

Contents

	<u>Page</u>
Preface	i
<u>PART I: INTRODUCTION</u>	1
<u>Chapter 1: Background</u>	3
1.1 Introduction	3
1.2 Data Sources	4
<u>Chapter 2: Brief Description of Kenya</u>	9
2.1 Demographic Situation	10
2.2 Economic Situation	12
2.3 Labour Markets	12
2.4 Income Distribution	13
Appendix A: An improved measure of agricultural potential of the land in Kenya based on climate	15
<u>PART II: DETERMINANTS OF IMPORTANT ECONOMIC-DEMOGRAPHIC RELATIONS IN KENYA</u>	29
Introduction	30
<u>Chapter 3: Determinants of Fertility in Kenya</u>	31
3.1 Introduction	31
3.2 Determinants of Fertility Based on a Multi-variate Analysis of Macro District Level Data	34
3.3 Determinants of Fertility Based on a Multi-variate Analysis of Micro Household Level Survey Data	37
Appendix A: Determinants of the distribution of fertility by age of woman	48

Chapter 4: Determinants of Mortality in Kenya	59
4.1 Introduction	59
4.2 Background	60
4.3 Data Sources and Mortality Measures	62
4.4 The Theoretical Determinants of Infant and Child Mortality	67
(a) Individual and household characteristics	67
(b) Environmental factors	69
4.5 Mortality Differentials among Districts	70
4.6 Mortality Differentials among Households	76
4.7 Conclusions	85
Appendix A: Means and standard deviations for district level variables	86
Appendix B: Correlation matrix for district level variables	86
Appendix C: Means and standard deviations for household level variables	87
Appendix D: Correlation matrix for household level variables	88
Chapter 5: Determinants of Migration in Kenya	97
5.1 Introduction	97
5.2 Review of Previous Studies in Kenya	97
5.3 Introduction: Macro District Level Analysis	100
5.4 Macro District Level Analysis: Specification Problems	100
5.5 Macro District Level Analysis: Specification of the Model	103
5.6 Macro District Level Analysis: Empirical Results	108
(a) Single equation macro model	109
(b) Simultaneous equations macro model	114
5.7 Macro District Level Analysis: Summary and Conclusions	116
5.8 Introduction: Micro Household Level Analysis	120
5.9 Expected Earnings Functions at the Micro Level	121
5.10 Expected Gains from Migration at the Micro Level	127

5.11	Micro Household Level Analysis: A Test of the Human Capital Model	130
5.12	Micro Household Level Analysis: Summary and Conclusions	136
Appendix A: Correlation matrix of the explanatory variables used in macro district level analysis		138
<u>Chapter 6: Determinants of Income Transfers in Kenya</u>		145
6.1	Introduction	145
6.2	Background and Data	147
6.3	Descriptive Evidence on Income Transfers	148
(a)	The relationship between persons sending and receiving transfers	149
(b)	The relative size of transfer flows between and within urban and rural areas	150
(c)	The impact of transfers on the size distribution of income	151
6.4	Regression Analysis of the Determinants of Income Transfers	155
(a)	The models	155
(b)	The decision to transfer	158
(c)	The amount of income transferred	162
(d)	The combined models	166
6.5	Summary and Conclusions	166
Appendix A: Means and standard deviations of the variables used in regression analysis		170
Appendix B: Correlation matrix of the independent variables		171
<u>Chapter 7: Determinants of Female Labour Force Participation in Kenya</u>		177
7.1	Introduction	177
7.2	Measurement of Female Labour Force Participation	179
7.3	Theoretical Considerations	185
(a)	Cultural factors	185
(b)	Child-care and household responsibilities	186

<u>Chapter 10: Final Demand in Bachue-Kenya</u>	311
10.1 Exogenous Components of Final Demand	311
10.2 Endogenous Final Demand: Total Consumption	313
10.3 Endogenous Final Demand: Urban Expenditure	316
10.4 Endogenous Final Demand: Rural Expenditure	326
10.5 Direct Imports and Indirect Taxes	329
 <u>Chapter 11: Input-Output Model and Supply Constraint in Bachue-Kenya</u>	 339
11.1 The 1967 Input/Output Tables	339
11.2 The Ten-sector Input-Output Model	343
11.3 The Assumption of Fixed Input-Output Coefficients	347
11.4 The Supply Constraint	349
 <u>Chapter 12: Agriculture in Bachue-Kenya</u>	 353
12.1 Agricultural Supply	353
(a) Behavioural functions	354
(b) Simulation	361
(c) Parameters and initial values	366
12.2 Landlessness	369
(a) Behavioural relationships	370
(b) Simulation	374
(c) Initialisation	374
12.3 Distribution of Land	376
(a) Simulation	377
(b) Initialisation	378
 <u>Chapter 13: Employment and Labour Productivity in Bachue-Kenya</u>	 383
13.1 The Division of Value-added into Urban-rural and Modern-informal Sector Components	383
(a) Parameters and initial values	386
13.2 Labour Productivity	389
(a) Parameters and initial values	395

13.3 Employment	398
(a) Parameters and initial values	399
Chapter 14: The Size Distribution of Factor Income among Households in Bachue-Kenya	405
14.1 Earnings	405
(a) Parameters and initial values	408
14.2 Farm Income	413
(a) Parameters and initial values	415
14.3 Non-farm Property Income	416
(a) Parameters and initial values	419
14.4 Aggregate Income	422
(a) Parameters and initial values	423
14.5 Total Factor Income	425
(a) Initial values	426
14.6 Income Distribution by Decile	427
(a) Initial values	429
Chapter 15: The Size Distribution of Disposable Personal Income in Bachue-Kenya	433
15.1 Income Transfers	433
(a) Behavioural functions	435
(b) Parameters and initial values	439
15.2 Personal Income Taxes	443
(a) Parameters and initial values	444
15.3 The Joint Distribution of Disposable Income and Household Size	447
(a) Parameters and initial values	448
Chapter 16: Fertility in Bachue-Kenya	451
16.1 Behavioural Relationships	452

(a) Total fertility rate	452
(b) Sterility	459
(c) Percentage distribution of fertility by age of woman	461
16.2 Model Specification	461
16.3 Initialisation	465
(a) Total fertility rate	465
(b) Sterility	469
(c) Fertility pattern by age of woman	469
 Chapter 17: Mortality in Bachue-Kenya	 475
17.1 Behavioural Relationships	476
17.2 Model Specification	478
17.3 Initialisation	480
 Chapter 18: Migration in Bachue-Kenya	 485
18.1 Behavioural Relationships	486
(a) Over-all rural-urban migration rate	486
(b) Relative age, sex and education-specific migration rates	493
18.2 Model Specification	499
18.3 Initialisation	508
(a) Over-all net rural-urban migration rate	508
(b) Proportion of population of migrants by age and sex	511
 Chapter 19: Labour Force in Bachue-Kenya	 515
19.1 Behavioural Relationships	517
19.2 Model Specification	521
19.3 Initialisation	524
 Chapter 20: Households in Bachue-Kenya	 529
20.1 Behavioural Relationships	529
20.2 Model Specification	530
20.3 Initialisation	532

<u>Chapter 21: Population Accounting in Bachue-Kenya</u>	535
21.1 Model Specification	535
(a) Ages 22-64 years and 1-11 years	537
(b) Age zero year	538
(c) Ages 12-21 years	538
(d) Age 65 years and above	539
21.2 Initialisation of Population Distribution	539
<u>Chapter 22: Education in Bachue-Kenya</u>	549
22.1 Model Specification	550
22.2 Initialisation	556
(a) Education system parameters	556
(b) School enrolment	561
(c) Consistency between population and education initialisation	561
<u>PART IV: MODEL SIMULATIONS WITH BACHUE-KENYA</u>	565
<u>Chapter 23: Introduction to Model Simulations</u>	567
<u>Chapter 24: Reference Run</u>	575
24.1 Results	575
(a) Demographic variables	575
(b) Economic variables	584
(c) Labour market variables	587
(d) Income distribution variables	589
24.2 Comparison of Reference Run with 1969-1979 Experience	590
<u>Chapter 25: Demographic Policy Experiments</u>	607
25.1 Slow Decline in Fertility	607
(a) Demographic variables	610
(b) Labour market variables	610
(c) Economic variables	612

(d) Income distribution variables	612
25.2 Rapid Decline in Fertility	613
(a) Demographic variables	614
(b) Labour market variables	617
(c) Economic variables	618
(d) Income distribution variables	619
25.3 Slow Increase in Life Expectancy	620
(a) Demographic variables	620
(b) Labour market variables	623
(c) Economic variables	623
(d) Income distribution variables	623
25.4 Rapid Increase in Life Expectancy	623
(a) Demographic variables	624
(b) Labour market variables	627
(c) Economic variables	628
(d) Income distribution variables	629
25.5 Reducing Rural to Urban Migration	629
(a) Demographic variables	632
(b) Labour market variables	632
(c) Economic variables	633
(d) Income distribution variables	633
25.6 Compulsory Education through Second Year of Secondary School	634
(a) Demographic variables	637
(b) Labour market variables	638
(c) Economic variables	638
(d) Income distribution variables	639
Chapter 26: Economic Policy Experiments	643
26.1 Increasing Agricultural Output	643
(a) Economic variables	643
(b) Labour market variables	646
(c) Income distribution variables	647
(d) Demographic variables	647
26.2 Investing in Agriculture	648
(a) Economic variables	648
(b) Labour market variables	652

(c) Income distribution variables	652
(d) Demographic variables	653
26.3 Stimulating Informal Sector Output	653
(a) Economic variables	653
(b) Labour market variables	656
(c) Income distribution variables	657
(d) Demographic variables	657
26.4 Rural Industrialisation	658
(a) Economic variables	658
(b) Labour market variables	661
(c) Income distribution variables	662
(d) Demographic variables	662
Chapter 27: Labour Market Policy Experiments	665
27.1/27.2 Creating Jobs in Urban Modern Sector/ Urban Informal Sector	665
(a) Demographic variables	670
(b) Labour market variables	670
(c) Economic variables	671
(d) Income distribution variables	672
27.3 Increasing Urban Female Labour Force Participation	672
(a) Demographic variables	675
(b) Labour market variables	675
(c) Economic variables	676
(d) Income distribution variables	676
Chapter 28: Income Distribution Experiments	679
28.1 Land Reform	679
(a) Economic variables	679
(b) Labour market variables	682
(c) Income distribution variables	683
(d) Demographic variables	683
28.2 Increasing the Wage Share in the Modern Sector	684
(a) Economic variables	685
(b) Labour market variables	688

(c) Income distribution variables	689
(d) Demographic variables	689
28.3 Decreasing Wage Differentials in the Modern Sector	690
(a) Demographic variables	690
(b) Economic variables	693
(c) Labour market variables	693
(d) Income distribution variables	693
PART V: CONCLUSION	695
Chapter 29: Conclusion	697
Bibliography	701