

RURAL ATTITUDES TOWARDS GROWTH AND ENERGY DEVELOPMENT: A TEXAS EXAMPLE*

GUNDARS RUDZITIS

Department of Geography

The University of Texas at Austin

ABSTRACT

Bastrop County, Texas is undergoing rapid population growth, and is part of the counterurbanization trend in the United States. It is an amenity rich county, adjacent to Austin, Texas, one of the fastest growing medium size metropolitan areas in the United States. Most of Bastrop's population growth is from in-migration. The in-migration of new residents, however, is not a result of an expansion of the economic base of the county. Instead, new residents are drawn to the county largely for amenity related reasons. The amenity characteristics of the area may soon change since Bastrop County has a lignite belt running through the county. The large in-migration of new residents during the past decade could result in a variety of conflicts between new and long term residents. The possibility of lignite mining in the near future creates an even greater potential for conflict in the county. This article focuses on the attitudes and preferences of different groups in the county towards the proposed stripmining of lignite.

Considerable attention has been focused on the revival in the 1970's of nonmetropolitan growth, both in the United States and other industrialized countries [1-4]. Vining and Strauss demonstrated that the recent deconcentration of population in the United States is a clean break with the past [5]. The 1980 census has confirmed that the growth of nonmetropolitan areas represents a significant change in the patterns of population movement and growth in the United States. For the first time since the census was begun in 1790, rural areas and small towns had greater rates of growth than the metropolitan centers. Moreover, this trend occurred in all regions of the United States. The growth of

* This research was partially supported by a grant from the Exxon Corporation through the Center for Energy Studies, The University of Texas at Austin.

rural areas was associated with an accelerated movement of people out of the older industrial regions of the North and into the South and West. The differences in regional growth rates, largely the result of migration, may signal the beginning of a new pattern of population distribution, one marked by population dispersal and increased employment in industries outside the older metropolitan centers [6].

The reasons for the recent turnaround in nonmetropolitan growth rates are complex and not well understood. Part of the growth is "spillover" of residential and commercial functions from adjacent metropolitan areas [7, 8]. The remainder is in non-adjacent counties, many of which are relatively remote from metropolitan areas.

To some, the current period of population deconcentration is a result of persons having the means to fulfill their preferences by moving to more rural, environmentally desirable and amenity rich areas [9]. Earlier, however, Lansing and Mueller established that economic motives were the primary reasons for moving [10]. Nevertheless, in recent years the demand for environmental amenities has increased dramatically. Frequently, these demands can be met only in nonmetropolitan areas. Nonmetropolitan areas also offer lower crime rates, along with less congestion and pollution.

The importance of amenity and environmental factors in influencing metropolitan to nonmetropolitan migration has not been established. No clear consensus exists about why persons move to nonmetropolitan areas. Williams and Sofranko found in their interviews of people who moved from metropolitan to nonmetropolitan areas that a majority moved for nonemployment reasons [11]. In contrast, Long and DeArge found no clear evidence to contradict earlier findings that economic reasons remain paramount [12].

Regardless of the reasons for growth in nonmetropolitan areas, the influx of new residents into these rural areas generates change, and increases the potential for conflicts between the older and newer residents. As a result of the counter-urbanization trend there has been a strong upsurge in interest in doing social research in rural areas. One issue of interest is local attitudes towards growth and development in these counties. These attitudes may differ between different groups in the county especially if newer residents value local amenities more than long-time inhabitants who are more concerned with economic growth. Alanen and Smith found this to be true in rural Appalachia [13].

In nonmetropolitan areas some development projects may have significantly deleterious impacts on the local environment. Projects associated with energy extraction have this characteristic. Yet, even if rural residents obtain limited benefits from energy extraction and processing, they may overwhelmingly favor not only past but proposed projects [14]. The conflict between new and old residents is compounded if new migrants move to a rural area only to discover that the amenity values of that area are threatened by development which may destroy the very characteristics which attracted them in the first place. It is exactly this type of scenario which is occurring in Bastrop County, Texas.

THE SETTING: BASTROP COUNTY, TEXAS

The state of Texas has been no exception to the nonmetropolitan growth phenomenon. Moreover, metropolitan areas in Texas have also been growing substantially. Bastrop County (Figure 1) is a nonmetropolitan county adjacent to the rapidly growing Austin Standard Metropolitan Statistical Area (SMSA). The population of the Austin SMSA increased from 212,136 in 1960 to 323,158 in 1970 and 536,450 in 1980.

Bastrop is a rural county approximately twenty-six miles east of the City of Austin. Cattle grazing is the predominant land use with more extensive agricultural activity along the floodplain which bisects the county from west to east. Between 1900 and 1960, Bastrop experienced population decline as cotton farming became an unprofitable venture. From 1960 to 1970 population increased slightly from 16,925 to 17,297. During the 1970's, population rose to 24,726, an increase of 43 per cent. This dramatic rise in population was a result of large in-migration to the county.

Historically, the county has had a relatively old population. During the 1950's, all age cohorts except for the age sixty-five and over decreased, while in the 1960's, the most significant changes came from the fifteen to twenty-four and sixty-five and over cohorts, which increased 25 and 14 per cent, respectively. The slight population increase in the 1960's was largely a result of the in-migration and aging of these two cohorts. As a result, between 1950 and 1970 the median age of the population increased from thirty to thirty-six years of age. In 1970, 23 per cent of the population was sixty-five years of age or older, more than twice the national average. In 1980, despite the in-migration of predominantly younger persons the figure was still 18 per cent.

Blacks and Mexican-Americans comprise 27 and 20 per cent of the population. The per capita income level for the county (\$2,641) is well below the state (\$3,796) and national (\$4,175) averages. In 1970, a quarter of the families in the county were below the poverty level. Even more significant is that the largest source of personal income (22%) in the county is from transfer payments. This reflects both the high incidence of poverty in the county and the high proportion of residents age sixty-five years and older.

THE ECONOMIC BASE OF THE COUNTY

Population growth is often predicted to occur as a result of an increase of employment opportunities in an area. Given a growth in jobs, particularly in export-oriented industries, as the local labor market is exhausted, in-migration occurs in response to the increased job opportunities. To determine the extent to which the in-migration in Bastrop County was a response to job opportunities, a census was taken of all manufacturing companies in the county. While there are twenty manufacturing companies in the county, brick manufacturing, with

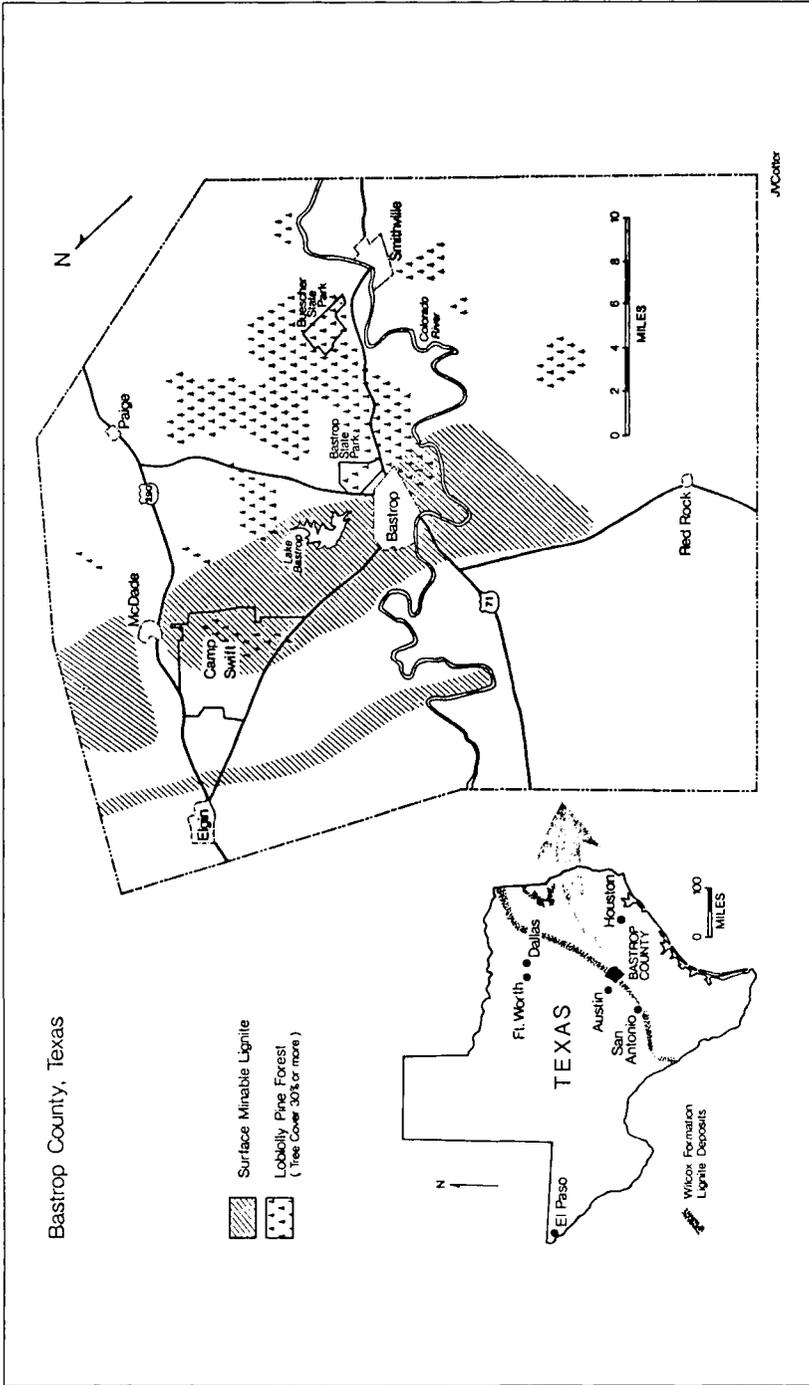


Figure 1. Map of Bastrop County, Texas.

approximately 40 per cent of all manufacturing employment, is by far the largest industry in the county. There are approximately 800 persons employed in this sector, of whom over 95 per cent are employed in export-oriented activities. A survey of the firms suggests that the growth of the manufacturing sector is not a major factor promoting in-migration to the county. Only nine companies reported employment growth during the 1970's and only seven anticipated future growth in employment.

The other sectors of the local economy also are not growing sufficiently to attract in-migrants. The total number of persons employed in the service sectors has been in a period of decline or slow growth. Agricultural employment accounts for only 10 per cent of total employment. Moreover, during the 1970's, the trend has been towards fewer but larger farms, and an overall decrease in the total number of acres in agriculture [15].

Bastrop County does not fit into the classic economic base model where in-migration occurs in response to a growth in employment opportunities. A significant portion of Bastrop's growth appears to derive from its proximity to the City of Austin. A telling statistic is that over 30 per cent of Bastrop's labor force works outside the county, primarily in Austin. The county's economy is to a significant degree dependent upon income earned outside the county.

The degree to which proximity to Austin encourages commuting can be seen in the leakage, or loss of retail dollars that might otherwise stay in the county. Given an income level in any county, the net inflow or outflow of retail dollars can be measured by the ratio of retail sales to the county's effective buying income. The retail leakage index is the difference between actual and expected ratio of retail sales to effective buying income. Of the seven counties adjacent to Austin, all have negative index values indicating a loss of sales to Austin. Of the seven, Bastrop has the second highest loss of retail sales [16]. This leakage occurs because of the greater variety of retail sales offered in Austin. It does, however, restrict the growth of a variety of goods and services in Bastrop County.

The amenity features of Bastrop County also may encourage in-migration. The outstanding features of the county are the "Lost Pines," an isolated pine and hardwood forest that produces trees of unusual size and fullness generally not found this far west in Texas, and the Colorado River and Lake Bastrop, which provide fishing, boating, and onshore camping (Figure 1). There are also two state parks, Bastrop and Buescher, which charge only a minimal fee and are of very high quality in terms of facilities, services, and crowdedness. The local environment provides a broad range of outdoor recreational opportunities. If migrants seek amenity rich areas, Bastrop County provides such an area within commuting distance of employment centers. It also provides opportunities for retirement homes, and second homes within reasonable distance of the City of Houston.

INTRACOUNTY VARIATIONS

If, as suggested, people are moving to Bastrop because of its amenities, rural characteristics, and smaller town qualities, are certain areas within the county preferred to others? Is the county homogeneous in terms of the types of goods and services provided in different areas? The famous Tiebout hypothesis derived from Samuelson's pure theory of public expenditures holds that people and firms move in response to the mix of taxes and services they might enjoy [17, 18]. An individual will select a location on the basis of the service/taxation mix, assuming perfect mobility and knowledge on the consumer's part about the variances in service and taxing patterns.

If the Tiebout hypothesis is to have any relevance in Bastrop County, there should be intra-county variations present. The new in-migrants will be attracted to different cities according to their mix of taxes and services. Persons who choose a particular area should have certain characteristics in common, since they choose to locate in an area that commonly appealed to them. This may be reflected in their attitudes towards a variety of issues. In rapidly growing nonmetropolitan areas this may also be reflected in differing attitudes between older and newer residents unless new in-migrants have characteristics similar to long-term residents.

Bastrop County has three major cities, Bastrop, Elgin, and Smithville (Figure 1). The population of these three cities is fairly comparable, with about 4,000 residents in each city. Historically, Smithville has been the largest of the three cities. Since 1960, however, Elgin has become the largest. Elgin and Bastrop are both within a thirty-mile commute of Austin, while Smithville has fewer commuters since it is a forty-one-mile commute. Bastrop is the oldest city and serves as the county seat. Recent growth patterns reflect the relative distance from the City of Austin. Housing construction has been the greatest in Bastrop and Elgin, with Smithville a distant third in the number of new single family dwelling units.

The fiscal status of the three cities gives some insights into how the three cities are responding to or anticipating growth. The City of Bastrop has been budgeting large amounts of monies for capital outlays and as a result has run a large deficit of revenues over expenditures (34%). Smithville has a smaller deficit (4%), while Elgin has a slight surplus (4%). The primary reason for Bastrop's deficit has been greater attention in its operating budget to sanitation and street maintenance and repair. These greater expenditures may simply reflect necessary maintenance, or the anticipation of growth and the elimination of deficits.

The differences between the three cities is also reflected in land prices. While rural property values have been increasing statewide, land value increases in Bastrop County are relatively higher than state averages. Prices per acre are \$200 to \$300 higher in Bastrop than the state, and \$100 to \$200 higher than property in surrounding counties [19]. The high land values are a direct reflection of land

use change from agricultural to subdivision development. Land in subdivisions sells for \$4,000 per acre [20]. Tracts in high amenity subdivisions situated in the "Lost Pines" area and the Colorado River sell for as much as \$16,000 per acre. Recent evidence appears to indicate that land values around Smithville are declining relative to increased land prices around Bastrop and Elgin [15].

AMENITIES, GROWTH, AND LIGNITE DEVELOPMENT

The internal and external forces which are creating change in Bastrop County could in and of themselves result in conflicts between different groups in the county. However, the possibility of lignite mining in the county creates an even greater potential for conflict and adds a new dimension to the growth/no-growth controversy which would ultimately arise.

Bastrop County is in the central portion of a lignite belt running through Texas (Figure 1). In Texas, as in the nation, as oil and gas supplies become depleted, coal and lignite are becoming an attractive alternative source of energy. Nationally, while coal and lignite provide 18 per cent of the total energy demand, this is projected to increase to 34 per cent by the year 2000 [21]. In Texas in 1971, lignite contributed 1 per cent of the state's electrical generating capacity. This is expected to increase to 27 per cent by 1985 [22]. Bastrop County contains an estimated 447 million short tons of lignite on approximately 32,000 acres [23].

The Cities of Austin and San Antonio and the Lower Colorado River Authority (LCRA) hope to lease and mine approximately 6,000 acres of the federally owned Camp Swift property in Bastrop County. Camp Swift is the only federal land in the Texas lignite belt and contains approximately 100 million tons of recoverable lignite [24]. The Secretary of the Interior has reviewed an environmental impact statement (EIS) of the proposed Camp Swift leasing and decided that the land could be leased to public entities pending the preparation and approval of a mining plan EIS.

The proposal to mine Camp Swift has not been without local critics, and the final EIS contains over 150 opposing comments from a variety of individuals and groups [25]. In a county where a number of new in-migrants have moved for environmental and amenity as well as economic reasons, the possibility of having to bear the environmental consequences of stripmining can be quite disturbing.

The conflicts and strains on local communities arising from energy developments have been fairly well outlined. Negative effects can include congestion, loss of amenities, over-stressing service facilities, an increase in social pathologies (crime, divorce, alcoholism), and a loss of a relaxed pace of life and friendliness. Adverse impacts have been most severely felt in energy boom towns where the annual growth rate of the community is between 10 and 15 per cent [26].

To discern the more subjective side of the impacts, especially quality of life issues, researchers have relied on attitudinal surveys. Results are generally mixed.

In Montana, Gold found that ranchers generally are against mining development, since they perceive it as a direct threat to their way of life. However, in Wyoming ranchers are more favorably disposed towards development and are eager to reap the economic benefits associated with leasing and mining development [27]. In Arizona, Little found residents to be divided into pro and anti-development factions, as a result of the dilemma they faced in trying to balance the economic benefits with undesirable lifestyle changes wrought by the energy development [14].

Some of the problems faced by other communities undergoing energy development are not directly applicable to Bastrop County since the development of Camp Swift lignite will not cause a "boom town" syndrome. The mined lignite will be burned in an existing power plant in the county which will be converted to burn coal. This eliminates the impacts which would otherwise result from an influx of construction workers to build a new power plant. The lignite development is expected to require an additional 210 workers [15]. A number of these workers would commute from Austin to Bastrop. Consequently, most of the impacts will be environmental and aesthetic in nature. Potential air and water pollution pose the greatest threats. However, there will be additional strains on county and municipal services (road maintenance) since the public entities doing the mining are exempt from local taxation, and no federal or state taxes will be returned to the localities to mitigate any of the impacts.

The costs and benefits of the lignite mining will not be evenly distributed. From a regional context, Austin, which is relatively affluent compared to Bastrop, benefits from the energy development, while residents of Bastrop bear the costs. Energy prices become relatively lower in Austin while external costs from energy development are imposed on the Bastrop residents since no mechanism exists to compensate them for damages suffered. The remainder of this article focuses on the attitudes and preferences of different groups in the county towards the proposed stripmining of lignite.

STUDY METHODS

To survey attitudes towards lignite development in the county, a questionnaire was administered to all seniors in the three high schools in the county. The census included a total of 271 seniors: 86 in Elgin, 107 in Bastrop, and 78 in Smithville. The questionnaire was administered during a government class which all students are required to take. Cost considerations dictated using a census approach of an easily identifiable and captive group, rather than a random survey of the population. Consequently, the results, while an accurate depiction of one group in Bastrop County, are not necessarily an accurate reflection of the attitudes of the general population. The results are, however, important since they depict the attitudes of a group about to enter the labor force (only 45% indicated they were going to attend college), and persons who

will be making decisions to leave or stay in the county and are sensitive to ongoing changes as they make this decision. The attitudes of students in a rural setting may also strongly reflect parental attitudes [13].

ATTITUDES BY COMMUNITY

The responses of students in the three high schools were compared to determine if responses vary by community of residence. To gain insights into their perception of the local environment the students were asked if they considered land an important resource in the county. Well over 90 per cent in each of the three high schools responded positively. When asked if the state parks were important to the local economy, 72 per cent in Elgin and Smithville responded positively, while in Bastrop, which is adjacent to the state park, the corresponding figure was 91 per cent. In general, the respondents agreed that the parks and recreation facilities in the county were both highly desirable and of high quality. Nevertheless, when asked where they would prefer to live, the first choice in all three high schools was the City of Austin. To some degree this reflects job opportunities, since Austin was also the preferred city of employment in all three high schools.

Given the limited job opportunities in the county, students were asked if they approved new industries moving into the area if they created more jobs. The response rate was positive, ranging from 67 and 72 per cent in Bastrop and Elgin to 78 per cent in Smithville. When asked if they approved new industries if it caused population to increase, the approval rate dropped but was still positive, ranging from 51 per cent approval in Bastrop and Elgin to 58 per cent in Smithville. Stripmining of lignite is perhaps the most imminent major development which will be occurring in the future. When asked if they favored stripmining if it brought more jobs to the county, differences between the three areas became more apparent (Table 1). In Bastrop and Elgin a minority of 46 per cent approved, while in Smithville a majority of 68 per cent approved.

When the students were asked if they would favor stripmining if they were offered a large sum of money (\$20,000) for the rights to dig on their land, the dichotomy between Elgin-Bastrop and Smithville became even more apparent. In Elgin and Bastrop, only 34 and 39 per cent approved, while in Smithville, 63 per cent would sell their land rights. One factor influencing the response to this question may be where the respondents plan to live in the future. In Bastrop and Elgin a majority of the respondents planned to stay in the county (52% and 62%), while in Smithville, only 32 per cent planned to do so.

To summarize, of the three cities, attitudes in Smithville differed the most from the other two cities. The Smithville students generally favored growth and were the most willing to bear environmental damages from the mining. The Bastrop and Elgin students were the most environmentally conscious. Paradoxically, Bastrop is the city undergoing considerable change and promoting

Table 1. Attitudes Towards Stripmining by High School

<i>High School</i>	<i>In Favor of Stripmining</i>		<i>Not in Favor of Stripmining</i>	
	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>
Bastrop	49	46.2	57	53.3
Elgin	38	45.8	45	54.2
Smithville	45	59.2	31	40.8
Total	132	49.8	133	50.2

Table 2. Attitudes Towards Stripmining by Income

<i>Family Income</i>	<i>In Favor of Stripmining</i>		<i>Not in Favor of Stripmining</i>	
	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>
Less than \$5,000	20	54.1	17	45.9
\$5,000 to \$9,999	25	48.1	27	51.9
\$10,000 to \$14,999	29	59.2	20	40.8
\$15,000 to \$19,999	19	55.9	15	44.1
Greater than \$20,000	21	37.5	35	62.5
Total	114	50.0	114	50.0

growth, while Elgin has most of the manufacturing sector growth. Smithville, with relatively less growth in the past, is more predisposed to future growth.

In addition to examining differences between the three cities, socioeconomic characteristics such as family income level, race, and ethnicity may also be important. However, while the attitudes of Smithville students diverge from those in Elgin and Bastrop, Smithville high school did not contain a higher percentage of minority groups or persons with family incomes less than \$5,000.

ATTITUDES BY DEMOGRAPHIC CHARACTERISTICS

There is evidence that attitudes towards environmental preservation and no-growth becomes stronger among higher income groups [28, 29]. However, in a survey of Appalachian high school students, Alanen and Smith found differences by socioeconomic status were not very great [13]. They did not, however, use income, but instead used blue and white collar occupation as a means of socio-economic differentiation.

Table 2 shows attitudes towards stripmining by income, by \$5,000 increments, up to family incomes greater than \$20,000. With the exception of the over

Table 3. Attitudes Towards Stripmining by Racial and Ethnic Status

<i>Racial/Ethnic Designation</i>	<i>In Favor of Stripmining</i>		<i>Not in Favor of Stripmining</i>	
	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>
Mexican-American	18	47.4	20	52.6
Black	40	71.4	16	28.6
White	71	42.5	96	57.5
Other	2	100.0	0	0.0
Total	131	49.8	132	50.2

\$20,000 category, there is no consistent trend of declining approval by income category. While a majority of persons in the highest income category disapprove of the proposed mining, a near or absolute majority in the other categories approve of stripmining lignite. These results generally confirm the Alanen and Smith findings and suggest that attitude differences by income class may vary significantly by place and specific project.

Given the relatively large minority population (35%) in the sample, Table 3 shows how the attitudes towards stripmining vary by race and ethnicity. Clear-cut differences now emerge. A minority of the white and Mexican-American respondents (42 and 47%) favor the stripmining, while a substantial majority of the black students (71%) favor the stripmining. The results are not surprising, since the group with presumably the most to gain registered the highest approval. Blacks, perhaps because they have shared less in past economic development, are more growth-oriented. However, as indicated by the response of the Mexican-American respondents, growth advocacy may not be as strong among other minority groups.

ATTITUDES BY LOCATION AND LENGTH OF RESIDENCE

Attitudes towards stripmining may be influenced by the student's present environment. Students within the city limits of one of the three cities may want to see more growth in the associated service activities that may accompany the lignite development. Since all three cities are relatively small, the costs of growth evident in larger cities may not reach a threshold level unless very rapid growth takes place which stresses the municipalities' ability to respond. Persons living in more rural areas outside the cities may or may not prefer the lignite development, depending on whether they perceive that they will benefit from such growth.

The respondents were asked to indicate if they lived less than one mile from town. Persons living less than one mile from town tended to support the lignite

Table 4. Attitudes Towards Stripmining by Location

<i>Location</i>	<i>In Favor of Stripmining</i>		<i>Not in Favor of Stripmining</i>	
	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>
Less than one mile from center of town	66	55.9	52	44.1
On the edge of town	9	30.0	21	70.0
Greater than one mile from town	55	42.3	59	51.8
Total	130	49.6	132	50.4

Table 5. Attitude Towards Stripmining by Length of Residence

<i>Length of Residence in County (Years)</i>	<i>In Favor of Stripmining</i>		<i>Not in Favor of Stripmining</i>	
	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>
1 to 3	8	29.6	19	70.4
4 to 6	18	48.6	19	51.4
7 to 12	19	45.2	23	54.8
13 to 18	82	54.7	68	45.3
Total	127	49.6	129	50.4

mining (Table 4), while a majority of those living on the edge of town were against the development. Over 70 per cent of respondents living on the edge of town opposed it. This contradicts the notion that persons living in more rural environments are more growth-oriented. There are, however, a number of new developments in the county, and it may be that the negative responses are reflecting the attitudes of new in-migrants to the county.

Table 5 shows the responses tabulated by length of residence. The newer residents of the county, with only 30 per cent approving of lignite development, are clearly against stripmining in the county. By contrast, 55 per cent of long-term residents are in favor of the stripmining. Other residents who have lived four to twelve years in the county are either fairly evenly split or mildly disapproving of the lignite mining.

SUMMARY

A diverse literature is slowly emerging which tries to evaluate how differences in socioeconomic characteristics, type, length, and place of residence influence an individual's attitude towards development projects in rural areas.

Unfortunately, the results are often very place specific, and it is difficult to generalize beyond the specific region being studied. Part of the problem is lack of control areas, and a theoretical framework which can be used to test hypotheses. Nevertheless, several generalizations are emerging from this growing body of research.

The results of the Bastrop study support the notion that differences in attitudes do exist between groups with varying characteristics, but that these differences are not as great as suggested in some of the literature. Income is a prime example. Except for the highest income category, there is not much variation by income towards the proposed stripmining in Bastrop County. Similarly, contrary to expectations people living in more rural environments opposed the lignite development. When the data is broken down by racial and ethnic characteristics, some more clear-cut differences emerge, but even here it is apparent only for certain minority groups. While blacks are strongly in favor of development, Mexican-Americans are not.

Length of residence was the other characteristic which most clearly highlighted the differences in attitude towards lignite development. New residents were against development, while older residents were more evenly split between supporting and opposing stripmining. These kinds of conflicts will probably increase as the counterurbanization phenomenon continues to work itself out. To address more fully these issues, a better understanding is needed of how different groups view their cultural landscape and changes that occur in it over time. This requires a better conceptualization of how and why attitudes change. The rural renaissance came as a surprise to researchers and planner alike. Perhaps more studies probing attitudes will assist in predicting the next urban renaissance. Moreover, the extent to which attitudes converge, rather than diverge, on other characteristics may simplify the task of moving beyond individual place-oriented studies to a better understanding of the underlying processes which generate change.

ACKNOWLEDGEMENTS

The author would like to express his appreciation to Wyatt Dietrich, John Wright, Jeffrey Tunis, Charles Henning, and Terri Keen for their assistance in administering, coding, and tabulating the survey results.

REFERENCES

1. C. L. Beale, *The Revival of Population Growth in Non-metropolitan America*, U. S. Department of Agriculture, Washington, D.C., 1975.
2. P. Morrison, *The Current Demographic Context of National Growth and Development*, The Rand Corporation, Santa Monica, 1975.

3. D. R. Vining, Jr. and T. Kontuly, Population Dispersal from Major Metropolitan Areas: An International Comparison, *International Regional Science Review*, 6, pp. 49-73, 1978.
4. P. Gober, Federal Policy, Migration and Changing Geography, in *Federalism and Regional Development*, G. Hoffman (ed.), The University of Texas Press, Austin, pp. 293-326, 1981.
5. D. R. Vining, Jr. and A. Strauss, A Demonstration That the Current Deconcentration of Population in the United States is a Clear Break with the Past, *Environment and Planning*, 9, pp. 751-758, 1977.
6. P. M. Hauser, The Census of 1980, *Scientific American*, 245, pp. 53-62, 1981.
7. C. R. Humphrey and R. S. Krannich, The Promotion of Growth in Small Urban Places and Its Impact on Population Change, 1975-78, *Social Science Quarterly*, 61, pp. 581-594, 1980.
8. J. M. Wardwell, Equilibrium and Change in Non-Metropolitan Growth, *Rural Sociology*, 42, pp. 156-179, 1977.
9. B. J. L. Berry, The Counterurbanization Process: Urban America Since 1970, in *Urbanization and Counterurbanization*, B. J. L. Berry (ed.), Sage Publications, Beverly Hills, pp. 13-20, 1976.
10. J. B. Lansing and E. Mueller, *The Geographic Mobility of Labor*, Survey Research Center, University of Michigan, Ann Arbor, 1967.
11. J. D. Williams and A. J. Sofranko, Motivations for the Immigration Component of Population Turnaround in Nonmetropolitan Areas, *Demography*, 16, pp. 239-255, 1979.
12. L. Long and D. DeArge, *Migration to Nonmetropolitan Areas: Appraising the Trend and Reasons for Moving*, U. S. Department of Commerce, Washington, D. C., 1980.
13. A. R. Alanen and K. E. Smith, Growth Versus No Growth Issues with an American Appalachian Perspective, *Tijdschrift voor Economische en Sociale Geografia*, 68, pp. 30-42, 1977.
14. R. Little, Energy Boom Towns: Views from Within, in *Native Americans and Energy Development*, J. G. Jorgensen (ed.), Anthropology Resource Center, Cambridge, 1978.
15. G. Rudzitis, et al., *The Socioeconomic Impacts of Energy Development in Bastrop County, Texas*, Department of Geography, University of Texas, Austin, 1980.
16. J. D. Lord, The Dynamics of the Retail Geography of Texas, *Texas Business Review*, 55, pp. 272-274, 1981.
17. C. Tiebout, A Pure Theory of Local Expenditures, *Journal of Political Economy*, 64, pp. 416-424, 1956.
18. P. Samuelson, The Pure Theory of Public Expenditures, *Review of Economics and Statistics*, 36, pp. 387-389, 1954.
19. I. Schmedeman, Fertile Market in Rural Land, *Terra Grande*, 6, pp. 10-21, 1979.
20. E. G. Wermund, *Plan for the Multiple Land-Use of Camp Swift, Bastrop County, Texas*, Bureau of Economic Geology, University of Texas, Austin, 1977.

21. E. T. Hayes, Energy Resources Available to the United States, 1985-2000, *Science*, 203, pp. 233-239, 1979.
22. House Study Group, Texas House of Representatives, *Strip Mining in Texas*, Texas House of Representatives, Austin, 1978.
23. W. R. Kaiser, *Texas Lignite: Near Surface and Deep Basin Resources*, Bureau of Economic Geology, University of Texas, Austin, 1974.
24. R. W. Dietrich, Lignite Leasing and Landowner Perceptions of Surface Mining in Bastrop County, Texas, masters thesis, University of Texas, Austin, 1980.
25. Bureau of Land Management, *Final Environmental Impact Statement Proposed Camp Swift Lignite Leasing, Bastrop County, Texas*, U. S. Department of Interior, Washington, D. C., 1981.
26. J. Gilmore and M. Duff, *Boom Town Growth Management: A Case Study of Rock Springs-Green River, Wyoming*, Westview Press, Boulder, 1975.
27. R. L. Gold, *A Comparative Study of Coal Development on the Way of Life of People in the Coal Areas of Eastern Montana and Northeastern Wyoming*, Northern Great Plain Resources Program, Denver, 1974.
28. R. Dorfman, Incidence of the Benefits and Costs of Environmental Programs, *American Economic Review*, 67, pp. 333-340, 1977.
29. P. Shapiro, Voting and the Incidence of Public Policy: An Operational Model and an Example of an Environmental Referendum, *Working Paper in Economics No. 8*, University of California, Santa Barbara, 1972.

Direct reprint requests to:

Professor Gundars Rudzitis
The University of Texas
Department of Geography
Austin, Texas 78712