

THE FOURTH MIGRATION

by

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THE FOURTH MIGRATION

PREFACE

"Why do people choose to live in one city (or area) over others?" and "To what cities, regions, or areas (of the United states) would people like to move if they had the chance--meaning they do not have to worry about the usual constraints of income or job availability?" These questions were raised by Professor Gary Hack, who taught 11.311, Environmental Programming in the fall of 1974.

After talking with Professor Hack and Professor Tunney Lee about the above questions, they introduced me to Dr. David Birch, who has been working on the subject of migration for quite some time. I had several meetings with Dr. Birch before we decided that the topic of migration can be my possible thesis topic.

I visited Charlotte and Houston to conduct interviews with the financial support from MIT Summer UROP Project, since Dr. Birch was working very closely with the regional planning councils in both cities.

Another course I took over the fall of 1975 helped me understand the subjects of spatial images and mental maps in great detail. The course is 11.310, Psychology of the Environment, taught by Professor Molly Potter.

Many individuals provided inspiration for my work. More particularly, however, I thank Dr. Birch for providing me with good advice throughout our meetings. I also thank 101 persons

in Charlotte and 76 people in Houston who shared some of their time talking with me and answering my questionnaire. People at the two planning councils provided me all the data I needed while I was interviewing. Judy Nusinoff, a senior at Brown University, helped me with the tabulation of my data.

Shinichiro Yoshida
January 21, 1976

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1. Introduction

A well-known American generalist, Lewis Mumford, presents the idea of the Fourth Migration in one of his many famous books, The Urban Prospect. He, in fact, as early as in 1925, sensed the coming of the Fourth Migration.

To many Americans, the first three migrations are pretty obvious. In order to put the fourth migration in perspective, let me consider briefly the three great movements of population that swept through the United States.

The first migration was the clearing of the continent; and its general direction was from east to west. This was the period of pioneers and the symbol was the covered wagon, later replaced by the railways.

The second great flow of population in America was from the countryside (and from foreign countries) into the factory town. The industrial revolution, which started in England, and spread throughout the advanced Western European countries, finally reached the United States in early 1800s.

With the introduction of steam power, factories were erected in places where power, as in the mill towns of New England and Pennsylvania, or factory lands, as in the ports (sea or river), seemed most available.

The magnet of the third migration was the financial center. As the industrial system developed in America, productive effort came to take second place to financial direction. In the great consolidations of industry that began in the eighties, in the growth of banking and insurance facilities in the nineties, and

in the development of advertising for the purpose of securing a national market, which got under way in the present century, the sales and promotion departments have absorbed, directly or indirectly, a large part of the population.

The first three migrations had certain peculiar characteristics which left their marks on America's landscape and everyday life. The conservation movement is a belated attempt to repair the evils of the first migration, and to use the land and its resources with some respect for their permanent productive capacity. It also left the idea that the rural way of life was an ideal way of life.

The conditions that determined the second flow of population were narrowly industrial: a city was considered solely as a place of work and business opportunity. The concentration of masses of people in small areas gave rise to a host of problems; among them was housing, the prevention of crime, public health, recreation, education, and the organization of municipal government.

The third migration has resulted in a steady drain of goods, people and pecuniary resources from the industrial towns and villages of the earlier migrations. It is important to note that art museums, libraries, universities, research institutions are its cultural by-products.

The concentration of population in great cities was intensified, and changes in economic and social groupings took place. New ideas and concepts, as results of industrialization and urbanization, came along to modify the pattern of Western thought and culture.

It is important to remember "that the movement of population is not from farm-village, to industrial town, to financial metropolis: the migrations, rather, come as successive waves, and while one wave recedes as the next comes foaming in, the first nevertheless persists and mingles with the second as an undertow." (Mumford, p. xvi)

In fact, all three earlier migrations still exist as the nation's population is moving to the West (Boston Globe, December 21, 1975, p. 58), although the pioneer spirit might not be the main cause, for job seekers are swarming into a number of industry towns including Odessa, Texas (U.S. News and World Report, March 24, 1975, p. 18-19) and many others are surging into big financial centers including New York, Philadelphia and Chicago (U.S. News and World Report, March 24, 1975, p. 17).

Now it is clear "that the three earlier migrations, and especially the third, has not produced a good environment: it has sacrificed home, health, and happiness to the pursuit of business enterprise designed to produce maximum profits." (Mumford, p. xix) What, then, is the basis of the fourth migration? Mumford noted the technological revolution--namely transportation and communication technology--that had been taking place as its basis. His views on automobile, airplane, telephone, radio and electric transmission were quite correct as the basis of the fourth migration. Today, I can add television and written media to Mumford's 40-year-old list. "Television is the 'adrenaline of the body-politic, because it excites us all simultaneously (and more effectively than radio)," says John Platt, a humanistic

scientist. (The Futurist, October 1975, p. 266) We are almost in the era of closed circuit meeting system which might replace the traditional face-to-face meeting.

Mumford concluded his discussion of the fourth migration as follows:

It is evident that each great migration of population, in sum, presents a new opportunity and a new task, and wisdom consists in taking advantage of the movement while it is still fluid. Fortunately for us, the fourth migration is only beginning: we may either permit it to crystallize in a formation quite as bad as those of our earlier migrations, or we may turn it to better account by leading it into new channels. . . Even if there were no fourth migration on the horizon it would be necessary to invent one. It is at least a fruitful hypothesis and it offers a more humane goal than any of those we are blindly following! (Mumford, p. xx)

2. Data Collecting

2.1 Charlotte and Houston

Since my advisor, Dr. David Birch, was working with Charlotte-Mecklenburg Planning Commission and Houston Galveston Area Council on a federally funded research project Neighborhood Evolution and Decay, and with financial support from MIT UROP project, I had an opportunity to visit Charlotte and Houston in the summer of 1975. I stayed for four weeks and five weeks in Charlotte and in Houston, respectively.

2.1.1 Charlotte

Charlotte is the largest city in the two Carolinas with population of 305,500 in January 1975, and is the heart of a 12-county area known as Metrolina. This metropolitan region is one of the South's leading industrial areas and is the leading center of textile productions in the United States. Charlotte serves as the financial, distribution, and transportation center of Metrolina and to some degree the entire Carolinas.

Charlotte has been developing rapidly over the last five years as an important center for location of regional headquarters of major United States companies.

2.1.2 Houston

In July, 1975, Houston passed Detroit to become the fifth largest city in the United States with population of 1,440,000. Without the triumph over climate represented by the dome, it is very likely that Houston would still be the torpid, medium-sized city it was in 1950. Houston could not have begun to boom without one terribly important creature comfort--air conditioning.

Houston's many enticements include cheap office space in ultramodern skyscrapers, a relatively easy commute from inexpensive houses (in impeccably manicured suburbs), a lower cost of living, and a clean city. According to the 1970 Census, Houston enjoys the highest growth rate of any comparable city in the United States.

2.2 Data

I will be using two different sources of data: one is the survey I conducted for this thesis during the past summer, and the other one is the seventeen (17) brief interviews I conducted with my MIT friends for the course 11.310, Psychology of the Environment, taught by Professor Molly Potter. I managed to interview 101 people in Charlotte and 76 people in Houston. However, I did not use the last person I interviewed from each city simply to make tabulation easier.

2.3 Sampling

A random sampling method is used for Charlotte-Houston data by going to most of the neighborhoods in two cities, and knocking doors, asking people on streets, or outside their houses working. I also used a telephone interviewing method for about 10% of the data in each city.

On the average, every one out of five people who I asked for interviews refused to participate. The lengths of the interviews ranged anywhere from 15 minutes to 45 minutes. The interviews I conducted in Charlotte were usually much longer than those in Houston. People in Charlotte seemed to have more time and cooperation for this type of surveying; but people in Houston seemed to

be in a hurry and were not interested (as much) in what I was doing.

The samples of the other belief interviews I conducted are all MIT undergraduate students. They all live in a same fraternity house. Thus I must say that this data is very homogeneous in the social and demographic backgrounds. The interviews took about five to ten minutes.

I tried hard to make all my interviewing as informal as possible, e.g., going on to talk about some subjects that are not in my questionnaire.

2.4 Questionnaire Design

The information to be collected about each respondent was of two basic types: socio-demographic, and facts about his migration and his spatial images. Eleven (11) different socio-demographic variables were covered: sex, age, race, education, occupation, income, housing, family size, grow-up place, last residence, and present residence.

The questions were ordered so that I could get respondent's background (including his migration history) at the beginning and his feelings for moving and images of places at the mid-point of the interviews. I asked the reasons for moving question by giving sixteen (16) reasons and the image question by naming some of the major American and Canadian cities last because, I thought, some people might not have time or might not like to answer the lengthy question. I did not ask the image question in Houston at all, due to the lack of respondents' time available.

I did not collect socio-demographic information from MIT students because, as I said before, they have pretty similar

backgrounds and interests. Only other information I obtained from them were their mental maps.* Both the questionnaires--Charlotte-Houston survey and MIT-student survey--are in the Appendix.

2.5 Data Processing.

The information obtained from each of the 175 Charlotte-Houston interviews conducted was coded and analyzed. I used a computer program called EFFECT, which was developed at the Office of Computing Services of the MIT Laboratory of Architecture and Planning. EFFECT is a fast and inexpensive system for creating and printing n-dimensional cross-tabulations.**

* Mental maps--see Gould & White.

** See Appendix for an example of the actual program.

3. Social and Demographic Profile of the Respondents

The data collected from the random sample of 175 people in Charlotte and Houston provided information on eleven major socio-demographic characteristics: sex, age, race, education, occupation, income, housing, family size, grow-up place, last residence, and present residence.

3.1 Sex and Race Distribution

In terms of sex, 62 percent of the sample was male and 38 percent female. This high proportion of males is mostly attributed to the times the survey was conducted and I was conscious of interviewing too many housewives. The female percentage was slightly higher in Houston as it was harder for me to visit males at work than it was in Charlotte.

TABLE I
Sex

	Charlotte	Houston	Total
Male	66 (66%)	42 (56%)	108 (62%)
Female	34 (34%)	33 (44%)	67 (38%)
Total	<u>100</u>	<u>75</u>	<u>175</u>

Race was only broken down into two groups: non-black (81%) and black (19%). Both Standard Metropolitan Statistical Areas (SMSAs) have approximately 20 percent black population. I interviewed a number of Mexican-Americans and they are, of course, included in non-black population.

TABLE II
Race

	Charlotte	Houston	Total
Non-black	78 (78%)	63 (84%)	141 (81%)
Black	22 (22%)	12 (16%)	34 (19%)
Total	<u>100</u>	<u>75</u>	<u>175</u>

3.2 Age, Family Size and Housing

Age was broken down into six groups with the following distribution: less than 20 (2%), 20-24 (11%), 25-34 (51%), 35-44 (17%), 45-54 (13%), older than 55 (5%), and not available (NA) (1%). It is surprising for me to find out that more than a half of the people I interviewed are in the 25-34 group.

TABLE III
Age

	Charlotte	Houston	Total
Less than 20	0 (0%)	3 (4%)	3 (2%)
20-24	11 (11%)	9 (12%)	20 (11%)
25-34	58 (58%)	32 (43%)	90 (51%)
35-44	16 (16%)	14 (19%)	30 (17%)
45-54	11 (11%)	12 (16%)	23 (13%)
Older than 55	3 (3%)	5 (7%)	8 (5%)
Not Available	1 (1%)	0 (0%)	1 (1%)
Total	<u>100</u>	<u>75</u>	<u>175</u>

There are six groups for number in family: single person, married couple, family with one child, and family with two children. Each group holds about 20% of my whole Charlotte-Houston data. I interviewed more single people in Houston (24%) than in Charlotte (10%).

TABLE IV
Family Size

	Charlotte	Houston	Total
Single	12 (12%)	21 (28%)	33 (19%)
Married couple	20 (20%)	18 (24%)	38 (22%)
One child	24 (24%)	8 (11%)	32 (18%)
Two children	24 (24%)	13 (17%)	37 (21%)
Three children	8 (8%)	9 (12%)	17 (10%)
More than three children	10 (10%)	6 (8%)	16 (9%)
Total	<u>100</u>	<u>75</u>	<u>175</u>

Of 175 persons interviewed, 63 percent were living in their owned homes. This percentage for Charlotte, however, is 70%, and for Houston it is 55%. It is the fact that there are more renter occupied housing units in Houston than in Charlotte (but not much, about 3% more).

TABLE V
Housing

	Charlotte	Houston	Total
Owned	70 (70%)	41 (55%)	111 (63%)
Rented	24 (24%)	32 (43%)	56 (32%)
Not Available	6 (6%)	2 (3%)	8 (5%)
Total	<u>100</u>	<u>75</u>	<u>175</u>

3.3 Education, Occupation and Income

In terms of education, the less than high school represented 17 percent, 2 years of college is 13 percent, 4 years is 41 percent, and more than 4 years is 23 percent for males. For the education of spouse, 25 percent have no spouse, 21 percent had high school education, 13 percent had 2 years of college, 31 percent had 4 years, and 7 percent had more than 4-year degrees.

TABLE VI
Education of Family
Head

	Charlotte	Houston	Total
Less than high school	14 (14%)	16 (21%)	30 (17%)
2-year college	15 (15%)	8 (11%)	23 (13%)
4-year college	36 (36%)	35 (47%)	71 (41%)
More than 4-year college	27 (27%)	14 (19%)	41 (23%)
Not available	8 (8%)	2 (2%)	10 (6%)
Total	<u>100</u>	<u>75</u>	<u>175</u>

Education of Spouse

	Total
No Spouse	43 (25%)
Less than high school	36 (21%)
2-year college	23 (13%)
4-year college	54 (31%)
More than 4-year college	12 (7%)
Not available	7 (3%)
Total	<u>175</u>

Eight different occupational categories were used in tabulating. Only the laborer-group was not represented by any respondents. The three categories most frequently cited for the occupation of family-head were professional/management (64%), sales/clerk (12%), and crafts/operatives (11%).

TABLE VII
Occupation of Family Head

	Charlotte	Houston	Total
Professional/Management	70 (70%)	42 (56%)	112 (64%)
Sales/Clerk	9 (9%)	12 (16%)	21 (12%)
Crafts/Operatives	9 (9%)	11 (15%)	20 (11%)
Laborer	0 (0%)	0 (0%)	0 (0%)
Unemployed	2 (2%)	0 (0%)	2 (1%)
Retired	3 (3%)	4 (5%)	7 (4%)
Students	6 (6%)	5 (7%)	11 (6%)
Not available	1 (1%)	1 (1%)	2 (1%)
Total	<u>100</u>	<u>75</u>	<u>175</u>

Occupation of Spouse

	Total
No Spouse	43 (25%)
Professional/Management	29 (16%)
Sales/Clerk	27 (15%)
Crafts/Operatives	5 (3%)
Laborer	0 (0%)
Unemployed	1 (1%)
Retired	2 (1%)
Students	4 (2%)
Housewife	60 (34%)
Not available	4 (3%)
Total	<u>175</u>

Ten different income groups were represented in the sample. Both \$15,000-\$19,999 and \$20,000-\$24,999 groups collected 19% of the sample; and \$12,000-\$14,999 and \$25,000-\$34,999 groups received 12% and 13% respectively. The distribution of income gave me almost a perfect curve with a peak at about \$20,000.* The Charlotte income distribution curve is almost identical to that of the combined one. However, the Houston income distribution curve shifted to the right a little (that is a slight increase in income level) and also has two peaks at \$12,000-\$14,999 (17%) and at \$25,000-\$34,999 (16%). The main reason for the peak at \$12,000-\$14,999 group would be a single middle-Americans fall into this category.

* See the Coleman's Report in Appendix.

TABLE VIII
Family Income

	Charlotte	Houston	Total
Less than \$5,000	3 (3%)	4 (5%)	7 (4%)
\$5,000-\$7,999	5 (5%)	1 (1%)	6 (3%)
\$8,000-\$9,999	7 (7%)	4 (5%)	11 (6%)
\$10,000-\$11,999	6 (6%)	5 (7%)	11 (6%)
\$12,000-\$14,999	8 (8%)	13 (17%)	21 (12%)
\$15,000-\$19,999	22 (22%)	11 (15%)	33 (19%)
\$20,000-\$24,999	22 (22%)	11 (15%)	33 (19%)
\$25,000-\$34,999	10 (10%)	12 (16%)	22 (13%)
\$35,000-\$49,999	5 (5%)	6 (8%)	11 (6%)
More than \$50,000	1 (1%)	2 (3%)	3 (2%)
Not available	11 (11%)	6 (8%)	17 (10%)
Total	<u>100</u>	<u>75</u>	<u>175</u>

3.4 Grow-up Place, Last Residence and Present Residence

The information closely related to each respondent's migration history are grow-up place, last residence and present residence. More than fifty percent of the sample have grown up in the South (52%) and, also, had last residences in the South (55%). The percentage of people who grew up in the West and the North-Central are same for both Charlotte and Houston at 5% and 10%, respectively. There are more persons who grew up in the Northeast in Charlotte (12%) than there are in Houston (8%). I interviewed more natives in Houston (25%) than I did in Charlotte (18%). These statistics for grow-up place can be used for last residence without much change.

TABLE IX
Grow-up Place

	Charlotte	Houston	Total
Native	12 (12%)	19 (25%)	31 (18%)
Northeast	15 (15%)	6 (8%)	21 (12%)
North Central	10 (10%)	8 (11%)	18 (10%)
South	55 (55%)	36 (48%)	91 (52%)
West	5 (5%)	4 (5%)	9 (5%)
Foreign	2 (2%)	0 (0%)	2 (1%)
Mover	1 (1%)	0 (0%)	1 (1%)
Not available	0 (0%)	2 (3%)	2 (1%)
Total	<u>100</u>	<u>75</u>	<u>175</u>

TABLE X
Last Residence

	Charlotte	Houston	Total
Native	11 (11%)	18 (24%)	29 (17%)
Northeast	13 (13%)	5 (7%)	18 (10%)
North Central	8 (8%)	5 (7%)	13 (7%)
South	58 (58%)	39 (52%)	97 (55%)
West	6 (6%)	5 (7%)	11 (6%)
Foreign	4 (4%)	1 (1%)	5 (3%)
Not available	0 (0%)	2 (2%)	2 (2%)
Total	<u>100</u>	<u>75</u>	<u>175</u>

One of the most interesting findings of socio-demographic characteristics for Charlotte-Houston data is the size of grow-up place and last residence. According to my data, people who moved into Charlotte are medium size city people or less (considering both grow-up place and last residence), and people in Houston are large size city people.*

For combined data, medium size and large size cities hold about the same percentage for both grow-up place and last residence. It is important to consider natives into account

* Charlotte is a medium size city with a population of 241,178.

Houston is a large size city with a population of 1,985,031.

(Source: 1970 Census)

when discussing grow-up place, last residence, and present location.

TABLE XI

Grow-up Size

	Charlotte	Houston	Total
Rural	15 (15%)	21 (28%)	36 (21%)
Small size city	20 (20%)	13 (17%)	33 (19%)
Medium size city	38 (38%)	10 (13%)	48 (27%)
Large size city	23 (23%)	27 (36%)	50 (29%)
Not available	4 (4%)	4 (6%)	8 (4%)
Total	<u>100</u>	<u>75</u>	<u>175</u>

TABLE XII

Last Residence Size

	Charlotte	Houston	Total
Rural	15 (15%)	8 (11%)	23 (13%)
Small size city	12 (12%)	17 (23%)	29 (17%)
Medium size city	46 (46%)	12 (16%)	58 (33%)
Large size city	20 (20%)	36 (48%)	56 (32%)
Not available	7 (7%)	2 (3%)	9 (5%)
Total	<u>100</u>	<u>75</u>	<u>175</u>

I divided both Charlotte and Houston into four districts. Charlotte was divided into North, West, South, and East. South and East are dominant non-black sections and North and West are black sections. The "best" section of the city is the South or what people in Charlotte call it "Southeast". In East, there are a lot of young people, many renter occupied housing units, and increasing black population. In general, this is the section of The World of Just Getting Along to The Average-Man Comfortable Existence in Dr.Coleman's scale.

To divide Houston into districts was much easier than it was in Charlotte. There seems to be clear boundaries between each district and, in fact, all I had to do was to follow the Census Tracts. Southwest and Northwest are inhabited largely by white population, Southeast by black population, and Northeast by black and Mexican-American population.

TABLE XIII

Present Location

Charlotte			Houston		
North	12	(12%)	Northwest	3	(4%)
West	5	(5%)	Southwest	56	(74%)
South	53	(53%)	Southeast	7	(9%)
East	15	(15%)	Northeast	1	(1%)
out of city limit	3	(3%)	out of city limit	3	(4%)
Not available	12	(12%)	Not available	6	(9%)
	<u>100</u>			<u>75</u>	

The very large proportion of my sample in South for Charlotte and in Southwest for Houston are mainly due to my residencies in the respective sections of cities.

4. Patterns of Mobility*

"Geographic mobility is a complex phenomenon" - this is how Lansing starts his chapter on Patterns of Mobility in The Geographic Mobility of Labor. I will directly quote two paragraphs following his above line.

Actual moves may be classified in various ways. Moves differ according to the distances moved. People may move more than once. It is possible to classify people according to the number of times they have moved. Moves may be compared to each other. A person's second move may be a movement back to the place of origin of the first move or an extension or continuation of the first move. Moves differ according to the places of origin and destination of the move, and may be grouped into migration streams defined in terms of groups of origins and destinations. Places of origin and destination differ according to their density of population as well as their geography. One speaks of the movement from farms to cities, for example.

Moves also may be classified according to the reasons which people report for making them. This discussion leads to the consideration of the determinants of mobility.

It is very important to define "geographic mobility" before I go any further. Lansing defined mobility as moves across the boundaries of labor market areas as defined by the Department of Labor. In general the boundaries of labor markets coincide with the boundaries of metropolitan areas (Lansing and Mueller, p. 12). I basically used the boundaries of metropolitan areas for my work.

* From this section to the section 6, I will follow the work of Lansing and Mueller very closely. Their work at the Institute for Social Research, the University of Michigan came out as The Geographic Mobility of Labor in 1967. I found this book very interesting and extremely helpful in guiding me into the right direction. It also gave me an opportunity to compare their data against my own. Their sample was collected between August, 1962 and August, 1963, and mine between June and August of 1975.

4.1 The Frequency with which people move.

The proportion of the population whom one considers to be mobile depends not only on the definition of mobility one adopts but also on the length of time considered. While the proportion of the population who move in a year is low, although it is growing, the proportion who move in a lifetime is impressive.

4.1.1 Movement in one year

Estimates published by the Bureau of the Census in its series of Current Population Reports provide the best estimates of the mobility of the population from year to year. The proportion of the population who moved from March 1962 to March 1963 was reported as follows:

TABLE 1*	
Movement in One Year (1962-1963)	
<u>Mobility Status</u>	<u>Civilian Population One Year Old and Over</u>
Same House(nonmovers)	80.0%
Different house in the U.S. (movers)	19.4
Same county	12.6
Different county (migrants)	6.8
Within a state	3.1
Between states	3.6
Abroad at beginning of period	<u>0.6</u>
	100.0%

* Lansing and Mueller, p. 14.

Since I did not consider the movement within a metropolitan area the geographic mobility, I do not have any information on my respondents' movements within Charlotte or Houston.

TABLE 2
Movement in One Year
(1975)

<u>Mobility Status</u>	<u>Respondents (175 total)</u>
Same city (nonmigrants)	84.0%
Different City (migrants)	13.8
North-east	2.3
North-central	1.7
South	6.3
West	2.3
Foreign	0.6
Not available	0.6
Not available	<u>2.2</u> 100.0%

Migrants held only 6.8 percent in 1962-63 as opposed to 13.8 percent in 1975. Of 6.3 percent who migrated from South, I would guess that over a half of them moved in from within the states of North Carolina and Texas.

4.1.2 Movement in five years

If a period of time longer than one year is considered, the proportion of the population who move will be larger. The 1960 Census collected data on residence in 1955 and, hence, shows estimated mobility over a five year period.

TABLE 3
Movement in Five Years
(1955-1960)

<u>Mobility Status</u>	<u>Population 5 Years Old and Over</u>	
Same house (nonmovers)	49.9%	
Different house in the U.S. (movers)	47.3	
Same county	29.8	
Different county (migrants)	17.5	
Same state	8.6	
Different state	8.9	
Abroad in 1955	1.3	
Moved, place of residence in 1955 not reported	<u>1.0</u>	
Total	100.0%	

Source: Lansing and Mueller, p. 15.

The proportion of migrants over the five year period, 17.5 percent, is roughly three times the rate for a single year. How does the 1970-75 data (my data) compare with the 1955-1970 Census data?

TABLE 4
Movement in Five Years
(1970-1975)

<u>Mobility Status</u>	<u>Respondents (175 total)</u>	
Same city (nonmigrants)	40.3%	
Different city (migrants)	51.4	
North-east	8.6	
North-central	5.7	
South	28.6	
West	2.9	
Foreign	1.7	
Not available	0.5	
Not available	<u>2.3</u>	
	100.0%	

The proportion of migrants in the 1970-75 period is almost three times the proportion in the 1955-60 period. Or there is always a chance that I interviewed more migrants than the average. In any case, it is true that people are getting more mobile.

4.1.3 Lifetime Mobility

Lansing and Mueller discovered from their sample that 27 percent have never lived outside their present area of residence, leaving 73 percent as migrants. The percentage of natives, in my sample, is only 10 percent, while 88 percent are migrants (2% not available).

TABLE 5
Cumulative Mobility of Family Head
(1975)

	Charlotte	Houston	Total
Native	6 (6%)	11 (15%)	17 (10%)
Less than 1 year	11 (11%)	13 (17%)	24 (14%)
1-3 years	24 (24%)	11 (15%)	35 (20%)
3-5 years	21 (21%)	10 (13%)	31 (18%)
5-10 years	16 (16%)	8 (11%)	24 (14%)
More than 10 years	<u>20</u> (20%)	<u>20</u> (27%)	<u>40</u> (23%)
Total	100	75	175

The first proposition of my work is Americans today are more mobile than ever before and they are getting more and more mobile everyday.

4.2 Distances Moved

For some purposes it is useful to take into account the distances people have moved. Some people would not like to move more than a certain distance from the place they grew up for family ties and other social ties, for example.

4.2.1 Distances from grow-up place

Lansing and Mueller found that 40 percent of their sample were natives*, 28 percent were living 500 miles or more from the place they grew up, including 21 percent over 1000 miles.

TABLE 0
Distances from Grow-Up Place
(1962-1963)

<u>Distance (Miles)</u>	<u>Per Cent</u>
Still living at birthplace or within 25 miles of birthplace	40
25-49	5
50-99	6
100-199	10
200-299	5
300-499	6
500-999	7
1000 or over	<u>21</u>
Total	100%
Number of heads of families	3991

Source: Lansing and Mueller, p. 28.

A calculation of the 1960 Census data shows 31.3 percent of the total population aged 20 or over were not born in the state in which they now reside.

* 25 miles or less

my data shows only 20 percent as natives of either Charlotte or Houston. Of 175 people I interviewed, 45 percent moved within 500 miles, 33 percent more than 500 miles, including 12 more than 1000 miles.

TABLE 7
Distances from Grow-Up Place
(1975)

<u>Distance (Miles)</u>	<u>Family Heads</u>
Native	34 (20%)
Less than 100 miles	18 (10%)
100-199	23 (13%)
200-299	11 (6%)
300-499	28 (16%)
500-999	36 (21%)
1000-1499	12 (7%)
More than 1500	9 (5%)
Not available	<u>4</u> (2%)
Total	175

At least 59 percent of the Charlotte sample had not grown up in North Carolina, and 33 percent of the Houston sample moved in from outside Texas.*

4.2.2 Distances from last residence

People may not have reached their present location in a single move. It might be our advantage to know the distribution of most recent moves. For the Lansing-Mueller sample, about half of the moves were for 200 miles or more, and the other half, for shorter distances.

* I used 200 miles and 500 miles for Charlotte and Houston samples, respectively, for this calculation.

TABLE 8
Distances from Last Residence
(1962-1963)

<u>Distance (Miles)</u>	<u>Per Cent</u>
Less than 15	5
20-40	15
50-90	14
100-190	17
200-390	17
400-590	10
600-990	8
1000-1490	7
1500 or over	<u>7</u>
Total	100%
Number of moves	639

Source: Lansing and Mueller, p. 28.

56 percent for 200 miles or more and 44 percent for less than 200 miles are the statistics for Charlotte-Houston data.

TABLE 9
Distances from Last Residence
(1975)

<u>Distance (Miles)</u>	<u>Family Heads</u>
Native	22 (12%)
Less than 100 miles	26 (15%)
100-199	29 (17%)
200-299	24 (14%)
300-499	19 (11%)
500-999	29 (17%)
1000-1499	15 (9%)
More than 1500	9 (5%)
Not available	<u>2</u>
Total	175

4.2.3 Distances of longest moves

I also calculated my respondents' longest moves. 72 percent of my respondents have moved more than 200 miles at least once in their lives including 51 percent for more than 500 miles with 27 percent for more than 1000 miles.

TABLE 10
Distances of Longest Moves

<u>Distances (Miles)</u>	<u>Family Heads</u>
Native	20 (12%)
Less than 100 miles	8 (5%)
100-199	18 (18%)
200-299	14 (8%)
300-499	23 (13%)
500-999	42 (24%)
1000-1500	24 (14%)
More than 1500	22 (13%)
Not available	4
Total	<u>175</u>

My second proposition is Americans are moving longer distances to look for better life, better jobs, and so forth, due to the great advancement in technology, especially in the field of transportation and communication.

4.3 Repetitive Movement

Movement may be repetitive in several senses. A single individual may move more than once in a given period of time. If he does move more than once, he may or may not return to his starting point or to a point where he has lived at some time during his career.

4.3.1 Number of Moves

In a period of 12½ years between 1950 and 1963, Lansing and Mueller found 29 percent of their sample moved at least once.

TABLE 11
Number of Moves
(1962-1963)

<u>Number of Moves Since 1950</u>	<u>Per Cent of Heads of Families</u>
None	71
One	13
Two	8
Three	4
Four	2
Five	1
Six or more	<u>1</u>
Total	100%
Mean number of moves	2.17

Source: Lansing and Mueller, p. 30.

Since the information I collected was my respondents' number of childhood movements and adulthood movements, I cannot quite compare my results with Lansing and Mueller's. My results look as follows:

TABLE 12
Number of Child Moves and Adult Moves
(1975)

	<u>Number of Child Moves (%)</u>			<u>Number of Adult Moves (%)</u>		
	Charlotte	Houston	Total	Charlotte	Houston	Total
0	58%	59%	58%	12%	19%	15%
1	10	16	13	15	24	19
2	10	9	10	18	13	16
3	7	3	5	18	17	18
4	5	4	5	9	8	9
5	3	1	2	12	5	9
6	2	3	2	5	1	3
7	2	1	2	6	3	5
More than 7	0	0	0	3	4	3
Not available	3	4	3	2	5	3

Almost 60 percent of my respondents do not have any childhood movements. However, for number of adulthood movements, 15 percent have never moved and 20 percent moved five times or more.

4.3.2 Return Moves

A move may be a return in several different ways. Generally, a move may be a return to any place where a person had ever lived.

TABLE 13
Whether Moves Were Returns

A. <u>To Birthplaces</u>	<u>Per Cent</u>	
	Lansing-Mueller	Charlotte-Houston*
Yes	9	10
No	<u>91</u>	<u>90</u>
Total	100	100

*For Charlotte-Houston data, birthplaces are only Charlotte and Houston

B. <u>To Places Where Respondents Had Lived at any Time</u>		
Yes	20	43
No	79	56
Not Available	<u>1</u>	<u>1</u>
Total	100	100

In any analysis, it is necessary to keep in mind the fact that a single move may be only a part of a sequence of moves. (Lansing and Mueller, p. 33).

4.4 Migration Streams

The migration streams at the time of Lansing and Mueller's work were as following:

The major currents of movement in American history have been remarkably persistent and are well known. They include the movement to the West (the First Migration); the movement out of the South to the Northeast and North Central regions (the Second and Third Migration); and the movement from the rural areas to the cities (mainly the Third Migration). To these should be added for some purposes the movement from the cities to the suburbs (should be included in the Third Migration, although this movement follows the Third Migration), but the present point of view this flow is not of special interest, since it is largely within labor market area boundaries.

The migration streams of 1975 were not exactly the same as those of the 1962-63 period.

"Nation's population is older and moving to West, ^{South} South" was one of the headlines for the Boston Sunday Globe, on December 21, 1975. The West of 1975 is not the same as it was in 1962-63, and the North-South stream has reversed. In 1962-63, the West meant almost automatically California; but, today, the West are Arizona, Nevada, Alaska, Idaho, Colorado, and Utah. The population of the South grew 8.4 percent between

1970 and 1975, as opposed to 0.8 percent in the Northeast and 1.9 percent in the North Central.*

4.5 Reasons for Moving

Since I will be discussing the reasons for moving later on in this paper, I would like to find out the changes in the reasons by using the previous studies.

TABLE 14
Reasons for Moving

	<u>Source 1</u>		<u>Source 2</u>	<u>Source 3</u>	<u>Source 4</u>
	Total %	Males Only	Total %	Total %	Total %
Economic reasons					57
Purely economic reasons				58	
To take a job	40.2	49.9	29.5		
To look for a job	11.7	13.2	11.9		
Job transfer			8.1		
Partly economic reasons				14	
Marriage and family	10.1	3.5	14.6		
Non-economic reasons				23	31
Housing problems	14.7	15.0			
Health	2.9	2.7			
Other reasons	20.4	15.7	35.3		9
No reason given			.6	5	3

- Source 1: The Current Population Survey of October 1946.
 Source 2: Census for the Bureau of Labor Statistics, March 1963.
 Source 3: Lansing-Mueller, p. 38.
 Source 4: Charlotte-Houston data.

* See Appendix

4.6 Variation in Mobility Rates

Lansing and Mueller stated, "One of the most striking characteristics of mobility is that it is highly selective."

For some elements in the population mobility rates are much higher than the average for the population as a whole, while for others, the rates are much lower. Of the attributes of the population associated with mobility two are especially important, age and education.

Let me see how this is still true.

4.6.1. Age

The relation between mobility in the last five years and the age of the head of the family estimated from this survey is shown in . . . (Table 15). People now aged 18-24 are seven times as likely to have moved in the past 5 years as those aged 65 or over. Of those 18-24 35 per cent have moved, but of those 65 or over only 5 per cent.

TABLE 15
Whether Moved in Last Five Years by Age of Head

<u>Age</u>	<u>Moved in last five years</u>	<u>Did not move</u>	<u>Total</u>
18-24	35%	65%	100%
25-34	28	72	100%
35-44	14	86	100%
45-54	11	89	100%
55-64	8	92	100%
65 or over	5	95	100%
Total (Average)	15	85	100%

Source: Lansing and Mueller, p. 40-41.

The mobility rate increased more than twice for all age groups in the last 12 years from 1963 to 1975.

TABLE 16
Whether Moved in Last Five Years by Age of Head
(1975)

<u>Age</u>	<u>Moved in last five years</u>	<u>Did not move</u>	<u>Total</u>
Less than 20	67%	23%	100%
20-24	75	25	100%
25-34	60	40	100%
35-44	33	67	100%
45-54	35	65	100%
55 or over	13	87	100%

4.6.2 Education

A second basic determinant of mobility is education. Mobility rates in general tend to rise with education.

TABLE 17
Education

<u>Education</u>	<u>Per Cent Who Migrated</u>
Elementary: 0-8 years	4.0
High School: 1-3 years	4.8
4 years	6.0
College: 1 year or more	8.8

A similar result can be obtained from my Charlotte-Houston data.

TABLE 18

Education
(1975)

<u>Education</u>	Migrants	
	<u>Yes</u>	<u>No</u>
Less than high school	70%	30%
2-year college	91%	9%
4-year college	87%	13%
More than 4-year college	93%	7%

4.6.3 Other Socio-economic Characteristics

Among income, occupation, distance from last residence, and so forth, only race gave me a table worth noting.

TABLE 19

	Non-Black	Black
Migrants	89%	65%
Non-Migrants	11%	35%
Total	100%	100%
Number of Respondents	141	34

4.7 Desire to Move

How much one likes to move is a very interesting question to ask, but it is also the one question I failed to ask during my interviews. Although I asked by respondents where they would like to move to, I did not find out how much they would like to move away from where they were. Lansing and Mueller found out that every one out five respondents would prefer to move.

5. Reasons for Moving

It is clear from section 4.5 that people move largely for economic reasons: 58 percent mentioned economic reasons only in the Lansing-Mueller survey, and 57 percent of my sample gave economic reasons as the most important reasons for moving. My 57 percent include not only those who were motivated by economic reasons only, but also those who reported a combination of economic and non-economic reasons. The non-economic reasons mentioned along with economic reasons are family, friends, climate, environment (nice or comfortable place to live, for example), and city size.

Economic factor is still the major reason for moving, but I see a change in the pattern. The proportion of people who gave only economic reasons decreased somewhat between 1962-63 and 1975. It dropped from 58 percent in 1962-63 to probably about 40 percent in 1975. On the other hand, the proportion of those who moved for non-economic reasons increased from 23 percent to 31 percent.

In order to find out what reasons are important to people when they think of moving, I listed 16 reasons and asked by respondents to pick 5 most important reasons in the order of importance. One might argue that this question may not be of any value to those who have no desire or plan to move. As he can see from my result, not everyone did give answers to the above question.

It is important to differentiate between reasons for the actual move (e.g., the most recent move) and for the planned

move (e.g., the possible next move). From my question "What would be the five most important reasons for the next move you might possibly make?", there is a good chance that my respondents thought of their ideal place economically, socially, and physically as their destination. Thus the reasons given might not always be the realistic reasons. However, regardless of the above argument, I obtained the result which I was expecting.

TABLE 20
Reasons for Moving

	<u>Reason 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Number</u>	<u>Points</u>
Job	39 (1)*	14 (2)	5	6 (4)	2	66 (1)	280 (1)
Good environment	19 (2)	18 (1)	11 (1)	6 (4)	5 (6)	59 (2)	217 (2)
Recreation	1	2	9 (5)	16 (1)	6 (3)	34 (6)	78 (7)
Climate	2	3	2	2	2	11 (10)	34 (10)
Education	4 (4)	10 (3)	11 (1)	7 (2)	9 (2)	41 (3)	116 (3)
Crime	0	3	5	7 (2)	2	17 (9)	43 (8)
Good transportation	0	1	1	4	5 (6)	11 (10)	20 (13)
Good housing	0	2	5	6 (4)	6 (3)	19 (8)	41 (9)
Low taxes	0	1	2	2	4	9 (12)	18 (14)
Family, friends	10 (3)	7 (6)	3	2	1	23 (7)	92 (6)
People, life-style	3	9 (4)	11 (1)	5 (7)	10 (1)	38 (4)	104 (5)
Group	1	1	1	0	2	5 (15)	14 (15)
Smaller size	4 (4)	9 (4)	11 (1)	5 (7)	6 (3)	35 (5)	105 (4)
Larger size	2	2	1	2	2	9 (12)	27 (11)
Growing city	0	1	3	3	2	9 (12)	21 (12)
Others	1	0	0	0	0	1 (16)	5 (5)
Not available	<u>14</u>	<u>17</u>	<u>19</u>	<u>27</u>	<u>36</u>		
Total	100%	100%	100%	100%	100%		

* (Ranking)

Number of mention = total of reason 1 through 5

Points = Reason 1 x 5 + Reason 2 x 4 + Reason 3 x 3 + Reason 4 x 2 + Reason 5 x 1

I would like to make one correction, before I discuss the above table.

Climate was not on the list of 16 reasons when I interviewed people in Charlotte. It was so comfortable climate-wise in Charlotte that I never thought of the importance of climate. However, when I got to temperature 96° and humidity 96% in Houston, I came to think that climate should be one important reason for moving, especially for the north-to-south movement or for the reason to stay in the South (see sections 7.1 and 7.2). Thus climate ought to be rated little higher than it appears in my result.

Job, both new job and transfer included, hold the first place in both the number of mention and the number of points received. Good environment (clean atmosphere, beautiful city, nice and comfortable place to live) follows job as it takes the close second place. Although one can argue that when people think of a good environment, they naturally include the factors such as recreation, climate, education, low crime rate, good transportation, good housing, low taxes, people and life-style, and even the job situation. I strongly agree with the above argument that it is the way people would judge different environments and cities. However my intention was to see how the importance of people's image of other places (see section 7) ranks with job, family ties, and city size.

Education is the surprising third in both the number of mentions and the number of points received. People and life-style, smaller size cities, and recreation and entertainment activities all follow education closely in the number of mentions category. However the reasons that follow education in the

number of points received are not the same as for the number of mentions. Smaller size cities and people change their fourth and fifth positions by a point, and family and friends take the sixth place instead of recreation. It is not surprising because family- and community-ties are a primary reason but recreation is a secondary reason. Let me divide the sixteen reasons into three levels of reasons--primary, secondary, and tertiary--by using the number of mentions.

Primary reasons

- Job
- Good environment
- Family and friends

Secondary reasons

- Education
- People and life-style
- Smaller size cities
- Recreation

Tertiary reasons

- All the others

TABLE 21
Charlotte

	<u>Reason 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Number</u>	<u>Points</u>
Job	43 (1)	13 (3)	2	7	3	68 (1)	290 (1)
Good environment	21 (2)	18 (1)	12 (3)	7	3	61 (2)	230 (2)
Recreation	1	2	5	15 (1)	6	29 (6)	64 (7)
Climate							
Education	3	14 (2)	15 (2)	8 (3)	7 (3)	47 (4)	111 (5)
Crime	0	3	5	9 (2)	2	19	47
Good transportation	0	0	2	5	6	13	22
Good housing	0	2	5	8 (3)	6	21	45
Low taxes	0	2	2	2	4	10	22
Family, friends	9 (3)	7 (6)	3	2	2	23 (7)	88 (6)
People, life-style	5 (4)	10 (4)	18 (1)	5	16 (1)	54 (3)	145 (3)
Smaller size	5 (4)	9 (5)	12 (3)	4	9 (2)	39 (5)	114 (4)
Larger Size	1	3	6	6	5	21	52
Not available	<u>11</u>	<u>13</u>	<u>13</u>	<u>19</u>	<u>31</u>	<u>87</u>	
Total	100%	100%	100%	100%	100%	500	

TABLE 22
Houston

Job	35 (1)	15 (2)	8 (4)	5	1	64 (1)	270 (1)
Good environment	16 (2)	19 (1)	11 (2)	5	7 (2)	58 (2)	206 (2)
Recreation	1	3	13 (1)	16 (1)	7 (2)	40 (3)	95 (4)
Climate	4	4	5	1	5	19	58
Education	5	4	7 (5)	7 (2)	12 (1)	35 (4)	88 (6)
Crime	0	3	4	4	1	12	33
Good Transportation	0	1	0	3	3	7	13
Good Housing	0	3	5	3	7 (2)	18	40
Low taxes	0	0	1	3	4	8	13
Family, friends	12 (3)	7 (5)	3	1	0	23 (7)	99 (3)
People, life-style	3	8 (4)	4	4	5	24 (6)	72 (7)
Smaller size	3	9 (3)	9 (3)	7 (2)	1	29 (5)	93 (5)
Larger size	<u>3</u>	<u>3</u>	<u>1</u>	<u>3</u>	<u>4</u>	<u>14</u>	40
Total	100%	100%	100%	100%	100%	500	

For Charlotte and Houston calculations, others is included in not available, same size city in smaller size city, growing city in larger size city, and group in people.

Job and good environment take the first and second places comfortably both in Charlotte and in Houston. Education and smaller size city are equally ranked at fourth, fifth, sixth positions in both the number of mentions and the number of points received. Recreation is weighed much heavier in Houston (fourth) than in Charlotte (seventh); but people and life-style including social, religious and other groups are weighed heavier in Charlotte (third) than in Houston (seventh). Fifty-four mentions for people in Charlotte include 7 for groups. In general groups are thought to be not the reason for moving but for staying. Family received the seventh place for the number of mentions in both Charlotte and Houston, but it took the third place for the total points received in Houston but only the sixth in Charlotte. The rest of the six reasons are almost equally weighed in both cities.

5.1 Reasons vs. Occupation

In general, professional/ management people are more job conscious and, thus, they often move for economic reasons only (Table 23). To sales/clerk and crafts/operatives people, good environment and family ties are almost equally important as the job. Education, people, and smaller size city are of secondary importance to all the groups.

5.2 Reasons vs. Education

People with four years of college education or more move more for economic reasons only than people with two years of

TABLE 23

Reasons vs. Occupation

Reasons	<u>Prof/Manag</u>			<u>Sales/Clerk</u>			<u>Crafts/Oper</u>		
	<u>1</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>2</u>	<u>3</u>
Job	50%	11%	4%	19%	19%	0%	35%	20%	10%
Good Environment	15	22	10	29	19	10	30	5	20
Family	7	8	4	14	0	0	15	10	0
Education	1	12	13	5	0	13	5	5	15
People	4	8	8	0	5	8	5	20	20
Smaller size city	<u>5</u>	<u>9</u>	<u>11</u>	<u>5</u>	<u>10</u>	<u>11</u>	<u>0</u>	<u>10</u>	<u>10</u>
Total	82%	70%	50%	72%	53%	42%	90%	70%	75%
Number of Respondents		112			21			20	

college education or less. All four groups weigh good environment equally. People with high school education or less regard their family and community ties more than other people. There are more "home-town boys and girls" in this group than any of the others. People with two years of college education weigh the importance of education more than the rest. And, finally, four-year college education group do not seem to mind living in larger cities. (Table 24)

5.3 Reasons vs. Income

People with annual income of \$25,000 or more are most job conscious and people with annual income of less than \$10,000 are most environmental and family conscious. Although the middle- and higher-income groups rank job as their first choice, they pick good environment as their second choice far above the third choice - family and community ties. The middle-income group weigh education heavier than either the lower- or higher-income groups. (Table 25)

5.4 Reasons vs. Age

The under 35-year old group weighed job factor slightly more than the 35-year old and over group; certainly not as much as it did in the Lansing-Mueller survey more than 10 years ago. (Table 26) In fact, the younger group weighed all six reasons heavier than the older group with only exception in family and community ties. It is understandable, since two different groups are looking for different things. In general, the younger group

TABLE 24

Reasons vs. Education

Reasons	<u>Less than H.S.</u>			<u>A.D.</u>			<u>B.S.</u>			<u>More than B.S.</u>		
	<u>1</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>2</u>	<u>3</u>
Job	23%	17%	10%	30%	5%	0%	48%	17%	6%	46%	15%	2%
Good Environment	17	17	10	39	14	17	17	23	13	17	17	10
Family	20	10	0	9	0	0	8	6	4	5	10	5
Education	0	6	3	9	14	26	7	13	11	0	7	7
People	3	6	17	0	18	17	0	10	13	12	2	2
Smaller size city	<u>7</u>	<u>3</u>	<u>7</u>	<u>4</u>	<u>14</u>	<u>17</u>	<u>3</u>	<u>10</u>	<u>3</u>	<u>5</u>	<u>10</u>	<u>17</u>
Total	70%	59%	47%	91%	65%	77%	83%	79%	50%	85%	61%	43%
Number of respondents		30			23			71			41	

TABLE 25

Reasons vs. Income

Reasons	<u>Less than 10K*</u>			<u>10-14.9K</u>			<u>15-19.9K</u>			<u>20-24.9K</u>			<u>More than 25K</u>		
	<u>1</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>2</u>	<u>3</u>
JOB	21%	25%	0%	47%	6%	15%	36%	22%	3%	39%	15%	3%	53%	8%	3%
Good Environment	33	4	13	16	33	12	24	22	15	12	15	15	17	17	6
Family	17	4	4	9	3	3	12	13	0	9	0	9	3	14	0
Education	4	4	4	6	6	12	6	6	21	3	21	3	3	6	14
People	0	8	21	13	15	0	0	9	15	3	9	15	0	6	8
Smaller size city	<u>0</u>	<u>21</u>	<u>4</u>	<u>3</u>	<u>6</u>	<u>12</u>	<u>6</u>	<u>9</u>	<u>9</u>	<u>6</u>	<u>6</u>	<u>12</u>	<u>6</u>	<u>8</u>	<u>8</u>
Total	75%	66%	46%	94%	69%	54%	74%	81%	63%	72%	66%	57%	88%	59%	39%
Number of respondents	24			33			33			33			36		

* K = \$1,000

TABLE 26
Reasons vs. Age
 (1962-63)

	<u>Under 35</u>	<u>35 and Over</u>
Economic reasons only	18%	5%
Economic and non-economic reasons	5	1
Non-economic reasons only	5	3
No reason mentioned	2	*
Did not move in last 5 years	<u>70</u>	<u>91</u>
Total	100%	100%
Total number of cases	982	3009

* Less than half of one per cent.

Source: Lansing and Mueller, p. 63.

TABLE 27
Reasons vs. Age
 (1975)

Reasons	<u>Under 35</u>			<u>35 and Over</u>		
	<u>1</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>2</u>	<u>3</u>
Job	38%	16%	7%	36%	10%	0%
Good Environment	22	19	11	13	17	13
Family	9	8	4	13	5	2
Education	5	8	13	1	13	8
People	4	12	12	1	3	8
Smaller size city	<u>4</u>	<u>11</u>	<u>11</u>	<u>5</u>	<u>5</u>	<u>7</u>
Total	82%	74%	58%	69%	53%	38%
Number of respondents		113			61	

on one hand, is looking for advancement, new experience, new friends, and new environment; but, on the other hand, the older group is looking for advancement with more security, closeness to family, relatives and friends, and the environment where one is fairly familiar (Table 27).

5.5 Reasons vs. Race

My sample gives me results that non-blacks are slightly more job oriented and blacks are, on the other hand, slightly more environment and family oriented (Table 28).

TABLE 28
Reasons vs. Race

Reasons	<u>Non-Black</u>			<u>Black</u>		
	<u>1</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>2</u>	<u>3</u>
Job	40%	14%	4%	38%	12%	6%
Good environment	19	19	11	25	15	12
Family	9	6	3	15	12	3
Education	4	8	13	3	18	6
People	4	11	11	3	0	9
Smaller city	<u>4</u>	<u>11</u>	<u>8</u>	<u>6</u>	<u>0</u>	<u>15</u>
Total	80%	69%	50%	90%	57%	51%
	141 Respondents			34 Respondents		

6. Chances for Moving

Although I did not ask my respondents their preferences regarding moving, I did ask them their chances for moving. My question to the respondents was different from that of Lansing and Mueller's.*

TABLE 29
Expectations Regarding Moving
(1962-63)
(in the next year)

	<u>Per Cent</u>
Definitely will move	3
Probably will move	2
Uncertain; it depends	6
Definitely will not move	<u>89</u>
Total	100%
Number of respondents	3991

TABLE 30
Chances for Moving in the Next Five Years
(1975)

	Charlotte	Houston	Combined
Very good (91-100%)	24%	24%	24%
Good (71-90%)	14%	13%	14%
Fair (51-70%)	18%	11%	15%
Slim (21-50%)	15%	17%	16%
Very slim (1-20%)	14%	15%	14%
Never (0%)	10%	17%	13%
Not available	5%	3%	4%
Number of respondents	100	75	175

* Lansing and Mueller asked their respondents, "Do you think there is any chance you will move away from (Labor Market Area) in the next year? Would you say you definitely will move, you probably will, or are you uncertain?" My question was: "What do you think are the chances that you will some day move away from (Charlotte or Houston)? Say in five years."

It is surprising that more than half of my respondents have over 50 percent chances of moving away from where they are living today in the next five years. One out of every four responded that he had a very good chance of moving. Since the time period is different, it is difficult to compare the Lansing-Mueller findings with mine. However, I would guess that the chances for moving have increased at least two-fold, if not three in the past twelve years.

Determining the chances for moving is quite important, because when the chances are never, very slim, or even slim, then the study of migration and of mental image and maps (in the next section) become less valuable.

6.1 Chances vs. Occupation (table 31)

Students have the best chance for moving, since they are still young (see section 6.4) and look for new opportunities and new experiences in new environments. All retired people mentioned less than 50 percent chances for moving. They are "settled" and usually follow the same pattern of life everyday. (I am not saying this is the best for them, but . . .)

Of three major occupational categories, sales/clerk people are in the most settled group as 60 percent of them have less than 50 percent chances for moving. The crafts/operatives group is interesting because it has 30 percent with very good chances for moving but it also has 20 percent with no chances for moving. Professional/management people follow the average percentages, since well over half the people I interviewed are in this

TABLE 31
Chances vs. Occupation (head of family)

	<u>Prof/Manag</u>	<u>Sales/Clerk</u>	<u>Crafts/Oper</u>	<u>Retired</u>	<u>Student</u>	<u>Total</u>
Very good	22%	19%	30%	0%	64%	24%
Good	15	10	20	0	9	14
Fair	17	10	5	0	27	15
Slim	17	24	15	14	0	16
Very Slim	14	24	10	14	0	14
Never	11	10	20	72	0	13
Not available	<u>4</u>	<u>3</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>4</u>
Total	100%	100%	100%	100%	100%	100%
Number of respondents	112	21	20	7	11	175

TABLE 33
Chances vs. Education

	<u>Less than H.S.</u>	<u>A.D.</u>	<u>B.S.</u>	<u>More than 4- year college.</u>	<u>Total</u>
Very good	<u>27%</u>	<u>17%</u>	<u>25%</u>	<u>29%</u>	<u>24%</u>
Good	13	17	17	10	14
Fair	7	22	15	15	15
Slim	17	17	14	20	16
Very slim	10	17	15	15	14
Never	20	9	10	10	13
Not available	<u>6</u>	<u>0</u>	<u>3</u>	<u>1</u>	<u>4</u>
Total	100%	99%	100%	100%	100%
Number of respondents	30	23	71	41	175

group*.

6.2 Chances vs. Education (table 33)

Education shows only slight differences among the four groups. However, it is probably safe to conclude that the chances for moving will improve with increase in education level obtained.

6.3 Chances vs. Income (table 34)

Of the six tables I created to examine the chances for moving, chances vs. income table gave me the most surprise. The less than \$10,000 income per year group and the \$15,000-\$19,999 group had the best chances for moving; followed by the \$10,000-\$14,999 group. All these three groups have over 70 percent of their respondents in fair or better chances for moving. The 60 percent of them are in very good and good categories.

Unlike what I expected, the higher-income people are "settled" people with secure jobs and nice owned houses, among other things. In fact, more than 50 percent of them mentioned slim or very slim chances for moving and no intentions of moving.

*

TABLE 32

Number of People in Four Major Occupation Categories (Male)

	Charlotte	Houston	Combined
Professional/Management	23%	25%	25%
Sales/Clerk	30	27	28
Crafts/Operatives	30	29	29
Laborers/Service	13	16	15
Others	<u>4</u>	<u>3</u>	<u>3</u>
	100%	100%	100%
Total in work force (male)	177122	797421	974543

Source: U.S. Census 1970

TABLE 34
Chances vs. Income

	<u>10K</u>	<u>10-14.9K</u>	<u>15-19.9K</u>	<u>20-24.9K</u>	<u>25K</u>	<u>Total</u>
Very good	46%	31%	43%	15%	22%	24%
Good	21	28	24	9	3	14
Fair	4	16	14	18	14	15
Slim	17	6	5	27	22	16
Very slim	4	6	5	12	22	14
Never	4	9	5	12	17	13
Not available	<u>4</u>	<u>4</u>	<u>4</u>	<u>7</u>	<u>0</u>	<u>4</u>
Total	100%	100%	100%	100%	100%	100%
Number of respondents	24	32	33	33	36	175

TABLE 35
Chances vs. Age

	<u>Less than 25</u>	<u>25-34</u>	<u>35-54</u>	<u>More than 55</u>	<u>Total</u>
Very good	61%	23%	13%	0%	24%
Good	17	18	8	0	14
Fair	4	16	21	0	15
Slim	4	19	15	25	16
Very slim	4	13	19	25	14
Never	9	8	19	50	13
Not available	<u>0</u>	<u>3</u>	<u>5</u>	<u>0</u>	<u>4</u>
Total	100%	100%	100%	100%	100%
Number of respondents	23	90	53	8	175

After recognizing that the majority of the lower- to middle-income people are younger people, the result I obtained is perfectly understandable.

6.4 Chances vs. Age (table 35)

The young have much better chances for moving than the aged as the actual mobility rates by age (see section 4.6.1) will agree.

6.5 Chances vs. Race (table 36)

Again like the age, the Non-blacks have slightly better chances for moving than the blacks as the result would agree with the actual migrants-nonmigrants percentages given in the section 4.6.3.

6.6 Chances vs. Number of Adult Moves (table 37)

The conclusion I can draw from my sample is that the chances for moving will increase with the increase in the number of adult moves. Another point I can make is that if one starts moving, he is more likely to keep moving.

TABLE 36
Chances vs. Race

	<u>Non-Black</u>	<u>Black</u>	<u>Total</u>
Very good	25%	21%	24%
Good	14	12	14
Fair	15	15	15
Slim	16	15	16
Very slim	14	15	14
Never	12	18	13
Not available	<u>4</u>	<u>4</u>	<u>4</u>
Total	100%	100%	100%
Number of Respondents	141	34	175

TABLE 37
Chances vs. Number of Adult Moves

	<u>0</u>	<u>1-2</u>	<u>3-5</u>	<u>>5</u>	<u>Total</u>
Very good	8%	18%	29%	45%	24%
Good	8	16	16	5	14
Fair	19	13	13	20	15
Slim	15	18	18	10	16
Very slim	30	10	13	10	14
Never	15	21	6	5	13
Not available	<u>5</u>	<u>4</u>	<u>5</u>	<u>5</u>	<u>4</u>
Total	100%	100%	100%	100%	100%
Number of Respondents	26	61	62	20	175

7. Mental Maps and Spatial Images

I have been to forty-four states and most of the major cities, since I came to the United States Three and a half years ago. I also travelled extensively in Japan, Australia and New Zealand. I like, very much, not just visiting many different places and meeting many different people, but also talking about the places I have already experienced and am going to experience in the future with other people.

There are many places which I liked very much; and there are also places which did not attract me or excite me as much as others. What environmental characteristics attract me and other people to places and what qualities discourage us? What is a good environment?

Precisely what environmental quality means is something of an enigma though it is possible to identify certain connotations associated with the concept. Cox, in his book An Introduction to Human Geography, gives us eight such connotations:

- (1) The good environment is a nuisance-free environment.
- (2) The good environment is a healthful environment.
- (3) The good environment is an employment-opportunity environment.
- (4) The good environment is a housing-opportunity environment.
- (5) The good environment is a recreational-opportunity environment.
- (6) The good environment is an education-opportunity environment.
- (7) The good environment is a modern amenity environment.
- (8) The good environment is a health-opportunity environment.

By nuisances, Cox meant any events that we regard as irritating in some sense, that is, time consuming, nerve racking, or dangerous to our personal security. He has given pollution, traffic congestion, and crime as examples of nuisances. He describes a healthful environment, roughly, as an area with clean air, pure water, and nutritious nontoxic food. The health-opportunity depends on the availability of health facilities such as doctors and hospitals.

He also notes, "Urban size tends to be very strongly associated with certain important aspects of environmental quality. As urban size increases so in some ways the quality of the environment improves; in other ways, however, it tends to deteriorate--a modern-day jungle replacing the pristine innocence of the small town." In addition, I think the history of the places has something to do with environmental quality, although it can go either way--both attract and discourage people.

In any of the multitude of movement decisions that men and women are called upon to make--moving into a new home or new job, changing the site of the annual vacation, or choosing the university to attend--the information that one has about places must be evaluated or appraised in terms of the goals of the individual. Which places is best for the annual holiday? Which job offers are best, not just salary-wise? Which place in the city is best as a place of residence for my particular family? Prior to choosing a place to move to, therefore, we can imagine the individual evaluating possible destinations and ranking them in terms of his needs and goals in order to derive a space

preference scale at the top which is the most preferred place and at the bottom of which is the least preferred place.

Thus the spatial image has a very important part in locational decisions that many Americans are making today, and this is one of the major subjects of my work. In fact, in his book The Image, Boulding states that behavior depends on the image.

Where would you like to live? Suppose you were suddenly given the chance to choose where you would like to live - an entirely free choice that you could make quite independently of the usual constraints of income or job availability. Where would you choose to go? Probably, if you really had to make such a choice, you would be assailed by images of faraway places, of different climates and different landscapes, and by your personal feelings towards cultures other than your own. You would also become very sensitive to the affection of old friends, and the familiarity of your present surroundings. You would be aware of the pull between 'here' and 'there' as places in which to live. The one offers the known and valued, the other offers the unknown, the exciting and an escape from the shortcoming of your present environment.

(Gould and White, p. 15)

7.1 Charlotte Mental Map

7.1.1 Most Preferred Places

I asked all my respondents, "If you are to leave the Charlotte area, to what cities or regions of the United States would you like to move, if you had a choice?" The respondents could give me more than one city or regions, so I collected 141 answers.

Of 141 answers, the South received 52 mentions or 39 percent followed closely by the West with 46 mentions or 33 percent. Of 52 mentions for the South, 12 were for the South, 15 were for the Southeast, 9 were for North Carolina, and the

rest of the Southeast states received 3 mentions each. I considered North Carolina, South Carolina, Georgia, and Florida as the Southeast region. One might include Virginia to the list.

The West received surprising 46 mentions, as the broadly defined West collected 15, the Northwest - 7, the Mountains - 5, and the Southwest - 3. California combined with San Francisco and Los Angeles received 7 mentions, while 2 mentions for Seattle would make the Northwest region total to 9. Colorado-Denver area also received 4 mentions.

The New England region collected 10 mentions or 7 percent of the total mentions to help the Northeast take the third place. I added Washington, D.C. to the Northeast because people tended to think the so-called Megalopolis as between Boston and Washington rather than Boston and Philadelphia or Baltimore.

I can see some patterns to the reasons given to my respondents' willing places to move. For the South, family, slow pace, people, life-style, and mild climate are the main reasons. The West received the similar reasonings with exceptions of family and slow pace. To many of my respondents, the West is still a new area, especially the Mountains and the Northwest. The image is playing a large role rather than the experience in collecting favorable mentions.

The reasons given for the Northeast region are family and culture. For the New England, culture and the traditionally good and quiet atmosphere of "old New England" would help.

7.1.2 Least Preferred Places

Similarly, I asked the following question during my interviews: "To what cities or regions would you be unwilling to move?" The total number of answers to this question was 109.

The 42 percent of 109 answers were for large cities. 16 people mentioned any large cities, and 7 people said any large cities in the North. New York City topped the individual city list at 9 answers, followed by Detroit's 4, and Chicago's and Los Angeles's 3. The reasons given are out of control, cold people, crime, pollution, and unemployment.

The South was mentioned 20 times or 18 percent, and the North 19 times or 17 percent, followed by 13 mentions (or 12%) for the North Central. The deeper South collected 9 mentions and Florida 6 mentions. The deeper South includes the states such as Alabama and Mississippi. I did not list either Arkansas or Louisiana, because the migration flows from these states to North Carolina are not so great. The image of Florida is explained by its climate and too commercialized atmosphere. The reasons for the North Central region are too flat, too isolated, cold, and no water (coast). The West received 9 mentions or 8 percent, including 3 for Texas, and the main reason being too far from family.

7.1.3 Charlotte Mental Map

Considering both most preferred places and least preferred places, let me draw the mental map for the 100 Charlotte

respondents.

The West gets the highest points of 35 (the number of mentions for most preferred place - the number of mentions for least preferred place). The South receives 32 points, the Northeast is slightly positive at 7, the North Central is -2, and, finally, large cities gets 146. The adjusted point for the large cities is -20, since some people mentioned New York City, Washington, D.C., San Francisco, Los Angeles, etc. as their most preferred places to move.

Both the Atlantic and Pacific Coasts are very highly rated as opposed to the low perceptual valleys and sinkholes over the North Central states (even better to say the Great Plains states). This is proved by the number of mentions for each of the three regions.

Map 1 The Mental map from Charlotte

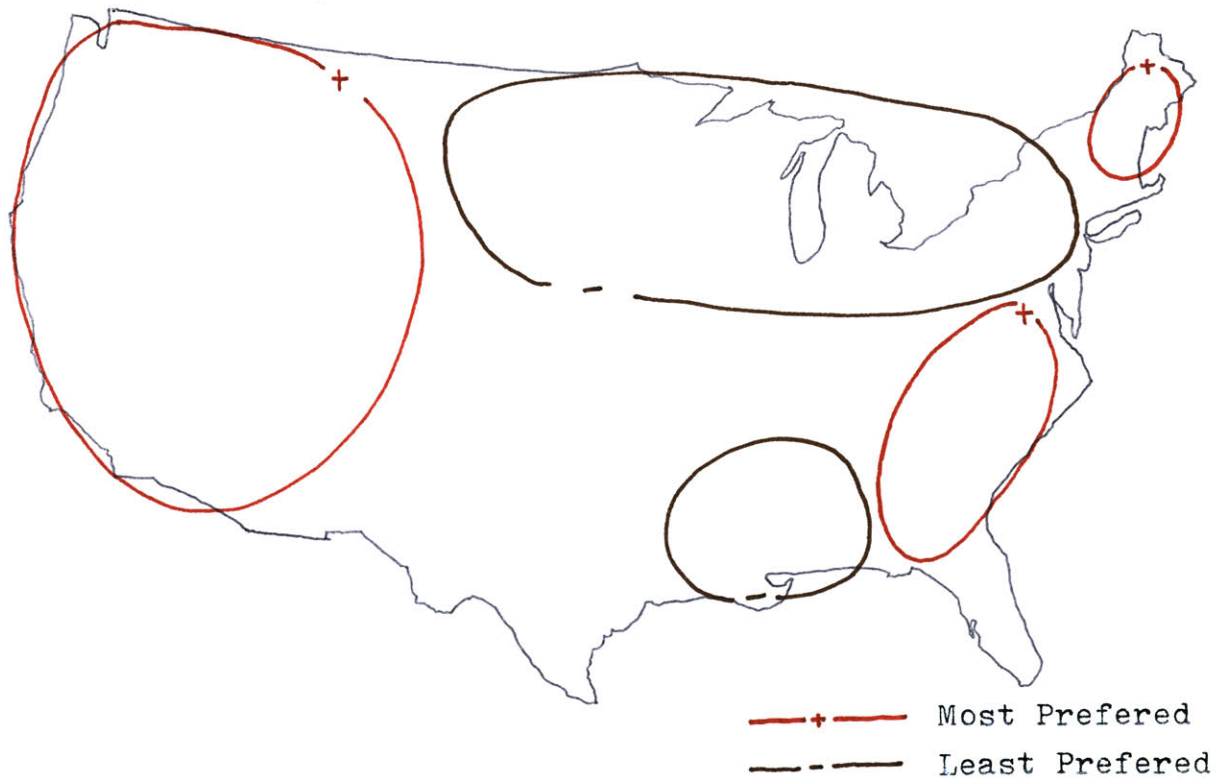


TABLE 38
Most Preferred Places from Charlotte

<u>Areas</u>	<u># of mentions</u>	<u>Reasons</u>
South	12	family, slow pace, people
Southeast	15	coast, people, life style
North Carolina	9	
South Carolina	3	mild weather, home
Georgia	3	
Florida	3	
Virginea	2	
*		
Subtotal	52 (39%)	
West	15	climate, attitude of people
Northwest	7	attractive, last frontier
Mountains	5	ideal place
Southwest	3	developing, energy, climate
California	3	
San Francisco	2	good image
Los Angeles	2	
Seattle	2	
Colorado-Denver	4	new area, mountain
others	3	
Subtotal	46 (33%)	
Northeast		
New England	10	family, home, culture
Pennsylvania	3	friends, close to home
Va - Md - Del	2	close to home
New York City	2	
Washington, D.C.	4	Georgetown
Boston	2	
Subtotal	26 (18%)	
North Central		
Mid West	3	relatives
Upper Mid West	2	
St. Louis	2	
Kansas City	2	
Minnesota	2	
Subtotal	11 (8%)	
Smaller size cities	2 (1%)	
Others	3 (1%)	
	<u>Total 141 (100%)</u>	
* plus Atlanta	6	relatives, city on the move
Mobile	1	

TABLE 39

Least Preferred Places from Charlotte

<u>Areas</u>	<u># of mentions</u>	<u>Reasons</u>
Large cities	16	out of control, cold
Large cities in North	7	unemployment
New York City	9	
Detroit	4	crime
Chicago	3	
Los Angeles	3	pollution
others	3	
	<u>Subtotal 46 (42%)</u>	
South		race problem
Deeper South	9	not too many big cities
North Carolina	2	
South Carolina	3	no culture
Florida	6	climate
	<u>Subtotal 20 (18%)</u>	
North	12	congested, unemployment
Northeast	4	
others	3	
	<u>Subtotal 19 (17%)</u>	
North Central		
Mid West	8	too flat, too isolated, cold
Great Plains	4	no water
others	1	
	<u>Subtotal 13 (12%)</u>	
West	2	far from family
Southwest	2	hot-dry
Texas	3	hot, people
Southern California	2	pollution
	<u>Subtotal 9 (8%)</u>	
Others	2 (3%)	
	<u>Total 109 (100%)</u>	

7.2 Houston Mental Map

7.2.1 Most Preferred Places

The area west of Texas gets 48 answers out of the total 92 or 52 percent and top the most preferred places by far. People, climate, recreation, and culture are the reasons given for this area. California and the Mountains, especially the Denver area, are rated very high among the West. The South takes the second place with 16 answers or 17 percent with the state of North Carolina receiving 5 of them. The reasons given for North Carolina are mild climate, culture and easy living.

The own state of Texas, especially the hill country (as opposed to flat Houston), gets 12 mentions or 13 percent. The Northeast and the North Central receive 6 each (7%). The reasons I obtained for the Northeast are not the same as those for the Charlotte sample. The images of faraway places, of different climates and different landscape dominate the reasonings for liking the Northeast in Houston.

7.2.2 Least Preferred Places

Just like in Charlotte, but not as much, the large cities topped the list with 26 mentions out of 70 or 37 percent. The Northeast gets 17 mentions (24%), the North Central - 10 (14%), the West - 9 (13%) and the South - 7 (10%). The high cost of living, unsafe, unfriendly people, and cold weather are reasons given for the Northeast and North Central. The dry and hot Southwest and the crowded and polluted southern California explain why the point for the West is low. Some people in

Houston, again like in Charlotte, have bad images of the deep South as they mentioned people, life-style and climate.

7.2.3 Houston Mental Map

The region west of Texas is the most preferred place. The Denver area and the Northwest region receive no minus points, while California and the Southwest region have some negatives but remain as high positive points overall.

The South is +9, the Northeast is -11, the North Central is -4, and the large cities is last at -26.

Map 2 The Mental Map from Houston

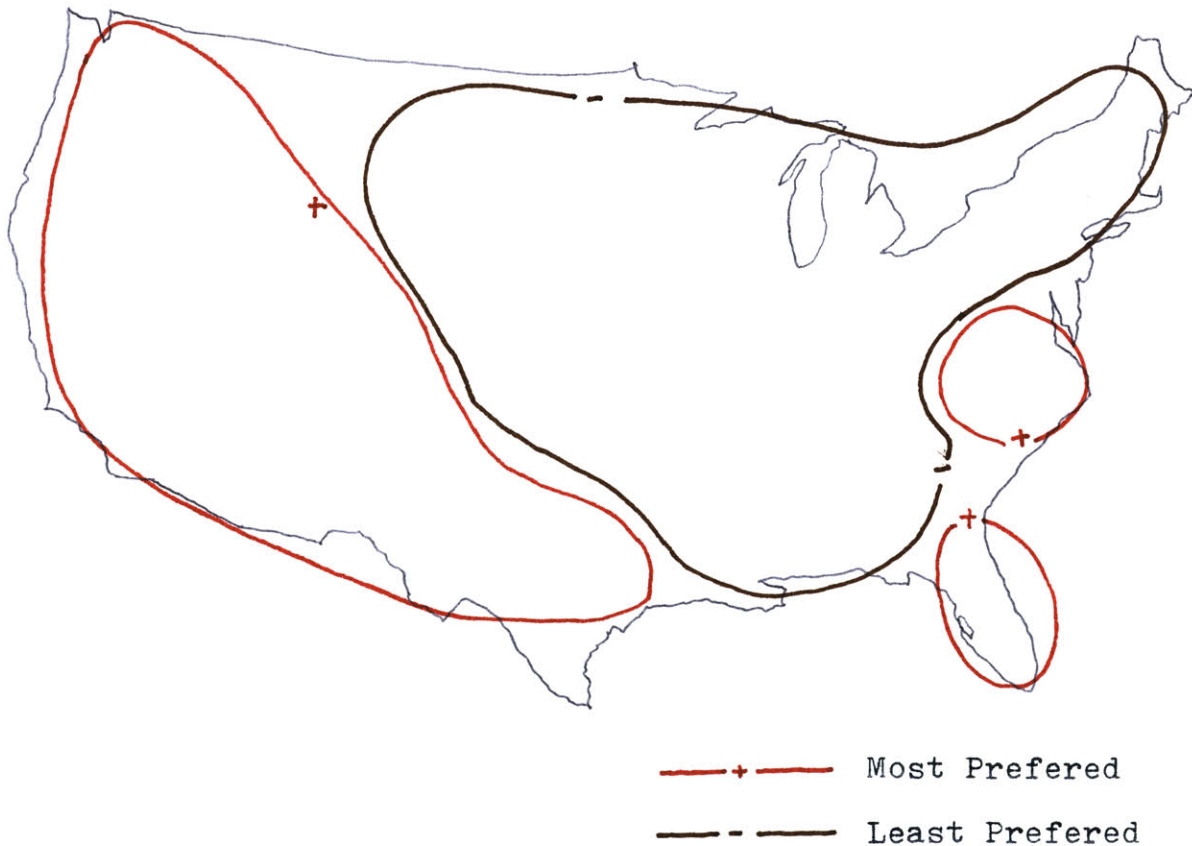


TABLE 40
Most Preferred Places from Houston

<u>Areas</u>	<u># of mentions</u>	<u>Reasons</u>
West	5	people, climate, scenery
West Coast	4	urban-rural relations
Northwest	4	cheap land
California	5	people
San Francisco	4	recreation, culture
Mountains	6	
Colorado	3	
Denver	4	recreation, climate, job
Southwest	2	climate
Arizona	3	
others	8	
	<u>Subtotal 48 (52%)</u>	
South	1	warm
North Carolina	5	mild, culture, easy living
Florida	3	
others	7	
	<u>Subtotal 16 (17%)</u>	
Northeast		
New England	3	hills and mountains
others	3	
	<u>Subtotal 6 (7%)</u>	
North Central		
Mid West	1	
Upper Mid West	3	
Minneapolis	2	recreation
	<u>Subtotal 6 (7%)</u>	
Texas	8	hill country
Others	4	comfortable
	<u>Subtotal 12 (13%)</u>	
Smaller size cities	2 (2%)	
Others	2 (2%)	
	<u>Total 92 (100%)</u>	

TABLE 41
Least Preferred Places from Houston

<u>Areas</u>	<u># of mentions</u>	<u>Reasons</u>
Large cities	2	
Large cities in North	2	
New York City	13	too crowded, fast pace
Chicago	3	
Los Angeles	3	
others	3	
	<u>Subtotal 26 (37%)</u>	
North	8	weather
Northeast	4	
East	4	high cost of living, unsafe unfriendly people
East Coast	2	
others	1	
	<u>Subtotal 17 (24%)</u>	
North Central		
Mid West	5	
Great Plains	2	flat
others	1	
	<u>Subtotal 10 (14%)</u>	
West	1	
Southwest	2	dry, desert
others	6	rat race, too crowded
	<u>Subtotal 9 (13%)</u>	
South	2	people, life-style
deeper South	3	people, climate
others	2	
	<u>Subtotal 7 (10%)</u>	
Others	1 (2%)	
	<u>Total 70 (100%)</u>	

7.3 Mental Maps of MIT Students

7.3.1 Most Preferred Places

<u>Regions</u>	# of mentions				
	<u>Most Preferred</u> (quest. 1)*	<u>Most Preferred</u> (quest. 5)*	<u>Total</u>	<u>2nd Choice</u> (quest. 5)*	<u>Total</u>
East Coast-	0	2	2	1	3
Gulf Coast					
New England	8	1	9	2	11
Northeast	1	0	1	1	2
New York area	2	1	3	0	3
Washington D.C.	2	0	2	0	2
Upper South	0	0	0	3	3
Florida	0	0	0	5	5
Atlanta	1	1	2	0	2
New Orleans	0	0	0	2	2
Texas	2	1	3	0	3
West Coast	5	0	5	0	5
Northwest	3	2	5	4	9
California	4	0	4	0	4
Northern Cali.	4	0	4	2	6
Southern Cali.	2	0	2	0	2
Mountains	4	3	7	3	10
Southwest	1	0	1	0	1
Upper Mid West	0	3	3		
Upper Great Plains	0	1	1	4	8
St. Louis	0	1	1	0	1

Reasons for willing to move -- # of mentions

<u>Reasons</u>	# of mentions	
	<u>West*</u>	<u>East*</u>
physical characteristics, coast&mount. open	10	1
beautiful, scenery, clean	8	4
climate	8	2
people, life style	6	1
education	5	4
advanced, progressive, modern	5	1
things to do, more action	2	1
grow-up, familiar, comfortable	1	2
never been there, good place to live in	4	0
atmosphere	0	1

Note: West - west of the Mountains
East - mainly New England

* refers to the questions in the second questionnaire,
which was design for MIT students.

7.3.2 Least Preferred Places

<u>Regions</u>	# of mentions		<u>Total</u>
	<u>Least Preferred</u> (quest. 1)*	<u>Least Preferred</u> (quest. 5)*	
South	10	4	14
East	4	1	5
Great Plains	3	2	5
Mid West	2	4	6
Southwest	2	3	5
Isolated Moutains	0	1	1
Florida	2	0	2
California	1	0	1
Big Cities	4	0	4
New York City	3	0	3
Washington, D.C.	1	1	1
Los Angeles	0	1	1
Small towns	1	0	1

Reasons for unwilling to move

<u>Regions</u>	<u>Reasons</u>
South	- too hot, racism, not culturally advanced poverty, people, closed, standard of living
East	- customs, not enough opportunities, weather cold and unfriendly people
Great Plains	- wide open, too far between things, no water farm environment, people, ideology
Southwest	- desert, no fun, nothing there
Florida/California	- too developed, resort
Big cities	- not enough green, no open space, too many people, crime, smog, inhuman
Small towns	- not enough things to do

Note: * refers to the questions in the second questionnaire.

7.3.3. Mental Maps of MIT students by grow-up place

A. Grow-up in East (6 students)

A-1. Places willing to live in

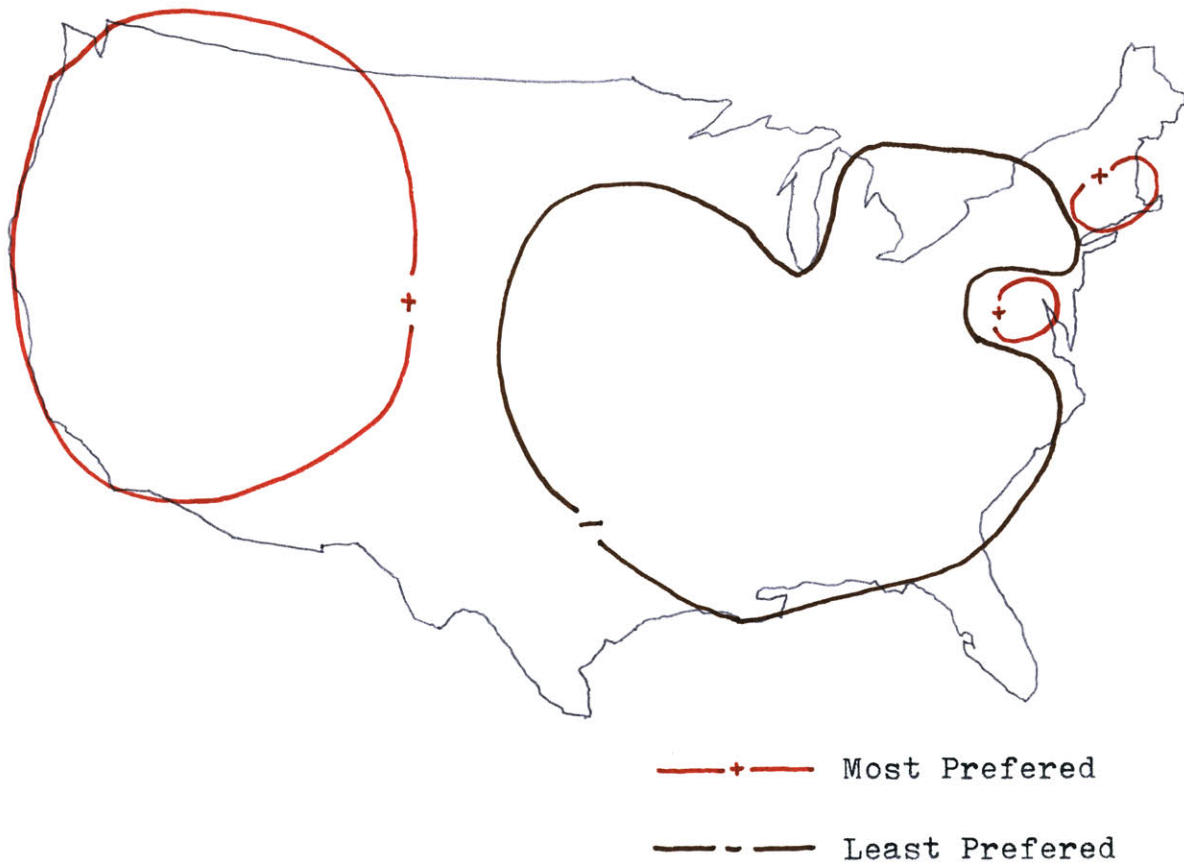
West-Mountains only	5 students
West only	$\frac{1}{6}$

A-2. Places unwilling to live in

Great Plains-Mid West and South	3
Great Plains-Mid West only	1
South only	$\frac{2}{6}$

map 3

Mental map of MIT students who grew up in East



B. Grow-up in Mid West (8 students)

B-1. Places willing to live in

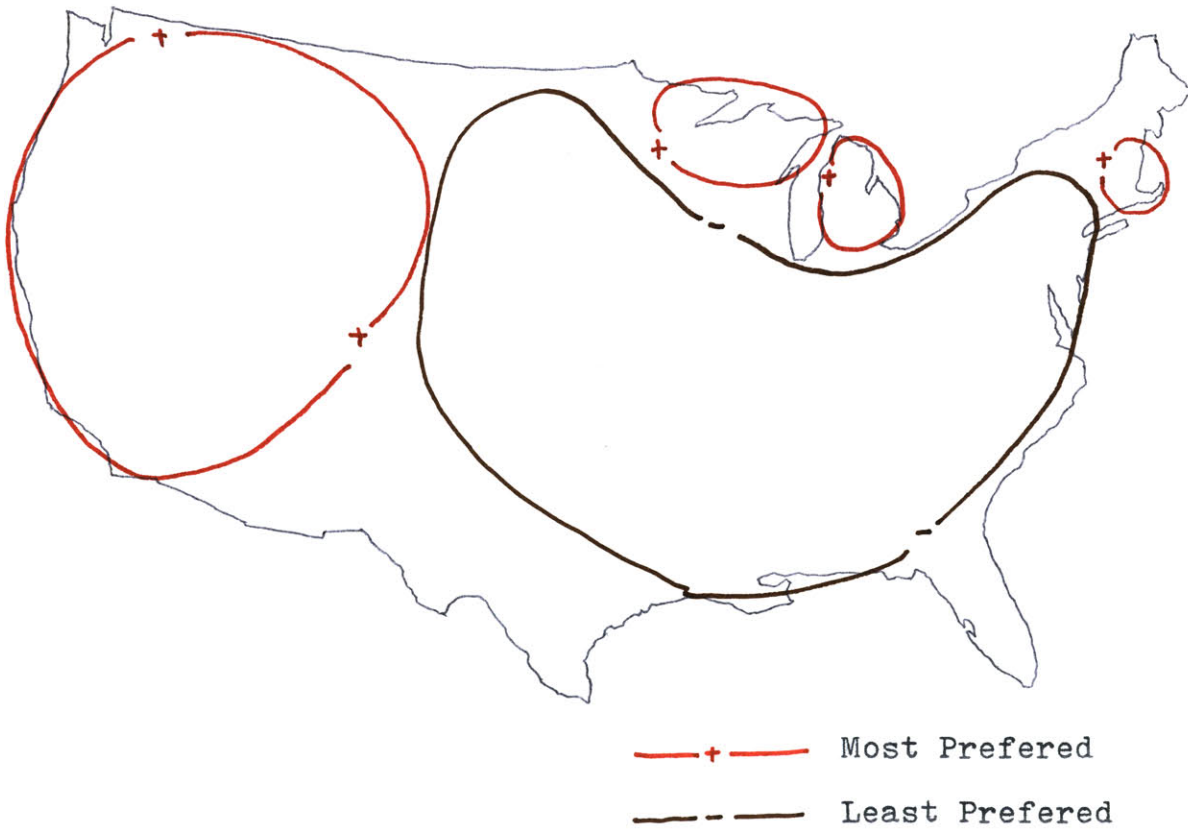
West-Mountains and East	6 students
West-Mountains only	1
East only	<u>1</u>
	8

B-2. Places unwilling to live in

Great Plains-Mid West only	1
Great Plains-Mid West, South and East	1
Southwest only	1
Southwest, Great Plains-Mid West and South	1
Southwest and Great Plains	1
South only	<u>3</u>
	8

map 4

Mental map of MIT students who grew up in Mid West



C. Grow-up in West (3 students)

C-1. Places willing to live in

West-Mountains only

3 students

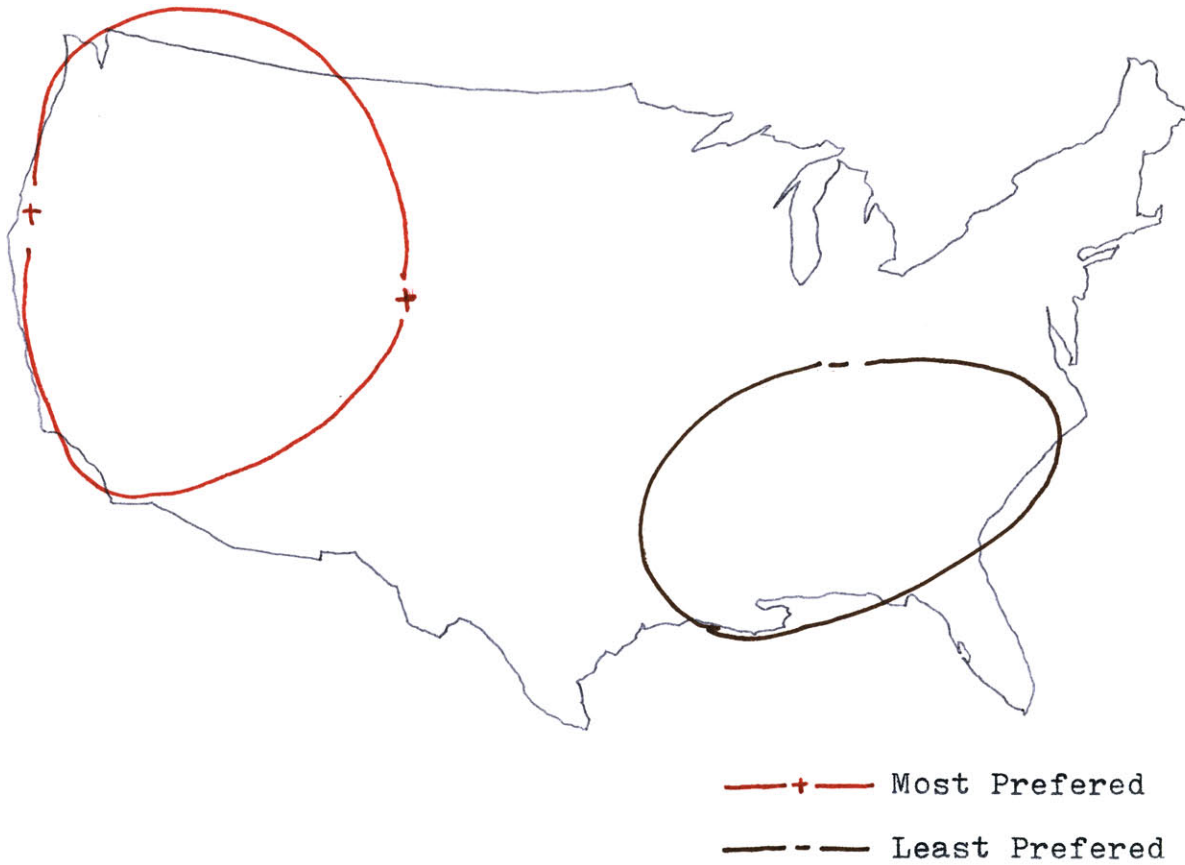
C-2. Places unwilling to live in

South and East only

3 students

map 5

Mental map of MIT students who grew up in West



7.3.4 Findings from the Mental Maps of M.I.T. Students

- (1) The West is the most well liked region and the New England-East area is the second. Boston holds 3 out of 9 points in the first choice and 5 out of 11 for first and second choice combined.
- (2) Mountains, especially the Denver area, also attracts 10 out of 17 students.
- (3) Big cities are disliked by more than a half of the sample but only one student, who grew up in a rural environment, sites dislike for small towns.
- (4) Three students from the West form a most homogeneous group, and they give me almost identical reasons for their most preferred places and least preferred places.
- (5) Although the South is the most unpopular region, the Mid West to Great Plains region is also not very popular. The reasons cited are isolation for Great Plains, and industry and big cities for Mid West. Also there is no water (coastline) nor mountains.

See map 6 for the combined Mental Map of all 17 M.I.T. students.

Using maps I obtained from interviews with seventeen M.I.T. students, preferences for residence regions are as follows:

<u>Regions like to live in</u>	<u>Number of Mentions</u>	
	<u>First Choice</u>	<u>Plus 2nd Choice</u>
West Coast	16 out of 17	17/17
New England (Boston)	13/17 (4/17)	14/17
Colorado - Mountains	7/17	10/17

Regions do not like to live in

Number of mentions

South	13 out of 17
Great Plains	5/17
Mid West	6/17
New York area	6/17
South West - desert area	5/17
West Coast	1/17
New England	3/17
Colorado - mountains	0/17

MAP 6

Mental Map of M.I.T. Students



—+— Most Preferred
—-— Least Preferred

7.4 Favorite Cities

In addition to their most preferred and least preferred places, I asked my respondents their favorite cities. What I meant by favorite cities is cities in a sense that one would like to visit but not necessarily to live in. I will list the names of cities mentioned five or more times in Charlotte and three or more in Houston.

TABLE 42
Favorite Cities

<u>CHARLOTTE</u>			<u>HOUSTON</u>		
<u>Rank</u>	<u>City</u>	<u>Mentions</u>	<u>Rank</u>	<u>City</u>	<u>Mentions</u>
1	San Francisco	26	1	San Francisco	10
2	Boston	12	2	Denver	7
3	New York City	11	3	Los Angeles	4
4	New Orleans	10	4	Dallas	3
4	Montreal	10	4	Atlanta	3
6	Atlanta	8	4	New Orleans	3
7	Seattle	7	4	Seattle	3
7	Dallas	7		Others	<u>21</u>
7	Denver	7		Total mentions	54
10	Chicago	6			
10	Los Angeles	6			
10	Washington, D.C.	6			
13	Toronto	5			
	Others	<u>46</u>			
	Total Mentions	167			

For Charlotte, I find all the western, northern, southern and even Canadian cities in the top four. They are all so-called cosmopolitan cities. They all have cultural and educational facilities, recreational and entertainment facilities, and long histories compared to some of the other cities. Although the total number of mentions is extremely small, the Houstonians only named the western (the top three) and southern cities (the second three).

7.5 Images of other cities

At the end of my interviews I asked my respondents, if they had the time, "Now I will name a number of American and Canadian cities. What comes to your mind when I name them?" I obtained 29 usable samples, all from Charlotte, answering more than 75 percent of the cities I named. I, simply, did not want too many Not availables. The following table (table 43) is the result from those 29 samples.

I gave a positive point to each of the following:

climate, things to do, people, nice, clean
culture, interesting, history,
better white-black relations

And I gave a negative point to each of the following:

cold, dirty, rain, humid, isolation, rural
crowded, conservative, flat, hot, racial problem
too big, smog, plastic, spread out, confusing
pace too fast, pace too slow

I named 51 cities but used only 24 cities in table 43. Either those that I eliminated had more Not availables than the answers or those that are very similar to other near-by major cities.

TABLE 43

Image - I

	<u>Positive Image</u>	<u>Negative Image</u>	<u>Not Available</u>	<u>Neutral</u>
San Francisco	22 (1)*	0	0	7
Seattle	12 (5)	7 (8)	6	4
Los Angeles	6 (11)	16 (1)	1	6
Wichita	0	7 (8)	8 (7)	14 (1)
Twin Cities	9 (7)	5	7	8
Chicago	3	14 (4)	2	10 (11)
Detroit	0	16 (1)	1	12 (7)
Toronto	12 (5)	1	8 (7)	8
Boston	7 (10)	4	5	13 (2)
Hartford	1	2	15	11 (9)
New York City	4	11 (5)	1	13 (2)
Philadelphia	5	7 (8)	4	13 (2)
Washington, D.C.	9 (7)	7 (8)	0	13 (2)
Richmond	4	4	12 (4)	9
Atlanta	15 (3)	9 (7)	0	5
Miami	4	16 (1)	1	8
Birmingham	1	11 (5)	10 (6)	7
New Orleans	13 (4)	3	13 (3)	10 (11)
Houston	8 (9)	6	6	9
Memphis	5	4	14	6
Indiannapolis	2	3	11 (5)	13 (2)
Pittsburgh	3	7 (8)	8 (7)	11 (9)
Kansas City	4	5	8 (7)	12 (7)
Denver	18 (2)	2	4	5

* (Ranking)

Let me take the top eleven in the positive image category in table 43 and how they do when the negative image points were subtracted.

TABLE 44
Image-II

<u>Rank for Positive Image</u>	<u>City</u>	<u>Positive Points</u>	<u>Negative Points</u>	<u>Total</u>	<u>Rank</u>
1	San Francisco	22	0	22	1
2	Denver	18	2	16	2
3	Atlanta	15	9	6	5
4	New Orleans	13	3	10	4
5	Toronto	12	1	11	3
5	Seattle	12	7	5	6
7	Washington, D.C.	9	7	2	9
7	Twin Cities	9	7	2	7
9	Houston	8	6	2	9
10	Boston	7	4	3	8
11	Los Angeles	6	16	-6	11

As can be seen from Table 44, San Francisco is every American's (at least every Charlottean's) favorite city. It is also, not surprising that Denver is taking the second place. However, the third place is the surprising one. Although Toronto is in Canada, it has a nice clean image and does not have a cold-weather place image as it does for cities like the Twin Cities. Atlanta is, obviously the nodal center for the South.

7.6 Livability Ratings and Mental Maps

Many an American will gladly argue deep into the night that his home town is the cleanest, liveliest, fastest growing or simply the best place to live.

In this section, I would like to discuss the relationships between Livability Ratings and Mental Maps. I obtained in the previous section. The types of question I am raising are: What effects does the report of the livability ratings have on people's spatial images? What kinds of relationships exist between livability ratings and spatial preferences and do the livability ratings map match with the mental map?

The government-funded study by Midwest Research Institute juggled 123 statistical factors for each of the 234 U.S. cities with more than 50,000 population. 123 quantifiable variables can be divided into five broad areas:

- 1) Environment, including indexes for air, water, and noise pollution, climate and availability of recreation;
- 2) Politics;
- 3) Economics, meaning everything from personal per capita to unemployment rate to differences in income between center cities and suburbs;
- 4) Education and health;
- 5) Social-racial equality, housing conditions and cultural facilities.

At the beginning of this section (see p.) I discussed briefly what environmental qualities are using Cox's eight connotations. In addition to his eight connotations, the Midwest



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by the author.**

Research Institute's Livability study included politics and many other social factors.

7.6.1 Findings from Livability Ratings

Portland, Oregon, was the best metropolitan area with more than 500,000 population. Eugene, Oregon, topped the 200,000-500,000 range. La Crosse, Wisconsin, led cities with less than 200,000 population.

TABLE 45

Livability Ranking for Cities with More Than 500,000 People

OUTSTANDING	SUBSTANDARD
1. Portland	56. Tampa
2. Sacramento, CA	57. Philadelphia
3. Seattle	58. Memphis
4. San Jose	59. Norfolk
5. Minneapolis	60. Greensboro, N.C.
6. Rochester	61. Jacksonville
7. Hartford	62. San Antonio
8. Denver	63. New Orleans
9. San Francisco	64. Birmingham
10. San Diego	65. Jersey City

At the other end of the scale, Jersey City, New Jersey, was the worst in the metropolitan class, while Mobile, Alabama, the worst in the medium category and Laredo, Texas, the worst among small cities.

The purpose was not to say who was the best and who was the worst. However, the purpose was to try to give the cities a very clear picture of their weaknesses and strengths, so the cities can see areas for improvements. It is important to note that the study illuminated geographical and historic patterns. Among them:

- (1) Many cities outstanding economically had poor environment quality, implying that clean air and water often go by the wayside for more jobs.
- (2) The South was rated poor in health and education while the West, upper Midwest and Northeast rated excellent or outstanding.
- (3) In the social component, considered one of the most significant parts of the study, the West Coast and the Midwest received high ratings. The South and older metropolitan areas in the Northeast were rated low.
- (4) Politics varies less in quality than other factors, even though northern cities generally rate better than southern ones.

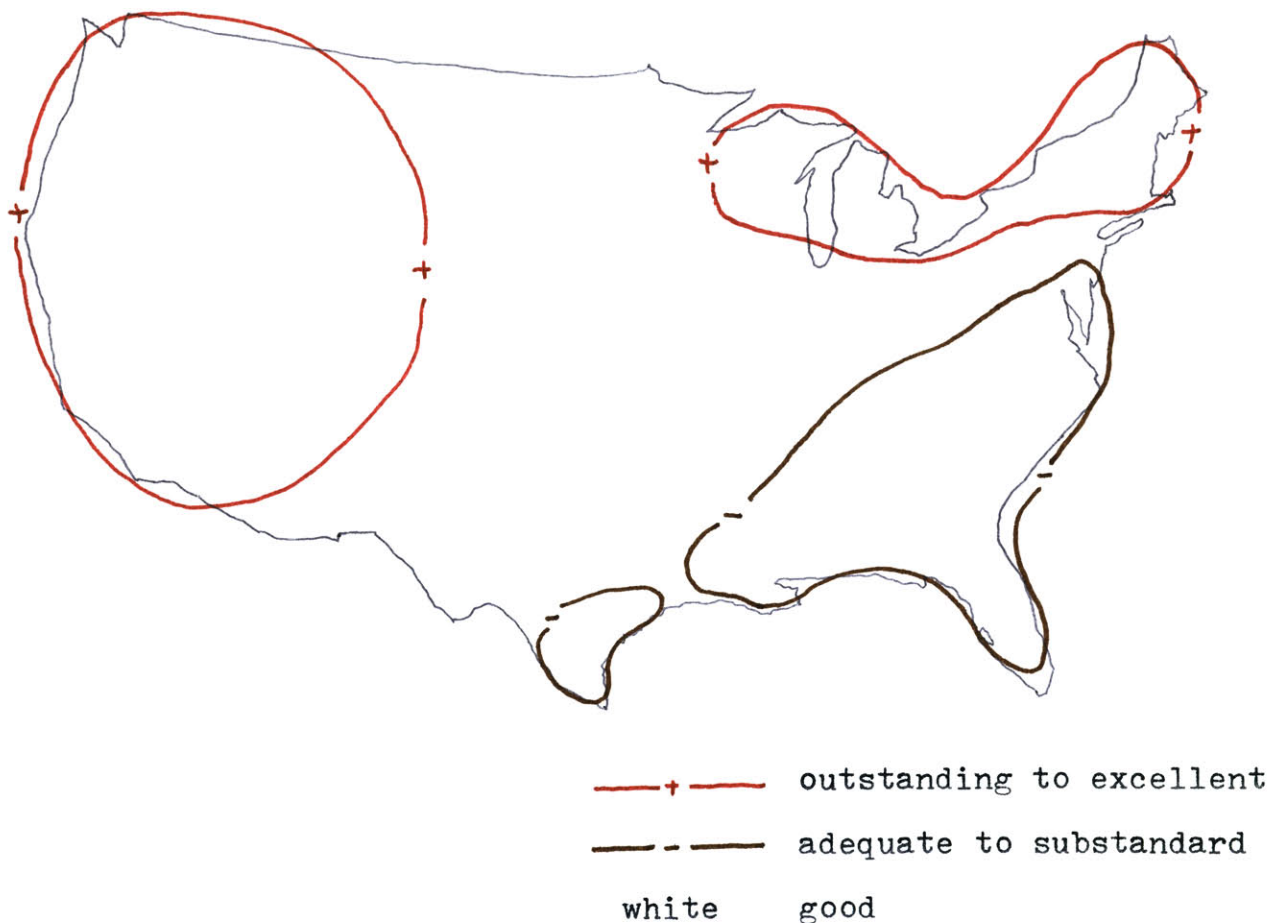
7.6.2 The consequences of the livability report

Portland's mayor said he was "pleased and proud". In Eugene, the organizer of the "ungreeting" campaign to limit Oregon's population the report horrible. On the other hand, Mobile Finance Commissioner said, "Mobile is the best city in the world in which to live and everybody in Mobile knows that. If somebody in Kansas City can't come up with some statistics to find out why Mobile is the best in the world, that's their problem, not ours."

7.6.3 Livability ratings and mental map

Cities that have outstanding livability ratings are generally in the West and in the North and this matches very well with the mental maps I obtained in the previous sections. See map 7 for the livability rating map.

Map 7
Quality of Life Map



8. Conclusions

8.1 Current Migration Patterns

To see the current migration patterns, I can look into the population changes in different regions of the United States. Of course, we have to think about the population increase due to natural increase (birth - death), in addition to net in-migration* of a region. However, since, in the United States, the population change is nearly zeroed, I can assume that the population change due to natural increase is 1% (which is negligible). Thus the actual population change of a region only reflects the net in-migration to that region. (See map 8 and 9 for population changes and movement for Charlotte and Houston.) The general trends are that people are moving from north to south and east to west.

One big factor which is influencing the current migration pattern is the availability of jobs. I found out from the Houston-Charlotte study that at least 50% of my sample moved into these cities for job reasons.

I can see the availability of job because of the unemployment rate and the changes in manufacturing employment (see maps 10 and 11). These maps tell us more jobs are available in the southern part of the United States, which matches the regions of increasing population.

7

* net in-migration = in-migration - out-migration

map 8

Current Migration Pattern

for Houston



for Charlotte



map 9

Possible out-migration from Mental maps

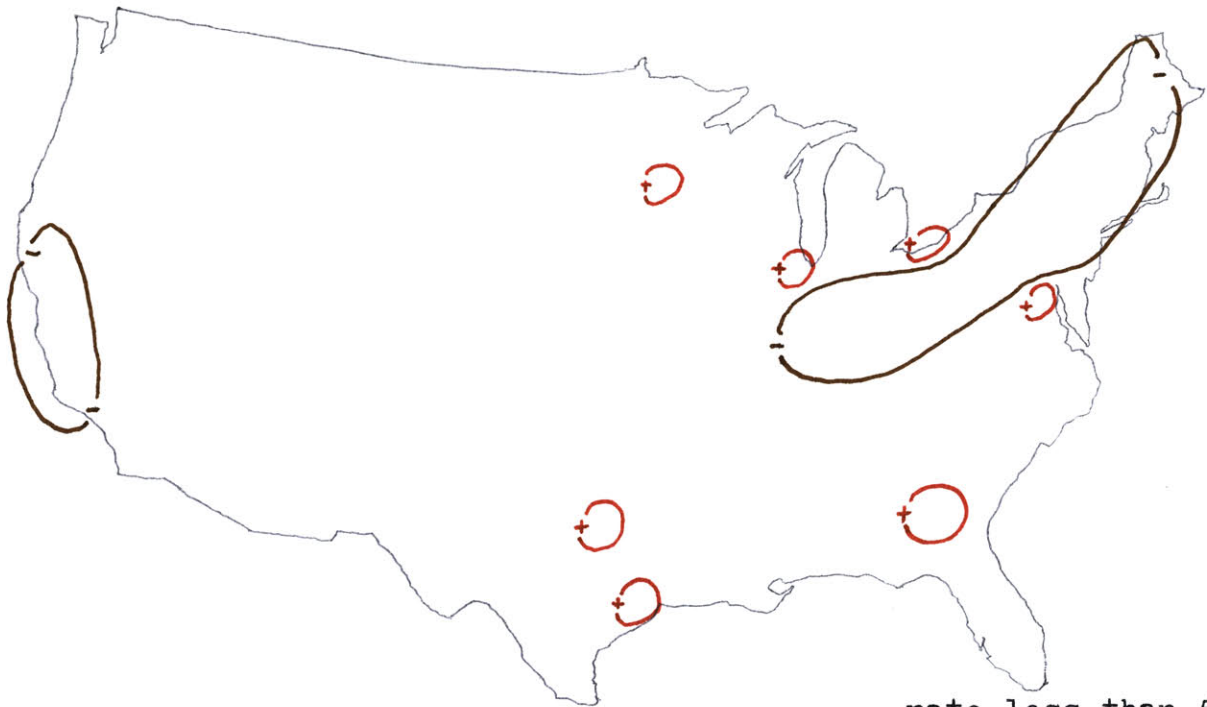
for Houston



for Charlotte



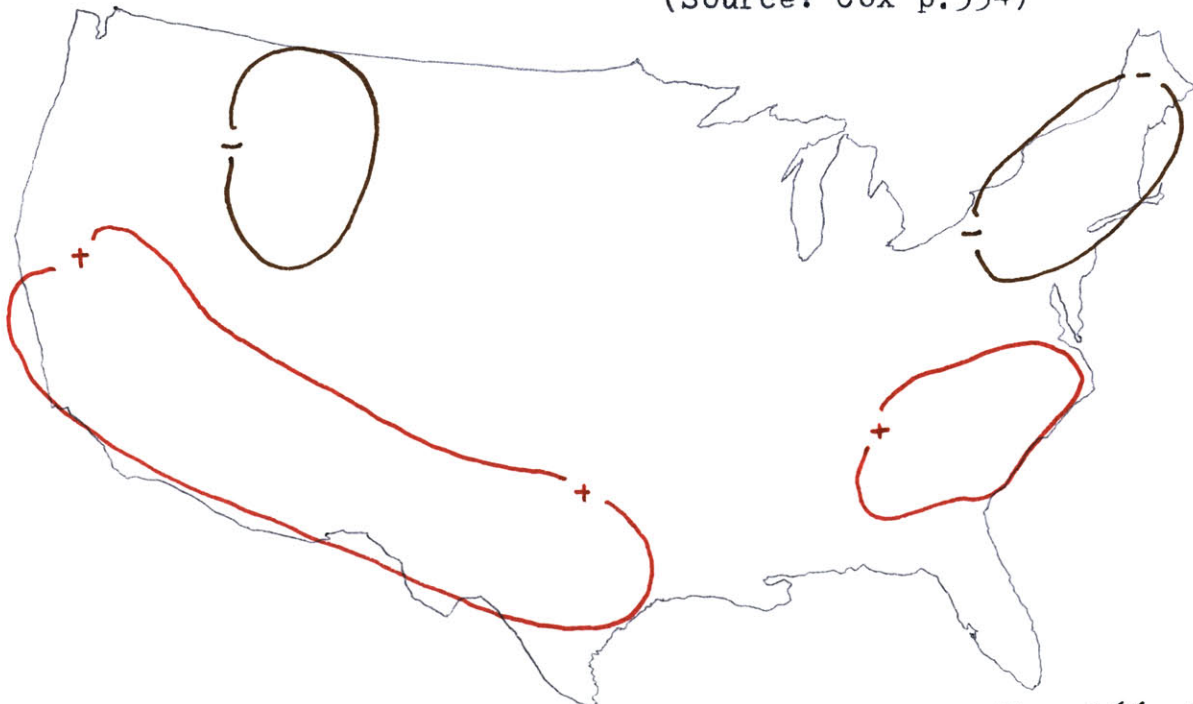
unemployment rate (in 1973)
(Source: Us Department of Labor)



rate less than 5%
rate more than 5%

map 11

manufacturing employment change (1929-1954)
(Source: Cox p.334)



more than 16% gain
more than 16% loss

8.2 Future Migration Patterns and Government and Industry Interventions

I think that, in the future, the locational preference of each individual would gain more importance in deciding where he would move and live. The increase in real income, mobility, and the so-called "search for good life" are mainly responsible for this change.

My findings may be most relevant to two specific groups: government policy-makers (with them are planners) and industrialists.

8.2.1 Governments' interventions in future locational decisions

I can name four possible government levels that could influence the future migration patterns. They are city, state, regional unit, and the federal.

Policy proposals for rectifying inequality in the quality of the environment between regions have taken two forms: there are, first, regional level policies designed to upgrade the quality of the environment for people living in a whole region; there are also subregional policies that aim to achieve the former goal by relying on geographical concentration of government aid and investment in, and migration to, a few favored points within the depressed area. Regional policies have been essentially apparent in programs designed to up-grade incomes and the availability of a diversity of employment opportunity in depressed areas.

The American problem makes it clear that economic development programs are not likely to be effective policy instruments

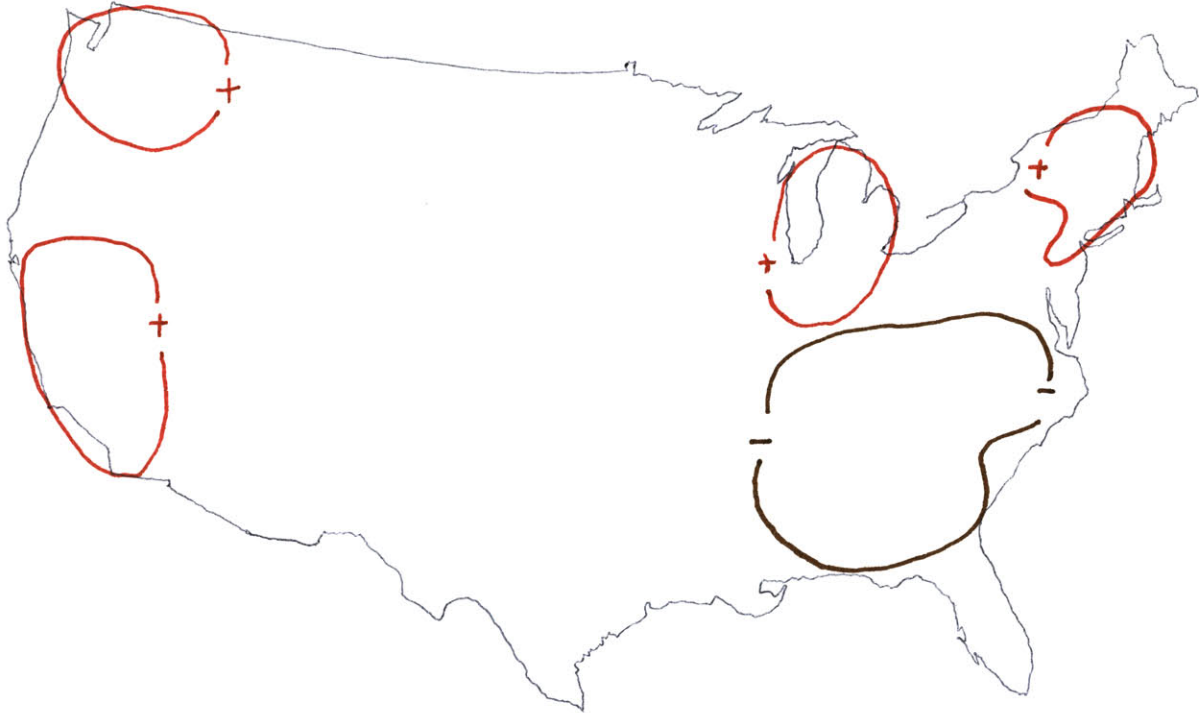
for mitigating regional inequity, unless they are combined with policies of social development designed to make the backward areas more attractive to industrialists and to the people of the area. Especially critical here is the need for investment in education in order to provide those higher levels of skill attractive to industrialists. Also significant, however, are steps designed to upgrade the public image of the area and to make it more aesthetically attractive by policy such as upgrading of the housing stock by public housing project.

The relationship between income and social inequity across regions is also apparent in levels of welfare payments. Low-income states as those of the South and Appalachia pay much lower welfare benefits than the wealthier states, thus stimulating migration (of poor blacks) to the cities of the North and West and adding to the unemployment rolls there (see maps 12 and 13 for incomes per capita by state and cost of living by city). This underlines the role that political fragmentation of government income and expenditure can play in jeopardizing policies aimed at reducing interregional inequity in the quality of the environment. It seems only fair to comment that if current efforts towards the regeneration of depressed areas in the United States are to have a modicum of success, federal expenditures aimed at eliminating differences in state expenditures will have to be greatly increased. (Cox, p. 368)

A good example of these governmental interventions can be seen in area surrounding Charlotte. Levels of government involved in attracting people and industrialists are : city, regional

map 12
incomes per capita

(Source: Cox, p. 360)

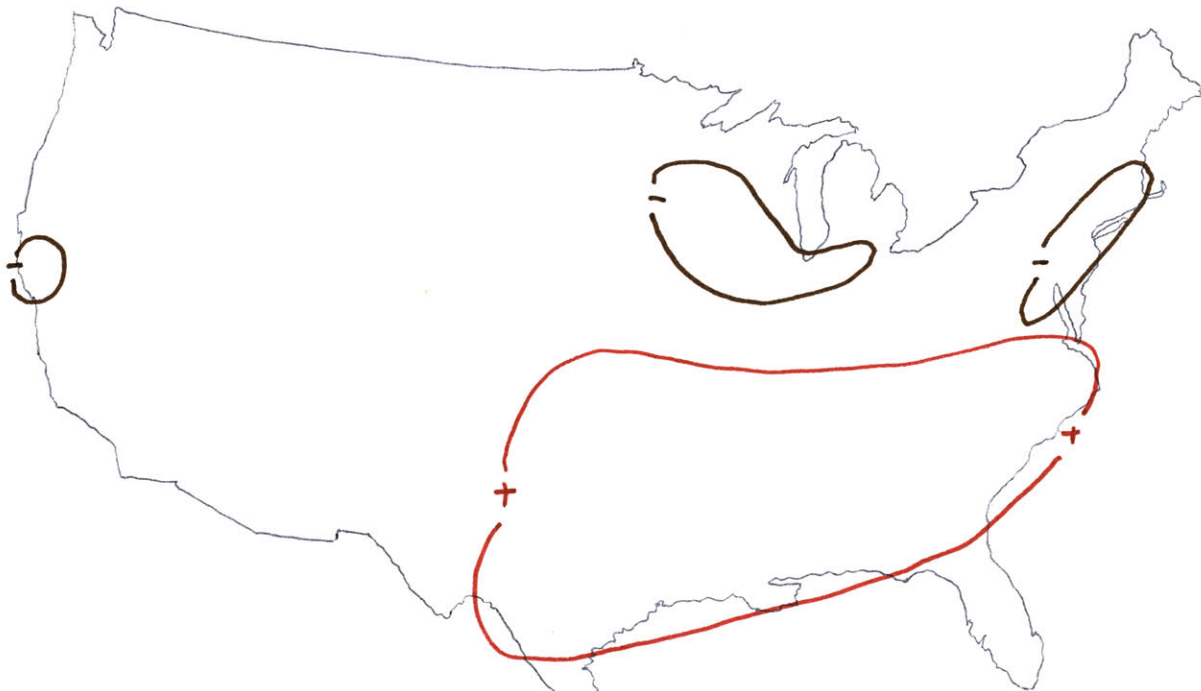


map 13

cost of living

(Source: US Department of Labor)

—+— over \$2,250
--- below \$1,750



—+— sub-US average (\$14,154)
--- above-US average

(Metrolina includes some counties in South Carolina), and state. Also the so-called Golden Triangle* (Raleigh, Chapel Hill, and Durham) and Atlanta are trying the same. Another example can be seen in some of the Great Plains cities and states: Tulsa is trying hard to upgrade the public image of the city.

8.2.2 Industry's interventions in future locational decisions

Both people and industries are already enjoying a locational freedom known to only a few half a century ago. Today we have moved beyond the traditional primary, secondary, and tertiary sectors in advanced economies (the raw material, manufacturing and service industries), to the quaternary sector whose occupations are all deeply involved in information gathering, processing and dissemination. Most of these institutions such as universities, consulting firms, data-processing centers, and so on, are foot-loose. They are no longer tied to traditional locational factors, such as raw materials and the market, but are free to choose locations according to such things as recreational facilities, quality of schooling, and a pollution-free atmosphere. (Gould and White, p. 175)

By using the mental maps I obtained, industrialists could possibly build their facilities in one of the most preferred places--which includes states like Montana and Idaho. Locating manufacturing in these states might not be too realistic, because of the relationships between their locations and their markets. However, the research facilities might be ideal in these places. In these isolated and clean environments, many well-educated people showed the desires to live.

* Trying to be the education and research center not only in the South, but in the United States.

8.3 The Fourth Migration

Fifty years have passed since Numford first came up with the idea of the fourth migration. And in this past fifty years, although we saw the first three migrations still dominating, we have not seen the site of the fourth migration, so that it is clearly evident to everyone.

My work has proved that the mobility rate of 1975 is almost three times that of a decade ago (section 4.1). There is no doubt that it will be even higher in the days to come. This higher mobility rate of all the sectors of population indicates that people will move a number of times before they finally decide to settle down. Since people will experience more diverse places by moving and also by travelling, their perceptions of other places become broader, wider, and clearer. Thus they have more choices to choose from to decide where they would like to settle.

For example, the South was an area of high net out-migration ten years ago, but today we must be careful with the image of the South as it is changing rapidly. The South had the second highest net in-migration, at 8.4% in the 1970-75 period, following closely the West (8.7%). Some have even gone so far as to liken the South today to California in the Thirties--a place for bright young people who can quickly generate a sense of regional pride in the place where they are willing to sink some roots. In fact, I felt a very strong sense of community in some of the neighborhoods within Charlotte (Dilworth area for example) if not the whole city.

In conclusion, the fourth migration is the migration with no particular direction, while the previous three migrations did have particular direction. The population changes their residences frequently, not just within a state or a region, but among different states and regions. If one insists to know the direction of the fourth migration, it will be to each individual's ideal living environment.

APPENDIX I

Sample of questionnaire for Houston-Charlotte study

Demographic informations

Sex

Age

Number in Family

Occupation of Household Head

Spouse's occupation, if employed

Education of Household Head

Education of Spouse

Income (Family)

Race

Home - owned or rented

Neighborhood live in

- I. I'd like to get your residential history, first--where your were born, went to school, college, and where you worked, etc. When/ and Where? How long in each place? Where did you like or enjoy most?
- II. a. Why did you move to (Houston or Charlotte)?
b. Any other reasons?
c. What first brought up the idea of moving?
d. Why did you move just at the time you did?
e. Did you have a job lined up before moving here?
f. Did you consider other places instead of moving here?
Tell me about it.
- III. a. What do you think are the chances that you will some day move away from the (Houston or Charlotte) area?
b. Why do you say so?
c. If you leave the (Houston or Charlotte) area, to what cities or retions would you like to move, if you had a choice? Why
d. To what cities or regions would be unwilling to move? Why?

IV. I listed here 16 reasons for moving, what are your five most important factors?

1. Home town, went to college, close to relatives and friends
2. Good environment, clean atmosphere, etc.
3. Recreation and entertainment
4. Smaller size or larger size
5. Growing city
6. Job
7. Image
8. Education and culture
9. Low crime rate
10. Good transportation
11. Good housing
12. Low taxes
13. Religious and social groups or any other organization
14. Nice, friendly people
15. Good neighborhood (eliminated)
16. Climate (later added)

V. Image study - naming a number of American cities.

Asking people, "What comes to your mind when I name these cities?" "What are your first reactions?"

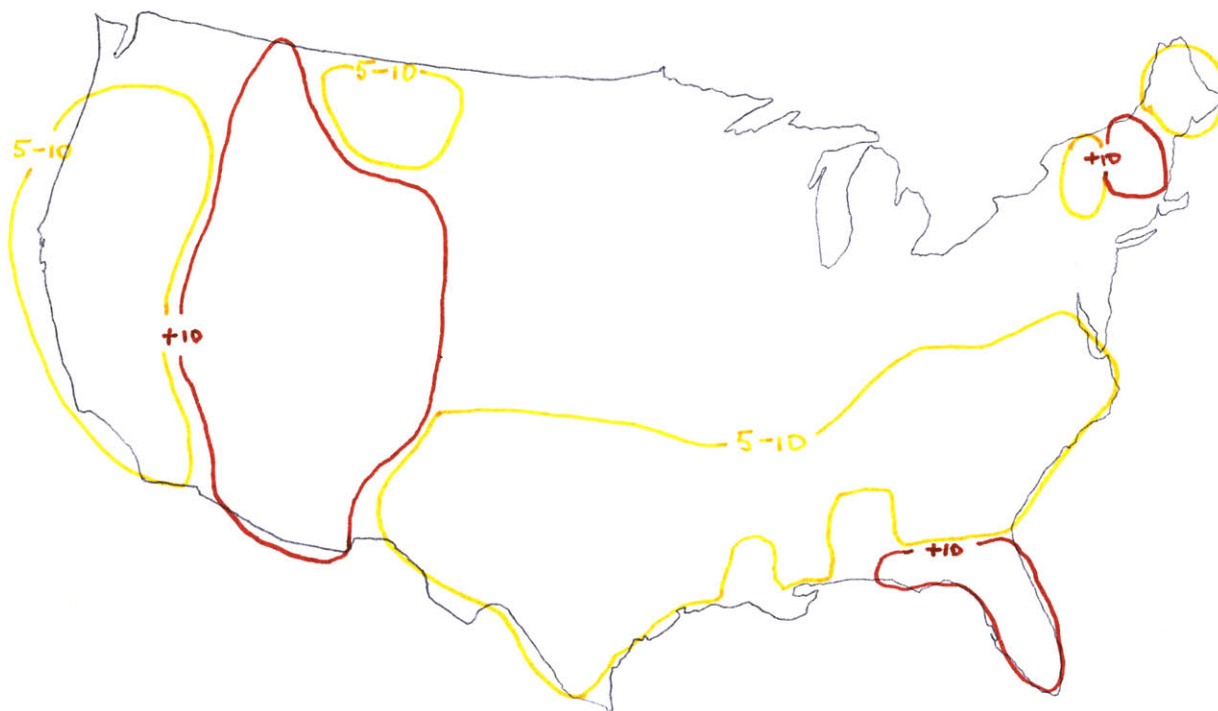
A questionnaire for M.I.T. students

1. Where do you want to live, if you had a choice? (explanation of the question, if needed)
2. Why?
3. Where you don't want to live?
4. Why?
5. Could you draw me a map of the United States?
(Observing where he starts drawing and what order.)
Can you indicate where your most preferred places are with this red marker?
Can you indicate your second choices? -blue
Now your least preferred places with brown.
6. Where did you grow up?

APPENDIX II

Population Change From 1970 to 1975

— 5-10 — Gains of 5% to 10%
— +10 — Gains of more than 10%



Northeast	Up 0.8% change
North Central	Up 1.9%
South	Up 8.4%
Florida	Up 23.0%
N.C.	Up 7.2%
West	Up 8.7%
Arizona	Up 25.3%
Nevada	Up 21.1%
Idaho	Up 14.9%
Colorado	Up 14.7%
Utah	Up 13.8%

APPENDIX III

Making it in America -- Dr. Coleman's report
(Newsweek, Jan.5, 1976)

1. The Success Elite - Minimum family income: \$50,000
"This is what the average man considers upper class."
2. People who are doing very well - Minimum: \$30,000
"To do well, you usually have to have a college education."
3. The Middle-American Dream - Minimum: \$19,000
"These people are not dabbling in luxuries, but they do have lots more than necessities."
4. The Average-Man Comfortable Existence - Minimum: \$15,000
"Families at this level can pay their bills on time with a modest saving to tide them over the rough spots."
A single-family house in a racially untroubled suburban neighborhood.
5. The World of Just Getting Along - Minimum: \$9,500
"In these families, both husband and wife probably had to go to work right after high school."
6. Having a Real Hard Time - Minimum: \$5,750
"These families are just a step away from welfare and are proud to say they work."
7. The Poor - Up to \$4,500
Most families on this bottom rung are on welfare.

