



1977

Education and Social Mobility in Tamil Nadu, India: An Empirical Study of Intergenerational Occupational Mobility and Occupational Aspiration

Savarimuthu Savarimuthu
Loyola University Chicago

Follow this and additional works at: https://ecommons.luc.edu/luc_diss



Part of the [Education Commons](#)

Recommended Citation

Savarimuthu, Savarimuthu, "Education and Social Mobility in Tamil Nadu, India: An Empirical Study of Intergenerational Occupational Mobility and Occupational Aspiration" (1977). *Dissertations*. 1745.
https://ecommons.luc.edu/luc_diss/1745

This Dissertation is brought to you for free and open access by the Theses and Dissertations at Loyola eCommons. It has been accepted for inclusion in Dissertations by an authorized administrator of Loyola eCommons. For more information, please contact ecommons@luc.edu.



This work is licensed under a [Creative Commons Attribution-NonCommercial-No Derivative Works 3.0 License](#).
Copyright © 1977 Savarimuthu Savarimuthu

EDUCATION AND SOCIAL MOBILITY IN TAMIL NADU, INDIA:

AN EMPIRICAL STUDY OF INTERGENERATIONAL

OCCUPATIONAL MOBILITY AND OCCUPATIONAL

ASPIRATION

by

S. Savarimuthu

A Dissertation Submitted to the Faculty of the Graduate School

of Loyola University of Chicago in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

December

1977

To

My Beloved Father-in-Law,

The Late

MR. M. PAKIANATHAN

Stella Maris College, University of Madras

Who Did Everything Possible in India

for The Successful Completion of

This Research Project

ACKNOWLEDGMENTS

The author gratefully acknowledges the many helpful suggestions and kindnesses extended to him by Dr. Steven I. Miller, the director of the dissertation, and by Drs. Gerald L. Gutek, Jack Kavanagh and John M. Wozniak, the other members of the dissertation committee. The data for this research was collected in India by the Rev. L. D. Murphy, S.J., Loyola College, Madras, and the late Mr. M. Pakianathan, Stella Maris College, Madras. The author will always be grateful to them for their great help. The Occupational Aspiration Scale used in this research is modelled after the one developed by Professor Archibald O. Haller, University of Wisconsin. He was very kind to review the validation procedure and to permit the use of the Occupational Aspiration Scale, so also Mr. Al Schenkman, his publisher (Schenkman Publishing Company, Cambridge, Massachusetts). Their gesture is very deeply appreciated by the author.

Data analysis is a very important step in the successful completion of any empirical research project. The author wishes to express his deep appreciation and thanks to his friend Mr. Al Muthuraman, a computer software engineer who spent many hours patiently reviewing the mathematical models and programming the data. The author also likes to thank the Arthur J. Schmitt Foundation which granted a doctoral fellowship to the author for the year 1975-76, which significantly helped the research project.

Most of all the author wishes to express his very sincere thanks to his wife, Mrs. Regina Savarimuthu, who supported him in every respect all through his academic career. She patiently typed many hundreds of pages including the final copy of this dissertation. Her patience, care and many sacrifices have made this research project a success.

PREFACE

Education is viewed as the most important instrument for social change in developing countries, including India. The Indian Education Commission (1964-66) views education as the only instrument for social change. It is widely believed in developed as well as developing countries that formal education will assure the possessor a higher social status. Generally, in modern societies one's occupational status is considered to be indicative of one's social status.

In the last fifty years social scientists have been focusing their attention on the conditions and the process of social mobility. With the democratization of formal education, especially after the Second World War, it was commonly believed that increasing formal education would increase the chances for upward mobility. But that common belief is now being questioned; and empirical evidences show that social class rather than schooling play a major role in upward mobility.

The social system in India can now be called a "mixed system" as it displays characteristics of both the "closed-caste system" and the "open-class system". In traditional India a person's secular statuses are invariably defined by his 'ritual status' or caste-status which is ascribed to a person by birth. In traditional India a person's caste status generally defined his occupational status. But in modern India the occupational

structure is supposed to be 'caste-free' because the modern occupations are superimposed by western science and technology and British rule. One of the important requirements for higher levels of modern occupations is modern education which is invariably English education. Upper castes were able to attain English education and occupy upper levels of modern occupations. Many studies of Indian villages and urban centers have observed the high positive correlation between caste status and modern occupational status among the Indian people. Social anthropologists and other sociologists have explained this phenomenon as the consequence of differential educational achievement among the castes. Even after the democratization of education and the policy of "protective discrimination" for the backward and scheduled castes and tribes, the high positive correlation between caste status and occupational status still exists. Isolated studies of social mobility in India subscribe to this unchanging social phenomenon. This research tries to study whether education or the ascribed status of caste is most important for occupational achievement and occupational aspiration in India today. The state of Tamil Nadu, the abode of rigid casteism, has been selected for this study.

The data for this study was collected from a stratified random sample of male Pre-University Class students (1975-76 and 1976-77) of the Madras City colleges of the University of Madras. The independent variables for this study are: Caste, residence, "protective discrimination", education, occupation and income. The dependent variables are: father's occupation and son's occupational

aspiration. The study covers three generations: grandfather, father and son. The study of the three generations is also important from the historical point of view because during this period the Non-Brahmin Movement in Tamil Nadu vastly altered the political, social, economic and occupational structure of Tamil Nadu. The data was collected by means of a questionnaire. The caste and occupational categorization and the Occupational Aspiration Scale (OAS) were developed by the author for this study. The statistical method used for this study is path analysis and the results were verified by Chi-Square Analysis.

The conclusion of this study tentatively are: (1) Caste in Tamil Nadu, India, is still a dominant variable which not only indirectly affects a person's education and other socio-economic variables, but also directly affects his occupational achievement and occupational aspiration; (2) Education is not the principal instrument for upward mobility although it may be one of the important socio-economic variables that affect a person's occupational achievement and occupational aspiration; and (3) The policy of "protective discrimination" does not have any significant effect either on occupational achievement or on occupational aspiration.

VITA

The author, S. Savarimuthu, is the son of C. Savarimuthu and Perianayagammal. He was born June 3, 1934, in Tamil Nadu, India.

His elementary education was obtained at St. Xavier's Elementary School, Arkadu, and his secondary education at St. Ann's High School, Tindivanam, Tamil Nadu, where he graduated in 1953.

In June 1953 he entered the University of Madras, India and in June 1957, he received the oriental title of "Vidvan" in Tamil language and literature. After teaching high school for a few years he continued his higher education at Annamalai University, India and received the degree of Bachelor of Oriental Learning in July 1962; and the degree of Bachelor of Education in August, 1964. While attending Annamalai University he was president of the University Education Association.

In 1969, he came to the United States and continued his studies at Loyola University of Chicago; and in June 1972 he received the degree of Master of Arts in Education. In 1972, he became a student member of the Comparative and International Education Society and presented a paper to the Society's 1974 Midwestern Conference. In 1975, he was awarded the Arthur J. Schmitt Doctoral Fellowship for the year 1975-76.

While in India, he taught Tamil language and literature at St. Ann's High School, Tindivanam, and St. Bede's High School, Madras; and Loyola College, Madras, for a total of ten years. Besides teaching, he also edited two monthlies, "Thozhan" and "Poochchendu", a literary monthly and served as a member of the editorial board of "Thondan", a nonpartisan political weekly. He broadcasted several musical features, literary talks and poems over the All India Radio, Madras; and also published many poems, literary articles and other articles of public interest in several journals. He also served as a member of the translation committee of the Biblical Commission of Tamil Nadu, which translated the Holy Bible into modern Tamil.

TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS	iii
PREFACE	v
VITA	viii
LIST OF TABLES	xii
LIST OF FIGURES	xvii
CONTENTS OF APPENDICES	xviii
Chapter	
I. THE SETTING OF THE PROBLEM	1
Education for Social Change in Developing Countries	1
Social Stratification and Mobility in India	3
Changing Caste Structures: The Case of Tamil Nadu	18
Caste, Occupation and Occupational Mobility	26
Caste and Occupational Correlates	33
Education and Occupational Mobility	43
Caste, Education, Occupation, Income and Status	51
II. A REVIEW OF STUDIES IN EDUCATION AND SOCIAL MOBILITY IN WESTERN COUNTRIES AND INDIA	55
Studies in Education and Social Mobility in Western Countries	55
Studies in Education and Social Mobility in India	95
III. VARIABLES, SAMPLES, MODELS AND METHODS	104
Variables	104
Sample and Sampling Procedure	126
Hypotheses	139
Mathematical Models and Methods of Analysis. . .	140

TABLE OF CONTENTS

Chapter	Page
IV. DATA ANALYSIS AND INTERPRETATION OF FINDINGS . . .	154
Data Aanalysis	154
Intergenerational Occupational Mobility: Grandfather and Father Generations	158
Occupational Aspiration: Father and Son Generations	172
College Variations	189
V. CONCLUSIONS, LIMITATIONS AND FUTURE POSSIBILITIES	197
Conclusions	197
Limitations	202
Future Possibilities	203
BIBLIOGRAPHY	204
APPENDIX A	216
APPENDIX B	230
APPENDIX C	237
APPENDIX D	238
APPENDIX E	241
APPENDIX F	252
APPENDIX G	259
APPENDIX H	264
APPENDIX I	292

LIST OF TABLES

Table	Page
1.1	Studies of Indian Villages 15
1.2	Studies of Tamil Villages 21
1.3	Ritual, Economic and Power Status Hierarchies of Brahmin, Non-Brahmin and Adi-Dravida or Harijan Castes in Tamil Villages Studied 22
1.4	Percentage Distribution of Household Heads by Caste Categories and Occupational Categories in Mysore City and Bangalore City, South India 31
1.5	Percentage Distribution of the Employed in Occupational Categories by Caste and Rural and Urban Residence in Nagpur District of Central India 32
1.6	Percent Distribution of Occupational Levels by Caste in India 35
1.7	Percent Distribution of Occupational Levels by Caste Categories in India 36
1.8	Distribution of Selected Government Jobs by Castes and Other Groups in 1912, Madras Government . . 39
1.9	Distribution of Selected Government Jobs by Castes and Other Groups in 1917, Madras Government. 40
1.10	Male Literacy in English of Selected Castes, 1901-1921 (in percents) 46
1.11	Graduates of Madras University, 1870-1918 47
2.1	Occupational Positions of Fathers and Sons of Various Relative Educations 62
2.2	Relative Occupational Stations of Sons of Fathers from Two Different Occupational Strata 63
2.3	Mean Taxed Income (in 1000 Swedish Crowns) By Levels of Formal Education and Social Class 90

LIST OF TABLES

Table	Page
2.4	Percentage Distribution of Mysore City Household Heads and Their Sons Who Deviate from, or Follow, Parental Occupational 96
2.5	Percent of the Employed Sons Who Deviate from Their Fathers in Specific Occupation, by Caste and Residence in Nagpur District of Central India 99
2.6	Percentage Distribution of Educational Level by Caste and Residence in Nagpur District of Central India 100
3.1	Major Divisions of Occupations in the International Standard Classification of Occupations, The United States Department of Labor Dictionary of Occupational Titles and The Indian National Classification of Occupations 114
3.2	The Government of Tamil Nadu Occupational Divisions in 1964 and 1972 116
3.3	The Distribution of Major Occupational Categories and The Number of Indian Occupations in each Category and the Average Score for each Category . . 120
3.4	The Distribution of Major Occupational Categories used in This Mobility Study and The Number of Indian Occupations Graded in each Category and The Average Score for each Category 121
3.5	The Distribution of The Madras City College Student Population Including The Pre-University Class by Individual College and by Caste Categories as of August 1, 1974 130
3.6	Distribution of Sample Size and Response Rate by College (1975-76) 136
3.7	Distribution of Sample Size and Response Rate by College (1976-77) 137
3.8	Distribution of Cases Included in the Analysis by Caste Categories 138

LIST OF TABLES

Table	Page
4.1	Decomposition of Bivariate Covariation of Variables in The Grandfather - Father Generation Causal Model in Figure 4.1 161
4.2	Frequency and Percentage Distribution of Grandfathers' and Fathers' Occupations and Percentage Difference by Occupational Categories 169
4.3	Decomposition of Bivariate Covariation of Variables in The Father and Son Generation Causal Model in Figure 4.2 175
4.4	Decomposition of Bivariate Covariation of Variables in The Grandfather - Son Generation Causal Model in Figure 4.3 184
4.5	Path Coefficients for All Socioeconomic Variables Included in The Grandfather - Son Generation Causal Model and Father - Son Generation Causal Model as Shown in Figures 4.3 and 4.2 186'
4.6	Distribution of The Sample P.U.C. Students' Caste Categories by The Sample Colleges 191
4.7	Distribution of The Sample P.U.C. Students' Fathers' Educational Levels by the Sample Colleges 192
4.8	Distribution of The Sample P.U.C. Students' Fathers' Occupational Categories by The Sample Colleges 194
4.9	Distribution of The Sample P.U.C. Students' Fathers' Annual Incomes by The Sample Colleges 196
A.1	Risley's Social Grouping of The Dravidian Tract in Madras Presidency, Mysore, Hydrabad, Travancore and Cochin 218
A.2	Bhatt's Seven Caste Categories 220
E.1	The Indian and NORC Occupational Scores and Rankings 243

LIST OF TABLES

Table	Page	
E.2	The Distribution of the Major Occupational Categories and the Number of NORC Occupations in each Category and the Average Score for each Category as Shown by A. F. Davis	251
F.1	Summary of The Relation Between Indian Occupational Prestige Scores and The O.A.S. Format	254
H.1	Distribution of Grandfathers' Residence Populations by Their Caste Categories	265
H.2	Distribution of Grandfathers' Protective Discrimination by Their Caste Categories	266
H.3	Distribution of Grandfathers' Educational Levels by Their Caste Categories	268
H.4	Distribution of Grandfathers' Occupational Categories by Their Caste Categories	270
H.5	Distribution of Grandfathers' Annual Income by Their Caste Categories	272
H.6	Distribution of Fathers' Educational Levels by Their Caste Categories	274
H.7	Distribution of Fathers' Educational Levels by Grandfathers' Occupational Categories.	276
H.8	Distribution of Fathers' Educational Levels by Grandfathers' Annual Income	278
H.9	Distribution of Fathers' Educational Levels by Grandfathers' Protective Discrimination	279
H.10	Distribution of Fathers' Occupational Categories by Their Caste Categories	280
H.11	Distribution of Fathers' Occupational Categories by Their Educational Levels	281
H.12	Distribution of Fathers' Residence Populations by Their Caste Categories	283

LIST OF TABLES

Table		Page
H.13	Distribution of Fathers' Protective Discrimination by Their Caste Categories	284
H.14	Distribution of Fathers' Annual Income by Their Caste Categories	285
H.15	Distribution of Sons' Occupational Aspiration Levels by Their Fathers' Educational Levels	286
H.16	Distribution of Sons' Occupational Aspiration Levels by Their Caste Categories	287
H.17	Distribution of Sons' Occupational Aspiration Levels by Their Fathers' Occupational Categories	288
H.18	Distribution of Sons' Occupational Aspiration Levels by Their Fathers' Annual Incomes	289
H.19	Distribution of Sons' Protective Discrimination by Their Caste Categories	290
H.20	Distribution of Sons' Occupational Aspiration Levels by Their Protective Discrimination	291

LIST OF FIGURES

Figure		Page
1.1	Role Summation Model of Social Stratification in Traditional India	5
1.2	Role Differentiation Model of Social Stratification in Modern India	11
1.3	A Socio-Economic Status Model in an Open-Class System	51
1.4	A Socio-Economic Status Model in a Closed- Caste System	53
1.5	A Socio-Economic Status Model in a Mixed (Closed- Open-Caste-Class) System	54
2.1	Carlsson's Mobility Process	71
3.1	General Presumed Causal Model of the Variables	144
3.2	Grandfather - Father Generation Causal Model	146
3.3	Father - Son Generation Causal Model	149
3.4	Grandfather - Son Generation Causal Model	153
4.1	Grandfather - Father Generation Causal Model	159
4.2	Father - Son Generation Causal Model	173
4.3	Grandfather - Son Generation Causal Model	182

CONTENTS OF APPENDICES

		Page
APPENDIX A	CATEGORIZATION OF CASTES IN TAMIL NADU	216
	Six Caste Categories	216
	Caste Categorization in Other Studies: A Comparison	217
	List of Various Castes in Tamil Nadu Included in Each of the Six Caste Categories .	221
APPENDIX B	THE NON-BRAHMIN MANIFESTO	230
APPENDIX C	FIRST COMMUNAL G.O.	237
APPENDIX D	SECOND COMMUNAL G.O.	238
APPENDIX E	THE PRESTIGE-RANKING OF OCCUPATIONS	241
APPENDIX F	THE DESIGN AND DEVELOPMENT OF THE OCCUPATIONAL ASPIRATION SCALE	252
APPENDIX G	EQUATIONS	259
APPENDIX H	CHI-SQUARE TABLES	264
APPENDIX I	QUESTIONNAIRE	292
	Occupational Aspiration Scale	295

CHAPTER I

THE SETTING OF THE PROBLEM

EDUCATION FOR SOCIAL CHANGE IN DEVELOPING COUNTRIES

In developing countries education is considered vital to economic, social and political developments. Speaking of education and social mobility in developing countries in general, and in Africa in particular, K.A. Busia observes:

Indeed, in Africa education is an instrument of change, for the African child who goes to school is "introduced to a world of thoughts, of achievement, and of conduct outside the experience of his parents; this access to new ideas is bound to make a break in his life, however much the educationist may wish to respect native tradition."¹

The role of education as an instrument of change is expressed in a variety of national plans and policies of South and Southeast Asian countries. For example the report of Bangladesh Education Commission (1973) and the First Five-Year Plan of Bangladesh (1973) visualize the key role of education for the reconstruction of society.²

¹Quoted from Hailey, An African Survey (London: Oxford University Press, 1938), P. 1207. by K.A. Busia, "Education and Social Mobility in Economically Underdeveloped Countries," Transactions of the Third World Congress of Sociology (Koninklijk Institute Voor de Tropen, Amsterdam, 22-29 August, 1956)., Vol. V: Changes in Education (London: International Sociological Association, 1956), p. 83.

²Mahammad Shasul Hug, Education, Manpower, and Development in South and Southeast Asia (New York: Praeger Publishers, 1975), pp. 4-5.

Indonesia's first five-year plan (1969/70 - 1973/74) expects education to be "... closely linked with the need as well as possibilities of economic and social development...."³ Malaysia's second five-year plan (1971-75) hopes that education... "will contribute significantly towards promoting national unity."⁴ The objective of education, according to the Presidential executive order that created the Presidential Commission to survey education in the Philippines, is "... to make it responsive to the challenge of modernization and the goals of national development."⁵ The fourth five-year plan (1970-75) of Pakistan likewise views the development of manpower resources as an investment in human capital, which ultimately will accelerate economic growth. The Third Five-year Plan of India (1961-66) states:

Education is the most important single factor in achieving rapid development and technological progress and in creating a social order founded on values of freedom, social justice and equal opportunity.⁶

The Report of the Education Commission (1964-66), which is popularly referred to as the Kothari Commission, reemphasises the importance of education as an instrument of change:

If this 'change on a grand scale' is to be achieved without violent revolution (and even then it would still be necessary) there is one instrument, and one instrument only [*italics mine*], that can be used: EDUCATION.⁷

³Ibid.

⁴Ibid.

⁵Ibid.

⁶Ibid.

⁷Reporting of the Education Commission (1964-66): Education and National Development (Ministry of Education, Government of India, 1966), p. 4.

One of the important objectives of education in India is social change. India attracted the attention of sociologists and anthropologists of the world because of its unique caste system, which, according to the Report of the Education Commission, is "... an undemocratic institution which is still powerful and which, strangely enough, seems to have extended its sphere of influence under the very democratic processes of the Constitution itself."⁸

SOCIAL STRATIFICATION AND MOBILITY IN INDIA

Social stratification in India is based on the caste system. Beteille considers it a system of 'status groups'.⁹ Lynch, on the other hand, considers it "... a system based upon mutually exclusive status sets or sub-sets."¹⁰ Bailey lists six criteria to define a caste system. They are: (1) Exclusiveness (membership in one group of the same type excludes membership in another group of the same type); (2) Exhaustiveness (all members of the society belong to one group or other); (3) Rank (groups are hierarchically ordered); (4) Closed (membership to a group is ascribed by birth); (5) Involute (relationship between groups are organized by role summation); (6) Cooperative (groups in the system do not compete). The first three criteria are common to all stratification system, but the last three are peculiar only to the caste system.¹¹

⁸Ibid., p. 2.

⁹Andre Beteille, Castes: Old and New, Essays in Social Structure and Social Stratification (Bombay: Asia Publishing House, 1969), p. 70.

¹⁰Owen M. Lynch, The Politics of Untouchability: Social Mobility and Social Change in a City of India (New York: Columbia University Press, 1969), p. 10.

¹¹Ibid.

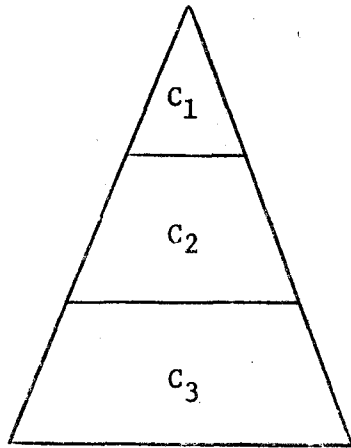
Two of the most important characteristics of the traditional model of caste system are ascription and role summation. A person's birth into a caste not only defines his position in the ritual status hierarchy, but also defines his status in the secular status hierarchies such as his education, occupation, his civic and political privileges, his marriage choices, his associational membership, his commensal and all other social behavior.¹² "A caste", as Srinivas puts it, "is in its essence a religious group, membership of which entails certain ritual observances. The rules of caste behavior are rules of religion."¹³ But the ritual status is so pervasive that all other aspects of one's social life are governed by caste. The secular social structures are undifferentiated from the ritual caste structure, and hence an individual who occupies a high or low position in the caste structure simultaneously occupies high or low position in all other secular social structures. The role summation of an individual in the traditional classical model of caste system is diagrammatically shown in Figure 1.1.

In the classical model there is a very high degree of positive correlation between an individual's position in the caste structure and

¹²See Wilson's sum up of the extent of Caste rules that govern every member of any caste in J.H. Hutton, Caste in India: Its Nature, Function, and Origins (Fourth Edition; London: Oxford University Press, 1963), pp. 90-91.

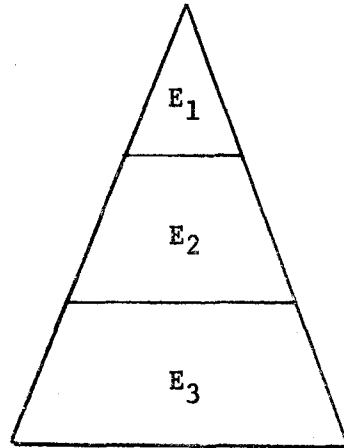
¹³M.N. Srinivas, Religion and Society Among the Coorgs of South India (London: Oxford University Press, 1952), p. viii.

Ritual Dimension

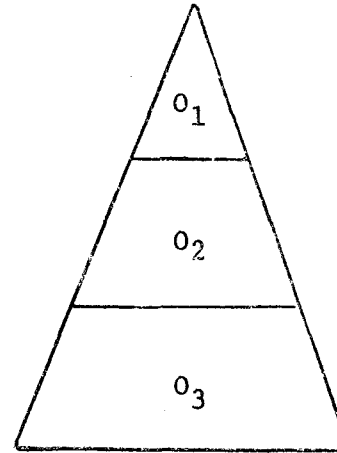


Caste
Stratification

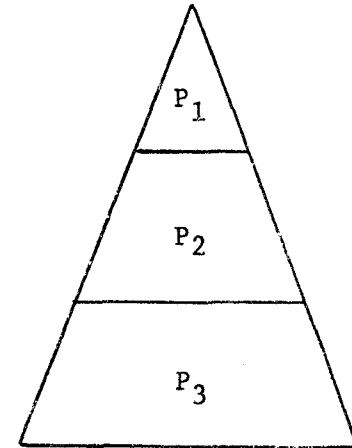
Secular Dimensions



Educational
Stratification



Occupational
Stratification



Power
Stratification

Figure 1.1.--Role Summation Model of Social Stratification in Traditional India

Strata: C₁ is high castes, C₂ is middle castes, and C₃ is low castes; E₁ is higher education, E₂ is some education, and E₃ is no education; O₁ is higher level occupations, O₂ is middle level occupations, and O₃ is lower level occupations; and P₁ is greater power, P₂ is some power, and P₃ is no power.

his position in other secular social structures. Accordingly only the following status combinations are possible:

- (1) High castes: $C_1 E_1 O_1 P_1$
- (2) Middle castes: $C_2 E_2 O_2 P_2$
- (3) Low castes: $C_3 E_3 O_3 P_3$

Precisely because of the status or role summation on the basis of ascription by birth, social stratification in traditional India is considered a closed system at its ascriptive extreme. Historically, under ideal-typical conditions, mobility in the caste system was almost impossible. But in reality there was always some form of corporate or family mobility in traditional India. Caste or sub-castes or families who acquired economic and political power aspired for an achieved higher status in the caste hierarchy through, what Srinivas calls, the process of Sanskritization.¹⁴ Mobility associated with Sanskritization often resulted only in positional change, but did not lead to structural change.¹⁵

¹⁴

M.N. Srinivas, Social Change in Modern India (Fifth Printing; Berkeley: University of California Press, 1971), pp. 1-45. M.N. Srinivas defines Sanskritization as "... the process by which a "low" Hindu caste, or tribal or other group, changes its customs, ritual, ideology, and way of life in the direction of a high, and frequently, "twice-born" caste." Ibid., p.6. Also see his article, "A Note on Sanskritization and Westernization," Far Eastern Quarterly, XV, No, 4 (August, 1956), 481-496.

¹⁵

Ibid., pp. 7, 30.

A newer picture of social stratification in traditional India has been recently discovered and accepted by many theorists of comparative social stratification as a result of empirical studies in the last few decades.¹⁶ But the important goal of the limited mobility in the secular stratification systems in traditional India was the attainment of higher ritual status in the caste system because the ritual stratification system was the most overpowering system in, what Radcliffe Brown calls, the "total social structure" of Hindu India. The caste structure was the heart of the total structure and it was ascriptive, undifferentiated from other social structures and divinely sanctioned. These three features made mobility difficult in traditional India. If there was any evidence of mobility in traditional India it was a collective splitting off of subcastes, or what Hutton calls the "fissiparous tendencies" in Indian castes.¹⁷

Social stratification in India began to change with the advent of the British rule. The British rule brought with it new technology, institutions, knowledge, beliefs and values. New technology brought with it a new occupational structure which was "caste free".

¹⁶See for example: Karre Svalastoga, Social Differentiation (New York: David Mackay, 1965), chap. 3; Neil J. Smelser and Seymour Martin Lipset (eds.), Social Structure and Mobility in Economic development (Chicago: Aldine Publishing Co., 1966); Melvin Tumin, Social Stratification (Englewood Cliffs, N.J.: Prentice Hall, 1967), pp. 17-18; Edmund Leach, "Caste, Class and Slavery: The taxonomic Problem," Caste and Race: Comparative Approaches, ed. Anthony de Reuck and Julie Knight (Boston: Little, Brown and Company, 1966), pp. 5-27; Bernard Barber, "Social Mobility in Hindu India," Social Mobility in the Caste System in India: An Interdisciplinary Symposium, ed. James Silverberg (The Hague: Mouton, 1968), pp. 18-35.

¹⁷Hutton, p. 50-51. And also see Smelser and Lipset, p. 8.

New institutions such as newspapers, political institutions like parties, legislatures and other organs of government began to change the character of the social structures; and these institutions were also altered the economic relationships of castes and groups. The new educational system, at least theoretically, opened up opportunities for all segments of Indian society.¹⁸ But perhaps the most important development of all was the system of values that was implicit in this process of change, which became known as Westernization. Humanitarianism, which includes equalitarianism and secularization, was the foundation for all the reforms that the British introduced in Indian society from the first half of the nineteenth century.¹⁹ The introduction of new laws put an end to the traditional Hindu laws which were based on caste; and also the new laws refused to recognize caste based privileges and statuses.

These changes have been greatly accelerated by the independence of India, though India still has a long way to go before it can be called a "casteless society" - which is the goal of the architects of modern and independent India. "In the social organization of today,"

¹⁸Beteille, Castes: Old and New, p. 60. And also see Andre Beteille, Caste, Class, and Power: Changing Patterns of Stratification in a Tanjore Village (Berkeley: University of California Press, 1965), pp. 223-25.

¹⁹Srinivas, Social Change..., p. 48

wrote Nehru, "it (caste) has no place.... It was an aristocratic approach based on traditionalism, for it is wholly opposed to modern conditions and democratic ideals."²⁰ Modern conditions were created with the advent of British rule and the caste structure and other social structures, like the occupational structure, educational structure and power structure began to change. The secular structures began to be differentiated, and the closed system began to open little; especially as achievement became the chief criteria of attainment of positions in the secular social structures. The locus of control of sanctions also began to be invested in differentiated social structures. Today, social stratification in India has characteristics of both closed-caste society and open-class society. Hence the form of social stratification in modern India can be called a "mixed type".²¹ Because of the "mixed type" form of social stratification, caste structure cannot be considered the total social structure for the study of statuses or roles. Likewise, other differentiated social structures, and the differences in the statuses or roles due to those structures, also have to be considered. Nadel's comment that "... it seems impossible to speak of social structure in the singular"²² is important in the context of studying the social stratification model

²⁰Jawaharlal Nehru, Discovery of India (Calcutta: Signet Press, 1948), p. 400.

²¹Tumin, Social Stratification, p. 18.

²²S.F. Nadel, The Theory of Social Structure (London: Cohen and West, 1957), p. 153. For a discussion of closed and open stratification in India see also Beteille, Castes: Old and New, pp. 57-86, and Silverberg, Social Mobility..., p. 35.

in modern India. The role differentiation model of social stratification in modern India is diagrammatically presented in Figure 1.2.

Statuses or roles in the role differentiation model of social stratification in modern India combine in the following ways:

- (1) High castes: $C_1E_1O_1P_1$; $C_1E_2O_2P_3$; or $C_1E_3O_3P_3$ etc.
- (2) Middle castes: $C_2E_1O_1P_2$; $C_2E_2O_2P_2$; or $C_2E_3O_3P_3$ etc.
- (3) Low castes: $C_3E_1O_1P_2$; $C_3E_2O_2P_2$; or $C_3E_3O_3P_3$ etc.

These status or role combinations are typical of the open system. As Indian society changes as a result of economic and political developments, there may also be other new structures (which may be 'X' and 'Y' components) which may again combine in diverse ways; for examples:

$C_1E_1O_1P_1X_2Y_2$, $C_2E_2O_2P_2X_1Y_1$ and $C_3E_2O_2P_2X_1Y_1$ etc....²³

Under ideal - typical conditions social mobility in a open class system tends to be individual as a result of various criteria of achievement; the social structures are differentiated; egalitarian principles are very highly valued over hierarchical principles; and local power is highly desired over centralized power.²⁴ These characteristics of open class system exist in modern India, as does the caste structure which is based on the closed system. Tension between these sets of characteristics of closed and open systems - namely ascription and achievement,

²³Again the inspiration and the basic ideas for the development of this model came from the excellent discussion on "Closed and Open Social Stratification in India" by Andre Beteille in his book, Castes: Old and New, pp. 57-86.

²⁴Smelser and Lipset, Social Structure and Mobility..., pp. 12-13.

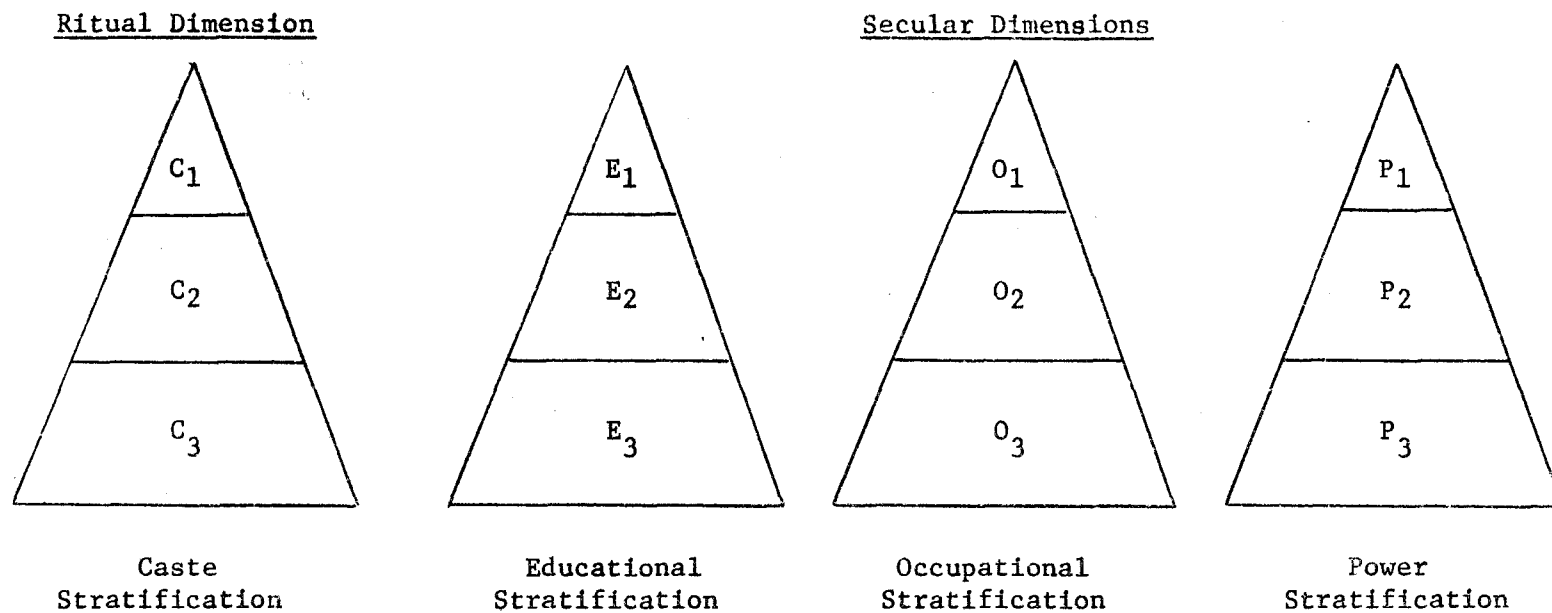


Figure 1.2.--Role Differentiation Model of Social Stratification in Modern India.

Strata: C₁ is high castes, C₂ is middle castes, and C₃ is low castes; E₁ is higher education, E₂ is some education, and E₃ is no education; O₁ is higher level occupation, O₂ is middle level occupations, and O₃ is lower level occupations; and P₁ is greater power, P₂ is some power, and P₃ is no power.

undifferentiated and differentiated structures; hierarchical and egalitarian ideologies, and central and local power - have increased (particularly after independence) as a result of rapid economic, social and political changes. Smelser and Lipset, who examine the tension between these sets of characteristics and the form of mobility as the consequences of social and economic development, say that:

As the bases of role assignment and ranking, however, ascriptive standards begin to give way to economic, political, and other standards..., and individual mobility through occupational and other structural hierarchies tends to increase.²⁵

Thus, the successive five-year plans for development and rapid industrialization of India have increased the incidence of individual mobility, which seems to be one of the universal consequences of industrialization.²⁶

There are two aspects of social mobility in any society: one is the demand for qualified individuals to occupy positions, and the other is the supply of individuals who have the skills to occupy these positions. India, which occupies one of the lowest ranks in the international economic stratification, has patterned its economic and industrial development, as well as its political development, on the model of Western industrialized countries. It tries to recruit and train young men and women who will have the motivation, aptitude and attitude, commitment and social outlook conducive to growth. Social structures that usually develop these characteristics in young people

²⁵Ibid., p. 12.

²⁶Ibid.

are religion, education, community, and kinship. Since the traditional social structures of religion, community and kinship in India are not the ones which will recruit and train such individuals, new ones such as education must be developed to do the job. As Smelser and Lipset observe:

Many of the problems that new nations face revolve around the attempt by those eager for development to undermine traditional familial, community and religious structures and establish new ones--especially in education--so as to modify the supply conditions for mobility.²⁷

Thus education becomes the most important social structure to provide opportunity for mobility for aspiring young men and women. As Busia points out:

... In a developing economy statuses which are open for competition and achievement tend to increase, and as education improves one's chances of success, the spread of education to all levels of the population implies that there will be more movements up and down the social scale.²⁸

However, a word of caution is necessary at this point. The older view that society in traditional India was absolutely static now seems to be inaccurate because of new historical evidences recently discovered. Equally it is wrong to assume that society in modern India is absolutely open because there are definite signs of an open-class system. In spite of the British rule for about two centuries, and the economic and political systems that it had imposed on the Indian society, the caste system in rural India persisted with little change.

²⁷Smelser and Lipset, Social Structure and Mobility..., p. 15.

²⁸Busia, Transactions of the Third World Congress of Sociology, p. 87.

Though the secular dimensions, in principle, were supposed to be "caste-free", in reality they were still very positively correlated with the ritual dimension. This situation remained almost unchanged even after Indian independence. Table 1.1 contains empirical studies of village India illustrating how castes with higher ritual statuses were also dominant in wealth and power.

The above mentioned studies of rural India show that in most cases the land holding wealthy castes invariably occupy higher ritual status. Also there are clear signs that other "middle castes" or Non-Brahmin castes are increasingly challenging the dominant castes in secular dimensions by acquiring land and other power statuses. Some of the Non-Brahmin castes have claimed and attained higher status positions in the caste hierarchy. For the untouchable castes, or the Harijans, the status situation remains largely unchanged, even though there are signs of definite change in their economic situation. But their claim to higher status positions in the caste hierarchy have hardly been accepted; and they are unable to cross the boundary of "untouchability" irrespective of their efforts to raise their ritual status.²⁹

²⁹Devabrata Bose, The Problems of Indian Society (Bombay: Popular Prakashan, 1968), pp. 79-86. For the efforts and failure of Untouchable caste mobility see (Based on Reports by) Bernard S. Cohn, "The Changing Status of a Depressed Caste", Village India: Studies in the Little Community, ed. McKim Marriott (3rd impression; Chicago: The University of Chicago Press, 1958), pp. 53-77 and Edward B. Harper, "Social Consequences of an "Unsuccessful" Low Caste Movement," Social Mobility in the Caste System in India, ed. Silverberg, pp. 36-65.

TABLE 1.1

STUDIES OF INDIAN VILLAGES

No.	Years of Study	Researcher	Village of study	Main property-holding castes and their property	Dominant caste according to researchers	Local caste status
1.	1951-52	McKim Marriott	Kishan Garhi, Uttar Pradesh	Jats and Brahmins possessed the greatest amount of landed wealth.	Jats	High
2.	1952-53	Oscar Lewis	Rani Khera, Uttar Pradesh	Jats owned all the land of the village.	Jats	High
3.	1952-53	Bernard S. Cohn	Madhopur, Uttar Pradesh	Thakurs owned 70% of the land of Madhopur.	Thakurs	High
4.	1925-30 (1960,70)	W.H. Wiser	Karimpur, Uttar Pradesh	Brahmins owned practically all the land.	Brahmins	High
5.	1940's	M. Opler R.D. Singh	Senapur, Uttar Pradesh	Thakurs or Kshatriyas owned most of the land and are the wealthiest.	Kshatriyas	High
6.	1949-51	Gitel P. Steed	Kasandra, Gujarat	Rajputs. A particular sub-caste of Rajputs were overlords who owned most of the land.	Rajputs	High
7.	1952-54	F.G. Bailey	Bisipara, Orrisa	Warrior caste and Boad distillers. They owned most of the land.	Warrior caste	High
8.	1951-52	E. Kathleen Gough	Kumbapettai, Tanjore, Tamil Nadu	Brahmins. Landlords.	Brahmins	High

Table 1.1--Continued

No.	Years of Study	Researcher	Village of study	Main property-holding castes and their property	Dominant caste according to researchers	Local caste status
9.	1947-49	Eric J. Miller	A village in North Kerala	Nayars. Land owners and other economic and political authorities.	Nayars	High
10.	1951-52	S.C. Dube	Shamirpet, Andhra Pradesh	Reddis. Landlords.	Reddis	High
11.	1954-55	Adrian C. Mayer	A Malwa village in Dewas, Madhya Pradesh	Rajputs. They owned most of the land.	Rajputs	High
12.	1950's(?)	Jyotirmoyee	A village near Calcutta, Bengal	Brahmins and Kayasthas. Most of the land owned by the two castes.	Brahmins	High
13.	1960-64	K. Ishwaran	Shivapur in Mysore	Lingayats. They owned 3/5 of the land.	Lingayats	High
14.	1957-58	Dagfinn Sivertsen	Thyagasamuthiram, Tanjore, Tamil Nadu	Brahmins. They were landlords.	Brahmins	High
15.	1961-62	Andre Beteille	Sripuram, Tanjore, Tamil Nadu	Brahmins. They owned most of the land	Brahmins	High

Sources: Devabrata Bose, The Problems of Indian Society (Bombay, Popular Prakshan, 1968), pp. 78-79; McKim Marriott (ed.), Village India: Studies in the Little Community (3d ed.; Chicago: The University of Chicago Press, 1958); M.N. Srinivas (ed.), India's Villages (2d ed. rev.; Bombay: Asia Publishing House, 1966); K. Ishwaran, Tradition and Economy in Village India (London:

Table 1.1--Continued

Routledge & Kegan Paul, 1966); Adrian C. Mayer, Caste and Kinship in Central India: A Village and Its Region (Berkeley: University of California Press, 1966); Dagfinn Sivertsen, When Caste Barriers Fail: A Study of Social and Economic Change in a South Indian Village (New York: Humanities Press, 1963); S.C. Dube, Indian Village (New York: Harper and Row, Publishers, 1967); William H. Wiser and Charlotte V. Wiser, Behind Mud Walls, 1930-60, with a sequel: The Village in 1970 (2nd Printing; Berkeley: University of California Press, 1973); Morris Opler and Rudra Datt Singh, "The Division of Labor in an Indian Village," A Reader in General Anthropology, ed. Carleton S. Coon (New York: Holt, Rinehart and Winston, 1967).

The process of change among the middle or Non-Brahmin castes and the "Untouchable" or Harijan castes have been accelerated greatly in the last two or three decades. Non-Brahmin castes and the Harijan castes have made significant gains in the secular social structures, though not in the ritual caste structure. Probably with the increasing differentiation of social structures in modern India, these castes do not care to use their secular power to attain higher caste positions. Commenting on the patterns of change and increasing differentiation of social structures in modern India, Eisenstadt observes:

...The "secular", "mundane" political and economic frameworks and resources, instead of being avenues of access to ultimate participation in the ritual sphere have become autonomous and even predominant goals and cultural orientations.³⁰

A similar observation was made by Mencher, who studied a village near Kanchipuram in the state of Tamil Nadu, India:

...It is probably true that ritual ranking is coming to be less meaningful to caste groups than their economic status, though the groups at the bottom are acutely aware of their low position.³¹

CHANGING CASTE STRUCTURES: THE CASE OF TAMIL NADU

Let us focus our attention specifically to the study of social stratification in Tamil Nadu. One of the main reasons for choosing Tamil Nadu for the study of social stratification and mobility is that South India in general, and Tamil Nadu in particular, was and still is

³⁰S.N. Eisenstadt, "Prologue: Some Remarks on Patterns of Change in Traditional and Modern India," Change and Continuity in India's Villages, ed. K. Ishwaran (New York: Columbia University Press, 1970), p. 34.

³¹Joan P. Mencher, "A Tamil Village: Changing Socioeconomic Structure in Madras State," Ibid., p. 213

the stronghold of traditional caste structure in India. There are many historical reasons for this phenomenon; however, the most significant of them can be found in the internal and external support that the caste system had received over the period of fifteen centuries:

(1) Internally, it had received protection from the Pallava and Chola and Vijayanagar Empires;³² and (2) Externally, it did not face any serious challenge from any source like North India which faced successive Moslem invasions and finally Moslem rule. In this politically and socially secure atmosphere, the caste system in Tamil Nadu flourished and became increasingly rigid over the centuries. There are, however, differences in the caste structure in Tamil Nadu and the general Varna model of caste structure prevalent in other parts of India. For example, there are no Vaishyas in Tamil Nadu. Likewise, the Aryans, who migrated to Tamil Nadu in the early centuries before the Christian era were unable to impose the Varna model on Tamil people, though they were successful in bringing the people of Tamil Nadu under the caste system. All Tamil people therefore fall under the categories of Sudhras and Untouchables. It will be convenient for our study to classify the Tamil people hierarchically under the broad

³²The Pallavas ruled Tamil Nadu from 550 A.D. to 880 A.D. Their court language in the beginning of their rule was Sanskrit and they were great supporters of Brahminism and casteism. The later Cholas (850 A.D.-1,173 A.D.), though Tamilians in origin, greatly supported Sanskrit studies and Brahminic traditions and casteism. The Vijayanagar empire (1336 A.D.-1,565 A.D.) was founded in the Telugu country and extended its rule to Tamil Nadu. The Vijayanagar empire was founded by Brahmins and they were strong supporters of Brahminism and casteism.

categories of Brahmins, Non-Brahmins and Harijans or Adi Dravidas.³³

In order to gain a better understanding of the caste structure in Tamil Nadu, several studies of Tamil villages will be used. These are outlined in Table 1.2.

An analysis of these studies has revealed that the caste structure in Tamil Nadu can be viewed along several dimensions. Table 1.3 illustrates the variables of ritual, economic and power statuses as they relate to the different caste groupings.

In the four Tamil villages studied, and in the whole of Tamil Nadu in general, the caste categories of Brahmin, Non-Brahmin and Adi-Dravida or Harijan castes are hierarchically arranged in descending order, and so also their ritual and secular statuses. In traditional India, as we have noted earlier, role summation would have fixed a person's status or role in the other secular structures, such as the economic and the power. But due to the external factors of alien British rule, a market economy, and the educational, occupational and political structures, the secular social structures were differentiated from the ritual caste structure. This differentiation of secular social structures from the caste structure made it easy for an individual to maintain different statuses or roles in the secular social structures. The changing nature of social stratification in Tamil

³³Incidentally this classification also corresponds to the classification of castes by the Tamil Nadu government for the award of educational scholarships and for the allotment of public service employments to scheduled and backward castes. Also see Andre Beteille (ed.), Social Inequality, selected readings (Reprint; Middlesex, Eng.: Penguin Books Ltd., 1970), p. 291.

TABLE 1.2

STUDIES OF TAMIL VILLAGES

No.	Village Studied	Years of study	Researcher
1	Kumbapettai, Tanjore District	1951-52	E. Kathleen Gough
2	Thyagasamuthiram, Tanjore District	1957-58	Dagfinn Sivertsen
3	Sripuram, Tanjore District	1961-62	Andre Beteille
4	A village near Kanchipuram, Chingleput District	1963 and 1966	Joan P. Mencher

Sources: 1. E. Kathleen Gough, "The Social Structure of a Tanjore Village," Village India: Studies in the Little Community, ed. McKim Marriott (3rd Impression; Chicago: The University of Chicago Press, 1958), pp. 36-52; 2. Dagfinn Sivertsen, When Caste Barriers Fall, A Study of Social and Economic Change in a South Indian Village (New York: Humanities Press, 1963); 3. Andre Beteille, Caste, Class, and Power: Changing Patterns of Stratification in a Tanjore Village (Berkeley: University of California Press, 1965); 4. Joan P. Mencher, "A Tamil Village: Changing Socio-economic Structure in Madras State," Change and Continuity in India's Villages, ed. K. Ishwaran (New York: Columbia University Press, 1970), pp. 197-218.

TABLE 1.3

**RITUAL, ECONOMIC AND POWER STATUS HIERARCHIES OF BRAHMIN, NON-BRAHMIN
AND ADI-DRAVIDA OR HARIJAN CASTES IN TAMIL VILLAGES STUDIED**

No.	1. Kumbapettai			2. Thyagasamuthiram			3. Sripuram			4. A village near Kanchipuram		
	Ritual Status	Economic Status	Power Status	Ritual Status	Economic Status	Power Status	Ritual Status	Economic Status	Power Status	Ritual Status	Economic Status	Power Status
1.	H	H	H	H	H	H	H	H	H	H	H	H
2.	+	+	+	+	+	+	+	+	+	+	+	+
3.	M	M	M	M	M	M	M	M	M	M	H	H
	-	-	-	-	-	-	-	-	-	-	-	-
	L	L	L	L	L	L	L	L	L	L	L	L

"1" stands for Brahmin castes; "2" for Non-Brahmin castes; and "3" for Adi-Dravida or Harijan castes.

"H" stands for higher Ritual status in caste structure, most landownership in economic structure, administrative and other kinds of dominance over other castes in the power structure.

"M" stands for middle caste status in the caste structure, some landownership or tenant status in the economic hierarchy, and some administrative and/or delegated dominance over other service and low castes.

"L" stands for low status or no status in the caste structure, very little land or predominantly landless status in the economic hierarchy and very low or powerless status in the power structure.

"+" stands for increasing status in the hierarchies.

"-" stands for decreasing status in the hierarchies.

TABLE 1.3--Continued

Sources: E. Kathleen Gough, "The Social Structure of a Tanjore Village," Village India: Studies in the Little Community, ed. McKim Marriott (3rd Impression; Chicago: The University of Chicago Press, 1958), pp. 36-52; Dagfinn Sivertsen, When Caste Barriers Fall: A Study of Social and Economic Change in a South Indian Village (New York: Humanities Press, 1963); Andre Beteille, Caste, Class, and Power: Changing Patterns of Stratification in a Tanjore Village (Berkeley: University of California Press, 1965); Joan P. Mencher, "A Tamil Village: Changing Socioeconomic Structure in Madras State," Change and Continuity in India's Villages, ed. K. Ishwaran (New York: Columbia University Press, 1970), pp. 197-218.

Nadu - as well as in India in general - enables an individual, today, to move up or down in the secular social structures though still not in the ritual caste structure. This process of mobility has been accelerated since independence (1947), and most particularly in the past two decades. These changes have been noted by those doing research in Tamil villages. For example, Gough notes the changes that were taking place in Kumbapettai as follows:

It is clear that, in general, the social structure of the Tanjore village is changing from a relatively closed, stationary system, with a feudal economy and cooperation between ranked castes in ways ordained by religious law, to a relatively "open", changing system, governed by secular law, with an expanding capitalist economy and competition between castes which is sometimes reinforced and sometimes obscured by the new struggle between economic classes.³⁴

In Thyagasamuthiram, Siversten has also observed similar changes in the economic and political structures which brings pressure to the traditional caste structure and tends to alter existing social relations:

I have observed the following trend of events: The dwindling of the power of the traditionally privileged groups in whose hands economic and political control has been vested, the economic and political advancement of subordinate castes and the disruption of the feudal bond and traditional loyalties. At the same time as traditional relationships of domination - subordination are gradually being replaced by contractual employer - employee relations with implicit bargaining, castes are being organized as action groups to achieve their objectives in either peaceful or violent fashion.³⁵

³⁴ Gough, Village India, p. 51.

³⁵ Sivertsen, When Caste Barriers Fall, p. 10.

Beteille describes how, in Sripuram, as a result of the process of economic and political changes, the secular social structures are increasingly differentiated from the caste structure:

In the sum, the process of economic change and political modernization have led the productive system and the organisation of power to acquire an increasing degree of autonomy. In the concrete, the overlap between the hierarchies of caste, class, and power has been progressively reduced. A new economic order is emerging in the towns and cities which is not based upon caste in the same way in which traditional order was. The economy of the village is drawn increasingly into the orbit of this new economic order. Similarly, the new political order is at least formally independent of caste, and it too has an important effect on the social life of the village.³⁶

Mencher also notes the increasing differentiation of ritual and secular dimensions in that village near Kanchipuram, even though there was "... continued emphasis on orthodoxy in ritual and family matters."³⁷

Mencher says:

In India, particularly South India, it is meaningful to differentiate between the ritualistic and social aspects of caste behavior (such as attitudes about pollution, insistence on caste endogamy, traditional food habits, and ritual prerogatives and restrictions) and the economic roles (the degrees of willingness to adopt modern technology or new types of employment, or other avenues of economic improvement).³⁸

The functional change of caste in modern India and its increasing differentiation of it from other social structures, and the general acceptance of achievement criteria for upward mobility of individuals, have been very aptly described by Rudolph and Rudolph in

³⁶Beteille, Caste, Class, and Power, p. 225.

³⁷Mencher, Change and Continuity..., p. 193.

³⁸Ibid., pp. 197-98.

the following words:

Caste is loosing the functions, norms, and structure once associated with it and acquiring new ones. It is serving the ritual and occupational goals of traditional society less, the mobility and participation goals of modern society more. In doing so, it helps to substitute in the lives of ordinary Indians choice for birth, equality for hierarchy, and opportunity for fate.³⁹

Because of the above mentioned changes, "...both in urban as well as in rural India (to a lesser extent in the former), caste super-structure rests on a single pillar-endogamy."⁴⁰ In spite of all the changes, caste has been and still is very highly correlated with occupation and occupational mobility.

CASTE, OCCUPATION AND OCCUPATIONAL MOBILITY

Occupation was considered one of the chief foundations of the caste system in India. Mukerjee has stated:

The social precedence of occupations of the group or caste is on the whole governed by the principle whether occupation represented by it belongs to an advanced or backward stage of culture in the march from the food-collecting and hunting stage to agriculture, cattle keeping and the arts and industries of rural civilization.⁴¹

³⁹Lloyd I. Rudolph and Susanne Hoeber Rudolph, The Modernity of Tradition: Political Development in India (2nd Impression; Chicago: The University of Chicago Press, 1969), p. 103.

⁴⁰Dan A. Chekki, "Social Stratification and Trends of Social Mobility in Modern INdia," The Indian Journal of Social Work, XXXI, No. 4 (January, 1971), 379.

⁴¹Radhakamal Mukerjee, "Social Structure and Stratification of the Indian Nation," Transactions of the Second World Congress of Sociology, held in the University of Liege, Belgium, 24-31, August, 1953, Vol. II (London: International Sociological Association, 1953), p. 17.

Whatever may be the origins of the caste system in India, either it is due to "... The process of organic or functional differentiation within the society..."⁴² or due to the division of labor (or, of course, minus the individual's freedom, because occupation in the caste system is determined by status rather than contract),⁴³ occupational stratification has always correlated with caste hierarchy.⁴⁴ Higher occupational categories have always corresponded with higher caste groups and lower categories of occupations have corresponded with lower caste groups. Occupations that involve manual work are considered lower than those that do not. The occupations of the lowest caste groups are considered polluting and/or sinful. Thus occupational stratification and caste hierarchies are governed by the same principle of ritual distance in terms of a pollution-purity continuum. An individual is born into a caste, and it is his dharma (duty) to adhere to his caste-occupation.

⁴²Ibid., p. 16. For a Functional Theory of Social Stratification see Kingsley David and Wilbert E. Moore, "Some Principles of Stratification," The Logic of Social Hierarchies, ed. Edward O. Laumann, Paul M. Siegel and Robert W. Hodge (Chicago: Markham Publishing Company, 1970), pp. 124-131 and Dennis H. Wrong, "The Functional Theory of Stratification: Some Neglected Considerations," Ibid., pp. 132-142.

⁴³J.H. Hutton, Caste in India: Its Nature, Function, and Origins (4th ed.; London: Oxford University Press, 1963), p. 124. For the various theories of the origin of caste see Oliver Cromwell Cox, Caste, Class and Race: A Study in Social Dynamics (3rd Printing; Modern Reader Paperback Edition; New York: Monthly Review Press, 1970), pp. 82-118.

⁴⁴Srinivas, Social Change in Modern India, p. 120.

Occupational mobility is thought to be undesirable, if not actually sinful.⁴⁵ If ever there is any occupational mobility, it has to correspond with his caste mobility. Occupational mobility, then, is collective rather than individual in the typical traditional system.⁴⁶ This system of occupational stratification and mobility existed, as Ghurye contends, until the beginning of the nineteenth century when the whole country came under the British rule.⁴⁷ From the beginning of nineteenth century, social stratification in general began to change and the process of change still continues. As has been mentioned, two of the main reasons for the change in the occupational stratification were the imposition of a market economy and the creation of new occupational structures. In addition, as Olcott observes, the construction of new highways and railroads, the development of other media of communication such as the telegraph, and newspaper, the new money economy, the construction of factories in an around the cities, and the new system of English education provided the climate for change in the Indian social stratification system.⁴⁸

⁴⁵G.S. Ghurye, Caste, Class and Occupation (4th ed.; Bombay: Popular Book Depot, 1961), p. 241.

⁴⁶Cox, Caste, Class and Race, p. 68.

⁴⁷Ghurye, Caste, Class and Occupation, p. 241.

⁴⁸Mason Olcott, "The Caste System in India," American Sociological Review, IX, No. 6. (December, 1944), 652.

Though theoretically the new occupational structure is differentiated from the caste structure or supposed to be "caste-free", empirically there is still a high correlation between castes and the new occupational structure. As Beteille observes:

The new occupations neither emerged ex nihilo nor were they imposed in a social vacuum. In fact as they were gradually introduced, they tended at first to be absorbed or fitted into the existing system which was based upon caste.⁴⁹

Empirical studies on caste, occupation and occupational mobility show a high correlation between caste and modern occupational structure in Tamil Nadu, as well as in other parts of India.

Noel Gist, who has done empirical research (1951-52) on the caste differentials in Mysore and Bangalore in South India, discovered that there was a very high correlation between caste status and occupational status.⁵⁰ In Mysore, for instance, almost 29 percent of Brahmins were professionals whereas only less than 4 percent scheduled castes⁵¹ (Adi-Karnatakas and other untouchable castes) were professionals. In Bangalore the situation was almost similar. Likewise, in Mysore only 3 percent of the Brahmins were semi-skilled or unskilled, whereas almost 30 percent of the Non-Brahmins and 46 percent of the

⁴⁹Beteille, Caste: Old and New, p. 69. Also see Noel P. Gist, "Caste Differentials in South India," American Sociological Review, XIX, No. 2 (April, 1954), 126-37.

⁵⁰Gist, Ibid., Table 2, 130.

⁵¹The scheduled castes are those castes, races or tribes or parts of or groups within castes, races or tribes which are named in the scheduled castes order issued by the President of India after consultation with the head of a particular state for special privileges.

scheduled castes were unskilled. The unskilled Non-Brahmin and scheduled caste workers in Bangalore were still higher (30.5% and 60% respectively). Similarly, if one looks at the same data presented by Gist also using the categories of white collar and blue collar workers, the relationship also becomes very marked. Table 1.4 shows this relationship. The very high association between caste status and occupational status in Mysore and Bangalore is very pronounced. In Mysore while 81.3 percent of Brahmins are white collar workers, almost a similar percent of scheduled castes are blue collar workers. The relationship in Bangalore is still greater.

A further study by Edwin Driver in Central India shows that there is still a very high correlation between positions in caste and occupational hierarchies.⁵² The data for this study was collected in 1958 in Nagpur District of Central India. The data was collected from rural and urban areas of that district. In the rural Nagpur District almost 20 percent of the Brahmins were professionals, whereas only 5 percent of the Non-Brahmins and 2 percent of the Scheduled castes were professionals. In the urban Nagpur district, 26 percent of the Brahmins were professionals and a little over five percent of the Non-Brahmins and one percent of the scheduled castes were professionals. Unskilled workers were higher among the scheduled castes in both rural and urban Nagpur district (41.9% and 29.7% respectively) in comparison with the Brahmin castes (17.1% and 10.3% respectively). The Non-Brahmin castes fall in between the two extreme caste groups. The relevant data from the Driver study are presented in Table 1.5.

⁵² Edwin D. Driver, "Caste and Occupational Structure in Central India," Social Forces, XLI, No. 1 (October, 1962), 26-31.

TABLE 1.4

PERCENTAGE DISTRIBUTION OF HOUSEHOLD HEADS BY CASTE CATEGORIES AND OCCUPATIONAL CATEGORIES IN MYSORE CITY AND BANGALORE CITY, SOUTH INDIA

City	Occupational Categories	Brahmin Castes	Non-Brahmin Castes	Scheduled Castes
1. Mysore City	(1) White Collar occupations	81.3	35.5	19.9
	(2) Blue Collar occupations	18.7	64.5	80.0
	Total	100.0	100.0	100.0
	Number	439	1137	241
2. Bangalore City	(1) White Collar occupations	76.6	29.95	6.1
	(2) Blue Collar occupations	23.4	70.05	93.9
	Total	100.0	100.0	100.0
	Number	439	1112	593

Source: Noel P. Gist, "Caste Differentials in South India," American Sociological Review, XIX, No. 2 (April, 1954), Table 2, 130.

The data in Table 2 of Gist's article is collapsed to yield the following Occupational Categories: Professional, Managerial, Business and Clerical Occupations are grouped as white collar occupations, and skilled, semi-skilled, agricultural and unclassified occupations are grouped into blue collar occupations. Non-Brahmin clean or twice born castes and the Other Backward castes are grouped as Non-Brahmin castes.

TABLE 1.5

PERCENTAGE DISTRIBUTION OF THE EMPLOYED IN OCCUPATIONAL CATEGORIES
BY CASTE AND RURAL AND URBAN RESIDENCE IN NAGPUR DISTRICT
OF CENTRAL INDIA

Residence	Occupational Categories	Brahmin Castes	Non-Brahmin Castes	Scheduled Castes
Rural	(1) Cultivators	36.6	30.7	18.5
	(2) White Collar occupations	43.9	25.8	21.8
	(3) Blue Collar occupations	19.5	43.5	59.7
	Total	100.0	100.0	100.0
	Number	50	1033	161
Urban	(1) Cultivators	3.6	.9	2.7
	(2) White Collar occupations	83.1	55.5	19.0
	(3) Blue Collar occupations	13.3	43.6	78.3
	Total	100.0	100.0	100.0
	Number	165	427	87

Source: Edwin D. Driver, "Caste and Occupational Structure in Central India," Social Forces, XLI, No. 1 (October, 1962), Table 2, 28.

The data in Table 2 of Driver's article has been collapsed to yield the following caste and occupational categories: The categories of High castes, Trading castes, Low castes, Backward castes are grouped as Non-Brahmin castes. The category of White collar occupations includes professionals, managerials and commercials, and the category of Blue collar workers includes semi-skilled and unskilled workers.

White collar workers are higher in number among Brahmin castes in both rural and urban Nagpur district (43.9% and 83.1% respectively) than among the scheduled castes (21.8% and 19% respectively). As far as blue collar workers are concerned the reverse is true. As in Mysore and Bangalore, the Non-Brahmin castes in Nagpur district fall in between the two extreme caste groups in occupational positions.

A study of the patterns of occupational mobility in Rajasthani villages reveals a similar situation where a positive relationship between occupational hierarchy and caste hierarchy still exists. Sharma, who studied six villages in Rajasthan, discovered that while about 50 percent of the male workers of the upper castes, including Brahmins, Rajputs and Banias and Muslims took up modern occupations only about 10 percent of the intermediate or middle castes including Jats, Gujars and others and the lower and untouchable castes had taken up modern or secular occupations. As Sharma observes, none of the upper and middle castes have taken up any low status occupations. Some of the lower castes have become school teachers, clerks, elected leaders, military personnel and policemen.⁵³

CASTE AND OCCUPATIONAL CORRELATES

In order to obtain a further picture of the complex issues involved in a changing social structure, let us look at the correlation between caste and occupational structures at all levels in India in general, and in Tamil Nadu in particular.

⁵³K.L. Sharma, "Patterns of Occupational Mobility: A study of Six Villages in Rajasthan," The Indian Journal of Social Work, XXX, No. 1 (April, 1969), 33-43.



Even as late as the end of the nineteen sixties there was a high positive correlation between caste and occupational hierarchies in India. Higher status occupations are still filled by higher castes, and lower status occupations are still filled by low castes. Anil Harilal Bhatt, who collected samples from the four regions of India, Andhra Pradesh, Gujarat, Utter Pradesh and West Bengal, presents data concerning this relationship. The data is shown in Table 1.6. The data clearly illustrates that while Harijans and other lower level Non-Brahmin castes are still at the bottom of the unskilled occupational levels, the upper levels of the Non-Brahmin castes and the Brahmin castes occupy the higher levels of the occupational hierarchy. The higher one goes on the occupational hierarchy, the higher the frequency of upper castes and the lower the frequency of lower castes. If data in Table 1.6 are rearranged as shown in Table 1.7, the high positive correlation between castes and occupational hierarchies is very obvious. While 39 percent of the Brahmins are professional, and big landlords, only 24 percent of the Non-Brahmins and 3 percent of the scheduled castes are professionals. While only 2 percent of the Brahmins are unskilled workers, 42 percent of the scheduled castes are unskilled workers. While 90 percent of the Brahmins are in the upper three levels of occupations, 81.2 percent of the Non-Brahmins and 44 percent of the scheduled castes are in the upper three occupational levels. While over half of the scheduled castes are at the bottom semi-skilled and unskilled levels, only one-tenth of the Brahmin castes and less than one-fifth of the Non-Brahmin are semi-skilled or unskilled. The almost equivalent position of Non-Brahmin castes in the upper three levels of occupational categories may be due to the fact that the

TABLE 1.6

PERCENT DISTRIBUTION OF OCCUPATIONAL LEVELS BY CASTE IN INDIA

Occupational Levels	Caste						
	Brahmins	Rajputs	Other High Castes	Middle	Lower middle	Low Castes	Harijans (Scheduled castes)
1. Big land holders, top level professional and managerial occupations, Big businessmen, etc.	39	16	57	17	17	15	3
2. Skilled occupations--Policemen, Drivers, Mechanics, low status white collar, etc.	17	20	9	19	15	9	8
3. Small independent occupations--small farm owners, small retailers, etc.	34	52	25	49	43	43	33
4. Farm tenants, semi-skilled workers, washermen, barbers, shoemakers, potters, construction workers, etc.	8	5	7	6	15	10	14
5. Agricultural and other unskilled laborers...	2	7	2	9	10	23	42
TOTAL NUMBER	100 (166)	100 (113)	100 (136)	100 (342)	100 (259)	100 (334)	100 (269)

Source: Anil Harilal Bhatt, "Caste, Class and Politics: An Empirical Profile of Social Stratification in Modern India," (Unpublished Ph.D. dissertation, Department of Political Science, University of Chicago, 1972), Table 4, p. 55. The Table has been rearranged: the caste categories and occupational levels are reordered from the highest to the lowest to reflect caste and occupational hierarchies.

TABLE 1.7

PERCENT DISTRIBUTION OF OCCUPATIONAL LEVELS BY CASTE CATEGORIES IN INDIA

Occupational Levels	Brahmin castes	Non-Brahmin castes	Harijan castes or Scheduled castes
1. Big landlords, top level professional and managerial occupations, big business etc.	39	24.4	3
	} 90	} 81.2	} 44
2. Skilled occupations--Policeman, Drivers, Mechanics, low status white collar etc.	17	14.4	8
3. Small Independent occupations--small farm owners, small retailers etc.	34	42.4	33
4. Farm tenants, semi-skilled workers, washermen, Barbers, Shoemakers, Potters, Construction workers etc.	8	8.6	14
	} 10	} 18.8	} 56
5. Agricultural and other unskilled laborers	2	10.2	42
Total Number	100.0 (166)	100.0 (1184)	100.0 (269)

Source: Anil Harilal Bhatt, "Caste, Class and Politics: An Empirical Profile of Social Stratification in Modern India," (Unpublished Ph.D. Dissertation, Department of Political Science, University of Chicago, 1972), Table 4, p. 55. The Categories of Rajputs, other high castes, middle, lower middle and low castes are grouped as one category of Non-Brahmin castes.

upper Non-Brahmins castes in Uttar Pradesh, West Bengal, Gujarat and Andhra Pradesh have always occupied almost equivalent, if not higher, economic and educational status with Brahmin castes in those regions. For example, Rajputs like Kants, Pattanis and Thakurs, other upper and middle castes like Guptas, Kayasthas, Baniyas, and Jats, Reddis, Velmas, Kammas and Patidars have always been dominant castes in their respective regions.⁵⁴

Historically, as was pointed out earlier, Tamil Nadu has been the bedrock of the rigid caste system in India. Almost a thousand years of political support of the rigid caste system put the Brahmin castes on top of all secular social structures. In many instances the pattern remains unchanged. For instance, in Tanjore district, which is called the "granery of South India", the Brahmins "...own the land and have administrative rights in about 900 out of a total 2,611 villages."⁵⁵ Although Non-Brahmin castes are also landlords in various other parts of Tamil Nadu, the relative rigidity of the caste system is still very highly correlated with the occupational structure. Likewise in other parts of India, even modern occupational structures, are still positively correlated with the caste structure. For example, as late as the second decade of the twentieth century, the modern public service occupations were dominated by the Brahmin castes in the

⁵⁴For Bhatt's seven level caste categorization see Appendix A of this dissertation and Bhatt's dissertation, pp. 258-260.

⁵⁵Gough, Village India, p. 37.

Madras Presidency.⁵⁶ Only the dominant upper Non-Brahmin castes were able to compete with them. As Table 1.8 illustrates, in the early part of this century the upper levels of the Madras Government service was dominated by Brahmins though they formed only 3 percent of the male population of the Madras Presidency. Indeed, 55 percent of the district collectors, 83.3 percent of the Sub-Judges and 72.6 percent of the District Munsifs were Brahmins in 1912. At the time of the beginning of the Non-Brahmin movement in Madras, the Brahmins held on to the dominant positions in the upper levels of the revenue and judicial departments of the Madras government. The Non-Brahmin castes which include the Harijans; Christians and Muslims occupied only one-third of those positions (Table 1.9). Those Non-Brahmins who filled those positions probably were from upper caste groups like Vellas, Baliya Naidus, Nairs, Kammias and Reddis. Probably, there were none from the untouchable caste.

The occupational positions of the Non-Brahmin castes began to change as a result of the Non-Brahmin movement in Tamil Nadu and the subsequent achievement of Non-Brahmin political power. One of the results of the Non-Brahmin political power was communal representation in government service. After independence, on the authority of the Constitution, reserved posts in government service, in the legislature, and in educational institutions were extended to scheduled castes and to a lesser extent to other "backward classes".

⁵⁶ Former Madras Presidency included the whole of South India, of which the present state of Tamil Nadu was a part.

TABLE 1.8

DISTRIBUTION OF SELECTED GOVERNMENT JOBS BY CASTES AND OTHER GROUPS IN 1912, MADRAS GOVERNMENT

	Percentage of Total Male Population	District Collectors		Sub-Judges		District Munsifs	
		No.	Percent of Appointments	No.	Percent of Appointments	No.	Percent of Appointments
1. Brahmins	3.2	77	55	15	83.3	93	72.6
2. Non-Brahmin Hindus (including Untouchable castes ?)	85.6	30	21.5	3	16.7	25	19.5
3. Muslims	6.6	15	10.5	nil	--	2	1.6
4. Indian Christians	2.7	7	5	nil	--	5	3.9
5. Europeans and Eurasians	.1	11	8	nil	--	3	2.4
Total number and percentage		140	100.0	18	100.0	128	100.0

Source: Eugene F. Irschick, Politics and Social Conflict in South India: The Non-Brahmin Movement and Tamil Separatism, 1916-1929 (Berkeley: University of California Press, 1969), Table 1, p. 14. (Irschick's source: Great Britain, Parliamentary Papers, Vol. XXI (Reports from Commissioners, etc., Vol. XI), "Royal Commission on the Public Services," Appendix Vol. II, Minutes of Evidence relating to the Indian and Provincial Services taken in Madras from the 8th to the 17th of January, 1913, "Cd. 7293, 1914, pp. 103-104.) The former Madras Presidency comprised the whole of South India, including the modern state of Tamil Nadu.

TABLE 1.9

DISTRIBUTION OF SELECTED GOVERNMENT JOBS BY CASTES AND OTHER GROUPS IN 1917, MADRAS GOVERNMENT

Names of Revenue and Judicial Department Jobs	Brahmins	Non-Brahmins	Indian Christians	Muslims	Total	Percent of Non-Brahmin, Christian and Muslim Appointments
1. Tahsildars, including Hazur Sharistadars	135	69	14	12	230	41.3 (95)
2. Deputy Tahsildars	214	65	21	10	310	30.9 (96)
3. English Head Clerks	16	5	2	1	24	33.3 (8)
4. Sharistadars of District Courts	13	6	1	2	22	40.9 (9)
5. Sharistadars of Sub-Courts	15	4	1	nil	20	25 (5)
TOTAL	393	149	39	25	606	(213)
Total average of Non-Brahmins, Indian Christians and Muslims in Revenue and Judicial Departments	(33.3 ?)					

Source: Eugene F. Irschick, Politics and Social Conflict in South India: The Non-Brahmin Movement and Tamil Separatism, 1916-1929 (Berkeley: University of California Press, 1969), Table 2, p. 15. (Irschick's source: MRO, Home (Miscellaneous), Ordinary Series, G.O. 1123, October 23, 1917.) The former Madras Presidency comprised the whole of South India including the modern state of Tamil Nadu.

Occupational changes were slower in rural areas than in urban centers. In Sripuram of Tanjore district, for example, Brahmins have taken up new occupations. Several of them have become clerks and social teachers. But as Beteille observes:

One can easily see that in the choice of new occupations they have retained a certain continuity with the past and have not departed significantly from it. By and large, the most important element in their style of living has been preserved in their new occupations. No Brahmin has taken to any manual work in the real sense of the term.⁵⁷

Among the Non-Brahmin castes there are a few landlords who live in the nearby towns. A few well-to-do upper caste Non-Brahmins have taken up some nonmanual occupations, but most others and almost all the lower Non-Brahmin castes still are engaged in manual work. As far as the Adi-Dravidas, or the scheduled castes are concerned, they are still agricultural laborers in Sripuram. In the words of Beteille:

The typical Non-Brahmin peasant in Sripuram is a sharecropper or a cultivator, whereas the typical Adi-Dravida is an agricultural labourer.⁵⁸

Sivertsen presents a similar occupational picture in Thyagasamuthiram of the Tanjore district. Brahmins who are landlords have acquired higher education and are employed in salaried posts elsewhere in the State or in other parts of India. The sons and brothers of many Thyagasamuthiram Brahmins are studying in high schools and colleges. Sivertsen observes the effect of Non-Brahmin movement on

⁵⁷Beteille, Caste, Class, and Power, p. 64.

⁵⁸Ibid., p. 65.

That many have in the past gone to cities so far away is no doubt due to anti-Brahminism in the South and to Government orders restricting their employment in Government service in favor of Non-Brahmins.⁵⁹

Non-Brahmins of Thyagasamuthiram have traditionally been share croppers, and although some of them have acquired land, the proportion is still not very great. Adi-Dravidas are still agricultural laborers and village menials.

From the above mentioned empirical studies in different parts of India and in Tamil Nadu one can see that: (1) most of the lower castes are still engaged in their traditional occupations, or have moved to similar new or modern occupational categories; (2) the new or modern occupational hierarchy which is supposed to be "castefree" is still very positively correlated with caste hierarchy; and (3) Occupational mobility is greater in the upper castes than the lower castes.

For example, Gist reports that in Mysore over 40 percent of the Non-Brahmins and scheduled castes deviated from parental occupations, and that in the caste of Brahmins the deviation is 82.7 percent.⁶⁰ Driver reports more occupational deviation of sons in urban areas (59.9 percent) than in rural areas (30.1 percent). Again, greater numbers of Brahmins (54.5 percent) in rural areas have deviated from parental occupations. For the Non-Brahmins and the scheduled castes the percentage of deviations in rural areas are 27.1 percent and 31.4 percent

⁵⁹Sivertsen, When Caste Barriers Fall, p. 57.

⁶⁰Gist, American Sociological Review, p. 128.

respectively. In the urban areas the deviation from parental occupations are higher for scheduled castes (69.6 percent), and for Brahmin and Non-Brahmin castes they are 62.2 percent and 55.6 percent respectively.⁶¹ The reason may be that urban centers offer more opportunities for modern occupations; more so to scheduled castes who are traditional agricultural laborers and village menials.

In any case, the direction of intergenerational occupational mobility is to a great extent horizontal; namely castes moved into modern occupations of comparable prestige and respectability.

EDUCATION AND OCCUPATIONAL MOBILITY

In terms of India, the reason for the horizontal mobility is not due to ascriptive role summation as it was in the traditional system, but it is increasingly due to differential achievement as a means of occupational mobility. Differential achievements in education is the reason for this type of occupational mobility.

The modern occupational system in India is the result of the new economic system imposed on India by British mercantile imperialism. The new educational system in India was likewise imposed by the British rule in India. In addition, the new economic system was/is modelled after the western economic system - be it the capitalistic or socialistic model or a mixture of both - which in turn is based on modern science and technology.

⁶¹Driver, Social Forces, 28.

The opportunity to acquire English education and western sciences and technology, existed only for the upper castes of India. Though ideally the British rule was based on equalitarianism, in reality they left the Indian social system largely undisturbed because political prudence prompted such an approach. The process of Westernization through education was based on the theory of downward filtration. Upper castes which had the social status and economic means availed themselves of the opportunity to acquire English education and rise upward in the new occupational structure.⁶² While the lower castes, especially in the nineteenth century, were busy Sanskritizing themselves anticipating higher social status, the upper castes were westernizing themselves achieving higher status in the new occupational hierarchy. The westernized elite class formed the privileged stratum between the ruling British and the illiterate Indian masses.⁶³ The means of achieving that elite status was and continues to be modern education, which still is basically English education. The differential composition of membership of the elite class continues to be the result of differential educational achievement by different castes.

The caste difference in educational achievement, and hence the caste difference in occupational upward mobility, continued even after the beginning of the twentieth century. It still continues, even though the amount of difference may be a little between upper castes and the middle castes.

⁶²Srinivas, Social Change in Modern India, p. 70.

⁶³M.N. Srinivas, Far Eastern Quarterly, 481-496.

In the former Madras Presidency of which the present state of Tamil Nadu was a part, the difference in male literacy in English of selected Brahmin, upper and middle Non-Brahmin castes between the years 1901 and 1921 are shown in Table 1.10. The English literacy rate of Brahmin castes is seven times greater than the Non-Brahmin upper castes and thirty-six times greater than the Non-Brahmin middle castes. The difference in university education is still very higher between these castes. The Brahmin graduates of the University of Madras between the years 1870 and 1918 were three to four times greater than that of Non-Brahmin castes. Table 1.11 shows the number of graduates of various castes of the University of Madras between the year 1870 and 1918. Thus the differential achievement of education resulted in the differential rate of occupational mobility of different castes in the Madras Presidency that were discussed earlier and shown in Table 1.7 and 1.8. Gist's research in Mysore and Bangalore cities in South India in the nineteen-fifties and revealed that status differentials in occupational structure were due to "the wide disparities in educational opportunities, and therefore in levels of education..." between the different castes.⁶⁴ The same pattern was observed by Driver in central India. He observes:

Intergenerational occupational mobility is frequent in both the rural and urban areas, but it is generally restricted to occupations of comparable rank. Hence, its effects upon the traditional association between positions in the caste and occupational hierarchies is quite minimal. This association is, however, largely the result of differences among the castes in their educational attainment.⁶⁵

⁶⁴Gist, American Sociological Review, 137

⁶⁵Driver, Social Forces, 31.

TABLE 1.10

MALE LITERACY IN ENGLISH OF SELECTED CASTES, 1901-1921
(in percents)

Castes	1901	1911	1921
Tamil Brahmin	17.88	22.27	28.21
Telugu Brahmin	10.84	14.75	17.37
Indian Christian	2.72	4.41	5.47
Nair	1.54	2.97	4.57
Baliya Naidu, Kavarai	.98	2.60	3.43
Vellala	.19	2.12	2.37
Chetti	.15	.98	2.34
Velama	.06	.41	.63
Nadar	.05	.30	.75
Kapu, Reddi	.04	.22	.41
Kamma	.03	.20	.45

Source: Eugene E. Irschick, Politics and Social Conflicts in South India: The Non-Brahmin Movement and Tamil Separatism, 1916-1929 (Berkeley: University of California Press, 1969), Table 4, p. 17. (Irschick's source: India, Census Commissioner, Census of India: Madras, 1921, XIII, Pt. 1, 128-129).

TABLE 1.11

GRADUATES OF MADRAS UNIVERSITY, 1870-1918

Year	Brahmins 1,315,600 a		Non-Brahmin. Hindus 36,521,000 a		Indian Christians 1,167,600 a		Muslims 2,824 a		Europeans and Eurasians 41,000 a		Total Number of Graduates
	No.	%	No.	%	No.	%	No.	%	No.	%	
1870-1871	110	67	36	22	10	6	nil		8	5	164
1880-1881	492	64	171	22	47	6	2	.25	58	7.5	770
1890-1891	1,461	67	445	20.5	168	8	20	1	75	3.5	2,164
1901-1911	4,074	71	1,035	18	306	5.3	69	1	225	4	5,709
1918 b	10,269	67	3,213	21	1,343	8.8	186	1.2	205	1	15,216

a = Population in 1911; total population of the Madras Presidency, 41,870,000.

b = 1918 figures are for those enrolled, not granted degrees.

Source: Eugene F. Irschick, Politics and Social Conflicts in South India; The Non-Brahmin Movement and Tamil Separatism, 1916-1929 (Berkeley: University of California Press, 1969), Table 5, p. 18. (Irschick's source: MRO, Public, Ordinary Series, G.O. 22, Jan. 21, 1919.)

The opportunities for education to the lower castes have greatly increased; and the educational scholarships and the reservation of positions in the public services to backward and scheduled castes have, probably, increased the rate of individual upward occupational mobility. But have increases in educational opportunities to all castes increased the rate of mobility in general? Has it changed the direction of mobility? Among other variables, how much is the contribution of education to such mobility? Has special privilege, which we call "protective discrimination", made any significant changes in the direction of occupational mobility or increased the occupational aspiration of the members of the backward and scheduled castes? These are some of the central questions that this research will attempt to answer.

The state of Tamil Nadu has been selected for the collection of data for this dissertation for three reasons: (1) Tamil Nadu has been the strong hold of the most rigid caste system in the whole of India; (2) The educational and occupational domination of upper castes, particularly Brahmin castes, have always been strong in Tamil Nadu; and (3) The Non-Brahmin movement of Tamil Nadu, one of the strongest of the backward class movements in India, is supposed to have increased the educational and occupational opportunities of the Non-Brahmin castes. If indeed occupational mobility has increased in Tamil Nadu, the following questions are to be answered: (1) Irrespective of educational mobility, is occupational mobility still positively related to caste status? (2) Caste or Education? - which is more important for occupational mobility?, (3) If education is the only instrument of change, is that instrument changing the Indian society? How much is "how much"?

Traditionally, studies of social mobility have been mostly studies of occupational mobility. That is because, as Pullum observes;

Prestige and socio-economic status most clearly manifest themselves in occupation in modern societies, and mobility reveals in one way the factors which affect, or are affected by, prestige, status, and occupational membership.⁶⁶

For individuals, socio-economic mobility may easily be measured on a occupational prestige scale, rather than on a general social scale, because the correlation between a person's occupational status and general status is so high that the study of an individual's mobility on an occupational prestige scale may be a good index of his general social Mobility.⁶⁷

Education is also related to a person's general social mobility, and particularly in the context of occupational mobility in modern societies. How much is that relationship in terms of quantity is still disputed by writers in the area. For example, Centers, Havighurst, Lipset and Bendix, Duncan and Hodge, Fox and Miller, and others view education as one of the most important variables that contributes to a person's social mobility in the context of occupational mobility.⁶⁹

⁶⁶Thomas William Pullum, "Occupational Mobility as Constrained Movement Over Categories", (Unpublished Ph.D. dissertation, Department of Sociology, University of Chicago, 1971), p. 1.

⁶⁷Robert J. Havighurst, "Education, Social Mobility and Social Change in Four Societies, "International Review of Education, IV, No. 2 (1958), 167-82.

⁶⁸Richard Centers, "Education and Occupational Mobility, "American Sociological Review, XIV (February, 1949), 143-44; Robert J. Havighurst, International Review of Education, 167-82; Seymour Martin Lipset and Reinhard Bendix, Social Mobility in Industrial Society (Berkeley: University of California Press, 1959); Otis Dudley Duncan and Robert W. Hodge, "Education and Occupational Mobility: A Regression Analysis," The American Journal of Sociology, LXVIII, No. 6 (May, 1963), 629-44; Thomas G. Fox and S.M. Miller, "Economic, Political and Social Determinants of Mobility: An International Cross-Sectional Analysis," Scientific Investigations in Comparative Education, ed. Max A. Ekstein, and Harold J. Noah (London: The Macmillan Company, Collier Macmillan Ltd., 1969), pp. 231-48.

Yet others such as Glass, Anderson, Boudon, and Emmerij, question the conclusions of others and minimize the contribution of education to a person's social mobility in the context of occupational mobility.⁶⁹

In developing countries, education is seen as the single most important variable that contributes to a person's social mobility; especially in the context of occupational mobility. Busia, for example, sees a very close correlation between education and social mobility in African countries as well as in other developing countries.⁷⁰ Gist, Driver, Sachchidananda, Chekki, Sharma, Jorapur and others, focusing on India, view education as very important for a person's occupational mobility, even though differential achievement of education determines the direction of mobility.⁷¹ These studies will be discussed in more detail in Chapter II.

⁶⁹J.R. Hall and D.V. Glass, "Education and Social Mobility," Social Mobility in Britain, ed. D.V. Glass (Reprinted: London: Routledge and Kegan Paul Ltd., 1971), pp. 291-307; C. Arnold Anderson, "A Skeptical Note on the Relation of Vertical Mobility to Education," The American Journal of Sociology, LXVI, No. 6 (May, 1961), 560-70; Raymond Boudon, Education, Opportunity and Social Inequality: Changing Prospects in Western Society (New York: John Wiley & Sons, 1974); Louis Emmerij, Can the School Build a New Social Order? (Amsterdam: Elsevier Scientific Publishing Company, 1974).

⁷⁰Busia, Transactions of the Third World Congress of Sociology, pp. 81-89.

⁷¹Gist, American Sociological Review, 126-37; Driver, Social Forces, 26-31; Sachchidananda, "Education and Changes in Social Values," Man in India, XLVIII, No. 1 (January-March, 1968), 71-85; Chekki, The Indian Journal of Social Work, 367-80; Sharma, The Indian Journal of Social Work, 33-43; J.P. Jorapur, "Intergenerational Occupational Mobility," The Indian Journal of Social Work, XXXI, No. 4 (January, 1971), 461-67.

CASTE, EDUCATION, OCCUPATION, INCOME AND STATUS

Education in modern societies is generally thought to prepare a person for an occupation. It is assumed that the level of education determines the type and range of occupations. A person's income is also thought to be the consequence of his occupation; and the amount of income depends upon the type of occupation. A person's level of education and income, then, are not only related to the prestige of occupation, but also help to decide his socio-economic status.⁷² The following model shows the relationship of an individual's education, occupation, income and status.

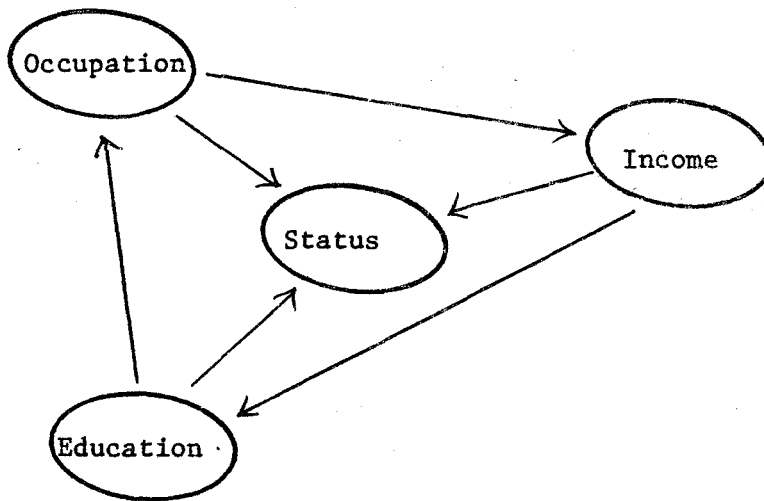


Figure 1.3.--A Socio-Economic Status Model in an Open-Class System

⁷²Albert J. Reiss, Jr., Occupations and Social Status (New York: The Free Press of Gencoe, Inc., 1961), pp. 116-17.

Education, occupation and income are associated with an individual's socio-economic status. This status can change in one's life. If his educational level increases, his occupational position and income may increase; and consequently his socio-economic status may also increase. This type of change is called intragenerational mobility. As a result of the father's socio-economic status, the son may be able to get a better education, a higher status occupation, and higher income; and this type of mobility is called intergenerational mobility.⁷³ According to the socio-economic model in the open class system, a person's education seems to be the starting point or cause for his occupational status and economic status; but in fact, both in intra- and inter-generational mobility, a person's economic status is usually the source of one's educational achievement. In other words, eventual socio-economic status depends upon one's socio-economic status or class status to begin with.

However, in a closed-caste system as in India, another variable is introduced into the model, namely caste. In this case, caste determines one's social status. The following model will show

73

Intragenerational mobility is mobility within a generation, and intergenerational mobility is mobility between generations.

the relationship between a person's caste, education, occupations, income and status:

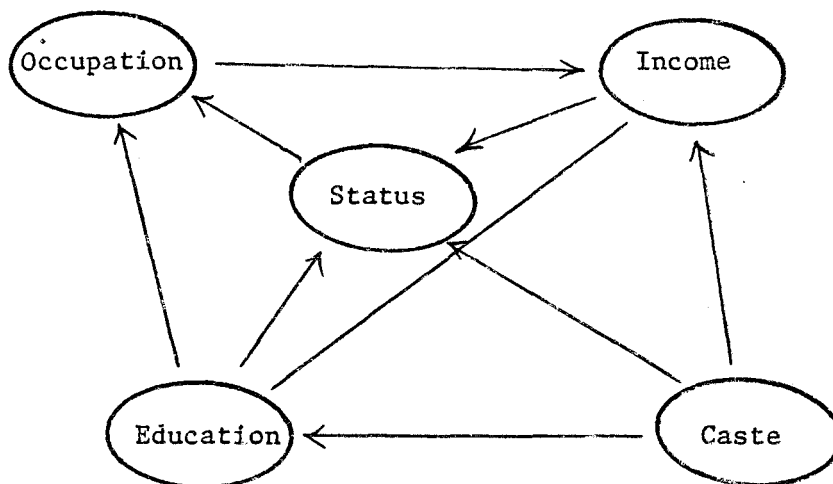


Figure 1.4.--A Socio-Economic Status Model in a Closed-Caste System

In a closed-caste system, one's caste determines other statuses: his educational opportunities, occupational choices, and income levels. The cumulative socio-economic status will therefore largely depend upon one's caste status.

In the modern Caste-Class System, which we call "the Mixed System" one can see the characteristics of both the systems. Although, as in the class system, one's socio-economic status supposed to depend upon one's educational, occupational and economic statuses, caste still remains one of the important "other" status variables that affects one's socio-economic status in the mixed system. In other words, the achievement variables of education, occupation and income largely depend upon the ascriptive variable of caste. The following model will show this

kind of relationship in the "mixed system" of modern India.

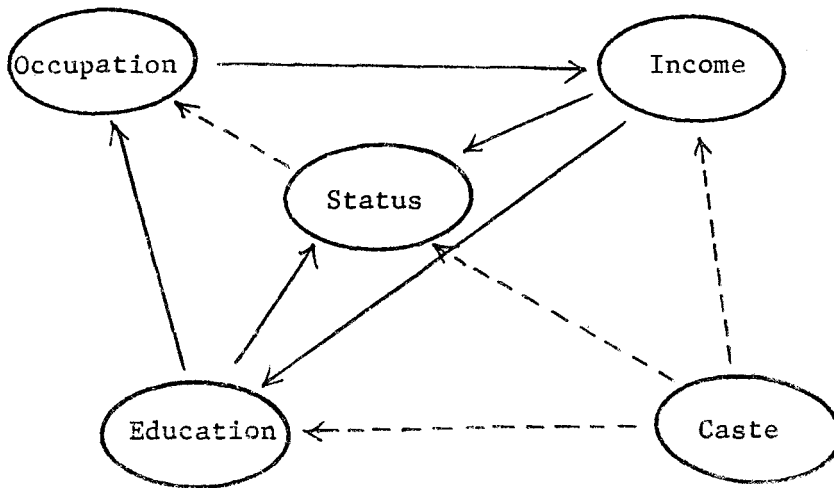


Figure 1.5.--A Socio-Economic Status Model in a Mixed (Closed-Open - Caste-Class) System

Precisely because of the important nature of caste, we have taken caste as one of the important independent variables, in addition to rural-urban residence, "protective discrimination", education, occupation and income, for our study of occupational mobility and occupational aspiration in Tamil Nadu.

One of our primary interests is the relationship between education and occupational mobility and occupational aspiration. The importance of education for upward social mobility is widely discussed by sociologists and educators, and several important studies of social mobility have appeared in Western countries, and in a limited way, in India. We will review them in the next chapter.

CHAPTER II

A REVIEW OF STUDIES IN EDUCATION AND SOCIAL MOBILITY IN WESTERN COUNTRIES AND INDIA

STUDIES IN EDUCATION AND SOCIAL MOBILITY IN WESTERN COUNTRIES:

Ever since the publication in 1927 of Sorokin's *Social Mobility*,¹ the first work of its kind that dealt with social mobility in a comprehensive manner, the challenge of studying social mobility systematically has been taken up by sociologists all over the world. Studies of social mobility are largely studies of occupational mobility.

An occupation is an activity a person engages in regularly for a reward. Thus occupations are a system of regulated social relations.² Persons of a given occupation form an occupational community, -- community in the sense of "a type of relationship" -- who share certain interest and values or a set of norms.³

Mobility from one occupation to another in the occupational hierarchy, or membership from one occupational community into another,

¹Pitirim A. Sorokin, Social and Cultural Mobility, Containing complete reprints of Social Mobility and Chapter V from Volume IV of Social and Cultural Dynamics (First Paperback edition; New York: The Free Press of Glencoe, 1964). Sorokin's Social Mobility, first published in 1927, is a rich source of comparative data and also contains sophisticated analyses of both the causes and consequences of social mobility.

²Y.P. Chhibbar, From Caste to Class: A Study of the Indian Middle Classes (New Delhi: Associated Publishing House, 1969), p. 8.

³Graeme Salaman, Community and Occupation: An Exploration of Work/Leisure Relationships (London: Cambridge University Press, 1974), p. 125.

within a man's life, or between generations is considered as an indicator of "... the relative openness of a social structure."⁴ Rogoff, who studied the American intergenerational mobility, explains further the concept of "openness" of a social structure and the use of occupational mobility in studying this problem:

...This ["openness" of a social structure] refers to the case with which individuals or groups can acquire goods and positions which are the objects of competition. The more equal the distribution of opportunities for achieving such values as income, honor, and power, the more open the society is considered to be. The accessibility to positions in the occupational structure is frequently used in studying this problem. Occupational status is closely related to education, amount and source of income, and prestige.⁵

Among the many determinants of social mobility in general, and occupational mobility in particular, education has increasingly attracted the attention of educators and sociologists as well.⁶ Education level is considered to be one of the important statuses, which is a prerequisite for the distribution of rewards such as higher occupational positions, higher income and higher prestige and thereby "assuring" higher social status to its possessors. At least this is the prevailing assumption in achievement oriented societies, or what are

⁴Natalie Rogoff, Recent Trends in Occupational Mobility (Glencoe, Ill: The Free Press, 1953), p. 19.

⁵Ibid.

⁶'Education' in this context is "formal education" and the relationship between formal education and social mobility is the focus of our research.

otherwise called "meritocratic societies". Education has been heralded as "the route" or the "highway" to social mobility in such societies.⁷ The faith that schools are "social elevators" for "social climbing" is however even greater in developing countries; and their educational policies and plans, which we have discussed earlier, are indicative of this faith.

Sorokin explains, how schools have always been channels of vertical social circulation even though the circulation was limited to upper strata in some societies:

...In societies where "the schools" are accessible to all members, the school system represents a "social elevator" moving from the very bottom of a society to its top. In societies where the schools generally, or the privileged kind of schools, are accessible only to its higher strata, the school system represents an elevator moving only within the upper floors of a social building and transporting up and down only the dwellers of these upper stories. Even in such societies, however, some individuals, from the lower layers always have succeeded in slipping into the school elevator and, through it, in climbing.⁸

According to Sorokin, traditional Chinese society and the contemporary Western societies are examples of such societies where school elevators were/are operating for the entire social building. In contrast, Indian caste-society, at least in ancient times, is an example of a society where the "school system" was serving only the upper strata of the society. But now with the "democratization" of the educational system,

⁷Rogoff. p. 27 and S.M. Miller and Pamela A. Roby, "Social Mobility, Equality and Education", Society and Education, A Book of Readings, ed. Robert J. Havighurst, Bernice L. Neugarten and Jacqueline M. Falk (2nd ed.; Boston: Allyn and Bacon, Inc., 1971), p. 87.

⁸Sorokin, Social and Cultural Mobility, p. 169.

and the perceived importance of education in social mobility in many of the modern societies (including Indian society), the school systems are considered more important than other channels for vertical mobility.

As Sorokin observes:

...This "channel role" of the present schools has now become much greater than before because the present schools have taken many functions previously performed by Church and family and some other organizations.⁹

In developing societies, such as India, this "channel role" is deliberately assigned to education, because of the belief that only education can supply the kind of persons with the necessary motivations, attitudes, skills, and egalitarian outlooks who will contribute to national growth. All other institutions are viewed as fostering a parochial outlook, which may hinder both democracy and economic growth.¹⁰

The importance of education among the social factors that aid in producing social mobility is expressed in varying quantities by different researchers in Western countries as well as in India. As a result some researchers have found the importance of education to be 'greater' while others have found it to be 'minimal'.

Two of the earliest researchers focusing on the relationship of education and occupational status were Davidson and Anderson. Their study deal with the occupational mobility in San Jose, California.¹¹

⁹Ibid., p. 171.

¹⁰Smelser and Lipset, p. 15.

¹¹Percey E. Davidson and H. Dewey Anderson, Occupational Mobility in an American Community (Stanford University, Calif.: Stanford University Press, 1937).

They present data that indicates a positive relationship between the occupational levels of fathers and the educational levels of their sons.¹² The authors also present another set of data to study the effects of schooling of sons on their occupational statuses,¹³ and conclude that though there is a coefficient of correlation of 0.60 between the sons' educational levels and their occupational statuses the causal relation between them is not proven. They further observe:

...Placement on the occupational scale is probably determined by many factors. Among these could be mentioned/the influence of family and associates, personal ambition, native intelligence, qualities of character and of physique, special conditions obtaining in the immediate labor market, mere chance, the expansion or contraction of particular forms of industry, and numerous other contributory elements. With this cluster of influences, inextricably intertwined, it would be rash to declare that amount of schooling, taken by itself, is a distinct and major cause of occupational placement and status,...¹⁴

Nevertheless, the two sets of data that they present are not combined to determine how much the sons of fathers of various occupational statuses have travelled in terms of social "distance" to test the hypothesis that education is the surest means to higher occupational status.

Foreseeing the emergence, in 1942, "... of social classes in our (American) traditionally if not actually classless society," Sibley studies the most important demographic basis of America's tradition of

¹²Ibid., pp. 36-38.

¹³Ibid., pp. 48-69.

¹⁴Ibid., pp. 172-73.

classlessness, namely the high rate of vertical mobility.¹⁵ The educational system is supposed to produce more vertical mobility, and to see if it does, he analyzes the data of some 5677 sixth grade boys in 1926 in Pennsylvania. Sibley's major research question is: Is it the intelligence of sons or their fathers' social statuses that ultimately determine their preparation for more prestigious occupations? The analysis of his data reveals that:

...As a boy passes through the educational sifting process, his parents' status assumes increasing importance, both absolutely and in comparison with his own intelligence, as a factor influencing his chances of continuing his preparation for one of the more advantageous vocations. Although there has been (in Pennsylvania) an approach to the "social-economic democratization" of high-school education, college education and higher vocational training remain to a large extent the special privilege of children of superior social-economic backgrounds.¹⁶

Sibley's data and conclusions are only suggestive of possible mobility, since there are no data for sons' actual mobility for comparison.

Centers, trying to support the heavy emphasis on the claim that education is "...the one most significant variable determining the ultimate placement of the individual in the social order,"¹⁷ analyses a sample of a little over four hundred cases to see whether better educated sons have better occupational statuses than sons who are the same-educated or less-educated than their fathers. He concludes that the

¹⁵Elbridge Sibley, "Some Demographic Clues to Stratification," American Sociological Review, VII, No. 3 (June, 1942), 322.

¹⁶Ibid., 330.

¹⁷Richard Centers, "Education and Occupational Mobility," American Sociological Review, XIV (February, 1949), 143.

answer is "yes" and presents data, which are given in Table 2.1 and 2.2, to prove the fact.¹⁸ But the educational attainments of the sons are presented as better than, the same as and poorer than that of fathers, and the occupational positions of the sons are also presented in the same categories in relation to that of fathers. Not only does Center's analysis not show how much sons' education is related to their occupational origin, but neither how much it has contributed to their occupational destinations.

Rogoff analyses data collected from a sample of twenty-one thousand residents of Marion County, Indiana, who applied for marriage licenses in their home county. The purpose of the study is to investigate the intergenerational mobility trends between pre-World War I and pre-World War II. She concludes that there was no significant change in the mobility rates between 1910 and 1940.¹⁹ Rogoff claims that the results of her study "...believe the opinion of many that our (American) society hierarchy has become more rigid and closed in recent years."²⁰ Rogoff's primary interest in this study is the development of techniques for measuring mobility. Though she has studied the influence of racial origins, nativity and age on mobility, the influence of education on mobility is not examined. The reason may be non-availability of data on education. Except for the development of measuring techniques for the study of mobility, the study does not shed light on the importance of education on intergenerational mobility.

¹⁸Ibid., Table 1 and 2, 144.

¹⁹Rogoff, Recent trends..., Table 5, p. 49.

²⁰Ibid., p. 17.

TABLE 2.1

OCCUPATIONAL POSITIONS OF FATHERS AND SONS
OF VARIOUS RELATIVE EDUCATIONS

Education of Son in Relation to that of Father	N	% of Cases where Son's Position is Better than the Father's	% of Cases where Son's Position is the Same as the Father's	% of Cases where Son's Position is Poorer than the Father's
Son's Education Better	291	46	33	21
Son's Education Same	80	29	41	30
Son's Education Poorer	45	16	35	49

Source: Richard Centers, "Education and Occupational Mobility,"
American Sociological Review, XIV (February, 1949), Table 1,
144.

TABLE 2.2

RELATIVE OCCUPATIONAL STATIONS OF SONS OF FATHERS FROM
TWO DIFFERENT OCCUPATIONAL STRATA

Occupational Stratum of Father and Relative Education of Father and Son	N	% of Cases where Son's Position is Better than the Father's	% of Cases where Son's Position is the Same as the Father's	% of Cases where Son's Position is Poorer than the Father's
<u>Business, Professional and White Collar</u>				
Son's Education Better	135	38	33	29
Son's Education Same	37	14	56	30
Son's Education Poorer	28	11	21	68
<u>Manual Workers</u>				
Son's Education Better	156	53	33	14
Son's Education Same	43	42	28	30
Son's Education Poorer	17	23	59	18

Source: Richard Centers, "Education and Occupational Mobility," American Sociological Review, XIV (February, 1949), Table 2, 144.

In another study on the relationship between education and social Mobility Hall and Glass report that, in Britain, "... Education as such appears to modify, but not to destroy, the characteristic association between the social status of fathers and son."²¹ The type and level of education attained by the sons depend heavily on the status of their fathers as measured in terms of their occupations. It has been found by Hall and Glass that there is positive and significant correlation between fathers and sons status hierarchy at all levels, and especially at higher levels. Among the three categories of education under the first heading, grammar school education seems to be important for sons of higher status achievement. For example, of all the sons who have attained grammar school or its equivalent, 33.7 per cent have achieved either professional and high administrative occupations or managerial and executive occupations, while only 3.2 per cent of those who have had senior elementary school education achieved such status. Even among sons whose fathers are in the same upper two occupational status categories, 78.8 per cent have grammar school education. The proportion of sons who have grammar school education goes down if one slides down on the descending status scale.²² While the role of grammar school education is still important in the four educational categories of the second heading, the additional contribution of further education is significant for upward or downward mobility of sons in most of the status categories.²³

²¹J.R. Hall and D.V. Glass, "Education and Social Mobility," Social Mobility in Britain, ed. D.V. Glass (Reprinted; London: Routledge and Kegan Paul Ltd., 1971), p. 307.

²²Ibid., Table 1, pp. 294-95.

²³Ibid., Table 2, pp. 296-97.

In conclusion Hall and Glass state that education acts in two ways to influence the relation between the status of sons and their fathers: (1) The type of secondary education, especially grammar school education, affects the degree of such relation between the status of sons and their fathers; (2) further education is generally a reinforcing factor rather than a critical one in that relation. Still the decisive reinforcing factor is the grammar school education, and when that is achieved, then the attainment of further education intensifies son and father status relation for the upper status categories and increases the social ascent of the sons of lower status categories.²⁴

The positive association between the level of father's education and the son's social status is well-established, but the magnitude of that association is not determined. The separate effects of education and of parental status on son's status may have given additional evidence on the importance of education on social mobility. As Duncan suggests, an alternative description of association between education and occupation, and the use of multivariate analytical approaches to isolate the effects of different variables that contribute to social mobility, will be very profitable in understanding the process, pattern and magnitude of association between education and social mobility in Britain.²⁵

Another interesting study is Havighurst's comparative study of the interrelations of education, social mobility and social change in four societies which are in different stages of economic development.

²⁴Ibid., pp. 306-7.

²⁵See O.D. Duncan, "Reanalysis of the 1949 survey," Mobility in Britain Reconsidered; Oxford Studies in Social Mobility; Working paper 2; ed. John Michael Ridge (Oxford: Clarendon Press. 1974), pp. 9-26.

Havighurst establishes that in the four societies studied movement up or down on a scale of socio-economic status is related to education.²⁶ The basic proposition of the study is "... that industrialization leads to social change which produces social mobility (group and/or individual) and that education may effect the pace of social change and the degree of social mobility."²⁷

Though the data from the four societies, the U.S.A., Britain, Australia and Brazil, is generally inadequate for the study of such a complex problem as social mobility, there is increasing evidence of individual and group mobility in these societies as they meet the following conditions for net upward mobility: (1) A shift in occupational distribution so as to increase the proportion of middle and higher status occupational positions as a result of industrialization and increase in productivity; and (2) differential fertility of the upper and middle classes that open up upward mobility opportunities for qualified lower class persons. The direction of mobility is balanced by the following set of conditions: (1) free and easy access to education; (2) open competition; (3) changing industrial procedures; and (4) increasing competitive ability of the lower classes through education. These conditions create an elite of talent rather than of birth to fill the middle and upper level positions that are created by increasing industrialization.²⁸

²⁶Robert J. Havighurst, "Education, Social Mobility and Social Change in Four Societies, "International Review of Education, IV, No. 2 (1958), 167-182.

²⁷Ibid., 170.

²⁸Ibid., 169-70.

In addition, Havighurst argues that functional value of education increases as a country industrializes, and thus education facilitates social change and mobility. The functionalization of different levels of education again depends upon the level of economic development of the individual society. Predicting the future of social mobility in relation to education Havighurst concludes:

The industrial and democratic society of the year 2000 will be even more open and fluid than the most highly industrialized societies today, so that education will be the main instrument for upward mobility, and lack of education or failure to do well in one's education will be the principle cause of downward mobility.²⁹

Though Havighurst says that education is one of several factors that affect social mobility, no attempt is made to identify these other factors and isolate their effects on social mobility. Though the relationship between education and social mobility is recognized, the skepticism regarding the belief that education is "the main instrument for upward mobility" is increasing among scholars. There is no data in Havighurst's study to dispel that skepticism.

Lipset and Bendix's study on social mobility in industrial societies is one of the major works in the field. In support of their major thesis that "... social mobility is an integral and continuing aspect of the process of industrialization,"³⁰ Lipset and Bendix analyze international data on comparative social mobility and the data collected from an empirical study of mobility in Oakland, California.

²⁹ Ibid., 182.

³⁰ Seymour Martin Lipset and Richard Bendix, Social Mobility in Industrial Society (Berkeley: University of California Press, 1959), p. VII.

The authors state that: "... the overall pattern of social mobility appears to be much the same in the industrial societies of various Western countries."³¹ Though these countries are in different levels of economic development, they show comparable rates of social mobility. Lipset and Bendix advance the following tentative interpretation for this startling discovery: "... the social mobility of societies becomes relatively high once their industrialization, and hence their economic expansion, reaches a certain level."³²

Discussing specifically the ideological equalitarianism and social mobility in the United States of America, Lipset and Bendix explore the relationship between education and upward mobility. American ideological equalitarianism - the American idealistic belief in equality - is often best expressed in the phrase of "equality of opportunity". As education is considered one of the important means for upward mobility in most industrial nations, and since industrial occupations often require specialized training, education is vital for occupational achievement. In 1950 among the male workers who occupied the professional, technical and kindred category of occupations, 85.6 percent of them had four year high school or higher education and 70.3 percent of them had one or more years of college education.³³ Over the years as the educational opportunities were expanding, the occupational structure also was shifting from manual to non-manual occupations.

³¹Ibid., p. 13.

³²Ibid.

³³Ibid., Table 3.4, p. 92.

Increasing educational opportunities and the expansion of higher education themselves need not necessarily be indicative of social mobility, but they definitely aid in producing social mobility.

In spite of American idealistic equalitarianism, inequality in educational and occupational opportunities still exist in the United States of America and so also in many other industrialized countries. Lipset and Bendix use the University of Michigan Survey Research Center's sample of the American population in 1952 to show the existing inequality in opportunities for university education, which is increasingly becoming important for higher levels of occupations. While 25 percent of the college graduates are sons of men in non-manual occupations, only 6 percent of the sons of manual workers and 3 percent of the sons of farmers are college graduates. The same kind of differences existed among the high school graduates.³⁴ The effect of these differences in educational attainments are also reflected in the son's occupational attainments. The sons of working class fathers who have completed college education are sure to achieve non-manual occupations, or some higher status occupations. But this group constitutes only 6 percent of the children of working class men; and the remaining 94 percent have not completed college education. Among this later group educational attainment is correlated with higher occupational status. But the interesting fact, as Lipset and Bendix point out, is that education "... does not compensate for coming from a working-class family."³⁵ In other words, one suspects, what Carlsson calls, the

³⁴Ibid., pp. 95-99.

³⁵Ibid., p. 99.

"delayed effects" of parental status on son's occupational status.

The data bears out this effect. For example among the sons of manual workers who have 'some college' education, 59 percent have attained non-manual occupations. Almost similar are the occupational statuses of sons of non-manual fathers who are only high school graduates: 54 percent have remained in the non-manual occupations, and 46 percent have moved down to manual occupations. Similarly the sons of manual workers who have completed high school are only slightly better in occupational status than the sons of non-manual workers who have not completed high school.³⁶ Commenting on the differential occupational achievements, Lipset and Bendix observe as follows:

Except for those who do attend college, educational attainment comparable to that achieved by the sons of middle-class fathers does not mean an equal chance in the labor market.³⁷

In spite of the equal high school education among sons of both working-class and middle-class fathers there is considerably less chance for the working class sons to hold non-manual occupations than middle class sons.³⁸

The Lipset and Bendix studies show that education has become one of the important avenues for upward social mobility in industrial societies; that education and occupational achievements are highly correlated; that, in spite of the idealistic belief in equality of educational and

³⁶Ibid., Table 3.9, p. 98.

³⁷Ibid., p. 99.

³⁸Ibid., p. 190.

occupational opportunities, there are still inequalities in educational and occupational opportunities; and that there are "delayed effects" of father's status on son's status. Though education has been viewed by these authors as one of the several other important variables that affect social mobility, no attempt has been made to isolate and measure the effects of these variables on social mobility.

Carlsson is one of the earliest researchers to question the conventional view that education has the most powerful influence on vertical social mobility.³⁹ By means of Swedish and other international data, he shows the relationship between education and occupation by a two step analysis. He also demonstrates the presence of "delayed effects" of father's status on son's status. The mobility process as described by Carlsson is diagrammatically shown below:

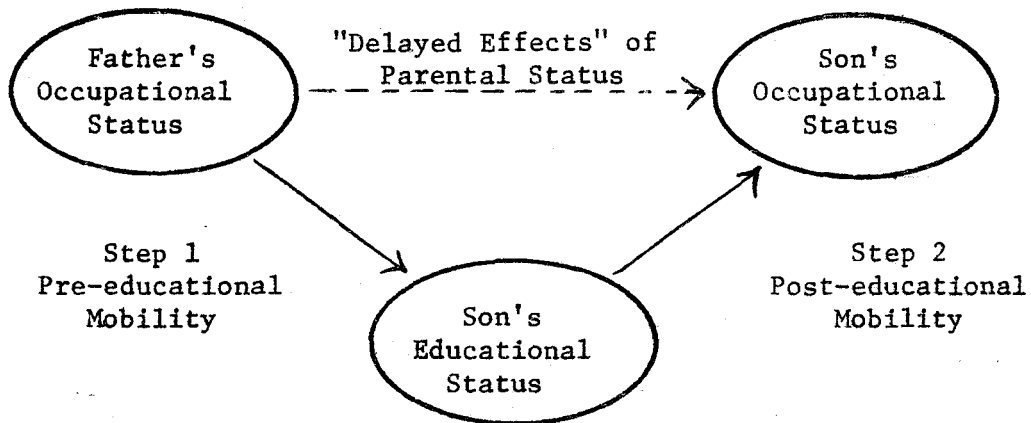


Figure 2.1-Carlsson's Mobility Process

³⁹Gosta Carlsson, Social Mobility and Class Structure (Lund, Sweden: CWK Gleerup, 1969) Chapter VII, pp. 121-37.

The father's status category as measured by his occupation helps determine the son's educational category. This is the pre-educational step. The son's educational category helps determine his occupational status. This is the post-educational step. Then there is the "delayed effects" of father's status on the status of the son.

The first step involves the son's pre-educational mobility, which is measured by the degree of correlation or statistical dependence between the parental status and son's educational status. A high degree of pre-educational mobility means that there is equality of educational opportunity at all levels of education to all children of different social strata.

The second step involves the son's post-educational mobility which is again measured by the degree of correlation between the son's educational status and his occupational status. Here, one wants to see if there is a fairly high positive correlation. The evidence indicates, however, that this is seldom the case. Carlsson also points out another problem involved in the post-educational mobility process. That is, the presence or absence of "delayed effects" of parental status. The presence of "delayed effects" means that the father's status has influence on the son's choice of occupation beyond what is explained by son's educational attainment. Hence one would expect a correlation between parental status and son's status when son's educational status is held constant. The absence of "delayed effects" of parental status means that:

...We could regard the mobility process as a kind of Markov process⁴⁰ where the probability of moving into a certain status category is determined by the status category from which the move is made, in this case educational status, /but not on the previous history of the individual, in this case not on the occupational status of the father.⁴¹

Carlsson points out that the conventional view that education is the most powerful influence on vertical mobility implies the following two characteristics of the mobility process:

- (1) There is a strong correlation between educational and subsequent occupational status - education determines occupation to a large extent.
- (2) There are no appreciable "delayed effects" of father's status on son's choice of occupation.

There may be a third characteristic of the mobility process that may have to be considered if the conventional view is true. That is:

- (3) That there is a high rate of pre-educational mobility which implies equality of educational opportunities at various educational levels for all children coming from different social strata.

Carlsson looks at a central British mobility study, and then uses Swedish data to check on the British findings.⁴² In Britain, due to educational expansion, the lower strata of the society made some

⁴⁰For details on Markov process see Ibid., pp. 71-73, and also see Raymond Boudon, Mathematical Structures of Social Mobility (San Francisco: Jossey Bass Inc., Publishers, 1973), pp. 40-54, and 72-102.

⁴¹Ibid., pp. 124-25.

⁴²Jean Floud, "The Educational Experience of the Adult Population of England and Wales as at July 1949", Social Mobility in Britain, ed. D.V. Glass, pp. 98-140, and J.R. Hall and D.V. Glass, "Education and Social Mobility, Ibid., pp. 291-307.

advances, and so also the upper strata. The gap between them narrowed a little bit, but not very decisively. As Hall and Glass observe, education appears to be only modifying the characteristic relationship between social status of father and son. In other words, there is the presence of "delayed effects" of father's status on son's status. Not only does education influence son's status, but also the father's status influences son's status when son's education is being held constant.

The Swedish data also confirms the British findings. Carlsson uses Moberg's and Quensel's data and the report from the Central Bureau of statistics (1958) to show the increasing educational opportunities to working class children in Sweden. Although the increasing educational opportunities will definitely affect the mobility rate in Sweden, the educational expansion has come too late to reflect any change in the mobility rate among the birth cohorts from whom the data has been gathered by the Swedish Institute of Public opinion Research (SIFO);⁴³ and which are used by Carlsson for his mobility study in Sweden. The data is derived from an enquiry carried out in 1955 by SIFO. The sample is a random sample of Swedish male population between the ages of 25 and 55. The sample size is 728. The data is analyzed by Carlsson to see whether education comes out to be the most powerful influence on vertical mobility in accordance with the three characteristics of mobility process under the conventional view. The findings are similar as those obtained in British study. Education has

⁴³Carlsson, Social Mobility..., pp. 131-33.

an influence on son's social status, when father's status is being held constant. There is also correlation between father's and son's status for each one of three educational levels. The "delayed effects" of father's status on son's status shows that "the influence of parental status is not exhausted with its influence on the child's educational career."⁴⁴

Using a measure based on the concept of perfect mobility,⁴⁵ Carlsson analyses the mobility matrix and comes up with the following percentages of sons with the same status as their fathers:⁴⁶

- (a) assuming perfect mobility 45%
- (b) assuming no delayed effects of fathers' status 48%
- (c) actually observed, with delayed effects 63%

Carlsson also reanalyses Boalt's Stockholm social mobility data along the same line and finds the following percentages of non-immobile men, namely the sons who are in the same status as their fathers:⁴⁷

- (a) assuming perfect mobility 37%
- (b) assuming no delayed effects of fathers' status 49%
- (c) actually observed, with delayed effects 53%

⁴⁴Ibid., p. 134. See Tables 7.3 and 7.4 for details of the educational and status categories and for the data in Ibid., p. 133.

⁴⁵For a discussion on the concept of "perfect mobility" see Ibid., pp. 73-77 and also see Glass, Social Mobility in Britain, pp.188-98; and Boudon, Mathematical Models..., pp. 14-17.

⁴⁶Ibid., p. 135.

⁴⁷Ibid., p. 136.

The percentage point difference, in the Stockholm sample, between the "no delayed effects" and "with delayed effects" is 4%. That may be due to the prevalence of secondary education in Stockholm than elsewhere in the country as whole. In the SIFO sample the difference between "no delayed effects" and "delayed effects" is 15%. Differential access to education cannot go too far in explaining the high correlation between the father and son statuses.

Carlsson's study, then, casts some doubts about the conventional view of educational influence on vertical mobility. He has the following to say on the role of education in the process of mobility:

... It does not seem altogether unfair to say that the factor of education does not come out of the analysis in the impressive manner we might have expected on the basis of the many discussions of its role, and the keen interest in it as a factor behind social mobility. To be sure, schooling appears as an asset for those who have it, but hardly the decisive factor in the majority of cases where people have moved upwards on the social ladder. Neither does education appear to remove other influences of parental social status on the future status of the son.⁴⁸

Carlsson's data is inadequate in that it does not have the information on schooling which would have shed some light on the pre-educational process of mobility. However, the study has confirmed the findings of the British study; namely, that there is a correlation between education and occupational status, and that there are delayed effects of father's status on son's status as measured by occupation. Glass and Carlsson have both raised doubts about the conventional view that education is the most important factor in vertical mobility. They both recognize other influencing factors in the mobility process. But they have not isolated these factors, and have not shown the amount of

⁴⁸Ibid., p. 137.

influence each of these factors has on mobility. Again, the analytical methods that they have chosen are not amenable to such analysis.

In a well known study on social mobility, Anderson tested the popular assumption that in contemporary society vertical social mobility depends upon formal education using data from the U.S.A., Sweden and England.⁴⁹ The U.S.A. data are the data used by Centers, the Swedish data are from Boalt's Stockholm study and Carlsson's Swedish study, and the English data are from Glass' study of social mobility in Britain. We have discussed these research studies in the earlier parts of this chapter. Anderson reanalyses the data to see whether the popular assumption on the relation between vertical mobility and education is substantiated. The results are surprising:

The upward mobile group is found to comprise mainly persons of typical, not superior, schooling, though among the few individuals with superior training there is relatively high probability of upward mobility.... A large fraction of the new upper stratum is of lower origin and median schooling. At the same time, a considerable fraction of even better-educated sons of upper-class fathers drop down the occupational status scale. Circumstances other than schooling play a major part in mobility.⁵⁰

Anderson extensively analyses the British data which are more detailed than the others. To disentangle the effects of schooling from other factors, Anderson constructed hypothetical mobility distributions by son's schooling under the following assumptions: school dominant, and random. He then compares the deviations of sons' actual moves from the hypothetical moves in absolute terms and in ratios.⁵¹ The

⁴⁹Arnold Anderson, "A Skeptical Note on the Relation of Vertical Mobility to Education," The American Journal of Sociology, LXVI, No. 6 (May, 1961), 560-70.

⁵⁰Ibid., Abstract, p. 560.

⁵¹Ibid., Tables 5, 6 and 7, pp. 566-67.

comparison reveals systematic reversals of direction of moves of sons of lowest level of schooling and of the other levels. The least-educated sons made many moves up and fewer down than expected under the school dominant hypothesis. For the best educated sons the situation is reversed. They made fewer moves up and more down than expected under the school dominant hypothesis. For the best educated sons the situation is reversed. They made fewer moves up and more down than expected under the school dominant hypothesis.

Anderson then constructs a crude set of "efficiency indexes" with respect to schooling as a mechanism of job allocation, and studies how much education is a factor in mobility of sons of all the four categories of schooling.⁵² For the sons with elementary education only, the index is below 0.50. This means that only half of the actual mobility (or lack of it) might be explained by schooling. The index for the group of sons with most education is 0.12 (unweighted 0.10). This is extremely low. This means that best educated sons of highly placed fathers lose their status for lack of suitability for the higher level of jobs despite their excellent schooling. Anderson concludes that:

... Education is but one of many factors influencing mobility, and it may be far from a dominant factor. To say that its efficiency is low in this respect measured on an absolute scale, however, is not necessarily to say it "should be" higher. Education has multiple functions, and preparation for a vocation is only one of these. Moreover, qualifications not easily provided by formal schooling affect job success, aside from advantages or disadvantages in status.⁵³

⁵²Ibid., Table 8, p. 568.

⁵³Ibid., p. 569.

He suggests that an individual's ability and motivation, varying independently of schooling, perhaps, plays a powerful role in generating upward mobility.⁵⁴

Anderson was one of the first sociologists, then, to challenge the popular view regarding education as being the most powerful factor for vertical mobility.

Using a more sophisticated methodological approach (regression analysis), Duncan and Hodge analyze the data derived from the Chicago portion of the 1951 Six City Survey of Labor Mobility.⁵⁵ In their analysis they employ conventional linear zero-order and multiple regression equations as well as "causal" paths to show the statistical associations between the variables. The independent variables are the father's occupational SES and the son's education, and the dependent variable is the son's occupational SES. Occupational SES scores that are available for some 446 occupations are used as measures of occupational statuses of father and son.⁵⁶ Education of the son is used an intervening variable between the father's occupational status and the son's 1940 and 1950 occupational status.

⁵⁴Ibid.

⁵⁵Otis Dudley Duncan and Robert W. Hodge, "Education and Occupational Mobility: A Regression Analysis", The American Journal of Sociology, LXVIII, No. 6 (May, 1963), 629-44.

⁵⁶Albert J. Reiss, Jr., et al., Occupations and Social Status (New York: Free Press of Gnencoe, 1961), Appendix B.

On the basis of the logic of the causal model, the measures of association that are needed to interpret the results are: (1) the association between father's SES and son's SES independent of the association between son's education and father's SES. This is called "direct" effect or "delayed" effect, in Carlsson's terminology; (2) the association between son's SES and his education, and (3) the effect of father's SES on son's SES via son's education, which is otherwise known as the "indirect" effect.

The results of Duncan and Hodge's analysis show a zero-order correlation of .3 between father's and son's SES. The zero-order regression coefficient also approximates .3. This means that there is a "regression toward the mean" which implies that sons of lower SES fathers undergo appreciable upward mobility, whereas sons of higher SES fathers experience downward mobility.⁵⁷ The indirect effect of father's SES via education show some interesting results. The correlation between son's education and his occupational SES is greater than the correlation between father's and son's SES. The correlation between son's education and his SES for 1950 occupation is about 0.5 to 0.6. (a little over 0.4 for 1940 occupations). This associational measure also contains in part the correlation between the son's education and his father's SES. A multiple partial correlation between son's education and his SES gives a slightly higher correlation coefficient (between 0.55 and 0.66 for 1950 occupation).⁵⁸ It is substantially

⁵⁷ Duncan and Hodge, The American Journal of Sociology, LXVII, No. 6, 634.

⁵⁸ Ibid., Table 2 and 3., pp. 635-36.

higher than the correlation between the father's and son's occupational SES. These findings are unequivocal on two points, according to

Duncan and Hodge:

1. Education is a more important determinant of occupational achievement than is father's occupation.
2. Education accounts for an important component of such effect on occupational achievement as father's occupation does have.⁵⁹

The dependent variable in the analysis is son's occupational SES, not occupational mobility as such. Duncan and Hodge show that mobility as defined as $M = Y - X_1$ (Y is son's SES and X_1 father's SES) does not provide any additional information, and the results are basically the same. But here Duncan and Hodge discuss an important point on the use of mobility measures for the analysis of variance. M has a larger variance than Y and the proportion of variance "explained" by X_1 is greater than the proportion of variance in Y explained by X_1 . Hence the analysis of variance table will be different; and as a result, father's occupational SES becomes prominent as an explanatory factor rather than other factors such as son's education. This is, explain

Duncan and Dodge:

... The same phenomenon of "regression toward the mean" ... expressed in a different way. It is thus quite possible that controversies concerning the relative importance of factors affecting mobility really have more to do with preferences as between mathematically equivalent ways of displaying the data than with differences as to the facts of the case.⁶⁰

⁵⁹Ibid., p. 637.

⁶⁰Ibid., p. 639. See C. Arnold Anderson, "A Skeptical Note on the Relation of Vertical Mobility to Education", American Journal of Sociology, LXVI, No. 6 (May, 1961), 560-70 for the controversy mentioned in this quote.

Duncan and Hodge also analyse the influence on mobility of personal characteristics like color, farm origin and veteran status. In conclusion Duncan and Hodge state that:

... Education was an appreciably more important determinant than was father's occupation; and the latter factor, moreover, was influential in large part because of its association with education.⁶¹

Duncan and Hodge have demonstrated, then, that the regression approach is a much more powerful tool in mobility studies because it can separate and combine the multivariate complexity and simultaneous effects of several variables on mobility. It would have been excellent if the authors have used some other important independent variables, besides education, to partial out their effects on mobility; although they briefly discuss a few personal characteristic variables in the end. The absence of such a design may be due to the limited information that is available from the data.

Fox and Miller in their international cross-sectional analysis, study the socio-economic and political determinants of social mobility in twelve countries.⁶² The countries range from Japan to the United States and Great Britain, including much of Western Europe and Hungary. The available mobility data that are used in this comparative study are for the period 1949 to 1957. The form of mobility studied is inter-

⁶¹Ibid., p. 644.

⁶²Thomas G. Fox and S.M. Miller, "Economic, Political and Social Determinants of Mobility: An International Cross-Sectional Analysis," Scientific Investigations in Comparative Education, ed. Max A. Ekstein and Harold J. Noah (London: The Macmillan Company Collier-Macmillan Ltd., 1969), pp. 231-48.

generational occupational mobility. Even though much of the data is inadequate, it is the best available for such a study.

The Fox and Miller analysis investigates a complex of possible social, economic and political determinants of social mobility, and employs the techniques of multiple regression and partial correlation. The five mobility determinants, which are the independent variables, and which in concert account for more than 80 percent of the manual and non-manual outflow variance in the twelve countries of comparative study are: the GNP per capita, education, political stability, urbanization and achievement motivation. The manual outflow rate, or upward mobility rate, which is the proportion of sons of manual fathers who have gained non-manual occupations, and the non-manual outflow rate or downward mobility rate, which is the proportion of sons of non-manual fathers who are engaged in manual occupation, are the two dependent variables.

The educational measures used in this study are the primary and secondary enrollments as a percentage of the population aged 5 to 19. A simple correlation among all variables shows that the relationship between manual outflow and education is very significant ($r = 0.80$) and it is "... a potential source for explaining manual outflow mobility variance in the international cross-section."⁶³ As far as non-manual mobility is concerned, the relationship between education and downward mobility is only -0.15 , which is very insignificant and which shows that very little importance will be attached to education in explaining

⁶³Ibid., p. 238.

international variation in the amount of downward mobility. In a multiple regression and partial correlation analysis, education again emerges as very closely correlated with manual outflow (or upward mobility) than are any other of the independent variables: the positive partial correlation is 0.76. In terms of beta coefficients, education becomes the second most important source in the explanation of variation in upward mobility among the twelve nations (beta = 0.70). A partial correlation reveals that downward mobility is closely correlated with education (-0.63). This result is different from what was suggested by simple correlation (-0.15). Even though education is closely related to downward mobility, it does not seem to be as important with respect to downward mobility as some of the other variables such as per capita GNP.⁶⁴ In conclusion Fox and Miller state that:

The education variable emerges as the individually most important and ostensibly reliable determinant of manual outflow mobility. Higher levels of upward mobility are associated with higher levels of education, as measured.⁶⁵

Fox and Miller's comparative study appropriately used the multivariate analytical techniques. However their data is inadequate and hence their findings must be considered at best tenuous.⁶⁶ For

⁶⁴Ibid., Tables 2 and 4, pp. 238-241.

⁶⁵Ibid., p. 247.

⁶⁶Ibid., p. 232. The authors themselves observe that the data for the study of intersocietal determinants of mobility is associated with many problems. For example, comparability and categorization of occupations between nations are difficult and urbanization in different countries means different things.

example, their failure to pinpoint the exact relation between education and downward mobility, and to state the reason for such a relation may also be due to the inadequacy of the data used for mobility analysis.

In a theoretical and empirical attempt to synthesize and extend the findings on mobility and education, Boudon examines the specific puzzling phenomenon that the tremendous educational development that has occurred in Western societies has had little effect on mobility.⁶⁷ Boudon examines the common belief that in "meritocratic societies" the correlation between education and mobility is higher and concludes that this belief has been proven wrong because of the increasing empirical evidence to the contrary that has shown meritocratic societies have a low correlation between educational level (son's educational level either relative to father's or absolute) and mobility. Boudon applies theoretical models in explaining this social phenomenon. His models, which he labels the inequality of educational opportunity (IEO) model and the inequality of social opportunity (ISO) model, are devices to explain the present rather than predicting the future.

An individual's social status achievement, according to Boudon, is a result of a two-stage filtering process.⁶⁸ The first stage is the individual's movement from a given social position to a given educational

⁶⁷Raymond Boudon, Education, Opportunity, and Social Inequality: Changing Prospects in Western Society (New York: John Wiley & Sons, 1974); and also see his article "Education and Social Mobility: A Structural Model," Power and Ideology in Education, ed. Jerome Karabel and A.H. Halsey (New York: Oxford University Press, 1977), pp. 186-96.

⁶⁸Ibid., p. 21.

level, and the second stage is his move from the educational level to his achieved social position. In either case of the filtering process inequality of opportunity is assumed. Social status or position is determined by external factors, whereas educational level is determined by individual will, even though individual will again is influenced by social factors.⁶⁹ Hence, says Boudon, that "... the key to IEO, or rather to EO, probably lies outside rather than inside schools."⁷⁰ Boudon underlies these empirical observations by the output of his theoretical IEO model. School bookkeeping data, collected by the Organization for Economic Cooperation and Development (OECD) shows that with educational expansion IEO has decreased at secondary level, although it still remains very high at college level. The output of the model confirms with the empirical outcomes:

- (1) IEO steadily decreases overtime;
- (2) Other things being equal, the more developed the educational system the weaker is the IEO
- (3) At college level the higher the social class the higher is the number of additional students per 1000 youngsters.
- (4) At lower levels the relationship between social class and number gradually declines leading to more number of students from lower social class at the lower levels.⁷¹

The second stage of the filtering process is the individual's move from the achieved educational level to achieved social status or position. ISO or social immobility is the product of various factors, historical,

⁶⁹Ibid., p. 21. See footnote 1, and also see p.36.

⁷⁰Ibid., p. 115.

⁷¹Ibid., pp. 101-102.

social, economic and demographic. In examining ISO, and over-time change in ISO, Boudon follows the same steps as in the case of IEO: building an ISO model, giving the parameters of the model realistic values, drawing certain conclusions from the model and comparing these conclusions with available empirical data.

Boudon analyzes Glass's British data (1954) and French data (1964) and compares them with the Blau and Duncan (1967) data to see what are the factors that affect status achievement. The analysis of Glass data and the French data reveals that both meritocracy and class dominance or social heritage have definite effect on social status achievement. Class dominance is particularly more powerful in preventing social demotion of higher class people when their educational level is middle or poor. In Britain and France class dominance has greater weight than in America where, relatively, meritocracy is higher than class dominance or social heritage in determining status achievement.⁷²

However, increases in educational opportunity, or, decrease in IEO have not resulted in decrease in ISO. Why? Because there is no or little over-time change in the relationship between education and mobility. That is, over the years, as the demand for more education increases, individuals are getting the same social reward for more schooling. Boudon explains why no decrease in ISO should be expected as a result of decrease in IEO:

... Although the average level of educational attainment increases more rapidly in the lower/than in the middle class (and in the middle than in the upper), the educational levels associated with a given structure of status expectations are simultaneously moving

⁷² Ibid., pp. 133-137.

upward. As a result, lower-class people become progressively better educated on the average but their status expectations remain more or less constant. Individuals demand progressively more education over time, and the collective return on this increase in the over-all demand for education is certainly considerable; however, the individual return tends to be zero.⁷³

Boudon's IEO-ISO model reveals that, other things being equal, the rigidity of the stratification system is the crucial factor among many others that can have an independent effect on mobility.⁷⁴ And so he concludes that equality in the absolute sense, and economic equality in particular, must be the focal point of policy rather than inequality of opportunity in general and educational inequality of opportunity in particular. His IEO-ISO model support this conclusion.

Boudon's study of IEO and ISO and the relation between the two in the mobility process are ingenious. Although some of his conclusions are controversial, his theoretical models and the use of empirical data to verify the outcome of the models have explained some of the paradoxes in the relation between education and social mobility in industrial societies, especially of Western countries.

Louis Emmerij's reflections on educational growth, educational opportunities and "life chances" seem to substantiate Boudon's conclusions on education and mobility.⁷⁵ Emmerij hypothesizes that as long as a given educational level or branch imposes admission restrictions, there will be one-to-one relationship between that particular educational

⁷³Ibid., pp. 182-83.

⁷⁴Ibid., p. 185.

⁷⁵Louis Emmerij, Can the Social Build a New Social Order? (Amsterdam: Elsevier Scientific Publishing Company, 1974).

level or branch and occupational opportunities. That is to say that this "good" educational level or branch, as a result of restrictions, will attract entrants of "good" social backgrounds, who, when they leave, will enter "good" jobs.⁷⁶ This one-to-one relationship between school and job will change:

... As soon admission to this educational level or branch, for one reason or another, becomes more general and less restricted, the relationship between that educational level and occupational opportunities becomes looser, and the importance of social background greater. In other words, it looks as if in this latter case, education becomes gradually less important as an explanatory factor in the occupational "choice" of the individual, but the one-to-one relationship between social background and occupation remains: The student from the higher social class will still tend to get the "better" jobs, but this time the graduate with the lower social class background will be squeezed more and more into the "other" jobs.⁷⁷

The strong relationship between social class and occupational choice, in spite of increasing educational opportunities to lower classes, is substantiated by empirical evidence. The English longitudinal study of Himmelweit and Swift (1969), Torsten Husen's follow-up study of some 1500 pupils in Sweden and Weiss' (1969) study of the 1969 U.S. Census provide evidence that occupational choice and earnings are more influenced by social class origins than by the length of formal schooling or ability. Torsten Husen's study is of particular interest in this regard. A sample of 1500 Swedish pupils in the third grade of elementary school were followed from 1938. In 1964, when they were 35 years old, almost all of them were contacted again and the information regarding their earnings was obtained. Table 2.3 gives their mean

⁷⁶ Ibid., p. 137.

⁷⁷ Ibid., p. 138.

MEAN TAXED INCOME (IN 1000 SWEDISH CROWNS) BY LEVEL OF
FORMAL EDUCATION AND SOCIAL CLASS

Social Class	Years of Education			
	< 8 years Elementary Schooling only	8-10 years Junior Sec. Schooling	11-14 years Senior Sec. Schooling	> 14 years Un- iversity
1. Professional, Managerial	15.0	23.1	35.5	45.4
2. Sub-Profession- al, Middle- Level	14.9	18.0	24.4	34.5
3. Skilled workers	16.3	18.6	21.8	28.0
4. Unskilled workers	15.6	17.6	17.9	27.7

Source: Louis Emmerij, Can the School Build a New Social Order?
(Amsterdam: Elsevier Scientific Publishing Company, 1974),
Table IX - 1, p. 140. (Emmerij's source: Torsten Husen,
Talent, Opportunity and Career, Stockholm, 1969).

taxed income by level of education and social class. As can be seen there are differences in income, within each social class, with the length of education. Between social classes there are significant income differences at all educational levels except at the elementary school level. For example, the son of a professional with senior secondary school education earns 35,000 crowns a year while the son of an unskilled worker with the same education earns only 18,000 crowns. Husen's study has shown the powerful influence of social class on occupational opportunities and earnings.

The demand for education is based on the belief that education is the powerful means for upward social mobility. The socio-economic benefits of education are the reasons behind the educational expansion in Western countries and now, in the developing countries. But the expansion or equalization of education at various levels can go on without realizing the socio-economic benefits that lie behind the goals of such educational expansion. The universalization of a particular level of education results in two inter-related phenomena: (1) the socio-economic benefits attached with that level of educational achievement disappear; and (2) precisely because of the failure to get the benefits the pressure will build up to reach at the higher level. Emmerij says that with the disappearance of benefits, the principle of zero-correlation sets in at that particular level. If there is any correlation at all between education and other socio-economic benefits it has to be at the next level, and hence the demand grows again for the next level and the cycle of frustration continues. When the point of zero-correlation sets in at a particular level, the last group to

attain that level will be from the lower classes. What was believed to be a sufficient condition for better opportunities and "life chances" will turn out to be only a necessary condition. Hence Emmerij expresses his skepticism regarding education alone being the key to upward mobility as follows:

... The bulk of the population wants it for its children. But once again, this perfectly legitimate desire to give to all children their fair share of the educational cake is combined with the belief that education and education alone is the key to upward social mobility. This has never been entirely the case and will become less and less true in the future. But in as far as education does play a perceived role in the individual's economic and social status, this results in a rat race which we have explained through the principle of zero-correlation and the law of last entry.⁷⁸

Emmerij's observations are similar to those of Boudon. What Emmerij calls a "rat race" Boudon refers to as the "aggregation paradox". Boudon explains the ever increasing demand for more education for less reward with the use of a "cobweb" theorem. Emmerij suggests recurrent education to halt the "rat race". Boudon's suggestion to end the aggregation paradox is economic equalisation rather than concentration on educational equality. But both agree that education is not the instrument of upward mobility.

Blau and Duncan, in a monumental study and analysis of the American occupational structure and the factors that influence social mobility in it, examine the relationship between education and occupational mobility.⁷⁹ The analysis is based on a large-scale empirical

⁷⁸Ibid., p. 208.

⁷⁹Peter M. Blau and Otis Dudley Duncan, The American Occupational Structure (New York: John Wiley and Sons. Inc., 1967).

survey of the working lives of men in the United States. The data used in this study was collected from some 20,700 respondents who represented the approximately 45 million men 20 to 64 years old in the civilian, non-institutional population of the United States in March 1962.

Blau and Duncan calculate the percentage of men who have moved up or down or remained stable on two hypotheses: (1) the hypothesis of "perfect mobility", that is, respondent's status is statistically independent of father's status; and (2) the hypothesis of what may be called "conditional perfect mobility" with respect to education.⁸⁰ The partial relationship of son's status to father's status, holding educational attainment constant shows "... that there is a definite net effect of father's on son's status, independent of education."⁸¹ The proportion of men who experience upward mobility, both short and long distance, increases steadily with increase in education; and the proportion of men who are immobile reveals a complementary decrease with advancing education. But downward mobility, according to Blau and Duncan, does not exhibit a corresponding linear association with education.⁸² The danger of downward mobility is higher among men who started college without finishing it and, to a lesser extent, among those with one to four years of high school.⁸³

⁸⁰Ibid., Table 4.5, p. 154.

⁸¹Ibid., p. 156.

⁸²Ibid., P. 157.

⁸³Ibid., p. 161.

A man's chances and success for upward mobility depend upon his social origin and his own training and early experience. Although most of the influence of social origin on a man's occupational achievement is mediated by his education and early experience, social origin has an independent direct effect on his occupational achievement. In other words, father's occupational status has a delayed effect on son's occupational achievement. According to Blau and Duncan a man's education exerts the strongest direct effect on his occupational achievement ($p = .39$) and the effect of his social origin, or the level on which he starts his career, is the second ($p = .28$).⁸⁴

Blau and Duncan examine the influence of other factors such as race, region of birth, immigration, migration, farm background, number of siblings in the family, marriage and fertility to occupational achievement. The novel technique employed in analyzing the relationship between education and occupational mobility and the statistical methods of regression and path analysis used to clarify the process of occupational mobility are very interesting.⁸⁵ Their work, The American Occupational Structure is a mine of information on occupational structure, mobility and methodology.

⁸⁴Ibid., p. 403.

⁸⁵For the novelty of the technique for analyzing mobility distributions see Ibid., Table 4.5, p. 154; and for the discussion, pp. 154-61.

STUDIES IN EDUCATION AND SOCIAL MOBILITY IN INDIA

Studies on education and social mobility in India are not numerous. Even for the few that are available there is a pronounced lack of sophistication in techniques and design that are characteristics of studies done in Western countries. Most of the sociological studies in India are descriptive in nature, and even the empirical studies contain mostly qualitative data.

Social mobility in the caste system or the ritual system is not the central concern of this research study. This study is concerned with occupational mobility and its relation to education in the secular system. Having this distinction in mind let us review some of the studies available in education and social mobility in India.

Gist who has done a study in caste differentials in Mysore city and Bangalore city in South India focuses his attention on intergenerational occupational mobility in Mysore city.⁸⁶ In the traditional caste system occupational inheritance was greater than occupational mobility. As we observed in the first chapter occupational deviation was undesirable. Today, however, due to urbanization and industrialization there are growing occupational deviations from the traditional pattern. Gist's Mysore city data, as presented in Table 2.4, show "... a marked tendency for individuals to depart from parental occupations, although this tendency varies among the different caste groups."⁸⁷ Gist obtained

⁸⁶Noel P. Gist, "Caste Differentials in South India," American Sociological Review, XIX, No. 2 (April, 1954), 126-137.

⁸⁷Ibid., p. 128.

TABLE 2.4

PERCENTAGE DISTRIBUTION OF MYSORE CITY HOUSEHOLD
HEADS AND THEIR SONS WHO DEVIATE FROM, OR
FOLLOW, PARENTAL OCCUPATION

Occupational Change	Brahmin castes	Non-Brahmin castes	Scheduled castes	Other Back- ward castes
Different Occupation from father				
1. Household heads (percent)	82.7	55.7	44.8	41.4
Number	418	924	232	132
2. Their sons (percent)	76.8	49.4	56.8	39.7
Number	117	385	111	78

Source: Noel P. Gist, "Caste Differentials in South India," American Sociological Review, XIX, No. 2 (April, 1954), 128.

information concerning occupations of three generations, those of the grandfathers, fathers (heads of the household) and sons. As can be seen in Table 2.4, over four-fifth (82.7%) of the fathers (household heads) and three-fourths (76.8%) of the sons among the Brahmin castes have deviated from their parental occupations. Among Non-Brahmin castes, around half of fathers (55.7%) and sons (49.4%) deviate from parental occupations, and so also the scheduled castes (44.8% and 56.8% respectively). The deviations among the other backward castes are lower than other castes: 41.4% and 39.7% respectively. Chi-square tests show that Brahmin fathers (household heads) and their sons deviate significantly at the .01 level. Hence Gist concludes that for the sons as well as their fathers, Brahmins were the most deviation-
 nal in their occupational choices. Among the upper castes, and particularly among the better educated the occupational deviation is unidirectional, that is, directed towards non-manual occupations, since "... strong taboos still exist against the performance of manual labor."⁸⁸ Since the Brahmin castes are the most educated (in Mysore city 91.4% of the Brahmin heads of the household have a middle school or higher education,) and the scheduled castes are the least educated (in Mysore city 91.2% of the scheduled caste heads of the household have no education or primary school education,) the difference in occupational mobility is marked.⁸⁹ Among the scheduled castes, although

⁸⁸ Ibid., p. 129.

⁸⁹ Ibid., Table 4, p. 134.

illiteracy is very high, the least educated leave their parental menial occupations, and hence there is relatively high occupational deviation among the scheduled castes.

Gist's study is not designed to study the relationship between education and occupational mobility. Hence it does not give anything more than a few percentage distributions on occupational inheritance and education.

Driver observes higher occupational mobility in Central India.⁹⁰ His data are drawn from the heads of household from Nagpur district of Central India. He observes rural-urban variation as well as caste variation of intergenerational occupational mobility. As shown in Table 2.5, only 30.1 percent of rural fathers have deviated from their fathers' occupations whereas twice that many of urban fathers have occupationally deviated. The occupational deviation is higher among the higher castes (Brahmins and High castes) and the scheduled castes and relatively lower among the middle castes. Probably for the same reason mentioned above occupational mobility among the scheduled castes is higher than the middle castes in rural areas (31.4%) and more so in urban areas (69.6%).

"The differences", observes Driver, "among the castes in their occupational distributions may be attributed in part to differences among them in educational attainment."⁹¹ Table 2.6 gives the

⁹⁰Edwin D. Driver, "Caste and Occupational Structure in Central India," Social Forces, XLI, No. 1 (October, 1962), 26-31.

⁹¹Ibid., p. 29.

TABLE 2.5

PERCENT OF THE EMPLOYED SONS WHO DEVIATE FROM THEIR FATHERS
IN SPECIFIC OCCUPATION, BY CASTE AND RESIDENCE
IN NAGPUR DISTRICT OF CENTRAL INDIA

	Brahmins	High castes	Trading castes	Low castes	Backward castes	Scheduled castes	Total
<u>Rural</u>							
Percent	54.5	35.7	21.9	24.8	26.2	31.4	30.1
Total Employed	50	41	32	704	256	161	1244
<u>Urban</u>							
Percent	62.2	62.1	54.0	56.3	50.0	69.6	59.9
Total Employed	165	59	50	221	97	87	679

Source: Edwin D. Driver, "Caste and Occupational Structure in Central India," Social Forces, XLI, No. 1 (October, 1962), Table 1, 28.

TABLE 2.6

PERCENTAGE DISTRIBUTION OF EDUCATIONAL LEVEL BY
CASTE AND RESIDENCE IN NAGPUR DISTRICT
OF CENTRAL INDIA

	Brahmins	High Castes	Trading Castes	Low Castes	Backward Castes	Scheduled Castes	Total
<u>Rural</u>							
Total Number	50	41	32	704	256	161	1244
Percent							
Below Primary	31.7	41.3	58.1	82.9	85.5	94.3	82.4
Above Primary	68.3	58.7	41.9	17.1	14.5	5.7	17.6
<u>Urban</u>							
Total Number	165	59	50	221	97	87	679
Percent							
Below Primary	12.8	59.0	53.3	77.9	81.7	82.2	60.1
Above Primary	87.2	41.0	46.7	22.1	18.3	17.8	39.9

Source: Edwin D. Driver, "Caste and Occupational Structure in Central India," Social Forces, XLI, No. 1 (October, 1962), Table 3, 29.

distribution of educational level by caste and residence. The differences between castes are striking. Whereas 68.3 percent of the rural and 87.2 percent of the urban Brahmins have attained education above primary school level, only 5.7 percent of the rural and 17.8 percent of the urban scheduled castes have attained the same level of education. The concentration of lower caste individuals in unskilled and semi-skilled occupations are correlated with educational level and caste rank.⁹² Driver concludes that the association between caste hierarchy and occupational hierarchy is "... largely the result of differences among the castes in their educational attainment."⁹³

Again, Driver's study does not show how much occupational mobility among castes is due to education, and how much is explained by other factors.

Sharma, who has studied the patterns of occupational mobility in six Rajasthan villages, finds a positive relationship between occupational mobility and caste rank, as Gist and Driver have found in their studies.⁹⁴ He lists a number of internal and external forces that are responsible for such mobility. Education, he says, is one of the external forces that influences occupational mobility among various castes. Other than this statement, Sharma's study does not say how much of such mobility is explained by education.

⁹²Ibid., Table 4, p. 30.

⁹³Ibid., p. 31.

⁹⁴K.L. Sharma, "Patterns of Occupational Mobility: A Study of Six Villages in Rajasthan," The Indian Journal of Social Work, XXX, No.2 (April, 1969), 33-43.

Chekki's study of Gokul (Pseudonym) a suburb of the city of Dharwar in Mysore State of South India reveals that education is the main instrument for upward social mobility; and intergenerational mobility among the Brahmins is mostly within the range of white-collar jobs.⁹⁵ Chekki's sample mainly consists of Brahmins, and his study contains only qualitative data and no quantitative data. Hence the study does not give any more quantifiable information on the effect of education on occupational mobility.

Jorapur uses the Demographic Research Center data (Dharwar, Mysore State) to study intergenerational occupational mobility in Dharwar town.⁹⁶ He hypothesizes that the higher the educational level of sons the higher the rate of occupational inheritance among those whose fathers are in the higher status category, and lower among those whose fathers are in the lower status category. The analysis of the data confirms his hypothesis. He finds that education appears to have a differential influence on different occupational categories, and that better educated sons of higher status fathers tend to inherit their fathers' occupations, and on the other hand, better educated sons of lower status fathers move out of their fathers' occupations.⁹⁷

⁹⁵Dan A. Chekki, "Social Stratification and Trends of Social Mobility in Modern India," The Indian Journal of Social Work, XXXI, No. 4 (January, 1971), 367-380.

⁹⁶P.B. Jorapur, "Intergenerational Occupational Mobility," The Indian Journal of Social Work, XXXI, No. 4 (January, 1971), 461-67.

⁹⁷Ibid., p. 465, and also see Tables 4 and 5., p. 466.

A Chi-square test shows a significant correlation between educational level of sons and occupational mobility of sons.

Jorapur's study shows correlation between educational and occupational mobility. He does not isolate the amount of the effects of education on mobility. Education is correlated with upward mobility, but there is no mention of downward mobility, if any, if the sons of higher status fathers do not attain higher education. It would have been an interesting study if the caste variable had been included as an independent variable, besides education, age, and religion.

As was mentioned earlier empirical studies of social mobility in India are limited, and the few that exist are mainly descriptive studies. Although Indian society is complex, and a mobility study is further complicated by the caste system with its ritual and secular dimensions, an attempt must be made to study social mobility in India using modern methods and analytical tools. This study is such an attempt. It tries to use the knowledge attained and the analytical methods and statistical techniques developed by mobility studies in Western countries, to study the relationship between education and social mobility in Tamil Nadu, India.

We will discuss in the next chapter the variables, samples, hypotheses and the models and methods that are used in this study to analyse the relationship between education and social mobility in Tamil Nadu, India.

CHAPTER III

VARIABLES, SAMPLES, MODELS AND METHODS

VARIABLES

This research deals with one form of social mobility - inter-generational occupational mobility, - and occupational aspiration in Tamil Nadu, India. It covers three generations: the grandfather, father and son. The mobility determinants, or independent variables, are caste, rural-urban residence, protective discrimination, education, occupation and income. The mobility variables, or dependent variables, are father's occupation and son's occupational aspiration. The variables are at various levels of measurement.

The Independent Variables:

The independent variables and the levels of measurement are:

1. (C) Caste - ordinal
2. (RP) Residence (Population) - rural-urban - interval
3. (PD) Protective Discrimination - ordinal
4. (E) Education - interval
5. (O) Occupation - ordinal
6. (I) Income - interval

1. Castes (C):

Caste is a unique social phenomenon of India. Kroeber defines caste in the Encyclopedia of the Social Sciences as follows:

A caste may be defined as an endogamous and hereditary subdivision of an ethnic unit occupying a position of superior or inferior rank of social esteem in comparison with other such subdivisions.¹

The traditional hierarchical categorization of castes is based on the Varna model. The castes, according to this model, are arranged from top to the bottom as follows: (1) the Brahmin castes; (2) the Khatriya castes; (3) the Visya castes and (4) the Sudra castes. The untouchable castes are not included in this model. The Varna model of classification of castes does not apply to Tamil Nadu, because of the very reason that the Tamil people never accepted the Varna model of categorization of castes.² Moreover, castes in modern India do not fall neatly into the traditional Varna model. Although the upper and lower categories of caste hierarchy consist of the Brahmin castes and the untouchables (or Harijan) castes, the middle castes do not fall into any kind of clearly defined hierarchical units. The dividing lines between ranks in the middle castes are not clear, and often caste statuses overlap. Also, different castes occupy different hierarchical positions in different parts of India. Hence, we have tried to follow

¹A.L. Kroeber, "Caste," Encyclopedia of the Social Sciences quoted by Oliver C. Cox, Caste, Class and Race, A Study of Social Dynamics (Third Printing, New York: Modern Reader Paperbacks Edition, 1970), p. 5

²S. Gnanaprakasam, The Origins of Caste among the Tamils (Trichinopoly, India: Indian Catholic Truth Society, 1920).

the hierarchical categorization of castes in Tamil Nadu on the basis of the government classification of castes. One of the main criteria for the government classification is economic status of the castes. As we have observed in previous chapters, economic status is positively correlated with caste status.

The following is the hierarchical caste categorization used in this research:

1. Brahmin castes
2. Non-Brahmin Forward castes
3. Non-Brahmin Backward castes
4. Scheduled castes (or Harijan castes)
5. Scheduled Tribes
6. Others

Although Christianity, Islam and a few other religions philosophically do not recognize caste distinctions, for all practical purposes caste distinctions do exist among the converts in Tamil Nadu. The caste origins of the converts are their castes. Hence Christians and Moslems of Tamil Nadu are grouped with Hindus according to their castes. The last category of "Others" include all others such as Anglo-Indians, foreigners, and others whose caste or religion is not ascertained. For further details of categorization of castes, comparison of our caste categorization with others, and the list of castes that are included in the caste categorization see Appendix A.

2. Residence (Population), Rural-Urban(RP):

Next to Japan, the most rapidly urbanizing country in Asia is India. Ancient Indian cities, which were the seats of political power and the centers of cultural activities, attained a new dimension of economic power by the introduction of Western rule. These ancient cities, and the other trading centers, of which many were port cities, grew in size and, after independence, expanded rapidly even to the point of "Over-Urbanization".³ The reason for the rapid urbanization is the migration of rural population to urban centers in search of industrial and other urban jobs. Urban centers in India, such as the city of Madras, and other cities and towns in Tamil Nadu, function as important centers of cultural change, especially in the fields that are vitally important for economic development: advanced education, new forms of business organization and administrative practices, new technologies and others.⁴ Hence, as Rosen contends, the main apparent division in India:

... Is that between the rural and urban sectors. Although there are many interactions and influences from one sector to the other, the social system of the rural sector may be usefully considered to be the caste system. Even though it is in the process of change, caste underlies the economic, social and

³For an analysis of "Over-Urbanization" see N.V. Sovani, "The Analysis of 'Over-Urbanization' ", The City of Newly Developing Countries: Readings on Urbanism and Urbanization, ed. Gerald Breese (Englewood Cliff, N. J. Prentice Hall, Inc., 1969), pp. 322-30.

⁴Ibid., p. 329.

political relationships among the peasants. In the urban sector many of the characteristics that identify the caste system in the village have broken down and have been replaced by a system based on factors much less related to family and inherited position.⁵

Not only the social system but also the occupational system change as a result of urbanization, and one may suspect that urbanization offers greater occupational opportunity, diversity and mobility and that occupational aspiration may be greater among urbanites.

There are no official standards to define rural and urban localities. Every country has its own definition of rural and urban localities. For the purpose of this study, we have chosen to use the United Nations Population Division definition of urban localities: urban population is defined as those localities that have 20,000 or more inhabitants, and those that have lesser than 20,000 are rural localities. Localities that have a population between 20,000 and 99,999 are referred as "towns" and those that have 100,000 and over as "cities".⁶ The following are the breakdown of rural-urban dichotomy:

1. Rural: Less than 20,000 inhabitants
2. Urban: (2a) Town: Between 20,000 and 99,999 inhabitants
(2b) Cities: 100,000 and over inha

Rural-Urban residence is measured as an interval variable.

⁵George Rosen, Democracy and Economic Change in India (Berkeley: University of California Press, 1967), p. 15.

⁶United Nations Bureau of Social Affairs, Population Division, "World Urbanization Trends, 1920-1960 (An Interim Report on Work in Progress)," The City in Newly Developing Countries: Readings on Urbanism and Urbanization, ed. Gerald Breese (Englewood Cliffs, N.J: Prentice-Hall, Inc., 1969), p. 23.

3. "Protective Discrimination" (PD):

The policy of "protective discrimination" or "discrimination in reverse" in public service employment and educational institutions is one of the results of the backward classes movements all over India, and most particularly of the Non-Brahmin movement in Tamil Nadu. The Non-Brahmin castes, which were traditionally under the domination of the Brahmin castes, remained backward in modern occupations and Western education in spite of the British rule. The almost absolute educational and modern occupational domination of the Brahmin castes in Tamil Nadu, of which reference was made in Chapter I, brought the Non-Brahmin caste leaders together and they formed the Justice Party, and issued The Non-Brahmin Manifesto in 1916, in which they graphically pointed out the clear domination of the Brahmin castes in government services and education, and urged the Non-Brahmin castes to unite and aggressively advance themselves in western education, which was the key to advancement.⁷ The Justice Party fought for communal representation and preference to backward castes in government service, and in admissions to professional colleges. They were able to achieve these goals after the Justice Party captured power in 1920. The Justice Party government issued the Communal G.O's which, ineffect, established communal distribution of new appointments to several government services.⁸ From then on the principle of "protective discrimination"

⁷For the text of the Non-Brahmin Manifesto see Appendix B.

⁸For the Communal G.O's see Appendices C and D.

was in operation in the South, particularly in Tamil Nadu. After independence, the Constitution of India created the special classification of scheduled castes and scheduled tribes for special privileges, which have been referred to earlier, and some of those privileges have also been extended to the other "backward" castes.

There were a number of court cases challenging the "quota system" in the distribution of seats in professional colleges. As a result of the decision in 1951 of the Supreme Court of India, in the case of the State of Madras V. Sm. Champakam Dorairajan, the distribution of seats on communal lines was declared unconstitutional. But an amendment to the Constitution gave the power to the individual states to reserve seats for the backward sections of their populations.⁹ Hence, the Tamil Nadu government, as well as other state governments, still follow the policy of "protective discrimination" in government employment, in the reservation of seats for the scheduled castes and tribes in the state legislatures, in the reservation of seats in professional colleges, and in the award of educational scholarships. Some of the educational and other benefits are also extended to the other backward castes.

We want to see whether the policy of "protective discrimination" has actually aided in the occupational mobility of the backward and scheduled castes and tribes and how much such a policy accounts for the occupational aspiration of the younger generation. The presence or the

⁹M.N. Srinivas, Social Change in Modern India (Fifth Printing, Berkeley: University of California Press, 1971), p. 109.

absence of "protective discrimination" is measured by the fact whether the subject is receiving, or his grandfather and father have received backward caste or scheduled caste or scheduled tribe educational scholarships. Protective discrimination is an ordinal variable.

4. Education (E):

In India, the importance of education for upward mobility is clearly understood. As we have observed, in Chapter I, education is considered as the only instrument for social change. Since education is regulated by the state, according to the Constitution of India, the educational system in certain respects differs from state to state. In Tamil Nadu, there is a five year period of elementary school, a three year period of middle school and another three year period of high school education. At the college level, the first year is called the Pre-University class. The next three years are degree classes. Beyond the bachelor degree there is a two year post-graduate class. Professional education in medicine, engineering etc. is to be continued after the Pre-University class. For this research education variable is measured on the basis of the number of years of schooling at elementary, secondary and college levels.

5. Occupation (O):

The concept of pollution-purity, which is one of the important bases of caste hierarchy, is occupational in origin. Although every occupation did not have a particular caste, every caste did have an

occupation in traditional India.¹⁰ Although modern occupations are supposed to be caste-free, there is still a very high concentration of upper castes in the upper levels of the occupational structure. The modern occupational structure grew as a result of science and technology that were introduced in India by the British rule. Inkeles and Rossi, who compare the prestige accorded by popular opinion for comparable occupations in six industrialized countries, namely the United States, Great Britain, New Zealand, Japan, the Union of the Soviet Socialist Republics and Germany, concluded that:

... Our examination of occupational ratings in six modern industrialized countries reveals an extremely high level of agreement, going far beyond chance expectancy, as to the relative prestige of a wide range of specific occupations, despite the variety of sociocultural settings in which they are found. This strongly suggests that there is a relatively invariable hierarchy of prestige associated with the industrial system, even when it is placed in the context of larger social systems which are otherwise differentiated in important respects.¹¹

According to Inkeles and Rossi, any variation in prestige between one country and another is mainly in agricultural and service occupations.

Modern occupations are classified into groups, and the classification system differs from country to country. Most of the countries including India have used, as a guide in the preparation of their own occupational classification system, the International Classification of

¹⁰ Oliver C. Cox, Caste, Class and Race: A Study in Social Dynamics (Third Printing; Modern Reader Paperback Edition; New York: Monthly Review Press, 1970), p. 67.

¹¹ Alex Inkeles and Peter H. Rossi, "National Comparisons of Occupational Prestige," The American Journal of Sociology, LXI, No. 4 (January, 1956), 339.

Occupations (ISCO) issued by the International Labor Office (ILO), a specialized agency of the United Nations. Table 3.1 shows the comparison between the major divisions of the International Labor Organization, the United States and the Indian Occupational Classification Systems. They are similar on several dimensions.

The Indian States, including the State of Tamil Nadu, which is the main focus of this research, very closely follow the Indian Occupational classification system though there are minor variations. Table 3.2 shows the two different sets of occupational divisions used in different dates by the State Employment Market Information Unit, Directorate of Employment and Training of the Government of Tamil Nadu. The major occupational divisions are not much different from the ones used by the Government of India.

The Occupational divisions used in the different occupational classification system are not based on any status hierarchy of occupations, but they are based on the occupational tasks, the things involved in performing these tasks and the performer's educational level. There is a possibility to stratify and rank order the occupations on the basis of the skill level, but the question of what is more skilled or less skilled is highly controversial.

The prestige grading of occupations and occupational categories, which is known as the extrinsic approach to the study of social mobility,¹² is the approach taken in this study to prestige rank

¹²Gosta Carlsson, Social Mobility and Class Structure (Lund, Sweden: CWK Gleerup, 1969), pp. 146-57.

TABLE 3.1

MAJOR DIVISIONS OF OCCUPATIONS IN THE INTERNATIONAL STANDARD
CLASSIFICATION OF OCCUPATIONS, THE UNITED STATES DEPARTMENT
OF LABOR DICTIONARY OF OCCUPATIONAL TITLES AND THE INDIAN
NATIONAL CLASSIFICATION OF OCCUPATIONS

International standard classification of occupations	Occupational Classification of the United States Department of Labor Dictionary of Occupational Titles	Indian National Classification of Occupations
0./1. Professional, Technical, and Related workers	0./1. Professional, Technical, and Managerial Occupations	0. Professional, Technical and Related Workers
2. Administrative and Managerial Workers	2. Clerical and Sales Occupations	1. Administrative, Executive, and Managerial Workers
3. Clerical and Related workers	3. Service Occupations	2. Clerical and Related Workers
4. Sales workers	4. Farming, Fishery, Forestry, and Related Occupations	3. Sales Workers
5. Service workers	5. Processing Occupations	4. Farmers, Fishermen, Hunters, Loggers and Related Workers
6. Agricultural, Animal Husbandry and Forestry workers, Fishermen and Hunters	6. Machine Trades Occupations	5. Miners, Quarrymen and Related Workers
7/8/9. Production and Related Workers, Transport Equipment Operators and Laborers.	7. Bench Work Occupations	6. Workers in Transport and communication occupations
X. Workers not classified by Occupation	8. Structural Work Occupations	7/8. Craftsmen, Production Process Workers and Laborers not elsewhere classified
- Armed Forces (no code)	9. Miscellaneous Occupations	9. Service, Sport and Recreation Workers
		X. Workers not classified by occupation

Sources: International Labor Office, International Standard Classification of Occupations (Geneva, Switzerland: "La Tribune De

TABLE 3.1--Continued

Geneve," 1958); U.S. Department of Labor, Dictionary of Occupational Titles, Vol. I: Definitions of Titles (3rd Edition, Washington: U. S. Government Printing Office, 1965); and Government of India, National Classification of Occupational Titles with Draft Definitions (Directorate-General of Resettlement and Employment, no date).

TABLE 3.2

THE GOVERNMENT OF TAMIL NADU OCCUPATIONAL DIVISIONS
IN 1964 AND 1972

No.	1964 Occupational Divisions	No.	1972 Occupational Divisions
1.	Professional, technical and related workers	1.	Professional and technical workers
2.	Administrative, managerial and executive workers	2.	Administrative, executive and managerial workers
3.	Clerical, sales and related workers	3.	Clerical and related workers
4.	Farmers, miners, quarrymen, fishermen etc.	4.	Craftsmen
5.	Communication and transport workers	5.	Skilled workers (others)
6.	Craftsmen and production process	6.	Unskilled Office workers
7.	Services, sports and recreation workers	7.	Other unskilled workers
8.	Unskilled office workers		
9.	Other unskilled workers		

Sources: Government of Madras, Occupational Pattern of Employees in the Public Sector in Madras State, Sep. 1964, Directorate of Employment and Training, State Employment Market Information Unit (Madras: Director of Stationary and Printing, 1968), p. 6. (The former name of the State of Tamil Nadu was the State of Madras) and Government of Madras, Quarterly Review of Employment in Tamil Nadu, Dec. 1972, issued by the State Employment Market Information Unit, Directorate of Employment and Training, p. 17.

occupations and occupational categories in order to study the inter-generational occupational mobility and to measure occupational aspiration. The extrinsic approach has been very commonly used and a number of studies have been made in various different countries.

Occupations are prestige-ranked in many different countries such as the United States, Germany, Great Britain, New Zealand, Japan and the Union of Soviet Socialist Republics. As was mentioned earlier, Inkeles and Rossi have summarized and compared the occupational prestige ranks in the above mentioned countries.¹³ Similar national studies have been done by Svalastoga in Denmark,¹⁴ Carlsson in Sweden¹⁵ and Pineo and Porter in Canada.¹⁶ The first of these studies was the 1947 ranking of 90 occupations by the National Opinion Research Center (NORC) based on a national sample of adults and youths.¹⁷ In 1963 the NORC study was replicated on a national sample to see whether the occupational prestige was stable or changing. The major finding was that there was a remarkably high degree of similarity in prestige scores.¹⁸

¹³Inkeles and Rossi, The American Journal of Sociology, LXI, No. 4 (January, 1956), 329-39.

¹⁴Kaare Svalastoga, Prestige, Class and Society (Copenhagen: Gyldendal, 1959).

¹⁵Carlsson, Social Mobility....

¹⁶Peter C. Pineo and John Porter, "Occupational Prestige in Canada," The Logic of Social Hierarchies, ed. Edward O. Laumann, Paul M. Siegel and Robert W. Hodge (Chicago: Markham Publishing Co., 1970), pp. 174-88.

¹⁷For the report of NORC study see "Jobs and Occupations: A Popular Evaluation," Opinion News, Vol. IX, No. 4 (September, 1947), 3-13.

¹⁸For the report of the replication of NORC study see Robert W. Hodge, Paul M. Siegel, and Peter M. Rossi, "Occupational Prestige in the United States, 1925-63," The American Journal of Sociology, LXX, No.3 (November, 1964), 286-302.

Assuming that Inkeles and Rossi findings may be true even in the case of India, which is one of the rapidly industrializing countries, an attempt was made to prestige rank the NORC 90 occupations with the same or equivalent Indian occupational titles to see whether they are prestige-ranked similarly. The Indian occupational prestige ranking was not based on a national sample. But two samples were collected from the Indian population to prestige rank the 90 occupations. The first sample consisted of 40 randomly selected Indian men and women who live in the Chicago metropolitan area. Fearing bias, another random sample of 90 Indians was collected in India. The Indian sample consisted of the Pre-University class students of Loyola College, Sir Thiagaraya College, two of the three colleges from which the sample of P.U. Class students used for this study was drawn. The sample population was asked to grade the 90 occupations in the NORC five point scale of general standing, and the NORC scoring procedure was followed. The occupations were ranked. The rank order correlation between NORC and Indian Occupational prestige ranks was .921.¹⁹ It was surprising that many of the scientific and industrial and other modern professional and skilled occupations were almost similarly prestige-ranked. Variations in prestige ranks were found only in agricultural and other service occupations. In Indian society the menial service occupations are carried on by the lowest castes, and hence they are lowly ranked. One conspicuous example is the occupation of undertaker. In the U.S.A.

¹⁹See Appendix E for the details of the validation procedure and the list of Indian Occupations and NORC Occupations with prestige scores and ranks.

undertaking is an industry, and all kinds of people are engaged to this occupation for profit. But in India undertakers are usually the untouchable castes and undertaking is polluting. Hence, it was ranked very low (Rank 79.5, score 41) whereas in the U.S.A. it was ranked above the middle levels (Rank 46, score 72). Given the chance for errors, the Indian Occupational prestige ranking was almost similar to NORC prestige-ranking.

Although the prestige-ranking of occupations is useful, and it is used in this research to develop an occupational aspiration scale, the stratification of occupational categories is important for this study. Hence the 90 Indian occupations were categorized and the average score for each of the category was calculated. Using Davis' occupational categories, which are used to categorize the 90 NORC occupations on the basis of the average prestige score,²⁰ the 90 Indian occupations are categorized on the basis of the average score. Table 3.3 shows the occupational categories, the number of occupations ranked in each category, the Indian occupational division of most of the occupations included in each category, and the average score. Reducing the number of occupational categories, we have ranked the occupational categories as shown in Table 3.4. The categories of protective service workers, operatives, craftsman and foremen are grouped into one category as skilled workers because these occupations require certain amount of skill. The occupations of Captain and Lance Naik of the Indian army

²⁰ A.F. Davis, "Prestige of Occupations," British Journal of Sociology, III (1952), 134-47. For the list of Davis' Categories see Appendix E. (See Table E.2).

TABLE 3.3.

THE DISTRIBUTION OF MAJOR OCCUPATIONAL CATEGORIES, AND THE NUMBER OF INDIAN OCCUPATIONS IN EACH CATEGORY AND THE AVERAGE SCORE FOR EACH CATEGORY

No.	Major Occupational Categories	Number of Indian Occupations graded in each category	Indian Occupational division of occupations graded a	Average score for each category
1	Government officials	8	1	87.9
2	Professions, semi-professions	30	0	75.5
3	Proprietors, managers and officials (except farm)	11	1	70.4
4	Farmers, farm managers	4	4	61.8
5	Operatives	6	6	56.7
6	Clerical, sales	5	2 and 3	55.2
7	Craftsmen, foremen	9	7 and 8	54.6
8	Protective service workers	2	9	46
9	Farm laborer	1	4	43
10	Service workers	9	9	37.9
11	Laborer (except farm)	5	8 and 9	34.2

a - The precise occupational division of each occupation graded has been determined according to the coding structure detailed in National Classification of Occupational Titles with Draft Definitions (Directorate-General of Resettlement and Employment, Government of India, no date.)

TABLE 3.4

THE DISTRIBUTION OF MAJOR OCCUPATIONAL CATEGORIES USED IN THIS
MOBILITY STUDY AND THE NUMBER OF INDIAN OCCUPATIONS
GRADED IN EACH CATEGORY AND THE AVERAGE
SCORE FOR EACH CATEGORY

No.	Major Occupational Categories	Number of Indian Occupations graded in each category	Indian Occupational division of occupations graded	Average score for each category
1	Government officials	8	1	87.9
2	Professionals and semi-professionals	30	0	75.5
3	Proprietors, managers and officials (except farm) (a)	11	1	70.4
4	Farmers and farm managers	4	4	61.8
5	Clerical and sales workers	5	2 and 3	55.2
6	Skilled workers (including craftsmen, firemen, operatives and protective service workers)	17	6,7,8,9	54.7
7	Farm laborer (b)	1	4	43
8	Other unskilled workers (c)	14	8 and 9	36

- (a) Except government officials, directors, managers, proprietors and other officials including the army officials are included in this category.
- (b) The occupation of farm laborer is kept a separate category for the fact that in rural India most of the villagers of all castes, especially of the lower and untouchable castes engage in this occupation. We would like to see whether the government policy of protective discrimination has really helped the people of this particular category.
- (c) This category includes the service workers and other unskilled laborers.

are included in the category of proprietors, managers and officials as they are army officials. The occupation of farm laborer is kept as a separate category because the majority of the Indian villagers are farm laborers, and the great bulk of the lower castes are engaged in that occupation. The last two categories of service workers and other laborers are grouped into the category of other unskilled laborers. These occupational categories can be compared with Driver's occupational categories:²¹

<u>Occupational categories of this study</u>	<u>Driver's Occupational categories</u>
1. Government officials	1. Cultivators
2. Professionals and semi-professionals	2. Professionals
3. Proprietors, managers and officials	3. Managerials
4. Farmers, Farm managers	4. Commercial workers (which include shopkeepers, petty traders and clerks)
5. Clerical and sales workers	5. Semi-skilled workers (artisans and other specialists)
6. Skilled workers	6. Unskilled workers
7. Farm laborers	
8. Other unskilled laborers	

²¹ Edwin D. Driver, "Caste and Occupational Structure in Central India," Social Forces, XLI, No. 2 (October, 1962), p. 27.

The occupational categories are ordinally arranged on the basis of the average scores that each has received. High score signifies high prestige and low score indicates low prestige. A word of caution is necessary here. This ordinal categorization of occupations in India is not based on any national study like the NORC study. To date no such study exists in India, except the one upon which Driver's occupational categories are based.²² Given the possibility of errors in the prestige rating procedure that is followed in rating the 90 occupations, the results of prestige ranks of occupations, and the ordinal categories of occupations are nearly perfect to the NORC occupational prestige ranks and the occupational categories and to the other categories compared in the various paragraphs.

6. Income (I):

The parental annual income is measured on an interval scale as follows:

1. Less than Rupees 749
2. Between Rupees 750 and 2,499
3. Between Rupees 2,500 and 5,999
4. Rupees 6,000 and above

²²Ibid. See the footnote for the reference to the occupational prestige rating of 71 occupations by urban and rural residents of Nagpur district in Central India in S. Jain, "A Scale of Occupational Prestige", (unpublished A.A. Essay, Nagpur University, India, 1958). This study was not available.

Parental income in addition to caste, is one of the important factors in the award of educational scholarships and other benefits to students who belong to backward castes and scheduled castes and tribes.

The Dependent Variables:

The dependent variables are:

1. Father's Occupation (F_0)
2. Son's Occupational Aspiration (S_{OA})

1. Father's Occupation (F_0):

The amount and the direction of intergenerational occupational mobility will be measured on the basis of the hierarchical occupational categories that are referred to earlier. The association between the grandfather's occupation and the father's occupation and the direction of the father's occupational mobility will be studied by comparing their final occupational status categories. The grandfather's and the father's longest held jobs or the jobs they held at the time of their death are taken as their final occupational statuses. The association and the difference between their occupational statuses are calculated to determine the father's occupational inheritance or his upward or down ward occupational mobility.

2. Son's Occupational Aspiration (S_{OA}):

A person's aspiration is his strong desire to achieve or accomplish something noteworthy. Hence aspiration is goal oriented.

The person's aspiration is generally expressed in terms of "level of aspiration". A person's level of aspiration is the central tendency of the point, or limited range of points, of that person's orientation, which has the highest valence for him to achieve his goal or objectives.²³ As Gardner observes, the concept of the level of aspiration refers "... to a quantitative indication which an individual makes concerning his future performance in an activity."²⁴

The writer's principal concern in this study is with the concept of the "level of occupational aspiration" which is a special instance of the more general concept of "level of aspiration". As Haller and Miller point out: "It [the level of occupational aspiration] differs from the general concept only in that it takes as its object the occupational hierarchy, and that the continuum of difficulty consists of the various levels along the hierarchy."²⁵ The level of occupational aspiration is "... composed of idealistic-realistic goal-region aspects and of short-and long-term temporal aspects."²⁶

²³Archibald O. Haller and Irwin W. Miller. The Occupational Aspiration Scale: Theory, Structure and Correlates (Cambridge, Mass: Schenkman Publishing Company, Inc., 1971), p. 7.

²⁴John W. Gardner, "The Use of the Term 'Level of Aspiration,'" The Psychological Review, XLVII, No. 1 (January, 1940), 66.

²⁵Haller and Miller, The Occupational Aspiration Scale, p. 9. For more details and research studies on the level of aspiration and the level of occupational aspiration see the bibliography.

²⁶Archibald O. Haller, Luther B. Otto, Robert F. Meier and George W. Ohlendorf, "Level of Occupational Aspiration: An Empirical Analysis," American Sociological Review, XXXIX (February, 1974), 119.

The level of occupational aspiration of the son is measured on an Occupational Aspiration Scale (O.A.S.), which is specifically developed for this study with the same design as that of the Occupational Aspiration Scale developed by Archibald O. Haller and Irwin W. Miller. (See Appendix F for the Occupational Aspiration Scale and the details of its design and development.) On the occupational aspiration scale, one can obtain a score ranging from 0 to 72, which can then be normally distributed.

SAMPLE AND SAMPLING PROCEDURE

Sample:

The sample for this study of intergenerational occupational mobility and occupational aspiration, in Tamil Nadu, consists of the male pre-university class students of 1975-76 and 1976-77 of the city colleges of Madras of the University of Madras. It is a stratified random sample. A major purpose of this research is to discover how much of the variance in occupational mobility and occupational aspiration is due to education, and how much is due to the other factors. As we have observed earlier, education is heralded as the most important factor for general social change and for upward mobility in India and in other developing countries. The reasons for drawing a sample from the pre-university class students of the city colleges of Madras are as follows:

1. Modern occupations require modern education.

2. High school education, generally, does not help the possessor to move very much higher. At the most he can become a clerk or some other lower level white collar or blue collar worker.
3. For higher levels of occupations, one should have a college education. The first stage of college education is the pre-university class.
4. Most parents want their children to go to college. This is now possible for many due to the fact that pre-university education is free in the state of Tamil Nadu, and it is definitely possible for all the children of the backward and scheduled castes.
5. The passing of the pre-university class is a requirement for all other higher level academic and other professional degree programs in the state of Tamil Nadu.

The sample of pre-university class students may also tell us whether education has contributed significantly to the upward occupational mobility and occupational aspirations of the backward and scheduled caste and scheduled tribe students who are given special privileges in education and public service employment.

The city colleges of Madras of the University of Madras have been chosen for sampling and data collection for this study for the following reasons:

1. Madras is the seat of Tamil Nadu government, and also it is the biggest metropolitan area in the whole of South

India with evergrowing commercial and other modern industrial bases.

2. The city of Madras attracts three kinds of people from the rural areas of Tamil Nadu; namely the rich, the educated and the illiterate poor. The rich and the educated migrate to the city seeking elitist positions in commerce, industry and government; and the illiterate poor move to the city in search of employment which brings them relatively better wages than traditional rural agricultural labor.
3. The city of Madras is the microcosm of the emerging modern Tamil Nadu, where the mixed social system which we referred to earlier exists.
4. The city of Madras has been the center of higher education from the colonial days. The University of Madras was founded in 1857.

Hopefully, the sample from the city of Madras may help us understand the social changes brought by education both in Tamil Nadu and in India, generally. The collection of data from a male sample is not due to any "male chauvinistic" designs, but due to the reality of the social situation in Tamil Nadu. Although increasing number of females enter colleges for higher education, and increasing number of them enter employment, the fact remains that the main bread winner in the family is still the male. For the majority of females higher education is still considered only an additional qualification to

find a better male partner for marriage.

Sampling Procedure:

Ten out of the sixteen city colleges, which have the pre-university classes (Table 3.5) were selected for this study.

The ten colleges selected are male or coeducational colleges.

They are:

1. Agarchand Manmull Jain College, Meenambakkam.
2. Loyola College, Nungambakkam.
3. Vivekananda College, Mylapore.
4. New College, Royapettah.
5. Sir Thiagaraya College, Washermenpet.
6. D.G. Vaishnav College, Arumbakkam.
7. Guru Nanak College, Vellacheri.
8. Government Arts College, Nandanam.
9. Pachaiyappa's College, Chetpet.
10. Christian College, Tambaram.

The ten colleges were stratified on the basis of the caste composition of the students of these colleges as of August, 1974 (see Table 3.5 for exact statistics). Those colleges with more forward caste²⁷ students form the "A" type of Colleges. They are:

1. Agarchand Manmull Jain College, Meenambakkam.
2. Loyola College, Nungambakkam.

²⁷The Brahmin castes and the Non-Brahmin upper castes form the forward castes group.

TABLE 3.5

THE DISTRIBUTION OF THE MADRAS CITY COLLEGE STUDENT POPULATION, INCLUDING THE PRE-UNIVERSITY CLASS, BY INDIVIDUAL COLLEGE AND BY CASTE CATEGORIES AS OF AUGUST 1, 1974

Name of College and Location	Management	Type of College	Total Number of Students	Total Number of PUC Class Students		Total Number of Students by Caste Categories					
						Forward Castes ^b		Backward Castes		Scheduled Castes	
				No.	%	No.	%	No.	%	No.	%
1 Agarchand Manmull Jain College, Meenambakkam ^a	Private	Men Only	2,077	722	35	1842	89	207	10	28	1
2 Loyola College, Nungambakkam ^a	Private	Men Only	2,653	740	28	2033	77	502	19	118	4
3 Vivekananda College, Mylapore ^a	Private	Men Only	2,200	655	30	1304	59	704	32	192	8
4 New College, Royapettah ^a	Private	Men Only	3,119	767	25	1862	60	1178	38	79	2
5 Sir Thiagaraya College, Washermenpet ^a	Private	Men Only	2,079	882	42	1045	50	869	42	165	8
6 D.C. Vaishnav College, Arumbakkam ^a	Private	Men Only	1,648	675	41	1346	82	278	17	24	1
7 Guru Nanak College, Vellacheri ^a	Private	Men Only	1,387	584	42	1010	73	343	25	34	2

TABLE 3.5--Continued

Name of College and Location	Management	Type of College	Total Number of Students	Total Number of PUC Class Students		Total Number of Students by Caste Categories					
						Forward Castes ^b		Backward Castes		Scheduled Castes	
				No.	%	No.	%	No.	%	No.	%
8 Government Arts College, Nandanam ^a	Govern.	Men Only	1,737	687	40	533	31	892	51	312	18
9 Ethiraj College, Egmore	Private	Women Only	2,064	768	37	1345	65	606	29	113	6
10 Stella Maris College, Teynampet	Private	Women Only	1,900	669	35	1695	89	170	9	35	2
11 Women's Christian College, Nungambakkam	Private	Women Only	732	149	20	606	83	114	15	12	2
12 S.I.E.T. College, Teynampet	Private	Women Only	3,664	948	26	3532	96.4	126	3.4	6	0.2
13 Queen Mary's College Mylapore	Govern.	Women Only	2,840	770	27	1647	58	920	32	273	10
14 Arts College, North Madras	Govern.	Women Only	1,934	776	40	1310	68	481	25	143	7
15 Pachaiyappa's College, Chetpet ^a	Private	Co-ed. (M + W) (2833+83)	2,916	976	33	1326	46	1432	49	158	5
16 Christian College, Tambaram ^a	Private	Co-ed (M + W) (1635+373)	2,008	524	26	1173	58	609	30	226	11

TABLE 3.5--Continued

Name of College and Location	Management	Type of College	Total Number of Students	Total Number of PUC Class Students		Total Number of Students by Caste Categories					
				Total Number of PUC Class Students		Forward Castes ^b		Backward Castes		Scheduled Castes	
				No.	%	No.	%	No.	%	No.	%
Total Number of students for all the Colleges			34,958	11,292	32	23,609	68	9,431	27	1,918	5
Total Number of students for the ten P.U.C. class colleges ^a included in the study			21,824	7,212	33	13,474	62	7,014	32	1,336	6

^aOnly these colleges are included in the study.

^bThe category of forward castes includes the Brahmin castes and the Non-Brahmin upper castes.

Source: These data have been collected from each of the sixteen colleges by Mr. M. Pakianathan of the Stella Maris College, University of Madras, Madras.

3. D.G. Vaishnav College, Arumbakkam.

4. Guru Nanak College, Vellacheri.

Those college that have relatively large number of backward caste students (see Table 3.5) are grouped as "B" type colleges. They are:

1. New College, Royapettah.
2. Sir Thiagaraya College, Washermenpet.
3. Pachaiyappa's College, Chetpet.

Those colleges that have large number of scheduled caste students (see Table 3.5) are grouped as "C" type colleges: They are:

1. Vivekananda College, Mylapore.
2. Government Arts College, Nandanam.
3. Christian College, Tambaram.

From each of the three types of colleges one college is randomly selected for data collection. The three colleges thus selected are:

1. Loyola College, Nungambakkam.
2. Sir Thiagaraya College, Washermenpet.
3. Government Arts College, Nandanam.

The Sample Size and Samples:

The sample used for this research is not a proportional stratified sample. The sample size is not proportional either to the total number of pre-university students in each of the three types of colleges or to the caste composition of their student population. It would have been extremely desirable to draw a sample proportional to the caste composition of the student population of

the colleges. But it cannot be done because grouping the students according to their caste categories is illegal. Hence, instead of drawing a sample size of 6:3:1 (see Table 3.5 for percentage of different caste categories of student population) respectively from each of the stratum of colleges, an equal number from each stratum was drawn. This gave a disproportional stratified sample. Although the sample was disproportional, it was hoped that all the caste categories would be represented adequately so that enough information would be gathered for the study. There was, however, the danger of the scheduled caste category being under-represented because of the fact that only 6 per cent of the student population in 1974 was from the scheduled castes. But this danger is averted because the actual sample used for the data analysis consists of 14.4 per cent cases from the scheduled caste category (see Table 3.8).

Two samples were collected: one from the pre-university students of 1975-76 class and the other from the pre-university students of 1976-77 class. A sample of 100 students from 1975-76 class and another of 150 from 1976-77 class are drawn from each of the three colleges or strata.

Problems in Data Collection:

After deciding on the sample size, printed questionnaires were sent by airmail to the city of Madras. The researcher was unable to go to India, because of financial reasons. It was therefore decided to collect data through competent persons who were familiar with

sampling theory and procedures. Through the help of the Rev. L.D. Murphy, S.J., of Loyola College of Madras, and Mr. M. Pakianathan of Stella Maris College of Madras, the data were collected from the three colleges. The help of some selected professors at these colleges was also secured, and the instructions for the administration of questionnaires and the copies of questionnaires were sent to them. They then randomly selected the sample size in each of these three colleges and the questionnaires were given to the sample students.

Despite careful planning, the data collection from the pre-university students of the 1975-76 class was somewhat hampered. Due to the state of emergency declared in India and the imposition of the President's rule in the state of Tamil Nadu, the questionnaires mailed to Madras took three times the normal amount of time to reach Madras. The sample selection and the data collection were missed by a day, as the colleges closed for study holidays and for the final university examinations which are normally held by the end of March every year. The college academic year in Tamil Nadu is from July to April of every year. Despite the delay, a sample of 100 P.U.C. students was selected and the questionnaires were administered. The response rate was 48%. (See Table 3.6 for details). The representation of different caste categories in the 1975-76 sample are nearly proportional to the caste composition of the student population of the sample colleges. Of the students responding 10.5% belong to the Brahmin castes 77.6% to the Non-Brahmin forward and backward castes

TABLE 3.6

DISTRIBUTION OF SAMPLE SIZE AND RESPONSE RATE BY COLLEGE
(1975-76)

No	Name of the College	Total Number of the Pre- University students (1975-76)	Sample Size		Response rate
			No	Percent of the total PUC students	
1	Loyola College Nungambakkam	734	100	13.6	(45) 45%
2	Sir Thiagaraya College, Washer- menpet	593	100	16.8	(59) 59%
3	Government Arts College, Nandanam	604	100	16.5	(39) 39%

and 11.9% belong to the scheduled castes. Table 3.5 compares these statistics with the percentages of the caste categories of the student population of the ten colleges included in the sample. Anticipating the possible reluctance to reveal their castes, the students were asked not to write their names, eventhough this would have been very useful for a follow-up study, and were assured that the information that they gave would be held absolutely confidential.

Some of the above mentioned problems were eliminated in the data collection from the second sample of the 1976-77 pre-university class. Since the data were collected in July, 1976, it was possible

to randomly select a sample of 150 pre-university students from each of the three colleges and administer the questionnaire in the class and collect them back in time. Hence the response rates were almost perfect. (See Table 3.7 for details).

TABLE 3.7
DISTRIBUTION OF SAMPLE SIZE AND RESPONSE RATE BY COLLEGE
(1976-77)

No	Name of the College	Total Number of the Pre-University students (1976-77)	Sample Size		Response rate
			No	Percent of the total PUC students	
1	Loyola College, Nungambakkam	730	150	20.5	(150) 100%
2	Sir Thiagaraya College, Washermenpet	875	150	17.1	(135) 90%
3	Government Arts College, Nandanam	840	150	17.8	(142) 95%

The proportion of representation of different caste categories in the 1976-77 sample is much greater than the proportion of different caste categories in the student population of the ten colleges. Of the students responding 21.6% were Brahmin castes, 60.1% were Non-Brahmin castes and 14.8% scheduled caste. (Compare these statistics with data presented in Table 3.5). The higher number of scheduled caste students in the sample might help us to study the relationship

between the policy of "protective discrimination" and the occupational achievement and aspiration of the backward and scheduled caste fathers and sons.

Out of 750 questionnaires distributed only 570 were returned (76%). Twenty questionnaires out of 570 returned were discarded for lack of full information. And hence only 550 cases (73%) formed the final sample used for data analysis. They are distributed by caste categories as follows:

TABLE 3.8
DISTRIBUTION OF CASES INCLUDED IN THE ANALYSIS BY
CASTE CATEGORIES

No	Caste Categories	Total number of Cases	Percentage
1	Brahmin Castes	102	18.5
2	Non-Brahmin Forward Castes	199	36.2
3	Non-Brahmin Backward Castes	158	28.7
4	Scheduled Castes	79	14.4
6	Others	12	2.2
	Total	550	100.0

There are no cases from the scheduled tribes in the sample. Hence the caste category of scheduled tribes is not entered in the analysis.

HYPOTHESES

These are the hypotheses to be tested:

General Hypothesis:

That education is the principal instrument for upward occupational mobility and higher occupational aspiration.

Specific Hypotheses:

1. That the higher the caste, the higher one's income and education.
2. That the higher the caste, income, education and urban residence the higher one's occupational mobility and occupational aspiration.
3. That the lower the caste the lower one's income and education.
4. That the lower the caste, income, education and rural residence the lower one's occupational mobility and occupational aspiration.
5. That the policy of "protective discrimination" may have a significant impact on the upward occupational mobility and higher occupational aspiration of the lower castes.
6. That caste is the most important of all the variables that have a direct and indirect effect on one's upward occupational mobility and higher occupational aspiration.

MATHEMATICAL MODELS AND METHODS OF ANALYSIS

Although the day of a mathematical theory of social mobility has not yet come, empirical research, as well as theoretical thinking on social mobility, have reached a stage in which the use of mathematics is indispensable to understand the mobility process. Mathematical mobility models not only go beyond the simple verbal description of the factors to "... explore the complex consequences that result from the action of this system of factors...", but also "... contribute to a better interaction between theory and empirical research."²⁸ Among the various intergenerational mobility models of explicit intervening variables the model that uses the general statistical method of path analysis is one; and it will be the general statistical method for this study.

Mathematical Model:

A mathematical model [according to Simon] is a theoretical frame work which can be expressed and elaborated through mathematical techniques. At root it is a set of one or more assumptions. The utility of a model is dependent upon the availability of (1) methods of generating hypotheses from assumptions, (2) methods for testing these hypotheses, and (3) appropriate data. A useful model in sociology must be capable of expression in terms of sociological concepts and mechanisms.²⁹

²⁸ Raymond Boudon, Mathematical Structures of Social Mobility (San Francisco: Jossey-Bass, Inc., Publishers, 1973), pp. 1-3 and 139-40.

²⁹ Herbert A. Simon, Models of Man (New York: Wiley & Sons, 1957), p. 142.

The main focus of this research is the analysis of the relationship between social status (as measured by occupational status) and status aspiration (as measured by occupational aspiration) and the independent variables. In particular, the research will examine the relationships between occupational mobility and occupational aspiration and the independent variables of caste and education to see which of the two, alone or in combination with other independent variables, is better able to explain the variance in occupational status and occupational aspiration. In the path model the variables are arranged temporally and in perceived casual sequence.

Path Analysis:

Path analysis developed by Wright, and mainly used in population genetics, was popularized by Duncan in the social sciences. It is a powerful aid to "axiomatic deductions"³⁰ and "... a method applied to a causal model formulated by the researcher on the basis of knowledge and theoretical considerations."³¹ The main focus of path analysis is the problem of interpretation of related variables.

³⁰Otis Dudley Duncan, "Path Analysis: Sociological Examples," The American Journal of Sociology, LXXII, No. 1 (July, 1966), 2.

³¹Fred N. Kerlinger and Elazar J. Pedhazur, Multiple Regression in Behavioral Research (New York: Holt, Rinehart and Winston, Inc., 1973), p. 305.

As Duncan Says:

The great merit of the path scheme, then, is that it makes the assumptions explicit and tends to force the discussion to be at least internally consistent, so that mutually incompatible assumptions are not introduced surreptitiously into different parts of an argument extending over scores of pages. With the causal scheme made explicit, moreover, it is in a form that enables criticism to be sharply focused and hence potentially relevant not only to the interpretation at hand but also, perchance, to the conduct of future inquiry.³²

The assumed casual scheme of variables is presented in a path diagram, which is a visual presentation of variables in their temporal sequence and causal direction. "A path diagram", says Hope, "consists of a set of points, each point representing a variable, and a set of lines, to each of which a numerical quantity has been assigned."³³

General Path Model:

By applying the assumptions and methods of path analysis the following diagrams and models are developed.

The temporal ordering of the variables to represent the perceived casual sequence is diagrammatically presented as follows:³⁴

³²Duncan, "The American Journal of Sociology, LXXII, No. 1, 7.

³³Keith Hope, "Path Analysis: Supplementary Procedures," The Analysis of Social Mobility: Methods and Approaches, ed. Keith Hope (Oxford: Clarendon Press, 1972), p. 237.

³⁴The search for causes for certain events and behaviors is one of the primary interests of social scientists. Correlation and co-variation among variables may be causal linkages; and the scheme to explain the linkages and the process of causation among variables depend upon the knowledge, theoretical formulations, assumptions and the logical analysis of the researcher. The method of analysis that the researcher applies to the data depends upon the researcher's theoretical frame work. One of the methods of analysis for the explanation of causal linkages and the process of causation among variables is path analysis.

VARIABLES

Independent Variables

1. (C) Caste
2. (RP) Residence (Population)
3. (PD) Protective Discrimination
4. (E) Education
5. (O) Occupation
6. (I) Income

Dependent Variables

1. (F₀) Father's Occupation
2. (S_{0A}) Son's Occupational Aspiration

CAUSAL SEQUENCE DIAGRAM

1. (C, RP, PD, E, O, I) → F₀
2. (C, RP, PD, E, O, I) → S_{0A}

They "delayed effects" of the independent variables on the dependent variables are also taken into consideration in ordering the variables in temporal and causal sequence. The presumed causal model as presented in Figure 3.1 will better represent the path scheme. The general causal model in Figure 3.1 presents the perceived causal ordering of the variables for the three generations: the grandfather generation, the father generation and the son generation. According to the causal ordering of the variables the father's occupational mobility as measured by his occupational status depends upon the

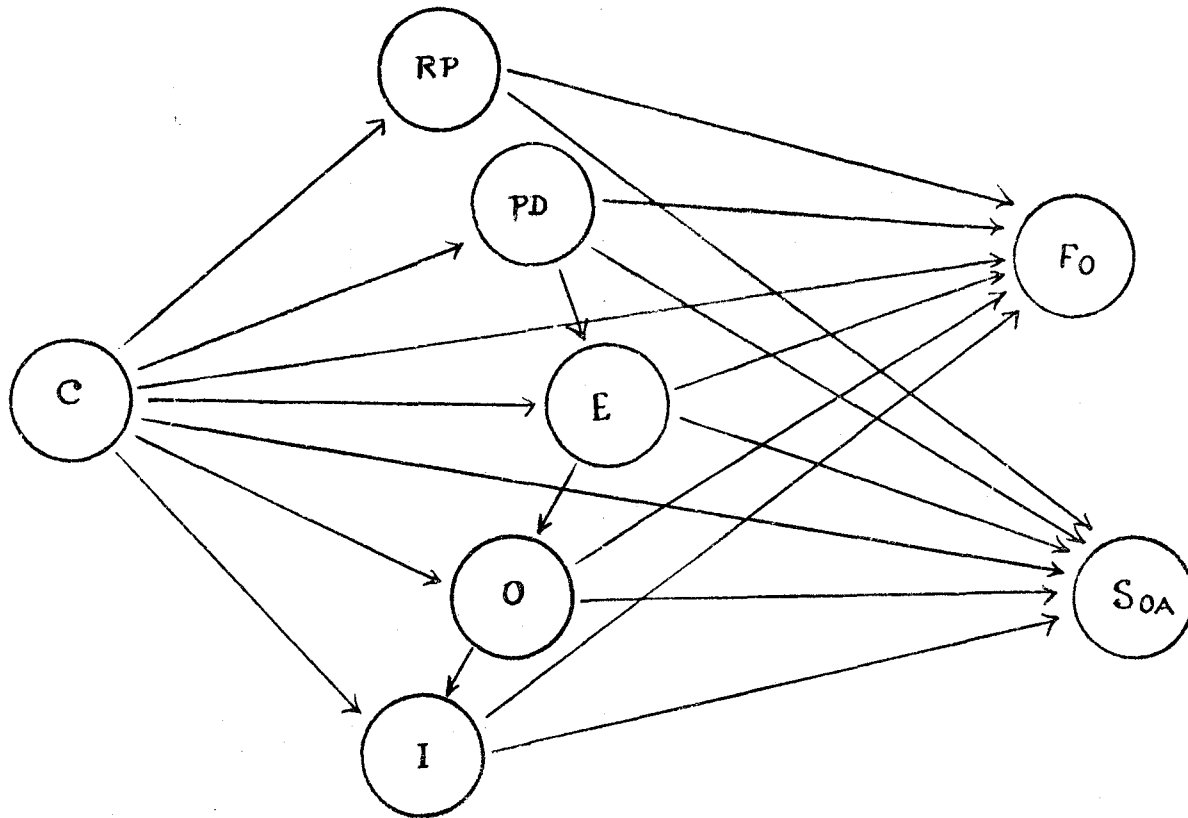


Figure 3.1.--General Presumed Causal Model of the Variables

- | | | | | | |
|----|---|---------------------------|-----------------|---|-------------------------------|
| C | - | Caste | O | - | Occupation |
| RP | - | Residence (Population) | I | - | Income |
| PD | - | Protective Discrimination | F _O | - | Father's Occupation |
| E | - | Education | S _{OA} | - | Son's Occupational Aspiration |

grandfather's caste, residence, "protective discrimination", education, occupation and income, and the son's occupational aspiration depends upon the father's caste, residence, "protective discrimination", education, occupation and income.

SPECIFIC CAUSAL MODELS FOR THREE-GENERATION MOBILITY ANALYSIS

The following specific causal models are used for intergenerational occupational mobility and occupational aspiration.

Grandfather - Father Generation:

The Grandfather - Father Generation causal model in Figure 3.2 is used to analyse the occupational status of the father in relation to the grandfather's caste, residence, "protective discrimination", education, occupation and income. The father's education is used as the mediator variable. The causal model in Figure 3.2 shows the perceived causal relationships between the variables. The difference and the direction between the occupational statuses of the grandfather and the father is indicative of intergenerational mobility. The "delayed effects" of the grandfather's caste on the father's occupational status is also considered in the study and incorporated in the causal model. For example, the grandfather's caste, not only indirectly and directly, affects the father's education, but also directly (P_{F0GF_C}) affects the father's occupational achievement. The direct effect of the grandfather's caste on the father's occupational achievement is called the "delayed effects".

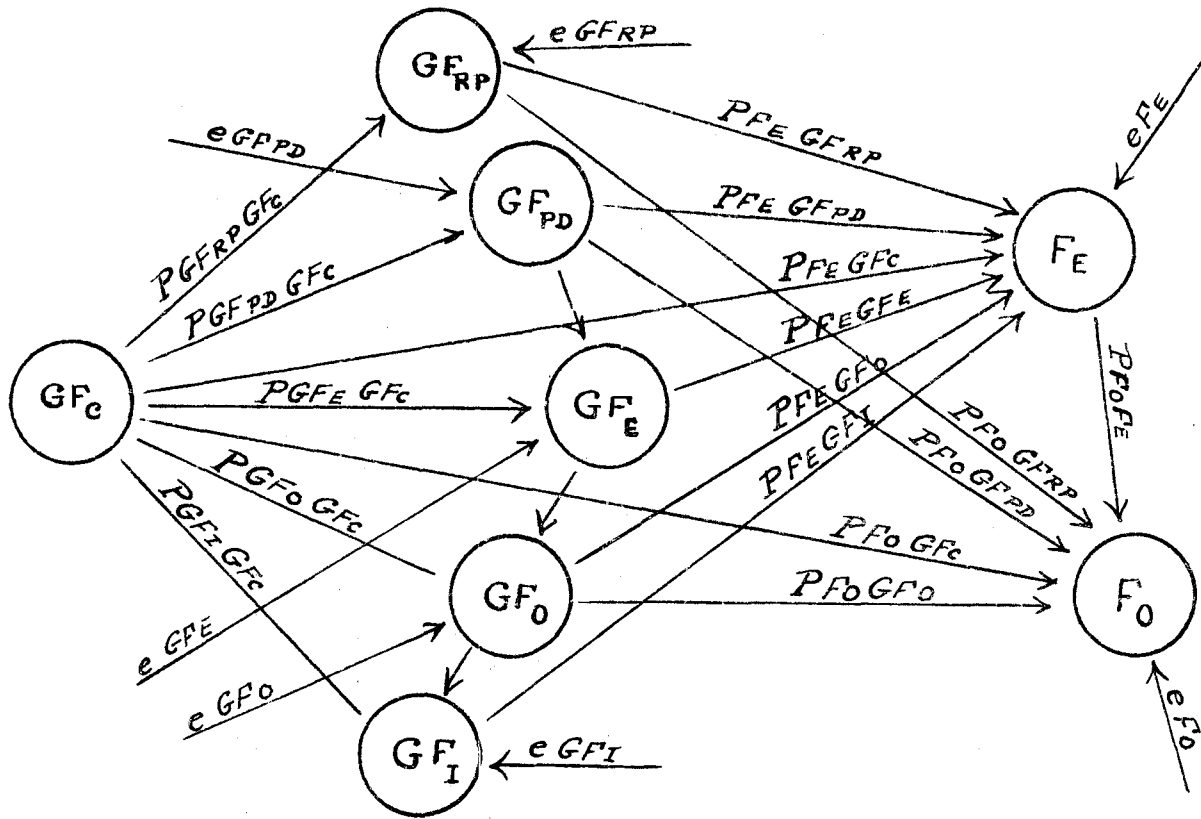


Figure 3.2.--Grandfather - Father Generation Causal Model

- | | |
|---|-----------------------------------|
| GF_C - Grandfather's Caste (also of father and son) | GF_O - Grandfather's Occupation |
| GF_{RP} - Grandfather's Residence (Population) | GF_I - Grandfather's Income |
| GF_{PD} - Grandfather's Protective Discrimination | F_E - Father's Education |
| GF_E - Grandfather's Education | F_O - Father's Occupation |

Each variable in the Grandfather - Father Generation Causal Model is taken to be in the standard form; - that is if V_i is ith variable as measured, then $Z_i = (V_i - \bar{V}_i) / V_i$. The same convention holds for residuals $e_{GF_{RP}}$, $e_{GF_{PD}}$, e_{GF_E} , e_{GF_0} , e_{GF_I} , e_{F_E} , e_{F_0} , which stand for variables outside the model affecting the variables measured and form part of the model. The variance of standard scores equals to one: $\sum Z_i Z_i = \sum Z_i^2 / N = 1$.

The covariance between V_i and e_i is assumed to be 0; and the mean of \bar{e} is also assumed to be 0. (See Appendix G for the linear equations of the causal model and the equations for decomposing correlations among variables in Figure 3.2).

One of our major interests is in decomposing each correlation into Direct Effect (DE) and Total Indirect Effects (TIE). It will indicate to us how much direct and indirect effects each of the independent variables has on the dependent variable. The following is the equation for decomposing each correlation into direct and indirect effects:

$$DE_{V_{ij}} = P_{ij}$$

$$TIE_{V_{ij}} = V_{ij} - P_{ij}$$

Most particularly we are interested in knowing how much direct effect the father's education has on his occupational achievement and how much direct and indirect effects his caste has on his occupational achievement. We are also interested in knowing whether "protective discrimination" and residence have any significant direct effect on the father's occupational achievement.

To account for variance in the father's occupation by various independent variables, especially education, caste, "protective discrimination" and residence, the following equation is used:

$$R^2 V_i .jkl... - R^2 V_i .jk...$$

The variance accounted for by the father's education on his occupation is calculated by the following equation:

$$R^2 F_O .GF_C GF_{RP} GF_{PD} GF_{O'E} - R^2 F_O .GF_C GF_{RP} GF_{PD} GF_O$$

For variance accounted for by his caste:

$$R^2 F_O .GF_C GF_{RP} GF_{PD} GF_{O'E} - R^2 F_O .GF_{RP} GF_{PD} GF_{O'E}$$

For variance accounted for by the grandfather's "protective discrimination":

$$R^2 F_O .GF_C GF_{RP} GF_{PD} GF_{O'E} - R^2 F_O .GF_C GF_{RP} GF_{O'E}$$

For variance accounted for by the grandfather's residence:

$$R^2 F_O .GF_C GF_{RP} GF_{PD} GF_{O'E} - R^2 F_O .GF_C GF_{PD} GF_{O'E}$$

Father - Son Generation:

The Father - Son Generation Causal Model in Figure 3.3 is used to measure the variance in the son's occupational aspiration in relation with the father's caste, residence, "protective discrimination", education, occupation and income. The causal Model in Figure 3.3 shows the perceived causal relationship between the variables. The variance in the son's occupational aspiration score, measured by the Occupational Aspirational Scale (see Appendix F) is indicative of the effects of the fathers' status variables on the son's occupational aspiration level. The "delayed effects" of the

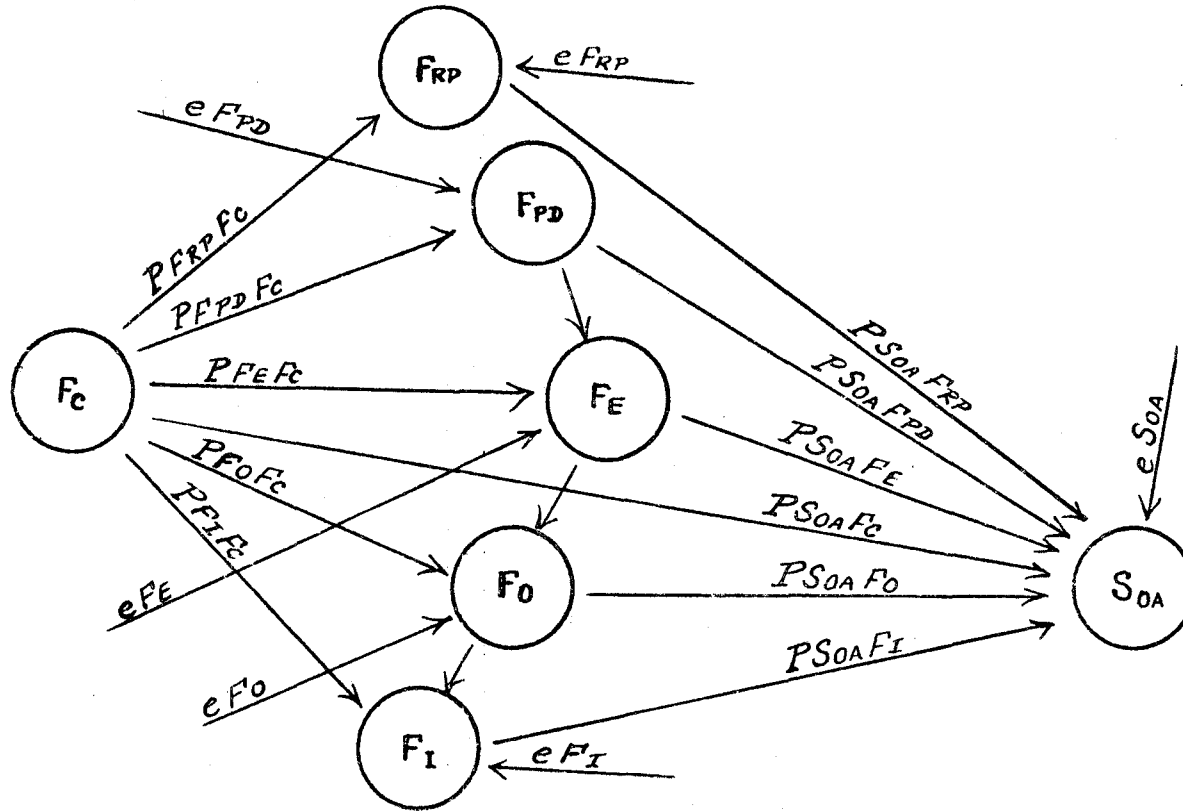


Figure 3.3.--Father - Son Generation Causal Model

- | | |
|---|--|
| F_C - Father's Caste (also of son) | F_O - Father's Occupation |
| F_{RP} - Father's Residence (Population) | F_I - Father's Income |
| F_{PD} - Father's Protective Discrimination | S_{OA} - Son's Occupational Aspiration |
| F_E - Father's Education | |

father's caste on the son's occupational aspiration level is also studied and incorporated in the causal model. The father's caste not only affects his socioeconomic variables, and through them the son's occupational aspiration but also directly affect the son's occupational aspiration. This direct effect of the father's caste on the son's occupational aspiration is called the "delayed effects".

The variables in the Father - Son Generation Causal Model are taken to be in the standard form and the following assumptions are applicable to the causal model in Figure 3.3.

$$\sum z_i z_i = \sum z_i^2 / N = 1$$

$$\text{Cov.}(E_i, E_j) = 0$$

$$\bar{E}_i = \bar{E}_j = 0$$

The linear equations of the causal model and the equations for decomposing correlations among variables in Figure 3.3 are given in Appendix G.

Again we are interested in knowing the amount of direct effect of the father's education on the son's occupational aspiration. Consistent with our hypotheses, we are also interested in knowing the direct and indirect effect of caste on the son's occupational aspiration. We should also focus our attention in measuring the association between "protective discrimination" and the son's occupational aspiration.

We will also measure the amount of variance between the son's occupational aspiration and the other independent variables, most particularly of the father's education and caste.

For variance accounted for by caste is calculated by the following equation:

$$R^2_{S_{OA} \cdot F_C F_{RP} F_{PD} F_E F_O F_I} - R^2_{S_{OA} \cdot F_{RP} F_{PD} F_E F_O F_I}$$

For variance accounted for by the father's education:

$$R^2_{S_{OA} \cdot F_C F_{RP} F_{PD} F_E F_O F_I} - R^2_{S_{OA} \cdot F_C F_{RP} F_{PD} F_O F_I}$$

For variance accounted for by the father's "protective discrimination":

$$R^2_{S_{OA} \cdot F_C F_{RP} F_{PD} F_E F_O F_I} - R^2_{S_{OA} \cdot F_C F_{RP} F_E F_O F_I}$$

Grandfather - Son Generation:

As an additional point of interest the son's occupational aspiration level is regressed on all the grandfather status variables to see whether there is significant variation in the son's occupational status aspiration level due to any one of or combination of the grandfather's status variables. This might be of interest to us for the following reasons: (1) Assuming a twenty-five year span for a generation, the fifty year span between the grandfather and the son generations, ranging from the mid-twenties to the present, is very important in the history of Tamil Nadu; (2) During the fifty year period (1925-1976) tremendous changes have taken place in the political, social and economic life of Tamil Nadu: in the sphere of political life, Tamil Nadu has gained increasing self government under the British rule and finally independence from Britain; in the sphere of social life, the Non-Brahmin Movement during this time has altered the social relations among castes and increased the educational and

occupational opportunities of the Non-Brahmin castes in Tamil Nadu; in the economic sphere of life, Tamil Nadu has rapidly expanded its modern occupational structure and increasing occupational opportunities; and (3) the urbanization of Tamil Nadu has accelerated in the last fifty years. The socio-economic and political changes may have altered the status of the father generation and may also have affected the status aspiration of the son generation.

The Grandfather - Son Generation Causal Model in Figure 3.4 shows the perceived causal sequence of the variables. Again the variables in the Grandfather - Son Generation Causal Model are taken to be in the standard form and the statistical assumptions that are applicable to the other causal models are also applicable to the causal model shown in Figure 3.4. The linear equations and the other equations for decomposing correlations among variables that are included in the causal model in Figure 3.4 are to be found in Appendix G.

In this chapter we have discussed the independent and dependent variables and how they are measured, and the sample and the reasons for such a sample and the sampling procedure. The general and the specific hypotheses are enumerated. On the basis of our theoretical formulations, assumptions and logical analysis, we have decided to use the general statistical method of path analysis and developed causal models for the study of intergenerational occupational mobility and occupational aspiration between the three generations of grandfather, father and son. In the next chapter we will discuss the data analysis and the interpretation of findings.

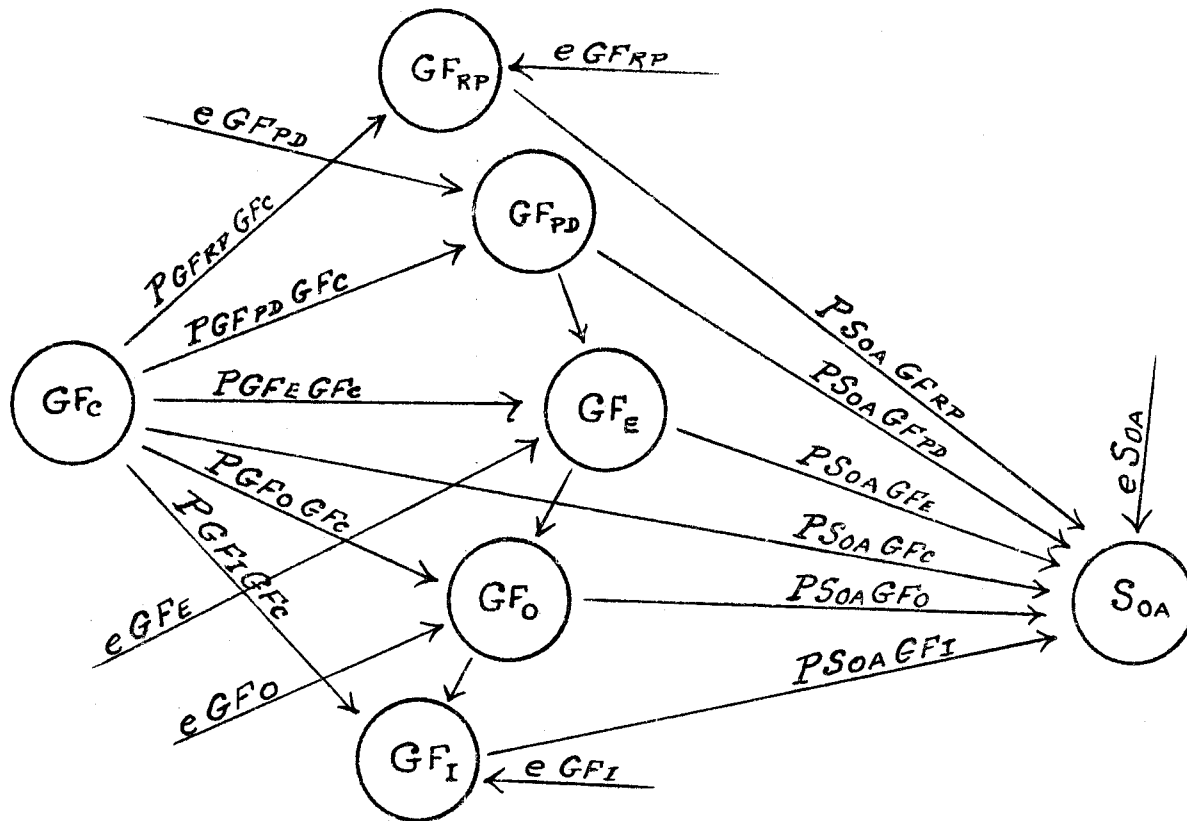


Figure 3.4.--Grandfather - Son Generation Causal Model

- | | |
|--|---|
| GF _C - Grandfather's Caste (also of father and son) | GF _O - Grandfather's Occupation |
| GF _{RP} - Grandfather's Residence (Population) | GF _I - Grandfather's Income |
| GF _{PD} - Grandfather's Protective Discrimination | S _{OA} - Son's Occupational Aspiration |
| GF _E - Grandfather's Education | |

CHAPTER IV

DATA ANALYSIS AND INTERPRETATION OF FINDINGS

DATA ANALYSIS

The sample data is analyzed according to the causal models described earlier in Chapter III. In addition to multiple regression analysis, the Chi-square analysis is used to verify the findings.

The dependent variables are regressed on the independent variables, which, according to the causal models are sometimes intervening variables. For example in the Grandfather-Father Generation Causal Model in Figure 4.1, F_0 is regressed on F_E , GF_C , GF_{RP} , GF_{PD} and GF_0 ; then F_E on GF_C , GF_{RP} , GF_{PD} , GF_0 and GF_I . And then GF_{RP} is regressed on GF_C ; GF_{PD} on GF_C ; GF_E on GF_C and GF_{PD} ; GF_0 on GF_C and GF_E ; and finally GF_I on GF_C and GF_0 . (See Figure 4.1 for identification of these letter symbols). All the dependent variables and the intervening variables are regressed on the single most important independent variable of caste. The independent variable of caste is very important because it is the only ascribed status variables in the models. Caste is important in this study of social mobility because caste is assumed to have not only indirect effect but also direct effect on other intervening and dependent variables. Caste is a unique social status variable; and it is very different from social class. A person's social class may change, but a person's caste may not change. Hence,

caste is assumed to be the "source variable" -that is the source of variability in many other socio-economic variables -and it is thus presented in the models. The caste of grandfather, father and grandson are the same and hence they are treated as one variable and entered as such in the analysis.

Following convention, the standardized beta values are used to represent the path coefficients. The terms standardized betas, beta values, and beta weights, beta-coefficients and path coefficients will be used interchangeably in the text. A path coefficient stands for the amount of expected change in the dependent variable for every unit of change in the independent variable when all other variables are held constant. "In other words, a path coefficient indicates the direct effect of a variable taken as a cause of a variable taken as effect".¹

A path coefficient is equal to the simple correlation coefficient whenever a variable is viewed to be dependent on a single cause and a residual. For example in Figure 4.1, $PGF_{RP}^{GF_C}$ is equal to $r_{GF_C}^{GF_{RP}}$; and $PGF_{PD}^{GF_C}$ is equal to $r_{GF_C}^{GF_{PD}}$. The simple r values are given within parenthesis immediately after the path coefficients in the causal models. The Total Indirect Effect (TIE) will be calculated by subtracting the value of the path coefficient from the value of the simple correlation coefficient between the concerned two variables. For

¹Fred N. Kerlinger and Elazar J. Pedhazur, Multiple Regression in Behavioral Research (New York: Holt, Rinehart and Winston, Inc., 1973), p. 310.

example in Figure 4.1:

$$\begin{aligned}
 (1) \quad TIE_{GF_{RP}GF_C} &= r_{GF_C GF_{RP}}^{-P_{GF_{RP}GF_C}} \\
 &= 0.160 - 0.160 \\
 &= 0
 \end{aligned}$$

$$\begin{aligned}
 (2) \quad TIE_{F_E GF_{RP}} &= r_{GF_{RP}F_E}^{-P_{F_E GF_{RP}}} \\
 &= 0.313 - 0.053 \\
 &= 0.260
 \end{aligned}$$

The residuals are calculated by the following formula

$$e_i = \sqrt{1 - R_i^2}. \quad \text{For example in Figure 4.1 the } e_{GF_{RP}} = \sqrt{1 - 0.02386} = 0.988.$$

The overall contribution of the independent variables is measured by Multiple R^2 ; and individual contribution is measured by R^2 change. For example in Figure 4.1 the overall contribution of all the five independent variables (GF_C , F_E , GF_{RP} , GF_{PD} and GF_0) to the dependent variable of F_0 is 0.549. In other words, 55 per cent of variance in father's occupation is explained by all the five independent variables. Individually 23.52 per cent is explained by caste (GF_C), 22.11 per cent by father's education (F_E), 0.21 per cent by grandfather's residence (GF_{RP}), 0.10 per cent by grandfather's protective discrimination (GF_{PD}) and 9.41 per cent by grandfather's occupation (GF_0). The remaining 45 per cent variance

in father's occupation (F_0) is due to unknown causes ($e_{F_0} = 0.671$) which are not included in the model.

Some researchers such as Land and Duncan² consider path coefficients less than 0.05 not meaningful and such paths are deleted from the causal model. There are only a few such paths in the causal models used in this research, and they are not deleted. Although some of such path coefficients are not statistically significant, attempts are made to interpret their significance in view of the hypotheses.

In order to generalize the findings to the population, F-tests are run for individual regression coefficients. Since causal relations among independent variables are assumed the hierarchical F-tests are used. In order to use the hierarchical method, the independent variables are included in the analysis by a specific order of importance of causality. For example in Figure 4.1, to measure the variability in father's education (F_E) as a result of the independent variables, the independent variables are included in the analysis by the specific order of importance, namely GF_C , GF_E , GF_{RP} , GF_{PD} , GF_0 , GF_I . The same order has been followed in other analysis as well.

²Otis Dudley Duncan, David L. Featherman and Beverly Duncan, Socioeconomic Background and Achievement (New York: Seminar Press, 1972), p. 40, and K.C. Land, "Principles of Path Analysis", Sociological Methodology, 1969, ed. E.F. Borgatta (San Francisco: Jossey-Bass Publishers, 1969), pp. 3-37.

The total number of cases used for analysis is 550. There are no cases from the scheduled tribes in the sample. Hence the caste category of scheduled tribes is not entered in the analysis.

INTERGENERATIONAL OCCUPATIONAL MOBILITY:
GRANDFATHER AND FATHER GENERATIONS

Propositions:

In the Grandfather-Father Generation Causal Model in Figure 4.1, the variables are ordered in a perceived causal relationship advancing the following propositions: (1) Grandfather's socioeconomic statuses like residence (GF_{RP}), education (GF_E), occupation (GF_O) and income (GF_I) depend upon his caste (GF_C), which is also the caste of his son and grandson; (2) the amount of "protective discrimination" (GF_{PD}) also depends upon his caste; (3) Father's educational attainment depends upon his father's residence (GF_{RP}), "protective discrimination" (GF_{PD}), education (GF_E), occupation (GF_O), income (GF_I) and his caste (GF_C); (4) Father's occupational status depends upon his educational attainment (F_E), his caste (GF_C) and also his father's residence (GF_{RP}) "protective discrimination" (GF_{PD}), and occupation (GF_O).

Caste and Other Socioeconomic Variables:

All of the grandfather's socioeconomic variables are positively related with his caste, except the variable of "protective discrimination". It is expected to be negative ($PGF_{PD}GF_C = -0.051$)

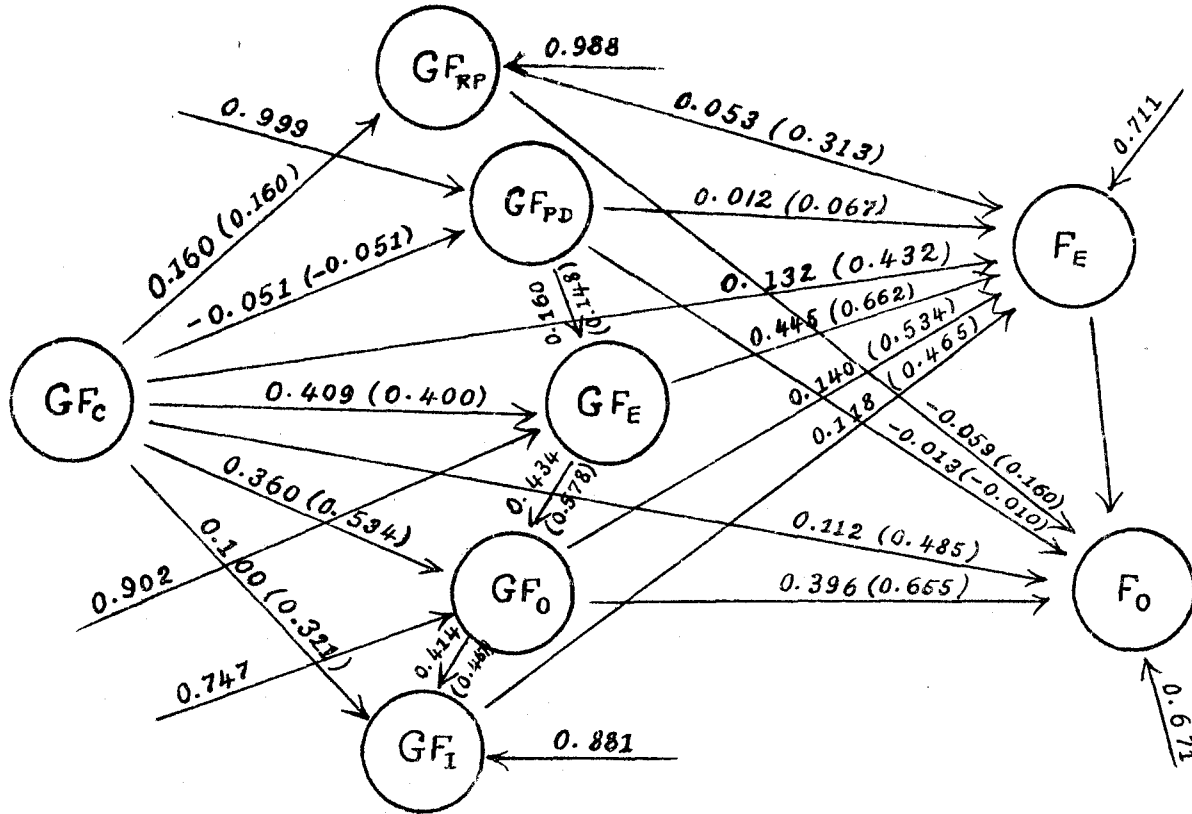


Figure 4.1.--Grandfather - Father Generation Causal Model

- | | |
|--|--|
| GF _C - Grandfather's Caste (also of father and son) | GF _O - Grandfather's Occupation |
| GF _{RP} - Grandfather's Residence (Population) | GF _I - Grandfather's Income |
| GF _{PD} - Grandfather's Protective Discrimination | F _E - Father's Education |
| GF _E - Grandfather's Education | F _O - Father's Occupation |

because the lower the caste the greater the "protective discrimination". The amount of "protective discrimination" in the grandfather's generation is very little. For example only 4 out of 550 grandfathers received any "protective discrimination": 2 received backward caste scholarships, and 2 received scheduled caste scholarships. All the path coefficients between grandfather's caste and his other socioeconomic variables except "protective discrimination" are statistically significant at 0.01 level. The magnitude of coefficients between GF_C and GF_E and between GF_C and GF_O are worth examining. The substantial direct influence of grandfather's caste ($PGF_E GF_C = 0.409$) on his educational achievement, and the relatively strong direct influence of the grandfather's caste ($PGF_O GF_C = 0.360$) on his occupational attainment are significant. The indirect influence of other variables on grandfather's education and occupation are - 0.008 and 0.173 respectively (see Table 4.1).

The Chi-square analysis also supports the high positive correlation between caste (GF_C) and GF_{RP} , GF_E , GF_O , and GF_I . The Chi-square values for all of them are significant at the .001 level. The correlation between GF_C and GF_{PD} is not significant at either the 0.05 or 0.01 level ($.10 X_{12}^2 = 19.217$). (See Tables H.1, H.3, H.4, H.5 and H.2 in Appendix H for detailed analysis.) A detailed Chi-square analysis of grandfather's socioeconomic variables by caste categories display the high positive correlation between caste and other socioeconomic variables. For example, while 78 per cent of the Brahmin grandfathers have urban residence (over 20,000

TABLE 4.1

DECOMPOSITION OF BIVARIATE COVARIATION OF VARIABLES IN THE GRANDFATHER-FATHER
GENERATION CAUSAL MODEL IN FIGURE 4.1

No.	Bivariate Relationship	Total Covariance (A)	Causal			Non-Causal (E) (A - D)
			Direct (B)	Indirect (C)	Total (D) (B + C)	
1	$GF_C GF_{RP}$	$r_{GF_C GF_{RP}}=0.160$	$p_{GF_{RP} GF_C}=0.160 (p < .01)$	none	0.160	none
2	$GF_C GF_{PD}$	$r_{GF_C GF_{PD}}=-0.051$	$p_{GF_{PD} GF_C}=-0.051 (NS)$	none	-0.051	none
3	$GF_C GF_E$	$r_{GF_C GF_E}=0.400$	$p_{GF_E GF_C}=0.409 (p < .01)$	-0.008	0.401	-0.001
4	$GF_C GF_O$	$r_{GF_C GF_O}=0.534$	$p_{GF_O GF_C}=0.360 (p < .01)$	0.173	0.533	0.001
5	$GF_I GF_C$	$r_{GF_C GF_I}=0.321$	$p_{GF_I GF_C}=0.100 (p < .01)$	0.220	0.320	0.001
6	$GF_{PD} GF_E$	$r_{GF_{PD} GF_E}=0.148$	$p_{GF_E GF_{PD}}=0.169 (p < .01)$	-0.020	0.149	-0.001
7	$GF_E GF_O$	$r_{GF_E GF_O}=0.578$	$p_{GF_O GF_E}=0.434 (p < .01)$	0.144	0.578	none
8	$GF_O GF_I$	$r_{GF_O GF_I}=0.467$	$p_{GF_I GF_O}=0.414 (p < .01)$	0.053	0.467	none
9	$GF_{RP} F_E$	$r_{GF_{RP} F_E}=0.313$	$p_{F_E GF_{RP}}=0.053 (p < .01)$	0.008	0.061	0.252
10	$GF_{PD} F_E$	$r_{GF_{PD} F_E}=0.067$	$p_{F_E GF_{PD}}=0.012 (NS)$	0.059	0.071	-0.004
11	$GF_C F_E$	$r_{GF_C F_E}=0.432$	$p_{F_E GF_C}=0.132 (p < .01)$	0.290	0.422	0.010

TABLE 4.1--Continued

No.	Bivariate Relationship	Total Covariance (A)	Causal			Non-Causal (E) (A - D)
			Direct (B)	Indirect (C)	Total (D) (B + C)	
12	$GF_E F_E$	$r_{GF_E F_E} = 0.662$	$p_{F_E GF_E} = 0.445 (p < .01)$	0.135	0.580	0.082
13	$GF_O F_E$	$r_{GF_O F_E} = 0.534$	$p_{F_E GF_O} = 0.140 (p < .01)$	0.382	0.522	0.012
14	$GF_I F_E$	$r_{GF_I F_E} = 0.465$	$p_{F_E GF_I} = 0.118 (p < .01)$	0.098	0.216	0.249
15	$F_E F_O$	$r_{F_E F_O} = 0.633$	$p_{F_O F_E} = 0.392 (p < .01)$	0.234	0.626	0.007
16	$GF_{RP} F_O$	$r_{GF_{RP} F_O} = 0.160$	$p_{F_O GF_{RP}} = -0.059 (NS)$	0.042	-0.017	0.177
17	$GF_{PD} F_O$	$r_{GF_{PD} F_O} = -0.010$	$p_{F_O GF_{PD}} = -0.013 (NS)$	0.022	0.009	-0.019
18	$GF_c F_O$	$r_{GF_c F_O} = 0.485$	$p_{F_O GF_c} = 0.112 (p < .01)$	0.161	0.273	0.212
19	$GF_o F_o$	$r_{GF_o F_o} = 0.655$	$p_{F_o GF_o} = 0.396 (p < .01)$	0.264	0.660	0.005

population), 71 per cent of the scheduled caste grandfathers live in rural areas (less than 20,000 population). The urban residence of other grandfathers are: Non-Brahmin forward castes: 59 per cent; Non-Brahmin backward castes: 55 per cent; and others: 91 per cent. The relationship between caste and grandfather's education is also positively related. While only 3 per cent of the scheduled caste grandfathers have received education at matriculation or higher levels, 18 per cent of the Non-Brahmin backward caste grandfathers, 35 per cent of the Non-Brahmin forward caste grandfathers, and 50 per cent of other grandfathers have received matriculation and higher college education. Again the high positive correlation between caste and grandfather's occupation is clearly seen in the following percentages of the higher three categories of occupations (Government officials, professionals and semiprofessionals, proprietors and managers and officials) by caste categories: Brahmin castes 64%; Non-Brahmin forward castes 48%; Non-Brahmin backward castes 15%; scheduled castes 1% and others 65%. The incomes of grandfathers are also positively correlated with their castes: Grandfathers who make Rs.2,500 and above annually by caste categories are as follows: Brahmin castes 46%; Non-Brahmin forward castes 39%; Non-Brahmin backward castes 15%; scheduled castes 4% and others 50%.

A person's educational attainment is supposed to depend upon his socioeconomic background variables. According to the Grandfather-Father Generation Causal Model, variation in father's

educational attainment is caused by grandfather's residence (GF_{RP}), "protective discrimination" (GF_{PD}), education (GF_E), occupation (GF_O), income (GF_I) and also by his caste (GF_C). Caste is seen as not only influencing father's educational attainment indirectly but also directly. These variables jointly explain the almost 50 per cent of ($R^2 = 0.4998$) the variation in father's educational attainment. The rest of the variation ($R_e^2 = 0.5002$) is due to unknown causes .

Father's education (F_E) variable is regressed with the background variables in an hierarchical order of perceived importance, starting from caste, grandfather's education and so on to measure the relative magnitude of direct effect on father's educational attainment. Simply looking at the magnitude of beta weights, the direct effect of grandfather's education on father's education is quite substantial ($PF_E GF_E = 0.445$, $p < .01$). The assumption that the higher the grandfather's education the higher the educational attainment of his son is substantiated. The direct effect of grandfather's education on father's educational attainment is more than 3 times greater than the indirect effect (0.135). The total contribution of grandfather's education to father's educational attainment is 28.48 per cent. The direct effect of caste is 0.132 ($PF_E GF_C = 0.132$, $p < .01$) and the indirect is 0.290. The total contribution of caste to father's educational attainment is 18.67 per cent. The caste variable is important because it not only contributes directly and indirectly to the variability of other background variables, but

also directly affects father's educational attainment. Hence it stands out much more importantly than all other background variables in explaining the process of mobility. Grandfather's occupation contributes atleast 1.5 per cent of the variability in father's educational attainment. The direct effect of grandfather's occupation on father's education is 0.140 ($PF_{E}GF_0 = 0.140$, $p < .01$) which is almost as large as the direct effect of caste, but the indirect effect of grandfather's occupation on father's educational attainment is larger (0.382). To a smaller extent (0.95 per cent) the income of the grandfather makes changes in father's educational attainment. The direct effect of grandfather's income is 0.118 ($PF_{E}GF_I = 0.118$) and it is statistically significant at .01 level; and its indirect effect also is minimum 0.098. But the non-causal or spurious effect is larger (0.249) in the case of grandfather's income contribution to father's educational attainment. The values of direct effects of grandfather's residence and grandfather's "protective discrimination" on father's education are 0.053 ($PF_{E}GF_{RP} = 0.053$) and 0.012 ($PF_{E}GF_{PD} = 0.012$) respectively and they are not statistically significant.

The high positive correlation between caste and father's educational attainment is also supported by Chi-square analysis. The Chi-square value is $.001 X_{32}^2 = 214.169$ which is statistically significant. (see Table H.6 in Appendix H for more details). There is the same kind of positive and significant relationship between grandfather's occupation and father's education. The $.001 X_{56}^2 =$

286.392 and it is again statistically significant. (For more details see Table H.7 in Appendix H). As we have seen earlier, the income of the grandfather also contributes significantly to the father's educational attainment. The Chi-square value is $\chi^2_{24} = 160.202$ which is statistically significant at .001 level. (See Table H.8 in Appendix H for more details). The contribution of grandfather's "protective discrimination" is not that great; and it is not significant ($.10 \chi^2_{24} = 33.338$). (For more details see Table H.9 in Appendix H).

Education and Occupation:

The next important relationship we would like to analyze is the relationship between education and occupation. The popular assumption is that a person's occupational achievement depends upon his educational achievement. Variation in occupational achievement is a function of educational achievement variation which again is a function of differential access to educational opportunities. In the context of India, and more specifically in the state of Tamil Nadu, it is the popular belief that if a person obtains higher education, he can then gain a higher status occupation irrespective of his socioeconomic background; and especially his caste status. In other words, it is believed that a person's caste has no direct effect or "delayed effect" whatsoever on his occupational achievement. We have tested this assumption with the data we have.

As shown in the Causal Model (Figure 4.1) the variables that we assume to have causal relationship with father's occupational achievement are regressed in the order of causal importance. The magnitude of path coefficients are compared and tested for statistical significance. Figure 4.1 indicates that the contribution of father's education to his occupational achievement is substantial ($PF_0F_E = 0.392$). The contribution of grandfather's occupation ($PF_0GF_0 = 0.396$) and his caste ($PF_0GF_C = 0.112$) are equally important. All three of the path coefficients are statistically significant at the .01 level. However the part of variance explained is interesting. The five variables, namely father's education (F_E), grandfather's residence (GF_{RP}), grandfather's protective discrimination (GF_{PD}), grandfather's occupation (GF_0) and caste (GF_C) jointly are responsible for 55.37 per cent ($R^2 = 0.5537$), of variance in father's occupation, and the remaining 44.63 per cent ($e_{F_0} = 0.671$) is due to other causes not included in the model. Of the 55.37 per cent of the explained father's occupational variance, 23.52 per cent of variance is due to caste (GF_C), 22.11 per cent is due to father's education (F_E), 9.41 per cent is due to grandfather's occupation (GF_0) and the remaining is due to grandfather's residence and his protective discrimination. The direct effect of father's education on his occupational attainment ($PF_0F_E = 0.392$, $p < .01$) is greater than its indirect effect (0.234); and the direct effect of grandfather's occupation ($PF_0GF_0 = 0.396$, $p < .01$) is also greater than its indirect effect (0.264). The significance of the direct effect of caste (GF_C) on father's occupational attainment ($PF_0GF_C = 0.112$, $p < .01$)

supports our assumption that a person's caste still has a "delayed effect" on his occupational status.

The positive relationship between caste (GF_C) and father's occupation (F_0) and between father's education (F_E) and father's occupation is also supported by Chi-square analysis. The Chi-square value for caste (GF_C) and father's occupation (F_0) is 330.540 with 28 df which is significant the .001 level and for father's education (F_E) and father's occupation is 517.449 ($Z = 21.634$) with 56 df which is significant at the .001 level. (For more detailed data see Tables H.10 and H.11 in Appendix H.)

Intergenerational Occupational Mobility:

The comparison between grandfather's occupation and father's occupation shows a general occupational upward mobility in the father's generation. The simple r between grandfather's occupation (GF_0) and father's occupation (F_0) is 0.655. The direction is positive which indicates a general upward occupational mobility. A detailed comparison of grandfathers' occupations and fathers' occupations by occupational categories, as shown in Table 4.2, reveals certain interesting facts about occupational mobility. While the number of fathers in all occupational categories has increased, it has decreased in the categories of farmers, farm managers and farm laborers. While 65 fathers inherited their father's farm and farm manager occupations, 83 fathers who probably have received a better education than their fathers either moved up to the upper 3

TABLE 4.2

FREQUENCY AND PERCENTAGE DISTRIBUTION OF GRANDFATHERS' AND FATHERS' OCCUPATIONS
AND PERCENTAGE DIFFERENCE BY OCCUPATIONAL CATEGORIES

No.	Occupational category	Grandfathers' Occupations (Gfo)		Fathers' Occupations (Fo)		Percentage difference between Gfo and Fo
		No.	%	No.	%	
1	Government officials	7	1.3	10	1.8	0.5
2	Professionals and semi-professionals	73	13.3	114	20.7	7.4
3	Proprietors, managers and officials	88	16.0	116	21.1	5.1
4	Farmers and farm managers	148	26.9	65	11.8	-15.1
5	Clerical and sales workers	45	8.2	84	15.3	7.1
6	Skilled workers	84	15.3	103	18.7	3.4
7	Farm laborers	87	15.8	31	5.6	-10.2
8	Unskilled workers	18	3.3	27	4.9	1.6
	Total	550	100.0	550	100.0	..

categories of occupations or down to the lower categories of occupations, most probably to the 5 and 6 categories. Educated sons of farmers have always sought non-manual occupations, mostly in the urban areas, even if those occupations, such as clerical and sales or other skilled occupations, are considered to be lower in status. The upward or downward mobility activity at the farmer and farm manager occupational category is very much pronounced among the Non-Brahmin forward and backward caste groups. Out of the 83 mobile fathers of the farmers and farm managers occupational category, 71 belong to these caste groups. Of the remaining 12 fathers 11 are Brahmins and 1 belongs to Scheduled castes. The expanding educational opportunities after the second decade of this century were extended to the lower caste groups. One of the main reasons for the increasing educational opportunities to the lower castes was the Non-Brahmin Movement in Tamil Nadu. These educational opportunities were fully used, next only to the Brahmins, by the Non-Brahmin forward and to some extent, by the Non-Brahmin backward castes. The data supports the predominance of the Non-Brahmin forward and backward caste groups among the farmers and farm managers, and the educational advancement of them in the father generation. Among the 148 grandfathers, farmers and farm managers, 130 of them belong to the Non-Brahmin forward and backward castes, and of 65 fathers 59 of them belong to these castes. The difference in educational attainment of these caste groups between the grandfather and father generations is very striking. While only 35 percent of the Non-Brahmin forward caste grandfathers have received matriculation or college education,

69 per cent of the Non-Brahmin forward caste fathers and 44 per cent of the Non-Brahmin backward caste fathers have received matriculation or college education. The number of persons who have received matriculation or college education has doubled in each caste category. The educated sons moved up or, to a lesser probability, down from their fathers' occupational statuses. But generally the movement has been upward.

Another agricultural occupational category that has experienced relatively significant mobility is the farm laborer group. There are 87 grandfathers who are farm laborers. But that number is reduced in the father's generation. There are only 31 fathers who are farm laborers. Most of the farm laborers belong to the Scheduled caste groups and Non-Brahmin backward castes. 95 per cent of the grandfather farm laborers (83 out of 87) belong to these castes; and also 100 per cent of the father farm laborers belong to these castes. But the great majority of the farm laborers are from the scheduled caste groups: 57 out of 87 (66%) grandfather farm laborers, and 28 out of 31 (90%) father farm laborers are member of the scheduled castes. Out of the 56 fathers who have moved out of this occupational category, 23 (41%) belong to the Non-Brahmin backward castes and 29 (52%) belong to the scheduled castes. But the relative percentage of mobility is greater (23 out of 26, 88%) for the Non-Brahmin backward castes than for the scheduled castes (29 out of 57, 51%). The reason for this difference in mobility rates may be found in the educational attainment difference between the grandfather and father generations. While 18 per cent of the

grandfathers and 44 per cent of the fathers of the Non-Brahmin backward castes have received a matriculation or college education, only 3 per cent of the scheduled caste grandfathers and 14 per cent of the scheduled caste fathers have received such education. The direction of mobility of the fathers of the farm laborer occupational group is interesting. At least a few of the father farm laborers may have become unskilled laborers, while the others may have moved upward to other categories of occupations. It is frequently observed that uneducated or little educated farm laborers have moved to the urban areas seeking other unskilled occupations.

OCCUPATIONAL ASPIRATION: FATHER AND SON GENERATIONS

Propositions:

In the Father-Son Generation Causal Model, as shown in Figure 4.2, the variables are arranged in a perceived causal relationship. The causal relationships are based on the following propositions: (1) Father's residence (F_{RP}), education (F_E) occupation (F_O), income (F_I) depend upon his caste (F_C) which is also the caste of his father and his son; (2) Father's "protective discrimination" (F_{PD}) depends upon his caste; (3) Son's occupational aspiration depends upon his father's residence (F_{RP}), "protective discrimination" (F_{PD}), education (F_E), occupation (F_O), income (F_I), and caste (F_C).

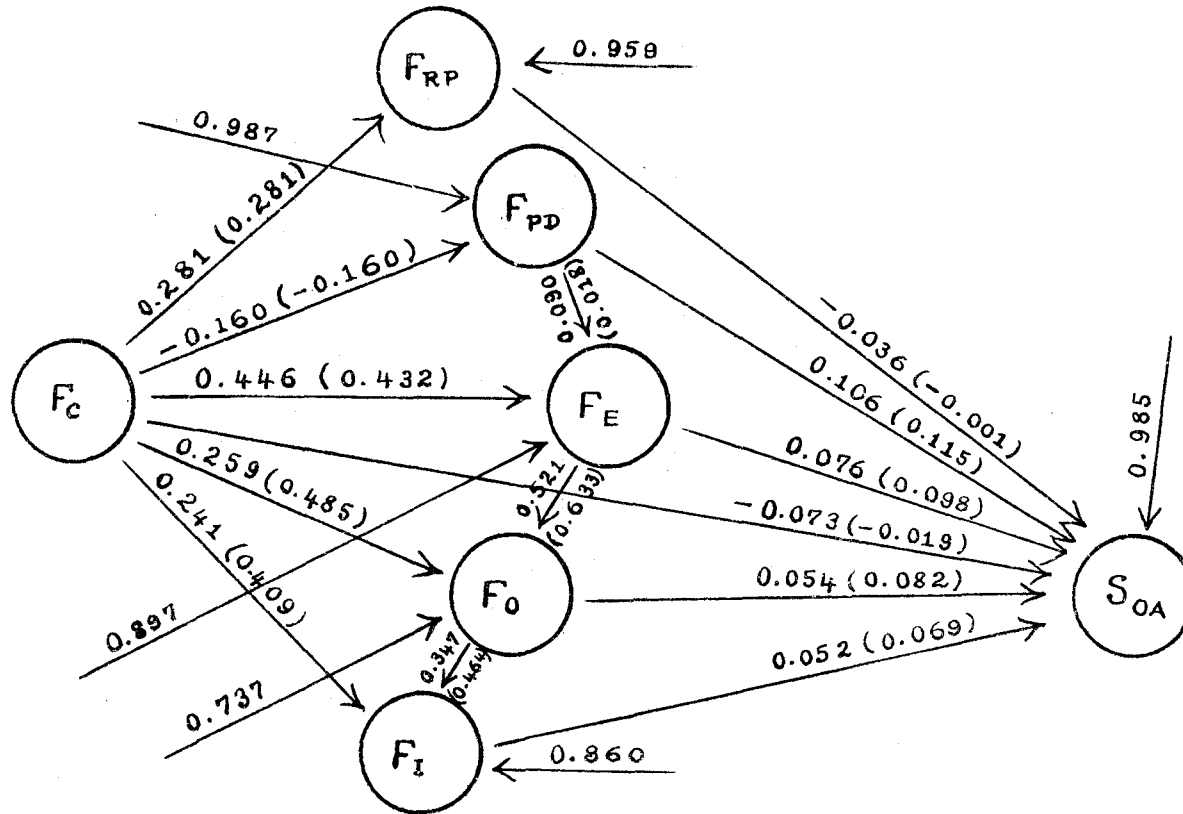


Figure 4.2.--Father - Son Generation Causal Model

- | | | | | | |
|-----|---|------------------------------------|-----|---|-------------------------------|
| FC | - | Father's Caste (also of son) | FO | - | Father's Occupation |
| FRP | - | Father's Residence (Population) | FI | - | Father's Income |
| FPD | - | Father's Protective Discrimination | SOA | - | Son's Occupational Aspiration |
| FE | - | Father's Education | | | |

Caste and other Socioeconomic Variables:

None of the path coefficients in the Causal Model in Figure 4.2 is less than .05 except the PS_{OA}^{FRP} , the value of which is -0.036. The beta weights are relatively stronger even though only some of them are statistically significant. Father's socioeconomic variables such as his residence, protective discrimination, education, occupation and income are causally related with his caste and the path coefficients are statistically significant at the .01 level. The direct effect of caste on all these five variables is greater (see Table 4.3). The direct effect of caste on father's education is greater than the direct effect of caste on any other of his socioeconomic variables. The direct effect of father's education on his occupation is five times greater than its indirect effect, and it is also statistically significant at the .01 level. The same is true of the direct (0.347) and the indirect effect (0.067) of father's occupation on his income. The causal relationship between caste and father's "protective discrimination" is negative (-.160) as expected, and it has no statistically significant effect on father's education because only 17 backward caste fathers and 11 scheduled castes fathers have received educational scholarships. The positive beta coefficient (0.281) between caste and father's residence shows the increasing urbanization of the educated fathers. The path coefficient between father's caste and residence, ($PF_{RP}^{FC} = 0.281$) is greater than the path coefficient between grandfather's caste and residence ($PGF_{RP}^{GFC} = 0.160$), which shows the increasing geographical mobility

TABLE 4.3

DECOMPOSITION OF BIVARIATE COVARIATION OF VARIABLES IN THE FATHER AND SON
GENERATION CAUSAL MODEL IN FIGURE 4.2

No.	Bivariate Relationship	Total Covariance (A)	Causal			Non-Causal (E) (A - D)
			Direct (B)	Indirect (C)	Total (D) (B + C)	
1	$F_C F_{RP}$	$r_{F_C F_{RP}} = 0.281$	$p_{F_{RP} F_C} = 0.281 (p < .01)$	none	-0.281	none
2	$F_C F_{PD}$	$r_{F_C F_{PD}} = -0.160$	$p_{F_{PD} F_C} = -0.160 (p < .01)$	none	-0.160	none
3	$F_C F_E$	$r_{F_C F_E} = 0.432$	$p_{F_E F_C} = 0.446 (p < .01)$	-0.014	0.432	none
4	$F_C F_O$	$r_{F_C F_O} = 0.485$	$p_{F_O F_C} = 0.259 (p < .01)$	0.224	0.483	0.002
5	$F_C F_I$	$r_{F_C F_I} = 0.409$	$p_{F_I F_C} = 0.241 (p < .01)$	0.167	0.408	0.001
6	$F_{PD} F_E$	$r_{F_{PD} F_E} = 0.018$	$p_{F_E F_{PD}} = 0.090 (NS)$	-0.071	0.019	-0.001
7	$F_E F_O$	$r_{F_E F_O} = 0.633$	$p_{F_O F_E} = 0.521 (p < .01)$	0.111	0.632	0.001
8	$F_O F_I$	$r_{F_O F_I} = 0.464$	$p_{F_I F_O} = 0.347 (p < .01)$	0.067	0.414	0.050
9	$F_{RP} S_{OA}$	$r_{F_{RP} S_{OA}} = -0.001$	$p_{S_{OA} F_{RP}} = -0.036 (NS)$	-0.010	-0.046	0.045
10	$F_{PD} S_{OA}$	$r_{F_{PD} S_{OA}} = 0.115$	$p_{S_{OA} F_{PD}} = 0.106 (p < .05)$	0.234	0.340	-0.225
11	$F_E S_{OA}$	$r_{F_E S_{OA}} = 0.098$	$p_{S_{OA} F_E} = 0.076 (p < .01)$	0.002	0.078	0.020

TABLE 4.3--Continued

No.	Bivariate Relationship	Total Covariance (A)	Causal			Non-Causal (E) (A - D)
			Direct (B)	Indirect (C)	Total (D) (B + C)	
12	$F_C^{S_{OA}}$	$r_{F_C^{S_{OA}}} = -0.019$	$p_{S_{OA}^{F_C}} = -0.073(NS)$	0.053	-0.020	0.001
13	$F_O^{S_{OA}}$	$r_{F_O^{S_{OA}}} = 0.082$	$p_{S_{OA}^{F_O}} = 0.054(NS)$	0.035	0.089	-0.007
14	$F_I^{S_{OA}}$	$r_{F_I^{S_{OA}}} = 0.069$	$p_{S_{OA}^{F_I}} = 0.052(NS)$	0.011	0.063	0.006

in father's generation than in grandfather generation. The Chi-square analyses of the relationship between caste and father's residence, "protective discrimination", occupation and income show the same strong significant relationships. All the three of them are significant at the .01 level. (See Tables H.10, H.12, H.13 and H.14 in Appendix H for more details.)

Occupational Aspiration and other Variables:

One of the important investigations in the Father-Son Generation Causal Model is to find out whether father's socioeconomic variables and caste have any significant effect on son's occupational aspiration. The level of occupational aspiration has been measured by an Occupational Aspiration Scale (OAS) which was specifically developed for this study (for more details see Appendix F). The level of occupational aspiration depends upon a person's idealistic and realistic goal-region aspects and short and long term temporal aspects. The occupational aspiration score ranges from 0 to 72. Sons who have received a OAS between 0 and 24 are considered to have low level aspiration, and sons who have got a score between 25 and 48 are considered to have medium level of aspiration and sons who have received a score of 49 or higher are considered to have a high level of occupational aspiration. Only 20 (3.6 per cent) of the sons have low occupational aspiration. 183 (33.3 per cent) and 347 (63.1 per cent) of the sons, respectively, have medium and high levels of occupational aspiration. Almost 6 out of 10 sons

have a high level of occupational aspiration. Only 1 out of 10 sons have low level aspiration. This is an interesting finding. Idealistic aspects may be responsible for this high level of occupational aspiration. The Pre-University Class (PUC) is the first year of college education and, perhaps, the hopes and aspirations of the Pre-University Class students are always very high.

As presented in the causal model (Figure 4.2) the total effect of all the socioeconomic background variables on son's occupational aspiration is only minimum ($R^2 = 0.0294$) and the effect of other variables not included in the causal model is greater ($e_{SOA}^2 = 0.9702$). Although the total effect of the socioeconomic variables on son's occupational aspiration is relatively minimal, it is statistically significant at the .05 level. Among the socioeconomic variables, father's education (F_E) has a statistically significant ($PS_{OA}^{F_E} = 0.076$, $p < .01$) direct effect on son's occupational aspiration. Sons of highly educated fathers have higher occupational aspiration than the sons of fathers whose education is minimum or none. The Chi-square distribution of sons' occupational aspiration scores and fathers' educational levels shows statistically significant relationship at the .05 level ($.03 \chi_{16}^2 = 28.099$). (See Table H.15 in Appendix H for other details.)

Among other socioeconomic variables, father's "protective discrimination" appears to be significantly correlated with son's occupational aspiration ($PS_{OA}^{F_{PD}} = 0.106$, $p < .05$). But the contribution of father's "protective discrimination" to son's occupational

aspiration may not be that great because the number of fathers who have received educational scholarships are not that many: only 11 have received scheduled caste scholarships, and 17 have received backward caste scholarships. But 509 of the fathers have received no scholarships of any kind. And 9 out of 10 sons of the 509 fathers have medium or high level of occupational aspiration. Although the hierarchical F-test is significant at the .05 level, the Chi-square analysis turns out to be non-significant, $.26 X_6^2 = 7.589$. The direct effect of caste on son's occupational aspiration is negative ($PS_{OAF_C} = -0.073$). The reason is that lower caste sons have higher occupational aspiration like the sons of upper castes: 96 per cent of Scheduled caste sons, 96 per cent Backward caste sons, 95 per cent of Non-Brahmin forward caste sons and 99 per cent of Brahmin caste sons and 100 percent of sons of others have medium or high level of occupational aspiration. In fact 96 per cent of sons of all castes have medium or high level of occupational aspiration. The direct effect of caste on son's occupational aspiration is not statistically significant even though the magnitude of the beta weight between caste and son's occupational aspiration appears to be as large ($PS_{OAF_C} = -0.073$) as the direct effect of father's education on son's occupational aspiration ($PS_{OAF_E} = 0.076$). The Chi-square analysis also shows no statistically significant relationship between caste and the level of occupational aspiration ($.80 X_8^2 = 4.590$, $p > .05$, see Table H.16 in Appendix H). But the indirect effect of caste on son's occupational aspiration appears to be

positive (0.053, see Table 4.3) and substantial. The direct effect of father's occupation on son's occupational aspiration is positive and substantial but not statistically significant ($PS_{OA}^{FO} = 0.054$, $p > .05$). Again 96 per cent of sons of fathers of all occupations have medium or high level occupational aspiration. The distribution of sons' occupational aspiration scores by fathers' occupations confirms the fact that the relationship between father's occupation and son's occupational aspiration is substantial, but not statistically significant ($.59 X_{14}^2 = 12.139$, $p > .05$, see Table H.17 in Appendix H). The amount of direct effect of father's income on son's occupational aspiration is 0.052; and while positive and substantial it is not statistically significant. Again, more than 96 per cent of sons of fathers of all income levels have medium or high level of occupational aspiration. A Chi-square analysis of the relationship between father's income and son's occupational aspiration reveals a statistically significant relationship between father's income and son's occupational aspiration: $.01 X_6^2 = 15.902$, $p < .01$ (see Table H.18 in Appendix H). Father's residence has only a negative and insignificant effect ($PS_{CA}^{FR} = -0.036$) on son's occupational aspiration. It seems sons of fathers of rural residence have as great an occupational aspiration as sons of father of urban residence.

The correlations between caste and son's "protective discrimination" and between son's "protective discrimination" and son's occupational aspiration are analyzed to see whether son's

"protective discrimination" has any significant effect on his occupational aspiration. Although the correlations between caste and son's "protective discrimination" is statistically significant ($.01 \chi^2_{12} = 706.542, p < .01$, see Table H.19 in Appendix H), the correlation between son's "protective discrimination" and sons's occupational aspiration is not significant ($.84 \chi^2_6 = 2.725, p > .05$, see Table H.20 in Appendix H).

Although the total direct effect of father's socioeconomic variables on son's occupational aspiration is statistically significant, only father's education emerges as the single most important variable that has a direct, and statistically significant effect on son's occupational aspiration. The direct effect of caste on son's occupational aspiration is substantial and as strong as that of father's education even though it is not statistically significant.

OCCUPATIONAL ASPIRATION: GRANDFATHER AND SON GENERATIONS

The Grandfather - Son Generation Causal Model (Figure 4.3) is used to validate the changes in the individual and the total effects of the socioeconomic variables on son's occupational aspiration. The comparison between the Grandfather - Son Generation Causal Model and the Father - Son Generation Causal Model may tell us the changes that have taken place between the grandfather and son generations. The total effect of the socioeconomic variables that are included in the models on son's occupational aspiration has increased between grandfather and son generations: the amount of total effect of

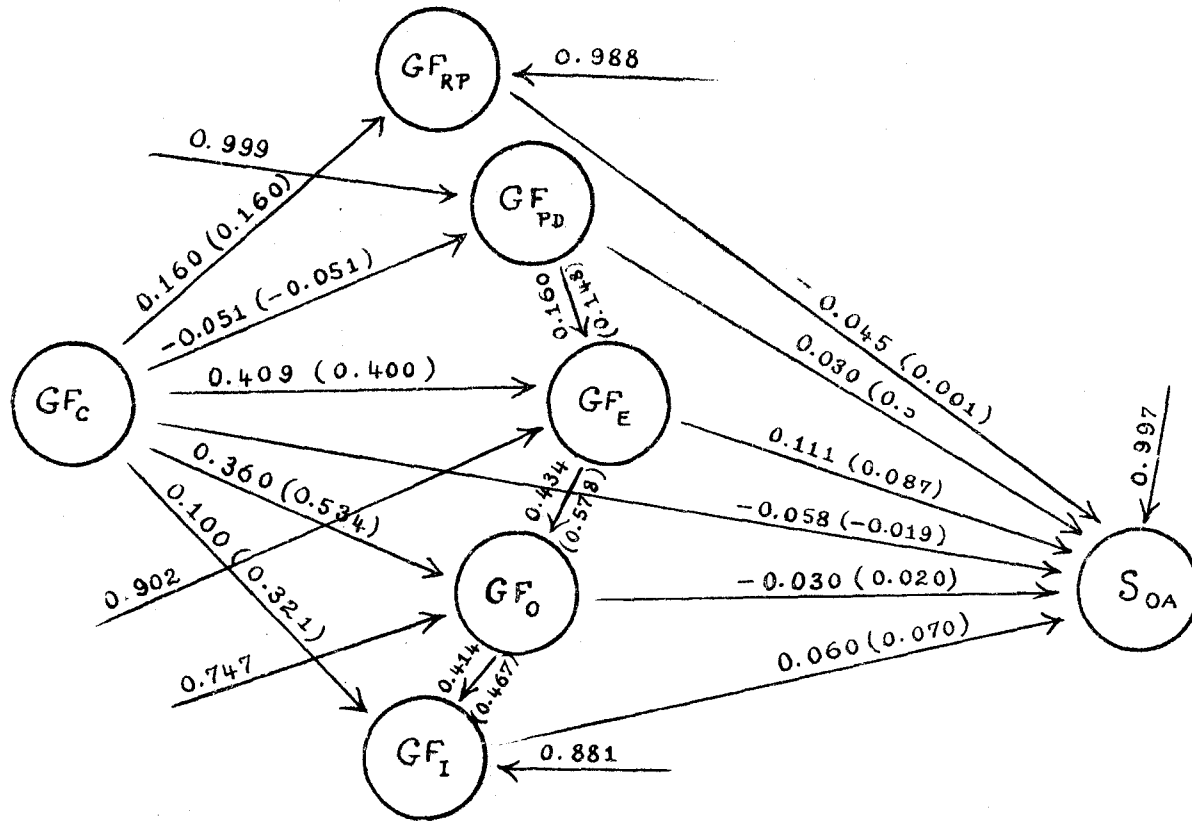


Figure 4.3.--Grandfather - Son Generation Causal Model

- | | |
|---|--|
| GF_C - Grandfather's Caste (also of father and son) | GF_O - Grandfather's Occupation |
| GF_{RP} - Grandfather's Residence (Population) | GF_I - Grandfather's Income |
| GF_{PD} - Grandfather's Protective Discrimination | S_{OA} - Son's Occupational Aspiration |
| GF_E - Grandfather's Education | |

grandfather's socioeconomic variables is 0.126 which is not statistically significant, but the same socioeconomic variables, between father and son generations, have increased their amount of total effect, 0.171, to be statistically significant at the .05 level. To study the changes in the causal effects of individual variables on son's occupational aspiration, let us look at the Tables 4.3, 4.4 and 4.5 and Figure 4.2 and 4.3.

Changes in Socioeconomic Variables between Generations:

The magnitude of the direct effect of caste on grandfather's and father's socioeconomic variables, except occupation, and on son's occupational aspiration has increased. The direct effect of caste on occupation has decreased a little in the father's generation, even though it is still statistically significant at the .01 level. The delayed effect of caste on father's occupation, as we have seen earlier, is also statistically significant at the .01 level. The direct effect of caste on father's education is stronger than the direct effect of caste on grandfather's education ($PF_E F_C = 0.446$; $PGF_E GF_C = 0.409$). And, similarly, the direct effect of education on father's occupation is stronger ($PF_0 F_E = 0.521$) than the direct effect of education on grandfather's occupation ($PGF_0 GF_E = 0.434$). This may be an indication that modern occupations in practice are increasingly becoming "castefree", and that the education of a person is being viewed more important than his caste. The direct effect of caste on son's occupational aspiration is greater in magnitude in the father's generation ($PS_{OA} F_C = -0.073$) than in

TABLE 4.4

DECOMPOSITION OF BIVARIATE COVARIATION OF VARIABLES IN THE GRANDFATHER-SON
GENERATION CAUSAL MODEL IN FIGURE 4.3

No.	Bivariate Relationship	Total Covariance (A)	Causal			Non-Causal (E) (A - D)
			Direct (B)	Indirect (C)	Total (D) (B + C)	
1	$GF_C GF_{RP}$	$rGF_C GF_{RP} = 0.160$	$pGF_{RP} GF_C = 0.160 (p < .01)$	none	0.160	none
2	$GF_C GF_{PD}$	$rGF_C GF_{PD} = -0.051$	$pGF_{PD} GF_C = -0.051 (NS)$	none	-0.051	none
3	$GF_C GF_E$	$rGF_C GF_E = 0.400$	$pGF_E GF_C = 0.409 (p < .01)$	-0.008	0.401	-0.001
4	$GF_C GF_O$	$rGF_C GF_O = 0.534$	$pGF_O GF_C = 0.360 (p < .01)$	0.174	0.534	none
5	$GF_C GF_I$	$rGF_C GF_I = 0.321$	$pGF_I GF_C = 0.100 (p < .05)$	0.221	0.321	none
6	$GF_C S_{OA}$	$rGF_C S_{OA} = -0.019$	$pS_{OA} GF_C = -0.058 (NS)$	-0.049	0.009	-0.028
7	$GF_{PD} GF_E$	$rGF_{PD} GF_E = 0.148$	$pGF_E GF_{PD} = 0.169 (p < .01)$	-0.008	0.161	-0.013
8	$GF_E GF_O$	$rGF_E GF_O = 0.578$	$pGF_O GF_E = 0.434 (p < .01)$	0.144	0.578	none
9	$GF_O GF_I$	$rGF_O GF_I = 0.467$	$pGF_I GF_O = 0.414 (p < .01)$	0.053	0.467	none
10	$GF_{RP} S_{OA}$	$rGF_{RP} S_{OA} = 0.001$	$pS_{OA} GF_{RP} = -0.045 (NS)$	-0.009	-0.054	0.055
11	$GF_{PD} S_{OA}$	$rGF_{PD} S_{OA} = 0.050$	$pS_{OA} GF_{PD} = 0.030 (NS)$	0.020	0.050	none

TABLE 4.4--Continued

No.	Bivariate Relationship	Total Covariance (A)	Causal			Non-Causal (E) (A - D)
			Direct (B)	Indirect (C)	Total (D) (B + C)	
12	$GF_E S_{OA}$	$r_{GF_E S_{OA}} = 0.087$	$p_{S_{OA} GF_E} = 0.111 (p < .05)$	-0.035	0.146	-0.059
13	$GF_O S_{OA}$	$r_{GF_O S_{OA}} = -0.020$	$p_{S_{OA} GF_O} = 0.051 (NS)$	0.110	0.161	-0.181
14	$GF_I S_{OA}$	$r_{GF_I S_{OA}} = 0.070$	$p_{S_{OA} GF_I} = 0.061 (NS)$	-0.037	0.024	0.046

TABLE 4.5

PATH COEFFICIENTS FOR ALL SOCIOECONOMIC VARIABLES INCLUDED IN THE GRANDFATHER-SON GENERATION CAUSAL MODEL AND FATHER-SON GENERATION CAUSAL MODEL AS SHOWN IN FIGURES 4.3 AND 4.2

Variables	1 C		2 RP		3 PD		4 E		5 O		6 I		7 SOA
	GF	F	GF	F	GF	F	GF	F	GF	F	GF	F	
1 C	GF 1.00	F 1.00	GF 0.160	F 0.281	GF -0.051	F -0.160	GF 0.409	F 0.446	GF 0.360	F 0.259	GF 0.100	F 0.241	-0.058 -0.073
2 RP			GF 1.00	F 1.00	GF --	F --	GF --	F --	GF --	F --	GF --	F --	-0.045 -0.036
3 PD					GF 1.00	F 1.00	GF 0.169	F 0.090	GF --	F --	GF --	F --	0.030 0.106
4 E							GF 1.00	F 1.00	GF 0.434	F 0.521	GF --	F --	0.111 0.076
5 O									GF 1.00	F 1.00	GF 0.414	F 0.347	-0.030 0.054
6 I											GF 1.00	F 1.00	0.060 0.052
7 SOA													1.00

C - Caste
 RP - Residence Population
 PD - Protective Discrimination

E - Education
 O - Occupation
 I - Income

SOA - Son's Occupational Aspiration
 GF - Grandfather
 F - Father

grandfathers generation ($PS_{OA}^{GF_C} = -0.058$) even though in both cases the direct effect of caste on son's occupational aspiration is not statistically significant. The relationship between caste and son's occupational aspiration is negative, and it may be due to the high occupational aspiration of the lower caste sons: 96 per cent of the Non-Brahmin Backward and Scheduled caste sons have a medium or high level of occupational aspiration (see Table H.16 in Appendix H).

One may assume that a possible reason for the high occupational aspiration of the lower caste sons may be the increasing amount of "protective discrimination" that these caste groups enjoy in the son's generation. But the data analysis disproves that assumption. Even though the direct effect of father's "protective discrimination" on son's occupational aspiration is statistically significant, the son's "protective discrimination" and his occupational aspiration does not show any statistically significant relationship (see Table H.20 in Appendix H). However, education in both generations has a statistically significant ($p < .05$) direct effect on son's occupational aspiration.

The occupation of father has a positive and stronger direct effect ($PS_{OA}^{F_0} = 0.054$) on son's occupational aspiration than that of grandfather's ($PS_{OA}^{GF_0} = -0.030$). The direct effect of father's income on son's occupational aspiration has slightly decreased ($PS_{OA}^{F_I} = 0.052$) but still remains relatively stronger. The only variable that does not have any significant direct effect on son's

occupational aspiration is residence. The negative relationship between residence and son's occupational aspiration indicates that sons of rural residences have a higher occupational aspiration than the others. One possible explanation for the higher occupational aspiration may be that usually sons of rural residences are the sons of farmers and farm managers and laborers who generally aspire to get higher urban and non-agricultural occupations.

In comparison with grandfather's socioeconomic variables, father's education, occupation and income have a substantial direct effect on son's occupational aspiration. Although father's education emerges as the most important socioeconomic variable that has statistically significant direct effect on son's occupational aspiration, still caste has substantial indirect (0.053) and direct (- 0.073) effect on son's occupational aspiration.

Thus far we have analyzed the data on the basis of the causal models that have been developed and interpreted the results of these models. The analysis covers three generations: namely, grandfather, father and son generations. Caste, one of the important socioeconomic variables, not only directly and indirectly affects the grandfather's and father's socioeconomic variables such as residence, "protective discrimination", education, occupation and income, but also directly affects father's occupational mobility and son's occupational aspiration. Another variable that is increasingly becoming more important for occupational mobility and occupational aspiration is education. The effect of "protective discrimination" is nil

or very minimum. Urbanization does not seem to have any significant impact on occupational mobility or aspiration. The results of path analysis are supported by Chi-square analysis so that the results are reliable and the interpretations are meaningful. In the next and final section of this chapter we will discuss the sample college variations.

COLLEGE VARIATIONS

We have drawn a stratified random sample to collect data for this study. The ten male or coeducation Madras city colleges of the University of Madras were stratified on the basis of students' caste. The 1974 college data was used for stratification. The ten colleges were stratified into "A", "B" and "C" type colleges: the "A" type being those colleges with students predominantly of upper castes; the "B" type being those colleges with students predominantly of middle castes; and the "C" type being those colleges with students predominantly of lower castes.

The analysis of the distribution of caste, father's education, occupation and income by sample colleges confirms our earlier assumption that the stratification of the colleges and the three sample colleges (Loyola College, Sir Thiagaraya College, and the Government Arts College, Nandanam) are truly representative of their respective college types. The Loyola College, being the randomly drawn sample college of the "A" type, has the highest percentage (79%) of Brahmin and Non-Brahmin Forward castes among its P.U.C. (Pre-University Class) students for the years, 1975-76 and 1976-77 and

the Sir Thiagaraya College of the "B" type and the Government Arts College, Nandanam of the "C" type respectively have 53 per cent and 31 per cent of the Brahmin and Non-Brahmin Forward Castes among their P.U.C. students for the years, 1975-76 and 1976-77. As far as the percentage of Non-Brahmin Backward and Scheduled Castes among the P.U.C. students are concerned the reverse is true: Loyola College, 15 per cent, Sir Thiagaraya College, 47 per cent, and the Government Arts College, Nandanam, 69 per cent. The Chi-square analysis shows the relationship between the colleges and the caste composition of the P.U.C. student population of these colleges is significant at the .01 level ($.01 \chi^2_8 = 150.052$). (See Table 4.6 for more details).

The relationship between the colleges and father's education of the P.U.C. students shows the same pattern. While 63 per cent of the fathers of the P.U.C. students of Loyola College have a college education, only 14 per cent of the fathers of the P.U.C. students of Sir Thiagaraya College and 12 per cent of the fathers of the P.U.C. students of the Government Arts College, Nandanam, have received a college education. Again the reverse is true as far as the percentage of fathers of the P.U.C. students of these three colleges who have no education or have received an education only upto middle school level: Loyola College, 9 per cent; Sri Thiagaraya College, 41 per cent and the Government Arts College, Nandanam, 52 per cent. The Chi-square analysis of the relationship between the colleges and father's education shows statistical significance at the .01 level ($.01 \chi^2_{16} = 194.572$. For more details see Table 4.7.)

TABLE 4.6

DISTRIBUTION OF THE SAMPLE P.U.C. STUDENTS' CASTE CATEGORIES BY THE SAMPLE COLLEGES

Count Row Pct Col Pct Tot Pct		Caste Categories ^a					Row Total
		Brahmin Castes 1.	Non-Brahmin Forward Castes 2.	Non-Brahmin Backward Castes 3.	Scheduled Castes 4.	Others 6.	
Colleges	Loyola College 1.	49 26.5 48.0 8.9	97 52.4 48.7 17.6	21 11.4 13.3 3.8	6 3.2 7.6 1.1	12 6.5 100.0 2.2	185 33.6
	Sir Thiagaraya College 2.	23 12.2 22.5 4.2	77 40.7 38.7 14.0	69 36.5 43.7 12.5	20 10.6 25.3 3.6	0 0.0 0.0 0.0	189 34.4
	Government Arts College, Nandanam 3.	30 17.0 29.4 5.5	25 14.2 12.6 4.5	68 38.6 43.0 12.4	53 30.1 67.1 9.6	0 0.0 0.0 0.0	176 32.0
	Column Total	102 18.5	199 36.2	158 28.7	79 14.4	12 2.2	550 100.0

$$\chi^2 = 150.05272; \text{Df} = 8; p < .01$$

^aThe caste category of scheduled tribes is omitted as there are no cases of that caste category in the sample.

TABLE 4.7

DISTRIBUTION OF THE SAMPLE P.U.C. STUDENTS' FATHERS' EDUCATIONAL LEVELS BY THE SAMPLE COLLEGES

Count Row Pct Col Pct Tot Pct		No Education 1.	Some Primary Education 2.	Elementary School Completed 3.	Middle School Completed 4.	Some High School Education 5.	High School Completed 6.	P.U.C. or 1 year of College 7.	B.A. etc. or 4 years of College 8.	M.A. etc. or 6 or more years of College 9.	Row Total
Colleges	Loyola College 1.	2 1.1 8.0 0.4	4 2.2 9.8 0.7	7 3.8 13.2 1.3	3 1.6 4.6 0.5	12 6.5 27.9 2.2	40 21.6 25.3 7.3	10 5.4 41.7 1.8	50 27.0 64.1 9.1	57 30.8 90.5 10.4	185 32.6
	Sir Thiagaraya College 2.	7 3.7 28.0 1.3	16 8.5 39.0 2.9	26 13.8 49.1 4.7	29 15.3 44.6 5.3	16 8.5 37.2 2.9	68 36.0 43.0 12.4	10 5.3 41.7 1.8	14 7.4 17.9 2.5	3 1.6 4.8 0.5	189 34.4
	Government Arts College, Nandanam 3.	16 9.1 64.0 2.9	21 11.9 51.2 3.8	20 11.4 37.7 3.6	33 18.8 50.8 6.0	15 8.5 34.9 2.7	50 28.4 31.6 9.1	4 2.3 16.7 0.7	14 8.0 17.9 2.5	3 1.7 4.8 0.5	176 32.0
Column Total		25 4.5	41 7.5	53 9.6	65 11.8	43 7.8	158 28.7	24 4.4	78 14.2	63 11.5	550 100.0

$$\chi^2 = 194.57292; Df = 16; p < .01$$

The distribution of father's occupation by colleges shows a similar relationship. Most of the fathers with prestigious and well-paying occupations send their children to colleges like Loyola College. About 86 per cent of the fathers of the P.U.C. students of Loyola College for the years, 1975-76 and 1976-77 are government officials, professionals and semiprofessionals, proprietors and managers and farmers and farm managers. For the same years, the percentage of fathers with the same categories of high status occupations whose sons are the P.U.C. students at Sir Thiagaraya College and the Government Arts College, Nandanam are respectively 50 per cent and 29 per cent. But the greater percentage of the P.U.C. students whose fathers are farm laborers and unskilled laborers attend the Government Arts College, Nandanam (21 per cent). The percentage of such students for the other colleges are: Sir Thiagaraya College, 9 per cent; and Loyola College, 2 per cent. (See Table 4.8 for more details. The $.01 X_{14}^2 = 188.475$.)

Finally, the relationship between the income of the fathers and the colleges shows the same pattern. While 65 per cent of the fathers of the P.U.C. students of Loyola College have an annual income of Rupees 6,000 and over; only 28 per cent of the fathers of the P.U.C. students of Sir Thiagaraya College, and 10 per cent of the fathers of the P.U.C. students of the Government Arts College, Nandanam have such higher income. The reverse is true as far as the fathers of the P.U.C. students whose annual income is less than Rupees 750: Loyola College, 4 per cent; Sir Thiagaraya

TABLE 4.8

DISTRIBUTION OF THE SAMPLE P.U.C. STUDENTS' FATHERS' OCCUPATIONAL CATEGORIES BY THE SAMPLE COLLEGES

	Count Row Pct Col Pct Tot Pct	Fathers' Occupational Categories								Row Total
		Government Officials 1.	Professionals and Semi-Pro- fessionals 2.	Proprietors, Managers and Officials 3.	Farmers and Farm Managers 4.	Clerical and Sales Workers 5.	Skilled Workers 6.	Farm Laborers 7.	Unskilled Workers 8.	
Colleges	Loyola 1. College	9 4.9 90.0 1.6	74 40.0 64.9 13.5	65 35.1 56.0 11.8	11 5.9 16.9 2.0	11 5.9 13.1 2.0	11 5.9 10.7 2.0	2 1.1 6.5 0.4	2 1.1 7.4 0.4	185 33.6
	Sir Thia- 2. garaya College	1 0.5 10.0 0.2	23 12.2 20.2 4.2	35 18.5 30.2 6.4	36 19.0 55.4 6.5	38 20.1 45.2 6.9	39 20.6 37.9 7.1	6 3.2 19.4 1.1	11 5.8 40.7 2.0	189 34.4
	Government 3. Arts College, Nandanam	0 0.0 0.0 0.0	17 9.7 14.9 3.1	16 9.1 13.8 2.9	18 10.2 27.7 3.3	35 19.9 41.7 6.4	53 30.1 51.5 9.6	23 13.1 74.2 4.2	14 8.0 51.9 2.5	176 32.0
	Column Total	10 1.8	114 20.7	116 21.1	65 11.8	84 15.3	103 18.7	31 5.6	27 4.9	550 100.0

$$\chi^2 = 188.47548; Df = 14; p < .01$$

College, 9 per cent and the Government Arts College, Nandanam, 24 per cent. The relationship between father's income and the College is statistically significant at .01 level ($.01 \times \frac{2}{6} = 156.797$; and see Table 4.9 for further details.)

The Chi-square analysis of some of the father's socioeconomic variables by the sample college prove our earlier assumptions for stratification of colleges and the sample colleges are perfect representatives of their respective types of colleges.

In this chapter we have discussed the data analysis and interpreted the findings from such analysis. In the next and the final chapter we will draw conclusions from the findings which will prove or disprove our hypotheses; and also, we will discuss the limitations and the need for and future possibilities of this type of research in Tamil Nadu or in other parts of India.

TABLE 4.9

DISTRIBUTION OF THE SAMPLE P.U.C. STUDENTS' FATHERS' ANNUAL INCOMES BY THE SAMPLE COLLEGES

	Count Row Pct Col Pct Tot Pct	Fathers' Annual Income (in rupees) ^a				Row Total
		Less than 749 1.	750 to 2,499 2.	2,500 to 5,999 3.	6,000 and over 4.	
Colleges	Loyola College 1.	7 3.8 10.4 1.3	19 10.3 11.1 3.5	39 21.1 32.2 7.1	120 64.9 62.8 21.8	185 33.6
	Sir Thiagaraya College 2.	17 9.0 25.4 3.1	72 38.1 42.1 13.1	47 24.9 38.8 8.5	53 28.0 27.7 9.6	189 34.4
	Government Arts College, Nandanam 3.	43 24.4 64.2 7.8	80 45.5 46.8 14.5	35 19.9 28.9 6.4	18 10.2 9.4 3.3	176 32.0
	Column Total	67 12.2	171 31.1	121 22.0	191 34.7	550 100.0

$$\chi^2 = 156.79700; \text{Df} = 6; p < .01$$

^aRupee is the Indian currency which is approximately equivalent to 12¢ of the U.S.A. currency in 1977.

CHAPTER V

CONCLUSIONS, LIMITATIONS AND FUTURE POSSIBILITIES

CONCLUSIONS:

The present day Tamil Nadu society - and Indian society - is a very good example of a mixed social system. Caste, an ascriptive social status, which alone determines a person's other socioeconomic statuses as in a closed - caste social system, is still very much in existence. Socioeconomic statuses such as residence, education, occupation and income which are supposed to be achieved statuses, as in an open - class social system, are also present in the present day Tamil Nadu society. Hence it is a mixed (closed-caste and open-class) social system. We have analyzed the relationship of a person's caste status with his other socioeconomic statuses, and found that caste has still a positive, and in most cases statistically significant direct effect on a person's other socioeconomic statuses. We have compared this relationship between grandfather-father generations and between father-son generations. In most cases, the direct effect of caste on other socioeconomic variables has only increased rather than decreased in the father's generation. The only exception is the influence of caste on occupation which has decreased somewhat, but yet is statistically significant ($p_{GF_0GF_c} = 0.360$, $p < .01$; $p_{F_0F_c} = 0.259$, $p < .01$). Otherwise, the upper castes still remain higher in education, occupation and income, and the lower castes are lower in education, occupation and income. Even in terms of urbanization, the upper castes are more

urbanized than the lower castes ($P_{GF_{RP}GF_c} = 0.160, p < .01$; $P_{FRP}F_c = 0.281, p < .01$).

Again our analysis shows a positive, and in most cases statistically significant direct effect of a person's caste, education, occupation, income and residence on his occupational mobility and occupational aspiration. Let us take the grandfather - father generations and look at the causal model in Figure 4.1. Grandfather's caste, education, occupation, income and residence have significantly contributed to father's educational achievement. Again, father's occupational achievement has not depended upon his education only, but also on his caste and his father's occupation. The direct effect of father's education on his occupational achievement is positive and statistically significant, so also are caste and grandfather's occupation. The magnitude of the positive direct effect of grandfather's occupational status on father's occupational achievement is significant. Sons of fathers whose occupational status are higher achieve higher levels of occupations than sons of fathers who occupy low levels of occupations. In the same way sons of higher castes and of higher educational levels achieve higher levels of occupations than the sons of lower castes and of lower levels of education. The same pattern of influence holds true as far as occupational aspiration is concerned. Sons of fathers of higher education, occupation and income have higher occupational aspirations (see Figure 4.2). But in this case, caste has a negative effect on occupational aspiration. The reason may be that sons of lower castes have higher occupational aspiration than the others.

Urbanization does not have a very significant effect on a person's occupational achievement or aspiration. The negative relationship between residence, occupational achievement and occupational aspiration suggests that sons from small towns and rural areas have as much or higher occupational achievement aspiration than sons of urban fathers.

The variable of "protective discrimination" has no significant direct effect whatsoever on occupational achievement or occupational aspiration. This suggests that occupational mobility due to "protective discrimination" is so minimal that "protective discrimination" may merely be a political tokenism to the lower castes.

And so the main problem centers around two important variables, namely caste and education, that may have a dominant effect on a person's occupational mobility and occupational aspiration in present day Tamil Nadu. The popular assumption in the state of Tamil Nadu, and in India, is that a person's educational achievement is the most important factor in his occupational achievement or aspiration; and that a person's caste has no direct effect on his occupational status or occupational status aspiration as the modern industrial occupations are supposed to be "caste-free". We have tested this assumption to see whether it is, in reality, true or not. We have found that although the educational achievement of a person is emerging as one of the important variables for occupational achievement, his caste still exerts a substantial and statistically significant as well as positive indirect and direct effect not only on his educational achievement but also on his occupational achievement (see Table 4.1). The direct effect or

the delayed effect of caste on a person's occupational achievement is significant (see Table 4.1 : $p_{F_{OGF_c}} = 0.112$, $p < .01$). This means that in addition to a person's educational achievement, his caste status also contributes directly and significantly to his occupational achievement. The presence of the statistically significant and positive direct effect or "delayed effect" of caste on a person's occupational achievement substantiates our skepticism about the popular belief that caste status has lost its influence.

Sociologists who have studied the Indian social stratification system and the process of social change believe that in the changing social conditions in India, caste is steadily losing its overbearing importance; particularly in the achievement of modern occupational statuses. They also believe that any variation in occupational achievement is due to differential educational achievement ignoring the fact that educational achievement is a function of a person's caste status. The statistically significant and positive direct effects of caste on a person's occupational achievement disproves this belief. Caste still remains very important for a person's occupational status in spite of a person's education and other socioeconomic variables.

The direct effect of caste on grandson's occupational aspiration shows a slight decline, and also the direct effect is negative (see Table 4.3 : $p_{S_{OAF_c}} = 0.073$). This result is unexpected as we hypothesized a positive and significant direct effect of caste on occupational aspiration. One reason for this result may be the general higher occupational aspiration found among all caste sons, more particularly so among lower caste sons. Nine out of ten sons (96%) have

medium or high level of occupational aspiration. The same ratio holds true for the scheduled (96%) and backward caste (96%) sons. A second reason may be that occupational aspiration is not actual occupational achievement, and that the P.U.C. students are usually highly idealistic at this stage in their education.

We have also correlated the higher occupational aspiration of the scheduled caste and backward caste sons with their "protective discrimination" to see whether the educational scholarships and other public occupational quotas reserved for these castes have any significant effect on their higher occupational aspiration. We have found no statistically significant relationship between sons' "protective discrimination" and their occupational aspirations. (See Table 4.20 in Appendix H: $.84 X^2_6 = 2.725, p > .05$). Their actual occupational achievement after their education may reveal to us the relative importance of education and caste and other socioeconomic variables. But as of now, caste has substantial direct effect on occupational aspiration even though it is not statistically significant.

The only other important socioeconomic variable that has a strong and also statistically significant direct effect on son's occupational aspiration is father's education. This finding may be an indication of the social changes that are beginning to put greater weight on a variety of other socioeconomic variables, including education, and the weakening of the dominant effect of caste on a person's occupational aspiration and achievement. Only a longitudinal study of the sample P.U.C. students may confirm the relationship between the occupational aspiration and the actual occupational achievement, and

the relative magnitudes of the presence or the absence of the direct effects of a person's caste, education and other socioeconomic variables on his occupational achievement.

In the absence of such a longitudinal study, and on the basis of the evidences we have now, we have to conclude that caste in Tamil Nadu, India, is still the dominant variable which not only indirectly affects a person's education and other socioeconomic variables, but also directly affects his occupational aspiration and occupational achievement. And so education may not be the principal instrument for upward occupational mobility or higher occupational aspiration.

LIMITATIONS:

The conclusions of this study are tentative, and they may apply only to the state of Tamil Nadu, as Tamil Nadu has been and is one of the strongholds of casteism. Replication and extension of this study alone will clarify and further substantiate some of its findings and conclusions.

The sample has been drawn from a stratified random sampling of the male Pre-University class students of the Madras city college of the University of Madras. The size of the sample is 550, which is large enough for this study. A much larger sample, not only from the city colleges but also from other colleges from other parts of the state of Tamil Nadu, may have given us better insights into the process of social mobility and the causes of such mobility. The city of Madras is more cosmopolitan in nature than the other cities of Tamil Nadu and

a large and widespread sample from all the colleges of all the cities of Tamil Nadu may have yielded more generalizable results.

The statistical methodology we have used in this study, namely path analysis, may have put certain constraints and distorted some of the results. Our main goal in using path analysis and causal models is to show the process of "causation" and draw some tentative conclusions that may be provocative for future research possibilities. We are aware of some of the constraints in this method: one is the confounding effect of independent variables which are intercorrelated, and the other is the built in bias of the F - test against the direct effects of remote causes in favor of their indirect effects. These constraints may have distorted some of the results, but we have tried to interpret the effects of the variables on the basis of their relative magnitude, and, in some cases, we have also tried to substantiate them with other forms of statistical analysis, such as chi-square analysis.

FUTURE POSSIBILITIES:

To our knowledge, this is the first study of its kind and magnitude done on India. We are aware of some small studies in social mobility done in India. Hence this study may provoke further studies in various different parts of India with better and larger samples. For example, a longitudinal study would have been desirable to see whether the sample students actually achieve the occupations they aspire for at the end of their studies. But we were not able to do this because of time and money, and also because of the purpose of this study.

BIBLIOGRAPHY

Public Documents

- Government of India. Census of India: 1901, Vol. I-A, India, Part II, Table XVI. Selected Castes by Traditional and Actual Occupation: Madras. Calcutta: Office of the Superintendent of Government Printing, 1903.
- Government of India. General Report of the Census of India: 1901, presented to both Houses of Parliament by command of His Majesty. Chapter VI. Occupation by Caste: Madras. London: Printed for His Majesty's Stationary Office by Darling and Sons, 1904.
- Government of India. Census of India: 1931, Vol. I, India, Part II. Imperial Tables, Table XI. Occupations of Selected Castes, Tribes or Races. Delhi: Manager of Publications, 1933.
- Government of India. Census of India: 1931, Vol. XIV, Madras, Part II, Imperial and Provincial Tables, Table XVIII. Race, Tribe or Caste. Calcutta: Printed by the Superintendent, Government Press, 1932.
- Government of India. Census of India: 1961. Monograph Series, Monograph No. 4. Occupational Structure and Level of Economic Development in India: A Regional Analysis, Tamil Nadu. New Delhi: Office of the Registrar General, India, Ministry of Home Affairs, 1963.
- Government of India. Report of the Education Commission (1964-1966): Education and National Development. New Delhi: Ministry of Education, Government of India, 1966.
- Government of India. National Classification of Occupational Titles with Draft Definitions. Directorate - General of Resettlement and Employment. No date.
- Government of Madras. Report on the Occupational Pattern of Employees in the Public Sector in Madras State (September, 1964). Directorate of Employment and Training, State Employment Market Information Unit. Madras: Director of Stationary and Printing, 1968.

Government of Tamil Nadu. Quarterly Review of Employment in Tamil Nadu (December, 1972). State Employment Market Information Unit, Directorate of Employment and Training.

International Labor Office. International Classification of Occupations for Migration and Employment Placement. Vol. I (Occupational Titles, Codes and Definitions). Geneva, June, 1952.

International Labor Office. International Standard Classification of Occupations. Geneva, Switzerland: "La Tribune De Geneve", 1958.

Books

Ahmad, Makhdum Tasadduq. System of Social Stratification in India and Pakistan. Lahore, Pakistan, Punjab University Press, 1972.

Alexander, K. C. Social Mobility in Kerala. Poona, India: Decan College, Postgraduate and Research Institute, 1968.

Appelbaum, Richard P. Theories of Social Change. Chicago: Markham Publishing Company, 1970.

Baines, Sir Athelstane. Ethnography (Castes and Tribes) with a list of the more important works on Indian ethnography by W. Siegling. Strassburg: Verlag Von Karl J. Trübner, 1912.

Barbar, Bernard. Social Stratification: A Comparative Analysis of Structure and Process. New York: Harcourt, Brace and Co., 1957.

Beals, Alan R. Village Life in South India: Cultural Design and Environmental Variation. Chicago: Aldine Publishing Company, 1974.

Beck, Brenda E. F. Peasant Society in Konku: A Study of Right and Left Subcastes in South India. Vancouver: University of British Columbia Press, 1972.

Bendix, Reinhard, and Lipset, Seymour Martin (eds.). Class, Status, and Power: Social Stratification in Comparative Perspective. 2nd ed., New York: The Free Press, 1966.

- Bèteille, André. Caste, Class and Power: Changing Patterns of Stratification in a Tanjore Village. Berkeley: University of California Press, 1965.
- _____. Castes: Old and New, Essays in Social Structure and Stratification. Bombay: Asia Publishing House, 1969.
- _____. (ed.). Social Inequality: Selected Readings. Reprint. Middlesex, England: Penguin Books Ltd., 1970.
- Bhowmick, P. K. Occupational Mobility and Caste Structure in Bengal: Study of Rural Market. Calcutta: India Publications, 1969.
- Blalock, Jr., Hubert M., and Blalock, Ann B. Methodology in Social Research. New York: McGraw-Hill Book Co., 1968.
- Boudon, Raymond. Mathematical Structures of Social Mobility. San Francisco: Jossey Bass Inc., Publishers, 1973.
- _____. Education, Opportunity and Social Inequality: Changing Prospects in Western Society. New York: John Wiley and Sons, 1974.
- Bose, Devabrata. The Problems of Indian Society. Bombay: Popular Prakashan, 1968.
- Breese, Gerald (ed.). The City in Newly Developing Countries: Readings on Urbanism and Urbanization. Englewood Cliffs, N.J.: Prentice Hall, Inc., 1969.
- Carlsson, Gösta. Social Mobility and Class Structure. Lund: Gleerup, 1969.
- Chhibbar, Y. P. From Caste to Class: A Study of the Indian Middle Classes. New Delhi: Associated Publishing House, 1969.
- Cohn, Bernard S. India: The Social Anthropology of a Civilization. Englewood Cliffs, N.J.: Prentice Hall Inc., 1971.
- Clignet, Remi. Liberty and Equality in the Educational Process: A Comparative Sociology of Education. New York: John Wiley and Sons, 1974.
- Coon, Charleton S. (ed.) A Reader in General Anthropology. New York: Holt, Rinehart and Winston, 1967.

- Cox, Oliver Cromwell. Caste Class and Race: A Study in Social Dynamics. 3rd Printing. New York: Modern Reader Paperbacks, 1970.
- Davidson, Percy E., and Anderson, H. Dewey. Occupational Mobility in an American Community. Stanford University, Calif.: Stanford University Press, 1937.
- Davis, Kingsley. The Population of India and Pakistan. Princeton, N.J.: Princeton University Press, 1951.
- de Reuck, Antony, and Knight, Julie (eds.). Caste and Race: Comparative Approaches. Boston: Little, Brown and Company, 1966.
- Dube, S. C. Indian Village. New York: Harper and Row Publishers, 1967.
- Duncan, Otis Dudley, Featherman, David L., and Duncan, Beverley. Socioeconomic Background and Achievement. New York: Seminar Press, 1972.
- Ekstein, Max A., and Noah, Harold J. (eds.). Scientific Investigations in Comparative Education. London: The Macmillan Company, Collier-Macmillan Limited, 1969.
- Emmerij, Louis. Can the School Build a New Social Order? Amsterdam: Elsevier Scientific Publishing Company, 1974.
- Fukutake, Tadashi. Asian Rural Society: China, India, Japan. Seattle: University of Washington Press, 1967.
- Ghurye, G. S. Caste, Class and Occupation. 4th ed. Bombay: Popular Book Depot, 1961.
- Glass, David Victor (ed.). Social Mobility in Britain. Reprinted. London: Routledge and Kegan Paul Ltd., 1963.
- Gnanaprakasam, S. The Origins of Caste among the Tamils. Trichinopoly, India: Indian Catholic Truth Society, 1920.
- Haller, Archibald O., and Miller, Irwin W. The Occupational Aspiration Scale: Theory, Structure and Correlates. Cambridge, Mass: Schenkman Publishing Company, Inc., 1971.
- Hardgrave, Jr., Robert L. The Nadars of Tamil Nad: The Political Culture of a Community in Change. Berkeley: University of California Press, 1969.

- Havighurst, Robert J., Neugarten, Bernice L., and Falk, Jacqueline M. (eds.). Society and Education, A Book of Readings. 2nd ed. Boston: Allyn and Bacon, Inc., 1971.
- Hope, Keith (ed.). The Analysis of Social Mobility: Methods and Approaches. Oxford: Clarendon Press, 1972.
- Hug, Mohammad Shamsul. Education, Manpower, and Development in South and Southeast Asia. New York: Praeger Publishers, 1975.
- Hutton, J. H. Caste in India: Its Nature, Function, and Origins. 4th ed. London: Oxford University Press, 1963.
- Irschick, Eugene F. Politics and Social Conflict in South India: The Non-Brahmin Movement and Tamil Separatism, 1916-1929. Berkeley: University of California Press, 1969.
- Ishwaran, K. Tradition and Economy in Village India. London: Routledge & Kegan Paul, 1966.
- _____. (ed.). Change and Continuity in India's Villages. New York: Columbia University Press, 1970.
- Kerlinger, Fred N., and Pedhazur, Elazar J. Multiple Regression in Behavioral Research. New York: Holt, Reinhart and Winston, Inc., 1973.
- King, Edmund James. Education and Social Change. 1st ed. Oxford: Pergamon Press, 1966.
- Laumann, Edmund O., Siegel, Paul M., and Hodge, Robert W. (eds.). The Logic of Social Hierarchies. Chicago: Markham Publishing Company, 1970.
- Lipset, Seymour Martin, and Bendix, Richard. Social Mobility in Industrial Society. 4th Printing. Berkeley: University of California Press, 1964.
- Lynch, Owen M. The Politics of Untouchability: Social Mobility and Social Change in a City of India. New York: Columbia University Press, 1969.
- Mack, Raymond W., Freeman, Linton and Yellin, Seymour. Social Mobility: Thirty years of Research and Theory. An annotated Bibliography. Syracuse: Syracuse University Press, 1957.

- Mandelbaum, David G. Society in India. Vol. I: Continuity and Change. Berkeley: University of California Press, 1970.
- Marriott, McKim (ed.). Village India: Studies in the Little Community. Chicago: The University of Chicago Press, 1958.
- Marsh, Robert M. Comparative Sociology: A Codification of Cross-societal Analysis. New York: Harcourt, Brace & World, Inc., 1967.
- Mayer, Adrian C. Caste and Kinship in Central India: A Village and Its Region. Berkeley: University of California Press, 1966.
- Merritt, Richard L. (ed.). Comparing Nations: The Use of Quantitative Data in Cross-national Research. New Haven: Yale University Press, 1966.
- Mukerjee, Radhakamal. "Social Structure and Stratification of the Indian Nation." Vol. II of the Transactions of the Second World Congress of Sociology held in the University of Liege, Belgium, 24-31, August, 1953. London: International Sociological Association, 1953.
- Nadel, S. F. The Theory of Social Structure. London: Cohen and West, 1957.
- Nehru, Jawaharlal. Discovery of India. Calcutta: Signet Press, 1948.
- Pavalko, Ronald M. Sociology of Occupations and Professions. Itasca: F.E. Peacock Publishers, Inc., 1971.
- Reiss, Jr., Albert J., et al. Occupations and Social Status. New York: Free Press of Glencoe, 1961.
- Ridge, John Michael (ed.). Mobility in Britain Reconsidered. Oxford Studies in Social Mobility; Working paper 2. Oxford: Clarendon Press, 1974.
- Rogoff, Natalie. Recent Trends in Occupational Mobility. Glencoe, Illinois: The Free Press, 1953.
- Rokkan, Stein (ed.). Imagination and Precision in the Social Sciences. New York: Humanities Press, 1972.
- Rosen, George. Democracy and Economic Change in India. Berkeley: University of California Press, 1967.

- Rudolph, Lloyd I., and Rudolph, Susanne Hoeber. The Modernity of Tradition: Political Development in India. 2nd. Impression. Chicago: University of Chicago Press, 1969.
- Russett, Bruce M., et al. World Handbook of Political and Social Indicators. 2nd ed. New Haven: Yale University Press, 1972.
- Ryan, Bryce F. Social and Cultural Change. New York: The Ronald Press Company, 1969.
- Salaman, Graeme. Community and Occupation: An Exploration of Work/Leisure Relationships. London: Cambridge University Press, 1974.
- Silverberg, James (ed.). Social Mobility in the Caste System in India: An Interdisciplinary Symposium. The Hague: Mouton, 1968.
- Simon, Herbert A. Models of Man. New York: Wiley and Sons, 1957.
- Sivertsen, Dagfinn. When Caste Barriers Fall: A Study of Social and Economic Change in a South Indian Village. New York: Humanities Press, 1963.
- Smelser, Neil J., and Lipset, Seymour Martin (eds.). Social Structure and Mobility in Economic Development. Chicago: Aldine Publishing Co., 1966.
- Sorokin, Pitirim A. Social and Cultural Mobility, containing complete reprints of Social Mobility and Chapter V from Volume IV of Social and Cultural Dynamics. First paperback edition. London: The Free Press of Glencoe, Collier - Macmillan Ltd., 1964.
- Srinivas, M.N. Religion and Society Among the Coorgs of South India. London: Oxford University Press, 1952.
- _____. India's Villages. 2nd ed. revised. Bombay: Asia Publishing House, 1966.
- _____. Social Change in Modern India. Berkeley: University of California Press, 1966.
- Strauss, Anselm L. The Contexts of Social Mobility: Ideology and Theory. Chicago: Aldine Publishing Co., 1971.
- Svalastoga, Karre. Social Differentiation. New York: David Mackay, 1965.

- Tatsuoka, Maurice M. Selected Topics in Advanced Statistics, An Elementary Approach. No. 2: Standardized Scales: Linear and Area Transformations. Champaign: The Institute for Personality and Ability Testing, 1969.
- Selected Topics in Advanced Statistics, An Elementary Approach. No. 4: Significance Tests: Univariate and Multivariate. Champaign: The Institute for Personality and Ability Testing, 1971.
- Selected Topics in Advanced Statistics, An Elementary Approach. No. 5: Validation Studies: The Use of Multiple Regression Equations. Champaign: The Institute for Personality and Ability Testing, 1969.
- Taylor, Lee. Occupational Sociology. New York: Oxford University Press, 1968.
- Transactions of the Third World Congress of Sociology. Held in Amsterdam, 22-29, August, 1956. Vol. I. London: International Sociological Association, 1956.
- Transactions of the Third World Congress of Sociology. Koninklijk Instituut Voor de Tropen, Amsterdam, 22-29, August, 1956. Vol. V: Changes in Education. London: International Sociological Association, 1956.
- Tumin, Melvin, and Feldman, Arnold. Social Class and Social Change in Puerto Rico. Princeton, N.J.: Princeton University Press, 1961.
- Tumin, Melvin M. Social Stratification: The Forms and Functions of Inequality. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1967.
- Ward, Richard J. (ed.). The Challenge of Development: Theory and Practice. Chicago: Aldine Publishing Company, 1967.
- Williams, John Delane. Regression Analysis in Educational Research New York: M.S.S. Information Corp., 1974.
- Wiser, William H., and Wiser, Charlotte V. Behind Mud Walls, 1930-60 with a Sequel: The Village in 1970. 2nd Printing. Berkeley: University of California Press, 1973.
- Yanowitch, Murray, and Fisher, Wesley A. (ed.). Social Stratification and Mobility in the U.S.S.R. White Plains, New York: International Arts and Science Press, Inc., 1973.

Articles and Periodicals

- Anderson, C. Arnold. "A Skeptical Note on the Relation of Vertical Mobility to Education," The American Journal of Sociology, LXVI, No. 6 (May, 1961), 560-70.
- Bhatia, H. S. "Inter-Caste Relations and Aspirational Levels - An Attitudinal Study," The Indian Journal of Social Work, XXXI, No. 1 (April, 1970), 43-48.
- Bose, A. B. "Educational Development Among Scheduled Castes," Man in India, L, No. 3 (July - September, 1970), 209-39.
- Boyle, Richard P. "Path Analysis and Ordinal Data," American Journal of Sociology, LXXV (January, 1970), 461-79.
- Carlos, Serge. "The Analysis of Causal Models: Some Remarks on New Techniques," Interchange, I, No. 3 (1970), 21-28.
- Centers, Richard. "Education and Occupational Mobility," American Sociological Review, XIV (February, 1949), 143-44.
- Chekki, Dan A. "Social Stratification and Trends of Social Mobility in Modern India," The Indian Journal of Social Work, XXXI, No. 4 (January, 1971), 367-80.
- Curle, Adam. "Education, Politics and Development," Comparative Education Review, VII (February, 1964), 226-45.
- Davies, A. F. "Prestige of Occupations," British Journal of Sociology, III (1952), 134-47.
- Duncan, Otis Dudley. "Path Analysis: Sociological Examples," The American Journal of Sociology, LXXII, No. 1 (July, 1966), 1-16.
- Duncan, Otis Dudley, and Hodge, Robert W. "Education and Occupational Mobility: A Regression Analysis," The American Journal of Sociology, LXVIII, No. 6 (May, 1963), 629-44.
- Driver, Edwin D. "Caste and Occupational Structure in Central India," Social Forces, XLI, No. 1 (October, 1962), 26-31.
- Ellis, Robert A., and Lane, W. Clayton. "Structural Supports for Upward Mobility," American Sociological Review, XXVIII, No. 5 (October, 1963), 743-56.

- Form, William H., and Miller, Delbert C. "Occupational Career Pattern as a Sociological Instrument," American Sociological Review, LIV (January, 1949), 317-29.
- Carbin, Albeno P., and Bates, Frederick L. "Occupational Prestige: An Empirical Study of Its Correlates," Social Forces, XL, No. 2 (December, 1961), 131-36.
- Gardner, John W. "The Use of the Term 'Level of Aspiration'," The Psychological Review, XLVII, No. 1 (January, 1940), 59-68.
- Gaur, Jag Shankar, and Mathur, Purnima. "The Effects of Level of Intelligence on the Occupational Aspiration of the Higher Secondary School students in Delhi," Indian Journal of Psychology, XLIX, Part 2 (1974), 139-48.
- Gist, Noel P. "Caste Differentials in South India," American Sociological Review, XIX, No. 2 (April, 1954), 126-37.
- Haller, Archibald O., Otto, Luther B., Meier, Robert F., and Ohlendorf, George W. "Level of Occupational Aspiration: An Empirical Analysis," American Sociological Review, XXXIX (February, 1974), 113-20.
- Hatt, Paul K. "Occupation and Social Stratification," The American Journal of Sociology, LV, No. 6 (May, 1950), 533-43.
- Havighurst, Robert J. "Education, Social Mobility and Social Change in Four Societies," International Review of Education, IV, No. 2 (1958), 167-82.
- Hawkes, Roland K. "The Multivariate Analysis of Ordinal Measures," American Journal of Sociology, LXXVI, No. 5 (March, 1971), 908-26
- _____. "Some Methodological Problems in Explaining Social Mobility," American Sociological Review, XXXVII, (June, 1972), 294-300.
- Hodge, Robert W. Siegel, Paul M., and Rossi, Peter H. "Occupational Prestige in the United States, 1925-63," The American Journal of Sociology, LXX, No. 3 (November, 1964) 286-302.
- Inkeles, Alex, and Rossi, Peter H. "National Comparisons of Occupational Prestige," The American Journal of Sociology, LXI, No. 4 (January, 1956), 329-39.
- "Jobs and Occupations: A Popular Evaluation," National Opinion Research Center, Opinion News, IX, No. 4 (September 1, 1947), 3-13.

- Jorapur, P.B. "Intergenerational Occupational Mobility," The Indian Journal of Social Work, XXXI, No. 4 (January, 1971), 461-67.
- Lipset, Seymour Martin. "Social Mobility and Equal Opportunity," The Public Interests, No. 29 (Fall, 1972), 90-108.
- Marsh, Robert M. "Values, Demand and Social Mobility," American Sociological Review, XXVIII, No. 4 (August, 1963), 565-75.
- _____. "The Explanation of Occupational Prestige Hierarchies," Social Forces, L, No. 2 (December, 1971), 214-22.
- Marulasiddaiah, H.M. "Caste Consolidation, Social Mobility and Ambivalence: A Case Study of Caste Hostels in Mysore State," The Indian Journal of Social Work, XXXI, No. 4 (January, 1971), 391-399.
- Miller, I. W., and Haller, A.O. "A Measure of Level of Occupational Aspiration," Personnel and Guidance Journal, XLIII (January, 1964), 448-55.
- Mortimer, Jeylan T. "Patterns of Intergenerational Occupational Movements: A Smallest-Space Analysis," American Journal of Sociology, LXXIX, No. 5 (March, 1974), 1278-99.
- Mukerjee, Radhakamal. "Caste and Social Change in India," American Journal of Sociology, XLIII, (November, 1937), 377-90.
- _____. "Mobility, Ecological and Social," Social Forces, XXI (December, 1942), 154-59.
- Olcott, Mason. "The Caste System in India," American Sociological Review, IX, No. 6 (December, 1944), 648-57.
- Rathniah, E.V. "Education as an Instrument of Social Change," The Education Quarterly (July, 1974), 26-28.
- Sachchidananda. "Education and Changes in Social Values," Man in India, XLVIII, No. 1 (January - March, 1968), 77-85.
- Sewell, William H., Haller, Archie O., and Straus, Murray A. "Social Status and Educational and Occupational Aspiration," American Sociological Review, XXII, No. 1 (February, 1957), 67-73.
- Sharma, K.L. "Patterns of Occupational Mobility: A Study of Six Village in Rajasthan," The Indian Journal of Social Work, XXX, No. 1 (April, 1969), 33-43.

- Sibley, Elbridge. "Some Demographic Clues to Stratification," American Sociological Review, VII, No. 3 (June, 1942), 322-330.
- Somers, Robert H. "A New Asymmetric Measure of Association for Ordinal Variables," American Sociological Review, XXVII, No. 6 (December, 1962), 799-811.
- Spady, William G. "Simple Techniques for Multivariate Analysis," Interchange, I, No. 3 (1970), 3-20.
- Srinivas, M. N. "A Note on Sanskritization and Westernization," Far Eastern Quarterly, XV, No. 4 (August, 1956), 481-496.
- Turner, Ralph H. "Modes of Social Asscent through Education: Sponsored and Contest Mobility," American Sociological Review, XXV (1960), 121-39.
- Westbrook, Bert W. "The Reliability and Validity of a New Measure of Level of Occupational Aspiration," Educational and Psychological Measurement, XXVI (1966), 997-1005.

. Unpublished Material

- Bhatt, Anil Harilal. "Caste, Class and Politics: An Empirical Profile of Social Stratification in Modern India." Unpublished Ph.D. dissertation, Department of Political Science, University of Chicago, 1972.
- Pullum, Thomas William. "Occupational Mobility as Constrained Movement over Categories." Unpublished Ph.D. dissertation, Department of Sociology, University of Chicago, 1971.

APPENDIX A

CATEGORIZATION OF CASTES IN TAMIL NADU

Six Caste Categories:

For the purpose of this study the castes in Tamil Nadu are ranked ordinally on the basis of ritual status. Ritual status is closely correlated with secular statuses like political, economic and other statuses. The upper and lower end of the caste hierarchy is very clearly defined. They are the Brahmin castes at the top and the Harijan or untouchable castes at the bottom of the hierarchy. The Harijan or untouchable castes are now known as the Scheduled castes. The term scheduled caste is the expression standardized in the Constitution of the Republic of India. Article 341 of the Constitution empowers the President of India, after consulting the head of a particular state, to notify by an order the castes, races or tribes or parts of or groups within castes, races or tribes to extend special benefits such as reserved posts in government services, reserved seats in legislatures, reserved places in educational institutions and the array of educational and other welfare measures. The President may also add or remove a particular caste, race or tribe from such benefits. The selection criteria for the inclusion of castes to the scheduled caste category is the caste's ritual status supplemented by its economic and social statuses. Accordingly the Untouchable or Harijan castes of Tamil Nadu are included in the scheduled caste category and the tribes that are found in the state of Tamil Nadu are included in the scheduled tribes category. The categories of castes between the Brahmin castes and the scheduled castes are grouped as the Non-Brahmin castes. The hierarchy among these castes is not clear-cut and the caste boundaries often overlap. The Non-Brahmin caste groups are again categorized as the Forward classes or castes, and the Backward classes or castes. Though the Constitution refers to backward classes, the units selected as backward are caste groups. Hence we have chosen to refer these caste categories as the Non-Brahmin Forward castes and the Non-Brahmin Backward castes. Again forwardness and backwardness of a particular caste is decided on the basis of that caste's ritual standing supplemented by its economic and social statuses. The Backward classes or castes do enjoy certain educational and other benefits.

The following is the ordinal breakdown of castes in Tamil Nadu:

1. Brahmin castes
2. Non-Brahmin Forward castes

3. Non-Brahmin Backward castes
4. Scheduled castes
5. Scheduled Tribes
6. Others

Caste Categorization in Other Studies: A Comparison:

Though the Varna model of caste categorization does not play much importance in the above caste categorization, the attempt by Risley to group the Dravidian castes on the basis of the Varna model of caste categorization closely resembles the above caste categorization. Table A.1 gives the social groupings of the Dravidian tract in South India which comprised the former Madras Presidency and the states of Mysore, Hyderabad, and Travancore and Cochin.

Bhatt's caste categorization does not explicitly follow the Varna model of caste hierarchy, rather, he takes the upper and lower ends of the caste hierarchy and approximately ranks the middle castes into five categories whereas we have chosen to rank them in two categories. Bhatt's research covers the four regions of India, and the sample is drawn from the modern states of Andhra Pradesh, Gujarat, Uttar Pradesh and West Bengal. Given the regional variations in caste status and ranking, Bhatt groups the castes in seven broad categories as shown in Table A.2.

Driver, who has researched on the caste and occupational structure in Central India, has the following caste hierarchy, which, he says, is a slight modification of the traditional five fold system. Driver ranks the middle castes into four categories as opposed to two in this study. Driver's caste hierarchy comprises the following caste groups:¹

1. Brahmins
2. High castes (such as Maratha, Kayastha and Rajput)
3. Trading castes (such as Bania and Marwari)
4. Low castes (such as Kunbi, Kistha, Mali etc.)

¹Edwin D. Driver, "Caste and Occupational Structure in Central India", Social Forces, XLI, No. 1 (October, 1962), 26-31.

TABLE A.1

RISLEY'S SOCIAL GROUPING OF THE DRAVIDIAN TRACT IN MADRAS PRESIDENCY,
MYSORE, HYDERABAD, TRAVANCORE AND COCHIN

No.	Class	Caste category	Castes included in the category
1	I	Brahmin and allied castes	
2	II	Kshatriya and allied castes	Kshatriya, Patnui Karan, Rajput, Raju and others
3	III	Vaishya and allied castes	Komati and others including Vani
4	IV	Sat or good Sudras	Ambalavasi, Baliya, Bant, Chetti, Gauda, Golla, Idaiyan, Kalinga, Kamma, Kapu, Kummara, Kusadan, Nayar, Satani, Vakkaliga, Velama, Vellala and others
5	V	Sudras who habitually employ Brahmins as purohits and whose touch is supposed to pollute	Agamudayan, Ambalakaran, Kaikilan, Maravan, Nattaman, Palli, Sale or Sala, Telega, Tottiyen, Vaniyan, and others
6	VI	Sudras who occasionally employ Brahmin purohits and whose touch does pollute	Ambattan, Bestha, Devanga, Gamalla, Gowndala, Gudala, Idiga, Kallan, Kuruba, Mangala, Mutracha, Tsakala, Uppara, Velaiyan, Vannan, and others
7	VII	Sudras who do not employ Brahmin Purohits and whose touch pollute	Agasa, Kuravan, Kurumban, Odde, Yanode, and others
8	VIII	Castes which pollute even without touching but do not eat beef	Billava, Churuman, Illuvan, Kammalan, Pallan, Shanana, Tiyan and others

TABLE A.1--Continued

No.	Class	Caste category	Castes included in the category
9	IX	Castes eating beef	Boya, Khond, Savara, and others
10	X	Castes eating beef and polluting without touching	Chakkiliyan, Holey, Madiga, Mala, Paraiyan, and others
11	XI	Castes denying the sacerdotal authority of Brahmins	Jangam, Kammalan, Kam Sala, Lingayat, Panchala, and others
12	XII	Castes insufficiently indicated and not corresponding with other provinces	Vadugan and others
13	XIII	Castes unspecified and religious mendicants Animist and unclassified	

Source: Census of India, 1901; Volume I; INDIA. Ethnographic Appendices being the data upon which the caste chapter of the Report is based, by H. H. Risley (Calcutta: Office of the Superintendent of Government Printing, India; 1903), pp. 53-54.

BHATT'S SEVEN CASTE CATEGORIES

Rank	Caste category	Castes included in each category
1	Brahmins	All Sub-castes of Brahmins
2	Rajputs	Khant, Pattani, Parmars, Kathi, Thakur, Chhasathia, Vaghela, Dabhi, etc.
3	Other High castes	Gupta, Khatri, Kayastha, Vaidya, Baniya, Soni (Gujarat), Kapur, Aggarwal, etc.
4	Middle castes	Jat, Reddy, Velma, Kamma, Patidar, Panchal, Taili, Sadagop (W. Bengal), etc.
5	Lower-Middle castes	Yadav, Ahir, Gujjar, Lodh, Halwai (U.P.), Mahishya, Kurmi, Baraiya, Suthar (Gujarat), Suvarna Vanik (W. Bengal), etc.
6	Low castes	Barhai, Lohar, Sutradhar, Kahar, Kalwar, Kewat, Mallah, Nishad, Kumbhar-Prajapati, Khatik, Nai, Valand, Hazam (only Hindus), Dhobi (non-U.P.), Koli, Rabari, Darjee, Taili - Ghanchi (Gujarat), Vaghris, etc.
7	Harijans	Bhangi, Dhed, Chamar, Dhanak, Dhobi (U.P.), Dhuniya, Vankar (Gujarat), Jatav, Pasi, Koiri, Raidas, etc.
8	Non-Hindus	Includes tribes, Muslims, other religions and those whose caste or religion was not ascertained.

Source: Anil Harilal Bhatt, "Caste, Class and Politics: An Empirical Profile of Social Stratification in Modern India" (Unpublished Ph.D. thesis, Department of Political Science, The University of Chicago, 1972), Appendix B, p. 260.

5. Backward castes (such as Nai and Dhobi)
6. Scheduled castes (such as Mabar and Mang)

Beteille groups the population of Tamil Nadu into the following broad caste categories which are almost similar to the caste categories used in this study:²

1. Brahmins
2. Non-Brahmins
3. Harijans (or Adi-Dravidas)

List of Various Castes in Tamil Nadu included in each of the Six Caste Categories:

The following are the lists of castes included in each of the six caste categories used in this study:

1. Brahmins: All sub-castes of Brahmins.
2. Non-Brahmin Forward castes.³
 1. Adi-Velama
 2. Baliya
 3. Bunt
 4. Christians other than Harijans and tribes converted to christianity
 5. Grammani
 6. Kapu
 7. Karkatars
 8. Kavara
 9. Lingayat
 10. Mudaliyar

²Andre Beteille, "Caste and Politics In Tamil Nadu", Castes: Old and New (Bombay: Asia Publishing House, 1969), p. 159.

³India, Bureau of Census, Census of India, 1951; Madras and Coorge, Part I - Report, by S. Venkateswaran, I.C.S., Superintendent of Census of Operations for Madras and Coorge, (Madras: The Superintendent, Government Printing, 1953), p. 218. The three castes namely Brahmin, Gounder and Kamma are not included in this list. The Brahmin castes are a separate category as far as this study is concerned. The Gounder and Kamma castes are later included in the Backward castes by the order of the government. See the Backward castes list.

11. Muslims other than Dudekula, Labbais and Mappillas
12. Nadar
13. Nattukottai Chettiar
14. Nayar
15. Padma Velama
16. Raju (Raja)
17. Reddi
18. Telega
19. Thiyya
20. Udayar
21. Vaisya (Chetti, Komati)
22. Vellalas

3. Non-Brahmin Backward castes:⁴

1. Agamudiyas (including Thuluva Vellalas)
2. Agasa
3. Ambalakaran
4. Anandan
5. Are Mahrati
6. Arya (South Kanara)
7. Atagara
8. Archakatalavandu
9. Badaga
10. Balolika
11. Bestha
12. Bhundari
13. Billava
14. Bissoy
15. Bondili
16. Bonya
17. Chattegara
18. Chatadi (Chattda Sri Vaishnava)
19. Dasari
20. Devadiga
21. Devalkar
22. Devanga
23. Dhakkda
24. Dommara
25. Dedukula
26. Enadi
27. Galada Konkani

⁴A.R. Jagadeesan (ed.), The Madras Educational Rules, Corrected upto date (Madras: M.S. Publications, 1970), pp. 68-71.

28. Gandla
29. Gandavars
30. Ganika (including Nagavamsam)
31. Gatti
32. Gavara
33. Gobaba
34. Gondo
35. Gowda (including Gamalla or Kalali)
36. Gudigara
37. Hegde
38. Idiga (including Setti Baliya)⁵
39. Isai Vallalar or Melakarar
40. Illuvan (Ezhuvan)
41. Irulas
42. Jakkulas (Guntur District)
43. Jandara
44. Jangam
45. Jhetty
46. Jogi
47. Kabbara
48. Kadaiyan
49. Kaduppattan (Malabar)
50. Kaikolan (Sengunthar)
51. Kalavanthula
52. Kalingi
53. Kallan
54. Kammalans (Kamsalas Viswa Brahmans and Viswa Karma)
55. Kani or Kaniyan and Kanisu or Kaniyan Pannikar
56. Kannadiyan
57. Kavuthiyan
58. Kelasi
59. Kharvi
60. Khatri
61. Kohdala
62. Kolarios or Muniyanies
63. Kopplavelamas
64. Koracha
65. Koteyar (Shoragara Kuhatriya of South Kanara)
66. Kulala

⁵Setti Baliya Pupils should not be newly given the concession under rule 92 of the Madras Educational Rules, unless they belong to the Idiga Community. Such of the Setti Baliya pupils have already been granted the concession in question may be permitted to retain them until they complete the school or the college course as the case may be (Government Memo. No. 1231-S, (103), dated 19th August. 1943).

67. Kuruba or Kurubar (Tamil District)
68. Kurumba
69. Labbai
70. Lambadis
71. Madivala
72. Madugar or Medavar or Vetthakkara of Salem District
73. Mahendra (Madras)
74. Mahratta (Non-Brahmin)
75. Malaiali
76. Malayan (Malabar)
77. Male
78. Mangala
79. Mappila
80. Maratti of South Kanara District (Hill Tribe)
81. Maravar
82. Maruthuvar
83. Melakudi or Kudiyan
84. Modi Bana
85. Monigar
86. Muduva
87. Mukhari
88. Mukkuvan or Kukayan alias Mogayan (including Bovis)
89. Mutracha
90. Muttiriyar
91. Nagaram
92. Nakkale
93. Nalakodaya
94. Namdev Maharatta
95. Odden (Donga)
96. Odde (Voddo or Vadde or Voddai)
97. Odiya
98. Oiulu
99. Omanaito
100. Oriya
101. Padayachi
102. Palli
103. Pamula
104. Pannagadikara
105. Panniyar or Pannyar
106. Parakavakulam (Surithinman, Malayaman Nathaman, Moopnar and Nainar)
107. Patnulkaran
108. Pattanavan
109. Pentias
110. Perike
111. Peruvannan
112. Picchigunta
113. Poraya
114. Pulluvan
115. Pusala (Pusalavaan)

116. Rajapur (South Kanara)
117. Reddi (Ganjam)
118. Ronas
119. Sadhu Chetty (including Telugu Chetty or 24 Mania Telugu Chetty)
120. Saliyan
121. Sadan
122. Praravatharajakulum
123. Senaithalaivar (Senaikudiyan)
124. Setti Balija (in the Visakha Patnam, East Godavari, West Godavari and Krishna Districts)
125. Siviari
126. Sourashtra
127. Srisayana
128. Sagalis
129. Tatapu
130. Tolikula
131. Thogata Veerakshatriya
132. Tholuva Naicher and Vettalakara Naicker
133. Thoriyari
134. Thurpu Kapus
135. Tigala (Tigla)
136. Tondaman
137. Rajaka
138. Uppara
139. Urali Goundan
140. Vada Balila (of Ganjam and Visakhapatnam)
141. Vaduvan (Vadugan)
142. Vakkliga
143. Valniyan
144. Valmiki
145. Vaniar
146. Vannan
147. Vanniyakula Kshatriya including Vanniyar or Vanniyar Gounder Kondar or Vannia Gounder and Vannikandar (other than Vella Gounder belonging to Vanniyakula Kshatriya caste. G.O. Mo. No. 1960 Edn. dated 9th December 1955).
148. Valakatalavan
149. Veluthadan
150. Virukodi Vellalars
151. Vathis
152. Yadava
153. Yerukula

4. Scheduled castes:⁶

(a) Throughout the State:

⁶A.R. Jagadeesan, The Madras Educational Rules, pp. 68-71.

1. Chakkiliyan
2. Kuravan., Sidhahar
3. Nayadi
4. Pallan
5. Paraiyan, Parayan (Sambavar)
6. Valluvan

(b) Throughout the State except Kanyakumari district and Shencottah taluk of Tirunelveli district:

1. Adi-Andhra
2. Adi Dravida
3. Adi-Karnataka
4. Ajila
5. Arunthathiyar
6. Baira
7. Bakuda
8. Bandi
9. Bellara
10. Chalavadi
11. Chamar or Muchi
12. Chandala
13. Cheruman
14. Devendrakilathan
15. Dom Dombars, or Paidi, Pano
16. Godagali
17. Godda
18. Gosangi
19. Holoya
20. Jaggali
21. Jambuvulu
22. Kadiyan
23. Kalladi
24. Karimpalam
25. Koosa
26. Kudumban
27. Madari
28. Madiga
29. Maila
30. Mala
31. Mavilan
32. Moger
33. Mundala
34. Nalkoyava
35. Pagadai
36. Pambada
37. Panchama
38. Panniandi
39. Puthirai Vannan
40. Raneyar

41. Samagara
42. Samban
43. Sapari
44. Somman
45. Thoti
46. Thrivalluvar

(c) In the Nilgiris district:

Kanakkan or Padanna

(d) In Coimbatore and Salem districts:

Pannadi

(e) In Kanyakumari district and Shencottah taluk of Tirunelveli district:

1. Ayyanavar
2. Bharatar
3. Domban
4. Kakkalan
5. Kavara
6. Kootan (Koodan)
7. Mannan
8. Padannan
9. Palluvan
10. Panan
11. Paravan
12. Pathiyan
13. Perumannan
14. Pulayan or Cheramar
15. Thandan
16. Ulladan
17. Uraly
18. Vallon
19. Vannan
20. Velan
21. Vetan
22. Vettuvan

(f) In Thanjavur district:

1. Koliyan
2. Vettiyan

5. Scheduled Tribes:⁷

(a) Throughout the State:

1. Kadar
2. Irular

(b) Throughout the State except Kanyakumari district and Shencottah taluk of Tirunelveli district:

1. Adiyar
2. Aranadan
3. Kammara
4. Kattunayakan
5. Konda Kapus
6. Kondareddis
7. Koraga
8. Kota
9. Kudiya or Matakudi
10. Kurichn
11. Kurumans
12. Maha Malasa
13. Malasar
14. Malayekandi
15. Mudugar or Muduvan
16. Palliayan
17. Puniyan
18. Pulayan
19. Sholaga
20. Teda

(c) In North Arcot, Salem and Tiruchirapalli district:

Malayali

(d) In Coimbatore district and Tirunelveli district (except Shencottah taluk)

Kaniyan or Kanyan

(e) In Nilgiris district:

Kurumbas

⁷ Ibid.

(f) In Kanyakumari district and Shencottah taluk
of Tirunelveli district:

1. Eravallan
2. Hill Pulaya
3. Kanikaran or Kanikker
4. Kochu Velan
5. Lalakkuravan
6. Malai Aryan
7. Malai Pandaram
8. Malai Vedan
9. Malayan
10. Malayarayar
11. Mannan
12. Muthuvam
13. Palleyan
14. Palliyar
15. Ulluadan (Hill dwellers)
16. Uraly
17. Vishavan

APPENDIX B

THE NON-BRAHMIN MANIFESTO*

The time has come when an attempt should be made to define the attitude of the several important Non-Brahmin Indian Communities in this Presidency toward what is called "the Indian Home Rule Movement," and also to indicate certain facts with respect to their present political position. Not less than 40 out of 40½ millions who form the population of this Presidency are Non-Brahmins, and the bulk of the taxpayers, including a large majority of the zamindars, landholders and agriculturalists, also belong to the same class. But in what passes for politics in Madras they have not taken the part to which they are entitled. They have made little or no use of their influence among the masses for the general political advancement of the country. In these days of organized effort, they maintain no proper organizations for protecting or promoting their common interests and for preventing professional and other politicians, with hardly any corresponding stake in the country, from posing as their accredited spokesmen. Nor have they a Press of their own to speak the truth on their behalf. Their political interests, therefore (as compared with those of the Brahmins who number only about a million and a half) have materially suffered.

The Hon'ble Sir Alexander (then Mr.) Cardew now a Member of the Madras Executive Council in his evidence before the Public Service Commission in 1918, described, in detail, the relative positions of the Brahmins and the Non-Brahmins in the Public Service of this Province, not certainly as champion of Non-Brahmin interests, but with a view to showing that if simultaneous examinations in England and India for admission into the Indian Civil Service were introduced, the Brahmins whom he characterized as "a small rigidly exclusive caste," would sweep that service. He is reported to have stated that in the competitive examinations for the Provincial Civil Service, which were held between 1892 and 1904, out of sixteen successful candidates fifteen were Brahmins giving a ratio of 94 per cent of Brahmin success. In the Mysore State where open competitive

*Eugene F. Irschick, Politics and Social Conflict in South India - The Non-Brahman Movement and Tamil Separatism, 1916-1929 (Berkeley: University of California Press, 1969), Appendix I, pp. 358-67. The Manifesto was published in the HINDU, Dec. 20, 1916.

examinations for the Mysore Civil Service were held during the preceding twenty years, Brahmins secured 85 per cent of the vacancies. In the competition for the appointment of Assistant Engineers in Madras the number of successful candidates, during the same period was 17 Brahmins and 4 Non-Brahmins. Similar results were produced by the competitive examination for the Accounts Departments. Out of 140 Deputy Collectors in Madras at the time, 77 were Brahmins, 30 Non-Brahmin Hindus, and the rest Muhammadans, Indian Christians, Europeans, and Anglo-Indians. It is curious to note that even where competitive examinations did not exist, as for instance in the Subordinate Judicial Service of the Presidency, the major portion of the appointments were in the hands of the Brahmins.

Sir Alexander Cardew states that out of 128 permanent District Munsiffs in 1913, 93 were Brahmins, 25 Non-Brahmin Hindus and the rest Mohammedans, Indian Christians, Europeans and Anglo-Indians. From these and other figures of a like nature he naturally concluded that an open competition for the Civil Service in India would mean an almost complete monopoly of the service by Brahmin caste and the practical exclusion from it of the Non-Brahmin classes. Of course he did not invite the attention of the Public Service Commission to what prevailed in the important Native States, directly under the control of the Madras Government, where, too, the preponderance of Brahmins in the Government Service then, as now, was not less marked. Nor did he go into the figures relating to the Subordinate Services which are recruited under a system almost wholly of patronage. Surely, in these services the preponderance of Brahmins would be still more striking.

With regard to what obtains at the present moment in the various branches of the government service, it is needless to go into the figures. But we cannot help calling attention to the highest appointments open to the Indians in the Presidency and the principle upon which they are distributed. Since the Executive Council of H.E. the Governor has been opened to Indians, three Indian gentlemen have been admitted into it in succession, the two latter being Brahmin lawyers. Of the five Indian judges of the High Court, four of them, i.e., all the Hindu judges are Brahmins. In 1914 a new secretaryship to government was created, and a Brahmin official was forthwith appointed to it. The Indian Secretary to the Board of Revenue is a Brahmin; and of the two collectorships open to the members of the Provincial Civil Service that which has fallen to the share of communities other than the Mohammedan has nearly always gone to a Brahmin official.

What is true of Government Service is equally true of local and other bodies. Where the electorate is composed of a large number of Brahmins the Non-Brahmin Indian has hardly a chance. It nearly always happens that while the Non-Brahmins do not concentrate upon a single candidate, Brahmin or Non-Brahmin, the Brahmins nearly

always unite and support their caste man. The Madras University of which the majority of Indian Fellows, classified under several Indian groups, are Brahmins, has never returned a Non-Brahmin Indian to the local Legislative Council, so much so that no Non-Brahmin Indian, however well qualified otherwise, indulges in the hope of getting elected as Member for the University in the Legislative Council, unless it is with the support of the European Fellows. At a meeting of the Madras Legislative Council, held in November, 1914, in reply to an interpellation by the late Mr. Kunhi Raman Nayar, it was stated that the total number of registered graduates of the University was 650 of whom 450 were Brahmins, 124 Non-Brahmin Hindus and 74 belonged to other communities, and that since 1907, when election of Fellows by registered graduates began, 12 Fellows were elected of whom with one exception all were Brahmins. We are not aware that neither before 1907, when a sort of election of a few Fellows by graduates of a certain number of years standing was allowed, nor since 1914 when the statement referred to was made in the Legislative Council, the Graduates of the Madras University of whom the majority have always been Brahmins, elected a Non-Brahmin as a Fellow of the University, so that the Non-Brahmin, however distinguished, has little or no chance of getting into the Senate of the Madras University through what is called the open door of elections.

In the election to the Imperial and local Legislative Councils and to Municipal Bodies one finds the same truth illustrated, so far as these elections could be controlled by the "rigidly exclusive caste." If occasionally a fair-minded ruler endeavors to correct the inequality arising from the preponderance of Brahmins on any public-body by having recourse to nominations of individuals from comparatively unrepresented interests, he is severely criticized in the Brahmin press. How His Excellency Lord Pentland was dealt with by some of the papers in connection with the recent nominations to his Legislative Council may be cited as the latest example of this kind of hostile and unfair criticism. Outside these responsible bodies more or less under the control of the government even in the case of existing political organizations in the City of Madras as well as in the districts the figures regarding election, if gone into, will tell the same tale. To quote one of the latest instances, of the fifteen gentlemen elected from this Presidency to represent it on the All-India Congress Committee with the exception of one solitary Non-Brahmin Indian, all are practically Brahmins and yet the decisions of this committee which is the executive of the Congress, upon matters of grave import such as the revision of the Indian constitution after the war, will be held up to the world's admiring gaze as the considered opinions, among others, of the 40 millions of Non-Brahmins of this large and important Province. It is our unfortunate experience that as concessions and rights are more freely bestowed, the rigidly exclusive caste grows still more rigid and exclusive.

In defense of all this practical monopoly of political power and high government appointments which make for that power, it is pointed out that though the Brahmins are only a small fraction of the population of this Presidency, they are far ahead of other communities in regard to university qualification. No one denies this. Old established traditions, the position of the Brahmins as the highest and the most sacred of the Hindu castes, the nature of their ancient calling, and the steady inculcation of the belief, both by written texts and oral teaching, that they are so many divinely ordained intermediaries without whose active intervention and blessing the soul cannot obtain salvation and their consequent freedom from manual toil--all these helped them to adapt themselves easily to the new conditions under British Rule, as under previous epochs, in larger numbers and far more successfully than the other castes and communities. Apart, however, from the question of English education, are large material stakes, traditional and inherited interests in the soil and the social prestige that goes with it, influence among the masses, quiet and peaceful occupations that tend to the steady economic development of the Province, and overwhelming numerical strength itself, to count for nothing? Should not the classes and communities that, from time immemorial, have stood for these, receive encouragement from the government? In the matter of education itself the advantage is not all on the side of the Brahmin castes. Though rather late in the field, the Non-Brahmin communities have begun to move.

They now represent various stages of progress. Some of them such as the Chetty, the Komati, the Mudaliar, the Naidu, and the Nayar, have been making rapid progress; and even the least advanced, like those who are ahead of them, are manfully exerting themselves to come up to the standards of the new times. The spirit of educational progress is abroad, and it is a significant circumstance that among some of the Non-Brahmin communities the development is more harmonious and less one-sided than among the Brahmins. In spite of the singular solicitude which for reasons not apparent, the Department of Education has been showing for the education of Brahmin girls and especially of Brahmin widows as if the Brahmins were a backward class, the percentage of literates among the women of such Non-Brahmin communities as the Nayars is higher than among the Brahmins. In a variety of ways and in different walks of life Non-Brahmins will now be found unostentatiously and yet effectively contributing to the moral and material progress of this Presidency. But they and their brethren have so far been groping helplessly in the background, because of the subtle and manifold ways in which political power and official influences are often exercised by the Brahmin caste.

We do not deny that in these days of fierce intellectual competition the skill to pass examinations is a valuable personal possession. But it passes our understanding why a small class which

shows a larger percentage of English-knowing men than their neighbors, should be allowed almost to absorb all the government appointments, great and small, high and low, to the exclusion of the latter among whom may also be found, though in small proportions, men of capacity, enlightenment and culture. The fact cannot be gainsaid that in spite of numerous obstacles in their path, as executive and as judicial officers, as educationalists, lawyers, medical men, engineers, public men and as successful administrators of large and important estates, the Non-Brahmin communities have produced men of distinguished attainments and unquestioned eminence, some of whom have found no equals in the Brahmin caste. Guided by their own sense of self-respect and enlightened self-interest, had they and their communities always acted in concert, even in the matter of government appointments and political power, they would have been at the top, a place which is theirs by right. As it is, for want of efficient separate organizations of their own and of the instinct or the inclination to make the freest and the most effective use of the modern weapon of publicity, their interests have not yet received their proper share of attention and recognition.

Not satisfied with the possession of the key to the present political position, the radical politicians of this Presidency, who are apparently never so happy as when they ask for fresh political concessions, irrespective of their suitability to the existing conditions, now ask for Home Rule and from previous experience we fear that if a discordant note is not sounded at the proper time it will of course be made out that all India is keen about Home Rule. It is not necessary for our purpose to go into the details of this extravagant scheme, or into those of the other submitted to His Excellency the Viceroy by nineteen members of the Imperial Legislative Council. We are not in favor of any measure which, in operation, is designed, or tends completely, to undermine the influence and authority of the British Rulers, who alone in the present circumstances of India are able to hold the scales even between creed and class and to develop that sense of unity and national solidarity without which India will continue to be a congeries of mutually exclusive and warring groups without a common purpose and a common patriotism. While we dissociate ourselves entirely from unauthorized Indian constitution-making which seems to be a favorite occupation with a certain class of politicians, we must say that we are strongly in favor of progressive political development of a well-defined policy of trust in the people, qualified by prudence, and of timely and liberal concessions in the wake of proved fitness. In the early days of the Indian National Congress, when that movement was directed and controlled on the spot by such sagacious and thoughtful men as the late Messrs. A.O. Hume, W.C. Bannerjee, Budruddin Tyabji, S. Ramaswami Mudaliar, Rangiah Naidu, Rao Bahadur Sabhapathi Mudaliar, and Sir Sankaran Nair, enlightened Non-Brahmins all over the Presidency gave it their hearty and loyal support. It was then, though not in form and name, but in spirit and method, a truly national institution. Some of the

old ideals are still there. But the spirit in which, the method by which, and the persons by whom, it is at present worked, cannot, all of them, commend themselves to the thinking and self-respecting section of the Non-Brahmin public of this Presidency. The social reactionary and the impatient political idealist, who seldom has his foot on solid earth, have now taken almost complete possession of the Congress. Democratic in aims, an irresponsible bureaucracy now manipulates its wires. We sincerely hope that sane and sober politicians, who know the country and its people, and who feel their responsibility to both, will soon reassert their mastery over the Congress machine, and direct it in strict accordance with the living realities of the present.

For our part we deprecate, as we have suggested, the introduction of changes not warranted by the present conditions. We cannot too strongly condemn caste or class rule. We are of those who think that in the truest and best interests of India, its government should continue to be conducted on true British principles of justice and equality of opportunity. We are deeply devoted and loyally attached to British rule. For that rule in spite of its many shortcomings and occasional aberrations, is, in the main, just and sympathetic. We, indeed, hope that our rulers will, as their knowledge of the country expands, be more readily responsive to public feeling when, of course, that feeling is clearly manifest and decidedly unambiguous, and that before they take any action they will examine the interests and wishes of each caste, class, and community with more anxious care than heretofore and in a less conventional manner. When the spirit of social exclusiveness and the rigidity of class and caste begin to disappear, the progress toward self-government will unquestionably be more satisfactory. But for the present the practical politician has to concern himself with what lies immediately in front of him.

After the triumphant conclusion of the war, the Indian Constitution will doubtless come before the British statesmen and British Parliament for revisions. India has earned the right to demand that the basis of her Constitution should be broadened and deepened, that her sons, representing every class, caste, and community, according to their acknowledged position in the country and their respective numerical strength, should be given fiscal freedom and legislative autonomy in matters affecting her domestic policy and economic position, and that, lastly she must be accorded a place in the empire conducive to the sense of self respect of her children as British subjects, and not inferior in dignity and power to that occupied by any self-governing colony.

We appeal to the enlightened members of the Non-Brahmin communities to be up and doing. Their future lies in their own hands. Great and pressing is the task with which they are confronted. They have, in the first place, to educate their boys and girls in far

greater numbers than they have yet done. Associations under the responsible guidance of leading Non-Brahmin gentlemen should be started and maintained in a state of efficiency, in every populous center, not merely to induce the various Non-Brahmin communities to avail themselves more freely of the existing facilities for education, and to create such facilities where they do not now exist, but also to find adequate funds for the education of such of their poor but intelligent boys and girls as cannot obtain instruction without extraneous pecuniary help. Indeed a more vigorous educational policy for the Non-Brahmins has long been overdue. Side by side with the starting of associations for the advancement of the education of the Non-Brahmin classes, must also be maintained, social and political organizations, and, where needed, well-conducted newspapers of their own, both in the vernaculars and in English, to push forward their claims. By their attitude of silence and inaction they have failed to make their voices heard, and others more astute than they have used them for their own ends, with the result that there is a great deal of discontent among the Non-Brahmins about their present lot as compared with that of their Brahmin fellow countrymen of which, perhaps the government is not fully aware. The discontent is growing every day, and the attention of the government will be drawn to it. But the Non-Brahmins must first help themselves.

Let them do everything needful to ensure a continued educational, social, political, and economical development on a broad and enduring basis; and, then, their future as British subjects will be brighter and more prosperous than it is today. What is designated as "nation building" is a laborious task, involving indeed necessitating, in the slow process of evolution, the due performance, in the proper time, by each class and community, of the duty it owes to itself, first and foremost. It is our firm conviction that in India, for some time to come at any rate, every community has primarily to put its own house in order, so that, when it has to cooperate with other communities, possibly with higher social pretensions, it may do so not as a dependent and helpless unit to be made a figurehead or cat's paw of, but as a self-respecting and highly developed organization, offering its willing cooperation for the promotion of common objects on terms of perfect equality.

APPENDIX C

FIRST COMMUNAL G.O.*

In order to increase the proportion of posts in Government offices held by Non-Brahmans, the Government direct that the principle prescribed for the Revenue Department in Board's Standing Order No. 128 (2), on the subject of the distribution of appointments among various castes and communities, should be extended to appointments of all grades in the several departments of Government. All heads of departments and other officers empowered to make appointments are requested to adhere strictly to this principle in filling up vacancies in future.

Heads of departments, Collectors and District Judge are requested to submit to Government half-yearly returns showing, in respect to their own offices and the subordinate offices under their control, the number of men newly entertained in the permanent service during the half-year and classifying them under the following heads:

- (1) Brahmans
- (2) Non-Brahman Hindus
- (3) Indian Christians
- (4) Muhammadans
- (5) Europeans and Anglo-Indians
- (6) Others

The returns should be submitted not later than the 15th January and 15th of July of each year. The first return should be for the half-year ending 31st December 1921.

(by order of the Governor in Council)

N.E. Marjoribaks
Acting Chief Secretary

*Eugene F. Irschick, Politics and Social Conflict in South India - The Non-Brahman Movement and Tamil Separatism, 1916-1929 (Berkeley: University of California Press, 1969), Appendix 2, p. 368. Original Source: MRO, Public, Ordinary Series, G.O. 613, Sept. 16, 1921.

APPENDIX D

SECOND COMMUNAL G.O.*

In a resolution passed at their meeting held in August, 1921, the Legislative Council made a recommendation to the Government to the effect that, with a view to increasing the proportion of posts in Government offices held by Non-Brahman communities, the principles prescribed for the Revenue Department in Board's Standing Order No. 128 (2) be at once extended to all departments of the Government and be made applicable, not only to the principal appointments, but to posts of all grades, and that the Government should issue orders accordingly and insist on their being enforced, and that to this end half-yearly returns showing the progress made should be submitted by the head of each office and that such returns should be made available to the members of the Legislative Council.

2. In giving effect to this resolution in G.O. 613, Public, dated the 16th September 1921, the Government called for a return showing the number of men newly entertained in the permanent service of Government during each half-year, classifying them under six main divisions. The first half-year's returns compiled under this order have now been received and a copy is attached to the present proceedings (Appendix I). It will be seen that the general percentage of new appointments from the several communities in the half-year ending 31st December 1921 is: Brahmans 22 per cent; Non-Brahman Hindus 48; Indian Christian 10; Muhammadans 15; Europeans and Anglo-Indians 2; Others 3.

3. In circulating these returns, the Government are not unaware that some dissatisfaction has been expressed with the fact that they are confined to persons newly entertained, and a resolution was tabled for the substitution for them of returns of all appointments whether permanent, temporary, or acting and whether the officers appointed were appointed for the first time or promoted from subordinate grades. The Government have examined the question of extending the scope of the returns in the sense suggested and are disposed to agree that some amplification is necessary if the returns are to show the progress made in the carrying out of the policy in

*Eugene F. Irschick, Politics and Social Conflict in South India - The Non-Brahman Movement and Tamil Separatism, 1916-1929 (Berkeley: University of California Press, 1969), Appendix 3, pp. 369-72. Original Source: MRO, Public, Ordinary Series, G.O. 658, August 15, 1922.

the matter of the representation of various communities in the Public service which is expressed in the Board's Standing Order, namely, that endeavours should always be made to divide the principal appointments in each district among the several castes. The Government recognize that, if the principal appointments are to be divided among the several communities, the lower appointments from which recruitment is made to them must be likewise divided, and are quite prepared to agree that, in order to give effect to this policy, other things being equal, the principle specified in the Board's Standing Order should be given effect to both at the time of the initial recruitment and at every point at which men are promoted wholly by selection or by seniority. At the same time they have been unable to devise any form of return which would illustrate satisfactorily the progressive enforcement of such a policy as regards all the stages at which promotions, whether permanent, acting or temporary, are made, and His Excellency the Governor in Council, with the concurrence of his Ministers, has come to the conclusion, after careful consideration of that question, that the only way in which to secure satisfactory information as to the representation of the various communities in the different branches of the public service is to have a return made out once a year showing the extent to which each of the six main subdivisions is represented in each department. A comparison of any year's return with that for the previous year will then show the extent of the progress made in any particular department. The return will be confined to Non-gazetted officers and will be divided into two sections--one for officers drawing Rs. 100 and over and the other for officers drawing from Rs. 35 to Rs. 100. All heads of departments will be requested to secure from the officers subordinate to them a return of all the officers in the non-gazetted service who held permanent appointment of Rs. 35 and upwards on 1st April 1922. These returns should be submitted in time for publication by 1st October. A fresh return for the year ending 31st March 1923 should be submitted not later than August 1923.

4. In the case of officers in the gazetted service, the Government propose to accept the suggestion made in another resolution which was moved in the course of the last session to the effect that a column indicating the community to which each officer belongs should be added to the Quarterly Civil List. For the purpose of this entry, all heads of departments will be requested to call upon the officers whose names appear in the Civil List to declare to which of the six main divisions they belong and to send the return to the Superintendent, Government Press. The Superintendent, Government Press, will be requested to suggest a set of simple symbols which can be inserted after the names of officers so as to indicate to which of the six communities they belong.

5. Further, in pursuance of the desire, which has been repeatedly expressed in the Legislative Council and with which the Government has every sympathy, that the public officers in language

areas should be manned, as far as possible, by persons belonging to those language areas, all heads of officers in Telugu districts and in Oriya tracts will be instructed to keep a record of all persons not belonging by origin to those districts or tracts, respectively, and to take steps so far as possible to reduce the proportion whenever opportunity offers. For the purpose of this order, the Telugu districts and the Oriya tracts will be defined in Appendix II.

6. The Government hope that the instructions given will suffice to meet the desires of members of the Legislative Council and others who have interested themselves in this matter and that the policy of Government being thus clearly declared, the demand for further statistics in regard to the representation of communities, castes or sub-castes in the public services generally or in particular offices will cease.

(By order of the Governor in Council)

R.A. GRAHAM
Chief Secretary

APPENDIX E

THE PRESTIGE-RANKING OF OCCUPATIONS

The same or equivalent Indian occupational titles were used for the ninety National Opinion Research Center (NORC) occupations for the prestige-ranking of occupations.¹ The occupation of "Minister" was excluded, and the occupation of "District Collector" was included to make the number ninety. All the Indian occupational titles are listed in The National Classification of Occupational Titles with Draft Definitions, published by the Directorate-General of Resettlement and Employment, Government of India. The same classification and titles are followed by the state government of Tamil Nadu, India.

The ninety occupations were prestige-ranked by a random sample of 40 Indians in Chicago metropolitan area. The sample consisted of both men and women ranging from age 18 to 50 with length of stay in the U.S.A. ranging from a few hours to 16 years. The sample consisted of students, professionals and housewives. Another sample of 90 men and women were collected from the city of Madras to prestige-rank the same ninety occupations. The second sample consisted of the pre-university students of Loyola College and Sir Thiagaraya College, Madras (Two of the three colleges from which the data for the study of occupational mobility and occupational aspiration was collected). The others were students of the Madras Medical College, the Madras Law College, professionals from the Office of General Accounting, Madras, and the Tamil Nadu Electricity Board; students and teachers of high schools like Vanavani High School, Madras, and a few deputy and assistant secretaries of the secretariate of the government of Tamil Nadu. The occupations were prestige-ranked on the same NORC five point scale of "general standing".

The ratings of the sample of 130 people were scored and the occupations were ranked. A Spearman rank-correlation between the Indian occupational ranks and the NORC occupational ranks was run and it gave a correlation coefficient of .921.

The list of the names of Indian occupations, the scores and ranks are given in Table E.1. For comparison the NORC list of occupations, scores and ranks also are given along side. The ranking

¹National Opinion Research Center, "Jobs and Occupations: A popular Evaluation", Opinion News, IX, No. 4 (September, 1947), 3-13.

of Indian occupations are surprisingly very much similar to the NORC occupations. Only some of the service and agricultural occupations are rated little differently. One glaring difference in the rating is the occupation of undertaker. The probable reason for that kind of difference in rating the occupation of undertaker in the U.S.A. and India was discussed in Chapter III. Other reasons for the differences in the rating may be lack of knowledge of a particular occupation (such as logger) and temporary political situations (for example, the occupation of the Chief Minister of a State was rated relatively low and it may be due to the political situation in Tamil Nadu at the time of the prestige-ranking of the Indian Occupation). Nevertheless, the results were surprisingly similar.

The occupations were, then, categorized for this study on the basis of mean score as shown in Tables 3.3 and 3.4 of Chapter III.

TABLE E.1.--THE INDIAN AND NORC OCCUPATIONAL SCORES AND RANKINGS

No.	Indian Occupational Rankings			NORC Occupational Rankings				
	Occupations	score	rank	1947		1963		Occupations
				score	rank	score	rank	
1	Indian Supreme Court Judge	92	1	96	1	94	1	U.S. Supreme Court Judge
2	Airline Pilot	91	2	83	24.5	86	21.5	Airline Pilot
3	Nuclear Physicist	90	3	86	18	92	3.5	Nuclear physicist
4	Physician or Doctor	89	4.5	93	2.5	93	2	Physician
5	Diplomat in the Indian Foreign Service	89	4.5	92	4.5	89	11	Diplomat in the U.S. Foreign service
6	Central Cabinet Minister	88	6.5	92	4.5	90	8	Cabinet member in the federal government
7	Member of the Board of directors of a large company	88	6.5	86	18	87	17.5	Member of the board of directors of a large corporation
8	State Chief Minister	87	10	93	2.5	91	5.5	State Governor
9	Mayor of a large city	87	10	90	6	87	17.5	Mayor of a large city
10	Head of a department of a state government	87	10	87	13	86	21.5	Head of a department in a state Government
11	District Judge	87	10	87	13	88	14	County Judge
12	Scientist	87	10	89	8	92	3.5	Scientist

TABLE E.1--Continued

No.	Indian Occupational Rankings				NORC Occupational Rankings				Occupations
	Occupations	score	rank	1947		1963			
				score	rank	score	rank		
13	College Professor	86	14.5	89	8	90	8	College Professor	
14	Bank Manager	86	14.5	88	10.5	85	24.5	Banker	
15	Captain in the regular army	86	14.5	80	31.5	82	27.5	Captain in the regular army	
16	Government scientist or scientist working for the government	86	14.5	88	10.5	91	5.5	Government scientist	
17	District Collector ^a	84	17	--	--	--	--	-----	
18	Owner of a factory that employs about 100 people	83	18	82	26.5	80	31.5	Owner of a factory that employs about 100 people	
19	Lawyer	82	20	86	18	89	11.	Lawyer	
20	Civil Engineer	82	20	84	23	86	21.5	Civil Engineer	
21	Architect	82	20	86	18	88	14	Architect	
22	Member of the Indian Parliament	81	22.5	89	8	90	8	U.S. representative in Congress	
23	Dentist	81	22.5	86	18	88	14	Dentist	
24	Chemist	80	24	86	18	89	11	Chemist	
25	Official of an international labor union	79	25	75	40.5	77	37	Official of an international labor union	

TABLE E.1--Continued

No.	Indian Occupational Rankings			NORC Occupational Rankings				
	Occupations	score	rank	1947		1963		Occupations
				score	rank	score	rank	
26	Railway Engineer	78	26	77	37.5	76	39	Railroad engineer
27	Author of novels	77	27.5	80	31.5	78	34.5	Author of novels
28	Accountant for a large business	77	27.5	81	29	81	29.5	Accountant for a large business
29	Farmer or landlord--one who grows crops on his own land and sells produce	76	29	76	39	74	44	Farm owner and operator
30	Biologist	74	30.5	81	29	85	24.5	Biologist
31	Radio announcer	74	30.5	75	40.5	70	49.5	Radio announcer
32	Psychologist	73	32.5	85	22	87	17.5	Psychologist
33	Newspaper columnist	73	32.5	74	42.5	73	46	Newspaper columnist
34	Revenue Inspector ^b	71	35.5	73	45	74	44	Welfare worker for a city government
35	Manager of an agricultural farm	71	35.5	77	37.5	76	39	County agricultural agent
36	Traveling salesman for a wholesale concern	71	35.5	68	51.5	66	57	Traveling salesman for a wholesale concern
37	Building contractor	71	35.5	79	34	80	31.5	Building contractor

TABLE E.1--Continued

No.	Indian Occupational Rankings				NORC Occupational Rankings				Occupations
	Occupations	score	rank	1947		1963			
				score	rank	score	rank		
38	Artist who paints pictures that are exhibited in galleries	70	38.5	83	24.5	78	34.5	Artist who paints pictures that are exhibited in galleries	
39	Reporter on a daily newspaper	70	38.5	71	48	71	48	Reporter on a daily newspaper	
40	Economist	69	41.5	79	34	78	34.5	Economist	
41	Priest ^c	69	41.5	86	18	86	21.5	Priest	
--	-----	--	--	87	13	87	17.5	Minister ^d	
42	Musician in a symphony orchestra	69	41.5	81	29	78	34.5	Musician in a symphony orchestra	
43	Trained machinist	69	41.5	73	45	75	41.5	Trained machinist	
44	Owner-operator of a printing shop	68	44	74	42.5	75	41.5	Owner-operator of a printing shop	
45	Insurance agent	66	45	68	51.5	69	51.5	Insurance agent	
46	Sociologist	63	47	82	26.5	83	26	Sociologist	
47	High School teacher	63	47	78	36	81	29.5	Public school teacher	
48	Manager of a small store in a city	63	47	69	49	67	54.5	Manager of a small store in a city	

TABLE E.1--Continued

No.	Indian Occupational Rankings				NORC Occupational Rankings				
	Occupations	score	rank	1947		1963		Occupations	
				score	rank	score	rank		
49	Athletic director	62	49	67	55	63	62.5	Playground director	
50	Local official of a labor union	60	50	62	62	67	54.5	A Local official of a labor union	
51	Electrician	59	51.5	73	45	70	39	Electrician	
52	Bookkeeper	59	51.5	68	51.5	70	49.5	Bookkeeper	
53	Lance Naik in the regular army	58	53.5	60	64.5	62	65.5	Corporal in the regular army	
54	Electric train motorman or electric train driver	58	53.5	58	68	56	70	Streetcar motorman	
55	Elementary school teacher	56	55.5	79	34	82	27.5	Instructor in public schools	
56	Singer in a night club	56	55.5	52	74.5	54	74	Singer in a night club	
57	Tenant farmer--one who grows crops on land belonging to others and pays rent to owners of land	54	59	68	51.5	69	51.5	Tenant farmer--one who owns livestock and machinery and manages the farm	
58	Owner-operator of a tea shop	54	59	62	62	63	62.5	Owner-operator of a lunch stand	
59	Workshop mechanic	54	59	62	62	62	65.5	Garage mechanic	
60	Machine operator in a factory	54	59	60	64.5	63	62.5	Machine operator in a factory	

TABLE E.1--Continued

No.	Indian Occupational Rankings			NORC Occupational Rankings				
	Occupations	score	rank	1947		1963		Occupations
				score	rank	score	rank	
61	Logger	54	59	53	73	55	72.5	Lumberjack
62	Railway conductor	53	63.5	67	55	66	57	Railroad conductor
63	Policeman	53	63.5	67	55	72	47	Policeman
64	Car mechanic	53	63.5	63	59.5	64	60	Automobile repairman
65	Fisherman who owns his boat	53	63.5	58	68	58	68	Fisherman who owns his own boat
66	Share cropper--one who cultivates land and shares produce with owner of land as stipulated	51	66	40	87	42	87	Share cropper--one who owns no livestock or equipment and does not manage farm
67	Agricultural laborer	49	67.5	50	76	48	83	Farm hand
68	Coal miner	49	67.5	49	77.5	50	77.5	Coal miner
69	Plumber	48	69	63	59.5	65	59	Plumber
70	Clerk in a store	47	71.5	58	68	56	70	Clerk in a store
71	Lorry driver or truck driver	47	71.5	54	71	59	67	Truck driver
72	Taxi driver	47	71.5	49	77.5	49	80.5	Taxi driver
73	Railway gangman	47	71.5	48	79.5	50	77.5	Railroad section hand

TABLE E.1--Continued

No.	Indian Occupational Rankings				NORC Occupational Rankings				Occupations
	Occupations	score	rank	1947		1963			
				score	rank	score	rank		
74	Barber in a hair dressing salon	46	74	59	66	63	62.5	Barber	
75	Mail carrier	45	75	66	57	66	57	Mail carrier	
76	Building caretaker	43	76	44	85.5	48	83	Janitor	
77	Carpenter	42	77.5	65	58	68	53	Carpenter	
78	Hotel cook	42	77.5	54	71	55	72.5	Restaurant cook	
79	Undertaker	41	80.5	72	47	74	44	Undertaker	
80	Mail van driver	41	80.5	54	71	56	70	Milk route man	
81	Petrol bunk attendant	41	80.5	52	74.5	51	75	Filling station attendant	
82	Dock worker	41	80.5	47	81.5	50	77.5	Dock worker	
83	Night watchman	39	84	47	81.5	50	77.5	Night watchman	
84	Clothes presser in a laundry	39	84	46	83	45	85	Clothes presser in a laundry	
85	Clerk in a soda shop	39	84	45	84	44	86	Soda fountain clerk	
86	Bartender	38	86	44	85.5	48	83	Bartender	
87	Hotel server or Hotel waiter	34	87	48	79.5	49	80.5	Restaurant waiter	
88	Street sweeper	32	88.5	34	89	36	89	Street sweeper	

TABLE E.1--Continued

No.	Indian Occupational Rankings			NORC Occupational Rankings				
	Occupations	score	rank	1947		1963		Occupations
				score	rank	score	rank	
89	Shoe shiner	32	88.5	33	90	34	90	Shoe shiner
90	Garbage collector	30	90	35	88	39	88	Garbage collector

^aIt is a new occupation, which is not included in the NORC occupational list.

^bThis occupation is almost equivalent in status as that of a welfare worker for a large city in the U.S.A.

^cOnly the occupation of priest was included in the list of Indian Occupations.

^dThe Occupation of minister was excluded to avoid confusion between minister of the government and minister of the church.

Source: For 1947 and 1963 NORC Occupational Rankings see Robert W. Hodge, Paul M. Siegel, and Peter H. Rossi, "Occupational Prestige in the United States, 1925-63," The American Journal of Sociology, LXX, No. 3 (November, 1964), 286-302.

TABLE E.2

THE DISTRIBUTION OF THE MAJOR OCCUPATIONAL CATEGORIES AND THE NUMBER OF NORC OCCUPATIONS IN EACH CATEGORY AND THE AVERAGE SCORE FOR EACH CATEGORY AS SHOWN BY A.F. DAVIS

No.	Major occupational categories	Number of NORC occupations graded in each category	Average score for each category
1	Government officials	8	90.8
2	Professionals, semi-professionals	30	80.6
3	Proprietors, managers and officials (except farm)	11	74.9
4	Clerical, sales	6	68.2
5	Craftsmen, foremen	7	68.0
6	Farmers, farm managers	3	61.3
7	Protective service workers	3	58.0
8	Operatives	8	52.8
9	Farm laborers	1	50.0
10	Service workers	7	46.7
11	Laborers (except farm)	6	45.8

Source: A. F. Davis, "Prestige of Occupations," British Journal of Sociology, III (1952), 134-47.

APPENDIX F

THE DESIGN AND DEVELOPMENT OF THE OCCUPATIONAL ASPIRATION SCALE

The ninety Indian occupations (which contained the same NORC occupational titles or equivalent Indian Occupational titles) which were prestige-ranked were used to develop the Occupational Aspiration Scale (O.A.S.), as per the design developed by Archibald O. Haller and Irwin W. Miller in their book The Occupational Aspiration Scale (Cambridge, Mass: Achenkman Publishing Company, Inc., 1971).¹ The O.A.S. contains eight ten-item questions, that measure the respondents occupational aspiration level at both of his realistic and idealistic goal-periods, and also at both of his short range (end of college education), and long range (at age 30) career periods. The four possible combinations of the goal periods and career periods are assessed twice each, and thus the O.A.S. contains eight questions. Each question has ten items, which are the occupations prestige-ranked. Only eighty of the ninety occupations prestige-ranked are included in the O.A.S. (see Table F.1). Each occupation is presented as possible response only once in the O.A.S. and the possible alternative responses, which are systematically included in each question, span the entire range of occupational prestige. The responses are scored from zero to nine. The high prestige occupations score nine and the low-prestige occupations score zero. The ten items or alternative responses or the occupations in each question are arranged in the same manner for all the eight questions. For example item-5 in all the eight questions is one of the eight highest prestige occupations with a score of nine and item-6 in all the eight questions is one of the eight lowest-prestige occupations with a score of zero. The respondent is supposed to indicate only one of the ten items in each of the eight questions; and thus can get a score ranging from 0 to 72, which supposed to indicate his relative and general Occupational aspiration level. The scores for each of the ten items of every question are as follows:

<u>Item</u>		<u>Score</u>
1	...	7
2	...	4

¹The writer would like to express his deep appreciation to Archibald O. Haller for his review of the validation procedure and approval of the format of the Occupational Aspiration Scale used in this study and also the writer would like to express his thanks to the publisher for his kind permission to use the O.A.S. for this study.

<u>Item</u>		<u>Score</u>
3	...	8
4	...	2
5	...	9
6	...	0
7	...	6
8	...	3
9	...	5
10	..	1

For the Occupational Aspiration Scale, as used for this study see Appendix I.

TABLE F.1

SUMMARY OF THE RELATION BETWEEN INDIAN OCCUPATIONAL
PRESTIGE SCORES AND THE O.A.S. FORMAT

No	Indian Occupational prestige rankings		OAS		
	Occupations	Score	Questions	Type of Questions	Score
1	Indian Supreme Court Judge	92	1	R-S	9
2	Airline Pilot	91	2	I-S	9
3	Nuclear Physicist	90	3	R-S	9
4	Physician or Doctor	89	4	I-S	9
5	Diplomat in the Indian Foreign Service	89	5	R-L	9
6	Central Cabinet Minister	88	6	I-L	9
7	Member of the Board of Directors of a large company	88	7	R-L	9
8	State Chief Minister	87	8	I-L	9
9	Mayor of a large city	87	1	R-S	8
10	Head of a department of a state Government	87	2	I-S	8
11	District Judge	87	3	R-S	8
12	Scientist	87	4	I-S	8
13	College Professor	86	5	R-L	8
14	Bank Manager	86	6	I-L	8
15	Captain in the regular army	86	7	R-L	8
16	Government Scientist or Scientist working for the Government	86	8	I-L	8
17	District Collector	84	1	R-S	7
18	Owner of a factory that employs about 100 people	83	2	I-S	7

TABLE F.1--Continued

No	Indian occupational prestige rankings		OAS		
	Occupations	Score	Questions	Type of Questions	Score
19	Lawyer	82	3	R-S	7
20	Civil Engineer	82	4	I-S	7
21	Architect	82	5	R-L	7
22	Member of the Indian Parliament	81	6	I-L	7
23	Dentist	81	7	R-L	7
24	Chemist	80	8	I-L	7
25	Official of an international labor union	79	1	R-S	6
26	Railway engineer	78	2	I-S	6
27	Author of novels	77	3	R-S	6
28	Accountant for a large business	77	4	I-S	6
29	Farmer or landlord--one who grows crops on his own land and sells produce	76	5	R-L	6
30	Biologist	74	6	I-L	6
31	Radio announcer	74	7	R-L	6
32	Psychologist	73	8	I-L	6
33	Newspaper columnist	73	1	R-S	5
34	Revenue inspector	71	2	I-S	5
35	Manager of an agricultural farm	71	3	R-S	5
36	Traveling salesman for a wholesale concern	71	4	I-S	5
37	Building contractor	71	5	R-L	5
38	Artist who paints pictures that are exhibited in galleries	70	6	I-L	5

TABLE F.1--Continued

No	Indian occupational prestige rankings		OAS		
	Occupations	Score	Questions	Type of Questions	Score
39	Reporter on a daily newspaper	70	7	R-L	5
40	Economist	69	8	I-L	5
41	Priest ^a	69	-	-	-
42	Musician in a symphony orchestra ^a	69	-	-	-
43	Trained machinist	69	1	R-S	4
44	Owner-operator of a printing shop	68	2	I-S	4
45	Insurance agent	66	3	R-S	4
46	Sociologist	63	4	I-S	4
47	High school teacher	63	5	R-L	4
48	Manager of a small store in a city	63	6	I-L	4
49	Athletic director	62	7	R-L	4
50	Local official of a labor Union	60	8	I-L	4
51	Electrician	59	1	R-S	3
52	Bookkeeper	59	2	I-S	3
53	Lance Naik in the regular army	58	3	R-S	3
54	Electric train motorman or Electric train driver	58	4	I-S	3
55	Elementary school teacher	56	5	R-L	3
56	Singer in a night club ^a	56	-	-	-
57	Tenant farmer--one who grows crops on land belonging to others and pays rent to owners of land	54	6	I-L	3

TABLE F.1--Continued

No	Indian occupational prestige rankings		OAS		
	Occupations	Score	Questions	Type of Questions	Score
58	Owner-operator of a tea shop	54	7	R-L	3
59	Workshop mechanic	54	8	I-L	3
60	Machine operator in a factory	54	1	R-S	2
61	Logger ^a	54	-	-	-
62	Railway conductor	53	2	I-S	2
63	Policeman	53	3	R-S	2
64	Car mechanic	53	4	I-S	2
65	Fisherman who owns his boat	53	5	R-L	2
66	Share cropper--one who cultivates land and shares produce with owner of land as stipulated ^a	51	-	-	-
67	Agricultural laborer	49	6	I-L	2
68	Coal miner	49	7	R-L	2
69	Plumber	48	8	I-L	2
70	Clerk in a store	47	1	R-S	1
71	Lorry driver or truck driver	47	2	I-S	1
72	Taxi driver	47	3	R-S	1
73	Railway gangman	47	4	I-S	1
74	Barber in a hair dressing salon	46	5	R-L	1
75	Mail carrier	45	6	I-L	1
76	Building caretaker ^a	43	-	-	-
77	Carpenter	42	7	R-L	1
78	Hotel cook	42	8	I-L	1

TABLE F.1--Continued

No	Indian occupational prestige rankings		OAS		
	Occupations	Score	Question	Type of Questions	Score
79	Undertaker ^a	41	-	-	-
80	Mail van driver ^a	41	-	-	-
81	Petrol bunk attendant	41	1	R-S	0
82	Dock worker	41	2	I-S	0
83	Night watchman	39	3	R-S	0
84	Clothes presser in a laundry	39	4	I-S	0
85	Clerk in a soda-shop	39	5	R-L	0
86	Bartender ^a	38	-	-	-
87	Hotel server or Hotel waiter	34	6	I-L	-
88	Street sweeper	32	7	R-L	0
89	Shoe shiner	32	8	I-L	0
90	Garbage collector	30	-	-	-

^aThese occupations are not used in the O.A.S.

APPENDIX G

EQUATIONS

Each variable included in the causal models shown in Figures 3.2, 3.3 and 3.4 is taken to be in the standard form. Accordingly the equations for all variables expressed in standard form are given below.

1. The following are the linear equations of the causal model in Figure 3.2:

$$Z_i Z_i = Z_i^2 / N = 1$$

$$\text{Cov. } (E_i, E_j) = 0$$

$$\bar{E}_i = e_i$$

$$ZGF_{RP} = PGF_{RP} GF_C + eGF_{RP}$$

$$ZGF_{PD} = PGF_{PD} GF_C + eGF_{PD}$$

$$ZGF_E = PGF_E GF_C + PGF_E GF_{PD} + eGF_E$$

$$ZGF_O = PGF_O GF_C + PGF_O GF_E ZGF_E + eGF_O$$

$$ZGF_I = PGF_I GF_C ZGF_C + PGF_I GF_O ZGF_O + eGF_I$$

$$ZF_E = PF_E GF_C ZGF_C + PF_E GF_{RP} ZGF_{RP} + PF_E GF_{PD} ZGF_{PD} + PF_E GF_E ZGF_E + PF_E GF_O ZGF_O + PF_E GF_I ZGF_I + eF_E$$

$$ZF_O = PF_O GF_C ZGF_C + PF_O GF_{RP} ZGF_{RP} + PF_O GF_{PD} ZGF_{PD} + PF_O GF_O ZGF_O + PF_O F_E ZF_E + eF_O$$

Equations for decomposing correlations among variables included in the causal model in Figure 3.2:

$$rGF_C GF_{RP} = PGF_{RP} GF_C$$

$$rGF_C GF_{PD} = PGF_{PD} GF_C$$

$$\begin{aligned}
rGF_C GF_E &= PGF_E GF_C + PGF_E GF_{PD} rGF_C GF_{PD} \\
rGF_C GF_O &= PGF_O GF_C + PGF_O GF_E rGF_C GF_E \\
rGF_C GF_I &= PGF_I GF_C + PGF_I GF_O rGF_C GF_O \\
rGF_C F_E &= PF_E GF_C + PF_E GF_{RP} rGF_C GF_{RP} + PF_E GF_{PD} rGF_C GF_{PD} + \\
&\quad PF_E GF_E rGF_C GF_E + PF_E GF_O rGF_C GF_O + PF_E GF_I rGF_C GF_I \\
rGF_C F_O &= PF_O GF_C + PF_O GF_{RP} rGF_C GF_{RP} + PF_O GF_{PD} rGF_C GF_{PD} + \\
&\quad PF_O F_E rGF_C F_E \\
rGF_{PD} GF_E &= PGF_E GF_C rGF_C GF_{PD} + PGF_E GF_{PD} \\
rGF_E GF_O &= PGF_O GF_C rGF_C GF_E + PGF_O GF_E \\
rGF_O GF_I &= PGF_I GF_C rGF_C GF_O + PGF_I GF_O \\
rGF_{RP} F_E &= PF_E GF_{RP} rGF_C GF_{RP} + PF_E GF_{RP} \\
rGF_{PD} F_E &= PF_E GF_C rGF_C GF_{PD} + PF_E GF_{PD} + PF_E GF_E rGF_{PD} GF_E + \\
&\quad PF_E GF_O rGF_{PD} GF_O + PF_E GF_I rGF_{PD} GF_I \\
rGF_E F_E &= PF_E GF_C rGF_C GF_E + PF_E GF_{PD} rGF_{PD} GF_E + PF_E GF_E + \\
&\quad PF_E GF_O rGF_E GF_O + PF_E GF_I rGF_E GF_I \\
rGF_O F_E &= PF_E GF_C rGF_C GF_O + PF_E GF_{PD} rGF_{PD} GF_O + PF_E GF_E \\
&\quad rGF_E GF_O + PF_E GF_O + PF_E GF_I rGF_O GF_I \\
rGF_I F_E &= PF_E GF_C rGF_C GF_I + PF_E GF_{PD} rGF_{PD} GF_O + PF_E GF_E \\
&\quad rGF_E GF_I + PF_E GF_O rGF_O GF_I + PF_E GF_I \\
rGF_{RP} F_O &= PF_O GF_C rGF_C GF_{RP} + PF_O GF_{RP} + PF_O F_E rGF_{RP} F_E \\
rGF_{PD} F_O &= PF_O GF_C rGF_C GF_{PD} + PF_O GF_{PD} + PF_O GF_O rGF_{PD} GF_O + \\
&\quad PF_O F_E rGF_{PD} \\
rF_E F_O &= PF_O GF_C rGF_C F_E + PF_O GF_{RP} rGF_{RP} F_E + PF_O GF_{PD} rGF_{PD} F_E \\
&\quad + PF_O GF_O rGF_O F_E + PF_O F_E
\end{aligned}$$

$$r_{GF_0 F_0} = PF_{0GF_C} r_{GF_C GF_0} + PF_{0GF_{PD}} r_{GF_{PD} GF_0} + PF_{0F_E} r_{GF_0 F_E} + PF_{0GF_0}$$

2. The following are the linear equations of the causal model in Figure 3.3

$$Z_i Z_i = Z_i^2 / N = 1$$

$$\text{Cov. } (E_i, E_j) = 0$$

$$\bar{E}_i = \bar{E}_j = 0$$

$$ZF_C = eF_C$$

$$ZF_{RP} = PF_{RP} F_C ZF_{RP} + eF_{RP}$$

$$ZF_{PD} = PF_{PD} F_C ZF_C + eF_{PD}$$

$$ZF_E = PF_E F_C ZF_C + PF_E F_{PD} ZF_{PD} + eF_E$$

$$ZF_0 = PF_0 F_C ZF_C + PF_0 F_E ZF_E + eF_0$$

$$ZF_I = PF_I F_C ZF_C + PF_I F_0 ZF_0 + eF_I$$

$$ZS_{OA} = PS_{OA} F_C ZF_C + PS_{OA} F_{RP} ZF_{RP} + PS_{OA} F_{PD} ZF_{PD} + PS_{OA} F_E ZF_E + PS_{OA} F_0 ZF_0 + PS_{OA} F_I ZF_I + eS_{OA}$$

Equations for decomposing correlations among variables included in the causal model in Figure 3.3

$$r_{C F_{RP}} = PF_{RP} F_C$$

$$r_{C F_{PD}} = PF_{PD} F_C$$

$$r_{C F_E} = PF_E F_C + PF_E F_{PD} r_{C F_{PD}}$$

$$r_{C F_0} = PF_0 F_C + PF_0 F_E r_{C F_E}$$

$$r_{C F_I} = PF_I F_C + PF_I F_0 r_{C F_0}$$

$$\begin{aligned}
r_{FC}S_{OA} &= PS_{OA}^F C + PS_{OA}^F R_P r_{FC}^F R_P + PS_{OA}^F P_D r_{FC}^F P_D + \\
&\quad PS_{OA}^F E r_{FC}^F E + PS_{OA}^F O r_{FC}^F O + PS_{OA}^F I r_{FC}^F I \\
r_{PD}^F E &= PF_E^F C r_{FC}^F P_D + PF_E^F P_D \\
r_{E}^F O &= PF_O^F C r_{FC}^F E + PF_O^F E \\
r_{O}^F I &= PF_I^F C r_{FC}^F O + PF_I^F O \\
r_{RP}^F S_{OA} &= PS_{OA}^F R_P r_{FC}^F R_P + PS_{OA}^F R_P \\
r_{PD}^F S_{OA} &= PS_{OA}^F C r_{FC}^F P_D + PS_{OA}^F P_D + PS_{OA}^F E r_{FC}^F P_D + \\
r_{E}^F S_{OA} &= PS_{OA}^F C r_{FC}^F E + PS_{OA}^F P_D r_{FC}^F P_D + PS_{OA}^F E + \\
&\quad PS_{OA}^F O r_{FC}^F O \\
r_{O}^F S_{OA} &= PS_{OA}^F C r_{FC}^F O + PS_{OA}^F E r_{FC}^F E + PS_{OA}^F O + \\
&\quad PS_{OA}^F I r_{FC}^F I \\
r_{I}^F S_{OA} &= PS_{OA}^F C r_{FC}^F I + PS_{OA}^F O r_{FC}^F O + PS_{OA}^F I
\end{aligned}$$

3. The following are the linear equations of the causal model in Figure 3.4

$$Z_i Z_i = Z_i^2 / N = 1$$

$$\text{Cov. } (E_i, E_j) = 0$$

$$\bar{E}_i = E_j = 0$$

$$Z_{GF_C} = e_{GF_C}$$

$$Z_{GF_{RP}} = PGF_{RP} GF_C Z_{GF_C} + e_{GF_{RP}}$$

$$Z_{GF_{PD}} = PGF_{PD} GF_C Z_{GF_C} + e_{GF_{PD}}$$

$$Z_{GF_E} = PGF_E GF_C Z_{GF_C} + PGF_E GF_{PD} Z_{GF_{PD}} + e_{GF_E}$$

$$Z_{GF_O} = PGF_O GF_C Z_{GF_C} + PGF_O GF_E Z_{GF_E} + e_{GF_O}$$

$$Z_{GF_I} = PGF_I GF_C Z_{GF_C} + PGF_I GF_O Z_{GF_O} + e_{GF_I}$$

$$\begin{aligned}
ZS_{OA} &= PS_{OA}GF_C ZGF_C + PS_{OA}GF_{RP} ZGF_{RP} + PS_{OA}GF_{PD} rGF_{PD} \\
&+ PS_{OA}GF_E ZGF_E + PS_{OA}GF_O ZGF_O + \\
&PS_{OA}GF_I ZGF_I + eS_{OA}
\end{aligned}$$

Equations for decomposing correlations among variables included in the causal model in Figure 3.4

$$rGF_C GF_{RP} = PGF_{RP} GF_C$$

$$rGF_C GF_{PD} = PGF_{PD} GF_C$$

$$rGF_C GF_E = PGF_E GF_C + PGF_E GF_{PD} rGF_C GF_{PD}$$

$$rGF_C GF_O = PGF_O GF_C = PGF_O GF_E rGF_C GF_E$$

$$rGF_C GF_I = PGF_I GF_C + PGF_I GF_O rGF_C GF_O$$

$$\begin{aligned}
rGF_C S_{OA} &= PS_{OA}GF_C + PS_{OA}GF_{RP} rGF_C GF_{RP} + PS_{OA}GF_{PD} \\
&rGF_C GF_{PD} + PS_{OA}GF_E rGF_C GF_E + PS_{OA}GF_O rGF_C GF_O \\
&+ PS_{OA}GF_I rGF_C GF_I
\end{aligned}$$

$$rGF_{PD} GF_E = PGF_E GF_{PD} rGF_C GF_{PD} + PGF_E GF_{PD}$$

$$rGF_E GF_O = PGF_O GF_C rGF_C GF_E + PGF_O GF_E$$

$$rGF_O GF_I = PGF_I GF_C rGF_C GF_O + PGF_I GF_O$$

$$rGF_{RP} S_{OA} = PS_{OA}GF_C rGF_C GF_{RP} + PS_{OA}GF_{RP}$$

$$\begin{aligned}
rGF_{PD} S_{OA} &= PS_{OA}GF_C rGF_C GF_{PD} + PS_{OA}GF_{PD} + \\
&PS_{OA}GF_E rGF_{PD} GF_E
\end{aligned}$$

$$\begin{aligned}
rGF_E S_{OA} &= PS_{OA}GF_C rGF_C GF_E + PS_{OA}GF_{PD} rGF_{PD} GF_E + \\
&PS_{OA}GF_E + PS_{OA}GF_O rGF_E GF_O
\end{aligned}$$

$$\begin{aligned}
rGF_O S_{OA} &= PS_{OA}GF_C rGF_C GF_O + PS_{OA}GF_E rGF_E GF_O + \\
&PS_{OA}GF_O + PS_{OA}GF_I rGF_O GF_I
\end{aligned}$$

$$rGF_I S_{OA} = PS_{OA}GF_C rGF_C GF_I + PS_{OA}GF_O rGF_O GF_I + PS_{OA}GF_I$$

APPENDIX H

CHI-SQUARE TABLES

The following are the Chi-square tables that are referred in the text:

TABLE H.1

DISTRIBUTION OF GRANDFATHERS' RESIDENCE POPULATIONS BY THEIR CASTE CATEGORIES

	Count	Grandfathers' Residence Populations ^b								Row Total
		Less than 999	10,000 to 14,999	15,000 to 19,999	20,000 to 49,999	50,000 to 99,999	100,000 to 499,999	500,000 to 999,999	Over 1,000,000	
	Row Pct	1.	2.	3.	4.	5.	6.	7.	8.	
	Col Pct									
	Tot Pct									
Caste Categories ^a	Brahmin Castes 1.	9	7	6	9	9	9	3	50	102
		8.8	6.9	5.9	8.8	8.8	8.8	2.9	49.0	18.5
		8.4	8.0	16.2	24.3	25.0	22.0	27.3	25.9	
		1.6	1.3	1.1	1.6	1.6	1.6	0.5	9.1	
	Non-Brahmin Forward Castes 2.	37	31	14	11	20	20	5	61	199
		18.6	15.6	7.0	5.5	10.1	10.1	2.5	30.7	36.2
	34.6	35.2	37.8	29.7	55.6	48.8	45.5	31.6		
	6.7	5.6	2.5	2.0	3.6	3.6	0.9	11.1		
Non-Brahmin Backward Castes 3.	31	32	8	10	6	11	2	58	158	
	19.6	20.3	5.1	6.3	3.8	7.0	1.3	36.7	28.7	
	29.0	36.4	21.6	27.0	16.7	26.8	18.2	39.1		
	5.6	5.8	1.5	1.8	1.1	2.0	0.4	10.5		
Scheduled Castes 4.	30	18	8	6	0	0	1	16	79	
	38.0	22.8	10.1	7.6	0.0	0.0	1.3	20.3	14.4	
	28.0	20.5	21.6	16.2	0.0	0.0	9.1	8.3		
	5.5	3.3	1.5	1.1	0.0	0.0	0.2	2.9		
Others 6.	0	0	1	1	1	1	0	8	12	
	0.0	0.0	8.3	8.3	3.3	3.3	0.0	66.7	2.2	
	0.0	0.0	2.7	2.7	2.8	2.4	0.0	4.1		
	0.0	0.0	0.2	0.2	0.2	0.2	0.0	1.5		
Column Total		107	88	37	37	36	41	11	193	550
		19.5	16.0	6.7	6.7	6.5	7.6	2.0	35.1	100.0

$$\chi^2 = 73.47865; DF = 28; p < .001$$

^aThe fifth category of scheduled tribes is omitted because there are no cases of that caste category in the sample.

^bResidences with population under 20,000 are considered rural areas; and residences over 20,000 are considered urban areas.

TABLE H.2

DISTRIBUTION OF GRANDFATHERS' PROTECTIVE DISCRIMINATION BY THEIR CASTE CATEGORIES

	Count Row Pct Col Pct Tot Pct	Grandfathers' Protective Discrimination				Row Total
		Scheduled Caste Scholarship 1.	Backward Caste Scholarship 3.	Other Scholarships 4.	No Scholarship 5.	
Caste categories ^a	Brahmin castes 1.	0 0.0 0.0 0.0	0 0.0 0.0 0.0	2 2.0 33.3 0.4	100 98.0 18.5 18.2	102 18.5
	Non-Brahmin forward castes 2.	0 0.0 0.0 0.0	0 0.0 0.0 0.0	3 1.5 50.0 0.5	196 98.5 36.3 35.6	199 36.2
	Non-Brahmin backward castes 3.	0 0.0 0.0 0.0	2 1.3 100.0 0.4	1 0.6 16.7 0.2	155 98.1 28.7 28.2	158 28.7
	Scheduled castes 4.	2 2.5 100.0 0.4	0 0.0 0.0 0.0	0 0.0 0.0 0.0	77 97.5 14.3 14.0	79 14.4
	Others 6.	0 0.0 0.0 0.0	0 0.0 0.0 0.0	0 0.0 0.0 0.0	12 100.0 2.2 2.2	12 2.2

TABLE H.2--Continued

Count Row Pct Col Pct Tot Pct	Grandfathers' Protective Discrimination				Row Total
	Scheduled Caste Scholarship 1.	Backward Caste Scholarship 3.	Other Scholarships 4.	No Scholarship 5.	
	Column Total	2 0.4	2 0.4	6 1.1	

$$\chi^2 = 19.21709; \text{Df} = 12; \text{NS} (p < .10)$$

^aThe fifth caste category of scheduled tribes is omitted as there are no cases of that category in the sample.

TABLE H.3

DISTRIBUTION OF GRANDFATHERS' EDUCATIONAL LEVELS BY THEIR CASTE CATEGORIES

Caste Categories	Count Row Pct Col Pct Tot Pct	GRANDFATHERS' EDUCATIONAL LEVELS									Row Total
		No Education 1.	Some Primary Education 2.	Elementary School Completed 3.	Middle School Completed 4.	Some High School Education 5.	High School Completed 6.	P.U.C. or 1 year of College 7.	B.A. etc. or 4 years of College 8.	M.A. etc. or 6 or more years of College 9.	
Brahmin castes	1.	4	10	3	8	8	30	8	15	16	102
		3.9	9.8	2.9	7.8	7.8	29.4	7.8	14.7	15.7	18.5
		2.7	12.7	6.7	14.3	17.8	34.5	42.1	37.5	55.2	
		0.7	1.8	0.5	1.5	1.5	5.5	1.5	2.7	2.9	
Non-Brahmin Forward castes	2.	35	27	16	26	25	36	8	15	11	199
		17.6	13.6	8.0	13.1	12.6	18.1	4.0	7.5	5.5	36.2
		23.3	34.2	35.6	46.4	55.6	41.4	42.1	37.5	37.9	
		6.4	4.9	2.9	4.7	4.5	6.5	1.5	2.7	2.0	
Non-Brahmin Backward castes	3.	59	33	14	16	8	17	2	9	0	158
		37.3	20.9	8.9	10.1	5.1	10.8	1.3	5.7	0.0	28.7
		39.3	41.8	31.1	28.6	17.8	19.5	10.5	22.5	0.0	
		10.7	6.0	2.5	2.9	1.5	3.1	0.4	1.6	0.0	
Scheduled castes	4.	51	9	12	3	2	1	1	0	0	79
		64.6	11.4	15.2	3.8	2.5	1.3	1.3	0.0	0.0	14.4
		34.0	11.4	26.7	5.4	4.4	1.1	5.3	0.0	0.0	
		9.3	1.6	2.2	0.5	0.4	0.2	0.2	0.0	0.0	
Others	6.	1	0	0	3	2	3	0	1	2	12
		8.3	0.0	0.0	25.0	16.7	25.0	0.0	8.3	16.7	2.2
		0.7	0.0	0.0	5.4	4.4	3.4	0.0	2.5	6.9	
		0.2	0.0	0.0	0.5	0.4	0.5	0.0	0.2	0.4	
Column Total	150 27.3	79 14.4	45 8.2	56 10.2	45 8.2	87 15.8	19 3.5	40 7.3	29 5.3	550 100.0	

TABLE H.3--Continued

$$\chi^2 = 197.70811; \text{Df} = 32 (Z = 11.947822); p < .001$$

^aThe fifth caste category of scheduled tribes is omitted as there are no cases of that caste category in the sample.

TABLE H.4

DISTRIBUTION OF GRANDFATHERS' OCCUPATIONAL CATEGORIES BY THEIR CASTE CATEGORIES

Count Row Pct Col Pct Tot Pct	Grandfathers' Occupational Categories								Row Total	
	Government Officials 1.	Professionals and Semi-Pro- fessionals 2.	Proprietors, Managers and Officials 3.	Farmers and Farm Mana- gers 4.	Clerical and Sales Workers 5.	Skilled Workers 6.	Farm Laborers 7.	Unskilled Workers 8		
Caste Categories ^a	Brahmin 1. castes	5 4.9 71.4 0.9	32 31.4 43.8 5.8	28 27.5 31.8 5.1	15 14.7 10.1 2.7	17 16.7 37.8 3.1	5 4.9 6.0 0.9	0 0.0 0.0 0.0	0 0.0 0.0 0.0	102 18.5
	Non- Brahmin Forward Castes 2.	2 1.0 28.6 0.4	36 18.1 49.3 6.5	35 17.6 39.8 6.4	79 39.7 53.4 14.4	13 6.5 28.9 2.4	27 13.6 32.1 4.9	4 2.0 4.6 0.7	3 1.5 16.7 0.5	199 36.2
	Non- Brahmin Backward Castes 3.	0 0.0 0.0 0.0	4 2.5 5.5 0.7	19 12.0 21.6 3.5	51 32.3 34.5 9.3	11 7.0 24.4 2.0	41 25.9 48.8 7.5	26 16.5 29.9 4.7	6 3.8 33.3 1.1	158 28.7
	Sched- uled Castes 4.	0 0.0 0.0 0.0	0 0.0 0.0 0.0	1 1.3 1.1 0.2	3 3.8 2.0 0.5	2 2.5 4.4 0.4	7 8.9 8.3 1.3	57 72.2 65.5 10.4	9 11.4 50.0 1.6	79 14.4
	Others 6.	0 0.0 0.0 0.0	1 8.3 1.4 0.2	5 41.7 5.7 0.9	0 0.0 0.0 0.0	2 16.7 4.4 0.4	4 33.3 4.8 0.7	0 0.0 0.0 0.0	0 0.0 0.0 0.0	12 2.2
	Column Total	7 1.3	73 13.3	88 16.0	148 26.9	45 8.2	84 15.3	87 15.8	18 3.3	550 100.0

TABLE H.4--Continued

$$\chi^2 = 391.49976; \text{Df} = 28; p < .001$$

^aThe fifth caste category of scheduled tribes is omitted as there are no cases of that category in the sample.

TABLE H.5

DISTRIBUTION OF GRANDFATHERS' ANNUAL INCOME BY THEIR CASTE CATEGORIES

	Count	Row Pct	Col Pct	Tot Pct	Grandfathers' Annual Income (in rupees ^b)				Row Total
					Less than 749	750 to 2499	2500 to 5999	6000 and over	
					1.	2.	3.	4.	
Caste categories ^a	Brahmin castes	1.			22	33	21	26	102
					21.6	32.4	20.6	25.5	18.5
					10.9	17.2	26.3	34.2	
					4.0	6.0	3.8	4.7	
	Non-Brahmin Forward castes	2.			49	73	35	42	199
					24.6	36.7	17.6	21.1	36.2
					24.3	38.0	43.8	55.3	
					8.9	13.3	6.4	7.6	
	Non-Brahmin Backward castes				67	68	17	6	158
					42.4	43.0	10.8	3.8	28.7
					33.2	35.4	21.3	7.9	
					12.2	12.4	3.1	1.1	
	Scheduled castes	4.			63	13	2	1	79
					79.7	16.5	2.5	1.3	14.4
					31.2	6.8	2.5	1.3	
					11.5	2.4	0.4	0.2	
	Others	6.			1	5	5	1	12
					8.3	41.7	41.7	8.3	2.2
					0.5	2.6	6.3	1.3	
					0.2	0.9	0.9	0.2	
	Column Total			202	192	80	76	550	
				36.7	34.9	14.5	13.8	100.0	

$$\chi^2 = 127.11978; \text{Df} = 12; p < .001$$

^aThe fifth caste category of scheduled tribes is omitted as there are no cases of that caste category in the sample.

TABLE H.5--Continued

^bRupee is the Indian currency approximately equivalent to about 12¢ of the U.S. Currency (in 1977).

TABLE H.6

DISTRIBUTION OF FATHERS' EDUCATIONAL LEVELS BY THEIR CASTE CATEGORIES

Count Row Pct Col Pct Tot Pct	Fathers' Educational Levels									Row Total
	No Education 1.	Some Primary Education 2.	Elementary School Completed 3.	Middle School Completed 4.	Some High School Education 5.	High School Completed 6.	P.U.C. or 1 year of College 7.	B.A. etc. or 4 years of College 8.	M.A. etc. or 6 or more years of College 9.	
Brahmin 1. Castes	1 1.0 4.0 0.2	1 1.0 2.4 0.2	0 0.0 0.0 0.0	1 1.0 1.5 0.2	4 3.9 9.3 0.7	36 35.3 22.8 6.5	7 6.9 29.2 1.3	28 27.5 35.9 5.1	24 23.5 38.1 4.4	102 18.5
Non-Brahmin 2. Forward Castes	5 2.5 20.0 0.9	5 2.5 12.2 0.9	16 8.0 30.2 2.9	17 8.5 26.2 3.1	19 9.5 44.2 3.5	61 30.7 38.6 11.1	10 5.0 41.7 1.8	32 16.1 41.0 5.8	34 17.1 54.0 6.2	199 36.2
Non-Brahmin 3. Backward Castes	5 3.2 20.0 0.9	23 14.6 56.1 4.2	22 13.9 41.5 4.0	25 15.8 38.5 4.5	14 8.9 32.6 2.5	45 28.5 28.5 8.2	7 4.4 29.2 1.3	12 7.6 15.4 2.2	5 3.2 7.9 0.9	158 28.7
Scheduled 4. Castes	14 17.7 56.0 2.5	12 15.2 29.3 2.2	14 17.7 26.4 2.5	22 27.8 33.8 4.0	6 7.6 14.0 1.1	11 13.9 7.0 2.0	0 0.0 0.0 0.0	0 0.0 0.0 0.0	0 0.0 0.0 0.0	79 14.4
Others 6.	0 0.0 0.0 0.0	0 0.0 0.0 0.0	1 8.3 1.9 0.2	0 0.0 0.0 0.0	0 0.0 0.0 0.0	5 41.7 3.2 0.9	0 0.0 0.0 0.0	6 50.0 7.7 1.1	0 0.0 0.0 0.0	12 2.2
Column Total	25 4.5	41 7.5	53 9.6	65 11.8	43 7.8	158 28.7	24 4.4	78 14.2	63 11.5	550 100.0

TABLE H.6--Continued

$$\chi^2 = 214.16908; \text{Df} = 32 (Z = 12.75907); p < .001$$

^aThe fifth caste category of scheduled tribes is omitted as there are no cases of that caste category in the sample.

TABLE H.7

DISTRIBUTION OF FATHERS' EDUCATIONAL LEVELS BY GRANDFATHERS' OCCUPATIONAL CATEGORIES

Count Row Pct Col Pct Tot Pct	Fathers' Educational Levels									Row Total	
	No Education 1.	Some Primary Education 2.	Elementary School Completed 3.	Middle School Completed 4.	Some High School Education 5.	High School Completed 6.	P.U.C. or 1 year of College 7.	B.A. etc. or 4 years of College 8.	M.A. etc. or 6 or more yrs. College 9.		
Grandfathers' Occupational Categories	Government Officials 1.	0 0.0 0.0 0.0	0 0.0 0.0 0.0	0 0.0 0.0 0.0	0 0.0 0.0 0.0	0 0.0 0.0 0.0	1 0.6 14.3 0.2	0 0.0 0.0 0.0	3 3.8 42.9 0.5	3 4.8 42.9 0.5	7 1.3
	Professionals and Semi-professionals 2.	0 0.0 0.0 0.0	0 0.0 0.0 0.0	0 0.0 0.0 0.0	2 3.1 2.7 0.4	4 9.3 5.5 0.7	20 12.7 27.4 3.6	2 8.3 2.7 0.4	18 23.1 24.7 3.3	27 42.9 37.0 4.9	73 13.3
	Proprietors, Managers and Officials 3.	0 0.0 0.0 0.0	0 0.0 0.0 0.0	3 5.7 3.4 0.5	6 9.2 6.8 1.1	4 9.3 4.5 0.7	29 18.4 33.0 5.3	9 37.5 10.2 1.6	21 26.9 23.9 3.8	16 25.4 18.2 2.9	88 16.0
	Farmers and Farm Managers 4.	7 28.0 4.7 1.3	15 36.6 10.1 2.7	19 35.8 12.8 3.5	16 24.6 10.8 2.9	14 32.6 9.5 2.5	40 25.3 27.0 7.3	8 33.3 5.4 1.5	19 24.4 12.8 3.5	10 15.9 6.8 1.8	148 26.9
	Clerical and Sales Workers 5.	0 0.0 0.0 0.0	0 0.0 0.0 0.0	1 1.9 2.2 0.2	2 3.1 4.4 0.4	6 14.0 13.3 1.1	25 15.8 55.6 4.5	1 4.2 2.2 0.2	5 6.4 11.1 0.9	5 7.9 11.1 0.9	45 8.2
	Skilled Workers 6.	1 4.0 1.2 0.2	7 17.1 8.3 1.3	9 17.0 10.7 1.6	12 18.5 14.3 2.2	10 23.3 11.9 1.8	29 18.4 34.5 5.3	3 12.5 3.6 0.5	11 14.1 13.1 2.0	2 3.2 2.4 0.4	84 15.3

TABLE H.7--Continued

Count Row Pct Col Pct Tot Pct	Fathers' Educational Levels									Row Total
	No Education 1.	Some Primary Education 2.	Elementary School Completed 3.	Middle School Completed 4.	Some High School Education 5.	High School Completed 6.	P.U.C. or 1 year of College 7.	B.A. etc. or 4 years of College 8.	M.A. etc. or 6 or more yrs. College 9.	
Farm Laborers 7.	14 56.0 16.1 2.5	19 46.3 21.8 3.5	18 34.0 20.7 3.3	23 35.4 26.4 4.2	4 9.3 4.6 0.7	0 5.7 10.3 1.6	0 0.0 0.0 0.0	0 0.0 0.0 0.0	0 0.0 0.0 0.0	87 15.8
Unskilled Workers 8.	3 12.0 16.7 0.5	0 0.0 0.0 0.0	3 5.7 16.7 0.5	4 6.2 22.2 0.7	1 2.3 5.6 0.2	5 3.2 27.8 0.9	1 4.2 5.6 0.2	1 1.3 5.6 0.2	0 0.0 0.0 0.0	18 3.3
Column Total	25 4.5	41 7.5	53 9.6	65 11.8	43 7.8	158 28.7	24 4.4	78 14.2	63 11.5	550 100.0

$\chi^2 = 286.39209$; Df = 56 (Z = 13.39725); $p < .001$

TABLE H.8

DISTRIBUTION OF FATHERS' EDUCATIONAL LEVELS BY GRANDFATHERS' ANNUAL INCOME

Grandfathers' Annual Income (in rupees ^a)	Count Row Pct Col Pct Tot Pct	Fathers' Educational Levels									Row Total
		No Education 1.	Some Primary Education 2.	Elementary School Completed 3.	Middle School Completed 4.	Some High School Education 5.	High School Completed 6.	P.U.C. or 1 year of College 7.	B.A. etc. or 4 yrs. College 8.	M.A. etc. or 6 or more yrs. College 9.	
Less than 749	1. 9.9 3.6	20	24	28	37	11	55	4	14	9	202 36.7
		80.0	58.5	52.8	56.9	25.6	34.8	16.7	17.9	14.3	
		9.9	11.9	13.9	18.3	5.4	27.2	2.0	6.9	4.5	
		3.6	4.4	5.1	6.7	2.0	10.0	0.7	2.5	1.6	
750 to 2499	2. 16.0 2.1 0.7	4	15	19	25	22	60	8	27	12	192 34.9
		16.0	36.6	35.8	38.5	51.2	38.0	33.3	34.6	19.0	
		2.1	7.8	9.9	13.0	11.5	31.3	4.2	14.1	6.3	
		0.7	2.7	3.5	4.5	4.0	10.9	1.5	4.9	2.2	
2500 to 5999	3. 0 0.0 0.0	0	2	4	3	5	30	6	16	14	80 14.5
		0.0	4.9	7.5	4.6	11.6	19.0	25.0	20.5	22.2	
		0.0	2.5	5.0	3.8	6.3	37.5	7.5	20.0	17.5	
		0.0	0.4	0.7	0.5	0.9	5.5	1.1	2.9	2.5	
6000 and over	4. 4.0 1.3 0.2	1	0	2	0	5	13	6	21	28	76 13.8
		4.0	0.0	3.8	0.0	11.6	8.2	25.0	26.9	44.4	
		1.3	0.0	2.6	0.0	6.6	17.1	7.9	27.6	36.8	
		0.2	0.0	0.4	0.0	0.9	2.4	1.1	3.8	5.1	
Column Total		25 4.5	41 7.5	53 9.6	65 11.8	43 7.8	156 28.7	24 4.4	78 14.2	63 11.5	550 100.0

$$\chi^2 = 160.20285; Df = 24; p < .001$$

^aRupee is the Indian currency which is approximately equivalent to 12¢ of the U.S.A. Currency.

TABLE H.9
DISTRIBUTION OF FATHERS' EDUCATIONAL LEVELS BY GRANDFATHERS' PROTECTIVE DISCRIMINATION

Count Row Pct Col Pct Tot Pct	Fathers' Educational Levels									Row Total	
	No Education 1.	Some Primary Education 2.	Elementary School Completed 3.	Middla School Completed 4.	Some High School Education 5.	High School Completed 6.	P.U.C. or 1 year of College 7.	B.A. etc. or 4 yrs. College 8.	M.A. etc. or 6 or more yrs. College 9.		
Grandfathers' Protective Discrimination ^a	Scheduled 1.	0	0	0	0	1	1	0	0	0	2
	Caste	0.0	0.0	0.0	0.0	2.3	0.6	0.0	0.0	0.0	0.4
	Scholarships	0.0	0.0	0.0	0.0	50.0	50.0	0.0	0.0	0.0	
		0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	
	Backward 3.	0	0	0	0	1	0	0	1	0	2
	Caste	0.0	0.0	0.0	0.0	2.3	0.0	0.0	1.3	0.0	0.4
	Scholarships	0.0	0.0	0.0	0.0	50.0	0.0	0.0	50.0	0.0	
		0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	
	Other 4.	0	0	0	0	0	1	0	1	4	6
	Scholarships	0.0	0.0	0.0	0.0	0.0	0.6	0.0	1.3	6.3	1.1
		0.0	0.0	0.0	0.0	0.0	16.7	0.0	16.7	66.7	
		0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.7	
No 5.	25	41	53	65	41	156	24	76	59	540	
Scholarship	100.0	100.0	100.0	100.0	95.3	98.7	100.0	97.4	93.7	98.2	
	4.6	7.6	9.8	12.0	7.6	28.9	4.4	14.1	10.9		
	4.5	7.5	9.6	11.8	7.5	28.4	4.4	13.8	10.7		
Column Total	25 4.5	41 7.5	53 9.6	65 11.8	43 7.8	158 28.7	24 4.4	78 14.2	63 11.5	550 100.0	

$\chi^2 = 33.33881$; Df = 24; NS. (p < .10)

^aThe scheduled tribe scholarships category is omitted as there are no cases from that category in the sample.

TABLE H.10

DISTRIBUTION OF FATHERS' OCCUPATIONAL CATEGORIES BY THEIR CASTE CATEGORIES

Count Row Pct Col Pct Tot Pct	Fathers' Occupational Categories								Row Total
	Government Officials 1.	Professionals and Semi-Pro- fessionals 2.	Proprietors, Managers and Officials 3.	Farmers and Farm Mana- gers 4.	Clerical and Sales Workers 5.	Skilled Workers 6.	Farm Laborers 7.	Unskilled Workers 8.	
Brahmin 1.	4	40	27	4	21	5	0	1	102
Castes	3.9 40.0 0.7	39.2 35.1 7.3	26.5 23.3 4.9	3.9 6.2 0.7	20.6 25.0 3.8	4.9 4.9 0.9	0.0 0.0 0.0	1.0 3.7 0.2	18.5
Non- Brahmin Forward Castes 2.	5 2.5 50.0 0.9	55 27.6 48.2 10.0	58 29.1 50.0 10.5	24 12.1 36.9 4.4	34 17.1 40.5 6.2	21 10.6 20.4 3.8	0 0.0 0.0 0.0	2 1.0 7.4 0.4	199 36.2
Non- Brahmin Backward Castes 3.	1 0.6 10.0 0.2	14 8.9 12.3 2.5	26 16.5 22.4 4.7	35 22.2 53.8 6.4	22 13.9 26.2 4.0	47 29.7 45.6 8.5	3 1.9 9.7 0.5	10 6.3 37.0 1.8	158 28.7
Scheduled Castes 4.	0 0.0 0.0 0.0	4 5.1 3.5 0.7	0 0.0 0.0 0.0	2 2.5 3.1 0.4	6 7.6 7.1 1.1	25 31.6 24.3 4.5	28 35.4 90.3 5.1	14 17.7 51.9 2.5	79 14.4
Others 6.	0 0.0 0.0 0.0	1 8.3 0.9 0.2	5 41.7 4.3 0.9	0 0.0 0.0 0.0	1 8.3 1.2 0.2	5 41.7 4.9 0.9	0 0.0 0.0 0.0	0 0.0 0.0 0.0	12 2.2
Column Total	10 1.8	114 20.7	116 21.1	65 11.8	84 15.3	103 18.7	31 5.6	27 4.9	550 100.0

$$\chi^2 = 330.54004; Df = 28; p < .001$$

^aThe fifth caste category of scheduled tribes is omitted as there are no cases in that caste category in the sample.

TABLE H.11

DISTRIBUTION OF FATHERS' OCCUPATIONAL CATEGORIES BY THEIR EDUCATIONAL LEVELS

Count Row Pct Col Pct Tot Pct	Fathers' Occupational Categories								Row Total	
	Government Officials 1.	Professionals and Semi-Pro- fessionals 2.	Proprietors, Managers and Officials 3.	Farmers and Farm Mana- gers 4.	Clerical and Sales Workers 5.	Skilled Workers 6.	Farm Laborers 7.	Unskilled Workers 8.		
Fathers' Educational Levels	No Education 1.	0	1	2	3	0	9	5	25	
		0.0	0.9	1.7	4.6	0.0	4.9	29.0	18.5	
		0.0	4.0	8.0	12.0	0.0	20.0	36.0	20.0	
		0.0	0.2	0.4	0.5	0.0	0.9	1.6	0.9	
	Some Primary Education 2.	0	1	2	13	0	8	12	5	41
		0.0	0.9	1.7	20.0	0.0	7.8	38.7	18.5	
		0.0	2.4	4.9	31.7	0.0	19.5	29.3	12.2	
		0.0	0.2	0.4	2.4	0.0	1.5	2.2	0.9	
	Elementary School Completed 3.	0	0	7	16	3	10	8	9	53
		0.0	0.0	6.0	24.6	3.6	9.7	25.8	33.3	
		0.0	0.0	13.2	30.2	5.7	18.9	15.1	17.0	
		0.0	0.0	1.3	2.9	0.5	1.8	1.5	1.6	
	Middle School Completed 4.	0	2	9	9	7	31	2	5	65
		0.0	1.8	7.8	13.8	8.3	30.1	6.5	18.5	
		0.0	3.1	13.8	13.8	10.8	47.7	3.1	7.7	
		0.0	0.4	1.6	1.6	1.3	5.6	0.4	0.9	
	Some High School Education 5.	0	4	6	6	12	14	0	1	43
		0.0	3.5	5.2	9.2	14.3	13.6	0.0	3.7	
		0.0	9.3	14.0	14.0	27.9	32.6	0.0	2.3	
		0.0	0.7	1.1	1.1	2.2	2.5	0.0	0.2	
	High School Completed 6.	1	29	31	14	51	30	0	2	158
		10.0	25.4	26.7	21.5	60.7	29.1	0.0	7.4	
		0.6	18.4	19.6	8.9	32.3	19.0	0.0	1.3	
		0.2	5.3	5.6	2.5	9.3	5.5	0.0	0.4	

TABLE H.11--Continued

Count Row Pct Col Pct Tot Pct	Fathers' Occupational Categories								Row Total
	Government Officials 1.	Professionals and Semi-Pro- fessionals 2.	Proprietors, Managers and Officials 3.	Farmers and Farm Mana- gers 4.	Clerical and Sales Workers 5.	Skilled Workers 6.	Farm Laborers 7.	Unskilled Workers 8.	
P.U.C. or one year of College 7.	0	4	12	1	3	4	0	0	24
	0.0	3.5	10.3	1.5	3.6	3.9	0.0	0.0	4.4
	0.0	16.7	50.0	4.2	12.5	16.7	0.0	0.0	
	0.0	0.7	2.2	0.2	0.5	0.7	0.0	0.0	
B.A. etc. or 4 years of College or less 8.	2	29	37	2	7	1	0	0	78
	20.0	25.4	31.9	3.1	8.3	1.0	0.0	0.0	14.2
	2.6	37.2	47.4	2.6	9.0	1.3	0.0	0.0	
	0.4	5.3	6.7	0.4	1.3	0.2	0.0	0.0	
M.A. etc. or 6 or more years of College 9.	7	44	10	1	1	0	0	0	63
	70.0	38.6	8.6	1.5	1.2	0.0	0.0	0.0	11.5
	11.1	69.8	15.9	1.6	1.6	0.0	0.0	0.0	
	1.3	8.0	1.8	0.2	0.2	0.0	0.0	0.0	
Column Total	10 1.8	114 20.7	116 21.1	65 11.8	84 15.3	103 18.7	31 5.6	27 4.9	550 100.0

 $\chi^2 = 517.44946$; DF = 56 (Z = 21.63417); $p < .001$

TABLE H.12

DISTRIBUTION OF FATHERS' RESIDENCE POPULATIONS BY THEIR CASTE CATEGORIES

Caste Categories	Count Row Pct Col Pct Tot Pct	Fathers' Residence Populations ^b							Row Total	
		Less than 999 1.	1000 to 14,999 2.	15,000 to 19,999 3.	20,000 to 49,999 4.	50,000 to 99,999 5.	100,000 to 499,999 6.	500,000 to 999,999 7.		Over 1,000,000 8.
Brahmin Castes	1.	1	5	1	1	1	11	4	78	102
		1.0	4.9	1.0	1.0	1.0	10.8	3.9	76.5	18.5
		2.5	7.5	3.8	4.3	5.6	35.5	33.3	23.4	
		0.2	0.9	0.2	0.2	0.2	2.0	0.7	14.2	
Non-Brahmin Forward Castes	2.	11	19	6	7	9	14	6	127	199
		5.5	9.5	3.0	3.5	4.5	7.0	3.0	63.8	36.2
		27.5	28.4	23.1	30.4	50.0	45.2	50.0	38.1	
		2.0	3.5	1.1	1.3	1.6	2.5	1.1	23.1	
Non-Brahmin Backward Castes	3.	13	21	8	10	5	4	2	95	158
		8.2	13.3	5.1	6.3	3.2	2.5	1.3	60.1	28.7
		32.5	31.3	30.8	43.5	27.8	12.9	16.7	28.5	
		2.4	3.8	1.5	1.8	0.9	0.7	0.4	17.3	
Scheduled Castes	4.	15	22	10	4	2	0	0	26	79
		19.0	27.8	12.7	5.1	2.5	0.0	0.0	32.9	14.4
		37.5	32.8	38.5	17.4	11.1	0.0	0.0	7.8	
		2.7	4.0	1.8	0.7	0.4	0.0	0.0	4.7	
Others	6.	0	0	1	1	1	2	0	7	12
		0.0	0.0	3.3	3.3	3.3	6.7	0.0	58.3	2.2
		0.0	0.0	3.8	4.3	5.6	6.5	0.0	2.1	
		0.0	0.0	0.2	0.2	0.2	0.4	0.0	1.3	
Column Total		40	67	26	23	18	31	12	333	550
		7.3	12.2	4.7	4.2	3.3	5.6	2.2	60.5	100.0

$$\chi^2 = 103.84979; \text{Df} = 28; p < .001$$

^aThe fifth caste category of scheduled tribes is omitted because there are no cases of that caste category in the sample.

^bResidences with population under 20,000 are considered rural areas; and residences over 20,000 are considered urban areas.

TABLE H.13

DISTRIBUTION OF FATHERS' PROTECTIVE DISCRIMINATION BY THEIR CASTE CATEGORIES

	Count	Fathers' protective discrimination ^b				Row Total	
		Scheduled Caste Scholarships	Backward Caste Scholarships	Other Scholarships	No Scholarship		
	Row Pct	1.	3.	4.	5.		
	Col Pct						
	Tot Pct						
Caste categories ^a	Brahmin castes	1.	0	0	6	96	102
			0.0	0.0	5.9	94.1	36.2
			0.0	0.0	46.2	18.9	
			0.0	0.0	1.1	17.5	
	Non-Brahmin Forward castes	2.	0	4	5	190	199
			0.0	2.0	2.5	95.5	36.2
			0.0	23.5	38.5	37.3	
			0.0	0.7	0.9	34.5	
	Non-Brahmin Backward castes	3.	0	13	1	144	158
			0.0	8.2	0.6	91.1	28.7
			0.0	76.5	7.7	28.3	
			0.0	2.4	0.2	26.2	
	Scheduled castes	4.	11	0	0	68	79
			13.9	0.0	0.0	86.1	14.4
			100.0	0.0	0.0	13.4	
			2.0	0.0	0.0	12.4	
	Others	6.	0	0	1	11	12
			0.0	0.0	8.3	91.7	2.2
			0.0	0.0	7.7	2.2	
			0.0	0.0	0.2	2.0	
Column Total		11	17	13	509	550	
		2.0	3.1	2.4	92.5	100.0	

$$\chi^2 = 97.43346; \text{Df} = 12; p < .001$$

^aThe fifth category of scheduled tribes is omitted because there are no cases of that caste category in the sample.

^bThe category of scheduled tribes scholarship is also omitted as there are no cases of that category in the sample.

TABLE H.14

DISTRIBUTION OF FATHERS' ANNUAL INCOME BY THEIR CASTE CATEGORIES

	Count Row Pct Col Pct Tot Pct	Fathers' Annual Income (in rupees ^b)				Row Total
		Less than 749 1.	750 to 2499 2.	2500 to 5999 3.	6000 and over 4.	
Caste categories ^a	Brahmin castes 1.	4	17	21	60	102
		3.9	16.7	20.6	58.8	18.5
		6.0	9.9	17.4	31.4	
		0.7	3.1	3.8	10.9	
	Non-Brahmin Forward castes 2.	11	42	52	94	199
		5.5	21.1	26.1	47.2	36.2
		16.4	24.6	43.0	49.2	
		2.0	7.6	9.5	17.1	
	Non-Brahmin Backward castes 3.	19	76	30	33	158
		12.0	48.1	19.0	20.9	28.7
		28.4	44.4	24.8	17.3	
		3.5	13.8	5.5	6.0	
	Scheduled castes 4.	33	34	11	1	79
		41.8	43.0	13.9	1.3	14.4
		49.3	19.9	9.1	0.5	
		6.0	6.2	2.0	0.2	
	Others 6.	0	2	7	3	12
		0.0	16.7	58.3	25.0	2.2
		0.0	1.2	5.8	1.6	
		0.0	0.4	1.3	0.5	
Column Total		67	171	121	191	550
		12.2	31.1	22.0	34.7	100.0

$$\chi^2 = 175.90067; \text{DF} = 12; p < .01$$

^aThe fifth category of scheduled tribes is omitted as there are no cases of that caste category in the sample.

^bRupee is the Indian currency approximately equivalent to about 12¢ of the U.S.A. currency (in 1977).

TABLE H.15

DISTRIBUTION OF SONS' OCCUPATIONAL ASPIRATION LEVELS
BY THEIR FATHERS' EDUCATIONAL LEVELS

	Count Row Pct Col Pct Tot Pct	Sons' Occupational Aspiration Levels			Row Total
		Low 1.	Medium 2.	High 3.	
Fathers' Educational Levels	No education 1.	1 5.0 4.0 0.2	12 6.6 48.0 2.2	12 3.5 48.0 2.2	25 4.5
	Some Primary Education 2.	0 0.0 0.0 0.0	15 8.2 36.6 2.7	26 7.5 63.4 4.7	41 7.5
	Elementary School Completed 3.	2 10.0 3.8 0.4	16 8.7 30.2 2.9	35 10.1 66.0 6.4	53 9.6
	Middle School Completed • 4.	7 35.0 10.8 1.3	19 10.4 29.2 3.5	39 11.2 60.0 7.1	65 11.8
	Some High School Education 5.	4 20.0 9.3 0.7	14 7.7 32.6 2.5	25 7.2 58.1 4.5	43 7.8
	High School Completed 6.	5 25.0 3.2 0.9	61 33.3 38.6 11.1	92 26.5 58.2 16.7	158 28.7
	P.U.C. or one year of College 7.	0 0.0 0.0 0.0	8 4.4 33.3 1.5	16 4.6 66.7 2.9	24 4.4
	B.A. etc. or 4 years of College 8.	1 5.0 1.3 0.2	22 12.0 28.2 4.0	55 15.9 70.5 19.0	78 14.2
	M.A. etc. or 6 or more years of College	0 0.0 0.0 0.0	16 8.7 25.4 2.9	47 13.5 74.6 8.5	63 11.5
	Column Total	20 3.6	183 33.3	347 63.1	550 100.0

$$\chi^2 = 28.09950; \text{Df} = 16; p < .05$$

TABLE H.16

DISTRIBUTION OF SONS' OCCUPATIONAL ASPIRATION
LEVELS BY THEIR CASTE CATEGORIES

	Count Row Pct Col Pct Tot Pct	Sons' occupational aspiration levels			Row Total
		Low 1.	Medium 2.	High 3.	
Caste categories ^a	Brahmin castes 1.	1 1.0 5.0 0.2	35 34.3 19.1 6.4	66 64.7 19.0 12.0	102 18.5
	Non-Brahmin Forward castes 2.	9 4.5 45.0 1.6	69 34.7 37.7 12.5	121 60.8 34.9 22.0	199 36.2
	Non-Brahmin Backward castes 3.	7 4.4 35.0 1.3	47 29.7 25.7 8.5	104 65.8 30.0 18.9	158 28.7
	Scheduled castes 4.	3 3.8 15.0 0.5	27 34.2 14.8 4.9	49 62.0 14.1 8.9	79 14.4
	Others 6.	0 0.0 0.0 0.0	5 41.7 2.7 0.9	7 58.3 2.0 1.3	12 2.2
	Column Total	20 3.6	183 33.3	347 63.1	550 100.0

$$\chi^2 = 4.59019; \text{Df} = 8; (\text{NS})$$

^aThe fifth caste category of scheduled tribes is omitted as there are no cases of that caste category in the sample.

TABLE H.17

DISTRIBUTION OF SONS' OCCUPATIONAL ASPIRATION LEVELS
BY THEIR FATHERS' OCCUPATIONAL CATEGORIES

	Count	Sons' occupational aspiration levels			Row Total
		Low	Medium	High	
	Row Pct	1.	2.	3.	
	Col Pct				
	Tot Pct				
Father's occupational categories	Government Officials 1.	0 0.0 0.0 0.0	4 40.0 2.2 0.7	6 60.0 1.7 1.1	10 1.8
	Professionals and Semi-Professionals 2.	1 0.9 5.0 0.2	32 28.1 17.5 5.8	81 71.1 23.3 14.7	114 20.7
	Proprietors, Managers and Officials 3.	3 2.6 15.0 0.5	35 30.2 19.1 6.4	78 67.2 22.5 14.2	116 21.1
	Farmers and Farm Managers 4.	3 4.6 15.0 0.5	25 38.5 13.7 4.5	37 56.9 10.7 6.7	65 11.8
	Clerical and Sales Workers 5.	5 6.0 25.0 0.9	33 39.3 18.0 6.0	46 54.8 13.3 8.4	84 15.3
	Skilled Workers 6.	6 5.8 30.0 1.1	34 33.0 18.6 6.2	63 61.2 18.2 11.5	103 18.7
	Farm Laborers 7.	1 3.2 5.0 0.2	12 38.7 6.6 2.2	18 58.1 5.2 3.3	31 5.6
	Unskilled Workers 8.	1 3.7 5.0 0.2	8 29.6 4.4 1.5	18 66.7 5.2 3.3	27 4.9
	Column Total		20 3.6	183 33.3	347 63.1

$$\chi^2 = 12.13905; \text{Df} = 14; (\text{NS})$$

DISTRIBUTION OF SONS' OCCUPATIONAL ASPIRATION LEVELS
BY THEIR FATHERS' ANNUAL INCOMES

	Count	Row Pct	Col Pct	Tot Pct	Sons' occupational aspiration levels			Row Total
					Low 1.	Medium 2.	High 3.	
Father's annual income (rupees ^a)	Less than 749	1.			2	22	43	67
					3.0	32.8	64.2	12.2
					10.0	12.0	12.4	
					0.4	4.0	7.8	
	750 to 2499	2.			9	50	112	171
					5.3	29.2	65.5	31.1
					45.0	27.3	32.3	
					1.6	9.1	20.4	
	2500 to 5999	3.			7	53	61	121
					5.8	43.8	50.4	22.0
					35.0	29.0	17.6	
					1.3	9.6	11.1	
	6000 and over	4.			2	58	131	191
					1.0	30.4	68.6	34.7
					10.0	31.7	37.8	
					0.4	10.5	23.8	
	Column Total				20	183	347	550
					3.6	33.3	63.1	100.0

$$\chi^2 = 15.90270; \text{Df} = 6; p < .05$$

^aRupee is the Indian currency approximately equivalent to 12¢ of the U.S.A. currency (in 1977).

TABLE H.19

DISTRIBUTION OF SONS' PROTECTIVE DISCRIMINATION BY THEIR CASTE CATEGORIES

	Count Row Pct Col Pct Tot Pct	Fathers' Protective Discrimination ^b				Row Total
		Scheduled Caste Scholarships 1.	Backward Caste Scholarships 3.	Other Scholarships 4.	No Scholarship 5.	
Caste categories ^a	Brahmin castes 1.	0 0.0 0.0 0.0	0 0.0 0.0 0.0	1 1.0 12.5 0.2	101 99.0 25.7 18.4	102 18.5
	Non-Brahmin Forward castes 2.	0 0.0 0.0 0.0	0 0.0 0.0 0.0	5 2.5 62.5 0.9	194 97.5 49.4 35.3	199 36.2
	Non-Brahmin Backward castes 3.	0 0.0 0.0 0.0	73 46.2 100.0 13.3	2 1.3 25.0 0.4	83 52.5 21.1 15.1	158 28.7
	Scheduled castes 4.	76 96.2 100.0 13.8	0 0.0 0.0 0.0	0 0.0 0.0 0.0	3 3.8 0.8 0.5	79 14.4
	Others 6.	0 0.0 0.0 0.0	0 0.0 0.0 0.0	0 0.0 0.0 0.0	12 100.0 3.1 2.2	12 2.2
	Column Total	76 13.8	73 13.3	8 1.5	393 71.5	550 100.0

$$\chi^2 = 706.542; Df = 12; p < .01$$

^aThe fifth caste category of scheduled tribes is omitted as there are no cases of that caste category in the sample.

^bThe category of scheduled tribe scholarship is omitted as there are no scheduled tribes in the sample.

TABLE H.20

DISTRIBUTION OF SONS' OCCUPATIONAL ASPIRATION LEVELS
BY THEIR PROTECTIVE DISCRIMINATION

Count Row Pct Col Pct Tot Pct		Sons' occupational aspiration levels			Row Total
		Low 1.	Medium 2.	High 3.	
Sons' Protective Discrimination ^a	Scheduled Caste Scholarships 1.	3 3.9 15.0 0.5	25 32.9 13.7 4.5	48 63.2 13.8 9.1	76 13.8
	Backward Caste Scholarships 3.	3 4.1 15.0 0.5	21 28.8 11.5 3.8	49 67.1 14.1 8.5	73 13.3
	Other Scholarships 4.	1 12.5 5.0 0.2	3 37.5 1.6 0.5	4 50.0 1.2 0.7	8 1.5
	No Scholarship 5.	13 3.3 65.0 2.4	134 34.1 73.2 24.4	246 62.6 70.9 44.7	393 71.5
	Column Total	20 3.6	183 33.3	347 63.1	550 100.0

$$\chi^2 = 2.725; \text{Df} = 6; (\text{NS})$$

^aThe category of scheduled tribe scholarships is omitted as there are no scheduled tribes in the sample.

APPENDIX I

QUESTIONNAIRE

The following is the questionnaire that was used to collect data from the sample Pre-University class students of the City Colleges of Madras of the University of Madras.

LOYOLA UNIVERSITY OF CHICAGO DEPARTMENT OF FOUNDATION OF EDUCATION

Dear Student:

This research project attempts to find out how much education of an individual contributes to his social mobility in Tamil Nadu, India. More specifically it attempts to measure the contribution of education to intergenerational occupational mobility and occupational aspiration. It is a very useful research project which will help us to understand the importance of education in our changing society. I need your full cooperation and help in giving me the following information for the successful completion of the project. All information that you provide us will be held absolutely confidential.

PLEASE FOLLOW THE DIRECTIONS:

1. Read each item or question and answer all of them to the best of your knowledge. Where there are brackets fill in an "X". Be sure that your "X" is squarely in the proper bracket before your choice. Where only a space is left, enter the word, or words or figures called for. If you do not know the answer for the question, please write "I do not know".

EXAMPLE: 1. () a. Backward Class Scholarship
 (X) b. Scheduled Caste Scholarship
 () c. Scheduled Tribe Scholarship

2. Please answer each of the questions as best as you can. Please do not omit any.

SECTION I

ABOUT YOURSELF

1. Your Class is : PUC/B.A./B.Sc./B.Com. (Circle the right one)
2. The name of your College is

8. Your grandfather's educational level was/is:
- a. No education
 - b. Some primary education (1-4 stds.)
 - c. Elementary school completed (5th std.)
 - d. Middle school completed (6-8 stds.)
 - e. Some high school (9-10 stds.)
 - f. High school completed (S.S.L.C., or Matriculation etc.)
 - g. At least one year of college (Pre-University Class)
 - h. 4 years of college or less (B.A., B.Sc., B.Com., L.M.E., etc., Vidvan etc., or intermediate)
 - i. 6 years or more of college (M.A., M.Sc., etc., B.E., M.B.B.S., Ph.D., etc.)
9. Did your grandfather receive any kind of educational scholarship? If so, please specify:
- a. Backward class scholarship
 - b. Scheduled caste scholarship
 - c. Scheduled Tribe scholarship
 - d. Other scholarship: specify (Write the name of scholarship)
 - e. No scholarship of any kind

SECTION IIIABOUT YOUR FATHER AND HIS OCCUPATION

1. Your father's caste is/was (Write the name of his caste)
2. Your father lives/lived at (Write the name of city or town or village)
3. The population of your father's city or town or village is approximately:
 - a. Less than 999
 - b. Between 1,000 and 14,999
 - c. Between 15,000 and 19,999
 - d. Between 20,000 and 49,999
 - e. Between 50,000 and 99,999
 - f. Between 100,000 and 499,999
 - g. Between 500,000 and 999,999
 - h. Over 1,000,000
4. What is your father's age? or if he is dead, what was his age at the time of his death? years.

5. What is/was his longest-held job?
6. If he is dead, what was his job at the time of his death?
7. Your father's annual or yearly income was/is approximately:
- a. Less than Rs. 749
 - b. Between Rs. 750 and 2,499
 - c. Between Rs. 2,500 and Rs. 5,999
 - d. Rs. 6,000 and above
8. Your father's educational level was/is:
- a. No education
 - b. Some primary education (1-4 stds.)
 - c. Elementary school completed (5th std.)
 - d. Middle school completed (6-8 stds.)
 - e. Some high school (9-10 stds.)
 - f. High school completed (S.S.L.C., or Matriculation etc.)
 - g. At least one year of college (Pre-University Class)
 - h. 4 years of college or less (B.A., B.Sc., B.Com., L.M.E., etc., Vidvan etc., or Intermediate etc.)
 - i. 6 years or more of college (M.A., M.Sc., etc., B.E., M.B.B.S., Ph.D., etc.)
9. Did your father receive any kind of educational scholarship? If so, please specify:
- a. Backward class scholarship
 - b. Scheduled caste scholarship
 - c. Scheduled Tribe scholarship
 - d. Other scholarship: specify (Write the name of scholarship)
 - e. No Scholarship of any kind

SECTION IV

ABOUT YOUR OCCUPATIONAL ASPIRATION

The following set of questions concerns your interest in different kinds of jobs. There are eight questions. Each one asks you to choose one job out of ten presented.

1. Be sure that your "X" is squarely in the proper bracket before your choice of job.

EXAMPLE: 1.5 (~~---~~^X) Indian Supreme Court Judge.

2. Read each question carefully. They are all different.
3. Answer each one the best you can.
4. Do not omit any.

QUESTION 1.

Of the jobs listed in this question, which is the BEST ONE you are REALLY SURE YOU CAN GET when your COLLEGE EDUCATION IS OVER?

- 1.1 (---) District Collector
- 1.2 (---) Trained machinist
- 1.3 (---) Mayor of the large city
- 1.4 (---) Machine operator in a factory
- 1.5 (---) Indian Supreme Court Judge
- 1.6 (---) Petrol bunk attendant
- 1.7 (---) Official of an international labor union
- 1.8 (---) Electrician
- 1.9 (---) Newspaper Columnist
- 1.10(---) Clerk in a store

QUESTION 2.

Of the jobs listed in this question, which ONE would you choose if you were FREE TO CHOOSE ANY of them you wished when your COLLEGE EDUCATION IS OVER?

- 2.1 (---) Owner of a factory that employs about 100 people
- 2.2 (---) Owner - Operator of a printing shop
- 2.3 (---) Head of a department of a State Government
- 2.4 (---) Railway conductor
- 2.5 (---) Airline pilot
- 2.6 (---) Dock worker
- 2.7 (---) Railway engineer
- 2.8 (---) Bookkeeper
- 2.9 (---) Revenue Inspector
- 2.10(---) Lorry driver or Truck driver

QUESTION 3.

Of the jobs listed in this question, which is the BEST ONE you are REALLY SURE YOU CAN GET when your COLLEGE EDUCATION IS OVER?

- 3.1 (---) Lawyer
- 3.2 (---) Insurance agent
- 3.3 (---) District Judge
- 3.4 (---) Policeman
- 3.5 (---) Nuclear physicist

- 3.6 (---) Night watchman
- 3.7 (---) Author of novels
- 3.8 (---) Lance Naik in the regular army
- 3.9 (---) Manager of an agricultural farm
- 3.10(---) Taxi driver

QUESTION 4.

Of the jobs listed in this question, which ONE would you choose if you were FREE TO CHOOSE ANY of them you wished when your COLLEGE EDUCATION IS OVER?

- 4.1 (---) Civil Engineer
- 4.2 (---) Sociologist
- 4.3 (---) Scientist
- 4.4 (---) Car mechanic
- 4.5 (---) Physician or Doctor
- 4.6 (---) Clothes presser in a laundry
- 4.7 (---) Accountant for a large business
- 4.8 (---) Electric train motorman or Electric train driver
- 4.9 (---) Traveling salesman for a wholesale concern
- 4.10(---) Railway gangman

QUESTION 5.

Of the jobs listed in this question, which is the BEST ONE you are REALLY SURE YOU CAN HAVE by the time you are 30 YEARS OLD?

- 5.1 (---) Architect
- 5.2 (---) High School teacher
- 5.3 (---) College Professor
- 5.4 (---) Fisherman who owns his boat
- 5.5 (---) Diplomat in the Indian Foreign Service
- 5.6 (---) Clerk in a soda-shop
- 5.7 (---) Farmer or Landlord - one who grows crops on his own land and sells produce
- 5.8 (---) Elementary school teacher
- 5.9 (---) Building contractor
- 5.10(---) Barber in a hair dressing salon

QUESTION 6.

Of the jobs listed in this question, which ONE would you choose to have when you are 30 YEARS OLD, if you were FREE TO HAVE ANY of them you wished?

- 6.1 (---) Member of the Indian Parliament
- 6.2 (---) Manager of a small store in a city
- 6.3 (---) Bank Manager
- 6.4 (---) Agricultural laborer
- 6.5 (---) Central Cabinet Minister
- 6.6 (---) Hotel server or Hotel waiter
- 6.7 (---) Biologist
- 6.8 (---) Tenant farmer - one who grows crops on land

- belonging to others and pays rent to owners of land as stipulated
- 6.9 (---) Artist who paints pictures that are exhibited in galleries
- 6.10(---) Mail carrier

QUESTION 7.

Of the jobs listed in this question, which is the BEST ONE you are REALLY SURE YOU CAN HAVE by the time you are 30 YEARS OLD?

- 7.1 (---) Dentist
- 7.2 (---) Athletic director
- 7.3 (---) Captain in the regular army
- 7.4 (---) Coal miner
- 7.5 (---) Member of the board of directors of a large company
- 7.6 (---) Street sweeper
- 7.7 (---) Radio announcer
- 7.8 (---) Owner - operator of a tea-shop
- 7.9 (---) Reporter on a daily newspaper
- 7.10(---) Carpenter

QUESTION 8.

Of the jobs listed in this question, which ONE would you choose to have when you are 30 YEARS OLD, if you were FREE TO HAVE ANY of them you wished?

- 8.1 (---) Chemist
- 8.2 (---) Local Official of a labor union
- 8.3 (---) Government scientist or scientist working for the government
- 8.4 (---) Plumber
- 8.5 (---) State Chief Minister
- 8.6 (---) Shoe shiner
- 8.7 (---) Psychologist
- 8.8. (---) Workshop mechanic
- 8.9 (---) Economist
- 8.10(---) Hotel cook

APPROVAL SHEET

The dissertation submitted by S. Savarimuthu
has been read and approved by the following committee:

Dr. Steven I. Miller, Director
Associate Professor, Educational Foundations, Loyola

Dr. Gerald L. Gutek
Professor, Educational Foundations, Loyola

Dr. Jack A. Kavanagh
Assistant Professor and Chairman,
Educational Foundations, Loyola

Dr. John M. Wozniak
Dean, School of Education, Loyola

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

November 29, 1977
Date

Steven I. Miller
Director's Signature