

PROMOTIONAL COPY

Demographic and Socioeconomic Changes in Sabah



DEMOGRAPHIC SEGMENTATION

GENDER

INCOME

EDUCATION

FAMILY LIFE CYCLE

50%
25%
85%
75%



PROMOTIONAL COPY



Demographic and Socioeconomic Changes in Sabah

Editors

Tey Nai Peng

Lai Siow Li

Jennifer Chan Kim Lian

PENERBIT UNIVERSITI MALAYSIA SABAH

Kota Kinabalu • Sabah • Malaysia

<http://www.ums.edu.my>

2021

A Member of the Malaysian Scholarly Publishing Council (MAPIM)

© Universiti Malaysia Sabah, 2021

All rights reserved. No part of this publication may be reproduced, distributed, stored in a database or retrieval system, or transmitted, in any form or by any means, electronic, mechanical, graphic, recording or otherwise, without the prior written permission of Penerbit Universiti Malaysia Sabah, except as permitted by Act 332, Malaysian Copyright Act of 1987. Permission of rights is subjected to royalty or honorarium payment.

Penerbit Universiti Malaysia Sabah makes no representation – express or implied, with regard to the accuracy of information contained in this book. Users of the information in this book need to verify it on their own before utilising such information. Views expressed in this publication are those of the author(s) and do not necessarily reflect the opinion or policy of Universiti Malaysia Sabah. Penerbit Universiti Malaysia Sabah shall not be responsible or liable for any special, consequential, or exemplary problems or damages resulting in whole or part, from the reader's use of, or reliance upon, the contents of this book.

Perpustakaan Negara Malaysia

Cataloguing-in-Publication Data

Demographic and Socioeconomic Changes in Sabah / Editors: Tey Nai Peng,

Lai Siow Li, Jennifer Chan Kim Lian.

ISBN 978-967-2738-23-7

1. Demographic transition--Malaysia--Sabah.

2. Economic development --Social aspects--Malaysia--Sabah.

3. Government publications--Malaysia.

I. Tey, Nai Peng. II. Lai, Siow Li.

III. Chan, Jennifer Kim Lian.

304.620959521

| | |
|-----------------------------|---|
| Typeface for text: | Cambria/Swis721 Cn BT |
| Text type and leading size: | 11/13.2 points |
| Cover and layout designer: | Nataniel Ebin |
| Proofreader: | Marshell Kanam Gombor |
| Copy editor: | Lindsay Lorraine Majawat |
| Published by: | Penerbit Universiti Malaysia Sabah Tingkat Bawah, Perpustakaan Universiti Malaysia Sabah, Jalan UMS 88400 Kota Kinabalu, Sabah |
| Printed by: | Gayawara Sdn. Bhd. No. 2, Jalan Nountun, Kg. Bambangan Inanam, Tingkat Bawah, Wisma Capital 88450 Kota Kinabalu, Sabah, Malaysia |

Contents

| | |
|---|------------|
| List of Figures | vii |
| List of Tables | ix |
| List of Abbreviations | xvi |
| List of Contributors | xix |
| Foreword | xxii |
| Preface | xxiv |
| Acknowledgements | xxvi |
| <i>Chapter 1</i> | <i>1</i> |
| Population Growth, Distribution and Composition | |
| Tey Nai Peng | |
| <i>Chapter 2</i> | <i>30</i> |
| Population Projection 2020 – 2050, Sabah | |
| Lai Siow Li | |
| <i>Chapter 3</i> | <i>51</i> |
| Gender Gap in Educational Attainment in Sabah | |
| Lai Siow Li | |
| <i>Chapter 4</i> | <i>78</i> |
| Women in the Labour Force | |
| Yip Tien Ming | |
| <i>Chapter 5</i> | <i>115</i> |
| Income Differentials in Sabah, Malaysia | |
| Lim Thien Sang, Cheong Jia Qi, Lim Fui Yee Beatrice and Rafiq Idris | |
| <i>Chapter 6</i> | <i>143</i> |
| Internal Migration in Sabah of Malaysia: Trends and Issues | |
| Oliver Valentine Eboy and Diana Peters | |
| <i>Chapter 7</i> | <i>164</i> |
| Marriage Trends and Patterns in Sabah | |
| Tey Nai Peng | |
| <i>Chapter 8</i> | <i>198</i> |
| Fertility and Fertility Preferences in Sabah | |
| Elena binti Zafrul | |

| | |
|--|-----|
| <i>Chapter 9</i> | 231 |
| The State of Family Planning in Sabah | |
| Tey Nai Peng | |
| <i>Chapter 10</i> | 259 |
| Women, Family and Gender Issues | |
| Salmah Topimin | |
| <i>Chapter 11</i> | 282 |
| Youth in Sabah | |
| Janice L. H. Nga and Amer Azlan Abdul Jamal | |
| <i>Chapter 12</i> | 301 |
| Knowledge, Attitude and Behaviour of Sexual and Reproductive Health among Adolescents in Sabah: A Comparison with Sarawak and Peninsular Malaysia | |
| Najihah Ismail, Hamizah binti Mohd Hassan, Adzmel Mahmud and Sofia Mohd Yusop | |
| <i>Chapter 13</i> | 324 |
| Women and Youth in Sabah's Hotel Industry | |
| Jennifer Chan Kim Lian and Andi Tamsang Andi Kele | |
| <i>Chapter 14</i> | 353 |
| Growth and Distribution of Non-Citizen Population | |
| Diana Peters | |
| Glossary | 373 |
| References | 377 |
| Index | 418 |

List of Figures

| Figure | | Page |
|---------------|--|-------------|
| 1.1 | Average annual rate of population growth in urban and rural areas by state, 1970 – 2010 | 7 |
| 1.2 | Crude birth rate, crude death rate, and crude rate of natural increase, Sabah, 1970 – 2019 | 8 |
| 1.3 | Population pyramid, Sabah, 2000 – 2018 | 19 |
| 1.4 | Per cent of population aged 15 – 64 by district, 2010 | 23 |
| 1.5 | Sex ratio by district, 2019 | 25 |
| 2.1 | Population size (inclusive of non-citizens) and average annual population growth rate (exclusive of non-citizens), 2020 – 2050 | 39 |
| 2.2 | Population distribution (citizens) by age, 2020 – 2050 | 40 |
| 2.3 | Population pyramids (citizens), 2020 and 2050 | 41 |
| 3.1 | Student-teacher ratio at primary level by district, 2019 | 57 |
| 3.2 | Student-teacher ratio at the secondary level by district, 2019 | 57 |
| 3.3 | Female teachers as a per cent of total teachers at the primary level by district, 2019 | 59 |
| 3.4 | Female teachers as a per cent of total teachers at the secondary level by district, 2019 | 59 |
| 4.1 | Trends in labour force participation rate, 1982 – 2019 | 79 |
| 4.2 | Labour force participation rate and gender gap among ASEAN countries, 2019 | 80 |
| 4.3 | Relationship between female labour force participation rate and tertiary enrolment ratio | 82 |
| 4.4 | Female labour force participation rate by citizenship, Sabah, 2015 | 100 |
| 4.5 | Female employment status by citizenship, Sabah, 2015 | 100 |
| 5.1 | Gini index, average gross household income and household expenditure in Malaysia (1979 – 2019) | 117 |
| 5.2 | Median monthly income (RM) by district, Sabah, 2019 | 133 |
| 5.3 | Gini coefficient and incidence of poverty by district, Sabah – 2019 | 135 |
| 6.1 | The number of in-migration by district, Sabah in 2000 and 2010 | 161 |
| 6.2 | The number of out-migration by district, Sabah in 2000 and 2010 | 161 |
| 7.1 | Divorce ratio per 1,000 marriages, Malaysia | 171 |
| 7.2 | SMAM by educational level, Sabah | 177 |

| | | |
|------|--|-----|
| 7.3 | Per cent of Sabah women marrying another ethnic group, Sabah, 2014 | 191 |
| 9.1 | Contraceptive prevalence rate for any method and modern method, Malaysia | 239 |
| 9.2 | Per cent of users starting using a contraceptive method by a specific age | 243 |
| 9.3 | Decision-making on contraceptive use by strata, Sabah | 245 |
| 9.4 | Decision-making on contraceptive use by women's educational level, Sabah | 246 |
| 9.5 | Decision-making on contraceptive use by ethnicity, Sabah | 246 |
| 11.1 | Youth well-being in Malaysia 2015, 2016, 2017 and 2019 | 297 |
| 13.1 | Sabah tourist arrival from 2002 to 2019 | 329 |
| 13.2 | Hotel and room supply from 2000 to 2019 | 329 |
| 13.3 | Sabah tourist arrival (domestic and international) from 2002 to 2019 | 330 |
| 13.4 | Malaysia labour force by sex from 1982 to 2019 | 337 |
| 13.5 | Sabah labour force by sex from 1982 to 2019 | 337 |
| 13.6 | Sabah labour force (youth) from 1982 to 2019 | 344 |
| 14.1 | Comparison of increase in foreign population across regions (Sabah, Sarawak and Peninsular Malaysia) (1970 – 2010) | 356 |
| 14.2 | Sabah and its surrounding neighbours | 359 |
| 14.3 | Estimate of population in Sabah by district (2019) | 360 |
| 14.4 | Total population of Sabah (2017) | 365 |
| 14.5 | Percentage of Filipino, Indonesian and Malaysian workers in Sabah | 365 |

List of Tables

| Table | Page |
|---|-------------|
| 1.1 Population size ('000), distribution and the annual rate of growth by state, Malaysia | 4 |
| 1.2 Urbanisation level by state, 1970 – 2010 | 6 |
| 1.3 Crude rate of natural increase (per 1,000 population) by ethnicity | 9 |
| 1.4 Growth of citizens and non-citizen population ('000) - Sabah | 9 |
| 1.5 Population distribution and the average annual rate of growth, and population density by district, 2000, 2010 and 2019 | 12 |
| 1.6 Urbanisation level by district, Sabah, 2000, and 2010 | 13 |
| 1.7 Population distribution by ethnicity, Sabah, 1970 – 2010 | 15 |
| 1.8 The ethnic composition of the population, by district, Sabah, 2010 | 16 |
| 1.9 Population according to religious affiliation by ethnicity, Sabah, 2010 | 18 |
| 1.10 Changes in the age structure of the population, Sabah, 2000 – 2018 | 20 |
| 1.11 Citizen and non-citizen population by age, 2010 | 21 |
| 1.12 Sex ratio by age, Sabah, 2000 – 2018 | 24 |
| 1.13 Socio-economic indicators and employment by sector, Malaysia, 1982 – 2018 | 26 |
| 2.1 Base year population size by age and sex, 2020 (citizens) | 35 |
| 2.2 Input data for population projection | 36 |
| 2.3 Input data for functional projections | 36 |
| 2.4 Population size (citizens), average annual population growth rate, and doubling time under various circumstances, 2020 – 2050 | 38 |
| 2.5 Summary demographic indicators (citizens), 2020 – 2050 | 42 |
| 2.6 Educational planning and requirements, 2020 – 2050 | 44 |
| 2.7 Healthcare planning and requirements, 2020 – 2050 | 45 |
| 2.8 Economic planning and requirements, 2020 – 2050 | 46 |
| 2.9 Population projections compared to the projections made by DOSM (citizens) | 47 |
| 3.1 Number of schools, teachers, students, and the student-teacher ratio at the primary level by state and year | 55 |
| 3.2 Number of schools, teachers, students, and the student-teacher ratio at secondary level by state and year | 56 |
| 3.3 Female teachers as a per cent of total teachers at primary and secondary levels by state and year | 58 |

| | | |
|------|--|----|
| 3.4 | Gross enrolment rate at primary, secondary, and tertiary levels by sex, state, and year | 60 |
| 3.5 | Educational level of the citizen labour force by sex and state, 2015 | 62 |
| 3.6 | Per cent of the citizen labour force with tertiary education by age, sex, and state, 2015 | 62 |
| 3.7 | Per cent not studying (citizens) by age, sex, and state, 2010 | 63 |
| 3.8 | Per cent not studying and not working (citizens) by age, sex, and state, 2010 | 64 |
| 3.9 | Eighth-grade mathematics and science achievements in TIMSS by state and year | 65 |
| 3.10 | Eighth-grade mathematics and science achievements in TIMSS by state and selected socio-demographic and economic variables, 2011 | 67 |
| 3.11 | Achievement of SPM candidates by year, Malaysia | 68 |
| 3.12 | Achievement of STPM candidates by year, Malaysia | 69 |
| 3.13 | SPM and STPM results by year, Sabah | 70 |
| 3.14 | Number of secondary school students in vocational colleges by sex, state, and year | 71 |
| 3.15 | Number of student enrolment and academic staff at higher education institutions by sex, state, and year | 72 |
| 3.16 | Number of female graduates at higher education institutions from science, engineering, manufacturing, and construction by state and year | 73 |
| 4.1 | Labour force participation rate by age and sex, Sabah | 85 |
| 4.2 | Labour force participation rate for the population aged below 15 and 60+ by sex, Sabah | 86 |
| 4.3 | Labour force participation rate by sex and region | 87 |
| 4.4 | Labour force participation rate by sex, region, and strata | 88 |
| 4.5 | Labour force participation rate employed by sex, region and marital status, 2015 | 89 |
| 4.6 | Labour force participation rate by sex, region and educational level, 2015 | 90 |
| 4.7 | Labour force participation rate by sex, region, and highest certificate obtained, 2015 | 91 |
| 4.8 | Percentage distribution of occupation by sex and state, 2015 | 93 |
| 4.9 | Percentage distribution of industry by sex and state, 2015 | 93 |
| 4.10 | Percentage distribution of employment status by sex and region, 2015 | 95 |
| 4.11 | Percentage distribution of employment status by sex, region and strata, 2015 | 96 |

| | | |
|------|---|-----|
| 4.12 | Percentage distribution of employment status by sex, region, and marital status, 2015 | 97 |
| 4.13 | Percentage distribution of employment status by sex, region and educational level, 2015 | 98 |
| 4.14 | Percentage distribution of occupation by citizenship among the females, Sabah, 2015 | 101 |
| 4.15 | Percentage distribution of industry by citizenship among the females, Sabah, 2015 | 101 |
| 4.16 | Binary logistic regression (Dependent variable: Currently working) | 103 |
| 5.1 | Median and mean monthly household disposable income by number income recipient in Malaysia, 2019 | 118 |
| 5.2 | Gini coefficient by state in Malaysia (1992 – 2019) | 119 |
| 5.3 | Median income by sex and state (2017) | 120 |
| 5.4 | Median income by sex and marital status, Sabah, Sarawak, and Peninsular Malaysia, 2017 | 121 |
| 5.5 | Median income by sex and educational level, Sabah (2017) | 122 |
| 5.6 | Median income by sex, marital status and type of industry in Sabah (2017) | 123 |
| 5.7 | Median income by sex, marital status and type of occupation, Sabah (2017) | 124 |
| 5.8 | Median income by region, educational level, sex and age (2017) | 125 |
| 5.9 | Median income by age, type of industry, occupation and ethnicity, Sabah (2017) | 127 |
| 5.10 | Median income by marital status and educational level, Sabah, 2017 | 127 |
| 5.11 | Median income by region, sex, marital status, educational level, and type of industry according to ethnicity (2017) | 128 |
| 5.12 | Analysis of variance (ANOVA) between total monthly salaries and wages and sex, ethnicity, occupation, and industry type | 130 |
| 5.13 | Results of multiple classification analysis | 130 |
| 5.14 | Factor summary | 132 |
| 6.1 | Inter-state migration, Malaysia in 2000, 2010 and 2018 (%) | 147 |
| 6.2 | Number of internal migrants from Sabah to other states in Malaysia, 2007 to 2018 ('000) | 148 |
| 6.3 | Number of internal migrants from other Malaysian states to Sabah, 2007 to 2018 ('000) | 149 |
| 6.4 | Sabah inter-state-migration (% of state population) | 149 |
| 6.5 | Sabah internal migration stream (% of total internal migrants) | 150 |
| 6.6 | Population based on sex by place of usual residence five years ago for 2000 and 2010 | 150 |
| 6.7 | Internal migration in Sabah by age in 2000 and 2010 | 151 |

| | | |
|------|--|-----|
| 6.8 | Total population by birthplace from other states to Sabah for years 2000 and 2010 | 153 |
| 6.9 | Total population by place of current usual residence (state and administrative district) and place of usual residence five years ago (state and administrative district), Sabah, Malaysia, years 2000 and 2010 | 154 |
| 7.1 | Marriage statistics, Sabah and Malaysia, (2017 – 2019) | 168 |
| 7.2 | Age-specific marriage rate by sex - Malaysia and selected regions, 2019 | 169 |
| 7.3 | Summary of divorce statistics, Sabah and Malaysia, (2017 – 2019) | 170 |
| 7.4 | Marital distribution by age and sex, Sabah, 1991, 2000, and 2010 | 173 |
| 7.5 | Marital distribution by age, sex and ethnicity, Sabah, 2010 | 175 |
| 7.6 | Per cent never married by educational level, Sabah, 2010 | 176 |
| 7.7 | Singulate mean age at marriage (SMAM) by ethnicity, Sabah, 1991, 2000, and 2010 | 177 |
| 7.8 | Mean age at marriage by educational level, strata and current working status, Sabah | 179 |
| 7.9 | Mean age at first marriage by ethnicity, Sabah | 179 |
| 7.10 | Percentage distribution of age at first marriage by selected variables, Sabah | 181 |
| 7.11 | Marriage arrangement by selected variables, Sabah, 2014 | 183 |
| 7.12 | Satisfaction with spouse and engagement in intimate acts by women's educational level, Sabah | 185 |
| 7.13 | Satisfaction with spouse and engagement in intimate acts by ethnicity, Sabah | 186 |
| 7.14 | Satisfaction with spouse and engagement in intimate acts by women's age, Sabah | 187 |
| 7.15 | Per cent of individuals marrying someone from a different ethnic group by age, educational level, and strata, Sabah | 189 |
| 7.16 | Per cent of individuals marrying someone from a different ethnic group by ethnicity and sex, Sabah | 190 |
| 7.17 | Ethnicity of spouse by respondents' ethnicity and sex, Sabah | 192 |
| 7.18 | Spousal age differentials by ethnicity and wife's educational level, Sabah | 193 |
| 7.19 | Husband's educational level by wife's educational level, Sabah | 194 |
| 7.20 | Per cent of youths who intend to marry, by age and sex, Sabah | 195 |
| 7.21 | Ideal age of marriage by age and sex, Sabah | 195 |
| 7.22 | Mean ideal age of marriage by sex, age and ethnicity, Sabah | 196 |
| 8.1 | Crude birth rate and total fertility rate by state, Malaysia, 1970 – 2018 | 204 |
| 8.2 | Total fertility rate (TFR) by ethnicity, Sabah, 2015 – 2018 | 206 |
| 8.3 | Crude birth rate (CBR) by district, Sabah, 2015 – 2019 | 207 |

| | | |
|------|---|-----|
| 8.4 | Mean number of CEB among married women aged 15 – 49 years, by selected socio-demographic variables and region, 2014 | 209 |
| 8.5 | Percentage distribution of married women aged 15 – 49 years, by number of CEB and selected socio-demographic variables, Sabah | 211 |
| 8.6 | Likelihood ratio chi-square test on the number of CEB by each socio-economic variable among married women, Sabah (15 – 49 years) | 212 |
| 8.7 | Negative binomial coefficients, standard error, Wald test, and IRR on number of CEB, married women, Sabah (15 – 49 years) | 213 |
| 8.8 | Mean number CEB among married women aged 40-49 years (completed family size) by selected socio-demographic variables and region | 215 |
| 8.9 | Mean desired family size among married women aged 15 – 49 years, by selected socio-demographic variables and region | 216 |
| 8.10 | Actual versus desired family size, among married women, 15 – 49 years, Sabah | 218 |
| 8.11 | Mean ideal family size among married women aged 15 – 49 years by selected socio-demographic variables and region | 220 |
| 8.12 | Per cent who intend to have a/another child among married women aged 15 – 49 years by selected socio-demographic variables and region | 222 |
| 8.13 | Statistical tests on the logistic regression model | 224 |
| 8.14 | Logistic regression output | 225 |
| 9.1 | Per cent of MWRA who had ever used a contraceptive method by region and selected variables | 237 |
| 9.2 | Reasons for not using a method by region | 237 |
| 9.3 | Reasons for not using a method by marital duration, Sabah | 238 |
| 9.4 | Contraceptive prevalence rate by method and region, 2014 | 239 |
| 9.5 | Contraceptive prevalence rate for any method and the modern method by selected variables and region | 241 |
| 9.6 | CPR for any method and the modern method by ethnicity and region | 242 |
| 9.7 | CPR for any method and the modern method by the desire to have more children according to educational level and strata, Sabah | 243 |
| 9.8 | Per cent of users starting to use a method by parity | 244 |
| 9.9 | Per cent who started using a contraceptive method by parity according to ethnicity, strata, and women's educational level, Sabah | 242 |
| 9.10 | Per cent of users of modern methods who obtained their contraceptive supply from various sources | 247 |
| 9.11 | Source of supply by strata and women's educational level, Sabah | 247 |
| 9.12 | Unmet need for any/modern contraception (for limiting and spacing) by region | 248 |

| | | |
|-------|--|-----|
| 9.13 | Unmet need for any methods (for limiting and spacing) by selected variables, Sabah | 249 |
| 9.14 | Unmet need for modern methods (for limiting and spacing) by selected variables, Sabah | 251 |
| 9.15 | Per cent of young people who had heard of family planning methods by region | 253 |
| 9.16 | Young people who had heard of family planning methods by age and sex, Sabah | 254 |
| 9.17 | Young people who had family planning knowledge by strata and educational level, Sabah | 255 |
| 10.1 | Number of households and household size, 1980, 1991, 2000, 2010, 2017, 2018 and 2019 in Malaysia and Sabah | 262 |
| 10.2 | Percentage distribution of male and female-headed household size by ethnicity in Sabah | 263 |
| 10.3 | Average age of the head of household by sex and ethnicity in Sabah | 264 |
| 10.4 | Average age of the head of household by sex and marital status in Sabah | 264 |
| 10.5 | Age group of the head of household by sex and marital status | 265 |
| 10.6 | Female-headed households by marital status and ethnicity | 266 |
| 10.7 | Female-headed households by age and marital status | 267 |
| 10.8 | The employment status and occupation of household heads by sex | 269 |
| 10.9 | Problems faced by working mothers in Sabah | 270 |
| 10.10 | Percentage distribution of childcare arrangements of working women in Sabah | 271 |
| 10.11 | Percentage of family-related decision making by wife and husband in Sabah | 273 |
| 10.12 | Frequency of communication on selected topics between mothers and children, 2004 and 2014 | 274 |
| 10.13 | Frequency of family problems faced by women in Sabah | 277 |
| 11.1 | Total population by ethnicity, sex and age, 2017 – 2019 | 288 |
| 11.2 | Youth population by ethnicity and sex, 2017 – 2019 | 288 |
| 11.3 | Youth population by district in Sabah, 2017 – 2019 | 290 |
| 11.4 | Youth organisations and members, 2012 – 2018 | 292 |
| 11.5 | Labour force participation rate by sex, 2010 | 294 |
| 11.6 | Labour force of young people (15 – 40 years old), 2013 – 2017 | 294 |
| 11.7 | Factors of working by age, sex, and dependents, 2020 | 295 |
| 11.8 | Youth unemployment, 2020 | 295 |
| 11.9 | Unemployment by type, 2020 | 296 |
| 11.10 | Youth preference between own business and work as salaryman, 2015 | 298 |

| | | |
|-------|--|-----|
| 11.11 | Youth interest to start own business, 2015 | 298 |
| 12.1 | Distribution of respondents by selected socio-demographic variables and region | 305 |
| 12.2 | Percentage of respondents answering correctly to SRH knowledge items by region | 307 |
| 12.3 | Percentage of respondents answering correctly to SRH knowledge items by selected socio-demographic variables, Sabah | 308 |
| 12.4 | Mean score of correct answers by selected socio-demographic variables and region | 309 |
| 12.5 | Primary source of information about sex by region | 310 |
| 12.6 | Percentage of respondents who agreed with items related to attitudes of premarital sex by region | 311 |
| 12.7 | Percentage of respondents who agreed with items related to attitudes of premarital sex in Sabah by age, sex, and strata | 311 |
| 12.8 | Percentage of respondents who were involved in various SRH activities by region | 313 |
| 12.9 | Percentage of respondents who were involved in various SRH activities in Sabah by age, sex, and strata | 314 |
| 12.10 | Percentage of respondents with selected sexual behaviours by region | 315 |
| 12.11 | Percentage of respondents by sexual behaviour according to age, sex, and strata, Sabah | 316 |
| 12.12 | Percentage of respondents having friends who were involved in various risky sexual behaviours by region | 317 |
| 12.13 | Percentage of respondents having friends who were involved in various risky sexual behaviours in Sabah by age, sex, and strata | 317 |
| 13.1 | Number of hotels in Malaysia by state in 2019 | 326 |
| 13.2 | Number of hotels in Sabah | 327 |
| 13.3 | Number of tourist arrival and its major markets in Sabah | 332 |
| 13.4 | COVID-19 pandemic impacts on the hotel industry in Malaysia | 346 |
| 13.5 | Annual passenger numbers and aircraft statistics | 349 |
| 14.1 | Selected statistics of population ('000), Sabah (2018 and 2019) | 359 |
| 14.2 | Number of new vacancies reported by state and industry, Sabah, 2017 – 2019 | 367 |
| 14.3 | Comparing the cost of levy for foreign workers in Peninsula, Sabah and Sarawak | 368 |
| 14.4 | Increment in the population of Malaysia, Sabah and Sarawak, 1970 – 2010 | 370 |
| 14.5 | Sabah's racial breakdown in 2010 and 2013 | 370 |

List of Abbreviations

| | |
|----------|--|
| 45q15 | Probability of dying between ages 15 and 60 |
| Adam50 | Amanah Dana Anak Malaysia 2050 |
| AIDS | Acquired Immune Deficiency Syndrome |
| AIM | Amanah Ikhtiar Malaysia |
| ASEAN | Association of Southeast Asian Nations |
| ATM | Malaysian Armed Forces |
| CASI | Computer Assisted Self Interviewing |
| CBR | Crude birth rate |
| CDR | Crude death rate |
| CEB | Children ever born |
| CGPA | Cumulative Grade Point Average |
| CPR | Contraceptive prevalence rate |
| CRNI | Crude rate of natural increase |
| CSOs | Civil society organisations |
| DemProj | Demographic Projection |
| DOSM | Department of Statistics Malaysia |
| EBs | Enumeration Blocks |
| EFS | Endowment Fund Sarawak |
| FAO | Food and Agriculture Organization |
| FFPAM | Federation of Family Planning Associations, Malaysia |
| FPA | Family Planning Association |
| FRHAM | Federation of Reproductive Health Associations |
| FSTF-S/L | Federal Special Task Force – Sabah/ Labuan |
| FSW | Female sex workers |
| GDP | Gross Domestic Product |
| GIS | Geographic Information System |
| HDI | Human development index |
| HIP | Highly Immersive Programme |
| HIS | Household Income Survey |
| HIV | Human Immunodeficiency Virus |
| HRDF | Human Resources Development Fund |
| ICTs | Information and communication technologies |

| | |
|---------|--|
| IDS | Institute for Development Studies |
| IEA | International Association for the Evaluation of Educational Achievement |
| ILO | International Labour Organization |
| IOM | International Organization for Migration |
| IPPF | International Planned Parenthood Federation |
| IT | Information technology |
| IUD | Intrauterine device |
| IYRES | Institute of Youth Research Malaysia |
| KAP | Knowledge, attitude and practice |
| km | Kilometre |
| LFPR | Labour force participation rate |
| LQs | Living quarters |
| MAH | Malaysian Association of Hotels |
| MARA | Majlis Amanah Rakyat |
| MCA | Multiple classification analysis |
| MCO | Movement Control Order |
| MKN | Majlis Keselamatan Negara Malaysia, or Malaysian National Security Council |
| MMEA | Malaysian Enforcement Agency |
| MOH | Ministry of Health |
| MOHA | Ministry of Home Affairs |
| MPFS | Malaysian Population and Family survey |
| MSM | Men having sex with men |
| MWRA | Married women in the reproductive age |
| NEP | New Economic Policy |
| NFPB | National Family Planning Board |
| NFPP | National Family Planning Programme |
| NIC | Newly industrialised country |
| NPFDB | National Population and Family Development Board |
| ODL | Open and distance learning |
| OECD | Organisation for Economic Co-operation and Development |
| PEKERTI | National Reproductive Health Education and Social Education |
| Ph.D | Doctor of Philosophy |
| PISA | Program for International Student Assessment |
| RAPID | Resources for the Awareness of Population Impacts on Development |
| RM | Ringgit Malaysia |
| RMP | Royal Malaysian Police |

| | |
|---------|--|
| ROS | Registrar of Societies |
| ROY | Registrar of Youth Societies |
| SDGs | Sustainable Development Goals |
| SECDO | Sabah Economic Development Corporation |
| SES | Socio-economic status |
| SICC | Sabah International Convention Centre |
| SMAM | Singulate mean age at first marriage |
| SPM | Sijil Pelajaran Malaysia, or Malaysian Certificate of Education |
| SRH | Sexual and reproductive health |
| STDs | Sexually transmitted diseases |
| STIs | Sexually transmitted infections |
| STPM | Sijil Tinggi Persekolahan Malaysia, or Malaysian Higher School Certificate |
| SUDC | Sabah Urban Development Corporation Sdn Bhd |
| SYI2015 | Sabah Youth Index 2015 |
| TAWAS | Selangor Children's Heritage Fund |
| Tekun | Tabung Ekonomi Kumpulan Usaha Niaga |
| TFR | Total fertility rate |
| TIMSS | Trend in International Mathematics and Science Study |
| TVET | Technical and Vocational Education and Training |
| UK | United Kingdom |
| UN | United Nations |
| UNDESA | United Nations Department of Economic and Social Affairs |
| UNDP | United Nations Development Programme |
| UNESCO | United Nations Educational, Scientific and Cultural Organization |
| UNFPA | United Nations Population Fund |
| UNSD | United Nations Statistics Division |
| UNWTO | United Nations World Tourism Organization |
| UPSR | Ujian Pencapaian Sekolah Rendah, or Primary School Achievement Test |
| US\$ | US Dollar |
| USA | United States |
| WTTC | World Travel and Tourism Council |
| YBK | Yayasan Basmi Kemiskinan |
| Yeap | Youth Entrepreneurship Aspiration Program |
| Yess | Youth Entrepreneurship Scheme Sabah |
| YUM | Yayasan Usaha Maju |

List of Contributors

Adzmel Mahmud is Director of the Population and Family Research Division, National Population and Family Development Board (NPFDB), Malaysia. He enrolled in the PhD programme at the Faculty of Business and Economics, Universiti Malaya in 2020.

Amer Azlan Abdul Jamal is a lecturer of the Financial Management and Banking Programme, Faculty of Business, Economics and Accountancy at Universiti Malaysia Sabah (UMS). His main research interests include consumer finance and behaviours, financial literacy and financial education. He holds a Master of Business Administration and currently completing his PhD in Social Policy at the University of Birmingham, United Kingdom.

Andi Tamsang Andi Kele is a lecturer of Hotel Management at the Faculty of Business, Economics and Accounting, Universiti Malaysia Sabah. She obtained her PhD from University of Waikato, New Zealand. Her main research interest and publications are in the area of tourism and hospitality management, human resource management and contemporary trends.

Jennifer Chan Kim Lian is a Principal Fellow in the field of Tourism and Hospitality Management at the Faculty of Business, Economics and Accounting, Universiti Malaysia Sabah. She obtained her PhD in Tourism and Hospitality Management from the University of Strathclyde, Glasgow, Scotland, the United Kingdom in 2005. Her research interest and research work focus on various issues within tourism and hospitality management, sustainable and responsible tourism, rural tourism, hospitality human resource development, consumer behaviour, service experience management. Special attention is paid to the young and women in tourism and hospitality.

Cheong Jia Qi holds a PhD in economics and is currently a senior lecturer at the Faculty of Business, Economics and Accounting, Universiti Malaysia Sabah. She works in the areas of gender earning differentials, youth employment issues and food insecurity issues.

PROMOTIONAL COPY

Diana Peters is a senior lecturer attached to the International Programme at the Faculty of Social Sciences and Humanities, Universiti Malaysia Sabah. She obtained her first degree in Political Science from Case Western University, Ohio, USA before pursuing her Master's degree at Universiti Kebangsaan Malaysia in the field of Strategy and Diplomacy. Her research area covers security issues in Sabah, particularly undocumented or irregular migrants. She has co-authored several articles as well as co-edited a book entitled Holistic Development and Security for ESSZONE (2019). She is currently involved in a research project on irregular migrants in Sabah.

Elena binti Zafrul is a PhD candidate at the Faculty of Business and Economics, Universiti Malaya.

Hamizah binti Mohd Hassan was Head of Reproductive Health Unit, Human Reproduction Division, National Population and Family Development Board (NPFDB), Malaysia before her retirement in 2021.

Janice Nga Lay Hui is an Associate Professor of the Planning and Development Economics, Faculty of Business, Economics and Accountancy, Universiti Malaysia Sabah. She is the first candidate to complete the integrated PhD or PhD Plus from the Department of East Asian Studies, University of Leeds, UK in 2009. Her research interest is in the third sector focusing on civil society organisations. Her works include the Sabah Youth Policy; the Startegic Plan for Sabah Youth Development 2015 – 2020 and many others.

Lai Siow Li is a senior lecturer at the Faculty of Business and Economics, Universiti Malaya, where she obtained her PhD in Demography, Master of Applied Statistics, and Bachelor of Economics. Her research interest includes demographic analysis, population and social studies, public and reproductive health.

Lim Fui Yee Beatrice is a senior lecturer at the Faculty of Business, Economics and Accountancy, Universiti Malaysia Sabah. She holds a PhD in Economics from the University of Wollongong, Australia. Her research interests include labour economics and gender studies.

Lim Thien Sang holds a Phd and is a senior lecturer at the Faculty of Business, Economics and Accountancy, Universiti Malaysia Sabah. He teaches undergraduate and graduate courses in financial management, business statistics and research methodology. Other than reading and researching issues about behavioural finance, his research interest also span several other areas of business and economics.

Najihah Ismail is a statistician at the Evaluation Research Unit, Population and Family Research Division, National Population and Family Development Board (NPFDB), Malaysia. She enrolled in the Master of Applied Statistics programme at the Faculty of Business and Economics, Universiti Malaya in 2020.

Oliver Valentine Eboy is a senior lecturer with the Geography Programme in Faculty of Social Sciences and Humanities, Universiti Malaysia Sabah, Malaysia, a researcher of human geography/ economy/ geographical information system. He previously served as the coordinator of the Geography Programme. He is currently a member of the editorial team for the BIMP-EAGA Journal for Sustainable Tourism Development. He has published several related books and journal articles on GIS and property valuation. He has also been recognized as a Geospatialist (Gs) by the Institution of Geospatial and Remote Sensing Malaysia (IGRSM). His areas of expertise are property valuation and geographic information systems.

Rafiq Idris is an economist, Director of Centre for Investment, Endowment and Wakaf of Universiti Malaysia Sabah (UMS) and senior lecturer (Financial Economics Program) of Faculty of Business, Economics and Accountancy (UMS). He is also the Associate Fellow at the Ungku Aziz Centre for Development Studies, Universiti Malaya and Associate Investigator for Social Well-being Research Centre (SWRC), Universiti Malaya.

Salmah Topimin is a senior lecturer at the Faculty of Business, Economics and Accountancy, Universiti Malaysia Sabah. Her research interests are in the area of entrepreneurship, women entrepreneurship, indigenous women entrepreneurship, and single mother entrepreneurs.

Sofia Mohd Yusop is a nursing officer at the Reproductive Health Unit, Human Reproduction Division, National Population and Family Development Board (NPFDB), Malaysia.

Tey Nai Peng holds a PhD in Public Health, Universiti Malaya and Master in Population Planning, University of Michigan. He is a Specialist at Universiti Malaya. He is also a board member and chairman of the research committee of the National Population and Family Development Board (NPFDB), Malaysia. His research interest includes population and gender studies, ageing, and public health.

Yip Tien Ming is a PhD candidate at the Faculty of Business and Economics, Universiti Malaya.

Foreword

Warm greetings and *salam sejahtera*.

To 'Leave No One Behind' is at the heart of the Sustainable Development Goals (SDGs) agenda. In ensuring fully inclusive development, UNFPA invests in ensuring rights and choices for all, with a focus on the marginalised, underrepresented, and underserved, in line with aspirations of the 12th Malaysia Plan.

The location of Sabah, with its unique and rich multi-ethnic culture, has much potential to grow, with the right and equitable investments for women and girls. With this aspiration, UNFPA, together with the Population Studies Unit, Universiti Malaya, in close collaboration with Universiti Malaysia Sabah, embarked on the study "Empowering Women and Youth in Sabah to Achieve Their Full Economic and Social Potentials".

In consultation with the Sabah Economic Planning Unit, the study seeks to develop an initial database that could support a thorough benchmark and review of gender equality and sexual and reproductive health and rights indicators, being enablers to advancing socio-economic and sustainable development of women and girls in Sabah. Drawing on the findings of the study, UNFPA looks forward to working with Population Studies Unit, Universiti Malaya, Universiti Malaysia Sabah, the Sabah state government, and other relevant state actors in Sabah to provide policy and programme recommendations to further support the empowerment of women and girls in Sabah.



In furthering this advocacy journey, we are pleased with the joint effort in publishing the initial study with this book titled “Demographic and Socioeconomic Changes in Sabah”. We take this opportunity to sincerely thank and congratulate the Population Studies Unit, Universiti Malaya, Universiti Malaysia Sabah and also the Sabah Economic Planning Unit for undertaking this novel study with important findings. With much appreciation, we thank and congratulate Universiti Malaysia Sabah for publishing this study. We look sincerely forward to the future collaboration for policy and programme advocacy in Sabah, aiming towards advancing gender equality and sexual and reproductive health and rights for all.

I thank you.

Terima Kasih.

Dr Asa Torkelsson

Representative

United Nations Population Fund (UNFPA) Malaysia

Preface

Population and development are inextricably interrelated. Population size and structure are crucial factors affecting opportunities, pressures, and constraints of society. The high fertility and rapid population growth in low-resource countries have hampered socio-economic development. However, as fertility began to fall rapidly since the middle of the 20th century, many post-demographic-transition countries are undergoing rapid population ageing and encountering labour shortages.

Sabah is the second-most populous state in Malaysia, with about 4 million population in 2020. It has registered the second-highest population growth rate over the past four decades, brought about by the influx of migrant workers due to the severe labour shortage. The number of non-citizens grew from 420 thousand in 1990 to 1.094 million in 2020. Non-citizens made up close to 30% of the state population during 2013 – 2018, up from around 26% in 2009 – 2010. However, the negative growth of the non-citizens in Sabah during 2018 – 2020 has resulted in zero growth of the state population.

This book is a sequel to the series on “Revisiting Population-Development Nexus: The Past in Its Future, 2016”, and “Demographic Transition and Socio-economic Development in Malaysia, 2020” by the Universiti Malaysia Press. Given Sabah’s unique socio-demographic situation, this book will provide a comprehensive analysis of the demographic situation, emphasizing the young generation and the changing roles and status of women in Sabah.

The book consists of 14 chapters, covering population situation analysis at the state and district levels; functional population projection; gender differentials in education, employment, and income; internal and international migration; marriage; fertility and fertility preferences; family planning; family and gender roles; youth in development; adolescent sexual and reproductive health; women and youth in the hotel industry; and growth of the non-citizen population. Each chapter examines gender differentials and provides a comparative analysis with Sarawak and Peninsular Malaysia. The book will serve as a useful reference for planners and administrators from the public and private sectors, researchers, and students.

Researchers from Universiti Malaysia Sabah and Universiti Malaya collaborated in the writing of this book. This book is an output from the UNFPA-funded project on “Empowering Women and Youths in Sabah to Achieve Their Full Economic and Social Potentials”, which was carried out in 2019 – 2020. We would like to acknowledge the financial support of UNFPA in this endeavour.

Tey Nai Peng

Lai Siow Li

Universiti Malaya

Jennifer Chan Kim Lian

Universiti Malaysia Sabah

November 2021

Acknowledgements

The funding support (Grant Number IF066-2019) of the United Nations Population Fund (UNFPA) is gratefully acknowledged. We would also like to thank the Director General of the National Population and Family Development Board (NPFDB) for the use of 2014 Malaysian Population and Family Survey (MPFS-5) and the Chief Statistician of the Department of Statistics Malaysia (DOSM) for the use of 2010 census micro data and various survey data.



PROMOTIONAL COPY

Chapter 1

Population Growth, Distribution and Composition

Tey Nai Peng

Introduction

Population size and structure are crucial factors affecting opportunities, pressures, and constraints of society (Hirschman & Bonaparte, 2012). The literature has amply demonstrated the close link between population dynamics and socio-economic development (Cheong et al., 2015; Hayes & Jones, 2015; Jones, 2020; Jones, 2013; Joshi, 2009; Meinam, 2007). The high fertility and rapid population growth in low-resource countries have hampered socio-economic development. Within each country, the poorer and the disadvantaged groups tend to have a larger family size than those who are better off, and this has perpetuated the gaps between the rich and the poor as the latter have to grapple with meeting the basic needs at the expense of human capital development.

Countries that are completing the demographic transition are enjoying the demographic dividend as the proportion of the working-age population is growing faster than the dependent population. However, efforts must be made to improve human capital and infrastructure to reap the demographic dividend.

Rapid population growth in the world that began in the early 20th century continued right up to the 1970s. The post-war baby boom's population growth momentum prompted many developing countries to implement family planning programmes to reduce fertility. As a result of socio-economic development and the successful implementation of the family planning programmes, the global total fertility rate (TFR) fell from about five children per woman in the 1960s to 2.3 today. The TFR of the upper-middle-income countries, including Malaysia, fell more rapidly from about 6 to 1.8 children per woman. The population growth rate in Asia has declined from 2.0% per annum during 1975 – 1980 to 1.0% in 2010 – 2015, and it is projected to decline to 0.77% in 2020 – 2025, and stop growing by 2050 (United Nations, 2019). Many developed countries and some developing countries, including Malaysia, are experiencing labour shortages and depend heavily on migrant workers.

The demographic changes in Malaysia, especially Sabah, have been more dramatic than in many parts of the world. Rapid population growth in Malaysia before the Second World War was due to the large-scale immigration of the Chinese and Indians until the Second World War (Saw, 2007a, 2007b). The high rate of natural increase due to the large pool of post-war babies entering the reproductive ages had sustained population growth at around 2.5% per annum until the 1990s. With the total fertility rate declining from 3.5 in 1990 to 1.8 in 2018, amidst rapid economic expansion, the country began to experience a labour shortage in the 1980s, which resulted in the influx of migrant workers. The labour shortage has been more severe in Sabah than in other states (Tey & Lai, 2020).

Several books, reports, and articles have documented the population situation in Malaysia (Hirschman, 1980; Hugo, 2011; Khoo, 2005; Leete, 1996, 2007; Lim, 1983; NPFDB, 1992, 2012, 2018; Saw, 2007a, 2007b; Sidhu & Jones, 1981; Tey et al., 2015; Tey et al., 2020). However, there is still a dearth of a situational analysis of Sabah's population.

This chapter discusses the demographic dynamics in Sabah at the state and district levels. The topics covered include population growth and distribution, non-citizen population, urbanisation, age-sex structure, and ethnic-religious composition. The state-level

figures are compared with other states. Sabah's heavy dependence on foreign labour is highlighted. A more detailed analysis of the non-citizen population is presented in Chapter 14 of this volume.

The data for this chapter are taken from the publications of the Department of Statistics Malaysia (DOSM) based on population censuses, sample surveys, and the vital registration system. The data were collected from various sources to present the changing trends and patterns of Sabah's population compared to other states in Malaysia. DOSM's recent publication on My Local statistics provides much of the information for district-level analysis.

Population Growth and Distribution

Between 1970 and 2020, Malaysia's population increased more than three-fold from 10.5 million to 32.6 million. Sabah's population increased more than 6-fold from 635.4 thousand to an estimated 3.9 million during the same period. As a result of more rapid population growth, Sabah's share of the total population increased from 6.1% to 12% over the last five decades. Sabah was the ninth most populous state in 1970, but it had frog-leapt to become the third most populous state in 2000. Sabah displaced Johor to occupy the second spot, behind Selangor (where one-fifth of the total population resides) in 2020. However, Johor still has a larger citizen population than Sabah (3.482 million against 2.814 million) (DOSM, 2020a) (Table 1.1).

The national population grew at around 2.6% per annum during 1970 – 2000, before decelerating to 2.1% in 2000. The population growth rate has been declining at an accelerated pace post-2000 and is estimated to grow at only 0.4% between 2019 – 2020. Sabah's population grew at a rate of 4.3% per annum in the 1970s, accelerated to 5.5% per annum in the ensuing decade before slowing down to 4.0% per annum in the 1990s. The population growth rate in Sabah continued to decline to around 2.2% in 2000 and 1.8% in 2018, and just 0.1% between 2018 and 2019. Sabah recorded a higher population growth rate than all the other states in the 1980s and remained one of the highest until 2017 (Table 1.1).

Table 1.1 Population size ('000), distribution and the annual rate of growth by state, Malaysia

| State | 1970 | 1980 | 1991 | 2000 | 2010 | 2020 |
|-----------------|----------|----------|----------|----------|----------|----------|
| Johor | 1,277.2 | 1,638.2 | 2,162.4 | 2,740.6 | 3,362.9 | 3,781.1 |
| Kedah | 954.9 | 1,116.1 | 1,364.5 | 1,649.8 | 1,949.3 | 2,185.2 |
| Kelantan | 684.7 | 893.8 | 1,207.7 | 1,313.0 | 1,589.9 | 1,906.7 |
| Melaka | 404.1 | 464.8 | 529.2 | 635.8 | 823.7 | 932.7 |
| Negeri Sembilan | 481.6 | 573.6 | 722.0 | 859.9 | 1,029.5 | 1,128.8 |
| Pahang | 504.9 | 798.8 | 1,081.1 | 1,288.4 | 1,501.9 | 1,678.6 |
| Perak | 1,569.1 | 1,805.2 | 1,974.9 | 2,051.2 | 2,379.0 | 2,510.3 |
| Perlis | 121.1 | 148.3 | 190.2 | 204.5 | 235.8 | 254.9 |
| Pulau Pinang | 776.1 | 954.6 | 1,116.8 | 1,313.4 | 1,575.9 | 1,773.6 |
| Sabah | 636.4 | 983.1 | 1,808.8 | 2,603.5 | 3,260.0 | 3,908.5 |
| Sarawak | 976.3 | 1,307.6 | 1,718.4 | 2,071.5 | 2,487.1 | 2,816.5 |
| Selangor | 982.1 | 1,515.5 | 2,413.6 | 4,188.9 | 5,502.1 | 6,538.1 |
| Terengganu | 405.4 | 540.6 | 808.6 | 898.8 | 1,055.4 | 1,259.2 |
| Kuala Lumpur | 658.3 | 977.1 | 1,226.7 | 1,379.3 | 1,674.8 | 1,773.7 |
| Labuan | 17.2 | 27.9 | 54.8 | 76.1 | 88.2 | 99.6 |
| Putrajaya | — | — | — | — | 73.4 | 110.0 |
| Malaysia | 10,449.4 | 13,745.2 | 18,379.7 | 23,274.7 | 28,588.9 | 32,657.3 |
| % distribution | | | | | | |
| Johor | 12.2 | 11.9 | 11.8 | 11.8 | 11.8 | 11.6 |
| Kedah | 9.1 | 8.1 | 7.4 | 7.1 | 6.8 | 6.7 |
| Kelantan | 6.6 | 6.5 | 6.6 | 5.6 | 5.6 | 5.8 |
| Melaka | 3.9 | 3.4 | 2.9 | 2.7 | 2.9 | 2.9 |
| Negeri Sembilan | 4.6 | 4.2 | 3.9 | 3.7 | 3.6 | 3.5 |
| Pahang | 4.8 | 5.8 | 5.9 | 5.5 | 5.3 | 5.1 |
| Perak | 15.0 | 13.1 | 10.7 | 8.8 | 8.3 | 7.7 |
| Perlis | 1.2 | 1.1 | 1.0 | 0.9 | 0.8 | 0.8 |
| Pulau Pinang | 7.4 | 6.9 | 6.1 | 5.6 | 5.5 | 5.4 |
| Sabah | 6.1 | 7.2 | 9.8 | 11.2 | 11.4 | 12.0 |
| Sarawak | 9.3 | 9.5 | 9.3 | 8.9 | 8.7 | 8.6 |
| Selangor | 9.4 | 11 | 13.1 | 18.0 | 19.2 | 20.0 |
| Terengganu | 3.9 | 3.9 | 4.4 | 3.9 | 3.7 | 3.9 |

Cont.

| State | 1970 | 1980 | 1991 | 2000 | 2010 | 2020 |
|-------------------------------------|------------|------------|------------|------------|------------|-------------|
| Kuala Lumpur | 6.3 | 7.1 | 6.7 | 5.9 | 5.9 | 5.4 |
| Labuan | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 |
| Putrajaya | — | — | — | — | 0.3 | 0.3 |
| Malaysia | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| The annual rate of growth | | | | | | |
| | 1970s | 1980s | 1990s | 2000s | 2010s | 2019 – 2020 |
| Johor | 2.5 | 2.5 | 2.6 | 2.0 | 1.2 | 0.5 |
| Kedah | 1.6 | 1.8 | 2.1 | 1.7 | 1.1 | 0.5 |
| Kelantan | 2.7 | 2.7 | 0.9 | 1.9 | 1.8 | 1.2 |
| Melaka | 1.4 | 1.2 | 2.0 | 2.6 | 1.2 | 0.5 |
| Negeri Sembilan | 1.7 | 2.1 | 1.9 | 1.8 | 0.9 | 0.2 |
| Pahang | 4.6 | 2.8 | 1.9 | 1.5 | 1.1 | 0.4 |
| Perak | 1.4 | 0.8 | 0.4 | 1.5 | 0.5 | 0.1 |
| Perlis | 2.0 | 2.3 | 0.8 | 1.4 | 0.8 | 0.3 |
| Pulau Pinang | 2.1 | 1.4 | 1.8 | 1.8 | 1.2 | 0.3 |
| Sabah | 4.3 | 5.5 | 4.0 | 2.2 | 1.8 | 0.1 |
| Sarawak | 2.9 | 2.5 | 2.1 | 1.8 | 1.2 | 0.4 |
| Selangor | 4.3 | 4.2 | 6.1 | 2.7 | 1.7 | 0.5 |
| Terengganu | 2.9 | 3.7 | 1.2 | 1.6 | 1.8 | 1.2 |
| Kuala Lumpur | 4.1 | 2.1 | 1.3 | 1.9 | 0.6 | 0.5 |
| Labuan | 4.8 | 6.1 | 3.6 | 1.5 | 1.2 | 0.3 |
| Putrajaya | — | — | — | — | 4.0 | 6.0 |
| Malaysia | 2.7 | 2.6 | 2.6 | 2.1 | 1.3 | 0.4 |
| Sabah CRNI (per thousand) | 31 | 33 | 28 | 15 | 12 | 10 |
| Malaysia CRNI (per thousand) | 25 | 25 | 21 | 15 | 12 | 10 |

Sources: DOSM (various years). Reports of population censuses and vital statistics.

Malaysia has been urbanising rapidly, and it is now the second most urbanised country in Southeast Asia, behind the city-state of Singapore. The urbanisation level in Malaysia increased from about 27% in 1970 to 71% in 2010, and it is projected to reach 77%

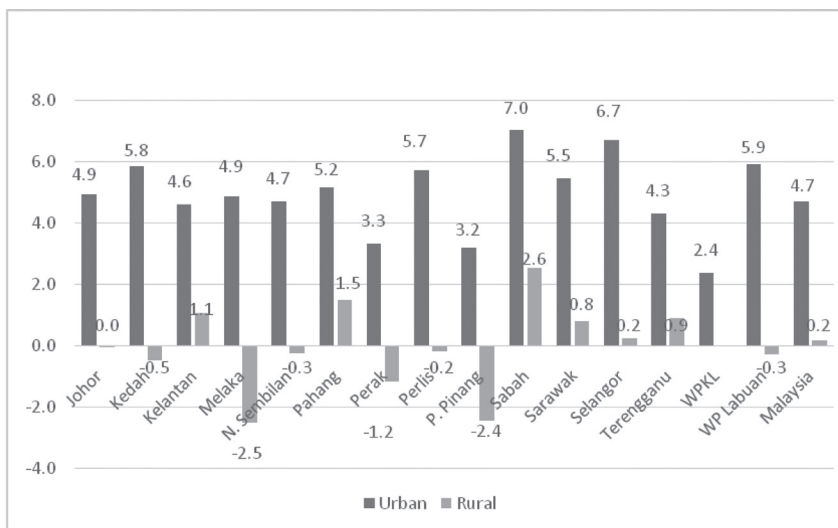
in 2020 (United Nations, 2018). The pace of urbanisation differed across states. In 2000, seven Malaysian states had an urbanisation level of less than 50%. Ten years on, Kelantan was the only state with an urbanisation level of less than 50%. Sabah and Sarawak each had an urbanisation level of 54%, and this was only slightly higher than the three least urbanised states in Peninsular Malaysia – Kelantan, Pahang, and Perlis (Table 1.2).

The period 1970 – 2010 witnessed a rapid urban population growth of above 4% per annum in most Malaysian states. The urban population in Sabah grew fastest, at 7% per annum during this period, followed by Selangor, at 6.7%. In contrast, the rural population at the national level had contracted by 0.2% over this period. A few states had experienced quite substantial rural depopulation, including Melaka, Pulau Pinang, Perak, and Kedah. Sabah was the only state with a substantial increase in the rural population, growing at 2.6% per annum, followed by Pahang and Kelantan, at 1.5% and 1.1%, respectively (Figure 1.1).

Table 1.2 Urbanisation level by state, 1970 – 2010

| State | 1970 | 1980 | 1991 | 2000 | 2010 |
|-----------------|-------|-------|-------|-------|-------|
| Johor | 26.3 | 35.2 | 47.8 | 63.9 | 71.9 |
| Kedah | 12.7 | 14.4 | 32.5 | 38.7 | 64.6 |
| Kelantan | 15.1 | 28.0 | 33.5 | 33.5 | 42.4 |
| Melaka | 25.1 | 23.4 | 38.7 | 67.3 | 86.5 |
| Negeri Sembilan | 21.5 | 32.6 | 42.0 | 55.0 | 66.5 |
| Pahang | 19.0 | 26.1 | 30.4 | 42.1 | 50.5 |
| Perak | 27.5 | 32.2 | 53.6 | 59.5 | 69.7 |
| Perlis | 0.0 | 8.9 | 26.6 | 33.8 | 51.4 |
| Pulau Pinang | 50.9 | 47.5 | 75.0 | 79.5 | 90.8 |
| Sabah | 16.9 | 20.6 | 33.2 | 48.3 | 54.0 |
| Sarawak | 15.5 | 17.6 | 37.5 | 47.9 | 53.8 |
| Selangor | 45.0 | 60.0 | 75.2 | 88.3 | 90.2 |
| Terengganu | 27.0 | 42.9 | 44.5 | 49.4 | 59.1 |
| Kuala Lumpur | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Labuan | 0.0 | 46.3 | 48.4 | 76.8 | 82.3 |
| Malaysia | 26.7 | 34.2 | 50.7 | 61.8 | 71.0 |

Sources: DOSM (2001a, 2001b, 2011a, 2011b). Reports of Population Censuses.



Sources: DOSM (2001a, 2001b, 2011a, 2011b). Reports of Population Censuses.

Figure 1.1 Average annual rate of population growth in urban and rural areas by state, 1970 – 2010

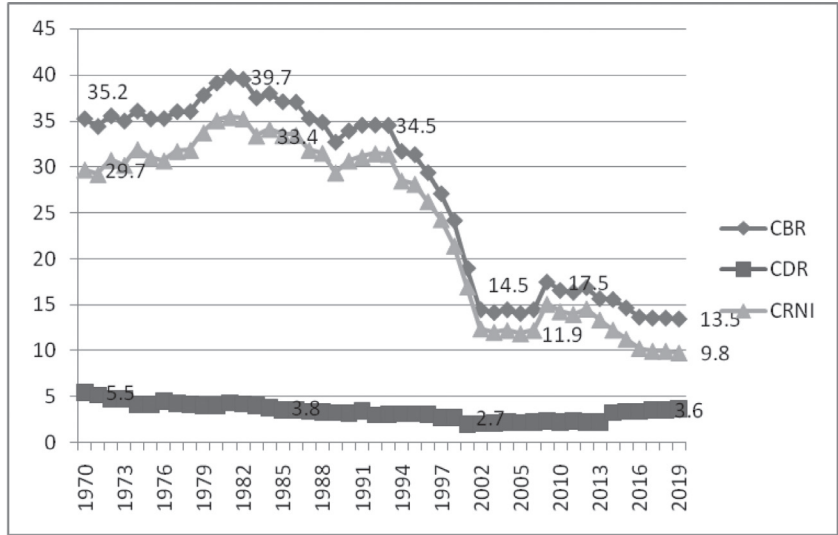
The Demographic Dynamics in Sabah

Sabah had achieved an extremely low crude death rate (CDR) of 5.5 per thousand population before 1970, and the CDR continued to fall to the lowest level of 2 per thousand population at the turn of the century, before reversing the trend to reach 3.7 in 2019. However, such a low rate may be due to the incomplete registration of deaths, especially among non-citizens. The crude birth rate (CBR) began to decline rapidly in the late 1990s, from about 35 per thousand to 13.5 in 2019. Consequently, the crude rate of natural increase (CRNI) has been falling steadily from 31 per thousand population in the early 1990s to 9.8 in 2019 (Figure 1.2).

All ethnic groups in Sabah had experienced a continuing decline in CRNI, but the Malay CRNI remained the highest, at 24.4 per thousand in 2018, while the other Bumiputera had the lowest among the Bumiputera group. The Sabahan Chinese had a negative

CRNI, suggesting an excess of deaths over births in 2017 and 2018 (Table 1.3). As discussed in Chapter 7 of this volume, the high prevalence of inter-marriages may explain part of the ultra-low fertility level among the Chinese community in Sabah.

The annual rate of population growth (5.0%) outpaced the crude rate of natural increase (33 per thousand or 3.3%) in the 1980s due to the influx of migrant workers. Subsequently, the population growth rate decelerated to 4.0% per annum in the 1990s and 1.8% in the 2010s. Sabah's population growth had stagnated in 2019 – 2020, while the crude rate of annual increase was much higher, at about 1% (Tables 1.3 and 1.4). The stagnation of population growth in 2019 – 2020 is due to the negative growth of the non-citizen population since 2018 (Table 1.4).



Sources: DOSM (2001c, 2015a, 2018, 2020b). Vital Statistics reports.

Figure 1.2 Crude birth rate, crude death rate, and crude rate of natural increase, Sabah, 1970 – 2019

Table 1.3 Crude rate of natural increase (per 1,000 population) by ethnicity

| | 2014 | 2015 | 2016 | 2017 | 2018 |
|------------------|------|------|------|------|------|
| Total | 12.3 | 11.3 | 10.3 | 10.1 | 10.0 |
| Citizen | 15.4 | 14.9 | 13.5 | 13.2 | 12.8 |
| Malay | 31.8 | 31.1 | 27.0 | 26.4 | 24.4 |
| Kadazan/Dusun | 16.8 | 16.4 | 15.1 | 15.1 | 14.6 |
| Bajau | 16.8 | 16.2 | 14.9 | 13.9 | 14.3 |
| Murut | 17.4 | 17.5 | 15.8 | 15.4 | 16.4 |
| Other Bumiputera | 11.7 | 11.3 | 10.8 | 10.6 | 10.6 |
| Chinese | 1.8 | 1.0 | 0.1 | -0.5 | -1.7 |

Source: DOSM (2019a)

The number of non-citizens grew from 420 thousand in 1990 to 853.6 thousand in 2010, peaked at 1.16 million in 2018, and then decreased to 1.094 million in 2020. Non-citizens made up close to 30% of the state population during 2013 – 2018, up from around 26% in 2009 – 2010 (Table 1.4). It is plausible that undocumented or illegal migrants are under-enumerated.

Table 1.4 Growth of citizens and non-citizen population ('000) – Sabah

| | Total | Citizens | Non-citizens | % non-citizens |
|------|---------|----------|--------------|----------------|
| 1991 | 1,787.6 | 1,367.6 | 420.0 | 23.5 |
| 2000 | 2,603.5 | 1,988.7 | 614.8 | 23.6 |
| 2001 | 2,663.3 | 2,025.7 | 637.6 | 23.9 |
| 2002 | 2,719.1 | 2,060.1 | 659.0 | 24.2 |
| 2003 | 2,774.0 | 2,093.7 | 680.3 | 24.5 |
| 2004 | 2,833.4 | 2,130.3 | 703.1 | 24.8 |
| 2005 | 2,897.0 | 2,170.0 | 727.0 | 25.1 |
| 2006 | 2,962.9 | 2,211.7 | 751.2 | 25.4 |
| 2007 | 3,032.3 | 2,256.5 | 775.8 | 25.6 |
| 2008 | 3,105.1 | 2,304.4 | 800.7 | 28.8 |
| 2009 | 3,181.1 | 2,355.1 | 826.0 | 26.0 |
| 2010 | 3,260.0 | 2,406.4 | 853.6 | 26.2 |
| 2011 | 3,345.5 | 2,446.7 | 898.8 | 26.9 |
| 2012 | 3,432.7 | 2,489.1 | 943.6 | 27.5 |

Cont.

| | Total | Citizens | Non-citizens | % non-citizens |
|--|--------------|-----------------|---------------------|-----------------------|
| 2013 | 3,611.5 | 2,540.0 | 1,071.5 | 29.7 |
| 2014 | 3,669.9 | 2,583.8 | 1,086.1 | 29.6 |
| 2015 | 3,720.5 | 2,626.5 | 1,094.0 | 29.4 |
| 2016 | 3,802.8 | 2,673.6 | 1,129.2 | 29.7 |
| 2017 | 3,855.9 | 2,707.9 | 1,148.0 | 29.8 |
| 2018 | 3,898.4 | 2,739.7 | 1,158.7 | 29.7 |
| 2019 | 3,904.4 | 2,777.3 | 1,127.1 | 28.9 |
| 2020 | 3,908.5 | 2,814.4 | 1,094.1 | 28.0 |
| The average annual rate of growth | | | | |
| 2000 – 2005 | 2.1 | 1.8 | 3.4 | |
| 2005 – 2010 | 2.4 | 2.1 | 3.2 | |
| 2010 – 2015 | 2.6 | 1.8 | 5.0 | |
| 2015 – 2020 | 1.0 | 1.4 | 0.0 | |
| 2015 – 2016 | 2.2 | 1.8 | 3.2 | |
| 2016 – 2017 | 1.4 | 1.3 | 1.7 | |
| 2017 – 2018 | 1.1 | 1.2 | 0.9 | |
| 2018 – 2019 | 0.2 | 1.4 | –2.7 | |
| 2019 – 2020 | 0.1 | 1.3 | –2.9 | |

Sources: DOSM (2001a, 2014a, 2020a)

The growth rate of the citizen population fluctuated between 1.4% and 2.1% during 2000 – 2016 and decelerated to 1.2 – 1.4% since 2016. The rate of growth of the non-citizen population rose from around 3.3% annually during 2000 – 2010 to 5.0% in the ensuing five years. Even before the COVID-19 pandemic, there was a negative growth of the non-citizens of around 3% per annum since 2018. The declining trend in the non-citizen population is expected to continue, as the COVID-19 is becoming endemic.

State and District Levels Analysis

Population Growth, Distribution and Composition

Table 1.5 shows Sabah's population growth and distribution by district. The five most populous districts in 2019 were Kota Kinabalu (572,500, or 14.4% of the state population), Tawau (514,000, 12.9%), Sandakan (510,600, 12.8%), Lahad Datu (295,200, 6.5%), and Keningau (219,200, 5.5%). About 40% of the population was concentrated in the three most populous districts. On the other hand, Kuala Penyu has the smallest population size (0.6% of the state total), followed by Nabawan, Pitas, Sipitang, Tambunan, and Tongod, each making up merely 1% of the state population. Kota Kinabalu was the 13th most populous district in Malaysia as of 2010, while Tawau and Sandakan occupied the 15th and 16th spots (DOSM, 2011b).

Between 2000 and 2019, the population of Kota Kinabalu grew from 372,047 to 572,500, that of Tawau from 322,705 to 513,000, and Sandakan from 368,916 to 510,600. The population growth rate in Kota Kinabalu and Tawau corresponded quite closely to that of the state, at between 2.1% and 2.5% since 2000. The population growth rate in Sandakan picked up from 1% per annum during the period 2000 – 2010 to 2.5% during the next decade. Kinabatangan registered the most rapid rate of population growth since 2000, as it doubled within less than two decades, due to the influx of migrants. However, Kinabatangan's population growth had decelerated from 4.4% during the period 2000 – 2010 to 3.1% in the ensuing nine years. Only a few districts had registered a rate of population growth of slightly less than 2% per annum for the period 2010 – 2019, and these include Kota Marudu, Kudat, Pitas, and Ranau.

With a small land area of just 40 square km, Putatan is the most densely populated district in Sabah, at 1,788 persons per square km, followed by Kota Kinabalu, at 1,626 persons per square km, on an area of 352 square km (or 0.5% of the state land area). Tongod and Nabawan are the most sparsely populated districts, with four persons and seven persons per square km, respectively. Beluran, Sipitang, Tenom, Pitas, Ranau, Kinabatangan, and Tambunan are also sparsely populated.

Table 1.5 Population distribution and the average annual rate of growth, and population density by district, 2000, 2010 and 2019

| | Land area (sq km) | Population | | | Population Density | % distribution of population | | | The annual rate of growth | |
|---------------|-------------------|------------|-----------|-----------|--------------------|------------------------------|-------|-------|---------------------------|-------------|
| | | 2000 | 2010 | 2019 | | 2000 | 2010 | 2019 | 2000 – 2010 | 2010 – 2019 |
| Sabah | 73,904 | 2,603,485 | 3,206,742 | 3,983,700 | 54 | 100.0 | 100.0 | 100.0 | 2.1 | 2.4 |
| Beaufort | 1,735 | 64,756 | 66,406 | 83,500 | 48 | 2.5 | 2.1 | 2.1 | 0.3 | 2.5 |
| Beluran | 7,717 | 80,532 | 106,632 | 133,400 | 17 | 3.1 | 3.3 | 3.3 | 2.8 | 2.5 |
| Keningau | 3,546 | 155,069 | 177,735 | 219,200 | 62 | 6.0 | 5.5 | 5.5 | 1.4 | 2.3 |
| Kinabatangan | 6,630 | 96,986 | 150,327 | 198,100 | 30 | 3.7 | 4.7 | 5.0 | 4.4 | 3.1 |
| Kota Belud | 1,391 | 75,568 | 93,180 | 111,800 | 80 | 2.9 | 2.9 | 2.8 | 2.1 | 2.0 |
| Kota Kinabalu | 352 | 372,047 | 462,963 | 572,500 | 1,626 | 14.3 | 14.4 | 14.4 | 2.2 | 2.4 |
| Kota Marudu | 1,917 | 61,642 | 68,289 | 81,300 | 42 | 2.4 | 2.1 | 2.0 | 1.0 | 1.9 |
| Kuala Penyu | 455 | 17,228 | 19,426 | 24,500 | 54 | 0.7 | 0.6 | 0.6 | 1.2 | 2.6 |
| Kudat | 1,287 | 73,349 | 85,404 | 101,700 | 79 | 2.8 | 2.7 | 2.6 | 1.5 | 1.9 |
| Kunak | 1,139 | 52,271 | 62,851 | 80,300 | 71 | 2.0 | 2.0 | 2.0 | 1.8 | 2.7 |
| Lahad Datu | 7,472 | 166,011 | 206,861 | 259,200 | 35 | 6.4 | 6.5 | 6.5 | 2.2 | 2.5 |
| Nabawan | 6,113 | 25,285 | 32,309 | 39,800 | 7 | 1.0 | 1.0 | 1.0 | 2.5 | 2.3 |
| Papar | 1,248 | 92,451 | 128,434 | 167,300 | 134 | 3.6 | 4.0 | 4.2 | 3.3 | 2.9 |
| Penampang | 467 | 137,002 | 125,913 | 152,900 | 327 | 5.3 | 3.9 | 3.8 | 2.8 | 2.2 |
| Pitas | 1,425 | 33,910 | 38,764 | 45,400 | 32 | 1.3 | 1.2 | 1.1 | 1.3 | 1.8 |
| Ranau | 3,622 | 74,456 | 95,800 | 114,000 | 31 | 2.9 | 3.0 | 2.9 | 2.5 | 1.9 |
| Sandakan | 2,275 | 368,916 | 409,056 | 510,600 | 224 | 14.2 | 12.8 | 12.8 | 1.0 | 2.5 |
| Semporna | 1,149 | 114,989 | 137,868 | 172,900 | 150 | 4.4 | 4.3 | 4.3 | 1.8 | 2.5 |
| Sipitang | 2,743 | 30,653 | 35,764 | 45,100 | 16 | 1.2 | 1.1 | 1.1 | 1.5 | 2.6 |
| Tambunan | 1,352 | 29,294 | 36,297 | 43,400 | 32 | 1.1 | 1.1 | 1.1 | 2.1 | 2.0 |
| Tawau | 6,149 | 322,705 | 412,375 | 514,000 | 84 | 12.4 | 12.9 | 12.9 | 2.5 | 2.4 |
| Tenom | 2,418 | 48,353 | 56,597 | 68,800 | 28 | 1.9 | 1.8 | 1.7 | 1.6 | 2.2 |
| Tongod | 10,092 | 25,038 | 36,192 | 44,300 | 4 | 1.0 | 1.1 | 1.1 | 3.7 | 2.2 |
| Tuaran | 1,170 | 84,974 | 105,435 | 128,200 | 110 | 3.3 | 3.3 | 3.2 | 2.2 | 2.2 |
| Putatan | 40 | – | 55,864 | 71,500 | 1,788 | – | 1.7 | 1.8 | 2.7 | – |

Sources: DOSM (2001b, 2011b, 2019a, 2020c)

Urbanisation

Each district's urbanisation level was estimated using the 2% sample data from the 2000 and 2010 population censuses. The metropolitan stratum and large urban stratum were combined to form the urban stratum, and all the remaining strata were classified as rural. In 2010, Kota Kinabalu was the most urbanised district, at 92.2% (besides Putatan, which was fully urbanised), followed by Penampang (91.2%), Sandakan (79.2%), and Tawau (66.7%). Six districts had no urban population in 2010 – Beluran, Pitas, Tenom, Nabawan, Tambunan, and Tongod. Only a few districts had undergone rapid urbanisation, and these include Tuaran, Kota Marudu, Sipitang, Papar, and Keningau (Table 1.6).

Table 1.6 Urbanisation level by district, Sabah, 2000 and 2010

| | 2000 | 2010 |
|---------------|------|------|
| Sabah | 47.9 | 54.0 |
| Tawau | 69.3 | 66.7 |
| Lahad Datu | 49.0 | 51.9 |
| Semporna | 39.2 | 45.7 |
| Sandakan | 79.1 | 79.2 |
| Kinabatangan | 0.0 | 12.3 |
| Beluran | 0.0 | 0.0 |
| Kota Kinabalu | 86.0 | 92.2 |
| Ranau | 21.5 | 21.4 |
| Kota Belud | 14.2 | 18.5 |
| Tuaran | 0.0 | 40.8 |
| Penampang | 90.2 | 91.2 |
| Papar | 30.2 | 53.2 |
| Kudat | 39.7 | 36.9 |
| Kota Marudu | 0.0 | 23.7 |
| Pitas | 0.0 | 0.0 |
| Beaufort | 19.5 | 21.6 |
| Kuala Penyu | 0.0 | 0.0 |

Cont.

| | 2000 | 2010 |
|----------|------|-------|
| Sipitang | 0.0 | 43.3 |
| Tenom | 0.0 | 0.0 |
| Nabawan | 0.0 | 0.0 |
| Keningau | 31.4 | 44.4 |
| Tambunan | 0.0 | 0.0 |
| Kunak | 32.4 | 30.2 |
| Tongod | 0.0 | 0.0 |
| Putatan | — | 100.0 |

Note: In the 2010 population census, urban areas were defined as gazetted areas and their adjoining built-up areas which had a combined population of 10,000 or more. Built-up areas were defined as areas contiguous to a gazetted area and had at least 60% of their population (aged 15 years and over) engaged in non-agricultural activities.

Source: Computed based on 2% sample data from the 2010 Population Census.

Ethnic and Religious Composition

A greater diversity of ethnic groups characterizes Sabah’s population compared to Peninsular Malaysia and Sarawak. The main ethnic groups in Sabah comprises Kadazan/Dusun, Bajau, Murut, Malays, other Bumiputera, and the Chinese. The other Bumiputera comprises the Rungus, Brunei Malay, Orang Sungai, Lun Bawang, Lotud, Ida’an, Tambanuo, Maragang, Rumanau, Kadayan, Minokok, Mangka’ak, Kwijau, Iranun, Dumpas and Orang Asal, and others. Between 1970 and 2010, the Kadazan/Dusun and Murut increased about 3.3 times. The other Bumiputera and Bajau increased by about 5.2 to 5.8 folds. Starting from a small base of just 18,224 persons in 1970, the Malays increased by ten folds to reach 184,179 persons in 2010. In contrast, the Chinese population increased by just 2.8 times over the same period and experienced negative growth since 2017 (Table 1.7). The ethnic differentials in the population growth rate resulted in significant shifts in ethnic composition. The Malay

proportion increased the fastest, from 2.8% to 7.9%, followed by other Bumiputera and Bajau, from 19.4% and 11.9% to 28.3%, and 19.3%, respectively. On the other hand, the proportionate share of Kadazan/Dusun and Murut declined slightly from 28.2% and 4.7% to 25.1% and 4.4%, respectively. The Chinese share declined precipitously from 21.2% to 12.7%.

Table 1.7 Population distribution by ethnicity, Sabah, 1970 – 2010

| | 1970 | | 1980 | | 1991 | | 2000 | | 2010 | |
|------------------|---------|-------|---------|-------|-----------|-------|-----------|-------|-----------|-------|
| | Number | % | Number | % | Number | % | Number | % | Number | % |
| Kadazan | 183,574 | 28.2 | | | 321,834 | 24.6 | 479,944 | 24.1 | 586,575 | 25.1 |
| Murut | 30,908 | 4.7 | | | 50,255 | 3.8 | 84,679 | 4.3 | 102,393 | 4.4 |
| Bajau | 77,755 | 11.9 | | | 203,457 | 15.5 | 343,178 | 17.3 | 450,279 | 19.3 |
| Malay | 18,244 | 2.8 | | | 106,740 | 8.2 | 303,497 | 15.3 | 184,179 | 7.9 |
| Other Bumiputera | 126,274 | 19.4 | | | 255,555 | 19.6 | 390,058 | 19.6 | 659,865 | 28.3 |
| Subtotal | 436,755 | 67.0 | 792,043 | 82.9 | 937,841 | 71.6 | 1,601,356 | 80.5 | 1,983,291 | 84.9 |
| Chinese | 138,512 | 21.3 | 155,304 | 16.2 | 200,056 | 15.3 | 262,115 | 13.2 | 295,674 | 12.7 |
| Others | 76,037 | 11.7 | 8,365 | 0.9 | 171,613 | 13.1 | 125,190 | 6.3 | 55,980 | 2.4 |
| Subtotal | 214,549 | 33.0 | 163,669 | 17.1 | 371,669 | 28.4 | 387,305 | 19.5 | 351,654 | 15.1 |
| Malaysian | 651,304 | 100.0 | 955,712 | 100.0 | 1,309,510 | 100.0 | 1,988,661 | 100.0 | 2,334,945 | 100.0 |
| Total population | | | | | 1,734,685 | | 2,603,485 | | 3,206,742 | |
| Non-citizen | | | | | 425,175 | 24.5 | 614,824 | 23.6 | 889,779 | 27.7 |

Note: In the 1980 census, all Bumiputera categories were collapsed into the Pribumi category.

Sources: DOSM (2001a, 2011a); Khoo (2005)

The Kadazans mainly reside in urban areas, while Dusun tends to reside in the hills and upland valleys. About three quarters of the Kadazan/Dusun live in Ranau, Kota Kinabalu, Keningau, Tuaran, Penampang, Papar, Kota Belud, and Tambunan. Dusuns are concentrated in Tuaran, Ranau, and Tambunan. The Kadazan/Dusun was the largest group in Keningau, Kota Belud, Kota Marudu, Papar, Penampang, Ranau, Tambunan, and Tuaran. As many as 87% of the Bajau are in Semporna, Kota Kinabalu, Sandakan, Lahad Datu, Tuaran, Tawau, Kota Belud, Penampang, and Papar. Almost three-quarters of the Malays, the third-largest Bumiputera group, live in Kota Kinabalu, Papar, Sandakan, Beaufort, Putatan, and Tawau. The

Murut are concentrated in Keningau, Tenom and Nabawan (82%), and they are the largest group in Nabawan and Tenom. The largest non-indigenous group in Sabah, the Chinese, comprises mainly the Hakka, Cantonese, and Hokkien dialect groups. Almost 80% of Sabah's Chinese live in four large urban areas – Kota Kinabalu, Sandakan, Tawau, and Penampang. The Chinese are the second largest group in Kota Kinabalu, after the non-citizens (Table 1.8).

Table 1.8 The ethnic composition of the population, by district, Sabah, 2010

| | All ethnic groups | Kadazan/Dusun | Bajau | Murut | Malay | Other Bumiputera | Chinese | Others | Non-citizens |
|---------------|-------------------|---------------|---------|---------|---------|------------------|---------|--------|--------------|
| Sabah | 3,206,742 | 568,575 | 450,279 | 102,393 | 184,197 | 659,865 | 295,674 | 55,980 | 889,779 |
| Beaufort | 66,406 | 11,372 | 3,443 | 1,696 | 14,080 | 26,469 | 3,820 | 1,503 | 4,023 |
| Beluran | 106,632 | 20,889 | 4,779 | 241 | 2,339 | 30,436 | 902 | 1,155 | 45,891 |
| Keningau | 177,735 | 70,400 | 5,588 | 29,682 | 4,634 | 12,731 | 11,001 | 3,670 | 40,029 |
| Kinabatangan | 150,327 | 2,572 | 1,932 | 173 | 1,315 | 22,798 | 520 | 3,328 | 117,689 |
| Kota Belud | 93,180 | 38,708 | 32,338 | 176 | 1,408 | 12,878 | 1,207 | 495 | 5,970 |
| Kota Kinabalu | 462,963 | 71,335 | 74,731 | 2,554 | 36,918 | 60,512 | 96,852 | 7,916 | 112,145 |
| Kota Marudu | 68,289 | 42,443 | 10,450 | 93 | 1,305 | 9,660 | 1,795 | 598 | 1,945 |
| Kuala Penyu | 19,426 | 6,183 | 1,927 | 90 | 4,130 | 5,734 | 279 | 183 | 900 |
| Kudat | 85,404 | 3,770 | 18,227 | 157 | 2,575 | 46,616 | 5,132 | 433 | 8,494 |
| Kunak | 62,851 | 1,081 | 13,572 | 82 | 1,345 | 12,942 | 564 | 2,063 | 31,202 |
| Lahad Datu | 206,861 | 10,199 | 40,146 | 326 | 8,584 | 53,846 | 12,649 | 4,108 | 77,003 |
| Nabawan | 32,309 | 813 | 299 | 25,096 | 258 | 665 | 294 | 304 | 4,580 |
| Papar | 128,434 | 29,062 | 22,536 | 712 | 34,113 | 12,609 | 6,649 | 1,253 | 21,500 |
| Penampang | 125,913 | 43,742 | 9,422 | 1,429 | 6,004 | 13,089 | 28,636 | 2,737 | 20,854 |
| Pitas | 38,764 | 5,830 | 4,055 | 101 | 681 | 26,177 | 350 | 285 | 1,285 |
| Ranau | 95,800 | 81,592 | 1,108 | 143 | 988 | 3,839 | 1,582 | 809 | 5,739 |
| Sandakan | 409,056 | 17,161 | 40,288 | 528 | 23,169 | 103,164 | 66,233 | 10,075 | 148,438 |
| Semporna | 137,868 | 854 | 78,550 | 42 | 2,595 | 11,668 | 1,096 | 1,341 | 41,722 |
| Sipitang | 35,764 | 3,988 | 972 | 4,825 | 5,756 | 13,724 | 1,265 | 1,478 | 3,756 |
| Tambunan | 36,297 | 31,043 | 439 | 446 | 436 | 1,234 | 390 | 172 | 2,137 |
| Tawau | 412,375 | 6,575 | 31,616 | 2,811 | 12,149 | 139,027 | 41,567 | 7,221 | 171,409 |
| Tenom | 56,597 | 6,625 | 1,285 | 29,169 | 2,141 | 7,409 | 4,860 | 599 | 4,509 |
| Tongod | 36,192 | 8,615 | 849 | 658 | 407 | 15,245 | 408 | 375 | 9,635 |
| Tuaran | 105,435 | 45,175 | 35,738 | 400 | 4,483 | 8,145 | 1,207 | 1,606 | 8,681 |
| Putatan | 55,864 | 8,548 | 15,989 | 763 | 12,384 | 9,248 | 2,978 | 2,273 | 3,681 |

Cont.

| | All ethnic groups | Kadazan/Dusun | Bajau | Murut | Malay | Other Bumiputera | Chinese | Others | Non-citizens |
|----------------|-------------------|---------------|-------|-------|-------|------------------|---------|--------|--------------|
| % distribution | | | | | | | | | |
| Sabah | 100.0 | 17.7 | 14.0 | 3.2 | 5.7 | 20.6 | 9.2 | 1.7 | 27.7 |
| Beaufort | 100.0 | 17.1 | 5.2 | 2.6 | 21.2 | 39.9 | 5.8 | 2.3 | 6.1 |
| Beluran | 100.0 | 19.6 | 4.5 | 0.2 | 2.2 | 28.5 | 0.8 | 1.1 | 43.0 |
| Keningau | 100.0 | 39.6 | 3.1 | 16.7 | 2.6 | 7.2 | 6.2 | 2.1 | 22.5 |
| Kinabatangan | 100.0 | 1.7 | 1.3 | 0.1 | 0.9 | 15.2 | 0.3 | 2.2 | 78.3 |
| Kota Belud | 100.0 | 41.5 | 34.7 | 0.2 | 1.5 | 13.8 | 1.3 | 0.5 | 6.4 |
| Kota Kinabalu | 100.0 | 15.4 | 16.1 | 0.6 | 8.0 | 13.1 | 20.9 | 1.7 | 24.2 |
| Kota Marudu | 100.0 | 62.2 | 15.3 | 0.1 | 1.9 | 14.1 | 2.6 | 0.9 | 2.8 |
| Kuala Penyu | 100.0 | 31.8 | 9.9 | 0.5 | 21.3 | 29.5 | 1.4 | 0.9 | 4.6 |
| Kudat | 100.0 | 4.4 | 21.3 | 0.2 | 3.0 | 54.6 | 6.0 | 0.5 | 9.9 |
| Kunak | 100.0 | 1.7 | 21.6 | 0.1 | 2.1 | 20.6 | 0.9 | 3.3 | 49.6 |
| Lahad Datu | 100.0 | 4.9 | 19.4 | 0.2 | 4.1 | 26.0 | 6.1 | 2.0 | 37.2 |
| Nabawan | 100.0 | 2.5 | 0.9 | 77.7 | 0.8 | 2.1 | 0.9 | 0.9 | 14.2 |
| Papar | 100.0 | 22.6 | 17.5 | 0.6 | 26.6 | 9.8 | 5.2 | 1.0 | 16.7 |
| Penampang | 100.0 | 34.7 | 7.5 | 1.1 | 4.8 | 10.4 | 22.7 | 2.2 | 16.6 |
| Pitas | 100.0 | 15.0 | 10.5 | 0.3 | 1.8 | 67.5 | 0.9 | 0.7 | 3.3 |
| Ranau | 100.0 | 85.2 | 1.2 | 0.1 | 1.0 | 4.0 | 1.7 | 0.8 | 6.0 |
| Sandakan | 100.0 | 4.2 | 9.8 | 0.1 | 5.7 | 25.2 | 16.2 | 2.5 | 36.3 |
| Semporna | 100.0 | 0.6 | 57.0 | 0.0 | 1.9 | 8.5 | 0.8 | 1.0 | 30.3 |
| Sipitang | 100.0 | 11.2 | 2.7 | 13.5 | 16.1 | 38.4 | 3.5 | 4.1 | 10.5 |
| Tambunan | 100.0 | 85.5 | 1.2 | 1.2 | 1.2 | 3.4 | 1.1 | 0.5 | 5.9 |
| Tawau | 100.0 | 1.6 | 7.7 | 0.7 | 2.9 | 33.7 | 10.1 | 1.8 | 41.6 |
| Tenom | 100.0 | 11.7 | 2.3 | 51.5 | 3.8 | 13.1 | 8.6 | 1.1 | 8.0 |
| Tongod | 100.0 | 23.8 | 2.3 | 1.8 | 1.1 | 42.1 | 1.1 | 1.0 | 26.6 |
| Tuaran | 100.0 | 42.8 | 33.9 | 0.4 | 4.3 | 7.7 | 1.1 | 1.5 | 8.2 |
| Putatan | 100.0 | 15.3 | 28.6 | 1.4 | 22.2 | 16.6 | 5.3 | 4.1 | 6.6 |

Source: DOSM (2019b, 2019c)

Religious Affiliation

Muslims made up close to two-thirds of Sabah's population in 2018. The Christians were the second-largest group (26.6%), and the Buddhists came in third (6.1%). Of the citizen population, Muslims, Christians, and Buddhists make up 58.0%, 31.5%, and 8.3% of the state population. Religious affiliation is closely associated with

ethnicity. Two-thirds of the Bumiputera are Muslim, and about one-third are Christian. All the Malays are Muslim, so are most of the Bajau, Other Bumiputera, and non-citizens. About three-quarters of the Kadazan/Dusun and Murut are Christians, and the rest are mostly Muslim. The majority of the Chinese are Buddhist, one-third are Christians, and 3.2% are Muslim (Table 1.9).

Table 1.9 Population according to religious affiliation by ethnicity, Sabah, 2010

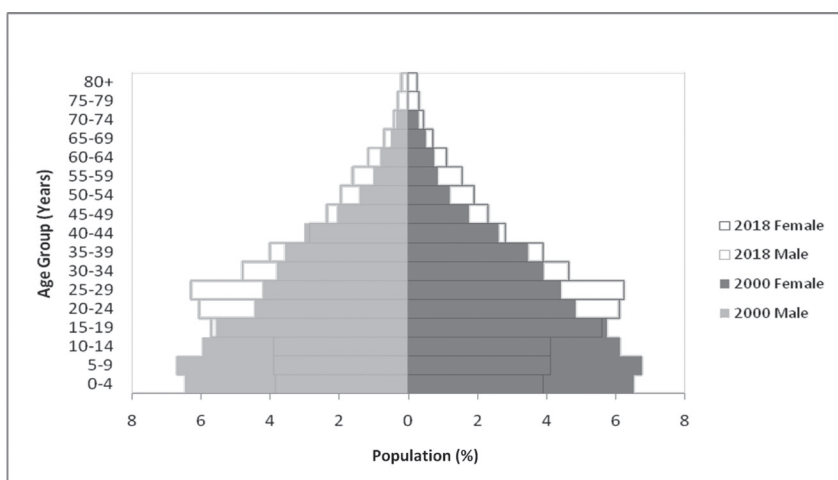
| | Islam | Christianity | Buddhism | Others | Total |
|------------------|-------|--------------|----------|--------|-------|
| Total | 65.4 | 26.6 | 6.1 | 2.0 | 100.0 |
| Citizen | 58.0 | 31.5 | 8.3 | 2.2 | 100.0 |
| All Bumiputera | 65.7 | 31.8 | 0.4 | 2.1 | 100.0 |
| Malay | 100.0 | 0.0 | 0.0 | 0.0 | 100.0 |
| Kadazan/Dusun | 22.7 | 74.8 | 0.6 | 1.9 | 100.0 |
| Bajau | 95.3 | 0.5 | 0.1 | 4.1 | 100.0 |
| Murut | 18.0 | 80.2 | 0.2 | 1.6 | 100.0 |
| Other Bumiputera | 80.3 | 17.5 | 0.6 | 1.6 | 100.0 |
| Chinese | 3.2 | 32.6 | 62.4 | 1.7 | 100.0 |
| Others | 77.5 | 15.8 | 0.9 | 5.8 | 100.0 |
| Non-citizens | 84.6 | 13.9 | 0.2 | 1.4 | 100.0 |

Source: DOSM (2019b, 2019c)

Changes in the Age-Sex Structure

Due to the continuing decline in fertility and rising life expectancy, the age structure of the Malaysian population has changed dramatically since 1970. The median age of the population rose from 17.6 years in 1970 to 27.7 years in 2015. Between 1970 and 2015, the proportion aged below five had declined from 15.7% to 8.4%. Those below 15 had declined from 44.2% to 25.0%, while those aged 15 – 64 had increased from 52.6% to 69.1%. The proportion aged 65 and over had also increased from 3.2% to 5.9% (Tey & Lai, 2020).

The age structure of Sabah's population has changed significantly between 2000 and 2018 (Figure 1.3). The median age of the population rose from 20.1 years to 26.1 years over this period. Over the 18 years, the proportion aged below 5 declined from 13% to 7.7%, and those below 15 from 38.4% to 23.7%, while the proportion aged 15 – 64 increased from 59.2% to 73%, and that of older people increased from 2.3% to 3.3%. The number of young people (below 15) had decreased from 1,000,405 to 923,700. The population aged 15 – 64 had increased from 1,542,449 to 2,845,900 (an increase of 84.5%). The older population aged 65 and over had more than doubled from 60,631 to 128,800 (Table 1.10).



Sources: Constructed from DOSM (2001a, 2019b)

Figure 1.3 Population pyramid, Sabah, 2000 – 2018

The increase in the working-age population's proportion means a lower dependency burden (from 68.8 to 37.0). The drop in the dependency ratio was brought about by the decrease in the young dependency ratio from 64.9% to 32.5% due to the sharp fertility decline in recent years. On the other hand, there was a small increase in the old dependency ratio. The decrease in the overall dependency ratio represents a demographic dividend and a window of opportunity for economic growth. However, this demographic

dividend is not automatic but efforts must be made to reap it by investing in the human capital to improve the education and health of the population. The dwindling number of young people will exacerbate the labour shortage.

The ageing of the labour force must be considered in manpower planning. In 2018, out of the 542,000 persons aged 45 – 64, about 70% were in the labour force. Hence, close to half a million workers will be exiting the labour market soon.

The ageing index rose from 6.1% in 2000 to almost 14% in 2019 (Table 1.10). While the population is still youthful, it will be ageing rapidly due to low fertility. The impending population ageing in Sabah consequent upon age structural shift will be discussed in Chapter 2.

Table 1.10 Changes in the age structure of the population, Sabah, 2000 – 2018

| | 2000 | | | 2010 | | | 2018 | | |
|---------|-----------|-----------|------------|-----------|-----------|------------|-----------|-----------|------------|
| | Male | Female | Both sexes | Male | Female | Both sexes | Male | Female | Both sexes |
| Number | 1,345,537 | 1,257,948 | 2,603,485 | 1,658,231 | 1,548,511 | 3,206,742 | 2,035,600 | 1,862,800 | 3,898,400 |
| % | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 0 – 4 | 12.9 | 13.0 | 13.0 | 10.4 | 10.6 | 10.5 | 7.7 | 7.8 | 7.7 |
| 5 – 9 | 13.4 | 13.5 | 13.4 | 10.8 | 10.8 | 10.8 | 7.8 | 8.2 | 8.0 |
| 10 – 14 | 11.9 | 12.2 | 12.0 | 10.7 | 10.7 | 10.7 | 7.8 | 8.2 | 8.0 |
| 15 – 19 | 11.1 | 11.5 | 11.3 | 11.9 | 12.0 | 11.9 | 11.4 | 11.2 | 11.3 |
| 20 – 24 | 8.9 | 9.7 | 9.3 | 10.6 | 11.3 | 10.9 | 12.1 | 12.2 | 12.1 |
| 25 – 29 | 8.4 | 8.8 | 8.6 | 11.1 | 11.2 | 11.2 | 12.6 | 12.5 | 12.6 |
| 30 – 34 | 7.6 | 7.8 | 7.7 | 7.6 | 7.3 | 7.4 | 9.6 | 9.3 | 9.5 |
| 35 – 39 | 7.1 | 6.9 | 7.0 | 6.3 | 6.4 | 6.4 | 8.0 | 7.8 | 7.9 |
| 40 – 44 | 6.0 | 5.2 | 5.6 | 5.5 | 5.4 | 5.4 | 5.7 | 5.6 | 5.7 |
| 45 – 49 | 4.1 | 3.5 | 3.8 | 4.7 | 4.4 | 4.5 | 4.7 | 4.6 | 4.6 |
| 50 – 54 | 2.8 | 2.4 | 2.6 | 3.7 | 3.4 | 3.5 | 3.9 | 3.8 | 3.9 |
| 55 – 59 | 2.0 | 1.7 | 1.8 | 2.4 | 2.2 | 2.3 | 3.2 | 3.1 | 3.1 |
| 60 – 64 | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 2.3 | 2.2 | 2.3 |
| 65 – 69 | 1.0 | 1.0 | 1.0 | 1.1 | 1.2 | 1.2 | 1.4 | 1.4 | 1.4 |
| 70 – 74 | 0.7 | 0.6 | 0.7 | 0.8 | 0.8 | 0.8 | 0.8 | 0.9 | 0.9 |
| 75+ | 0.7 | 0.7 | 0.7 | 0.9 | 1.0 | 0.9 | 1.0 | 1.1 | 1.1 |
| Median | 20.4 | 19.9 | 20.1 | 22.9 | 22.6 | 22.8 | 26.3 | 26.0 | 26.1 |
| <15 | 38.2 | 38.6 | 38.4 | 31.9 | 32.1 | 32.0 | 23.3 | 24.1 | 23.7 |

Cont.

| | 2000 | | | 2010 | | | 2018 | | |
|------------------------|------|--------|------------|------|--------|------------|------|--------|------------|
| | Male | Female | Both sexes | Male | Female | Both sexes | Male | Female | Both sexes |
| 15 – 64 | 59.4 | 59.1 | 59.2 | 65.4 | 65.0 | 65.2 | 73.5 | 72.4 | 73.0 |
| 15 – 59 | 57.9 | 57.6 | 57.7 | 63.9 | 63.5 | 63.7 | 71.2 | 70.2 | 70.7 |
| 60 + | 3.9 | 3.8 | 3.8 | 4.2 | 4.4 | 4.3 | 5.5 | 5.6 | 5.6 |
| 65 + | 2.4 | 2.3 | 2.3 | 2.8 | 2.9 | 2.8 | 3.2 | 3.4 | 3.3 |
| Young dependency ratio | 64.4 | 65.4 | 64.9 | 48.8 | 49.5 | 49.1 | 31.7 | 33.3 | 32.5 |
| Old dependency ratio | 4.0 | 3.9 | 3.9 | 4.2 | 4.5 | 4.4 | 4.3 | 4.7 | 4.5 |
| Total dependency ratio | 68.3 | 69.3 | 68.8 | 53.0 | 54.0 | 53.5 | 36.0 | 38.1 | 37.0 |
| Ageing index | 6.2 | 5.9 | 6.1 | 8.6 | 9.1 | 8.9 | 13.7 | 14.2 | 13.9 |

Sources: DOSM (2001a, 2011a, 2019b, 2019c)

A higher proportion of the non-citizen population was in the prime working-age group 20 – 39 (45.2%) than the citizen population (32.4%) as of 2010. It is worth noting that children aged below 15 made up 29% of the non-citizens, compared to 33.3% among the citizens (Table 1.11). The many young children among the non-citizens testify that many migrant workers had brought along their family members, including the children.

Table 1.11 Citizen and non-citizen population by age, 2010

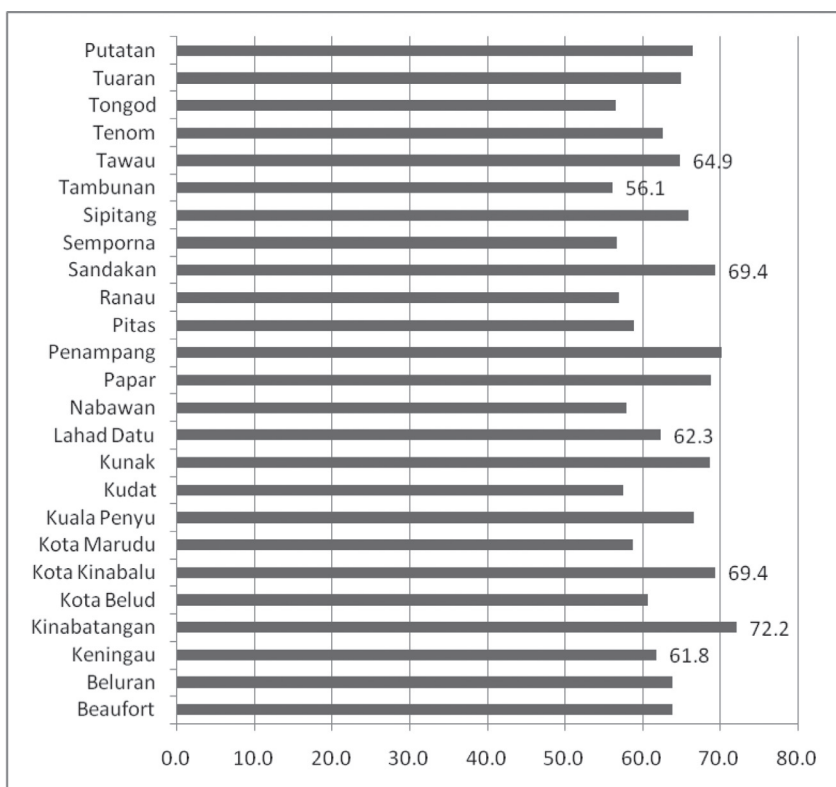
| | Number | | % | |
|---------|----------|--------------|----------|--------------|
| | Citizens | Non-citizens | Citizens | Non-citizens |
| 0 – 4 | 251,806 | 84,137 | 10.9 | 9.5 |
| 5 – 9 | 253,819 | 93,065 | 11.0 | 10.5 |
| 10 – 14 | 264,388 | 78,946 | 11.4 | 8.9 |
| 15 – 19 | 269,370 | 112,588 | 11.6 | 12.7 |
| 20 – 24 | 231,809 | 119,131 | 10.0 | 13.4 |
| 25 – 29 | 221,334 | 137,406 | 9.6 | 15.4 |
| 30 – 34 | 157,769 | 80,545 | 6.8 | 9.1 |
| 35 – 39 | 140,082 | 64,860 | 6.0 | 7.3 |
| 40 – 44 | 128,200 | 45,824 | 5.5 | 5.2 |

Cont.

| | Number | | % | |
|------------------|-----------|--------------|----------|--------------|
| | Citizens | Non-citizens | Citizens | Non-citizens |
| 45 – 49 | 116,190 | 29,288 | 5.0 | 3.3 |
| 50 – 54 | 95,234 | 18,480 | 4.1 | 2.1 |
| 55 – 59 | 64,082 | 10,003 | 2.8 | 1.1 |
| 60 – 64 | 41,689 | 5,736 | 1.8 | 0.6 |
| 65 – 69 | 32,654 | 4,302 | 1.4 | 0.5 |
| 70 – 74 | 22,783 | 2,254 | 1.0 | 0.3 |
| 75+ | 25,754 | 3,214 | 1.1 | 0.4 |
| All ages | 2,316,963 | 889,779 | 100.0 | 100.0 |
| <15 | 33.3 | 28.9 | | |
| 15 – 64 | 63.2 | 70.2 | | |
| 60+ | 5.3 | 1.8 | | |
| 65+ | 3.5 | 1.2 | | |
| Young dependency | 52.7 | 41.2 | | |
| Old dependency | 5.5 | 1.7 | | |
| Total | 58.2 | 42.9 | | |

Source: DOSM (2011a)

The age structure of the population varies widely by district. In 2010, the proportion of the working-age group population was less than 60% in several districts, and these include Kota Marudu, Kudat, Nabawan, Pitas, Ranau, Semporna, Tambunan, and Tongod. On the other hand, the working-age population made up about 70% of the district population in Kinabatangan, Kota Kinabalu, Sandakan, Penampang, Papar, and Kunak (Figure 1.4). Contrary to expectation, many non-citizens in some districts such as Beluran, Semporna, Lahad Datu, and Tawau did not result in a high proportion of the working-age population, as in the case of Kinabatangan.



Source: DOSM (2019b, 2019c)

Figure 1.4 Per cent of population aged 15 – 64 by district, 2010

Sex Ratio

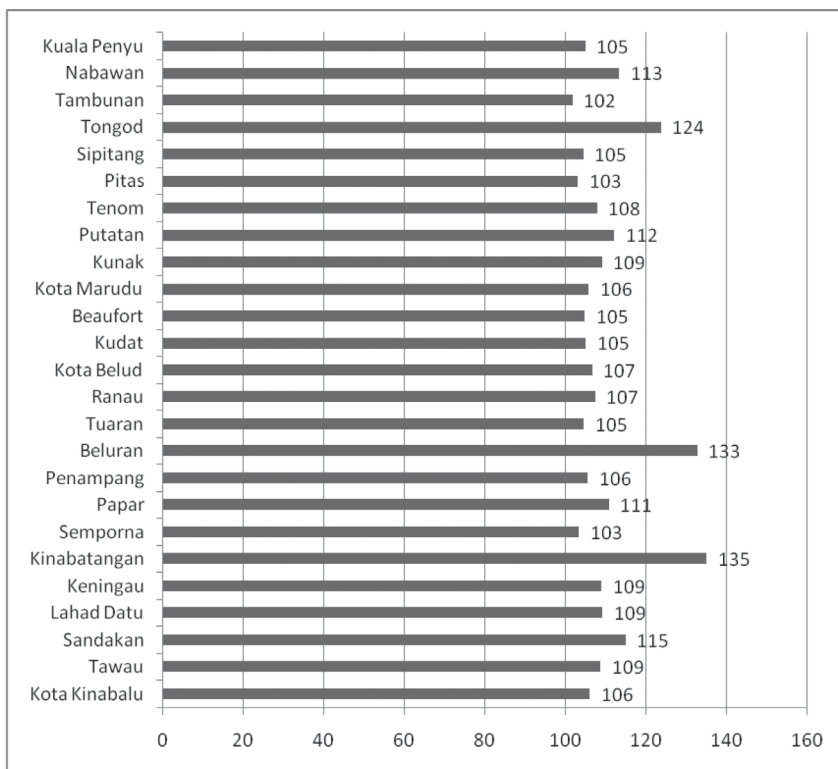
The sex ratio of Sabah's population increased from 107 males per 100 females in 2000 and 2010 to 109 in 2018 (Table 1.12). The higher sex ratio could be due to the higher rate of migration among males. In 2018, the sex ratio was 1.27 among the non-citizens compared to 1.02 among the citizens. The males outnumbered the females by more than a ratio of 110:100, in each of the five-year age groups from 30 – 64. The age groups 30 – 39 registered the most significant increase in the sex ratio between 2000 and 2018. On the other hand, the sex ratio for the age groups 40 – 59 and 65 and above had registered the most significant decline.

Table 1.12 Sex ratio by age, Sabah, 2000 – 2018

| | 2000 | 2010 | 2018 |
|----------|-------|-------|-------|
| 0 – 4 | 106.5 | 104.6 | 107.5 |
| 5 – 9 | 106.3 | 107.0 | 103.9 |
| 10 – 14 | 104.7 | 107.3 | 104.9 |
| 15 – 19 | 102.6 | 106.2 | 112.1 |
| 20 – 24 | 97.7 | 101.0 | 108.4 |
| 25 – 29 | 101.6 | 106.3 | 109.5 |
| 30 – 34 | 104.4 | 111.3 | 112.8 |
| 35 – 39 | 109.5 | 105.4 | 112.3 |
| 40 – 44 | 122.0 | 109.7 | 110.6 |
| 45 – 49 | 123.9 | 115.2 | 110.6 |
| 50 – 54 | 126.0 | 119.1 | 111.6 |
| 55 – 59 | 127.8 | 116.9 | 112.2 |
| 60 – 64 | 111.7 | 106.8 | 114.1 |
| 65 – 69 | 112.2 | 105.6 | 106.9 |
| 70 – 74 | 112.8 | 98.9 | 99.4 |
| 75+ | 104.9 | 96.9 | 95.7 |
| All ages | 107.0 | 107.1 | 109.3 |

Source: DOSM (2019b)

Kinabatangan and Beluran, the two districts with many non-citizens, had the highest sex ratio of 133 – 135% in 2019. The imbalanced sex ratio indicates that immigrants were selective of males. On the other hand, Tambunan, Semporna, and Pitas had about equal numbers of males and females (Figure 1.5).



Source: DOSM (2020d)

Figure 1.5 Sex ratio by district, 2019

Discussion and Conclusion

This chapter traces the population changes in Sabah since 1970, compared with other states in Malaysia. It also provides some data on the population distribution and composition at the district level. A more detailed analysis of the demographic processes, population characteristics, and prospects is covered in other chapters in this volume.

Table 1.13 Socio-economic indicators and employment by sector, Malaysia, 1982 – 2018

| | 1982 | 1990 | 2000 | 2010 | 2018 |
|---------------------------------------|----------|--------------------|--------------------|--------------------|--------------------|
| Employment by sector | | | | | |
| Agriculture | 31.2 | 26.2 | 16.7 | 13.6 | 10.6 |
| Manufacturing | 15.5 | 19.9 | 23.5 | 17.1 | 16.9 |
| Construction | 7.2 | 6.3 | 8.2 | 9.1 | 8.5 |
| Services and others | 46.1 | 47.6 | 51.6 | 60.2 | 64.0 |
| | | 1982 – 1990 | 1990 – 2000 | 2000 – 2010 | 2010 – 2018 |
| Labour force ('000) | 5,431.4 | 7,000.2 | 9,556.1 | 12,303.9 | 15,280.3 |
| Employed persons ('000) | 5,249.0 | 6,685.0 | 9,269.2 | 11,899.5 | 14,476.0 |
| LFPR | 64.8 | 66.5 | 65.4 | 63.7 | 68.3 |
| Unemployment rate | 3.4 | 4.5 | 3.0 | 3.3 | 3.3 |
| Average annual growth of labour force | — | 3.2 | 3.1 | 2.5 | 2.7 |
| GDP per capita | RM3,841* | RM6,578 | RM15,169 | RM28,733 | RM46,450** |

Note: *1980, **2019

Sources: DOSM (2019e, 2019i)

The population changes in Malaysia were accompanied by rapid socio-economic development. Between 1982 and 2019, the labour force almost tripled, while the unemployment rate remained slightly above 3% (except in the early 1990s when it hit 4.5%). The per capita GDP (at current price) increased from RM3,841 in 1980 to in 1990, RM15,169 in 2000, RM28,733 in 2010, and RM46,450 in 2019. Malaysia's economy has undergone significant structural changes. Agricultural employment declined steadily from 31.2% in 1982 to 10.6% in 2018. Employment in the manufacturing sector rose from 15.5% in 1982 to peak at 23.5% in 2000 and then declined to about 17% in 2010 and 2018. Employment in the

services sector rose from less than 50% to close to 75% during this period (Table 1.13). Primary education is nearly universal, at 97.2%, while secondary and tertiary enrolment ratio was 82.0% (85.4% for females and 78.8% for males), and 45.1% (49.9% for females and 40.7% for males) respectively in 2018 (World Bank, 2021). The gender parity in tertiary education has shifted in favour of females, with female students making up 62% of the enrolment in public higher education institutions in 2017. Between 1970 and 2010, life expectancy rose by ten years to 72 years for males and 11 years to 77 years for females. Malaysia's human development index (HDI) has risen from 0.643 in 1990 to 0.810 in 2019, and it is classified as a very high HDI country and ranked 62 in the world (United Nations Development Programme, 2020).

The population of Sabah has changed dramatically over the last five decades due to the interplay between natural increase and trans-national migration. During the period 1970 – 1990, Sabah had registered a very high rate of population growth of 4%-5.5% per annum, before slowing down to 2.2% in 2000 and stopping growing in 2019. During this period, the high rate of natural increase of above 30 per thousand population (compared to 2.1 – 2.5% for the country) was augmented by the influx of migrant workers. By 1990, non-citizens made up close to one-quarter of the state population. Since 2000, Sabah's crude rate of natural increase fell sharply and converged with the national average. The population growth rate in Sabah is below that of the national average (0.1% per annum compared to 0.4% for Malaysia). The attainment of zero population growth in Sabah results from ultra-low fertility and an exodus of migrants since 2018. However, the Department of Statistics Malaysia projected Sabah's population at 5.3 million in 2040. This projection was based on the assumption that non-citizens will make up 27% of the population (DOSM, 2016a). While the population will continue to grow due to the growth momentum of a youthful population, the DOSM's projection may have to be revised based on the trend in the crude rate of natural increase and the likely cessation of in-migration to the state.

Despite the negative growth of the non-migrant population in 2018 – 2019, they still made up 28% of the state population. These figures underscore Sabah's heavy dependence on migrant workers. Besides, there are speculations of a large presence of illegal or undocumented migrants, as evidenced by many stateless children. However, the real situation remains speculative. Looking ahead, the economic downturn due to the COVID-19 pandemic will likely see the continuation of the exodus of migrants in the short run. The inevitable consequence of a low rate of natural increase means that Sabah will continue to face a labour shortage, which has to be filled by the migrant workers upon full recovery of the economy post-pandemic era.

In its 2017 Annual Report, Bank Negara Malaysia stated that foreign workers accounted for more than a fifth of employment in 2016, mostly in the agriculture, construction, and manufacturing sectors. The concern is that reliance on low-wage and low-cost production will weigh on Malaysia's efforts to raise productivity and create higher-skilled and better-paying jobs. The report also suggested that the country's transition to a high-income economy requires a major shift from labour-intensive business models to those driven by productivity gains, technological edge, and sophisticated technical know-how.

Sabah is one of the least urbanised states. A sizable proportion of the population resides in remote areas with poor access to infrastructure and services. A little more than half of the population lives in the urban centres, concentrating in three districts – Kota Kinabalu, Sandakan, and Tawau. As none of the districts had a very high or very low population growth rate, it is unlikely to witness a drastic population redistribution.

The population growth rate varied widely across the ethnic groups, which resulted in significant changes in the ethnic composition of the population. The non-citizen had become the largest group in several districts. The changing ethnic composition of the population will have a significant impact on political demography.

The changing age structure is of great interest in development planning, as it directly impacts the dependency burden. Sabah is at the final stage of the demographic transition. The working-age population has been growing faster than the dependent population. This age

structural shift resulted in a decline in the overall dependency ratio from about 69% in 2000 to 37% in 2018. The demographic dividend resulting from the age structural changes provides a window of opportunity, called the demographic dividend.

While the population is still relatively youthful, population ageing is gaining increasing attention, as the pace of ageing will be accelerating due to rapid fertility decline. Sabah should avoid the experience of countries where the population is growing old before getting rich. A study found that Malaysia is not well prepared to deal with the rapid increase in older people in terms of health care and social protection (Holzmann, 2014).

The lack of up-to-date information limits the analysis in this chapter. However, it provides a baseline for an update once the data from the 2020 population becomes available. The extremely low crude birth rate and crude death rate in several districts raise questions on the reliability of the civil registration data. Data from population censuses, household surveys, and civil registration should be combined with administrative records. Reliable and up-to-date data are crucial to improving service delivery to reach the target population.