |

70. Why would you do each of these things?

- | | | |
|--|-----|-------|
| 1. I anticipate it would be effective to do this | 20 | 7.7% |
| 2. Past favor | 0 | 0 |
| 3. Friendship or acquaintance | 2 | .8% |
| 4. Direct relevance to problem | 37 | 14.3% |
| 5. Other | 3 | 1.2% |
| 6. No Answer | 197 | 76.1% |

(If respondent has indicated neutrality or opposition to comprehensive community planning)

71. You indicated before that you do not favor comprehensive area-wide planning. Now, are you likely to actively oppose such a program?

- | | | | |
|--------------|-----|-------|---------------------|
| 1. Yes | 35 | 13.5% | |
| 2. Uncertain | 74 | 28.6% | (Go to question 76) |
| 3. No | 26 | 10.0% | (Go to question 76) |
| 4. No Answer | 124 | 47.9% | |

72. If YES, who would you most likely call, write or talk to involved with the planning?

1. County agent	4	1.5%
2. Other county official	4	1.5%
3. State legislator	12	4.6%
4. Governor	3	1.2%
5. Federal legislator	2	.8%
6. Other federal official	1	.4%
7. Lawyer	3	1.2%
8. Other (specify)	5	1.9%
9. No answer	225	86.9%

73. Why would you do each of these things?

1. Anticipated effectiveness	13	5.0%
2. Past favor	0	0
3. Friendship of acquaintance	0	0
4. Direct relevance to problem	20	7.7%
5. Other	0	0
6. No answer	226	87.3%

The following questions concern establishing comprehensive area-wide planning. Please assume that the planning would be established by scientists who are experts in such matters.

How would you feel about establishing a comprehensive community plan in those parts of the county where growth seems to be a serious problem?

1. Strongly favor
2. Favor
3. Undecided, neutral
4. Oppose
5. Strongly oppose
6. No answer

74. Self

1. Strongly favor	4	1.5%
2. Favor	12	4.6%
3. Undecided, neutral	7	2.7%
4. Oppose	5	1.9%
5. Strongly oppose	5	1.9%
6. No answer	226	87.3%

75. Your best friends

1. Strongly favor	1	.4%
2. Favor	10	3.9%
3. Undecided, neutral	11	4.2%
4. Oppose	4	1.5%
5. Strongly oppose	3	1.2%
6. No answer	230	88.8%

76. Some of the more powerful of influential people around here

1. Strongly favor	1	.4%
2. Favor	9	3.5%
3. Undecided, neutral	9	3.5%
4. Oppose	3	1.2%
5. Strongly oppose	3	1.2%
6. No answer	234	90.3%

77. Most people in this area

1. Strongly favor	1	.4%
2. Favor	10	3.9%
3. Undecided, neutral	8	3.1%
4. Oppose	5	1.9%
5. Strongly oppose	2	.8%
6. No answer	233	90.0%

78. If scientists wanted to develop a comprehensive plan in this area how likely would you be to sign a petition opposing the plan?

1. Definitely sign	19	7.3%
2. Probably sign	26	10.0%
3. Uncertain	119	45.9%
4. Probably not sign	72	27.8%
5. Definitely not sign	18	6.9%
6. No answer	5	1.9%

79. If residents in this area were to vote on whether a comprehensive plan should be adopted, how do you think you would vote?

1. For plan	70	27.0%
2. Uncertain	137	52.9%
3. Against plan	35	13.5%
4. Probably would not vote	13	5.0%
5. No answer	4	1.5%

80. Who do you think will primarily make the final decision whether a comprehensive community plan will be adopted in this area?

1. Local residents	34	13.1%
2. Scientific advisors	1	.4%
3. Local government	13	5.0%
4. State government	22	8.5%
5. Federal government	47	18.1%
6. State and federal government	97	37.5%
7. Other (specify)	5	1.9%
8. Don't know	37	14.3%
9. No answer	3	1.2%

81. Who do you think should primarily make such a decision?

1. Local residents	161	62.2%
2. Scientific advisors	4	1.5%
3. Local government	21	8.1%
4. State government	17	6.6%
5. Federal government	3	1.2%
6. State and federal government	16	6.2%
7. Other (specify)	5	1.9%
8. Don't know	17	6.6%
9. Federal, state and local government	11	4.2%
10. No answer	4	1.5%

82. If a comprehensive plan were developed, would it most likely be of economic benefit or harm to you, or would it probably make no difference?

1. Benefit	46	17.8%
2. Harm	48	18.5%
3. Make no difference	89	34.4%
4. Don't know	75	29.0%
5. No answer	1	.4%

83. Who should be empowered to determine whether or not stripped land has been truly reclaimed?

1. An appropriate state agency, like the Department of Natural Resources	22	8.5%
2. An appropriate federal agency like the Department of Agriculture	7	2.7%

- | | | |
|--|-----|-------|
| 3. The coal company which does the reclamation | 1 | .4% |
| 4. A specially qualified group of Montana agricultural experts who would function as a board of reclamation review | 189 | 73.0% |
| 5. Other (specify) | 5 | 1.9% |
| 6. Residents part of qualified group of agricultural experts | 28 | 10.8% |
| 7. No answer | 7 | 2.7% |

84. Would you say that you have noticed any major changes in the area since you first came here?

- | | | |
|--------------|-----|-------|
| 1. Yes | 169 | 65.3% |
| 2. No | 84 | 32.4% |
| 3. Uncertain | 6 | 2.3% |

85. If YES, do you feel these changes have been for the better or for the worse?

- | | | |
|--------------|----|-------|
| 1. Better | 80 | 30.9% |
| 2. Worse | 47 | 18.1% |
| 3. Uncertain | 50 | 19.3% |
| 4. No answer | 82 | 31.7% |

Now we would like to ask you a few questions related more particularly to strip mining and energy resource development in this area.

86. Decisions about coal related developments should be made on economic grounds only; consideration need not be given to effects on life styles and values of people.

- | | | |
|----------------------|-----|-------|
| 1. Strongly Agree | 2 | .8% |
| 2. Agree | 13 | 5.0% |
| 3. Neutral | 17 | 6.6% |
| 4. Disagree | 137 | 52.9% |
| 5. Strongly Disagree | 88 | 34.0% |
| 6. No Answer | 2 | .8% |

87. The coal companies have no compassion for the land they are attempting to reclaim. They are doing it only because it is required by law.

1. Strongly Agree	56	21.6%
2. Agree	125	48.3%
3. Neutral	27	10.4%
4. Disagree	40	15.4%
5. Strongly Disagree	3	1.2%
6. No Answer	8	3.1%

88. The nation's need for coal is one important consideration on decisions to develop Montana's coal resources.

1. Strongly Agree	16	6.2%
2. Agree	169	65.3%
3. Neutral	18	6.9%
4. Disagree	43	16.6%
5. Strongly Disagree	11	4.2%
6. No Answer	2	.8%

89. When mineral rights agreements were originally signed by land owners and the federal government, there was no concept of strip mining, but it was assumed underground mining might be done someday. Therefore, to strip mine the coal is to violate the original agreement between the landowners and the federal government.

1. Strongly Agree	37	14.3%
2. Agree	103	39.8%
3. Neutral	55	21.2%
4. Disagree	44	17.0%
5. Strongly Disagree	4	1.5%
6. No Answer	16	6.2%

90. Residents are being made to feel guilty for trying to save their lives in the battle against the nation's alleged need for coal versus the lifestyle of a few.

1. Strongly Agree	26	10.0%
2. Agree	120	46.3%
3. Neutral	31	12.0%
4. Disagree	69	26.6%
5. Strongly Disagree	6	2.3%
6. No Answer	7	2.7%

91. Too many rivers and creeks in eastern Montana will be dammed up due to coal industrialization.

1. Strongly Agree	31	12.0%
2. Agree	101	39.0%
3. Neutral	52	20.1%
4. Disagree	63	24.3%
5. Strongly Disagree	4	1.5%
6. No Answer	8	3.1%

92. There are presently enough developed strip mines in eastern Montana.

1. Strongly Agree	45	17.4%
2. Agree	91	35.1%
3. Neutral	61	23.6%
4. Disagree	45	17.4%
5. Strongly Disagree	4	1.5%
6. No Answer	13	5.0%

93. Strip mining is compatible with your views of sound land use management.

1. Strongly Agree	4	1.5%
2. Agree	64	24.7%
3. Neutral	30	11.6%
4. Disagree	89	34.4%
5. Strongly Disagree	64	24.7%
6. No Answer	8	3.1%

94. Eastern Montana coal should be deep mined rather than strip mined.

1. Strongly Agree	8	3.1%
2. Agree	75	29.0%
3. Neutral	63	24.3%
4. Disagree	82	31.7%
5. Strongly Disagree	12	4.6%
6. No Answer	19	7.3%

95. It is difficult to discuss the coal issue frankly, trustingly, and uninhibitedly with friends who hold opposing views, positions or commitments concerning coal development.

1. Strongly Agree	23	8.9%
2. Agree	112	43.2%
3. Neutral	33	12.7%
4. Disagree	81	31.3%

5. Strongly Disagree	5	1.9%
6. No Answer	5	1.9%

96. There is a lot of effort going on by coal, power, and construction company officials to try to bluff, coerce, and even intimidate local residents into doing their bidding.

1. Strongly Agree	29	11.2%
2. Agree	107	41.3%
3. Neutral	52	20.1%
4. Disagree	50	19.3%
5. Strongly Disagree	6	2.3%
6. No Answer	15	5.8%

97. Coal companies have established inroads, and beachheads in coal-laden land by buying or leasing key places and then developing scare rumors and pincer movements to gain control over large chunks of the land for development.

1. Strongly Agree	21	8.1%
2. Agree	109	42.1%
3. Neutral	58	22.4%
4. Disagree	48	18.5%
5. Strongly Disagree	3	1.2%
6. No Answer	20	7.7%

98. Land condemnation threats have been issued to scare ranchers into giving up the fight against coal development.

1. Strongly Agree	14	5.4%
2. Agree	93	35.9%
3. Neutral	59	22.8%
4. Disagree	65	25.1%
5. Strongly Disagree	4	1.5%
6. No Answer	24	9.3%

99. Water that is needed for crops will be used up by the power plant operations.

1. Strongly Agree	28	10.8%
2. Agree	126	49.6%
3. Neutral	34	13.1%
4. Disagree	57	22.0%
5. Strongly Disagree	4	1.5%
6. No Answer	10	3.9%

100. In the long run, I am sure that area residents will be better off if the strip mines are developed.

1. Strongly Agree	4	1.5%
2. Agree	58	22.4%
3. Neutral	40	15.4%
4. Disagree	96	37.1%
5. Strongly Disagree	54	20.8%
6. No Answer	7	2.7%

101. A shift in political power from the ranchers to the new mining industrialists is becoming evident.

1. Strongly Agree	14	5.4%
2. Agree	111	42.9%
3. Neutral	55	21.2%
4. Disagree	58	22.4%
5. Strongly Disagree	4	1.5%
6. No Answer	17	6.6%

102. Coal development entails a sacrifice of recreational values and of future land use possibilities.

1. Strongly Agree	23	8.9%
2. Agree	127	49.0%
3. Neutral	28	10.8%
4. Disagree	66	25.5%
5. Strongly Disagree	4	1.5%
6. No Answer	11	4.2%

103. The removal of the coal seams may cause meadows to dry up and springs to disappear.

1. Strongly Agree	56	21.6%
2. Agree	141	54.4%
3. Neutral	36	13.9%
4. Disagree	15	5.8%
5. Strongly Disagree	2	.8%
6. No Answer	9	3.5%

104. The development of strip mines would be one of the best things that ever happened in our part of the state.

1. Strongly Agree	3	1.2%
2. Agree	25	9.7%
3. Neutral	41	15.8%
4. Disagree	105	40.5%
5. Strongly Disagree	78	30.1%
6. No Answer	7	2.7%

105. In general, most newcomers who live in this area are:

1. Surprisingly friendly and congenial	51	19.7%
2. Desirable neighbors	59	22.8%
3. Socially distant from me	21	8.1%
4. Like tourists passing through	16	6.2%
5. Undesirable neighbors	9	3.5%
6. People with whom I have little in common	48	18.5%
7. No answer	55	21.2%

106. Assuming that Montana is obliged to help the rest of the nation to meet growing energy needs, there remains the question of the reasonable limits of Montana's obligation. That is, how much coal development in Montana is enough, how much is too much?

1. There should be no further development; what we have under way is enough	96	37.1%
2. Further development should be confined to mining and exporting coal	84	32.4%
3. Further development should be confined to mining and mine-mouth power generation	23	8.9%
4. Further development should not be restricted, but should be a direct response to what the rest of the nation says it wants	35	13.5%
5. No answer	21	8.1%

107. What has come to be called the "energy crisis" is:

- | | | |
|--|----|-------|
| 1. Definitely a serious and widespread energy shortage | 21 | 8.1% |
| 2. Probably a serious and widespread energy shortage | 15 | 5.8% |
| 3. Too uncertain a matter for me to pass judgement on | 77 | 29.7% |
| 4. Probably not really a serious and widespread energy shortage at all | 64 | 24.7% |
| 5. Not a serious shortage yet, but will be in the future | 81 | 31.3% |
| 6. No answer | 1 | .4% |

108. In general, and as a rule, who should pay the local economic costs of industrialization of coal resources (e.g., expansion of law enforcement, public health, and education services)?

- | | | |
|--|-----|-------|
| 1. Industry | 100 | 38.6% |
| 2. Local government | 8 | 3.1% |
| 3. State government | 3 | 1.2% |
| 4. Federal government | 17 | 6.6% |
| 5. The people who directly benefit from the power produced by the coal development | 47 | 18.1% |
| 6. All of the above | 76 | 29.3% |
| 7. None of the above (indicate who should pay in this case) | 2 | .8% |
| 8. No answer | 6 | 2.3% |

109. Montana laws are sufficiently strict and enforceable to permit continued power plant construction in this area.

- | | | |
|----------------------|----|-------|
| 1. Strongly Agree | 4 | 1.5% |
| 2. Agree | 38 | 14.7% |
| 3. Neutral | 62 | 23.9% |
| 4. Disagree | 99 | 38.2% |
| 5. Strongly Disagree | 22 | 8.5% |
| 6. No Answer | 34 | 13.1% |

110. We owe it to the rest of the United States to generate electricity here and transmit it to them.

1. Strongly Agree	1	.4%
2. Agree	25	9.7%
3. Neutral	23	8.9%
4. Disagree	134	51.7%
5. Strongly Disagree	66	25.5%
6. No Answer	10	3.9%

111. Miners tend to consider themselves permanent residents of the area and are, in basic social respects, much more like the long-term residents than like construction workers.

1. Strongly Agree	5	1.9%
2. Agree	90	34.7%
3. Neutral	48	18.5%
4. Disagree	70	27.0%
5. Strongly Disagree	16	6.2%
6. No Answer	30	11.6%

112. Judging from what can be observed at Colstrip, Montana Power Company's advertised reclamation claims are certainly believable.

1. Strongly Agree	3	1.2%
2. Agree	47	18.1%
3. Neutral	61	23.6%
4. Disagree	76	29.3%
5. Strongly Disagree	42	16.2%
6. No Answer	30	11.6%

113. Too little attention is being paid to the social costs of coal development which accompany whatever economic benefits coal development is bringing to Rosebud County.

1. Strongly Agree	39	15.1%
2. Agree	136	52.5%
3. Neutral	42	16.2%
4. Disagree	21	8.1%
5. Strongly Disagree	4	1.5%
6. No Answer	17	6.6%

114. In general, Montanans who live outside of the area where coal resources are being developed are poorly informed about what is actually happening in this area.

1. Strongly Agree	27	10.4%
2. Agree	161	62.2%
3. Neutral	20	7.7%
4. Disagree	39	15.1%
5. Strongly Disagree	1	.4%
6. No Answer	11	4.2%

115. Power companies should never be granted the right to use eminent domain to obtain rights of way for power lines. Instead, a negotiation procedure should be used, one which allows each landowner to have the final word concerning the use of the land..

1. Strongly Agree	52	20.1%
2. Agree	145	56.0%
3. Neutral	17	6.6%
4. Disagree	38	14.7%
5. Strongly Disagree	2	.8%
6. No Answer	5	1.9%

116. We owe it to the rest of Montana to develop more industry for the state.

1. Strongly Agree	3	1.2%
2. Agree	57	22.0%
3. Neutral	33	12.7%
4. Disagree	129	49.8%
5. Strongly Disagree	31	12.0%
6. No Answer	6	2.3%

117. Teachers treat "temporary" children differently than they do "permanent" children.

1. Strongly Agree	2	.8%
2. Agree	32	12.4%
3. Neutral	59	22.8%
4. Disagree	124	47.9%
5. Strongly Disagree	8	3.1%
6. No Answer	34	13.1%

118. Newcomers are well accepted into church activities if they want to be.

1. Strongly Agree	15	5.8%
2. Agree	190	73.4%
3. Neutral	27	10.4%
4. Disagree	5	1.9%
5. Strongly Disagree	1	.4%
6. No Answer	21	8.1%

119. The life-styles and values of construction workers are at least as desirable as those of permanent residents.

1. Strongly Agree	1	.4%
2. Agree	63	24.3%
3. Neutral	46	17.8%
4. Disagree	108	41.7%
5. Strongly Disagree	17	6.6%
6. No Answer	24	9.3%

120. People who object to coal development in this area should move somewhere else.

1. Strongly Agree	3	1.2%
2. Agree	19	7.3%
3. Neutral	12	4.6%
4. Disagree	125	48.3%
5. Strongly Disagree	94	36.3%
6. No Answer	6	2.3%

121. Because industries have to be competitive, it is unfair to expect them to tell the public about their expansion plans.

1. Strongly Agree	3	1.2%
2. Agree	25	9.7%
3. Neutral	18	6.9%
4. Disagree	169	65.3%
5. Strongly Disagree	36	13.9%
6. No Answer	8	3.1%

122. Decisions about whether to permit further coal mining and power generation should not be influenced by people like me.

1. Strongly Agree	2	.8%
2. Agree	20	7.7%
3. Neutral	11	4.2%
4. Disagree	157	60.6%

- | | | |
|----------------------|----|-------|
| 5. Strongly Disagree | 66 | 25.5% |
| 6. No Answer | 3 | 1.2% |

123. Decisions about the rate at which further coal mining and power generation should be permitted should not be influenced by people like me.

- | | | |
|----------------------|-----|-------|
| 1. Strongly Agree | 2 | .8% |
| 2. Agree | 21 | 8.1% |
| 3. Neutral | 19 | 7.3% |
| 4. Disagree | 150 | 57.9% |
| 5. Strongly Disagree | 50 | 19.3% |
| 6. No Answer | 17 | 6.6% |

124. Decisions about whether to permit further coal mining and power generation will not be affected by what people in this area think should be done, but by the pressures exerted by industrial giants.

- | | | |
|----------------------|-----|-------|
| 1. Strongly Agree | 6 | 2.3% |
| 2. Agree | 118 | 45.6% |
| 3. Neutral | 25 | 9.7% |
| 4. Disagree | 87 | 33.6% |
| 5. Strongly Disagree | 12 | 4.6% |
| 6. No Answer | 11 | 4.2% |

125. Your family ties will be affected by the coal development and the population influx.

- | | | |
|----------------------|-----|-------|
| 1. Strongly Agree | 15 | 5.8% |
| 2. Agree | 105 | 40.5% |
| 3. Neutral | 20 | 7.7% |
| 4. Disagree | 108 | 41.7% |
| 5. Strongly Disagree | 5 | 1.9% |
| 6. No Answer | 6 | 2.3% |

126. Power and coal companies should be required to reveal their long-range plans so that state and local officials can evaluate the plans.

- | | | |
|----------------------|-----|-------|
| 1. Strongly Agree | 44 | 17.0% |
| 2. Agree | 189 | 73.0% |
| 3. Neutral | 11 | 4.2% |
| 4. Disagree | 9 | 3.5% |
| 5. Strongly Disagree | 2 | .8% |
| 6. No Answer | 4 | 1.5% |

127. You can't stop progress.

1. Strongly Agree	15	5.8%
2. Agree	164	63.3%
3. Neutral	21	8.1%
4. Disagree	45	7.4%
5. Strongly Disagree	6	2.3%
6. No Answer	8	3.1%

128. In a democratic government, each person should have one vote.

1. Strongly Agree	22	8.5%
2. Agree	213	82.2%
3. Neutral	8	3.1%
4. Disagree	8	3.1%
5. Strongly Disagree	3	1.2%
6. No Answer	5	1.9%

129. It is likely that the four power generating units and the related strip mining activities which Montana Power Company wants could operate in this area without harmfully affecting existing ranching operations.

1. Strongly Agree	5	1.9%
2. Agree	57	22.0%
3. Neutral	33	12.7%
4. Disagree	109	42.1%
5. Strongly Disagree	43	16.6%
6. No Answer	12	4.6%

130. Strip mining would be just as expensive as deep mining if coal companies paid the full costs of such things as rendering the stripped land useless for agriculture for many years, displacing agricultural people from their land for many years, putting the stripped land into low tax status for many years, and the like.

1. Strongly Agree	16	6.2%
2. Agree	123	47.5%
3. Neutral	56	21.6%
4. Disagree	32	12.4%
5. Strongly Disagree	3	1.2%
6. No Answer	29	11.2%

131. Strip mining Montana coal is preferred to deep mining it because stripping is more economical for the coal company and safer for the miners.

1. Strongly Agree	13	5.0%
2. Agree	194	74.9%
3. Neutral	26	10.0%
4. Disagree	9	3.5%
5. Strongly Disagree	6	2.3%
6. No Answer	11	4.2%

132. A shift in political power from townspeople to ranchers is becoming evident.

1. Strongly Agree	3	1.2%
2. Agree	38	14.7%
3. Neutral	41	15.8%
4. Disagree	121	46.7%
5. Strongly Disagree	41	15.8%
6. No Answer	15	5.8%

133. National energy needs can best be met by:

1. Increasing strip mining activities in this area	25	9.7%
2. Increasing the number of generating plants in this area	5	1.9%
3. Individuals and families conserving energy	29	11.2%
4. Industry and commercial institutions conserving energy	27	10.4%
5. Developing alternative energy sources such as sun and wind	143	55.2%
6. All of the above	15	5.8%
7. No answer	15	5.8%

134. The people who live in this area should have a stronger voice in making decisions about:

1. Actions of county commissioners	51
2. Actions of city council	11
3. Policies for town of Col-strip	16

4. Operation of local school	17
5. The rate of increased industrialization	118
6. The use of state and federal lands	71
7. The use of neighbors' lands	4
8. Coal leasing on state and federal lands	91
9. Coal leasing on neighbors' lands	11
10. People already have enough input into decisions being made	41

135. How satisfied are you with the influence you have on local government?

1. Very satisfied	1	
2. Satisfied	90	
3. Uncertain, neutral	90	
4. Unsatisfied	52	
5. Very unsatisfied	22	
6. No Answer	4	1.5%

136. Ranch land which has been strip mined can be considered reclaimed when:

1. It turns green again	1	.4%
2. The mining company says it is reclaimed	1	.4%
3. Native grasses are restored and the land can withstand normal grazing pressure without being irrigated or fertilized	231	89.2%
4. It meets government standards for reclamation	6	2.3%
5. Something other than above (specify)	5	1.9%
6. Don't know	12	4.6%
7. No answer	3	1.2%

137. I have recently (within the last six months) seen:

1. A strip mine	43	16.6%
2. Colstrip	20	7.7%
3. A reclamation site	2	.8%
4. More than one of the above	163	62.9%
5. None of the above	29	11.2%
6. No Answer	2	.8%

138. At this time the area's principal economic support comes largely from:

1. Mining	9	3.5%
2. Agriculture	230	88.8%
3. Industrial construction	5	1.9%
4. Unknown	13	5.0%
5. No Answer	2	.8%

139. The tax revenue from the coal development is being distributed:

1. Very fairly	0	0
2. More fairly than unfairly	6	2.3%
3. Neither fairly or unfairly	11	4.2%
4. More unfairly than fairly	30	11.6%
5. Very unfairly	30	11.6%
6. No opinion	160	62.2%
7. No answer	21	8.1%

140. Increased needs for recreation facilities should be provided by:

1. Construction companies	32	12.4%
2. Montana Power Company and Western Energy	79	30.5%
3. County taxes	24	9.3%
4. Other (specify)	15	5.8%
5. More than one of the above	88	33.9%
6. No answer	21	8.1%

141. How concerned about the environment (air, soil, water, plants, animals) do you thing the power and coal companies in the Colstrip vicinity really are:

1. Very concerned	14	5.4%
2. Concerned	65	25.1%
3. Neutral, neither concerned nor unconcerned	57	22.0%
4. Very unconcerned	79	30.5%

- | | | |
|---------------|----|-------|
| 5. No opinion | 35 | 13.5% |
| 6. No answer | 9 | 3.5% |

Now we would like to ask you a few final questions regarding development in and around Rosebud County.

142. How would the building and operation of units 3 and 4 affect the stability of your life?

- | | | |
|-----------------------------------|----|-------|
| 1. Greatly increase the stability | 7 | 2.7% |
| 2. Somewhat increase it | 14 | 5.4% |
| 3. No effect on the stability | 91 | 35.1% |
| 4. Somewhat decrease it | 34 | 13.1% |
| 5. Decrease the stability greatly | 32 | 12.4% |
| 6. No opinion | 44 | 17.0% |
| 7. No answer | 37 | 14.3% |

Please answer the following questions as Very Beneficial, Beneficial, Neither or Neutral, Detrimental, Very Detrimental, No Answer.

143. During the construction phase of units 3 and 4, what type of an effect would the population influx have on the area?

- | | | |
|-----------------------|----|-------|
| 1. Very Beneficial | 1 | .4% |
| 2. Beneficial | 27 | 10.4% |
| 3. Neither or Neutral | 38 | 14.7% |
| 4. Detrimental | 96 | 37.1% |
| 5. Very Detrimental | 48 | 18.5% |
| 6. No Answer | 49 | 18.9% |

144. How would units 3 and 4 affect the distribution of tax revenues to local areas?

- | | | |
|-----------------------|----|-------|
| 1. Very Beneficial | 4 | 1.5% |
| 2. Beneficial | 43 | 16.6% |
| 3. Neither or Neutral | 75 | 29.0% |
| 4. Detrimental | 30 | 11.6% |
| 5. Very Detrimental | 16 | 6.2% |
| 6. No Answer | 91 | 35.1% |

145. How would units 3 and 4 affect job security in the area?

1. Very Beneficial	11	4.2%
2. Beneficial	109	42.1%
3. Neither or Neutral	47	18.1%
4. Detrimental	25	9.7%
5. Very Detrimental	6	2.3%
6. No Answer	61	23.6%

146. How would units 3 and 4 affect your job security?

1. Very Beneficial	3	1.2%
2. Beneficial	20	7.7%
3. Neither or Neutral	162	62.5%
4. Detrimental	11	4.2%
5. Very Detrimental	10	3.9%
6. No Answer	53	20.5%

147. During the operation phase of units 3 and 4, what type of an effect would the population influx have on the area?

1. Very Beneficial	3	1.2%
2. Beneficial	33	12.7%
3. Neither or Neutral	53	20.5%
4. Detrimental	82	31.7%
5. Very Detrimental	29	11.2%
6. No Answer	59	22.8%

148. Over the long range, say thirty to forty years, units 3 and 4 would have what economic effect on this area?

1. Very Beneficial	2	.8%
2. Beneficial	72	27.8%
3. Neither or Neutral	55	21.2%
4. Detrimental	37	14.3%
5. Very Detrimental	32	12.4%
6. No Answer	61	23.6%

149. Over the short run, say five to ten years, units 3 and 4 would have what economic effect on this area?

1. Very Beneficial	1	.4%
2. Beneficial	70	27.0%
3. Neither or Neutral	40	15.4%
4. Detrimental	59	22.8%
5. Very Detrimental	34	13.1%
6. No Answer	55	21.2%

150. Units 3 and 4 would have what kind of effect on the quantity of water available for agricultural use in this area?

1. Very Beneficial	0	0
2. Beneficial	5	1.9%
3. Neither or Neutral	68	26.3%
4. Detrimental	97	37.5%
5. Very Detrimental	46	17.8%
6. No Answer	43	16.6%

151. Units 3 and 4 would affect the water quality of the area.

1. Very Beneficial	2	.8%
2. Beneficial	5	1.9%
3. Neither or Neutral	71	27.4%
4. Detrimental	100	38.6%
5. Very Detrimental	39	15.1%
6. No Answer	42	16.2%

152. If units 3 and 4 are built, what would be the effect on the quality of education at the Colstrip school?

1. Very Beneficial	2	.8%
2. Beneficial	29	11.2%
3. Neither or Neutral	54	20.9%
4. Detrimental	75	29.0%
5. Very Detrimental	41	15.8%
6. No Answer	58	22.4%

153. Units 3 and 4 would have what kind of an effect on the air quality where you live?

1. Very Beneficial	0	0
2. Beneficial	0	0
3. Neither or Neutral	76	29.3%
4. Detrimental	96	37.1%
5. Very Detrimental	41	15.8%
6. No Answer	46	17.8%

154. The building and operation of units 3 and 4 would have what kind of an effect on the air quality of the area in general?

1. Very Beneficial	0	0
2. Beneficial	0	0
3. Neither or Neutral	43	16.6%
4. Detrimental	122	47.1%

- | | | |
|---------------------|----|-------|
| 5. Very Detrimental | 48 | 18.5% |
| 6. No Answer | 46 | 17.8% |

155. Because the construction of units 3 and 4 will result in increased strip mining, permission for construction of units 3 and 4 should be:

- | | | |
|---|----|-------|
| 1. Granted now | 20 | 7.7% |
| 2. Delayed until effects of strip mining on ground water supplies are known | 52 | 20.1% |
| 3. Delayed until more is known about reclamation | 36 | 13.9% |
| 4. Delayed until impact studies such as the Decker-Birney study are done in other areas | 47 | 18.1% |
| 5. Delayed until the effects of 1 and 2 are known | 14 | 5.4% |
| 6. Not be built at all | 56 | 21.6% |
| 7. No answer | 34 | 13.1% |

156. The shopping center at Colstrip is being built with the financial assistance of industrial revenue bonds issued by Rosebud County. This is:

- | | | |
|----------------------------|-----|-------|
| 1. Good for taxpayers | 32 | 12.4% |
| 2. Bad for taxpayers | 67 | 25.9% |
| 3. Not affecting taxpayers | 22 | 8.5% |
| 4. Unknown | 105 | 40.5% |
| 5. No answer | 33 | 12.7% |

157. How large do you think the population influx in the county would be during the construction phase of units 3 and 4?

- | | | |
|------------------|-----|-------|
| 1. Over 4,000 | 28 | 10.8% |
| 2. 3,000 - 4,000 | 35 | 13.5% |
| 3. 2,000 - 3,000 | 25 | 9.7% |
| 4. 1,000 - 2,000 | 23 | 8.9% |
| 5. Under 1,000 | 6 | 2.3% |
| 6. No idea | 117 | 45.2% |
| 7. No answer | 25 | 9.7% |

158. I believe that units 3 and 4 should:

- | | | |
|--|-----|-------|
| 1. Be built unconditionally | 11 | 4.2% |
| 2. Be built if the state can enforce strong controls | 36 | 13.9% |
| 3. Not be built until the effects of units 1 and 2 are known | 100 | 38.6% |
| 4. Not be built at all | 92 | 35.5% |
| 5. No answer | 20 | 7.7% |

159. Most of my acquaintances believe that units 3 and 4 should:

- | | | |
|--|-----|-------|
| 1. Be built unconditionally | 6 | 2.3% |
| 2. Be built if the state can enforce strong controls | 25 | 9.7% |
| 3. Not be built until the effects of units 1 and 2 are known | 78 | 30.1% |
| 4. Not be built at all | 101 | 39.0% |
| 5. No answer | 49 | 18.9% |

160. Units 3 and 4 should be approved if (check 1 or 2 most important answers)

- | | |
|--|-----|
| 1. Air and water pollution controls are guaranteed even though many more people will move into this area | 56 |
| 2. Taxes will decrease even though air and water effects are unknown beyond present knowledge | 6 |
| 3. The total population in this area will increase although the number of ranch units will be decreased | 4 |
| 4. More goods and services will be available but opportunities for rural recreation and rural lifestyles will decrease | 6 |
| 5. Only if most people in this area agree to them | 86 |
| 6. Should not be approved | 100 |
| 7. No answer | 49 |

161. Units 3 and 4 should be delayed until (check 1 or 2 most important answers):

- | | |
|---|-----|
| 1. A way is found to involve people who will be affected in decision-making processes | 20 |
| 2. More is known about the effects of units 1 and 2 on air and water | 175 |
| 3. More is known about water use needs from Yellowstone River | 29 |
| 4. School facilities catch up | 17 |
| 5. More is known about the impact on Indian reservations | 6 |
| 6. More is known about social costs of units 1 and 2 | 41 |
| 7. Better living conditions are provided for construction workers | 4 |
| 8. Land reclamation is assured | 112 |
| 9. Should not be delayed | 14 |
| 10. Should not be built | 123 |

162. Judging from your observations of how Colstrip has developed, how sensitive to the needs and concerns of people who live close together do you think Montana Power is?

- | | | |
|--------------------------------------|----|-------|
| 1. Very Sensitive | 6 | 2.3% |
| 2. Sensitive | 46 | 17.8% |
| 3. Neither Sensitive nor Insensitive | 54 | 20.8% |
| 4. Insensitive | 66 | 25.5% |
| 5. Very Insensitive | 43 | 16.6% |
| 6. No Answer | 44 | 17.0% |

163. How successful do you think the land reclamation program in this area is going to be?

- | | | |
|--|----|-------|
| 1. Very Successful | 5 | 1.9% |
| 2. Successful | 63 | 24.3% |
| 3. Neither Successful nor Unsuccessful | 41 | 15.8% |
| 4. Unsuccessful | 63 | 24.3% |
| 5. Very Unsuccessful | 57 | 22.0% |
| 6. No Answer | 30 | 11.6% |

164. If units 3 and 4 are constructed, my taxes probably will:

1. Go down substantially	4	1.5%
2. Go down slightly	18	6.9%
3. Be unaffected	47	18.1%
4. Go up slightly	62	23.9%
5. Go up substantially	81	31.3%
6. No answer	47	18.1%

Please answer each of the following questions as Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree, No Answer:

165. Burlington Northerns' reputation among landowners in the vicinity of Colstrip has definitely improved as coal development has gotten underway.

1. Strongly Agree	1	.4%
2. Agree	13	5.0%
3. Neutral	84	32.4%
4. Disagree	60	23.2%
5. Strongly Disagree	10	3.3%
6. No Answer	91	35.1%

166. The town of Colstrip is a good example for showing that Montana Power Company is more interested in providing a good community than in earning dollars.

1. Strongly Agree	1	.4%
2. Agree	7	2.7%
3. Neutral	34	13.1%
4. Disagree	108	41.7%
5. Strongly Disagree	56	21.6%
6. No Answer	53	20.5%

167. In general and as a rule, the people who receive energy from coal should pay the local social costs ("people pollution" and adverse economic effects, etc.).

1. Strongly Agree	24	9.3%
2. Agree	127	49.0%
3. Neutral	29	11.2%
4. Disagree	39	15.1%
5. Strongly Disagree	4	1.5%
6. No Answer	36	13.9%

168. If units 3 and 4 are built, Colstrip and vicinity would no longer be a desirable place for you to live.

1. Strongly Agree	44	17.0%
2. Agree	79	30.5%
3. Neutral	37	14.3%
4. Disagree	41	15.8%
5. Strongly Disagree	3	1.2%
6. No Answer	55	21.2%

169. If units 3 and 4 are constructed, juvenile delinquency rate would not noticeably increase.

1. Strongly Agree	2	.8%
2. Agree	22	8.5%
3. Neutral	24	9.3%
4. Disagree	131	50.6%
5. Strongly Disagree	29	11.2%
6. No Answer	51	19.7%

170. Highway 315 in the vicinity of Colstrip is no more Montana Power Company's responsibility than that of others in the county. Accordingly, Montana Power should not be asked or required to pay a significant share of the cost of repairing the road damage its industrial activities have caused.

1. Strongly Agree	7	2.7%
2. Agree	33	12.7%
3. Neutral	16	6.2%
4. Disagree	116	44.8%
5. Strongly Disagree	62	23.9%
6. No Answer	25	9.7%

171. We Montanans need more electricity and we should obtain it as Montana Power suggests we should, by building additional power generating facilities at Colstrip.

1. Strongly Agree	1	.4%
2. Agree	36	13.9%
3. Neutral	37	14.3%
4. Disagree	114	44.0%
5. Strongly Disagree	41	15.8%
6. No Answer	30	11.6%

172. People who live in the vicinity of Colstrip should have a significant voice in the decision concerning whether or not to locate units 3 and 4 there (here).

1. Strongly Agree	44	17.0%
2. Agree	150	57.9%
3. Neutral	20	7.7%
4. Disagree	16	6.2%
5. Strongly Disagree	0	0
6. No Answer	29	11.2%

173. Units 3 and 4 should be built close to those who will use most of the electricity which these units will generate.

1. Strongly Agree	45	17.4%
2. Agree	121	46.7%
3. Neutral	27	10.4%
4. Disagree	25	9.7%
5. Strongly Disagree	2	.8%
6. No Answer	39	15.1%

174. It is a good idea to build power plants such as units 3 and 4 in Montana because the people of the state will benefit from their contributions to the tax base and to employment more than they will suffer from damage to the natural environment and to their rural way of life.

1. Strongly Agree	3	1.2%
2. Agree	39	15.1%
3. Neutral	30	11.6%
4. Disagree	93	35.9%
5. Strongly Disagree	50	19.3%
6. No Answer	44	17.0%

175. If units 3 and 4 are built, the quality of my life would certainly improve.

1. Strongly Agree	2	.8%
2. Agree	8	3.1%
3. Neutral	35	13.5%
4. Disagree	119	45.9%
5. Strongly Disagree	53	20.5%
6. No Answer	42	16.2%

176. If units 3 and 4 are approved, the impact will not last more than a few years and then the land and our living conditions will return to normal.

1. Strongly Agree	3	1.2%
2. Agree	19	7.3%
3. Neutral	22	8.5%
4. Disagree	123	47.5%
5. Strongly Disagree	46	17.8%
6. No Answer	46	17.8%

177. Ranch life around here will not be greatly affected if units 3 and 4 are approved.

1. Strongly Agree	3	1.2%
2. Agree	34	13.1%
3. Neutral	23	8.9%
4. Disagree	118	45.6%
5. Strongly Disagree	43	16.6%
6. No Answer	38	14.7%

178. When units 1 and 2 become operational, air quality will not be greatly affected.

1. Strongly Agree	5	1.9%
2. Agree	32	12.4%
3. Neutral	35	13.5%
4. Disagree	110	42.5%
5. Strongly Disagree	38	14.7%
6. No Answer	39	15.1%

179. When units 1 and 2 become operational, water quality will not be greatly affected.

1. Strongly Agree	6	2.3%
2. Agree	26	10.0%
3. Neutral	46	17.8%
4. Disagree	102	39.4%
5. Strongly Disagree	36	13.9%
6. No Answer	43	16.6%

180. Old-timers around here have too much control over decisions affecting newcomers.

1. Strongly Agree	2	.8%
2. Agree	17	6.6%
3. Neutral	24	9.3%

- | | | |
|----------------------|-----|-------|
| 4. Disagree | 151 | 58.3% |
| 5. Strongly Disagree | 40 | 15.4% |
| 6. No Answer | 25 | 9.7% |
181. It would be better for the construction of units 3 and 4 to be in a company-owned town because it would prevent growth of shanty towns and development would be more orderly.
- | | | |
|----------------------|-----|-------|
| 1. Strongly Agree | 5 | 1.9% |
| 2. Agree | 107 | 41.3% |
| 3. Neutral | 41 | 15.8% |
| 4. Disagree | 47 | 18.1% |
| 5. Strongly Disagree | 9 | 3.5% |
| 6. No Answer | 50 | 19.3% |
182. Most of those employed in construction of units 1 and 2 are Montanans.
- | | | |
|----------------------|-----|-------|
| 1. Strongly Agree | 0 | 0 |
| 2. Agree | 18 | 6.9% |
| 3. Neutral | 54 | 20.8% |
| 4. Disagree | 72 | 27.8% |
| 5. Strongly Disagree | 14 | 5.4% |
| 6. No Answer | 101 | 39.0% |
183. Most of those employed on construction of units 1 and 2 are well qualified for the jobs they are doing.
- | | | |
|----------------------|----|-------|
| 1. Strongly Agree | 2 | .8% |
| 2. Agree | 66 | 25.5% |
| 3. Neutral | 72 | 27.8% |
| 4. Disagree | 20 | 7.7% |
| 5. Strongly Disagree | 2 | .8% |
| 6. No Answer | 97 | 37.5% |
184. There is frequent turnover among those employed on plant construction and related construction.
- | | | |
|----------------------|----|-------|
| 1. Strongly Agree | 8 | 3.1% |
| 2. Agree | 98 | 37.8% |
| 3. Neutral | 51 | 17.7% |
| 4. Disagree | 13 | 5.0% |
| 5. Strongly Disagree | 1 | 1.4% |
| 6. No Answer | 88 | 34.0% |

185. The kind of people employed at construction sites around here are not generally as good as they might be because more skilled workers take jobs with better working conditions.

1. Strongly Agree	2	.8%
2. Agree	67	25.9%
3. Neutral	60	23.2%
4. Disagree	52	20.1%
5. Strongly Disagree	0	0
6. No Answer	78	30.1%

186. Living conditions in the construction trailer courts are not good because adequate facilities have not been provided for the workers.

1. Strongly Agree	10	3.9%
2. Agree	85	32.8%
3. Neutral	55	21.2%
4. Disagree	25	9.7%
5. Strongly Disagree	0	0
6. No Answer	84	32.4%

187. Children of newcomers make the schools more interesting.

1. Strongly Agree	2	.8%
2. Agree	73	28.2%
3. Neutral	62	23.9%
4. Disagree	51	19.7%
5. Strongly Disagree	7	2.7%
6. No Answer	64	24.7%

188. Children of some newcomers become leaders in school.

1. Strongly Agree	0	0
2. Agree	52	20.1%
3. Neutral	81	31.3%
4. Disagree	51	19.7%
5. Strongly Disagree	2	.8%
6. No Answer	73	28.2%

189. Miners' children do not accept construction children in their activities very readily.

1. Strongly Agree	1	.4%
2. Agree	12	4.6%
3. Neutral	90	34.7%
4. Disagree	45	17.4%
5. Strongly Disagree	0	0
6. No Answer	111	42.9%

190. Eastern Montana's resources (land, minerals, water, recreational opportunities) are being exploited by outsiders.

1. Strongly Agree	43	16.6%
2. Agree	128	49.4%
3. Neutral	29	11.2%
4. Disagree	21	8.1%
5. Strongly Disagree	2	.8%
6. No Answer	36	13.9%

191. The construction of units 3 and 4 would cause serious crowding of the schools.

1. Strongly Agree	49	18.9%
2. Agree	153	59.1%
3. Neutral	9	3.5%
4. Disagree	2	.8%
5. Strongly Disagree	0	0
6. No Answer	46	17.8%

192. The development of units 3 and 4 would improve the quality of the area's education.

1. Strongly Agree	0	0
2. Agree	24	9.3%
3. Neutral	39	15.1%
4. Disagree	114	44.0%
5. Strongly Disagree	25	9.7%
6. No Answer	57	22.0%

193. The building of units 3 and 4 would increase the amount that you pay to support the schools.

1. Strongly Agree	24	9.3%
2. Agree	129	49.8%
3. Neutral	24	9.3%
4. Disagree	28	10.8%

5. Strongly Disagree	0	0
6. No Answer	54	20.8%

194. The building of units 3 and 4 would improve the quality and availability of medical services.

1. Strongly Agree	1	.4%
2. Agree	59	22.8%
3. Neutral	34	13.1%
4. Disagree	83	32.0%
5. Strongly Disagree	9	3.5%
6. No Answer	73	28.2%

195. The building of units 3 and 4 would improve the quality and availability of dental services.

1. Strongly Agree	1	.4%
2. Agree	58	22.4%
3. Neutral	36	13.9%
4. Disagree	84	32.4%
5. Strongly Disagree	8	3.1%
6. No Answer	72	27.8%

196. Units 3 and 4 would adversely affect the municipal water supply. (Forsyth and Colstrip)

1. Strongly Agree	14	5.4%
2. Agree	120	46.3%
3. Neutral	38	14.7%
4. Disagree	26	10.0%
5. Strongly Disagree	3	1.2%
6. No Answer	58	22.4%

197. The population influx associated with units 3 and 4 would necessitate more spending on welfare.

1. Strongly Agree	25	9.7%
2. Agree	130	50.2%
3. Neutral	28	10.8%
4. Disagree	23	8.9%
5. Strongly Disagree	0	0
6. No Answer	53	20.5%

198. The building and operation of units 3 and 4 would have a bad effect on your way of life.

1. Strongly Agree	25	9.7%
2. Agree	69	26.6%
3. Neutral	45	17.4%
4. Disagree	66	25.5%
5. Strongly Disagree	4	1.5%
6. No Answer	50	19.3%

199. The building and operation of units 3 and 4 would have a good effect on the younger generation's way of life.

1. Strongly Agree	2	.8%
2. Agree	25	9.7%
3. Neutral	42	16.2%
4. Disagree	110	42.5%
5. Strongly Disagree	35	13.5%
6. No Answer	45	17.4%

200. The building and operation of units 3 and 4 would decrease your feeling of being part of the community.

1. Strongly Agree	7	2.7%
2. Agree	67	25.9%
3. Neutral	40	15.4%
4. Disagree	84	32.4%
5. Strongly Disagree	1	.4%
6. No Answer	60	23.2%

201. It is important to feel like you are part of the community.

1. Strongly Agree	35	13.5%
2. Agree	184	71.0%
3. Neutral	11	4.2%
4. Disagree	3	1.2%
5. Strongly Disagree	0	0
6. No Answer	26	10.0%

202. Units 3 and 4 would adversely affect community recreation activities.

1. Strongly Agree	10	3.9%
2. Agree	85	32.8%
3. Neutral	36	13.9%
4. Disagree	59	22.8%
5. Strongly Disagree	2	.8%
6. No Answer	67	25.9%

203. The population influx would have a negative effect on your family ties.

1. Strongly Agree	7	2.7%
2. Agree	53	20.5%
3. Neutral	42	16.2%
4. Disagree	106	40.9%
5. Strongly Disagree	5	1.9%
6. No Answer	46	17.8%

204. Coal development particularly the construction of units 3 and 4, would decrease the impact you have on decisions made by the local government.

1. Strongly Agree	17	6.6%
2. Agree	110	42.5%
3. Neutral	33	12.7%
4. Disagree	39	15.1%
5. Strongly Disagree	2	.8%
6. No Answer	58	22.4%

205. Units 3 and 4 would have an adverse effect upon aesthetics of the area.

1. Strongly Agree	44	17.0%
2. Agree	131	50.6%
3. Neutral	27	10.4%
4. Disagree	22	8.5%
5. Strongly Disagree	0	0
6. No Answer	35	13.5%

Now we would like to know your opinions on a few questions related to the Decker-Birney Area. (Questions 206-213 apply only to Decker-Birney area respondents.)

206. Any expansion of coal development within the area would directly benefit the planning area's residents.

1. Strongly Agree	4	1.5%
2. Agree	60	23.2%
3. Neutral	30	11.6%
4. Disagree	89	34.4%
5. Strongly Disagree	54	20.8%
6. No Answer	22	8.5%

207. Any expansion of coal development within the Decker-Birney planning area will benefit the larger outlying municipalities such as Sheridan, Wyoming, or Hardin, Montana, more than the residents within the planning area.

1. Strongly Agree	22	8.5%
2. Agree	169	65.3%
3. Neutral	25	9.7%
4. Disagree	26	10.0%
5. Strongly Disagree	1	.4%
6. No Answer	16	6.2%

208. Most public lands within the Decker-Birney planning area have little agricultural development potential, therefore, they should be strip mined.

1. Strongly Agree	0	0
2. Agree	22	8.5%
3. Neutral	25	9.7%
4. Disagree	118	45.6%
5. Strongly Disagree	74	28.6%
6. No Answer	20	7.7%

209. The primary reason for the interest of coal in the Decker-Birney planning area is that a majority of the coal is low in sulfur, ash, and sodium content.

1. Strongly Agree	22	8.5%
2. Agree	140	54.1%
3. Neutral	36	13.9%
4. Disagree	27	10.4%
5. Strongly Disagree	2	.8%
6. No Answer	32	12.4%

210. Seven mine-mouth generating plants have been suggested for Decker-Birney planning area.

1. Strongly Agree	12	4.6%
2. Agree	80	30.9%
3. Neutral	63	24.3%
4. Disagree	25	9.7%
5. Strongly Disagree	0	0
6. No Answer	79	30.5%

211. Most public domain timber in the Decker-Birney planning area does not have the capability of being managed and if it is in the way of strip mining, it should be sacrificed.

1. Strongly Agree	1	.4%
2. Agree	28	10.8%
3. Neutral	24	9.3%
4. Disagree	136	52.5%
5. Strongly Disagree	48	18.5%
6. No Answer	22	8.5%

212. If water storage facilities were made available, feedlot cattle raising could become a major industry in the Decker-Birney area.

1. Strongly Agree	3	1.2%
2. Agree	46	17.8%
3. Neutral	34	13.1%
4. Disagree	122	47.1%
5. Strongly Disagree	24	9.3%
6. No Answer	30	11.6%

213. In general, the Custer National Forest resources are being well managed.

1. Strongly Agree	26	10.0%
2. Agree	140	54.1%
3. Neutral	49	18.9%
4. Disagree	16	6.2%
5. Strongly Disagree	3	1.2%
6. No Answer	25	9.7%

Now we would like to ask you some questions regarding your recreational activity. Do you own any of the following types of recreation equipment?

214. 4-Wheel drive recreational vehicle.

1. Yes	116	44.8%
2. No	142	54.8%
3. No Answer	1	.4%

215. Trail bike

1. Yes	25	9.7%
2. No	233	90.0%
3. No Answer	1	.4%

216. Snowmobile

1. Yes	36	13.9%
2. No	222	85.7%
3. No Answer	1	.4%

217. Power boat

1. Yes	19	7.3%
2. No	238	91.9%
3. No Answer	1	.4%
4. Uncertain	1	.4%

218. Camping trailer or camper

1. Yes	51	19.7%
2. No	208	80.3%
3. No Answer	0	0

219. Tent

1. Yes	70	27.0%
2. No	187	72.2%
3. No Answer	2	.8%

220. Snowshoes or cross country skies

1. Yes	16	6.2%
2. No	241	93.1%
3. No Answer	2	.8%

221. Skies

1. Yes	30	11.6%
2. No	228	88.0%
3. No Answer	1	.4%

222. Water skies

1. Yes	15	5.8%
2. No	243	93.8%
3. No Answer	1	.4%

223. Fishing rod

1. Yes	189	73.0%
2. No	70	27.0%
3. No Answer	0	0

224. Bow

1. Yes	38	14.7%
2. No	220	84.9%
3. No Answer	1	.4%

225. Handgun

1. Yes	122	47.1%
2. No	135	52.1%
3. No Answer	2	.8%

226. Rifle or shotgun

1. Yes	208	80.3%
2. No	49	18.9%
3. No Answer	2	.8%

227. Movie camera

1. Yes	67	25.9%
2. No	191	73.7%
3. No Answer	1	.4%

228. 35mm camera

1. Yes	53	20.5%
2. No	205	79.2%
3. No Answer	1	.4%

229. Horse

1. Yes	123	47.5%
2. No	135	52.1%
3. No Answer	1	.4%

We would like to get an idea of what the important factors were in your decision to live in this area. A number of persons have given us various reasons and we would like to know how important each is for you. Please tell whether you consider each of the following factors as Very Important, Somewhat Important, or Not Very Important.

230. Beauty of the area

1. Very Important	142	54.8%
2. Somewhat Important	83	32.0%
3. Not Very Important	32	12.4%
4. No Answer	2	.8%

231. Convenient location for job

1. Very Important	166	64.1%
2. Somewhat Important	48	18.5%
3. Not Very Important	39	15.1%
4. No Answer	6	2.3%

232. Health

1. Very Important	117	45.2%
2. Somewhat Important	71	27.4%
3. Not Very Important	68	26.3%
4. No Answer	3	1.2%

233. Absence of crime

1. Very Important	127	49.0%
2. Somewhat Important	79	30.5%
3. Not Very Important	51	19.7%
4. No Answer	2	.8%

234. Absence of pollution

1. Very Important	162	62.5%
2. Somewhat Important	67	25.9%
3. Not Very Important	28	10.8%
4. No Answer	2	.8%

235. Family nearby

1. Very Important	107	41.3%
2. Somewhat Important	57	22.0%
3. Not Very Important	92	35.5%
4. No Answer	3	1.2%

236. Low cost of living

1. Very Important	71	27.4%
2. Somewhat Important	75	29.0%
3. Not Very Important	108	41.7%
4. No Answer	5	1.9%

237. Inheritance

1. Very Important	63	24.3%
2. Somewhat Important	37	14.3%
3. Not Very Important	155	59.8%
4. No Answer	4	1.4%

238. Friends in the area

1. Very Important	125	48.3%
2. Somewhat Important	74	28.6%
3. Not Very Important	58	22.4%
4. No Answer	2	.8%

239. Access to recreation

1. Very Important	60	23.2%
2. Somewhat Important	66	25.5%
3. Not Very Important	130	50.2%
4. No Answer	3	1.2%

240. Climate

1. Very Important	83	32.2%
2. Somewhat Important	86	33.2%
3. Not Very Important	87	33.6%
4. No Answer	3	1.2%

241. Business or investment reasons

1. Very Important	130	50.2%
2. Somewhat Important	46	17.8%
3. Not Very Important	79	30.5%
4. No Answer	4	1.5%

242. Deep social roots

1. Very Important	97	37.5%
2. Somewhat Important	48	18.5%
3. Not Very Important	111	42.9%
4. No Answer	3	1.2%

243. Way of life

1. Very Important	186	71.8%
2. Somewhat Important	48	18.5%
3. Not Very Important	23	8.9%
4. No Answer	2	.8%

Do you personally know any of the following types of persons in this area? That is, do you know their names and speak to them on a conversational basis?

244. Law enforcement officer

1. Yes	203	78.4%
2. No	52	20.1%
3. Uncertain	2	.8%
4. No Answer	2	.8%

245. School teacher (not college)

1. Yes	210	81.1%
2. No	47	18.1%
3. Uncertain	0	0
4. No Answer	2	.8%

246. Grocer

1. Yes	233	90.0%
2. No	24	9.3%
3. Uncertain	0	0
4. No Answer	2	.8%

247. Electrician

1. Yes	196	75.7%
2. No	63	24.3%
3. Uncertain	0	0
4. No Answer	0	0

248. Physician

1. Yes	91	35.1%
2. No	165	63.7%
3. Uncertain	1	.4%
4. No Answer	2	.8%

249. Farmers or ranchers

1. Yes	257	99.2%
2. No	2	.8%
3. Uncertain	0	0
4. No Answer	0	0

250. Cafe owner or operator

1. Yes	169	65.3%
2. No	89	34.4%
3. Uncertain	0	0
4. No Answer	1	.4%

251. Minister or priests

1. Yes	197	76.1%
2. No	60	23.2%
3. Uncertain	1	.4%
4. No Answer	1	.4%

252. Hardware store operator

1. Yes	212	81.9%
2. No	47	18.1%
3. Uncertain	0	0
4. No Answer	0	0

253. Sporting goods store operator

1. Yes	138	53.3%
2. No	113	43.6%
3. Uncertain	5	1.9%
4. No Answer	3	1.2%

254. Fireman

1. Yes	168	64.9%
2. No	81	31.3%
3. Uncertain	3	1.2%
4. No Answer	7	2.7%

255. Automobile dealer or mechanic

1. Yes	189	73.0%
2. No	68	26.3%
3. Uncertain	0	0
4. No Answer	2	.8%

256. Service station operator

1. Yes	230	88.8%
2. No	28	10.8%
3. Uncertain	0	0
4. No Answer	1	.4%

257. Plumber

1. Yes	143	55.2%
2. No	114	44.0%
3. Uncertain	1	.4%
4. No Answer	1	.4%

258. Nurse

1. Yes	192	74.1%
2. No	66	25.5%
3. Uncertain	0	0
4. No Answer	1	.4%

259. Hotel or motel operator

1. Yes	145	56.0%
2. No	112	43.2%
3. Uncertain	0	0
4. No Answer	2	.8%

260. Banker

1. Yes	181	69.9%
2. No	76	29.3%
3. Uncertain	0	0
4. No Answer	2	.8%

261. Where do you go for most medical services?

1. Hardin	15	5.8%
2. Miles City	54	20.8%
3. Billings	48	18.5%
4. Forsyth	10	3.9%
5. Sheridan	109	42.1%
6. Lame Deer	5	1.9%
7. Haven't gone	7	2.7%
8. Other (specify)	8	3.1%

262. Where do you go for most dental services?

1. Hardin	13	5.0%
2. Miles City	57	22.0%
3. Billings	27	10.4%
4. Forsyth	15	5.8%
5. Sheridan	124	47.9%
6. Colstrip	2	.8%
7. Lame Deer	3	1.2%
8. Crow Agency-Columbus	4	1.4%
9. Haven't gone	13	5.0%
10. No Answer	1	.4%

263. Where do you usually go for grocery shopping?

1. Hardin	5	1.9%
2. Miles City	14	5.4%
3. Billings	19	7.3%
4. Forsyth	5	1.9%
5. Sheridan	84	32.4%
6. Broadus	10	3.9%
7. Ashland & Lame Deer	91	35.1%
8. Birney	29	11.2%
9. Other (specify)	2	.8%

264. Even though the official decision on approval for construction of plants 3 and 4 will not be made for at least a few months, do you believe that the decision has already been informally made?

1. Yes	186	71.8%
2. No	24	9.3%
3. No Answer	49	18.9%

265. If you consider yourself a permanent resident of this area what effect has coal development had on your residence?

1. If it were not for strip mining activities I would have had to leave this area	4	1.5%
2. If it were not for coal related construction activities I would have had to leave this area	3	1.2%
3. Because of coal related development I may have to leave this area	72	27.8%
4. No effect on my leaving or remaining	160	61.8%
5. Don't consider myself a permanent resident	12	4.6%
6. No Answer	8	3.1%

Now we would like to ask you some questions about yourself.

266. Sex of respondent

1. Male	134	51.7%
2. Female	125	48.3%

267. Respondent's Age (5 year spans)

1. Under 20	4	1.6%
2. 20 - 24	21	8.1%
3. 25 - 29	26	10.0%
4. 30 - 34	23	8.8%
5. 35 - 39	33	12.7%
6. 40 - 44	23	8.8%
7. 45 - 49	24	9.3%
8. 50 - 54	22	8.5%
9. 55 - 59	20	7.7%
10. 60 - 64	22	8.5%
11. 65 - 69	18	7.0%
12. 70 - 74	14	5.4%
13. 75 - 80	3	1.2%
14. Above 80	3	1.2%
15. No Answer	3	1.2%

268. Where do you grow up?

1. Montana	162	62.5%
2. Other Rocky Mountain States (New Mexico, Colorado, Idaho Wyoming, Utah)	36	13.9%
3. West coast states (Califor- nia, Nevada, Oregon, Washing- ton, Hawaii, Alaska)	4	1.5%
4. Midwest (states west of Mississippi River)	35	13.5%
5. Eastern states	22	8.5%
6. Other country	0	0
7. No Answer	0	0

269. For the most part, were you raised on a farm or ranch, in a small town, small city, medium sized city, or a big city?

1. Farm	162	62.5%
2. Small town (less than 10,000 population)	53	20.5%
3. Small city (10,000 - 50,000)	13	5.0%
4. Medium-sized city (50,000 - 250,000)	16	6.2%
5. Big city (250,000 or more)	15	5.8%

270. How many years have you lived in this area? (5 year spans)

1.	1 - 5	55	21.2%
2.	6 - 10	25	9.7%
3.	11 - 15	8	3.1%
4.	16 - 20	19	7.3%
5.	21 - 25	19	7.3%
6.	26 - 30	24	9.3%
7.	31 - 35	17	6.6%
8.	36 - 40	16	6.2%
9.	41 - 45	14	5.4%
10.	46 - 50	19	7.3%
11.	51 - 55	10	3.9%
12.	56 - 60	14	5.4%
13.	61 - 65	7	2.7%
14.	66 - 70	6	2.3%
15.	71 - 75	5	1.9%
16.	76 - 80	1	.4%

271. Where were you living immediately before moving to this state?

1.	Montana	144	55.6%
2.	Other Rocky Mountain States (New Mexico, Colorado, Idaho, Wyoming, Utah)	49	18.9%
3.	West coast states (California, Nevada, Oregon, Washington, Hawaii, Alaska)	10	3.9%
4.	Midwest (states west of Mississippi River)	34	13.1%
5.	Eastern states	17	6.6%
6.	Other country	3	1.2%

272. Are you planning to move away from this area?

1.	Yes	21	8.1%
2.	No	200	77.2%
3.	Undecided	38	14.7%

273. If applicable, were you a regular visitor to this area before moving here?

1.	Yes	42	16.2%
2.	No	100	38.6%
3.	Native	109	42.1%
4.	No Answer	8	3.1%

274. Have any of your friends decided to move to this area after visiting you?

1. Yes	59	22.8%
2. No	196	75.7%
3. No Answer	4	1.5%

275. Are you the head of the household?

1. Yes	162	62.5%
2. No	96	37.1%
3. No Answer	1	.4%

276. If NO, what relation are you to the head of the household?

1. Wife	87	33.6%
2. Husband	6	2.3%
3. Son	1	.4%
4. Other (specify)	3	1.2%
5. No Answer	2	.8%

277. Do you consider yourself to be a Montanan?

1. Yes	243	93.8%
2. No	12	4.6%
3. Uncertain	3	1.2%
4. No Answer	1	.4%

278. What is the occupation of the head of the household? (Be specific)

Business

1. Businessman	17	6.6%
2. Professional	6	2.3%
3. Retired	5	1.9%
4. Clerical	8	3.1%
5. Business, nonprofessional	8	3.1%

Mining

1. Coal miner unspecified	1	.4%
2. Heavy equipment operator-mining	1	.4%
3. Supervisor - mining	0	0
4. Manual - coal, retired	0	0
5. Supervisor - retired	0	0

Operating and Construction - Manual

1. Skilled	25	9.7%
2. Semi- or unskilled	8	3.1%
3. Engineer	0	0
4. Other non-manual construction	0	0
5. Retired - manual	0	0
6. Retired - non-manual	0	0

Land Related

1. Rancher	100	38.6%
2. Ranch hand	15	5.8%
3. Farmer	2	.8%
4. Logger	3	1.2%
5. Land related - retired	15	5.8%
6. Ranch foreman	7	2.7%

Bureaucratic Employment for Professionals and Semi-professionals

1. City or county position	4	1.5%
2. State position	4	1.5%
3. Federal position	12	4.6%
4. Teachers	11	4.2%
5. Religious	7	2.7%
6. Retired bureaucrat	0	0

279. Are you single, married, divorced, separated or widowed?

1. Single	33	12.7%
2. Married	198	76.4%
3. Divorced or separated	10	3.9%
4. Widowed	17	6.6%
5. No Answer	1	.4%

280. How many children do you have?

1. 0	60	23.2%
2. 1	34	13.1%
3. 2	67	25.9%
4. 3	41	15.8%
5. 4	26	10.0%
6. 5	17	6.6%
7. 6	6	2.3%
8. 7	3	1.2%
9. 8 or more	5	1.9%

281. What are their average ages?

1. Preschoolers	37	14.3%
2. Grade school	26	10.0%
3. Junior high school	13	5.0%
4. High school	29	11.2%
5. College	13	5.0%
6. Adults	80	30.9%

282. Where do your children live?

1. Montana	89	34.4%
2. Other Rocky Mountain States (New Mexico, Colorado, Idaho, Wyoming, Utah)	33	12.7%
3. West coast states (California, Nevada, Oregon, Washington, Hawaii, Alaska)	22	8.5%
4. Midwest (states west of Mississippi River)	13	5.0%
5. Eastern states	4	1.5%
6. Other country	5	1.9%
7. No answer	0	0

283. Do you think your children living outside of Montana prefer to live where they live to Montana?

1. Yes	32	12.4%
2. No	22	8.5%
3. Uncertain	6	2.3%
4. Some do, some do not	3	1.2%
5. No answer	196	75.7%

284. Do you think your children living outside Montana would return here if (they, he, she,) could find a job similar to the one currently held?

1. Yes	29	11.2%
2. No	21	8.1%
3. Uncertain	9	3.5%
4. Some would, some would not	4	1.5%
5. No answer	196	75.7%

285. What was the last grade completed by the head of the household?

1. Less than eighth grade	11	4.2%
2. More than eighth but less than high school graduate	75	29.0%
3. High school graduate	72	27.8%
4. Some college but did not graduate, or post-high school training	48	18.5%
5. College graduate	27	10.4%
6. Post-graduate training or professional school	19	7.3%
7. Does not apply	2	.8%
8. No answer	5	1.9%

286. Which figure comes closest to your total family income for the past year, before taxes? Just tell me the letter that fits you best?

1. A - Less than \$2,999	16	6.2%
2. B - \$3,000-\$4,999	23	8.9%
3. C - \$5,000-\$7,499	18	6.9%
4. D - \$7,500-\$9,999	35	13.5%
5. E - \$10,000-\$14,999	47	18.1%
6. F - \$15,000-\$19,999	26	10.0%
7. G - \$20,000-\$29,999	22	8.5%
8. H - Over \$30,000	32	12.4%
9. I - No answer	40	15.4%

287. Where is the place of your residence?

1. Urban	98	37.8%
2. Rural	161	62.2%

288. Thank you very much for your cooperation. The answers you have provided will help give us a clearer notion of what the people of this area feel about a number of important matters. If you have any questions regarding the results of this survey, we will be pleased to send you a summary of the results as soon as they are computed.

1. Wishes results	203	78.4%
2. Does not wish results	54	20.8%
3. No answer	2	.8%

NAME OF RESPONDENT: _____

ADDRESS OF RESPONDENT: _____

APPENDIX C

Questions Used to Develop Typology

CODE: SA - Strongly Agree, A - Agree, N - Neutral, D - Disagree, SD - Strongly Disagree; SF - Strongly Favor, F - Favor, N - Neutral, O - Oppose, SO - Strongly Oppose. NA - No Answer

GENERAL QUESTIONS

54. One person's right to a clean environment is not as important as another's right to gainful employment.

	<u>Boomer</u>		<u>Anti-Strip Mine</u>		<u>Developer Protector</u>	
SA	0	0%	1	2%	0	0%
A	5	36%	6	10%	8	32%
N	3	21%	15	25%	7	28%
D	6	43%	31	52%	9	36%
SD	0	0%	7	12%	1	4%

5. We have an excellent school system at this time.

SA	0	0%	1	2%	0	0%
A	6	43%	30	50%	10	40%
N	3	21%	13	22%	7	28%
D	5	36%	10	17%	7	28%
SD	0	0%	4	7%	1	4%
NA	0	0%	2	3%	0	0%

26. The scenic resources of this area are being destroyed as the result of a variety of factors.

SA	0	0%	3	5%	0	0%
A	0	0%	30	50%	0	0%
N	0	0%	6	10%	6	24%
D	14	100%	21	35%	19	76%
SD	0	0%	0	0%	0	0%

PLANNING QUESTIONS

4. With proper planning, I do not think an increase in population will negatively affect this area.

	<u>Boomer</u>		<u>Anti-Strip Mine</u>		<u>Developer Protector</u>	
SA	1	7%	0	0%	0	0%
A	9	64%	12	20%	14	56%
N	1	7%	3	5%	4	16%
D	3	21%	32	53%	7	28%
SD	0	0%	13	22%	0	0%

16. An adult education program would be useful.

SA	0	0%	1	2%	0	0%
A	10	71%	33	55%	19	76%
N	2	14%	12	20%	4	16%
D	2	14%	14	23%	2	8%
SD	0	0%	0	0%	0	0%

19. Additional counseling services in this area would be useful.

SA	0	0%	0	0%	0	0%
A	5	36%	25	42%	13	52%
N	3	21%	5	8%	9	36%
D	6	43%	27	45%	3	12%
SD	0	0%	3	5%	0	0%

31. A system of paved roads into and out of this area.

SF	1	7%	4	7%	3	12%
F	10	71%	21	35%	17	68%
N	0	0%	3	5%	1	4%
O	3	21%	25	42%	4	16%
SO	0	0%	7	12%	0	0%

37. Further leasing of state and federal coal lands to energy companies.

	<u>Boomer</u>		<u>Anti-Strip Mine</u>		<u>Developer Protector</u>	
SF	0	0%	31	52%	0	0%
F	1	7%	27	45%	0	0%
N	2	14%	1	2%	10	40%
O	11	79%	0	0%	9	36%
SO	0	0%	0	0%	0	0%
NA	0	0%	1	2%	0	0%

38. Building any more power plants in this area.

SF	0	0%	34	57%	0	0%
F	3	21%	26	43%	5	20%
N	2	14%	0	0%	14	56%
O	9	64%	0	0%	6	24%
SO	0	0%	0	0%	0	0%

39. The development of new strip mines in this area.

SF	0	0%	33	55%	0	0%
F	1	7%	27	45%	6	24%
N	2	14%	0	0%	15	60%
O	11	79%	0	0%	4	16%
SO	0	0%	0	0%	0	0%

40. Additional railroads, power lines or pipe lines associated with coal development.

SF	0	0%	33	55%	0	0%
F	1	7%	25	42%	5	20%
N	2	14%	1	2%	15	60%
O	11	79%	1	2%	5	20%
SO	0	0%	0	0%	0	0%

43. State professional planners should not be involved with development in Montana.

SA	0	0%	3	5%	0	0%
A	5	36%	12	20%	2	8%
N	1	7%	5	8%	7	28%
D	8	57%	39	65%	16	64%
SD	0	0%	1	2%	0	0%

44. Federal professional planners should not be involved with development in Montana.

	<u>Boomer</u>		<u>Anti-Strip Mine</u>		<u>Developer Protector</u>	
SA	0	0%	7	12%	0	0%
A	7	50%	27	45%	11	44%
N	2	14%	8	13%	4	16%
D	5	36%	17	28%	10	40%
SD	0	0%	0	0%	0	0%
NA	0	0%	1	2%	0	0%

49. Not much information concerning mining and related developments is being made available to the general public.

SA	0	0%	3	5%	0	0%
S	7	50%	32	53%	4	16%
N	2	14%	5	8%	1	4%
D	5	36%	20	33%	19	76%
SD	0	0%	0	0%	1	4%

116. We owe it to the rest of Montana to develop more industry for the state.

SA	0	0%	0	0%	0	0%
A	6	43%	4	7%	4	16%
N	2	14%	4	7%	9	36%
D	6	43%	41	68%	11	44%
SD	0	0%	11	18%	1	4%

124. Decisions about whether to permit further coal mining and power generation will not be affected by what people in this area think should be done, but by the pressures exerted by industrial giants.

SA	0	0%	2	3%	0	0%
A	10	71%	3	5%	1	4%
N	1	7%	36	60%	5	20%
D	2	14%	12	20%	19	75%
SD	1	7%	0	0%	0	0%
NA	0	0%	7	12%	0	0%

125. Your family ties will be affected by the coal development and the population influx.

	<u>Boomer</u>		<u>Anti-Strip Mine</u>		<u>Developer Protector</u>	
SA	0	0%	0	0%	0	0%
A	9	64%	36	60%	10	40%
N	3	21%	5	8%	5	20%
D	2	14%	17	28%	10	40%
SD	0	0%	2	3%	0	0%

158. I believe that units 3 and 4 should:

Be built unconditionally.

5	36%	0	0%	0	0%
---	-----	---	----	---	----

Be built if the state can enforce strong controls.

6	43%	0	0%	10	40%
---	-----	---	----	----	-----

Not be built until the effects of units 1 and 2 are known.

3	21%	25	42%	13	52%
---	-----	----	-----	----	-----

Not be built at all.

0	0%	34	57%	2	8%
---	----	----	-----	---	----

106. Assuming that Montana is obliged to help the rest of the nation to meet growing energy needs, there remains the question of the reasonable limits of Montana's obligation. That is, how much coal development in Montana is enough, how much is too much.

There should be no further development; what we have under way is enough.

0	0%	37	62%	3	12%
---	----	----	-----	---	-----

Further development should be confined to mining and exporting coal.

4	29%	20	33%	12	48%
---	-----	----	-----	----	-----

Further development should be confined to mining and mine-mouth power generation.

5	36%	1	2%	4	16%
---	-----	---	----	---	-----

Further development should not be restricted, but should be a direct response to what the rest of the nation says it wants.

5	36%	1	2%	6	24%
---	-----	---	----	---	-----

No Answer

0	0%	1	2%	0	0%
---	----	---	----	---	----

STRIP MINING QUESTIONS

50. Since the Nixon administration is pushing very hard for energy self-sufficiency by 1980, Montana coal should be mined.

	<u>Boomer</u>		<u>Anti-Strip Mine</u>		<u>Developer Protector</u>	
SA	0	0%	0	0%	1	4%
A	12	86%	7	12%	16	64%
N	1	7%	11	18%	7	28%
D	1	7%	31	52%	1	4%
SD	0	0%	11	18%	0	0%

51. The choice for strip mining in agricultural areas means there will be less food production both now and in the future.

SA	0	0%	7	12%	0	0%
A	2	14%	45	75%	4	16%
N	0	0%	4	7%	4	16%
D	12	86%	4	7%	17	68%
SD	0	0%	0	0%	0	0%

90. Residents are being made to feel guilty for trying to save their lives in the battle against the nation's alleged need for coal versus the life-style of a few.

SA	0	0%	6	10%	0	0%
A	5	36%	40	67%	8	32%
N	2	14%	6	10%	5	20%
D	7	50%	8	13%	12	48%
SD	0	0%	0	0%	0	0%

91. There are presently enough developed strip mines in eastern Montana.

SA	0	0%	13	22%	0	0%
A	1	7%	33	55%	4	16%
N	2	14%	12	20%	12	48%
D	11	79%	1	2%	9	36%
SD	0	0%	0	0%	0	0%
NA	0	0%	1	2%	0	0%

93. Strip mining is compatible with your views of sound land use management.

	<u>Boomer</u>		<u>Anti-strip Mine</u>		<u>Developer Protector</u>	
SA	0	0%	0	0%	0	0%
A	11	79%	2	3%	15	60%
N	2	14%	6	10%	7	28%
D	1	7%	33	55%	3	12%
SD	0	0%	19	32%	0	0%

95. It is difficult to discuss the coal issue frankly, trustingly, and uninhibitedly with friends who hold opposing views, positions, or commitments concerning coal development.

SA	0	0%	0	0%	1	4%
A	6	43%	27	45%	13	52%
N	2	14%	6	10%	4	16%
D	6	43%	26	43%	6	24%
SD	0	0%	0	0%	0	0%
NA	0	0%	1	2%	1	4%

99. Water that is needed for crops will be used up by the power plant operations.

SA	0	0%	9	15%	0	0%
A	1	7%	44	73%	4	16%
N	2	14%	6	10%	8	32%
D	11	79%	0	0%	13	52%
SD	0	0%	0	0%	0	0%
NA	0	0%	1	2%	0	0%

100. In the long run, I am sure that area residents will be better off if the strip mines are developed.

SA						
A	12	86%	2	3%	9	36%
N	1	7%	4	7%	12	48%
D	1	7%	34	57%	4	16%
SD	0	0%	20	33%	0	0%

102. Coal development entails a sacrifice of recreational values and of future land use possibilities.

	<u>Boomer</u>		<u>Anti-Strip Mine</u>		<u>Developer Protector</u>	
SA	0	0%	9	15%	0	0%
A	3	21%	42	70%	5	20%
N	1	7%	6	10%	4	16%
D	10	71%	3	5%	16	64%
SD	0	0%	0	0%	0	0%

133. National energy needs can best be met by:

Increasing strip mining activities in this area.

4	29%	0	0%	5	20%
---	-----	---	----	---	-----

Increasing the number of generating plants in this area.

0	0%	0	0%	0	0%
---	----	---	----	---	----

Individuals and families conserving energy.

0	0%	6	10%	4	16%
---	----	---	-----	---	-----

Industry and commercial institutions conserving energy.

1	7%	13	22%	1	4%
---	----	----	-----	---	----

Developing alternative energy sources such as sun and wind.

5	36%	39	65%	12	48%
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Other (specify)

3	21%	2	3%	3	12%
---	-----	---	----	---	-----

No Answer

1	7%	0	0%	0	0%
---	----	---	----	---	----

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