KINGDOM OF CAMBODIA

Nation-Religion-King

General Population Census of Cambodia 2019

Series Thematic Report
on

Economic Activity and Employment

National Institute of Statistics Ministry of Planning

Phnom Penh Cambodia

March 2022

KINGDOM OF CAMBODIA

Nation-Religion-King

General Population Census of Cambodia 2019

Series Thematic Report
on

Economic Activity and Employment

National Institute of Statistics Ministry of Planning

Phnom Penh Cambodia

March 2022

Contents

Foreword i
List of Tables vi
List of Maps and Charts viii
List of Acronyms xii
Executive Summary xiii
Chapter 1 Introduction 1
1.1 Approach followed in this report 1
1.2 Methodology 5
1.3 Quality assessment 10
Chapter 2 Broad features of economic activity and the labour force 11
2.1 Main economic activity 11
2.1.1 Introduction 11
2.1.2 Labour-force participation and related Census variables 14
2.1.3 Trends and international context 23
2.1.4 Working-life tables 25
2.2 Unemployment 29
2.2.1 Unemployment and related Census variables 31
2.2.2 Trends and international context 37
2.3 Employment-to-population ratio 38
2.3.1 Employment-to-population ratio and related Census variables 38
2.3.2 Logical regression analysis on employed/not employed 39
2.3.3 Trends and international context 42
2.4 Status in employment 43
2.4.1 Status in employment and related Census variables 43
2.4.2 Trends and international context 47
2.4.3 Vulnerable employment 49
2.5 Occupation 53
2.5.1 Occupation by Census variables sex and age; occupation and vulnerability in employment 53
2.5.2 Focus on occupation in agriculture, forestry and fisheries 58
2.5.3 Focus on occupation and education 63
2.5.4 Occupation and wealth 66
2.6 Industry 69
2.6.1 Industry and related Census variables 69
2.6.2 Trends and international context 78
2.7 Sector of employment 80

2.7.1 Sector of employment and related Census variables 80
2.7.2 Government and the foreign-owned sector 83
2.7.3 Trends and international context 85
Chapter 3 Disadvantaged and vulnerable groups in the labour force . 88
3.1 Children 88
3.1.1 Employment status 90
3.1.2 Children not in ordinary households 95
3.1.3 Child employment as related to other variables 96
3.1.4 National and international comparisons 102
3.1.5 Geographic distribution of working children 104
3.2 Youth 104
3.2.1 Employed and unemployed youth 105
3.2.2 Geographic distribution of employed youth 109
3.3 Older persons 110
3.3.1 Older persons and main activity 111
3.3.2 Employed older persons 113
3.3.3 Geographic distribution of employed older persons 118
3.4 Disabled persons 120
3.4.1 Disability as covered in the census 120
3.4.2 Employed disabled persons 121
3.4.3 Geographic distribution of employed disabled persons 134
3.5 Migrants 135
3.5.1 Migrants and main activity 136
3.5.2 Employed migrants 140
3.5.3 Geographic distribution of migrant labour 151
Chapter 4 Chapter 4. Progress towards Sustainable Development Goals; Labour force projections 153
4.1 Sustainable Development Goals 154
4.1.1 Indicator 8.3.1 154
4.1.2 Indicators 8.5.2 155
4.1.3 Indicator 8.6.1 157
4.1.4 Indicators 8.7.1 158
4.2 Labour force projections 160
Chapter 5 Conclusions and recommendations 165
5.1 Conclusions 165
5.2 Recommendations 174
5.2.1 Broader issues 174

5.2.2 Specific advice about statistical data collection 175
Annex 1. Glossary of Terms and Definitions 177
Annex 2. Data quality assessment 181
Annex 3. Economic activity by administrative area 186
Annex 4. References 195

FOREWORD

The General Population Census of Cambodia of 2019 provides a crucial opportunity to examine past achievements and to guide future development plans and strategies. Aware of the vital importance of the project, the Royal Government of Cambodia allocated major national resources towards the implementation of the Census.

I am gratified that the Census has been a success and that reliable and timely data will be made available to specialized users and the general public. In addition to the present document, a range of thematic reports will be generated by the National Institute of Statistics, with the assistance of specialists from various sectors, including academia.

On behalf of the Ministry of Planning, I would like to express our deep gratitude to **Samdech Akka Moha Sena Padei Techo HUN SEN, Prime Minister of the Kingdom of Cambodia**. His unwavering support has been integral to the successful completion of the Census. I would also like to extend our sincerest thanks to **Samdech Kralahorm Sar Kheng, Deputy Prime Minister, Minister of the Interior and Chairman of the National Census Committee (NCC)** and the others members of the Committee, for their guidance.

As Chair of the Technical Committee and the Publicity Committee for the General Population Census of Cambodia of 2019 - and on behalf of the Ministry of Planning – I would like to thank all members of the census committee working in the capital, provinces, municipalities, districts, khans and communes/sangkats. They did an excellent job and, by working together, we have been able to successfully implement our planned activities and obtain valuable results.

I would also like to thank the United Nations Population Program (UNFPA), the Swedish International Development Cooperation Agency (SIDA) and the Federal Republic of Germany and their implementer, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). Their financial and technical assistance supported the census planning and also the data entry, cleaning and analysis phases. They also provided training in report writing and helped draft the final census report.

I would like to thank **Dr Nott Rama Rao** for providing technical assistance in the census planning process and for reviewing all technical aspects of the census. And **Dr Ricardo Neupert**, Census Chief Technical Advisor, for providing overall technical assistance, particularly in writing the final census report. **Dr Arij Dekker** also provided much-appreciated help with the data cleaning and the preparation of the census priority tables. And **Kjell Tambour**, Senior Advisor with Statistics Sweden/SIDA, provided welcome assistance with the data processing.

I would like to express my special thanks to the Government of the People's Republic of China for providing material assistance worth a total of $2.5 million to support the census. This valuable contribution included automobiles, motorcycles, desktops, laptops, printers, photocopiers, tablets, servers and other electronic devices.

Last but not least, I would like to express my gratitude and appreciation to all staff of the National Institute of Statistics. **H.E. Ms. Hang Lina**, Delegate of the Royal Government of Cambodia in-charge of Director-General of the National Institute of Statistics, who carefully coordinated all census operations, with the assistance of Deputy Directors-General **H.E. Sok Kosal**, **H.E. Saint Lundy** and **H.E. They Kheam.** I would like to express particular thanks to all compatriots who supported and participated in the successful completion of census operations in the Kingdom of Cambodia in 2019.

We are pleased to present to line-ministries, international agencies, non-government organization, policy makers, programme implementers, development planners, and researchers a publication with a plethora of useful information of a series thematic

report. We hope to receive feedback and contributions from our readers to learn from mistakes and improve subsequent of the Series Census publications.

Senior Minister
Minister of Planning

Kitti Settha Pandita Chhay Than

PREFACE

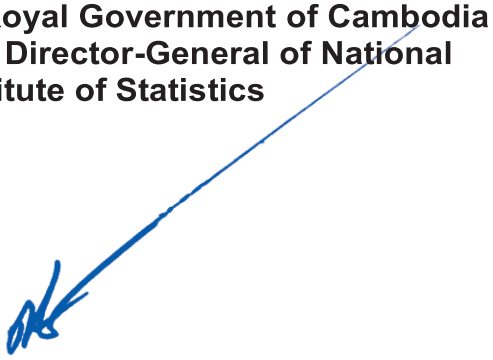
General Population Census of Cambodia 2019 was conducted not only to obtain the much-needed demographic data following the census, but also to serve as a means to train the staff of the NIS and Provincial Planning Offices in demographic data collection. In particular the level, emphasized for clarity that the analyses of households, housing conditions and household amenities are discussed. This report contains and in-depth analysis on Housing and Household Amenities in Cambodia based on the results of GPCC, 2019. There was planned to produce more in-depth studies based on the results of the census, on other topics of interest furthermore, some 18 thematic reports are expected to be issued in 2022.

I would like to extend special thanks are due to Kitti Settha Pandita Chhay Than, Honorable Senior Minister, Minister of Planning whose keen interest in the census and in the survey was always a source of inspiration and encouragement both to the national and international staff of the project.

Our special thanks to the United Nations Population Fund (UNFPA), GIZ and other DPs for undertaking the coordinating role for the census and for their technical support. The Royal Government of Cambodia through the Ministry of Economy and Finance has provided full financial support. I am also grateful to the People's Republic of China for supplying equipment such as vehicles, motorbikes, computers, printers and photocopiers, which were and still are essential for census operations.

Finally, I wish to thank all the staff of the National Institute of Statistics, the Provincial Census Officers, the District Census Officers, the Commune Census Officers, village chiefs, field supervisors and enumerators for their dedication and hard work. This has enabled us produce timely data of good quality. My acknowledgements would be incomplete if I did not mention the general public who provided the much-needed information without hesitation

Delegate of Royal Government of Cambodia
In-charge of Director-General of National
Institute of Statistics



Ms. Hang Lina

Map: Kingdom of Cambodia

Cambodia administrative borders

List of Tables

Table 2.1 De-facto population: Age group by Sex and Economic activity status 13
Table 2.2 Age-specific labour-force participation rates by sex 15
Table 2.3 Age-specific labour-force participation rates by sex and urban/rural ... 16
Table 2.4 Working-life table, males 27
Table 2.5 Working-life tables, females 27
Table 2.6 De-facto population: Age-specific unemployment rates by sex 31
Table 2.7 De-facto population aged 15 - 64: Mother tongue by Main economic activity 33
Table 2.8 De-facto population aged 15-64: Logistic regression of employed odds for the dichotomy employed/not employed 41
Table 2.9 Employed persons aged 5 and over: Percentage of males for Status in employment in 3 censuses 45
Table 2.10 Employed population: Main occupational categories by Sex 54
Table 2.11 Top 10 most common occupational groups, ranked for both sexes, males and females 58
Table 2.12 Households: Tractors, koyaons and farmers by Province 63
Table 2.13 Employed persons aged 15 - 64: Occupation by Sex and Education level (row percentages) 64
Table 2.14 Employed population: Numbers by Major industrial category by Sex; Sex ratio 71
Table 2.15 Top 10 most common industrial groups ranked by sex 72
Table 2.16 Employed population: Industrial category by urban/rural residence and urban/rural ratio 73
Table 3.1 Children aged 5-17: Year of age by Sex and Employment status (numbers) 90
Table 3.2 Children aged 5-17: Year of age by Sex and Employment status (row percentages) 91
Table 3.3 Children aged 5-17: Year of age by Urban/rural and Employment status 92
Table 3.4 Children not in ordinary households: Year of age by Type of household 96
Table 3.5 Working children: Top 10 most common occupational groups, males and females 101
Table 3.6 Population 60 and over economically active: Top ten occupations among males and females 116
Table 3.7 Population 60 and over economically active: Occupation by Sex and Age group 116
Table 3.8 Population 60 and over economically active: Industry class by Sex and Age group 117
Table 3.9 Population aged 15-64: Logistic regression results for participation in the labour force 126
Table 3.10 Population aged 15-64: Detailed disability status by Main activity during last year (column percentages) 129
Table 3.11 Population aged 15-64: Sex and Any disability by Main activity 130
Table 3.12 Employed population aged 10 and over: Sex and Disability by Wealth level (Row percentages) 134
Table 3.13 Resident and present migrants: Migration class and sex by Duration of stay in the present commune 137
Table 3.14 Population aged 5 and over by Main activity and Migration status (column percentages) 138
Table 3.15 Employed population by Occupational group and Migration status

(column percentages) 141
Table 3.16 Employed population by Industry and Migration status (column percentages) 142
Table 3.17 Migrants aged 15 or over: Percentage who moved for work by various attributes 148
Table 4.1 Projected numbers of people in the labour force aged 15 - 79 by sex 2020-2035, 2050 162
Table 4.2 Projected numbers of people in the labour force by age group and sex 2020-2035, 2050 (thousands) 162
Table A2.1 Census coverage estimates 181
Table A2.2 Net Difference Rates and Indexes of Inconsistency 183
Table A2.3 Interventions by the editing and imputation software 184
Table A3.1 De-facto population aged 15-64: Economic activity by Administrative area and Sex 186

List of Maps and Charts

Figure 1.1 Labour force of Cambodia by province, males and females 2
Figure 1.2 Pertinent questions in the Census household questionnaire 8
Figure 2.1 Schematic overview of economic-activity status, 2019 Census 12
Figure 2.2 Population pyramid of sex and activity status 14
Figure 2.3 Age-specific labour-force participation rates by sex 16
Figure 2.4 Labour-force participation rates for persons aged 5 and over by sex and urban/rural 17
Figure 2.5 Labour-force participation rates for persons aged 15-64, Provinces 18
Figure 2.6 Labour-force participation rates by District, males 19
Figure 2.7 Labour-force participation rates by District, females 19
Figure 2.8 Ratio of female to male participation in the labour force for persons aged 15 - 64, Provinces 20
Figure 2.9 Participation rates for persons aged 15 – 64 by background characteristics 22
Figure 2.10 Labour force aged 15 – 64: Percentage of workers born abroad (Preah Sihanouk Province) 23
Figure 2.11 Labour-force participation rates by sex, 2008 and 2019 Censuses 24
Figure 2.12 Labour-force participation rates for persons aged 15 – 64 for selected countries 25
Figure 2.13 De-facto population: Average net years of being economically active and inactive remaining at a particular age 28
Figure 2.14 De-facto population: Age-specific unemployment rates by sex 31
Figure 2.15 De-facto population: Unemployment rates by age group, urban/rural 32
Figure 2.16 *De-facto* population: Ratio of female-to-male unemployment rates by age and urban/rural 33
Figure 2.17 De-facto population aged 15 - 64: Unemployment rates by Provinces 34
Figure 2.18 De-facto population aged 15 - 64: Unemployment rate, Districts 35
Figure 2.19 De-facto population aged 15 – 64: Unemployment rates by various background characteristics 36
Figure 2.20 Unemployment rates for population aged 15 – 64 by sex in the Censuses of 1998, 2008 and 2019 37
Figure 2.21 Unemployment rates for population aged 15 – 64 in various countries for 2019 38
Figure 2.22 *De-facto* population aged 15 – 64: Labour-force participation rates and employment-to-population ratios per Province 39
Figure 2.23 De-facto population aged 15-64: Logistic regression of employed odds for dichotomy employed/not employed 42
Figure 2.24 Employment-to-population ratios for persons aged 15 and over, various countries 43
Figure 2.25 Percentage distribution of employed persons aged 5 and over: Status in employment 44
Figure 2.26 Employed persons aged 5 and over: Status in employment and Sex 44
Figure 2.27 Population pyramid of employed persons by sex and status in employment 45
Figure 2.28 Percentage of employed population by type of employment, sex and age Males 46
Figure 2.29 Employed persons: Sex by Status in employment, 1998, 2008 and 2019 censuses (%) 48
Figure 2.30 Paid employees: Sex by percentage of total male/female employment, various countries [WB20] 49
Figure 2.31 Persons in vulnerable employment: % of total employment by sex and age 50

Figure 2.32 Persons aged 15-64 who work in vulnerable employment by various characteristics (%) 51
Figure 2.33 Employed population in vulnerable employment, Districts (%) 52
Figure 2.34 Percentage of the working population in vulnerable employment, various countries: data for other countries from the World Bank [WB20] and for Cambodia from the 2019 Census 53
Figure 2.35 Employed population: Occupational categories* and Sex ratios (males per 100 females) 54
Figure 2.36 Employed population: Percentage in main occupational categories (ISCO-08) by sex 55
Figure 2.37 Employed population: Age group by Percentage distribution over major occupation categories 56
Figure 2.38 Employed population: Percentage in vulnerable employment by occupation category 57
Figure 2.39 Employed population by Province: Percentage working in agriculture 59
Figure 2.40 Employed population by Province: Numbers working in the agriculture sector by sex 60
Figure 2.41 Employed population: Population pyramid by sex and whether or not working in agriculture 61
Figure 2.42 Non-agri rate: Number of persons working in non-agricultural occupations per 100 persons employed in agriculture, by age group and sex 62
Figure 2.43 Number of tractors and koyaons owned by households as reported by three recent inquiries 62
Figure 2.44 Medical doctors per 100,000 population by District 66
Figure 2.45 Employed population: Occupation by wealth levels from 1 (low) to 5 (high) 68
Figure 2.46 Employed population by Industrial sectors* 70
Figure 2.47 Employed population: Mean age by Industrial category 73
Figure 2.48 Employed population: Industrial category by wealth levels from 1 (low) to 5 (high) 75
Figure 2.49 Employed population aged 15 - 64: Provinces by Industrial sector 76
Figure 2.50 Employed population: Industrial category by Percentage with secondary or academic education 77
Figure 2.51 Employed population aged 15 – 64: Percentage by industrial sector, Censuses of 1998, 2008 and 2019 79
Figure 2.52 Employed population aged 15 – 64 in selected countries by Industrial sector 80
Figure 2.53 Employed population: Percentage distribution by sector of employment 81
Figure 2.54 Population pyramid of employed population by sex and sector of employment 82
Figure 2.55 Employed population by sex, age group and sector of employment Males . 83
Figure 2.56 Employees of Government and State-owned enterprises: percentage among employed workers by District 84
Figure 2.57 Employees of foreign-owned businesses: percentage among employed workers by District 85
Figure 2.58 Employed population: Sex by sector of employment, 1998, 2008 and 2019 censuses 86
Figure 2.59 Employed population in the public sector: Percentages for various countries [OECD19] 87
Figure 3.1 Children aged 5-17: Year of age by Sex and Employment status 91
Figure 3.2 Children aged 5-17: Year of age by Urban/rural and Employment status (percentages) 92
Figure 3.3 Children: Percentage who are employed, by Province and Sex 94

Figure 3.4 Children in employment: Percentage of all children, by District 95
Figure 3.5 Children: Not attending school by Age and Employment status (percentages) 96
Figure 3.6 Children: Year of age by Illiteracy and Employment status (percentages) 97
Figure 3.7 Working children: Sex and Relationship to the head of the household (percentages) 98
Figure 3.8 Working children: Percentage by Sex and Status in economic activity 99
Figure 3.9 Working children: Sex and Occupation class (percentages) 100
Figure 3.10 Working children: Wealth level and Sex (percentages) 102
Figure 3.11 Percentage of working children: Statistical collection and Sex 103
Figure 3.12 Working children aged 7-14: Percentage of all children for various countries and years* 103
Figure 3.13 Employed children aged 5-17: Distribution of absolute numbers over the Districts 104
Figure 3.14 Unemployed youth: Percentage by Year of age and Level of wealth 106
Figure 3.15 Youth: Percentage of NEET by Age and Sex 107
Figure 3.16 Youth: Percentage of NEET by Province and Sex 108
Figure 3.17 Youth: Percentage of youth in NEET status, by various characteristics 109
Figure 3.18 Employed youth: Percentage as compared to the employed labour force aged 15 - 64 110
Figure 3.19 Persons aged 60 and older: Percentage by Activity status and Sex 112
Figure 3.20 Persons aged 60 to 69: Percentage by Activity status and Sex 112
Figure 3.21 Persons aged 70 to 79: Percentage by Activity status and Sex 112
Figure 3.22 Persons aged 80 and older: Percentage by Activity status and Sex 113
Figure 3.23 Population 60 and over: Labour-force participation rates of persons aged 60 and over by Province and Sex 114
Figure 3.24 Population 60 and over: Employment-to-population ratio by Year of age by Sex 115
Figure 3.25 Population 60 to 80 in the labour force: Year of age by Wealth level (percentages) 118
Figure 3.26 Employed population 60 and over: Percentage as compared to the employed labour force 15 - 64 119
Figure 3.27 Employed population, young (15 – 24) and older (60 and over) 119
Figure 3.28 Census questionnaire – disability part 120
Figure 3.29 Population aged 15-64: Labour-force participation rate by Type and degree of disability and Sex 122
Figure 3.30 Persons aged 15-64: Labour-force participation rate for Disability Seeing 123
Figure 3.31 Persons aged 15-64: Labour-force participation rate for Disability Hearing 123
Figure 3.32 Persons aged 15-64: Labour-force participation rate for Disability Walking 124
Figure 3.33 Persons aged 15-64: Labour-force participation rate for Disability Remembering 124
Figure 3.34 Persons aged 15-64: Labour-force participation rate for Disability Self Care 125
Figure 3.35 Persons aged 15-64: Labour-force participation rate for Disability Oral Communication 125
Figure 3.36 Population aged 15-64: Logistic regression of odds for labour-force participation (including disability odds) 128
Figure 3.37 Employed population of persons aged 15-64: Type and Degree of disability by Rate of vulnerable employment 131
Figure 3.38 Employed population of persons aged 15-64: Type and Degree of disability by Rate of employment in agriculture and elementary occupations (percentage of all employed) 132
Figure 3.39 Employed population of persons aged 15-64: Type and Degree of disability by

Rate of employment in senior occupations (percentage of all employed)..... 133
Figure 3.40 Employed disabled persons aged 15-64: Distribution of absolute numbers over the Districts..... 135
Figure 3.41 Population: Age group by Migration status..... 138
Figure 3.42 Population in vulnerable employment by Sex and Migration status..... 140
Figure 3.43 Employed persons: Province by Migration status (percentages) 145
Figure 3.44 Migrants aged 15 - 64: Employment-related reasons for migration 146
Figure 3.45 Migrants age 15 or over who moved for work reasons: Various attributes 147
Figure 3.46 Employed migrants having moved over the last three years, province of destination..... 149
Figure 3.47 Employed migrants having moved over the last three years, province of origin 149
Figure 3.48 Employed persons: Wealth level by Migration status (percentages) 150
Figure 3.49 Employed migrants: Distribution of absolute numbers over the districts... 151
Figure 3.50 Phnom Penh Province Communes: In-migrants over the last five years who migrated for reasons of work - as a percentage of the total de-facto population..... 151
Figure 4.1 Effects of the covid-19 pandemic as pictured by the United Nations Department of Economic and Social Affairs [UN-DESA20]..... 153
Figure 4.2 Labour force in vulnerable employment (%) 155
Figure 4.3 United Nations Global SDG database: Unemployment rate for Cambodia.. 156
Figure 4.4 De-facto population aged 15 – 64: Unemployment rates and Disability 157
Figure 4.5 United Nations Global SDG database: NEET rate for Cambodia 157
Figure 4.6 Youth not in Education, Employment or Training: three censuses..... 158
Figure 4.7 Children aged 5 – 17: Employment rates by sex as reported by three censuses 159
Figure 4.8 Labour force partition rates (ages 15 – 79) for five statistical collections; the censuses of 1998, 2008 and 2019, and the inter-censal surveys of 2004 and 2013 161
Figure 4.9 Members of the labour force (ages 15 – 79): projection until the year 2035 163
Figure 4.10 Labour force aged 15 - 79: Percentage by industrial sector, Censuses of 1998, 2008 and 2019 164

List of Acronyms

ASEAN	Association of Southeast Asian Nations
CSES	Cambodia Socio-Economic Survey
CIPS	Cambodia Inter-censal Population Survey
CSDGs	Cambodia Sustainable Development Goals
DHS	Demographic Health Survey
EA	Enumeration Area
ESCAP	Economic and Social Commission for Asia and the Pacific
EU	European Union
GDP	Gross Domestic Product
GIZ	Gesellschaft für Internationale Zusammenarbeit
ILO	International Labour Organisation
IPEC	International Programme on the Elimination of Child Labour
ISCED	International Standard Classification of Education
ISCO	International Standard Classification of Occupations
ISIC	International Standard Industrial Classification of All Economic Activities
Lao PDR	Lao People's Democratic Republic
LFS	Labour Force Survey
NEET	(Youth) Not in Education, Employment or Training
PES	Post-Enumeration Survey
PhD	Doctor of Philosophy
PUF	Public Use File
RFMP	Ratio of Female to Male Participation in the labour force
SDGs	Sustainable Development Goals
SNA	System of National Accounts
UN	United Nations
UNDP	United Nations Development Programme
UN-DESA	United Nations Population Division, Department of Economic and Social Affairs
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population
UNSD	United Nations Statistics Division
UNICEF	United Nations Children's Fund
UPS	Usual Principal Activity Status
USS	Usual Secondary Activity Status
WG	Washington Group
WFP	World Food Programme
WHO	World Health Organization

Executive Summary

Contextual

The Kingdom of Cambodia is a nation on its way from being a largely rural and agricultural community to a country with a broad-based modern economy. This process is being monitored by a steadily improving national statistical system. The censuses of 1998, 2008 and 2019 provide clear evidence of a labour force gradually shifting from working the land, forests and seas to a wide range of economic activities, also including the secondary (manufacturing) and tertiary (services) economic sectors. This process is far from finished and it is more advanced in some parts of the country than in others.

Knowing in which manner this process is developing and which factors do affect it is of much importance to policy makers and planners. These can be government staff of central or regional offices, but equally those who guide the decision making by investors and private companies. The present report is intended to support the efforts of such information users, by reviewing the observed details of economic activity and employment, identifying trends in the national and international context, and exploring clarifications for the effects detected. In this respect the report is by no means exhaustive. The Census has generated an enormous wealth of information that could feed much more research. It is hoped that government branches, academic institutions and commercial research institutions will further explore this data capital and draw ample benefits from it.

The economic development of Cambodia and many other parts of the world has been rudely interrupted by the covid-19 pandemic that erupted less than a year after Census night took place on March 3, 2019. Even while the country has been spared the worst in terms of illness and death, the economic consequences of closed borders and temporarily paralyzed institutions have been immense. It is therefore impossible to assume that the trend lines found by the 2019 Census can be extended into the future without reservation. It is hoped, though, that as time proceeds the economic effects of the pandemic will decrease and eventually be repaired, so that the next census will see a continuation of the trend of ongoing economic development and improving of labour conditions.

International guidelines have been important in this study. Not only are these at the basis of reliable statistics, they also allow for easy comparisons, both nationally over time and internationally over borders. Changes in the labour force and the labour market play a crucial role in a country's ability to attain higher standards of living for its population. Cambodia's efforts to reduce poverty and to create jobs are in line with the International Labour Organization's (ILO) principles of *Decent Work* and the United Nations *2030 Agenda for Sustainable Development*. The Decent Work program sets standards and guidelines for social protection, rights at work, employment, and social dialogue. The Sustainable Development Goals (SDG's) aim to address the root causes of poverty and achieve sustainable development by applying a global and integrated strategy.

Earlier results have shown that the Census had a quite acceptable net coverage rate of 97.5 per cent of the *de-facto* population. But regarding particular attributes there was some inconsistency between the Census and the subsequent Post-Enumeration Survey (PES). For example, concerning the variable *Employment status* the PES found relatively more paid employees or own-account workers, and fewer contributing family members. This variability caused by the difficulties enumerators encountered in categorizing attributes needs to be taken into account when considering the Census outcomes.

Statistical indicators for economic activity and employment in Cambodia

The 2019 Census reported an estimated *de-facto* population of 15,552,211 persons. It collected information on the economic activity status for all persons aged 5 and over, of whom 8,749,587 persons were in the labour force and 5,352,465 remained outside of it. Internationally, statistics on the labour force are often focused on persons aged 15 to 64, the so-called active age group. At the time of the Census there were 8,200,370 such persons in the labour force and 1,868,255 outside of it. A total number of 98,588 of the people in the labour force aged 15 - 64 reported that they had been actively looking for work during the 12 months prior to the Census, while the remainder, 8,101,782 were indeed employed. The labour force of Cambodia continues to exhibit a young age structure with marginally more men than women working: 4.18 million males aged 15 – 64 were economically active, compared to 4.02 million females.

The ***Labour-force participation rate*** for males was significantly higher than for females, at 85.8 per cent compared to 77.4 per cent. But since there were about 6.8 per cent more females than males in the active age group, the sexes contributed fairly equally to the labour force in terms of absolute numbers, as noted above. The labour-force participation in men's most dynamic years (at ages 25 - 54) was over 94 per cent. That means that nearly all men fit to work were in the labour force. That cannot be said about the females, since their participation rate in all age groups remained well under 88 per cent. Expressed in numbers: 692 thousand men aged 15 – 64 were not economically active, against 1,177 thousand women.

The reported work by children is now at a low level. Of the children aged 10 – 14 some 3.3 per cent was stated to be in the labour force. For the age group 5 – 9 this number went down to 0.7 per cent. From this result it can be concluded that child work is no longer a common phenomenon in Cambodian society.

Considering only the age group 15 – 64 does not do justice to the composition of the Cambodian labour force. A large majority of men, and many women too, continue to be economically active beyond age 64. Males in the age group 65 – 69 were active for over 80 per cent, while this figure among women was about 60 per cent. Even beyond age 80, nearly 40 per cent of the males and over 22 per cent of the females reported a continuing participation in the labour force.

The labour-force participation rate and other employment-rated indicators can be considered in relation to other attributes of persons and households. It was noted that for the active age group the rural participation rate at 84.5 per cent exceeded the urban rate of 77.3. There are also major differences between regions, with highly agricultural Otdar Meanchey Province at the top of the list with 88 per cent and economically more advanced Phnom Penh Province bringing up the rear with 74.3 per cent. There is an inverse relationship between the labour-force participation rate and evolution towards a more diversified economy.

Persons with no or limited education and those with an education beyond secondary showed participation rates that are around or above average, but there was a disconcerting dip for persons at lower secondary and secondary/diploma level.

The labour-force participation rates in Cambodia were already high according to the 2008 Census and have remained lofty. In an international context Cambodia scores in the top, in tune with many other nations of Southeast Asia.

Concerning ***Unemployment***, the Census reports that 120 thousand persons aged 15 and over indicated that they were out of work: 53 thousand males and 63 thousand females. The unemployment rate for the population aged 15 and over was 1.3 per cent, and for the active age-group aged 15 - 64 it was 1.2 per cent. Unemployment for females was somewhat higher than for males. In Cambodia, with its high levels of employment in the primary sector, the concept of underemployment is also important. However, the Census collected no information relevant to determining the volume of time-related underemployment (that is, the total additional time people could have worked). There are signs that the level of quality-related underemployment (that is, people working below their levels of skill) is increasing.

As in many countries, the rate of unemployment in Cambodia is highest among young people. In the age group 15 - 19, the Census recorded 2.7 per cent of males and 2.2 per cent of females as being out of work. Large differences in the levels of unemployment were reported between the country's provinces. Unemployment was highest in Preah Sihanouk, with 6.9 per cent of persons out of work and lowest in Prey Veng Province with an unemployment rate of only 0.3 per cent. Unemployment was also relatively high in Battambang (2.4 per cent) and Pailin Province (2.0 per cent). Despite being a main attraction point for economic migrants from other provinces and abroad, Phnom Penh Province has been able to keep the unemployment level close to the national average (1.3 per cent).

The unemployment rate in urban areas is nearly twice as high as in rural Cambodia. It is also comparatively high for those whose marriage was cut short by widowhood or divorce. Those having little or no education or being illiterate were also subject to higher unemployment rates.

In all of this it has to be taken into account that unemployment rates in Cambodia are extremely low as compared to most other countries. This may be related to a pervasive work ethic, but also to the fact that the social safety net is limited. Some people are forced to accept whatever employment is available in order to survive.

An indicator closely related to the labour-force participation and unemployment rates is the ***Employment-to-population ratio***. It is the proportion of a country's working-age population that is employed. This circumvents the sometimes misleading component of the unemployed in the labour force. In Cambodia that effect is small, so this indicator behaves largely like the labour-force participation rate.

This report investigates the relationship between various labour-related variables and other person and household attributes, but these attributes are not always independent from each other. Marital status, for example, is dependent on age, since older people are more commonly married than younger ones. And urban/rural is not independent from province of residence, since some provinces are more urbanized than others.

A statistical technique called logical regression analysis has been used to study the dichotomy ***Employed/not employed*** in its correlation with various person attributes, thereby compensating for the effect of the other independent attributes. The analysis found about the chances to be employed that these are:

- smallest in Phnom Penh Province, largest in the Cambodian Plateau/Mountains area;
- better in rural areas as compared to urban;
- better for males as compared to females;
- better for ages 25 to 49 as compared to other age groups;
- better for those married now or married before as compared to singles;

- better for highly educated people as compared to those with less schooling.

The results confirm earlier findings, thereby demonstrating that the effects of correlation between the independent variables do not greatly disturb the analysis.

Regarding the ***Status in employment*** of the working population aged 5 and over, the Census found that the group of own account workers made up 42.7 per cent of the working population, paid employees accounted for 31.5 per cent, contributing family workers 25.0 per cent, 0.6 per cent were employers and a tiny 0.2 per cent reported some other status. A total of 2.21 million male own account workers were counted compared with 1.47 million females.

Noticeable changes are taking place in the distribution of status in employment. Over the censuses 1998, 2008 and 2019 the percentage of paid employees has steadily risen, from 12.2 via 17.5 to 31.5. At the same time the percentage of contributing family members dropped from 41.8 via 43.5 to 25.0. Own-account workers remained fairly stable at around 40 per cent. Taking the gender perspective one notes that more own-account workers are now female. In 1998 most female workers were still contributing family members. They are now as likely to be paid employees or own-account workers.

An important aspect of the labour market is the number of persons in vulnerable employment. The ILO defines persons in vulnerable employment as those who are employed as either own-account workers or contributing family workers. The Census found that two-thirds of the country's working population is still in such a situation of vulnerability. That fraction is still larger for females, the rural population and those with little or no education. The situation is not much different in neighboring countries.

Occupation and ***Industry*** reflect the slow but steady move of workers from the primary economic sector (extraction) into the secondary (manufacturing) and tertiary (services) sectors. In 1998 more than three quarters of the employed population still worked in the primary sector. This has now dropped to slightly over half. At the same time employment in the secondary sector has more than tripled, going from 6 to 20 per cent of the workers. The tertiary sector has not (yet) seen such pronounced expansion, it increased from 19 to 27 per cent.

Despite these shifts, agriculture in Cambodia continues to provide most jobs. In 2019 the sector provided employment to 2.32 million males and 2.39 million females. These people are on average either younger or older than employees in other occupations. The age groups from 20 to 49 count comparatively fewer agricultural workers. One notes that modern developments did not leave agriculture untouched. Between 2008 and 2019 the number of small tractors ("Koyaons") has exploded from some 100 thousand to half a million.

In agriculture women are slightly more numerous than men, but in other branches of industry the gender differences are more pronounced. Women constitute a clear majority in *Manufacturing*, while men dominate *Construction*. In the services sector women are more numerous in *Wholesale and retail trade*, while men retain a large majority in *Transportation and storage*. The sexes are more balanced in *Education* and *Accommodation and food services*.

Differences within Cambodia are large. Rural provinces like Ratanak Kiri and Preah Vihear are overwhelmingly agricultural with hardly any manufacturing and only the basic services. More economically developed areas like Phnom Penh, Preah Sihanouk and Kandal have moved towards much more emphasis on the secondary and tertiary sectors.

The ***Sector of employment*** provides insight about the type of employers. A large majority of 78.7 per cent of the labour force is active in Cambodian private enterprises. This includes the many own-account workers and contributing family workers. In second place come foreign-owned private enterprises which employ 12.8 per cent. So one in eight workers, some 1.1 million of them, are employed by a foreign company. Women are overrepresented there at about 703 thousand. In 2008 the total number of workers for foreign companies still was only around 303 thousand, so it has grown tremendously. The Government employs some 4.9 per cent, or 5.4 per cent if state enterprises are included. This is a quite modest number as compared to other countries.

Looking at the thematic map one notes that the mass of workers for foreign-owned companies is found in Phnom Penh and surrounding areas, in Preah Sihanouk and near the Thai border in Pailin and Banteay Meanchey Provinces.

Population groups of particular interest

The report identifies five specific groups that merit special attention. These are children, youth, older workers, the disabled, and migrants.

Children, especially young children, should not be exposed to hard work. The issue of child labour is of ongoing concern in many countries. The term "labour" here is opposed to "work", since it is considered acceptable – not the same as preferable - that some older children stop going to school to start working. In Cambodia child work is now largely restricted to ages 14 and up. More boys than girls are working; child work is more common in rural than in urban areas. All together some 280 thousand children aged 5 to 17 are employed, from a universe of 3.96 million in this age group. Of these 157 thousand are boys and 123 thousand are girls. Children not in ordinary households are more likely to work, about one-third of them does. This group of children is small, at only 1.5 per cent of the total. About 50 per cent of all employed children, males and females, are active in agriculture.

In the more restricted age group 7 to 14 years 2.3 per cent of all children are employed. This compares to an average of 7.4 per cent for Asia and the Pacific (2016 data). International data are scarce, because of a reluctance to report on this issue. Some child work remains all over Cambodia, but mostly in the corridor from the Northwest to the Southeast.

Under the term ***Youth*** for purposes of labour statistics often the age group 15 to 24 is being considered. So there is a slight overlap with children, who for this purpose are considered from ages 5 to 17. Young people are supposed to be building their future, either by continuing their education or by starting a career. There exists, however, a disquieting segment of youth who are involved in neither. For this group the acronym NEET, *Not in Education, Employment or Training*, has come into use.

In this age group the *de-facto* population of Cambodia numbers 2.66 million. The majority of them, 1.53 million, are employed. Another 917 thousand are still in school. The remainder, 219 thousand, have the NEET status. Among those there are 93 thousand males and 126 thousand females. This dissimilarity is not surprising, since some women take time off to bear and raise children. In fact, the small difference bears witness to the point that young women are increasingly occupying their deserved place in the labour force.

Being in NEET status is correlated with other person attributes. It is higher in urban areas where agriculture cannot absorb excess labour. It is also high for persons with little or no

schooling.

Using mostly the quality of housing attributes, an attempt has been made to estimate the wealth of households and thereby of their members. Then, looking at unemployment rates by wealth, the finding is that unemployment for young people at the highest wealth level is comparatively high, although decreasing by year of age. This is probably a form of frictional unemployment, caused by higher qualified individuals requiring time to find a suitable job. Providing proper employment opportunities for such individuals is one of the challenges for Cambodia.

The study of ***Older workers*** in the labour force concerns those aged 60 and above. This group has been segmented in those 60 to 69 (younger-old), 70 to 79 (mid-old) and 80 or more (older-old). There are some 1.38 million people aged 60 and over, much fewer than those that were counted as youth. This is testimony to the fact that Cambodia is still in the transformation process from a rapidly growing and mostly young population to a more stable situation in which the fraction of the elderly will become much larger.

The labour-force participation rate among older persons is a surprisingly high 60.6 per cent. Males are more economically active, at 72.5 per cent, than females at 52.8 per cent. A large majority of older workers is active in the primary sector. This varies from 77 per cent (younger-old) to 82 per cent (mid-old) and 79 per cent (older-old). In the active-age population 15 to 64 this indicator stands at 53 per cent. Clearly agricultural work constitutes a sanctuary for older people wanting to continue working, out of necessity, in order to remain productive, or both.

Older people at the highest wealth level withdraw from the labour force earlier than their peers. Phnom Penh Province has the lowest labour-force participation rate for older persons, combined with a substantial gender difference. In the capital older females still have few options in the labour market.

Among the country's labour force aged 15 to 64 those reported ***Disabled*** (any kind of disability) amount to 272 thousand persons. The disabilities vary in nature and severity. This is 3.4 per cent of the labour force, about the same for males and females. The labour-force participation rate among the disabled is 77.2 per cent, as compared to 81.5 per cent for all persons aged 15 to 64. But the unemployment rate among the disabled is much higher at 4.0 per cent. So no more than 73.2 per cent of the disabled are actually working, which is still considerable.

This high rate of employment among the disabled is positive, but it should be noted that it is dependent on the severity and nature of the handicap. Persons suffering from a mild functional problem participate in the labour force nearly as much as the others. That is not to say that they are always able to find a job in accordance with their abilities. Those with a major or total disability are much less part of the labour force.

A logistic regression analysis shows that those with a full disability in communicating have in fact the smallest chance to be in the labour force. Nevertheless their participation rate still reaches over 35 per cent.

The differences between the outcomes for major and total disability are small and of little statistical significance. Therefore in the report these two classes – major and total - sometimes have been combined into one, described as "much" disability. The highest

concentrations of the disabled are found in the more developed parts of the country, where they may have better economic chances.

Cambodia is a country of many ***migrants***. Over 3.10 million persons lived before in another than their current commune of residence, and 2.27 million of those belong now to the employed population. Some 497 thousand of these workers moved in the last three years. There is also a considerable number of out-migrants from Cambodia, estimated by the Ministry of Labour and Vocational Training at around 1.25 million. The Census could not cover out-migration.

The majority of internal migrants have left their earlier residence for another province of Cambodia rather than staying closer to home in the same district or province. The principal destinations for the employed migrants are the Provinces of Phnom Penh, Kandal, Preah Sihanouk and Siem Reap, although Pailin has the largest in-migrated working population in terms of percentage. Migration appears to work out well for the employed migrants: they belong disproportionally to the highest wealth level in terms of household amenities and are underrepresented in vulnerable occupations.

Only 27 per cent of working migrants who changed provinces work in agriculture, against 53 per cent of the general employed population. Females migrate about as often as males and asked for the reason of migration they mention work-related motives often, although less so than men. For example, of migrants aged 15 or over, 52 per cent is male and 48 per cent female. Of those males 33 per cent have moved for work-related reasons, while for the females this percentage amounted to 30 per cent.

Foreign in-migration for work is only quite noticeable in Preah Sihanouk Province. Some 20 per cent of employed persons there came from abroad.

Sustainable Development Goals

The table here below summarizes the conclusions as regards labour-related SDG's. All targets come under Goal 8: *Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all*.

Indicator	Conclusion
8.3.1 Informal employment	Vulnerable employment is on a steady decline but remains above 60 per cent for males and females
8.5.2 Unemployment rate	Reported unemployment at just over 1 per cent continues to be extremely low. For disabled people it is at 5 per cent higher, but not extreme
8.6.1 Proportion of youth not in employment, education or training (NEET)	The NEET rate has come down since 1998 but stabilized at about 8 per cent since 2008. Females score significantly higher than males
8.7.1 Child labour	The employment rates for children dropped from around 9 per cent in 2008 to 7 per cent in 2019. When home making is included, the trend is the same but the percentages are marginally higher. Young male children are employed slightly more than females

The main concern in terms of labour-related SDG's remains the large fraction of the labour

force that is in vulnerable employment, therefore has little job safety or social security. This is confirmed by the large numbers of people extending their working lives until sometimes very advanced age.

Labour force projections

Formulating successful plans requires an understanding of the development of the labour force over future years in terms of numbers and structure. The report therefore contains projections for the years 2025, 2030 and 2035 in terms of the labour force aged 15 to 79. These projections are facilitated by the fact that the overwhelming majority of the workers concerned were already born at Census night. Migratory currents, which are highly unpredictable, were left out of the analysis.

Results show the persistent ageing of the labour force as well as continuing numerical growth. By 2035 the labour force is expected to have increased by 27 per cent to 11.3 million. This exceeds the overall population growth, so the demographic dividend, whereby the number of workers is relatively large as compared to dependents, remains present.

The shift towards the secondary and tertiary economic sectors is projected to continue. Cambodia will cease to be predominantly agricultural.

Conclusions and recommendations

The report concludes that the Census has been successful in summarizing Cambodia's employment situation and the economic activity of its population. The information collected is valuable and can serve in formulating pertinent policies. Follow-up in terms of more detailed studies and specialized surveys is needed.

There is still space to further mobilize underused female talent. Since the economic development is uneven, measures are also required to involve areas and provinces that have been left behind. The labour force is growing as well as ageing and becoming more educated. It is up to the Government and Cambodian society in general to use the current window of opportunity to increase national wealth and wellbeing in a sustainable manner. Special attention is required for the cohorts of young and better educated workers who have difficulty finding jobs in accordance with their acquired levels of skill.

Labour-related migratory currents, both out-migration and, increasingly, in-migration require monitoring and if necessary regulatory action.

The 2019 Census occasionally used outdated concepts and methods in the area of economic activity and employment. While this did not affect the overall conclusions, it needs to be addressed in future data collection efforts.

Chapter 1 Introduction

Gathering information

1.1 Approach followed in this report

The Kingdom of Cambodia, through its National Institute for Statistics, conducted its 4th General Population Census in March 2019. Following independence in 1953, national censuses of population and housing had earlier taken place in the years 1962, 1998 and 2008. There were also Intercensal Surveys in 2004 and 2013. The 36-year gap between 1962 and 1998 was caused by well-known episodes of warfare and instability.

The statistical system in Cambodia has developed considerably since the latter years of the 20th Century. Not only have there been population censuses at regular intervals, but also an increasingly broad program of sample surveys and administrative data collection has been undertaken. This has led to a growing information base and progressive better insight in the various sectors of official statistics. In the area of economic activity and employment the censuses provided full national coverage, but only with a limited number of relatively simple questions. Surveys, in particular several Labour Force Surveys [NIS10] and the annual Cambodia Socio-economic Surveys [NIS18b], have delivered greater depth and detail, but from smaller audiences.

The present report aims at drawing a maximum of useful information concerning economic activities and the labour force from the 2019 Census. This information will be disaggregated for smaller geographical units as well as for specific categories of respondents. The results will be considered against the backdrop of earlier statistical collections. The findings will also be compared with what is known about the situation in neighboring countries in terms of their patterns of economic activity and the evolution of labour forces there.

The main objective of this report is thus to provide a comprehensive analysis of the current situation of workers and those who aspire to work in Cambodia. Attention is paid to regional and socioeconomic differences, using internationally approved concepts and definitions and common statistical methods. In this introductory Chapter, the guiding principles and the methodology of the analysis are explained and a quality assessment of the concerned data collected by the Census is undertaken.

In Chapter 2, the general characteristics of the labour force in Cambodia will be described in greater detail. Attention is paid to labour-force participation, unemployment, employment-to-population ratios, status in employment for the employed population, the occupation and industry in which employed people are at work and finally the sector of employment. The gender dimension will be considered in relation to every subject and indicator discussed. The *UN Minimum Set of Gender Indicators* [UN21] in this respect provides guidance.

Chapter 3 focuses on the position of special groups, in terms of their economic activity and employment situation. The following themes are investigated: child labour, youth, older

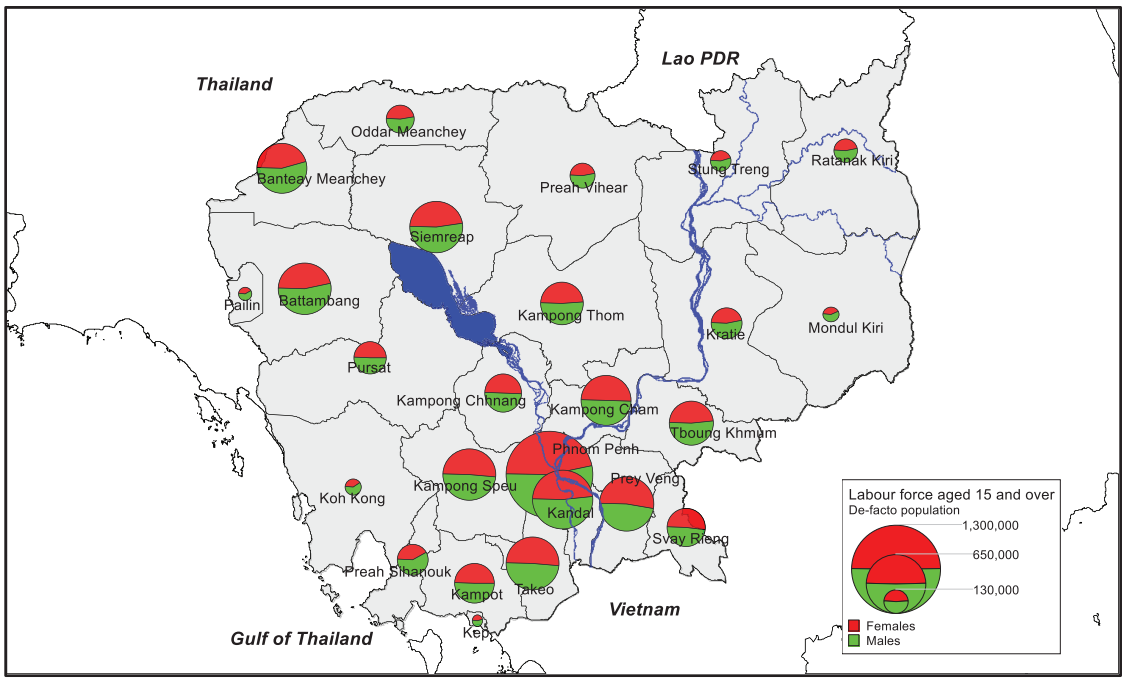
persons, individuals living with disabilities, and migrants. Since gender is one of the most important – perhaps the foremost – disaggregating variable throughout the report, there was no need to discuss women and girls as a special group.

In Chapter 4 the results obtained are discussed in relation to the Cambodian Sustainable Development Goals. Also labour force projections are made at the national level for the next 15 years. Chapter 5, finally, presents a number of conclusions and recommendations based on the findings.

Fig. 1.1 here below presents the Cambodian labour force in a broad sense, ages 15 and over, males and females. Male workers slightly outnumber females in most provinces. The national total for the labour force defined in this manner is 8,683,853 of whom 4,412,910 are males and 4,270,943 females. The labour force constitutes slightly over fifty five per cent of the national population, and is concentrated in an axis going from the Southeastern to the Northwestern provinces of the country.

Figure 1.1

Labour force of Cambodia by province, males and females



Global efforts to reduce poverty and to create jobs are guided by the ILO's principles of *Decent Work* and the 2030 *Sustainable Development Goals*. The Decent Work Agenda, first formulated in 1999, is based on four strategic pillars:

- full and productive employment;
- rights at work;
- social protection; and,
- promotion of social dialogue.

Decent work programs create opportunities for both women and men to find rewarding and productive work, in secure conditions while guaranteeing freedom, security, equity and human dignity [ILO99, EU11]. Important aspects of the decent work agenda include:

- the freedom of association and the effective recognition of the right of workers to

collectively bargain labour conditions;
- the elimination of all forms of forced or compulsory labour;
- the effective eradication of child labour; and,
- elimination of discrimination with respect to employment and occupation.

The 2030 Sustainable Development Goals (SDGs), which were adopted unanimously by the United Nations General Assembly in September 2015 [UN15a], extend the objectives of their predecessors, the Millennium Development Goals. The SDGs (in Cambodia this acronym is often preceded by the C of Cambodian, making it CSDGs) aim to address the root causes of poverty and achieve sustainable development by applying a global and integrated strategy. The three dimensions of sustainable development: economic, social and environmental, are considered to be indivisible and thus need to be given equal priority. The 2030 Agenda for Sustainable Development formulates a list of 17 goals with a total of 169 targets, covering economic and social development as well as environmental protection. The progress towards these targets is to be monitored by 232 separately defined indicators. It is in observing the movements of these indicators, hopefully in the direction of the goals, that reliable official statistics are essential.

Sustainable Development Goal 8 *(Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all*) specifically deals with aspects of employment and the promotion of fair working conditions. The overall goal of SDG 8 is to increase economic development in a sustainable manner, with an envisaged growth of 7 per cent per annum in the least developed countries. Several targets of SDG 8 listed here below are closely connected to labour force dynamics and are interwoven with the ILO's Agenda for Decent Work:

- Target 8.5. *By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value;*
- Target 8.6. *By 2020, substantially reduce the proportion of youth not in employment, education or training;*
- Target 8.7. *Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms;*
- Target 8.8. *Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment;*
- Target 8.b. *By 2020, develop and operationalize a global strategy for youth employment and implement the Global Jobs Pact of the International Labour Organization* [ILO09].

Targets identified entirely by numbers (8.5, 8.6, 8.7, 8.8) specify *Outcomes* to be achieved. If an alphabetical is involved in the naming, as in Target 8.b, this refers to a *Means of implementation*, essential in the process, but with no direct outcome for the labour force.

Some other elements of the decent work agenda are included in other SDGs apart from Goal 8. Discussing those goes beyond the purpose of the present report.

The suggestion by the Inter-Agency and Expert Group on Sustainable Development Goal Indicators (IAEG-SDGs) [UN18] to disaggregate the indicators wherever relevant by

income, sex, age, race, ethnicity, migratory status, disability and geographic location, or any other relevant attribute, has been followed in this report. However, it should be made clear from the onset that quite a few of these indicators are not readily available. The Cambodia 2019 Census only had a limited number of questions on employment. Many of the suggested additional indicators are new and do not yet form part of most countries' statistical systems.

Cambodia's historical developments have affected every corner of society. As concerns labour and employment, currently there are four principal sources of legislation:

- Labour Law of Cambodia (promulgated in 1997, last amended in 2018);
- Regulations of the Royal Government;
- International labour standards that were ratified by Cambodia;
- Cambodian Constitution

In defining its position, the Government balances between the need to promote workers' economic wellbeing and the desire to remain competitive in an international environment where other countries may try to gain a cost advantage. This is especially significant in the highly important and export-oriented garment industry.

International organizations, including the ILO, keep a close eye on labour conditions in Cambodia and elsewhere. The WageIndicator Foundation recently completed a full analysis of the Cambodian situation in the light of ILO's Agenda for Decent Work [Ah20].

Both the international agendas and the national context have been used as guiding standards for this report. To make comparisons possible with other countries in the region, international definitions and indicators have been applied where available.

The general aim of the document is to provide reliable and concise information to policymakers, planners and the general public on current and future characteristics of the labour force. The intended audience includes information users from government, academia, non-governmental organizations and the private sector. The intention is to provide only verifiable facts and to present reasonable assumptions.

The analytical process for this study was impeded by the fact that, as a consequence of the covid-19 pandemic, the lead author had to undertake most of the work remotely. Fortunately electronic means of communication worked efficiently.

1.2 Methodology

The 2019 General Population Census of Cambodia adopted mostly a *de-facto* methodology where individuals were enumerated at the place they were present at 00:00 AM in the early morning of March 3, 2019 (Census Night). Apart from that, more limited information was also gathered about residents who were absent from their place of residence. By adding absent residents to the data to be analyzed and deducting visitors who had spent the night at the place of enumeration, some *de-jure* numbers can also be generated. As no information was collected about the economic activities and labour status of the absent residents, the present report covers the *de-facto* population only. The field operation was completed in almost all areas within four weeks of the start of the enumeration, with the total enumerated *de-facto* population being reported as 15,552,211. The enumeration proper was followed immediately by a post-enumeration survey (PES) [NIS19b] that allowed a judgment about the level of coverage and the accuracy of the information gathered concerning a number of core variables.

Efforts were undertaken to ensure that the results of the Census conformed to international standards and guidelines. These efforts included approaching the United Nations Population Fund (UNFPA) for technical guidance and support. Several individual countries provided bilateral support: Sweden via the Swedish International Development Agency SIDA and its national statistical organization Statistics Sweden, Germany through its development agency Deutsche Gesellschaft für Internationale Zusammenarbeit (Deutsche GIZ) and the People's Republic of China mostly via material support. Several other international agencies: UNICEF, the Asian Development Bank, the European Union and others also provided input. The donors and other development partners conducted periodical meetings with NIS Census management through a group called Data for Development. The NIS also strived for security and conformity by applying mostly proven conventional working methods that had also served before in 2008 when international assistance had been more comprehensive. Data collection was on paper questionnaire, where many countries nowadays apply computer tablets (not always successfully so). Data capture was undertaken using manual keyboarding rather than some form of automatic character recognition.

The various methodologies applied in the Census are described in greater detail in the document *General Population Census of the Kingdom of Cambodia 2019: National Report on Final Census Results*, issued by the NIS in January 2021[1] [NIS20]. This publication can be referred to also for a detailed description of the process of planning and implementing the Census.

In the past in population censuses worldwide one of two concepts of economic activity status of the population used to be adopted: (a) the *current* activity status or (b) the *usual* activity status of the population. The current activity status is based on questions about a person's activities during a short reference period; often only the week before the census. The usual activity status measures a person's activity status over a longer period, generally one year. In the most recent version of the authoritative United Nations Manual *Principles and Recommendations for Population and Housing Censuses* [UNDESA15] this somewhat confusing position has been abandoned. The recommendation now is for the

[1] The launch was delayed by the corona pandemic.

shorter reference period only.

The new guidelines perhaps came too late for the organizers of Census 2019 to take into account. In the 2019 Census questionnaire, as before, the *usual* activity status was sought. Changing the concept would anyway have resulted in a degree of inconsistency, since prior censuses and most censuses in neighboring countries apply the usual activity concept. Current activity can generate misleading results in countries with much seasonal labour, such as mostly agricultural societies. If the census is conducted in the planting season when numerous temporary workers assist the farmers, the size of the agricultural labour force would be overestimated. Contrarily, in the agriculturally quiet season current activity would underestimate the agricultural labour force. At the same time it should be noted that respondents will probably be able to report accurately what they did last week, while possibly having trouble summarizing and totalizing somehow the pattern of their activities over an entire year.

The usual activity status may be further subdivided into usual principal activity status (UPS) and usual secondary activity status (USS). The UPS is the activity status in which a person interviewed in the Census was engaged for the larger part of the 12-month reference period before the enumeration. In the 2019 Census only the UPS was considered, while in 2008 there was also a USS section in the questionnaire. Perhaps USS was dropped in the never ending struggle of finding the optimum between so many worthwhile topics and so limited space on a census questionnaire.

It should be made clear then that whenever information on activity status, occupation or industry is given in the present report, it always refers to the usual principal activity status of the population during the 12 months before the Census and not to the activity prevailing only at the time of the enquiry.

The Census contained five questions on the labour force (Fig. 1.2). All questions were asked from persons 5 years or older who were part of the *de-facto* population (present residents and visitors). The first question, number 18, inquires after the main economic activity over the last year. This already establishes the labour force, since that segment of the population encompasses all those who either worked or were unemployed but actively looking for employment during the period. What these terms mean exactly has been defined by the ILO and the United Nations in their guidelines. These were explained in simple language in the instruction manual for field staff [NIS18a]. For all those who were found to be outside the labour force, the remaining questions from Fig. 1.2, numbers 19 to 22, were then skipped.

Question 19, only to be asked, as mentioned already, from those who were either employed or actively looking for work, inquires after the person's occupation. This inquires after the name of the job the respondent did or aspires to take on. The worded response was to be converted into a 3-digit code, therefore the description needed to be given in sufficient detail. The enumerator was asked to provide a concise verbal description of the job. This was then subsequently converted into the applicable numeric code by specialized staff in the office. So not "staff member", but something like secretary, janitor, junior accountant or maintenance man. Also not "teacher" but kindergarten teacher, yoga instructor, high school lecturer or vocational trainer. It was especially important to add some nuance to the general term of "farmer", otherwise there would be very little diversity in the range of occupations in some rural areas. The codes applied are out of ISCO-08, the International

Standard Classification of Occupations, for which the ILO is responsible.

Question 20 is about the status in employment. Somebody who is employed is not necessarily a paid employee, but can also be employer or unpaid family worker. Distinguishing between *home maker*, which classifies a person as not in the labour force, and *unpaid family worker*, can be especially tricky, because many persons undertake both tasks. The enumerator was asked to select the activity that occupied the most time during the last 12 months. More recent insights, formulated in [UNDESA15] give precedence to economic activities. So a person spending two thirds of their time as home maker and the remainder in unpaid family work would then still be counted in the labour force. This would highlight some of the important productivity of partners, mostly women, in subsistence farming. In consequence, the size of the labour force reported in the present document (and the economic participation rate) would have been higher had the most recent United Nations recommendations been followed.

Next, Question 21 covers the nature of the economic activity with which the worker is associated. Again the enumerator would describe this in words, which were later converted into codes by office staff. The coding system used here was ISIC Revision 4, the International Standard Industrial Classification of all Economic Activities, a system maintained by the United Nations Statistics Division. The Enumerators Manual [NIS18a] takes time to explain that the nature of economic activity, otherwise described as *Industry*, differs fundamentally from occupation. For example, if a person works as a cook and prepares food in the kitchen of a garment factory, the applicable ISIC Rev. 4 code would be 141: *Manufacture of wearing apparel except fur*.

The last one in this description of the five questions that are core to the current report is Question 22, *Sector of employment*. This question is another one of those recommended by the United Nations in [UNDESA15], although it is not considered a core question. It refers to *the legal organization and principal functions, behavior and objectives of the enterprise with which a job is associated*. A look at the options to choose from in Fig 1.2 clarifies the purpose. Who works for the Government, who is in a foreign-owned private enterprise and who in his or her own household economic activities? This distinction adds considerable perspective to the information about the labour force that was collected in earlier questions. It is also of great importance for categorization in the widely accepted system of national accounts SNA.

In looking at the categories defined for every variable, one notes that there is no *Not stated*. Nevertheless there will be situations where answers are not readily available, for example when visitors are no longer around at the time the enumerator visits and the respondent is not aware of the details of his former guests' labour status. In that case codes 9 are usually given (not possible for the variables concerning age level, of course).

Figure 1.2

Pertinent questions in the Census household questionnaire [1]

For persons 5 years and more											
Main Activity	Occupation				Employment Status	Agriculture, Industry, Trade or Service					Sector of Employment
18	19				20	21					22
Main activity of the person during last year. Enter code from list below	Types of occupation/employment Write the occupation in words				Employment Status/ Class Enter code from list below	Nature of Economic Activity (Agriculture, Industry, Trade or Service) Write the nature of economic activity in words					Sector in which employed (Enter code from list below)
	Name of Occupation	Code				Nature of Economic Activity	Code				

Codes for column 18 Main activity during last year	Codes for column 20: Employment Status/Class	Codes for column 22 Sector of Employment
1. Employed (fill in cols. 19 to 22)		1. Government
2. Unemployed (Employed any time before) (Fill in col.19 to 22 for last employment).		2. State owned enterprise
3. Unemployed (Never employed any time before)	1. Employer	3. Cambodian private enterprise
4. Home maker	2. Paid employee	4. Foreign private enterprise
5. Student	3. Own-account worker	5. Non-profit institution
6. Dependent	4. Unpaid family worker	6. Household sector
7. Rent-receiver, retired or other income recipient	5. Other (specify)	7. Embassies, international institutions, and foreign aid, and development agencies
8. Other		8. Other (specify…)
(For codes 3 to 8 put dash (-) in cols. 19 to 22)		

Contrary to what happened in some censuses in other countries, all person questions were asked from everyone, independent of the type of household. Elsewhere only a basic set of questions needed to be completed for members of collective households. Housing

[1] This is a translation, the official questionnaire is in the Khmer language

questions, though, were only asked from conventional households.

The above explanation shows that the task of the enumerator in establishing the activity status of a person was not straightforward. It can be expected that, because of the complexity of some situations, a number of errors were made by the enumerators. Also, as respondents were obviously unaware of the definitions being used, some may have placed themselves in the wrong category. For instance, volunteers, workers in the informal sector or apprentices could easily have been classified wrongly. The use of technical terms such as *Own account* which are tricky for non-experts to correctly understand, also may have contributed to misreporting in the status of employment.

The Census did not contain a question on personal or household income. However, a number of questions were present that make it possible to construct a wealth index and divide the population into wealth strata, that is, groups of people each representing a certain fraction of the population in terms of wealth. The first stratum represents the lowest fraction of the population in terms of wealth status, the second represents the next higher level and so on. It should be made clear that the wealth index is fundamentally different from information on income or consumption, which are more direct indicators of poverty. The wealth index is a measure of the relative poverty/wealth of a household compared to other households in the country. The method of constructing this wealth index is explained in Section 2.5 of the present report. The wealth index derived from indirect information is much used by international organizations such as UNDP, WHO and WFP. The latter has published a useful practical guide for calculating it [WFP17].

For the present analysis the wealth index and fractions concerned were calculated at the household level. The household wealth index of the household was then applied to each person belonging to that household. In the report, the wealth fractions are used to specify the position of certain groups in terms of their prosperity and vulnerability. For instance, when looking at child labour, it is important to be aware of the economic background of the household children live in.

Many of the various tables in the present report, and the indicators derived thereof, were already available as part of the set of Census Priority Tables that was produced in combination with the National Report on Final Census Results [NIS20]. In other cases new tables were generated using mostly CSPro software [US20] and occasionally IBM-SPSS. For information concerning the 1998 and 2008 Censuses, first the pertinent documentation was consulted. In some cases the cross-tabulations required for the present report could not be traced in that manner. In such cases tables were produced retro-actively using the Redatam [CE20] databases accessible via the NIS website. The thematic maps were all prepared with MapInfo mapping software [Pr20].

1.3 Quality assessment

As time passes, some of the value of census results is lost because the actual situation in the country has evolved and action directly based on the census outcomes may no longer be entirely relevant. Therefore census authorities attempt to shorten the time between census date and the release of final results. Provisional results may in the meantime to some extent fill the gap. Such provisional results for the 2019 Census were published in June 2019 [NIS19a], about three months after the Census.

There have been substantial delays in producing final results, due to a combination of reasons. First, the networking architecture at the NIS main building turned out to be inadequate to support efficient participation for over 100 data-entry stations. New cabling, networking equipment and data servers had to be procured and installed. Next, it took some time to recruit and train the staff for the various shifts of coders as well data-entry operators. Finally, the covid-19 pandemic reduced the efficiency of office operations and required specialists to work remotely in compiling the final clean data file. The official launch of conclusive results had to be postponed several times[1]. In the end nearly two years passed between Census date and the publication of final outcomes, while less than a year had been anticipated.

For quality assessment there exist three fundamentally different tools:

- Results of the post-enumeration survey (PES);
- Reports from the editing and imputation program;
- Comparison with results from prior collections in Cambodia and data from comparable countries.

The discussion of the first two tools is provided in some detail in Annex 2: Data quality assessment. It is reported there that the PES results show a completion rate for the census of 93.7 per cent in Phnom Penh and 98.1 per cent outside the capital. For the entire country the rate comes to 97.5 per cent. Even while the missed rate in Phnom Penh is a little higher than hoped for, these numbers are quite satisfactory from an international perspective. They do not stand in the way of successful analysis.

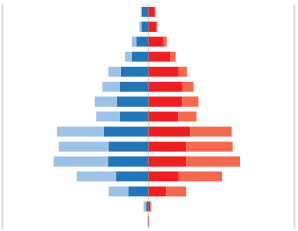
Once it comes to the level of consistency between the census and the PES for individual attributes, there is some reason for concern. For example, there are significant differences between the two enquiries in the attribution of *Employment status*. Enumerators of the two enquiries apparently differed in their judgments when assigning persons to the categories of *Paid Employee*, *Own-account Worker* or *Unpaid Family Worker*. This needs to be taken into consideration when reviewing the results – and the conclusions – presented in the present report.

Output listings from the editing and imputation software show that automatic interventions in the raw data file have remained well within acceptable levels. For the variables of immediate interest in the present study they have not surpassed the level of 0.5 per cent of the applicable universe. For the details refer to Annex 2.

An evaluation using comparable statistical information from other sources will be relegated to the analysis for each individual indicator in Chapter 2.

[1] The launch of final Census results eventually took place on Tuesday January 26, 2021.

Chapter 2 Broad features of economic activity and the labour force



Agricultural labour force

2.1 Main economic activity

2.1.1 Introduction

In this Chapter the terms *labour force* and *economically-active population* will be used as synonyms. Similarly, those who are not in the labour force will be described as the economically-inactive population. In tune with the ILO we have a preference for terminology referring to the labour force, which seems to be the more neutral and non-judgmental expression.

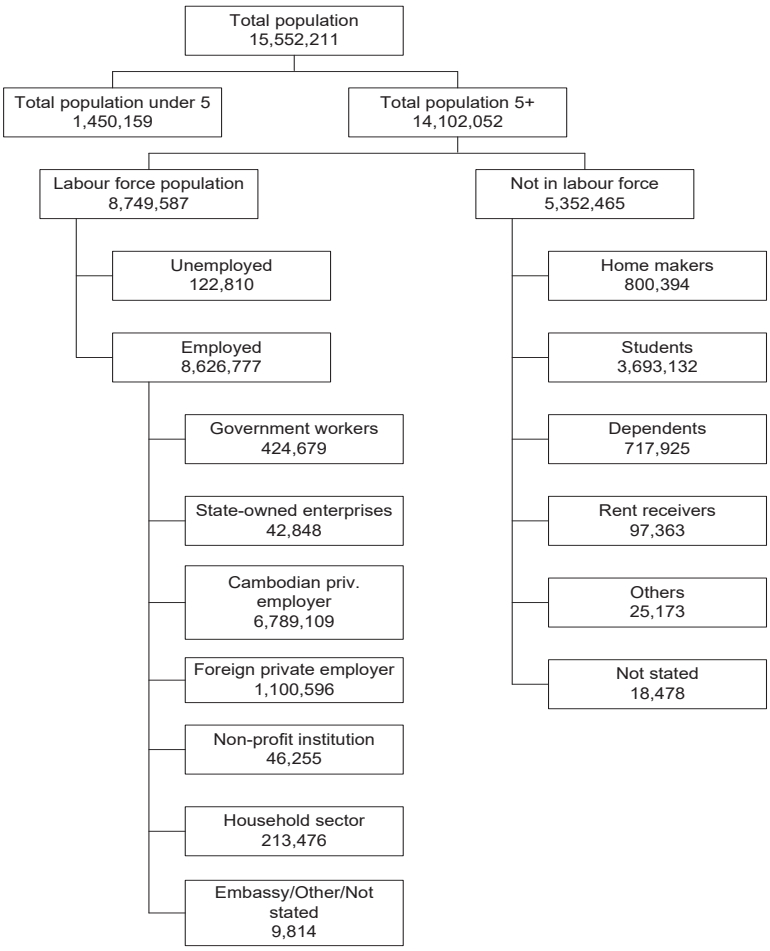
Figure 2.1 presents a broad numerical overview of the structure of the labour force in Cambodia. The 2019 Census estimated a *de-facto* population of 15,552,211 persons (*de-jure* was reported as 15,482,480). The Census collected information on the economic-activity status for all persons aged 5 and over. This universe can be subdivided into the labour force and those who are not part of the labour force. Those not in the labour force were then further segmented into smaller groups based on the reasons for not participating. Those in the labour force, also described as the economically-active population, were classified as either employed or unemployed. The status of all persons concerned is shown in Figure 2.1.

The Census found that 8,749,587 persons aged 5 and over were in the labour force, while 5,352,465 were outside the labour force. Internationally, statistics on the labour force are normally restricted to age 15 years and above: therefore, for the sake of comparability, it is noted that at the time of the Census 8,684,853 persons aged 15 years and over were in the labour force, compared to 2,297,218 who were outside the labour force. Those aged 15 and over reporting that they had been looking for work during the 12 months prior to the Census, amounted to 117,921, while 8,566,932 were indeed employed.

Going back to ages 5 and more, one notes that largest group among all those employed worked in Cambodian-owned enterprises (6,789,109). Many of them are in fact self-employed as small farmers. Foreign-owned enterprises were the second largest employers with a total of 1,100,986 employees, and government jobs amounted to 424,679, about 5 per cent of the labour force. From an international perspective this is a fairly small percentage. Some other sectors of employment have smaller numbers of staff.

Figure 2.1

Schematic overview of economic-activity status, 2019 Census



Looking at employment status, the Census found 3,679,551 own-account workers and 2,717,878 employees working in paid employment. Some 2,160,758 persons were recorded as unpaid ("contributing") family workers. A total of 52,715 employers were enumerated.

The largest groups of persons outside the labour force reported in the Census were home makers at 800,394 and students totaling 3,693,132. The number of students is so high due to the low cut-off age for the labour force. Home makers are persons of either sex involved in household chores in their own home. This category does not include those who are most of the time otherwise employed, apart from also taking care of the home. Together, home makers and students constituted well over 80% of all economically-inactive persons in Cambodia. In addition 717,925 persons were marked as dependents (mostly young children and those disabled by age or illness), a smallish 97,363 persons were income recipients (pensions or otherwise) and 25,173 were reported not to be working for unspecified other reasons. For a small group, of 18,478 persons, this information could not be collected.

Table 2.1 shows the male and female population aged 5 years and over by activity status (employed, unemployed and not in the labour force) by five-year age categories. The data is illustrated in the population pyramid in Fig. 2.2. This more clearly shows that the labour

force in Cambodia, although stabilizing at younger ages, still has a broad base and a narrow top. This means that in the coming years the inflow of new workers into the labour force will continue to exceed the outflow. A considerable number of new jobs will have to be created if unemployment and under-employment are to be kept under control.

Table 2.1 and Figure 2.2 also indicate that unemployment is currently very low. But more likely than not many persons who are in fact available for work or who make do with odd jobs did not report themselves as unemployed.

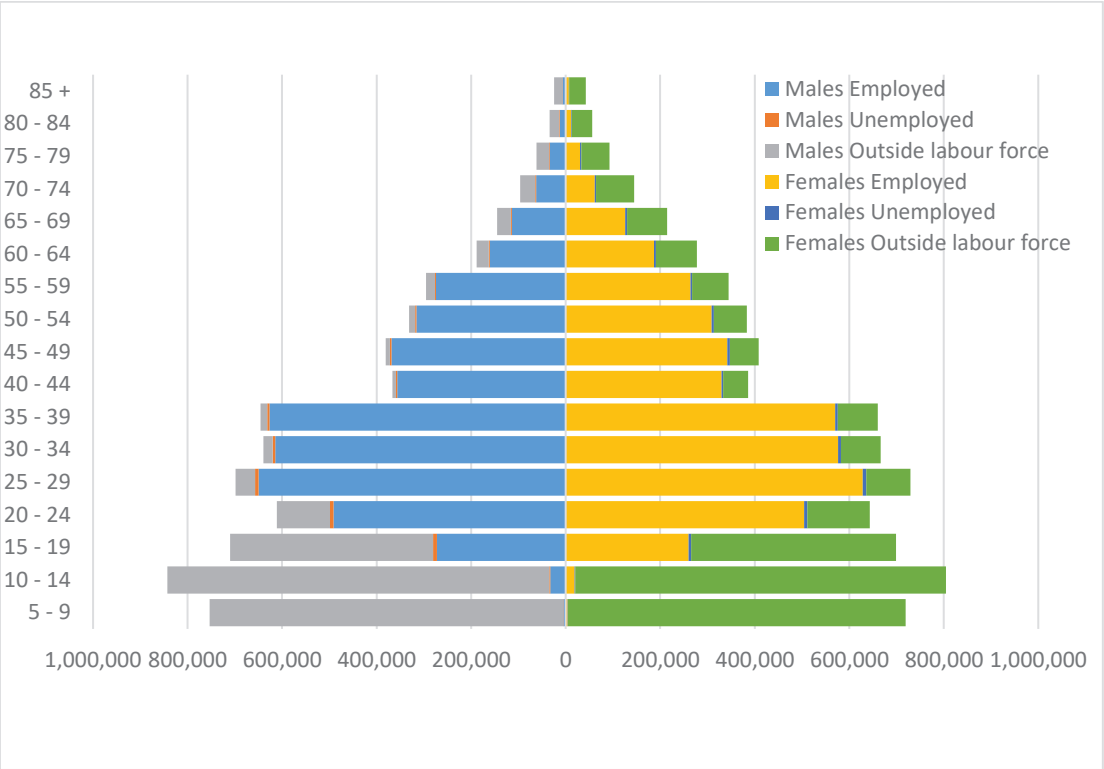
Table 2.1

De-facto population: Age group by Sex and Economic activity status

	Both sexes				Males			Females		
Age group	Total	Employed	Unem-ployed	Not in the labour force	Employed	Unem-ployed	Not in the labour force	Employed	Unem-ployed	Not in the labour force
Total 5 +	14,102,052	8,626,777	122,810	5,352,465	4,396,850	56,681	2,372,343	4,229,927	66,129	2,980,122
Total 15 +	10,981,071	8,566,932	116,921	2,297,218	4,359,462	53,448	816,532	4,207,470	63,473	1,480,686
Total 15 - 64	10,068,625	8,101,782	98,588	1,868,255	4,130,101	46,696	691,649	3,971,681	51,892	1,176,606
5 - 9	1,473,104	8,343	2,119	1,462,642	4,574	1,077	747,890	3,769	1,042	714,752
10 - 14	1,647,877	51,502	3,770	1,592,605	32,814	2,156	807,921	18,688	1,614	784,684
15 - 19	1,409,350	532,438	13,469	863,443	272,638	7,614	429,985	259,800	5,855	433,458
20 - 24	1,255,180	995,392	14,668	245,120	491,005	7,736	112,636	504,387	6,932	132,484
25 - 29	1,428,248	1,278,197	15,331	134,720	649,714	7,589	41,182	628,483	7,742	93,538
30 - 34	1,306,011	1,190,952	11,616	103,443	614,378	5,626	19,658	576,574	5,990	83,785
35 - 39	1,306,222	1,197,061	10,144	99,017	626,741	4,906	14,275	570,320	5,238	84,742
40 - 44	753,013	686,509	5,710	60,794	356,577	2,399	7,736	329,932	3,311	53,058
45 - 49	789,334	710,643	8,426	70,265	368,411	3,537	8,703	342,232	4,889	61,562
50 - 54	714,816	625,185	6,697	82,934	316,023	2,572	12,707	309,162	4,125	70,227
55 - 59	640,209	537,995	6,549	95,665	274,188	2,611	18,814	263,807	3,938	76,851
60 - 64	466,242	347,410	5,978	112,854	160,426	2,106	25,953	186,984	3,872	86,901
65 - 69	359,494	239,940	5,747	113,807	113,922	1,971	28,881	126,018	3,776	84,926
70 - 74	241,380	123,652	5,009	112,719	62,281	1,849	32,125	61,371	3,160	80,594
75 - 79	154,544	64,486	3,658	86,400	33,784	1,403	26,298	30,702	2,255	60,102
80 - 84	90,127	23,742	2,321	64,064	12,446	916	20,733	11,296	1,405	43,331
85 +	66,901	13,330	1,598	51,973	6,928	613	16,846	6,402	985	35,127

Figure 2.2

Population pyramid of sex and activity status



The data show a fair balance between male and female participation in the labour force: 4,453,531 males versus 4,296,056 females. But this picture is distorted by the relatively larger total number of females. The number of women not economically active at 2,980,122 exceeds by about 25% men in a similar situation, who number 2,372,343.

While the census questionnaire designers decided to ask economic-activity questions from children as young as age 5, those between 5 and 14 who are reportedly working constitute less than 2 per cent of that age group. It should be noted again that the question concerned *main* activity. Those classified as working may also have spent time in school, while those reported as students may have been doing economic work on the side.

There is no strong effect of a retirement age, since especially men over ages 60 and 65 continue to be in economic employment. The fraction of older people still in the labour force drops off faster among women.

Unemployment appears to be underreported, but somewhat less so among young men.

2.1.2 Labour-force participation and related Census variables

The labour-force participation rate is the most important indicator of a population's involvement in economic activities. It is defined as the percentage of the working-age population who are in the labour force, where the labour force is the sum of the number of employed and unemployed persons. The participation rate is typically calculated for the population aged 15 and over. However, it can easily be calculated for the population aged 15 - 64 years, or even aged 5 and over. From the information collected in the 2019 Census the participation rate for the population aged 15 and over was 79.1 per cent; the rate for

males was considerably higher than for females: 84.4 per cent compared to 74.3 per cent.

The age and sex composition of participants in the Cambodian labour force shows some interesting features (Table 2.2 and Figure 2.3). Age-specific labour-force participation rates are more meaningful indicators to measure trends in economic activity than overall participation rates, as they are independent of the general age and sex structure of the population. Labour-force participation of males in the five-year age-groups from 25 to 59 years as recorded in the Census was well above 90 per cent. Around age 60, the percentage of males in the labour force begins to decline gradually. However, even at older ages a substantial proportion of males remain economically active. In 2019, between the ages of 70 and 74, two in three males were still in the labour force, and even above the age of 85, more than 30 per cent reported that they continued working.

The age pattern of female labour-force participation is a little different. At the national level, Table 2.2 shows that participation rates never surpassed the 90 per cent level, but also remained relatively flat until age 50, after which they started to decline gradually. Over age 70, less than 50 per cent of women were still in the labour force, compared with two thirds of the men. In Chapter 3, this report will look at the situation of older people and their position in the labour market. Their contribution should not be underestimated and in future is likely to become even more important.

Table 2.2

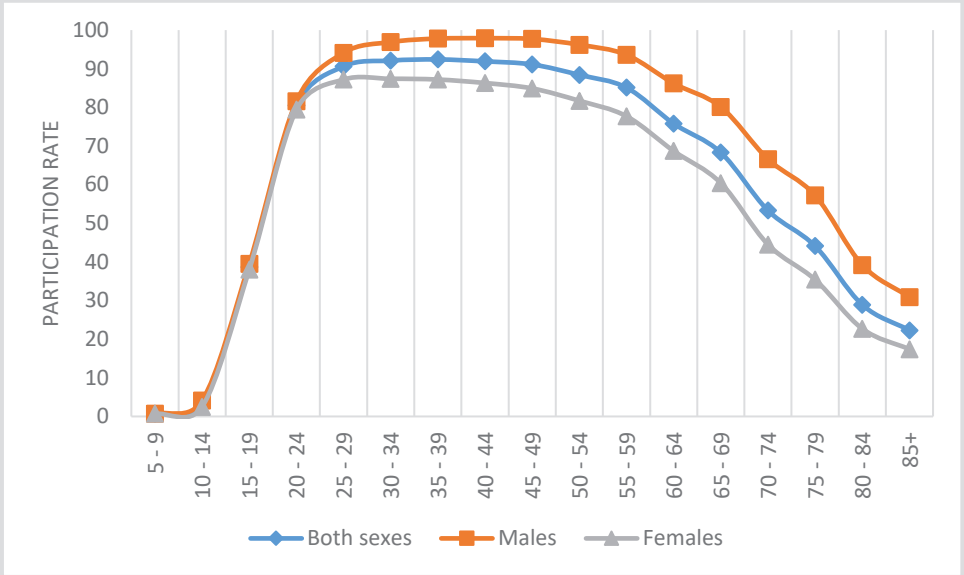
Age-specific labour-force participation rates by sex

Age group	Both sexes	Males	Females
Ages 5 and over	62.0	65.2	59.0
Ages 15 and over	79.1	84.4	74.3
Ages 15 - 64	81.4	85.8	77.4
5 - 9	0.7	0.7	0.7
10 - 14	3.4	4.1	2.5
15 - 19	38.7	39.5	38
20 - 24	80.5	81.6	79.4
25 - 29	90.6	94.1	87.2
30 - 34	92.1	96.9	87.4
35 - 39	92.4	97.8	87.2
40 - 44	91.9	97.9	86.3
45 - 49	91.1	97.7	84.9
50 - 54	88.4	96.2	81.7
55 - 59	85.1	93.6	77.7
60 - 64	75.8	86.2	68.7
65 - 69	68.3	80.1	60.4
70 - 74	53.3	66.6	44.5
75 - 79	44.1	57.2	35.4
80 - 84	28.9	39.2	22.7
85 +	22.3	30.9	17.4

In Cambodia sometimes the age interval 15 – 59 is used. The numbers for the labour force partition rate then become 81.7 per cent for both sexes, 85.8 per cent for males and 77.9 per cent for females.

Figure 2.3

Age-specific labour-force participation rates by sex



Another central feature of the Cambodian labour force is the position of children and adolescents. In the age-group 15-19, slightly less than 40 per cent were reported as being economically active. This number was about equal between the sexes. These numbers reflect longer studies and an improving gender balance. It appears that child labour is decreasing, although still a small percentage (3.4 per cent) of children between 10 and 14 are reported as working. Child work and child labour is another topic to be reviewed in greater detail in Chapter 3.

Table 2.3

Age-specific labour-force participation rates by sex and urban/rural

	Total		Males		Females	
	Urban	Rural	Urban	Rural	Urban	Rural
Ages 5 and over	60.9	62.8	66.0	64.8	56.2	60.9
Ages 15 and over	74.7	82.2	81.8	86.3	68.1	78.6
Ages 15 - 64	77.3	84.5	83.5	87.4	71.4	81.7
5 - 9	0.6	0.8	0.6	0.8	0.6	0.7
10 - 14	2.8	3.7	3.3	4.6	2.2	2.7
15 - 19	36.5	40.2	36.3	41.4	36.6	38.9
20 - 24	74.3	85.6	75.2	86.8	73.5	84.4
25 - 29	87.6	93.1	91.8	96.1	83.7	90.2
30 - 34	89.2	94.5	95.5	98.1	83.1	91.1
35 - 39	89.1	95.1	96.6	98.7	81.6	91.6
40 - 44	87.6	94.8	96.7	98.7	78.5	91.2
45 - 49	85.7	94.5	96.3	98.7	75.5	90.7
50 - 54	80.6	92.9	93.4	97.9	68.9	88.8
55 - 59	74.6	91	88.4	96.6	62.6	86.1
60 - 64	61.8	84.3	76.2	92.5	51.7	78.8
65 - 69	53.5	77.2	67.4	87.8	43.7	70.1
70 - 74	40.2	60.8	53.7	73.9	31.5	52
75 - 79	32.4	50.3	44.6	63.8	24.5	41.3
80 - 84	21.3	33	30.4	43.8	15.8	26.3
85 +	17.5	24.9	26	33.5	12.7	19.9

For the age interval 15 – 59 the numbers are as follows: Total urban 78.0 per cent, total rural 84.5 per cent, males urban 83.8 per cent, males rural 87.2 per cent, females urban 72.4 per cent, females rural 81.9 per cent.

Considering the urban/rural distribution, Fig. 2.4 shows that in rural settings there is a relatively small difference between the participation rates for men and women. This contrasts with urban areas, where women are distinctly less economically active. For a typical age group like 60 – 64, urban males still have a partition rate of 76.2 per cent, while the rate for women has dropped to 51.7 per cent. This probably more reflects a lack of opportunities for women in urban environments than a conscious decision to withdraw from the labour market.

The high female participation rate in rural settings may reflect the fact that women still work much in agriculture, while men have been looking beyond the family farm relatively more. The fact that participation is higher in rural areas at older ages is because people working in agriculture tend not to retire at a predetermined fixed age, in the way that employees in the other economic sectors tend to do. In this sense there is only a gradual shift in the direction of a more modern economy.

Figure 2.4

Labour-force participation rates for persons aged 5 and over by sex and urban/rural

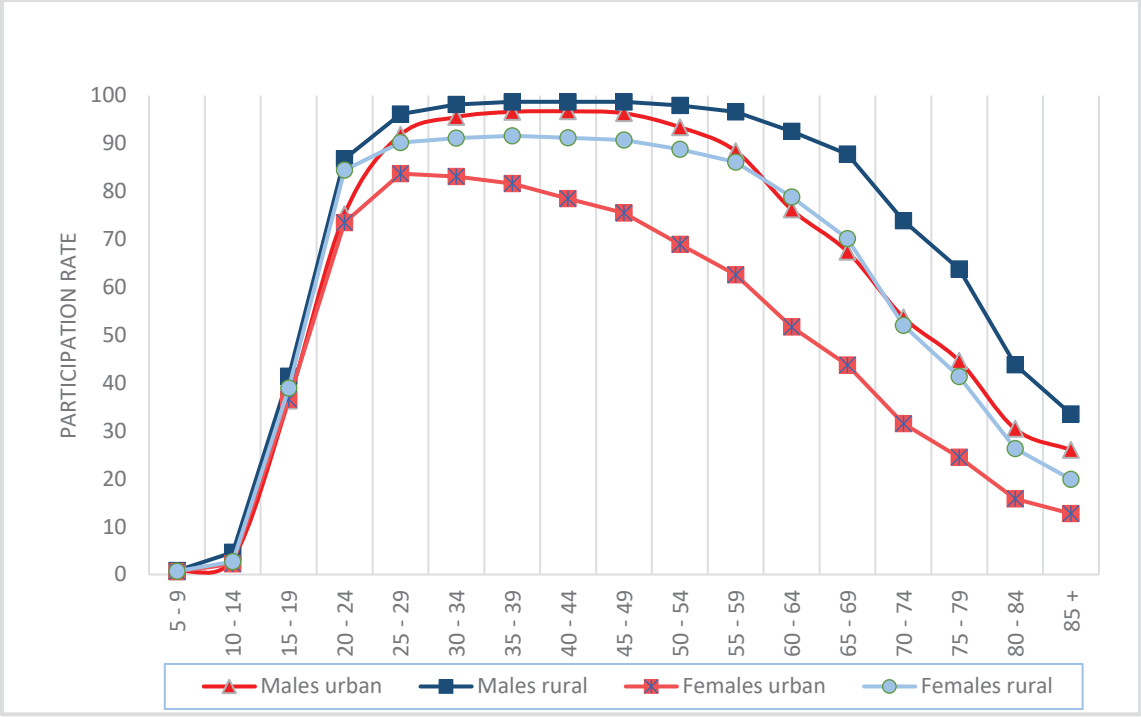
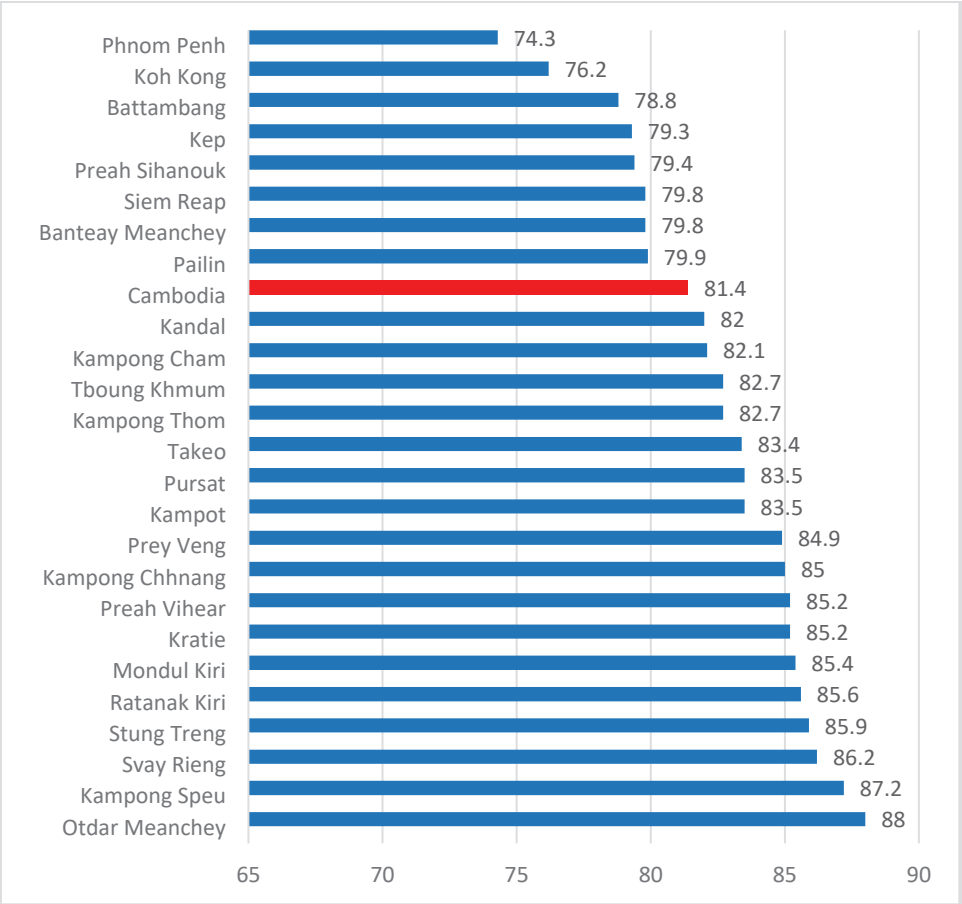


Figure 2.5 shows that considerable differences in participation rates were reported between the different provinces of Cambodia. To avoid distorting the figures caused by the atypical rates for the very young and the older age groups, data in the graph are restricted to the population aged 15-64. Otdar Meanchey was the Province with the highest degree of participation in the labour force. Here 88.0 per cent of the population were reported to be economically active. This is 13.7 percentage points higher than in Phnom Penh, where only 74.3 per cent of the enumerated population were in the labour force. It should be

noted that in urban areas land is scarce, so the opportunities to be active in agriculture are limited. This reduces the uptake of surplus labour in economic activities with a low threshold for participation.

Figure 2.5

Labour-force participation rates for persons aged 15-64, Provinces



The dispersal in labour participation is further illustrated in in the maps at Figures 2.6 and 2.7, which show rates by district. Figure 2.6 displays the rates for males aged 15-64, while Figure 2.7 presents the rates for females.

Participation rates for both sexes (no map) vary from as low as 65.9 per cent in the District of Kiri Sakor (Province Koh Kong) to 90.5 per cent in Thpong (Province Kampong Speu). Provinces Otdar Meanchey and Kampong Speu have the greatest concentrations of districts with high participation rates. It is interesting to note that the economic heart of the country, the capital Phnom Penh, is at the bottom of the list, with other economic centers, such as Battambang, Preah Sihanouk and Siem Reap nearby. In these places the work opportunities for less educated women are comparatively scarce and there may also be more persons of independents means who elect not to take part in the labour market.

The overall picture is one of a growing dichotomy where peripheral agricultural areas differ significantly from the rapidly evolving economic focal centers.

Figure 2.6

Labour-force participation rates by District, males

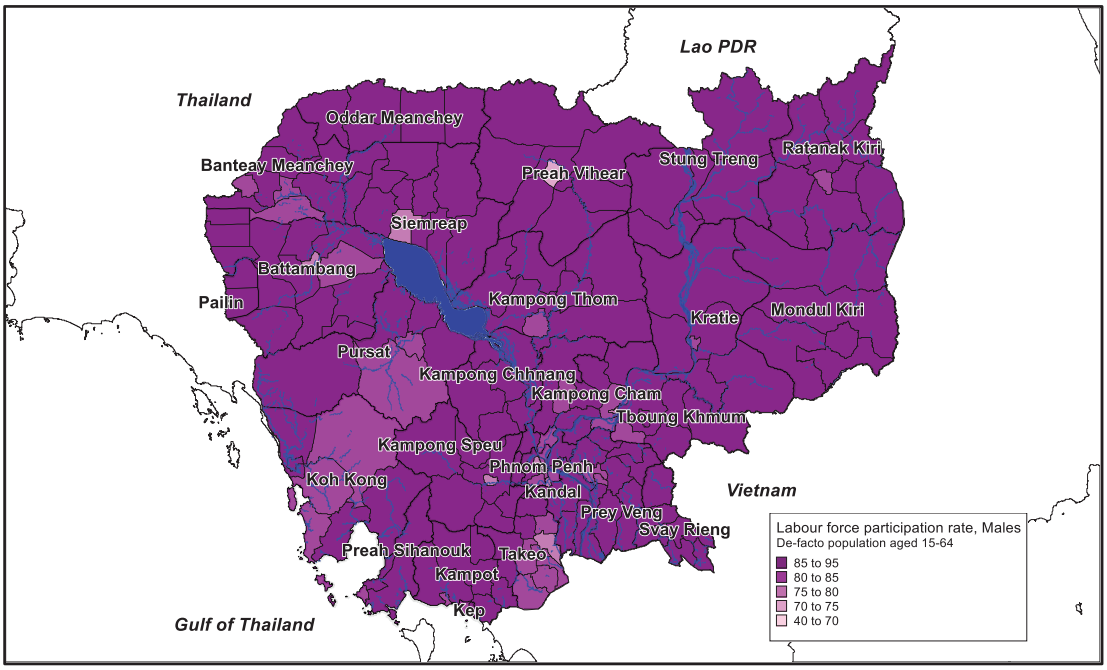
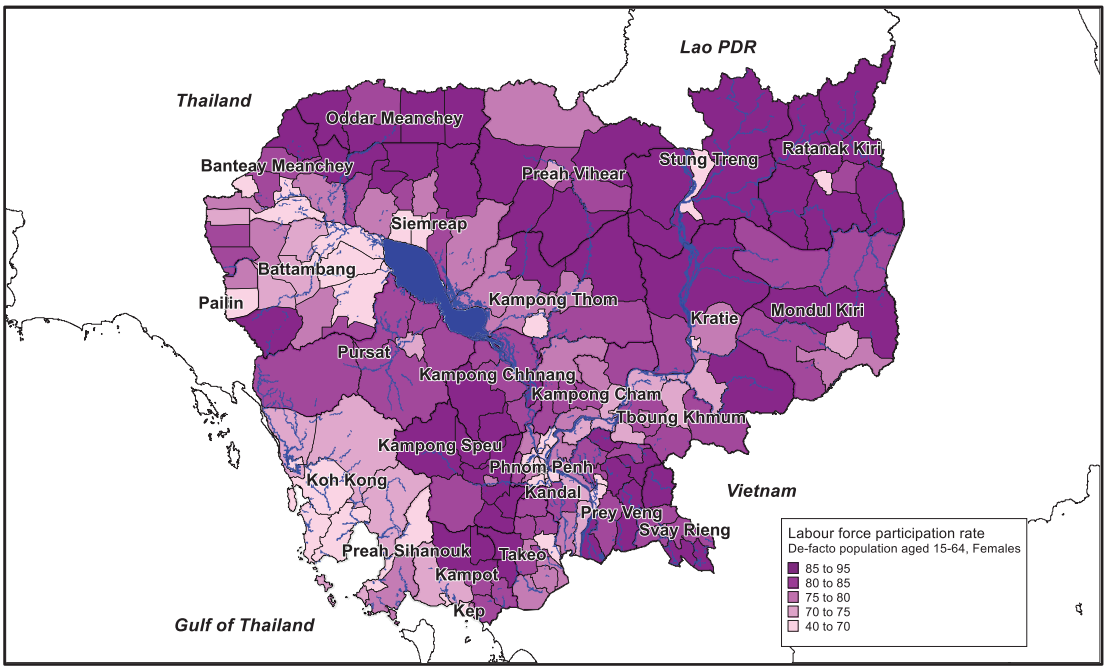


Figure 2.7

Labour-force participation rates by District, females



Figures 2.6 and 2.7 clearly show the differences in labour-force participation between males and females at the district level. The corresponding table has been placed in Annex 3, as it was considered too large for insertion in the body of this report. Please consult Annex 3, Table A3.1 to inspect the numeric information.

In the large majority of districts the participation rate of males is higher than that of females. The extremes are the District of Kiri Sakor (Province Koh Kong) where the male

participation rate is nearly double that of females (factor 1.86) and the District of Me Sang (Province Prey Veng) where the participation rate of males is slightly below that of females (factor 0.97).

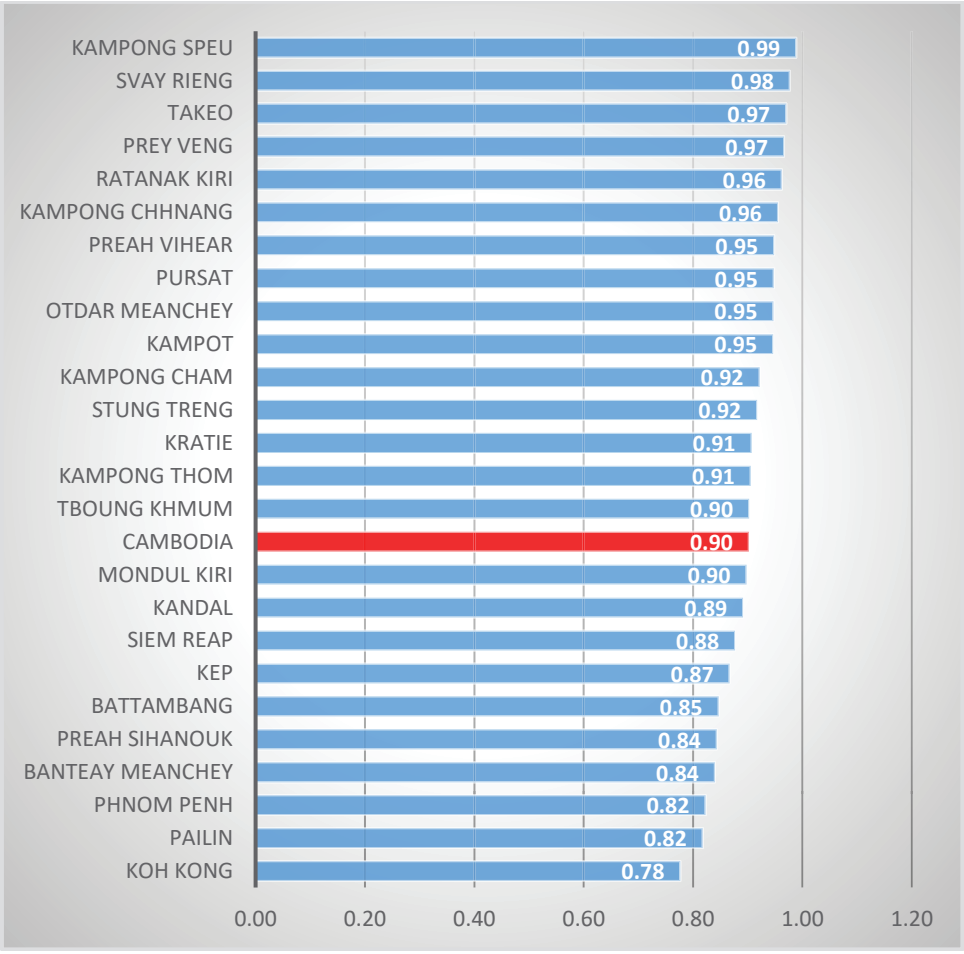
The District with the highest male participation in the labour force is Sesan in Stung Treng Province, where no less than 92.6 per cent of males aged 15 - 64 were reported by the Census to be economically active. In this District the female participation was also quite elevated at 87.9 per cent.

The highest level of economic activity of women was reported in District Thpong in Kampong Speu Province, with a female labour-force participation of 90.6 per cent. In this District male participation was also large, at 90.5 per cent. Both maps show that a high or low participation rate for one of the sexes usually means that the other sex will tally in the same way.

A standard way to show the effects of gender in labour participation is the ratio of female-to-male labour-force participation rates (RFMP), where the female participation rate is divided by the male participation rate and multiplied by 100. Figure 2.8 shows the variation in female-to-male labour participation by province.

Figure 2.8

Ratio of female to male participation in the labour force for persons aged 15 - 64, Provinces



The RFMP at the national level stands at 0.90. In the provinces the ratio ranges from 0.99 in Kampong Speu to 0.78 in Koh Kong. This means that in Koh Kong for every five men

the Census reported only four women in the labour force; in Kampong Speu this ratio is more or less equal. Note that both Provinces were also at the extremes of overall participation rates. This should come as no surprise as the participation of women in economic activity has a direct impact on overall participation rates. In Phnom Penh the labour-force participation of women is well below the national average.

The Census data provide a window on what may cause the large differences in participation rates between different provinces. No doubt labour opportunities in ongoing subsistence agriculture are a significant factor. But the effects from the presence, yes or no, of large export industries (garments!) also play a role. These industries absorb well over a million workers. Section 2.6 Industry looks at the regional distribution of foreign-owned private enterprises. A more in-depth study looking into disparate macro-economic factors, agricultural and industrial zoning and cultural and climatic conditions would be pertinent.

People with different background characteristics have varying levels of participation in the labour force. Figure 2.9 shows the labour participation of persons in the 15-64 age group by a range of variables: urban/rural place of residence, sex, marital status, educational attainment, literacy and school attendance.

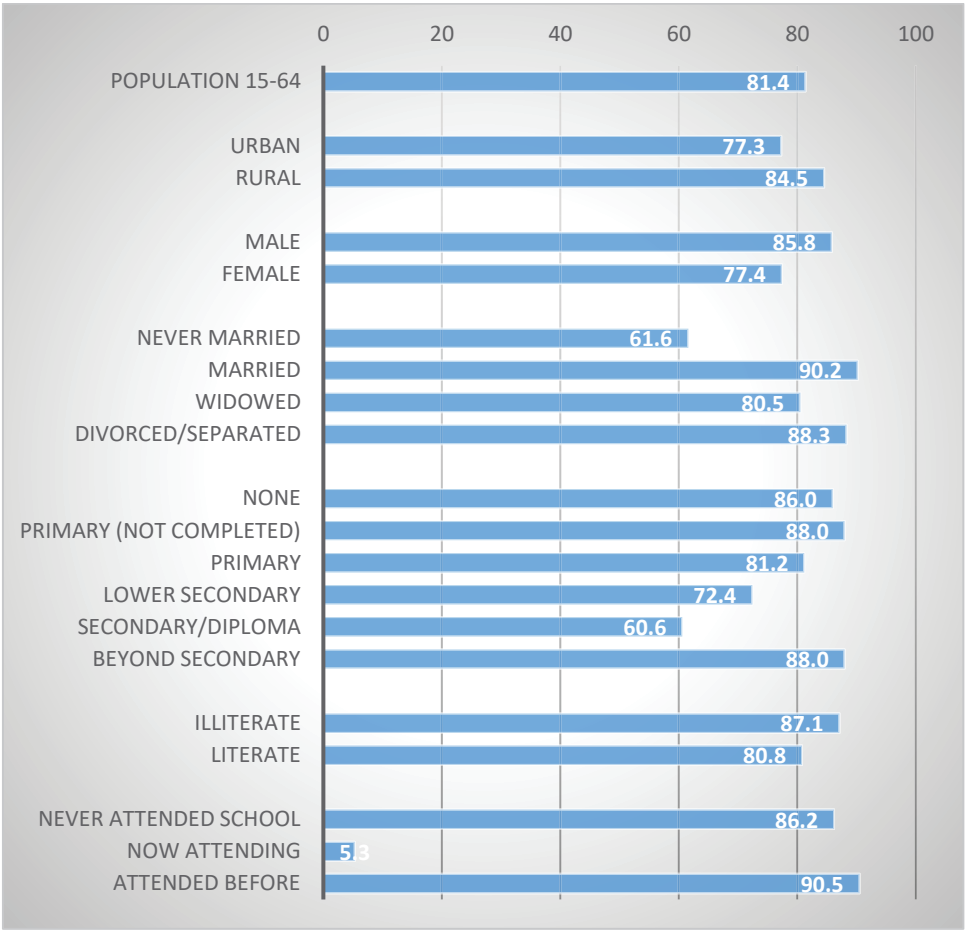
The Census demonstrated that Cambodia is still primarily a rural society, with 60 per cent of the population living in rural areas [NIS20]. Participation in the labour force is higher in rural areas than in urban areas: 84.5 per cent against 77.3 per cent, respectively.

Persons who are single experience a much lower level of participation in the labour force than those who are married; at 61.6 per cent and 90.2 per cent, respectively. Most likely many unmarried young people are younger and still pursue their studies.

As might be expected, persons who were widowed had lower levels of participation than those who were married, as widowhood most frequently takes place at older ages when labour participation has decreased. The Census showed that 80.5 per cent of widowed persons were in the labour force. Voluntary marriage dissolution is rare in Cambodia, with only 2.3 per cent of persons aged between 15 and 64 reporting themselves as either separated or divorced. Their participation rate at 88.3 per cent is higher than for married people, due, perhaps, to the fact that they can no longer depend on a partner to assist in providing the financial resources for daily living.

Figure 2.9

Participation rates for persons aged 15 – 64 by background characteristics



For Fig. 2.9 the responses for *Highest grade completed* (Question 16C) were summarized into six groups: *None* (codes 0, 88 and not applicable), *Primary not completed* (codes 1 - 5), *Primary* (codes 6 - 8), *Lower secondary* (codes 9 - 13), *Secondary/Diploma* (codes 14 - 16) and *Beyond secondary* (codes 17 - 19). *Not applicable* was added to *None* since it covers persons who never attended school, thus could not have completed a grade.

The result for labour-force participation by educational attainment shows a rather varied pattern. A large majority (86.0 per cent) of persons without any formal education were reported as economically active. Figure 2.9 shows that for those with no more than primary education the participation rate remained well over 80 per cent. Then, however, it starts to drop off with a participation rate of only about 60 per cent for those with secondary education or a diploma. Persons who progressed beyond secondary education had a higher participation rate again at 88.0 per cent. It would seem that those with an education at the middle level are no longer attracted by agricultural or industrial production jobs. But the higher skilled jobs they aim for are probably in short supply. This situation would need specific attention from the authorities, as discussed in Section 5.2.1.

The Census showed that literacy rates for persons aged 15 and over stood at 87.7 per cent. Those who were unable to read and/or write had a somewhat higher labour-force participation than literate persons (87.1 per cent compared with 80.8 per cent).

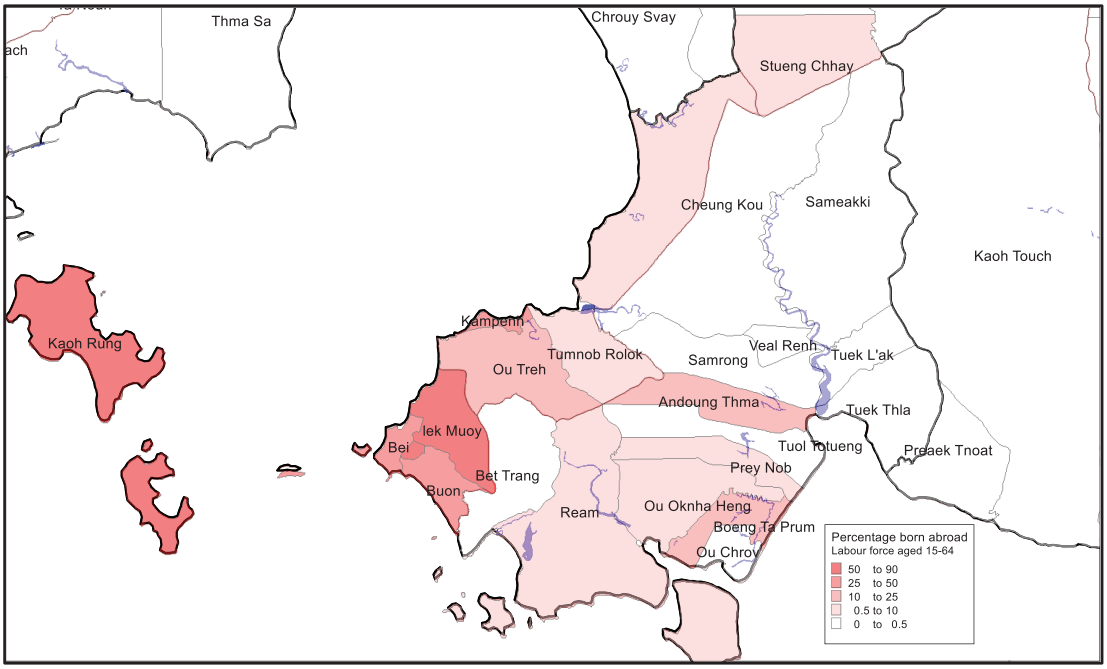
Finally, it is interesting to note that more than 5 per cent of persons who indicated they were still attending school were also recorded as being in the labour force. This is possible, since a person attending school can also be working, for example as a trainee.

Those who went to school in the past scored slightly better in labour-force participation than persons who had never attended (90.5 per cent compared with 86.2 per cent).

As is well-known, there is considerable out-migration from Cambodia. Most workers move with a purpose of later returning home. This may or may not happen. There are also foreign workers coming for jobs in Cambodia, many of them in the commercial centers of Phnom Penh and Preah Sihanouk. Fig. 2.10 shows that in several Communes of Preah Sihanouk Province foreign-born workers now make up a large fraction of the labour force. The Communes (*Khum*) of Iek Muoy, Pir and Kaoh Rung have percentages exceeding 50.

Figure 2.10

Labour force aged 15 – 64: Percentage of workers born abroad (Preah Sihanouk Province)

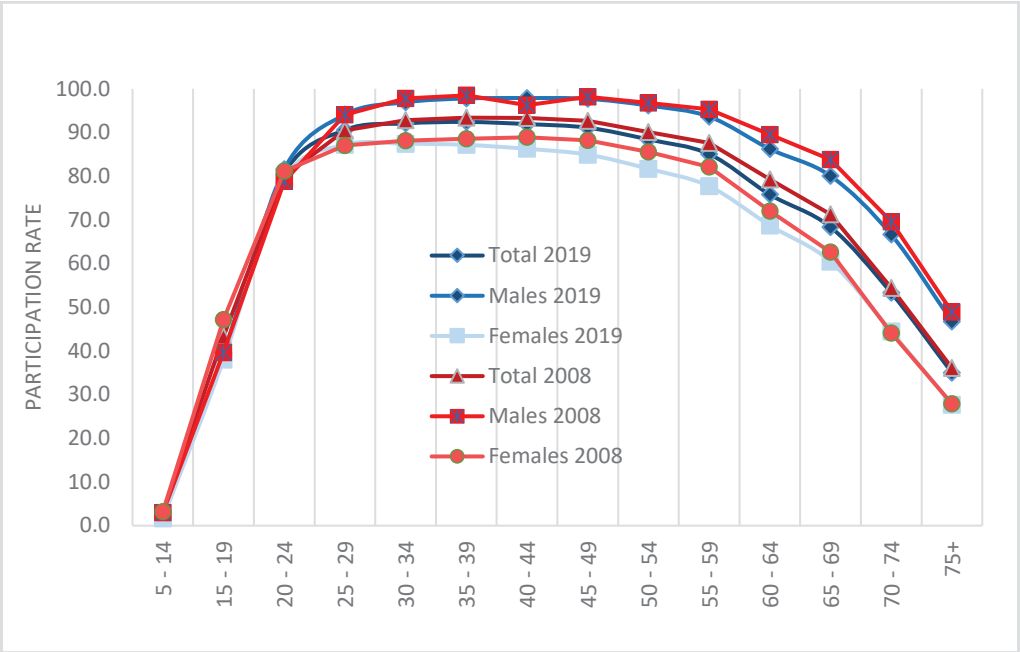


2.1.3 Trends and international context

The 2008 Census found that labour-force participation had significantly increased since 1998. Figure 2.11 shows that this growth effect has not persisted. But given the already high numbers in 2008 that was indeed not to be expected. The differences over the period 2008 to 2019 are small and hardly exceed the margin of error that each point in the graph necessarily is subject too. One would conclude that the Cambodian economy attracts all who are able and willing to work. It is true that the participation of women still not reaches a level equal to that of the men. In fact close examination of Figure 2.11 would even allow a tentative inference that the participation of women has declined somewhat since 2008. But this effect is too small to be considered significant. If labour participation has not further increased, then one would hope that economic development has resulted in the quality of jobs improving. This will be discussed later in this report.

Figure 2.11

Labour-force participation rates by sex, 2008 and 2019 Censuses

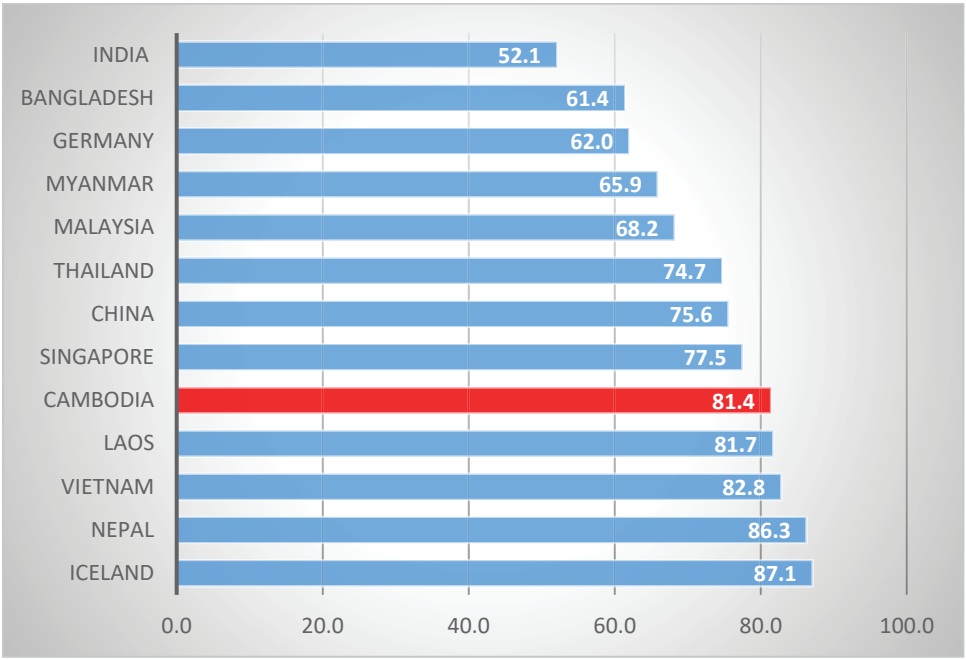


Because of definitional issues it is not always straightforward to make international comparisons with regard to economic activity status. The International Labour Organization (ILO) stores key national indicators of the labour market in its international database ILOSTAT, from where they are redistributed via other databanks such as World-Statistics.org [Wo20]. These data are a combination of nationally reported and imputed numbers. To account for differences in definitions, data collection and tabulation methods between different countries, efforts are made to *harmonize* the data. Data on labour-force participation in ILOSTAT mostly refer to the so-called active population aged 15 to 64.

To compare Cambodia with other countries, labour-force participation rates for several Southeast Asian and some other countries for the year 2019 were obtained from World-Statistics.org and compared to the participation rates for persons aged 15 to 64 derived from the Cambodia Census. Once again: readers should be aware that the comparison poses some problems because of differences in the definitions and methodology underlying the data (*usua*l versus *current* activity status, observed/modelled data). Therefore, the values should be seen as being mostly tentative, assembled for the purpose of getting a broad idea of how labour-force participation varies between these countries.

Figure 2.12

Labour-force participation rates for persons aged 15 – 64 for selected countries



Cambodia fits in well with the other countries of Indo-China. Vietnam, Laos and Cambodia all have labour force partition rates that are quite high compared to the rest of the world. In Nepal and Iceland one finds only a very few countries worldwide that have higher rates. China comes in lower and India much lower still.

Note that a higher or lower score is not necessarily better or worse. It may be that a high participation rate is not particularly positive, for example, in instances where educational opportunities are limited and young persons are forced to work to contribute to the family income. Since data refer to the total population aged between 15 and 64, the height of the indicator is affected by several contextual factors such as the age structure of the population, the age-specific pattern of economic activity in the concerned age-groups and the labour-force participation of women. As shown before the indicator also tends to be far from uniform over different geographic regions within countries.

Labour-force participation rates are is often published for ages 15 and over, thereby including those over age 64. But then circumstantial conditions weigh in even heavier, since the fraction of older persons in the total population varies widely between countries.

2.1.4 Working-life tables

Working-life tables are an equivalent to life tables, but they describe the working life that begins when persons enter the labour market and ends with their retirement from work or passing away. Life tables in which the cohort under study can be decimated by multiple causes are called multiple decrement tables. Of course the working life cannot be compared to a normal life cycle. Working life can be interrupted for a period of inactivity, or lived incompletely in a part-time job. As we all know too well, real life cannot be suspended or lived fractionally. Working-life tables have to be considered with this *caveat*. Nevertheless, they have a significant role in making economic activity better understood as a topic that usually follows a fairly standard course over time. Working-life tables also

have application in the insurance branch and court rooms where disabled victims claim compensation for loss of future earnings.

Working-life tables are often prepared for the age interval 15-64, which in many countries is the most common period for individuals' economic activities. In Cambodia many persons work beyond age 65, therefore in this report no upper age limit is applied. Furthermore, the age interval 10 - 14 has been added, since quite a few persons at these ages are already economically active. The age group 5-9, data for which are also available, has been disregarded. The data quality there may be dubious, and anyway the contribution of these young workers to the national economy is minor.

For the construction of working-life tables ones first needs regular life tables for the concerned universe and point of time. For Cambodia there is now the National Report on Final Census Results [NIS20] that provides such tables. According to that report, age-specific mortality tables from the Census were not of sufficient quality for the purpose of constructing life tables. Therefore the life tables as published in the report are based on child mortality information combined with model life tables.

For a start, data from the real life tables are copied to the working-life tables, as follows:

> *l(x)*: this is the number of survivors at age x of a cohort that numbered 100,000 at age 0;
> *L(x,x+5)*: this is the total number of person-years that these survivors go through before reaching age x+5;
> *e(x)*: the remaining life expectancy of the survivors at age x;

Next, the labour-force participation rates at the various age levels are added (Table 2.2). Obviously, these start low, then reach a high plateau, and drop off again at the highest ages. Multiplying the participation rates with the number of person-years L(x,x+5) results in the column Active life (x,x+5). It represents the total number of active years over the 5-year interval under consideration.

Active life (x+) sums the remaining intervals of the preceding column. It represents the total of all active years the cohort can still look forward to.

Dividing Active life (x+) by the number of survivors l(x) distributes the active life cohort total over the participating individuals, resulting in the remaining number of active years per person. Then, deducting that from the total life expectancy e(x), one obtains the expectation for the remaining passive years, as shown in the final column. All of this provides great insight for as long as the conditions concerning well-defined and uninterrupted working lives are met.

Table 2.4

Working-life table, males

Age	l(x)	L(x,n)	e(x)	Participation rates	Active life (x,x+5)	Active life (x +)	Active years remaining	Inactive years remaining
10	97,703	488,041	66.0	4.1	20,010	4,900,820	50.2	15.9
15	97,513	486,556	61.1	39.5	192,190	4,880,811	50.1	11.1
20	97,063	483,743	56.4	81.6	394,734	4,688,621	48.3	8.1
25	96,414	480,453	51.8	94.1	452,106	4,293,887	44.5	7.2
30	95,761	477,022	47.1	96.9	462,234	3,841,780	40.1	7.0
35	95,033	473,168	42.5	97.8	462,758	3,379,546	35.6	6.9
40	94,208	468,515	37.8	97.9	458,676	2,916,788	31.0	6.8
45	93,147	462,307	33.2	97.7	451,674	2,458,112	26.4	6.8
50	91,671	452,584	28.7	96.2	435,386	2,006,438	21.9	6.8
55	89,195	438,200	24.4	93.6	410,155	1,571,052	17.6	6.8
60	85,873	417,083	20.3	86.2	359,526	1,160,897	13.5	6.7
65	80,565	383,934	16.4	80.1	307,531	801,371	9.9	6.5
70	72,483	335,315	13.0	66.6	223,320	493,840	6.8	6.1
75	60,993	267,321	9.9	57.2	152,908	270,520	4.4	5.5
80	45,366	336,036	7.4	35.0	117,613	117,613	2.6	4.8

Looking at the results one notes that at age 20 male Cambodians can look forward to some 48 years of economic activity and about 8 years of non-activity. At age 65 for those still around another 10 years of work and 6.5 years of inactivity on average remain.

Females have a shorter economic life expectancy than males. At age 20 they can anticipate to work for 42 years and to be economically inactive for a further 16.5. The survivors at age 65 still have 7 working years and 10 years of economic inactivity in perspective.

Table 2.5

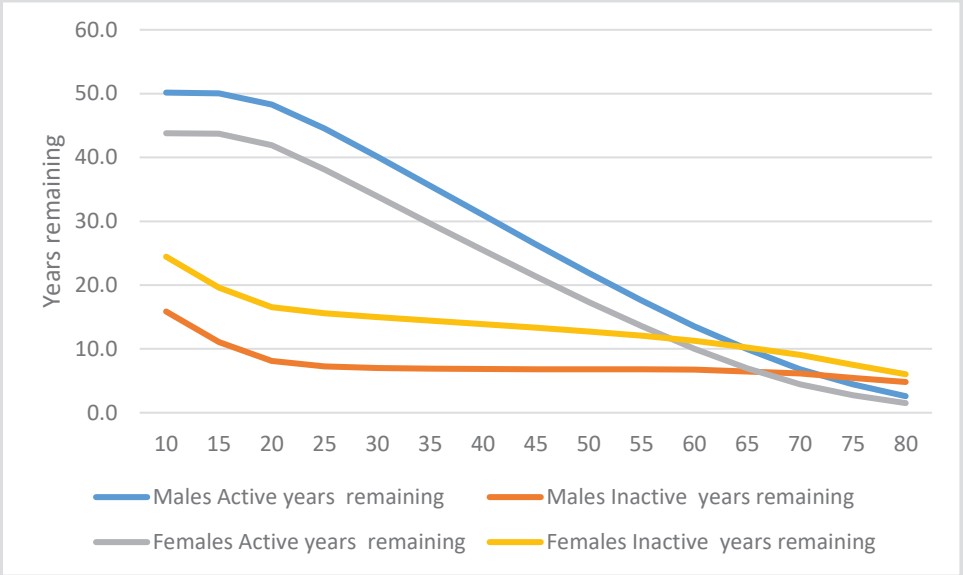
Working-life tables, females

Age	l(x)	L(x,n)	e(x)	Participation rates	Active life (x,x+5)	Active life (x +)	Active years remaining	Inactive years remaining
10	98,132	490,344	68.2	2.5	12,259	4,297,298	43.8	24.4
15	98,005	489,510	63.3	38.0	186,014	4,285,040	43.7	19.6
20	97,780	488,110	58.5	79.4	387,559	4,099,026	41.9	16.5
25	97,447	486,254	53.7	87.2	424,013	3,711,467	38.1	15.6
30	97,044	484,143	48.9	87.4	423,141	3,287,453	33.9	15.0
35	96,602	481,725	44.1	87.2	420,064	2,864,312	29.7	14.4
40	96,058	478,295	39.3	86.3	412,769	2,444,248	25.4	13.9
45	95,204	473,250	34.7	84.9	401,789	2,031,479	21.3	13.3
50	94,016	465,594	30.1	81.7	380,390	1,629,690	17.3	12.7
55	92,097	454,414	25.6	77.7	353,080	1,249,300	13.6	12.1
60	89,498	437,848	21.3	68.7	300,802	896,220	10.0	11.3
65	85,297	410,628	17.2	60.4	248,019	595,419	7.0	10.2
70	78,401	366,679	13.5	44.5	163,172	347,399	4.4	9.0
75	67,503	300,047	10.2	35.4	106,217	184,227	2.7	7.5
80	51,705	390,052	7.5	20.0	78,010	78,010	1.5	6.0

Fig. 2.13 visualizes the results for all ages concerned. As can be seen, most of the time there are many more active than inactive years to look forward to. This changes at the end of the scale when retirement, leisure and disability take the upper hand. At any age males have comparatively more active years and females more inactive years in their future.

Figure 2.13

De-facto population: Average net years of being economically active and inactive remaining at a particular age



Working-life tables have been calculated here for males and females. Indeed there are significant differences between the sexes and it is interesting to note that while life expectancy at any age is somewhat higher for women, active years remaining is not. This illustrates the fact that women still do not equally participate with men in the labour force.

Attributes other than gender can be used to prepare specific life tables and active-life tables. It would be interesting to generate separate tables for various levels of education or employment status. But in undertaking such research one should never forget the limitations, especially for working-life tables. Careers are not necessarily uninterrupted and status in employment can vary over a lifetime. Commercial companies do offer online working-life/life expectancy calculators, possible for the purpose of supporting judicial claims [Br21].

2.2 Unemployment

The unemployment rate is probably the most widely used labour force indicator. It gives an indication of the unutilized labour supply. For the 2019 Census, the definition of the ILO for the unemployed was adopted. According this definition, the unemployed comprise all persons within a specified age group who, during the reference period satisfied the three following criteria:

- *Without work*, in other words, were not in paid employment or self-employed.
- *Currently available for work*, so were available for paid employment or self-employment during the reference period.
- *Seeking work*, had taken unambiguous steps in the reference period to seek employment.

The unemployment rate is defined as the percentage of the labour force that was unemployed during the reference period; the labour force being those who are either employed or unemployed. As described in Section 2.1, the Census collected information on the usual activity status of the enumerated population. This has some consequences for the interpretation of the unemployment rate. The activity status of a person in the Census was determined by the longest time spent in a particular activity status over the last twelve months. This means that short-term unemployment would often remain unreported. If a person was, for example, unemployed for three months, there would then be another activity status in which he or she spent more time. Therefore, unemployment rates based on usual activity status may be different from those based on current activity status.

The Census found that there were 116,921 persons aged 15 and over reporting that they were out of work: 53,448 males and 63,473 females. The unemployment rate stood at only 1.3 per cent for the national population aged 15 and over, and 1.2 per cent for the population in the active age-group 15 - 64. The unemployment rate for females was found to be nearly everywhere a little higher than that for males. That difference became larger for ages over 45.

The low level of unemployment is remarkable, but not out of range with results from the 1998 and 2008 censuses. In 1998 levels were still comparatively high, especially for youth and young adults. The levels dropped considerably in 2008. Between that year and 2019 the differences are hardly significant. The low unemployment rate was also confirmed in the CSES 2017 [NIS18b] which found an extremely low and uniform 0.1 per cent for both sexes, males and females.

The unemployment rate is widely used as an indicator of the situation of the labour supply. But in Cambodia, as in many less developed countries, unemployment levels can be an imperfect measure of the conditions of the labour market. Within the ILO labour force framework, the unemployed are defined as all those of working age who during a specified recent period were not in employment, carried out activities to seek employment and were readily available to take up employment given an opportunity. Many people in less developed countries can just not afford to be persistently unemployed, because of the lack of a social safety net. They will engage in whatever temporary odd job is available that allows them and their dependents to survive. To measure the grey zone between employment and unemployment, the concept of *underemployment* has been developed. The definition of underemployment by the ILO is based on time-related conditions and

contains three criteria. To be considered underemployed (time-related) a person has to be:

- Willing to work additional hours,
- Available to work additional hours,
- Worked less than a number of hours set forth during a specified reference period that would represent full employment.

In the Census no questions were asked to determine the volume of time-related underemployment (that is, the total additional time people would want to work) and the degree of underemployment in the population. The reader should, however, be aware of the importance of this phenomenon in the country and the limitations of the traditional concept of unemployment in the Cambodian context. Apart from time-related underemployment, there is also quality-related underemployment. In all likelihood quite a few workers are unable to find employment in accordance with their education and professional skills. They therefore have to settle for lower qualified and thus less paying and often less satisfying jobs. This is a subject of growing concern. In many countries – including Cambodia, see Fig. 2.19 - it impacts primarily individuals with a completed education at intermediate level. Skill-related underemployment is often discussed under the broader concept of inadequate employment [ILO13a].

Comparatively high unemployment rates for children under 14 still illustrate a need to reinforce the education system to better equip these youths for life. Furthermore, age-specific unemployment rates are quite similar for males and females in Cambodia, but they start to diverge at ages over 55, when women are more likely to report unemployment (Fig 2.14).

The 2008 Census still devoted attention to *Secondary economic activity*. This concept applied to those in the economically-active population who held another job, and those not in the labour force, such as homemakers, who nevertheless spent a relatively smaller fraction of their time in a job. Secondary economic activity turned out to be widespread, with 52 per cent of the employed population reporting a second economic activity. Amongst those classified as not usually economically active some 12 per cent still reported undertaking a measure of part-time work. The Cambodia Inter-censal Population Survey (CIPS2013) [NIS13a] also covered the topic, largely confirming the findings of 2008.

This line of questioning has been dropped in 2019, no doubt to reduce costs and to lessen the workload on all concerned with the census. Overloading census questionnaires is a well-known problem, best to be avoided. One would expect the topic then to be relegated to a sample survey, but the annual CSES also does not cover it. Therefore this is now rapidly becoming a troubling gap in national labour statistics, since secondary economic activity is obviously of considerable importance in Cambodia, both to the individuals concerned and to the national economy.

2.2.1 Unemployment and related Census variables

Figure 2.14

De-facto population: Age-specific unemployment rates by sex

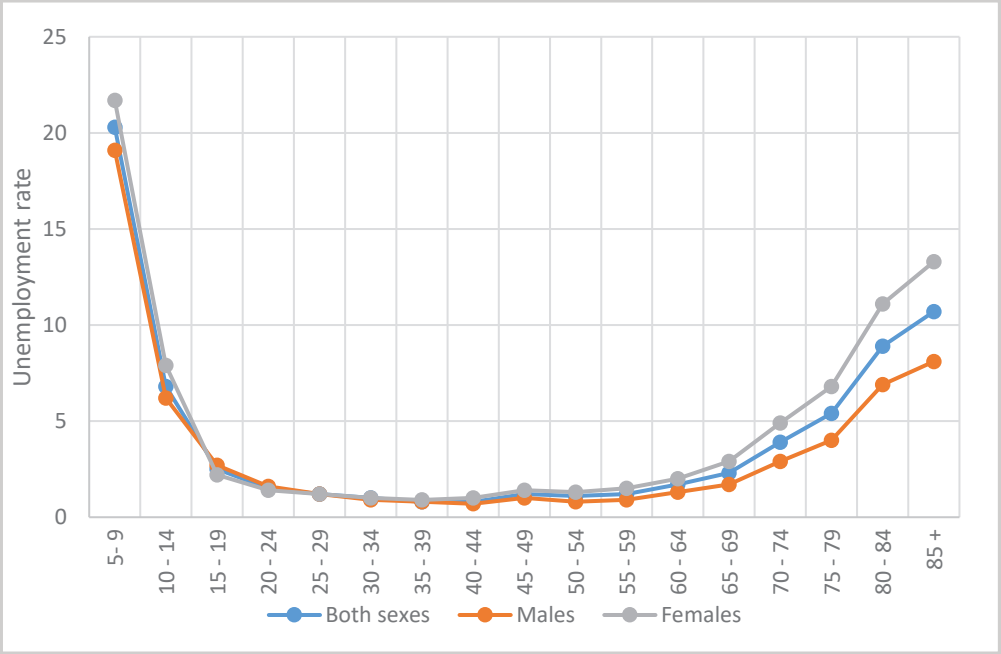


Table 2.6 shows the numbers underlying Fig. 2.14

Table 2.6

De-facto population: Age-specific unemployment rates by sex

Age group	Total	Males	Females
Total 5 and over	1.4	1.3	1.5
Total 15 and over	1.3	1.2	1.5
Total 15 - 64	1.2	1.1	1.3
5- 9	20.3	19.1	21.7
10 - 14	6.8	6.2	7.9
15 - 19	2.5	2.7	2.2
20 - 24	1.5	1.6	1.4
25 - 29	1.2	1.2	1.2
30 - 34	1.0	0.9	1.0
35 - 39	0.8	0.8	0.9
40 - 44	0.8	0.7	1.0
45 - 49	1.2	1.0	1.4
50 - 54	1.1	0.8	1.3
55 - 59	1.2	0.9	1.5
60 - 64	1.7	1.3	2.0
65 - 69	2.3	1.7	2.9
70 - 74	3.9	2.9	4.9
75 - 79	5.4	4	6.8
80 - 84	8.9	6.9	11.1
85 +	10.7	8.1	13.3

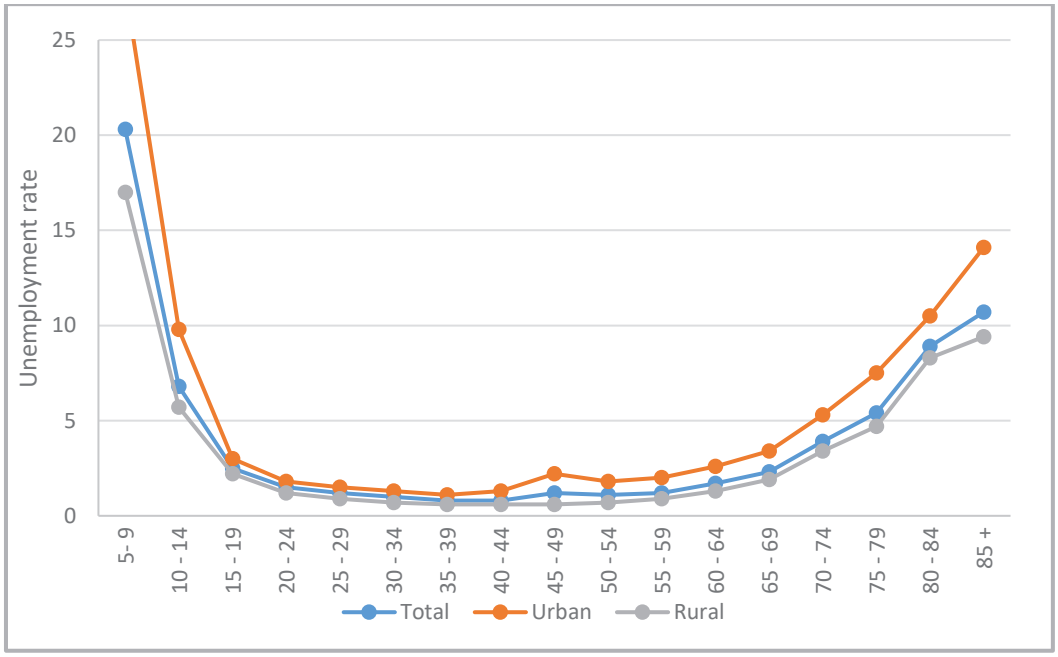
At the time of the Census, unemployment for persons aged 15 and over was 1.8 per cent in urban areas and 1.1 per cent in rural areas. For the age-group 15-64, unemployment rates were 1.7 per cent and 0.9 per cent, respectively. Up to about age 40, unemployment rates in the two environments are roughly the same, but beyond that urban areas display somewhat higher rates (Figure 2.15).

When comparing urban and rural unemployment, the fundamentally different nature of unemployment has to be taken into account that exists between urban and rural areas. The type of unemployment is closely connected to the nature of the labour economy in both regions. In urban areas of Cambodia the labour market is starting to take on the characteristics of a competitive, export-oriented, industrialized global economy, with a demand for the highest productivity.

Rural agricultural work by own-account farmers and wage labourers is still largely dominated by subsistence agriculture and production only for domestic customers, often the buyers at the nearest public market. This situation goes hand-in-hand with accepted lower labour productivity and strong seasonal variations in the volume of production and work. As one of the consequences, the distinction between the employed and the unemployed is more evident in urban than in rural areas. Rural unemployment is often masked by serious underemployment and low productivity. A comparison of the levels of unemployment between urban and rural areas should take this into account. The picture in Cambodia is obfuscated by a tendency of large export-oriented industries (mostly garment) to select sites in rural areas where operational costs can be lower.

Figure 2.15

De-facto population: Unemployment rates by age group, urban/rural



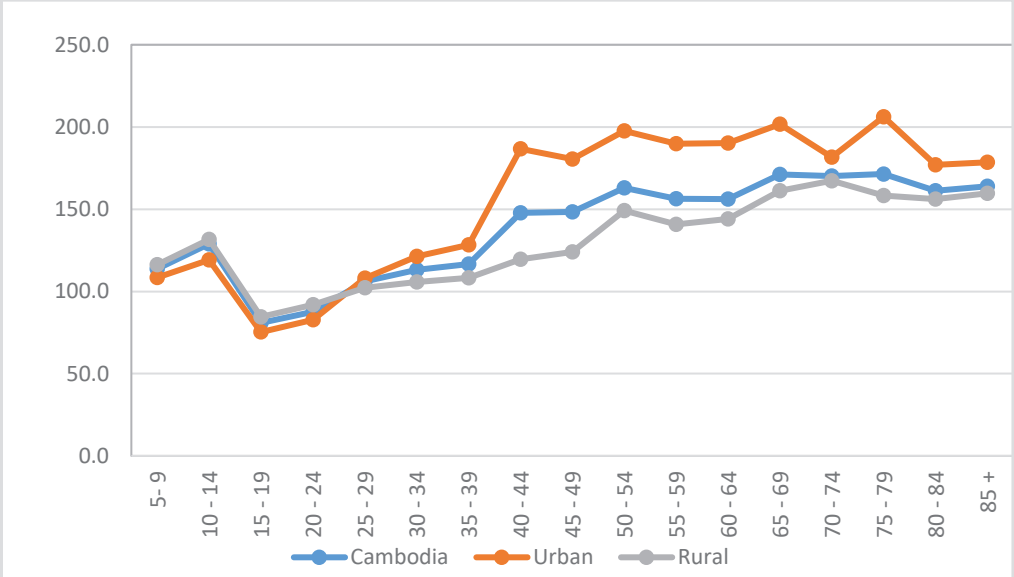
To see whether or not differences exist between males and females according to their urban/rural place of residence, ratios of female-to-male unemployment rates, by age and urban/rural type of residence were calculated (see Fig. 2.16). This indicator, as the term implies, is calculated as 100 times the number of unemployed females, divided by the number of unemployed males.

At very young ages the unemployment level was higher for females than for males. Then comes a smallish age segment where male unemployment is the larger one. But beyond age 25 female unemployment tends to be considerably larger. Although, with the low unemployment rates for both sexes, one should not overestimate the significance of this effect.

The relatively underprivileged situation of women in the labour market becomes more prominent over age 35. At the highest ages the national trend comes close to the rural figures as the labour force there persists into higher ages than in the cities.

Figure 2.16

***De-facto* population: Ratio of female-to-male unemployment rates by age and urban/rural**



Another census variable that could be related to unemployment is *Mother tongue*. People speaking minority or foreign languages might have difficulty finding employment. Table 2.7 shows that, remarkably, only Chinese native speakers appear to face such problems. The other groups have unemployment rates comparable to native Khmer speakers, with the exception of those speaking *Other foreign languages*, who end up at about twice the unemployment rate of Khmers.

Table 2.7

De-facto population aged 15 - 64: Mother tongue by Main economic activity

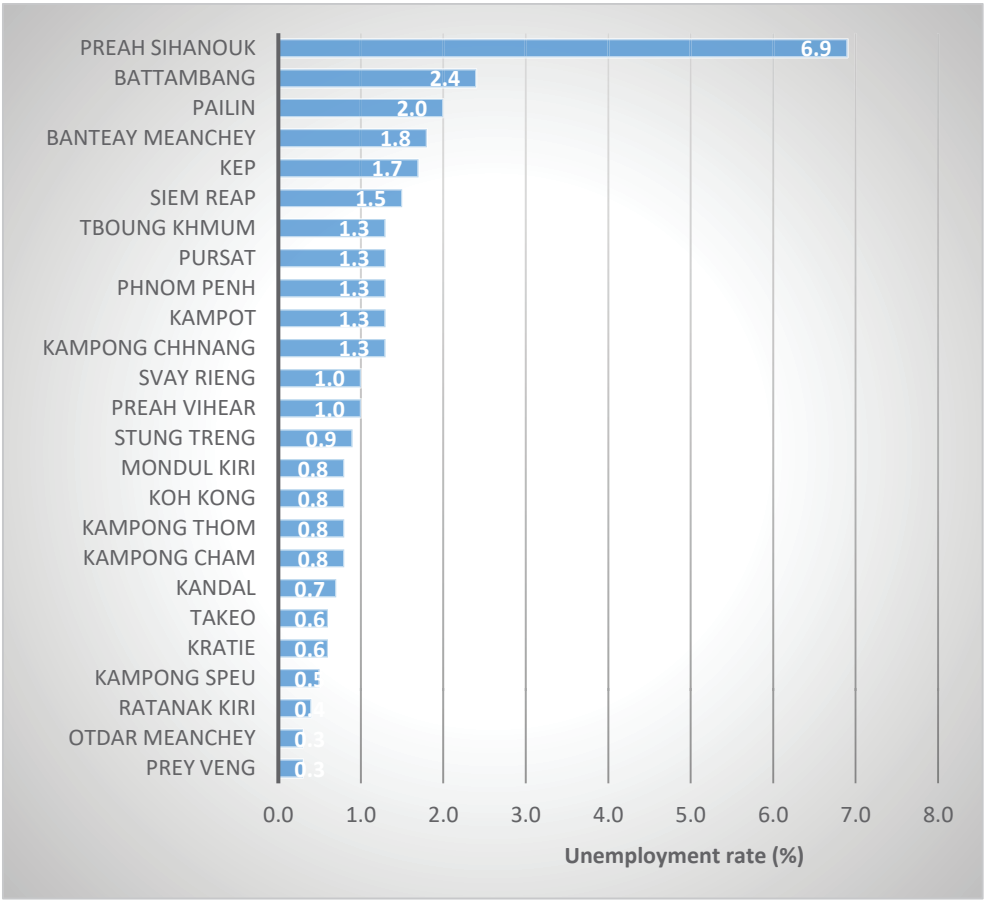
	Males				Females			
	Unemployment rate	Employed	Unemployed	Not economically active	Unemployment rate	Employed	Unemployed	Not economically active
Total	1.1	4,130,101	46,696	691,649	1.3	3,971,681	51,892	1,176,606
Khmer	1.0	3,943,324	40,999	659,023	1.2	3,809,001	45,075	1,128,573
All minority languages	1.0	110,724	1,145	18,787	1.0	111,136	1,137	29,078
Vietnamese	1.1	25,701	277	2,776	1.5	19,749	301	7,660
Chinese	9.6	38,131	4,035	7,290	18.9	22,497	5,231	7,108
Other foreign languages	2.1	10,001	216	2,164	1.7	7,710	133	2,481

Considerable regional differences exist within Cambodia, in terms of unemployment of the population (Figure 2.17). At the time of the Census Preah Sihanouk Province had by far the highest level of unemployment rate, with 6.9 per cent of its population aged 15 - 64 reported to be out of work. This was more than twenty times higher than in Prey Veng Province, where a mere 0.3 per cent were unemployed.

Unemployment was also fairly high in Battambang (2.4 per cent) and Pailin (2.0 per cent). The port city of Preah Sihanouk stands out for rapid economic development which attracts local workers as well as many foreigners, often Chinese nationals. The resulting unemployment rates resemble those in a developing non-agricultural environment where the influx of workers seeking higher wages exceeds demand. Prey Veng Province continues to be largely rural and agricultural. The unemployment there dissolves in underemployment of workers seizing any economic activity that allows them and their dependents to make a living.

Figure 2.17

De-facto population aged 15 - 64: Unemployment rates by Provinces



Even larger differences across the country exist at the district level. The map at Figure 2.18 shows several clusters of districts with relatively high unemployment. The first is situated in and around Preah Sihanouk Province, with the city proper coming in at a surprising 10.4%. A second cluster exists in the western part of the country, in the Provinces Battambang, Banteay Meanchey and Pailin. The Districts of Banan, Krong Battambang and Kamrieng are the highest in Battambang Province, and Krong Serei Saphhoan stands out in Banteay Meanchey Province. A third cluster exists around Phnom Penh, though not

in the city itself. An outlier there at 4.8% is Krong Kampong Chhnang in the Province of the same name. Although further study would need to confirm this, these relatively higher numbers all seem to be related to the process of friction in going from a largely agricultural situation to a more diverse economy with growing industrial and service sectors.

Figure 2.18

De-facto population aged 15 - 64: Unemployment rate, Districts

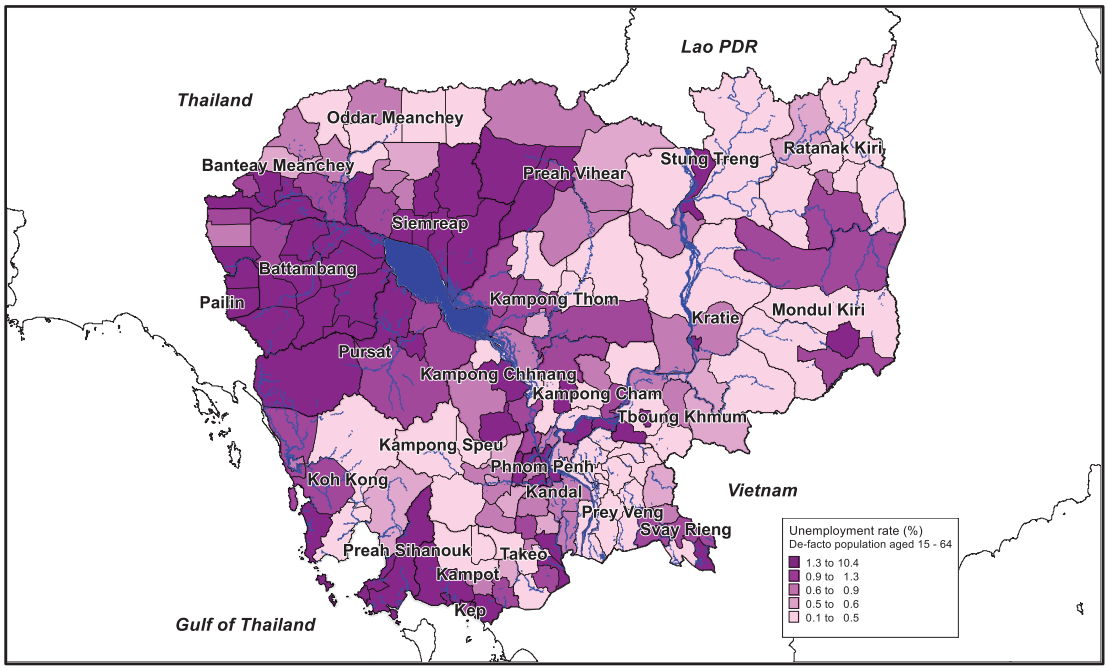
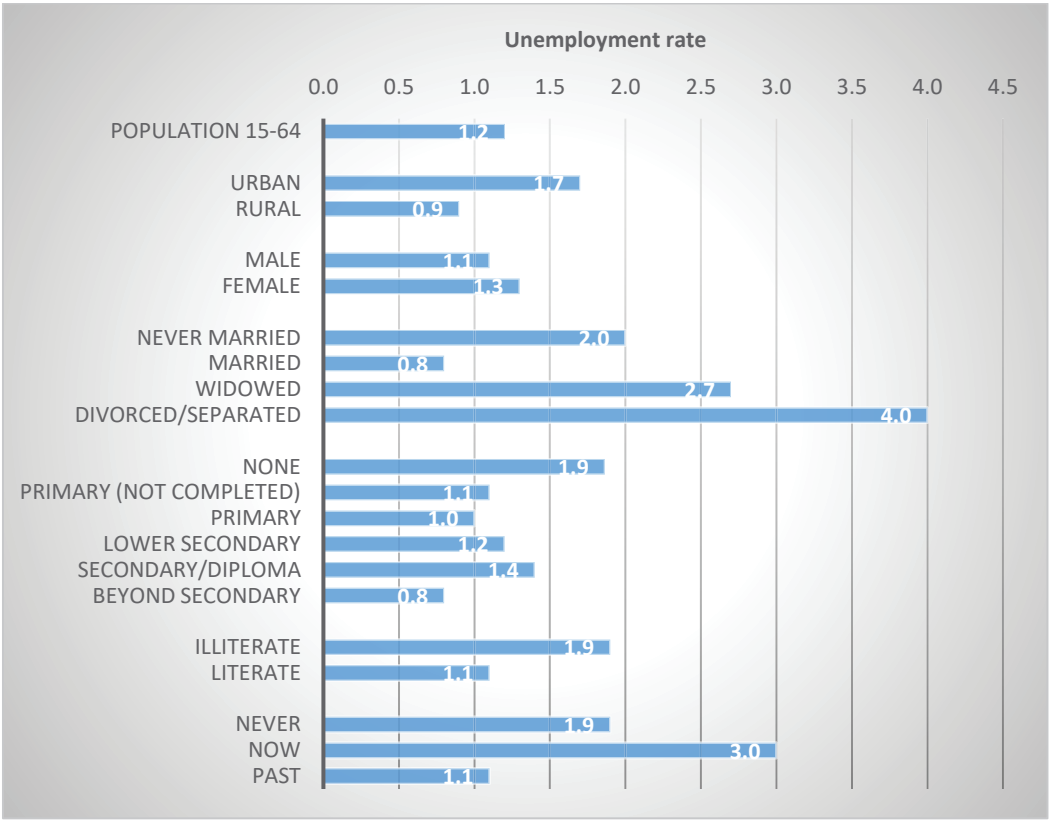


Fig. 2.19 summarizes the diversity of unemployment (for those aged 15 - 64) across different disaggregations within the population, using the same variables as shown earlier in Fig. 2.9. The age margins follow the usual preference for reporting over the internationally most common standard of what constitutes the active-age interval. It assists in avoiding differences between background categories caused by different patterns in the number of very young or old persons in the population and the larger labour force.

As already noted, the overall recorded unemployment rate is exceptionally low at only 1.2 per cent. Within that group it is somewhat higher in urban areas, at 1.7 per cent. The more modern economic conditions there, which usually bring about a minimum “friction” unemployment of several per cent, would explain the difference. Also females are slightly more likely to be out of work than males.

Figure 2.19

De-facto population aged 15 – 64: Unemployment rates by various background characteristics



Unemployment measured by the Census was somewhat higher among single persons than among most persons; 2.0 per cent of single persons reported that they were unemployed. No doubt this has to do with the fact that single persons are on average younger than persons in the other marital status categories, and youth unemployment is comparatively high. Married persons have lower levels of unemployment, reflecting the fact that they are, on average, in age groups that have the best chances in the labour market. The responsibilities of upholding families may also contribute to the wish to be employed. Among the other marital statuses, widowed and divorced/separated persons stand out for higher unemployment rates, with those for divorced/separated coming up 4.0 per cent, the highest rate of any single subcategory identified in Fig. 2.19. Higher ages as well as the distractions caused by disrupted family life may be at the bottom of this.

Education (Highest grade completed) has been recoded as explained in Section 2.1. One notes that, as to be expected, a complete absence of schooling correlates positively with unemployment. At the other end of the scale the highest education levels: bachelor, master or PhD, lead to practically full employment. For the remainder the effect of schooling is small, although unemployment is slightly greater at higher intermediate education levels. In developing economies like Cambodia completing secondary school, and no more than that, is not necessarily an asset in the labour market. As over time education standards in the population improve, the demand for employment at this level often starts exceeding the offer in terms of higher-paying vacancies. This can be a serious disappointment for students and parents who have made sacrifices to attain a higher education level. At the present time the unemployment rates in Cambodia are still so low overall that there appears to be no cause for alarm.

As expected, illiteracy is not good for employment chances. Also those who have never attended school do less well than those who attended before.

The three variables *Education level*, *Literacy* and *School attendance* of course are far from independent and any analysis needs to take that into consideration. Furthermore it is clear from the above that the relationship between the basic socio-demographic characteristics of Fig. 2.19 and unemployment is most often affected by other intervening factors: persons who are single are on average younger, and as young people have more schooling than older people, their educational attainment is on average also better than married, widowed or divorced persons. Consequently, the level of unemployment of single persons does not purely reflect the net effect of being single compared with other marital states, but also reveals the effect of a combination of the features of single persons.

To show the net effect of an explanatory variable on a dependent variable, statisticians rely on multivariate regression techniques. The goal of a multivariate regression is typically to quantify how variable A influences variable B without the intervening effects of other known attributes of the subject. A multitude of multivariate regression techniques exist. In case the dependent variable is a dichotomy, a logistic regression method can be used. For an application of that technique see Section 2.3, where it is applied on the dichotomy Employed/Not employed in the total *de-facto* population aged 15 to 64.

2.2.2 Trends and international context

Figure 2.20

Unemployment rates for population aged 15 – 64 by sex in the Censuses of 1998, 2008 and 2019

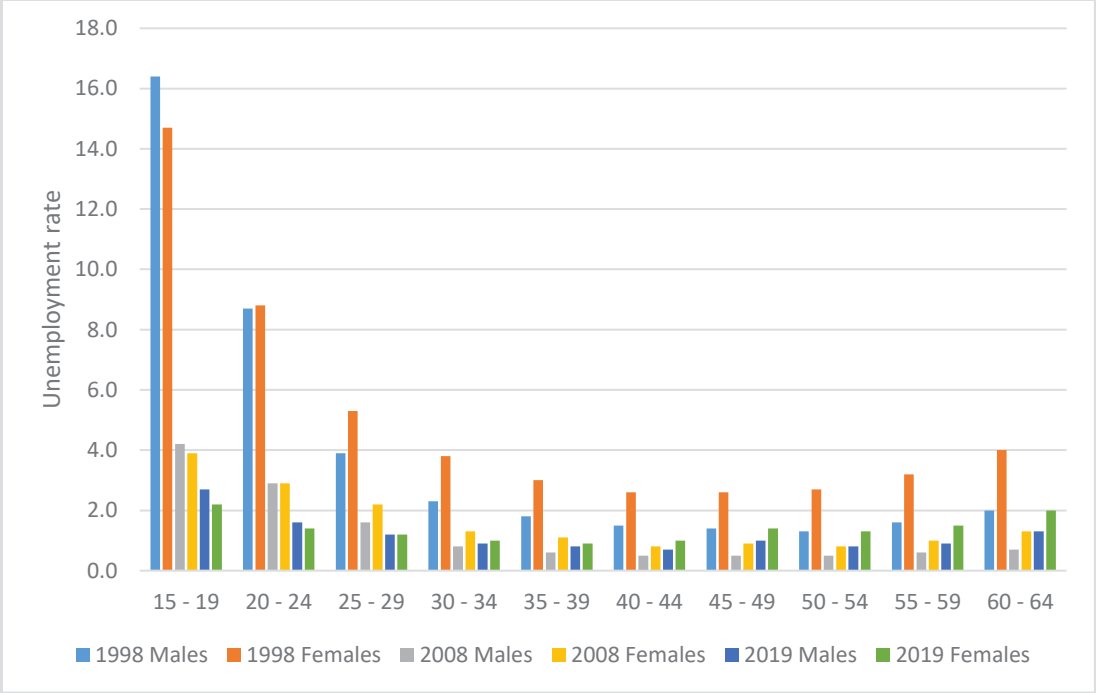
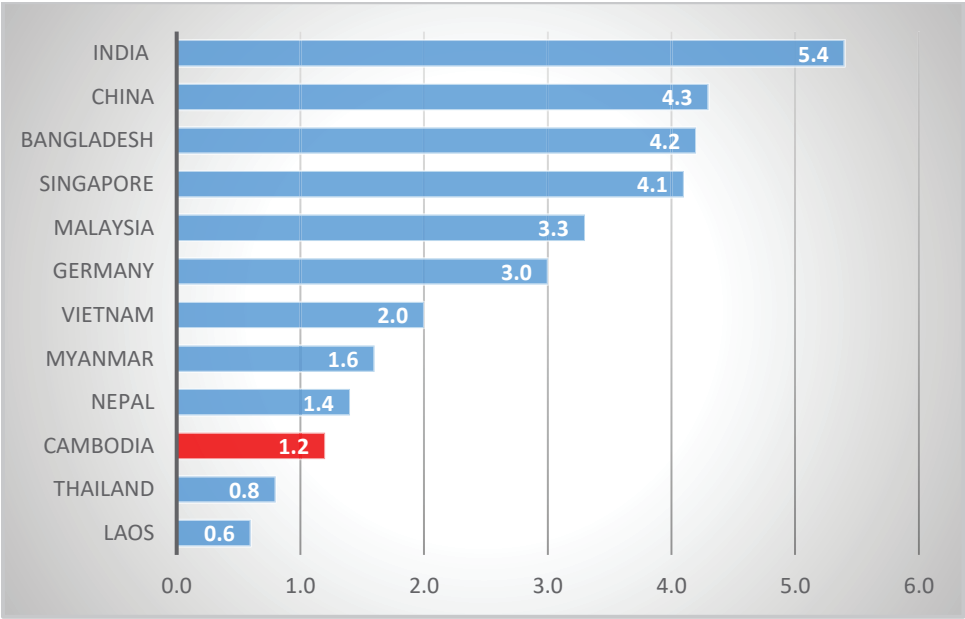


Fig. 2.20 shows unemployment rates by sex and age group for the three most recent censuses. The trends are obvious. Unemployment rates did come down substantially between 1998 and 2008, and since then have remained largely stable. In fact they could hardly go lower under normal circumstances. One notes that female unemployment is

traditionally always a little higher than that for males. Unemployment is greatest in the youngest and oldest 5-year age groups of the 15 - 64 range depicted. Possibly some younger persons have not yet come to accept the scarcity of employment that corresponds with their education and backgrounds, therefore hold out for a better opportunity. At intermediate ages unemployment figures become so low that they would be unconceivable in an industrialized economy with a developed social security system. At the highest ages there is a slight upward trend, possibly because of people's physical impairments.

Figure 2.21
Unemployment rates for population aged 15 – 64 in various countries for 2019



Placing Cambodian unemployment in an international context (Fig. 2.21), one notes that the country does not stand out in the region. Thailand and Laos have slightly lower rates, while Myanmar and Vietnam come in just a little higher. The two largest countries in Asia, India and China, have much higher unemployment rates. An investigation of this would need to take into account the social security systems (or the absence thereof) in the various countries and the social embarrassment that may come with an admittance of unemployment.

2.3 Employment-to-population ratio

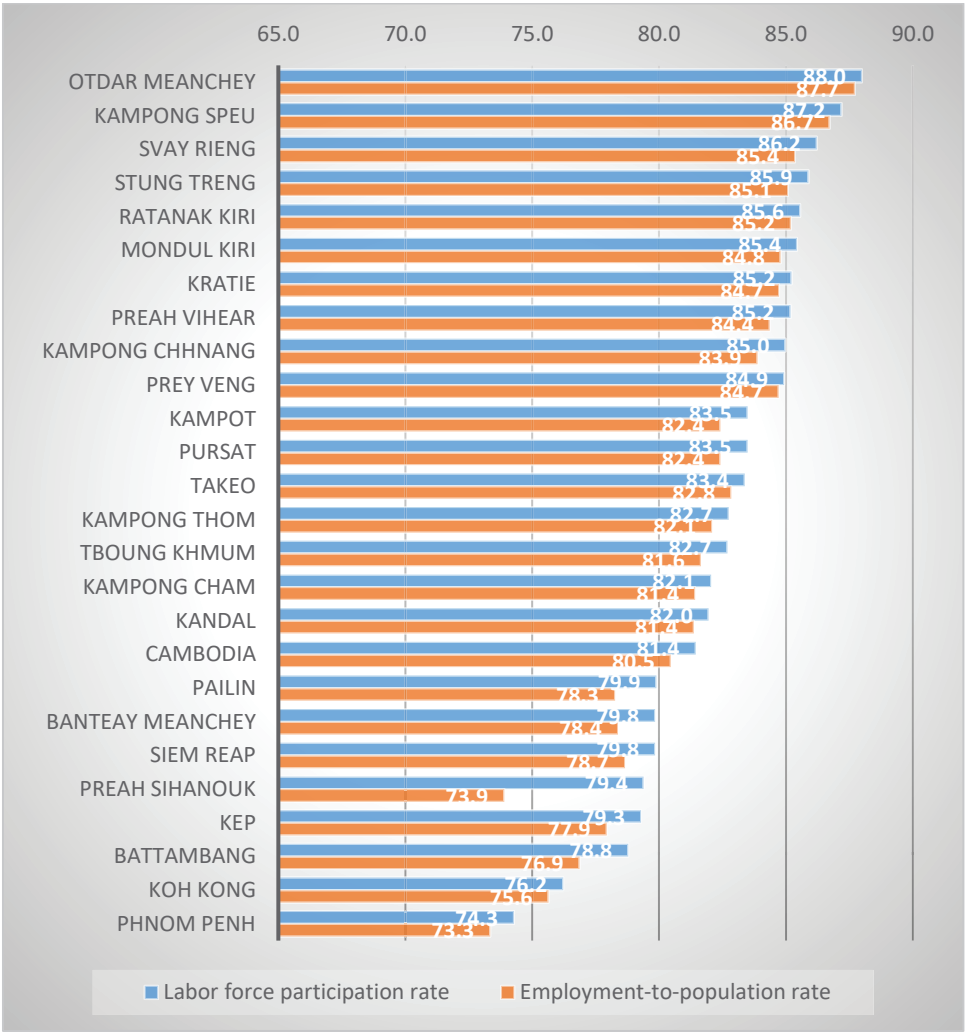
The employment-to-population ratio is an indicator which is closely related to the labour-force participation rate. According to ILO's definition [ILO20c], the employment-to-population ratio is defined as the proportion of a country's working-age population that is employed. If levels of unemployment are low, the employment-to-population ratio will come very close to the labour-force participation rate. The ratio is a direct indicator of the ability of a country to provide employment to its population. In less-developed countries, with high levels of informal employment and casual day labourers, the indicator can in some cases be more insightful than the unemployment rate.

2.3.1 Employment-to-population ratio and related Census variables

In Cambodia the two indicators lie traditionally very close to each other (Fig. 2.22), with the labour-force participation rate always a little higher. This is obvious since it includes the unemployed in the nominator.

Figure 2.22

***De-facto* population aged 15 – 64: Labour-force participation rates and employment-to-population ratios per Province**



There would be an interest in the *Employment-to-population ratio* for persons of all ages, since it is a measure for the extent to which the benefits of employment have to be shared among the entire population. In Cambodia this indicator stands at 55.5, which means that slightly more than one out of every two persons (of all ages) is employed. Unfortunately this is not among the set of core indicators maintained by World-Statistics and ILOSTAT. It can, however, be determined by combining information for the total numbers of the labour force, the unemployed and the overall population.

2.3.2 Logical regression analysis on employed/not employed

Starting from the Census microdata it is possible to tabulate labour statistics such as labour-force participation rate, unemployment rate and employment-to-population ratios against all other collected individual attributes, such as province of residence, urban/rural, sex, age group, marital status and education. However, these results may be misinterpreted

since these other variables are correlated among themselves. For example, marital status is correlated with age, urban/rural most likely correlates with education levels and so forth. It is therefore useful to apply a statistical method that shows the effect of each indicative *(independent*) variable while compensating for the effects of the rest. We have to do this in an environment where nearly all variables are categorical (or *nominal*), that is to say they have no intrinsic order. For example, sex is a categorical variable having minimally two categories (male and female) and there is no particular ordering to the categories.

A common procedure in the domain of fitting categorical data is logistic regression. In its simplest application we thereby try to predict a binary dependent variable on the basis of a number of independent variables. In the present case what is to be predicted is Employed in the dichotomy Employed/Not employed in the total *de-facto* population aged 15 to 64.

For the independent variables those of Region, Urban/Rural, Sex, Age group, Marital status and Education level have been chosen. For the sake of simplicity the provinces have been condensed into five regions. Marital status and Education are also used in a summarized set of categories.

The regions are:

- Phnom Penh (Phnom Penh Province)
- Other Plains (Kampong Cham, Kandal, Prey Veng, Svay Rieng, Takeo, Tboung Khmoum)
- Tonle Sap (Banteay Meanchey, Battambang, Kampong Chhnang, Kampong Thom, Pursat, Siem Reap, Otdar Meanchey, Pailin)
- Coastal (Kampot. Koh Kong, Preah Sihanouk, Kep)
- Plateau Mountain (Kampong Speu, Kratie, Mondul Kiri, Preah Vihear, Ratanak Kiri, Stung Treng)

The method predicts the odds as compared to a basis situation for each independent variable. The basis for Regions is Phnom Penh, for Urban/Rural it is Urban, for Sex Male, for Age group 15-19, for Marital status: Single and for Education: None. The odds ratios are expressed as Exp (B). The statistical software system IBM SPSS was used and results are presented in Table 2.8 and Fig. 2.23.

Looking at the regions we note that the odds of being employed are larger in Other Plains and Plateau/Mountain and more or less the same in Tonle Sap and the Coastal Region as compared to Phnom Penh. The chances of being employed are considerable larger in rural as compared to urban areas, an interesting conclusion.

Furthermore, females have worse chances than males and all age groups exceed the employment rates of the group of 15 to 19. That is not strange given the large number of students in that youngest group.

Ever-married people score higher than singles, and those with intermediate education levels have lesser employment chances than those without any schooling. This, of course, is a matter of concern.

Note the 95% confidence intervals on Exp (B). Due to the large amount of data these intervals are fairly narrow. In fact, since we are dealing with a complete universe rather than a sample, confidence intervals do not make much sense.

Table 2.8

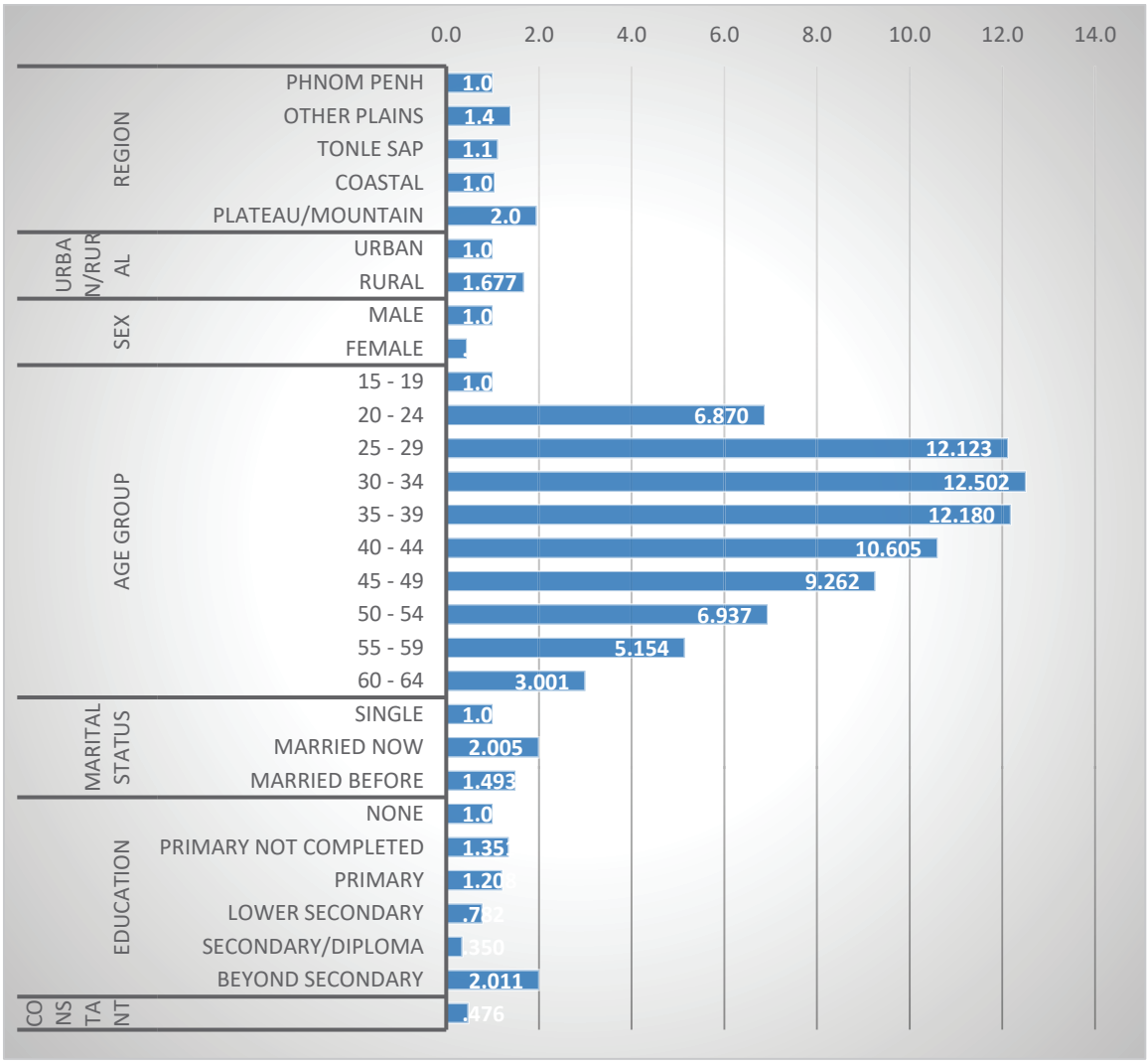
De-facto population aged 15-64: Logistic regression of employed odds for the dichotomy employed/not employed

		B	Sig.	Exp(B)	95% C.I. for Exp(B)	
					Lower	Upper
Region	Phnom Penh			1.0		
	Other Plains	.324	.000	1.4	1.375	1.391
	Tonle Sap	.110	.000	1.1	1.110	1.123
	Coastal	.043	.000	1.0	1.035	1.052
	Plateau/Mountain	.669	.000	2.0	1.937	1.966
Urban/Rural	Urban			1.0		
	Rural	.517	.000	1.677	1.669	1.684
Sex	Male			1.0		
	Female	-.817	.000	.442	.440	.443
Age group	15 - 19			1.0		
	20 - 24	1.927	0.000	6.870	6.828	6.912
	25 - 29	2.495	0.000	12.123	12.034	12.213
	30 - 34	2.526	0.000	12.502	12.398	12.606
	35 - 39	2.500	0.000	12.180	12.075	12.286
	40 - 44	2.361	0.000	10.605	10.498	10.713
	45 - 49	2.226	0.000	9.262	9.172	9.353
	50 - 54	1.937	0.000	6.937	6.871	7.003
	55 - 59	1.640	0.000	5.154	5.106	5.202
	60 - 64	1.099	0.000	3.001	2.973	3.029
Marital status	Single			1.0		
	Married now	.696	.000	2.005	1.994	2.016
	Married before	.401	.000	1.493	1.479	1.508
Education	None			1.0		
	Primary not completed	.301	.000	1.351	1.342	1.359
	Primary	.189	.000	1.208	1.200	1.216
	Lower secondary	-.246	.000	.782	.777	.787
	Secondary/Diploma	-1.049	.000	.350	.347	.354
	Beyond secondary	.699	.000	2.011	1.983	2.040
Constant		-.743	.000	.476		

The results of Table 2.8 are visualized in Fig. 2.23

Figure 2.23

De-facto population aged 15-64: Logistic regression of employed odds for dichotomy employed/not employed



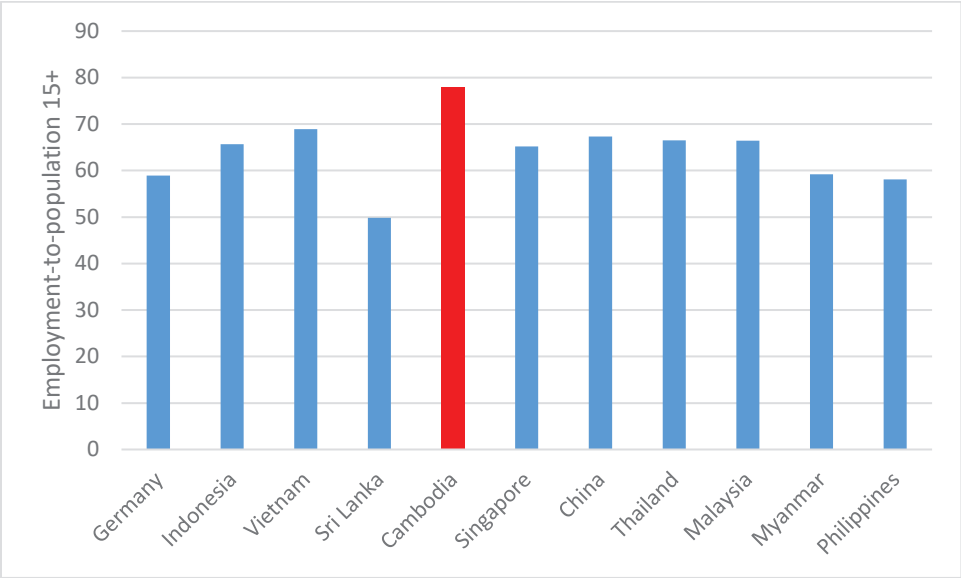
2.3.3 Trends and international context

In comparing across countries and for the entire population age 15 and over (Fig. 2.24) there are several important factors to take into account. In mature societies the population over 64, in which labour participation is normally smaller, counts relatively more. In situations where women, even if active in agricultural work, are mostly not counted in the labour force, this will bring down the indicators, as will a relatively large number of students. The information for countries other than Cambodia was, as usual, obtained from the World-Statistics site [Wo20].

Rates were not available for countries like India, Bangladesh and the Lao PDR. The high rate for Cambodia is nearly unparalleled among the countries reporting. Only the United Arab Emirates and Iceland score higher.

Figure 2.24

Employment-to-population ratios for persons aged 15 and over, various countries



2.4 Status in employment

According to Census Question 20, employed people could be classified into one of five different employment statuses: employer, paid employee, own-account worker, unpaid family worker and "other". This question obviously could not be answered for the unemployed.

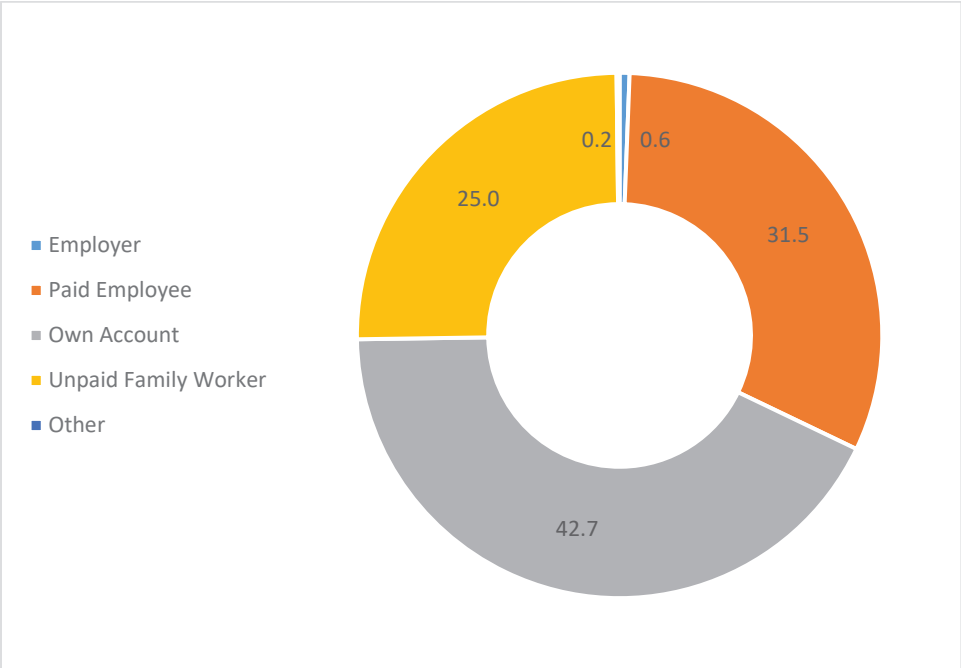
Own-account workers are those self-employed persons who worked in their own/family business for gain and did not have any employees, although family members might be assisting them. This category could include, for example, small farmers, self-employed craftsmen, independent taxi drivers and petty traders. Any member of the household working in a family holding for regular pay was classified as an employee. Unpaid family workers are those contributing to the business or farm of another household/family member without a formal monetary compensation. These days the ILO prefers the term c*ontributing* rather than *unpaid* family worker" [ILO03a].

2.4.1 Status in employment and related Census variables

Fig. 2.25 shows that among the total population aged 5 and over who were employed, the group of own-account workers made up 42.7 per cent, paid employees accounted for 31.5 per cent and unpaid family workers a further 25.0 per cent. There are, at 0.6 percent, not many employers. The residual group of *Other* at 0.2 per cent is very small indeed. Monks living and working in a monastery would be classified there.

Figure 2.25

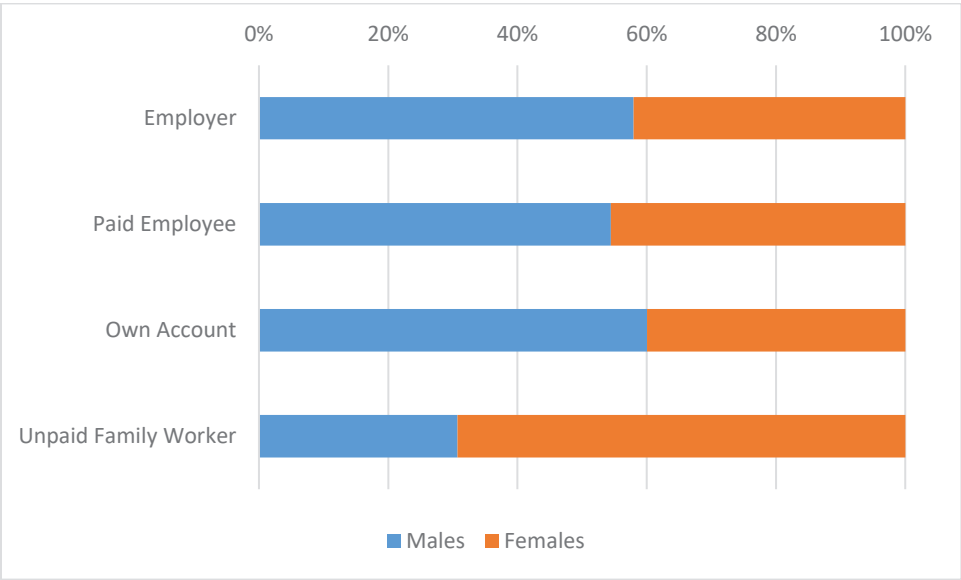
Percentage distribution of employed persons aged 5 and over: Status in employment



Looking at the distribution between the sexes in Fig. 2.26 one finds a rather traditional overrepresentation of women in the category of *Unpaid family worker*, while males are more numerous in the other categories. The differences are not as clear-cut as might have been feared, for example over 40 per cent of the employers are female.

Figure 2.26

Employed persons aged 5 and over: Status in employment and Sex



Looking at this from the perspective of earlier censuses the results are as in Table 2.9. One notes a slow but steady development in the direction of a greater balance between the sexes, whereby the male overrepresentation in the top three classes declines, while males make up an increasing share of the Unpaid family workers.

Table 2.9

Employed persons aged 5 and over: Percentage of males for Status in employment in 3 censuses

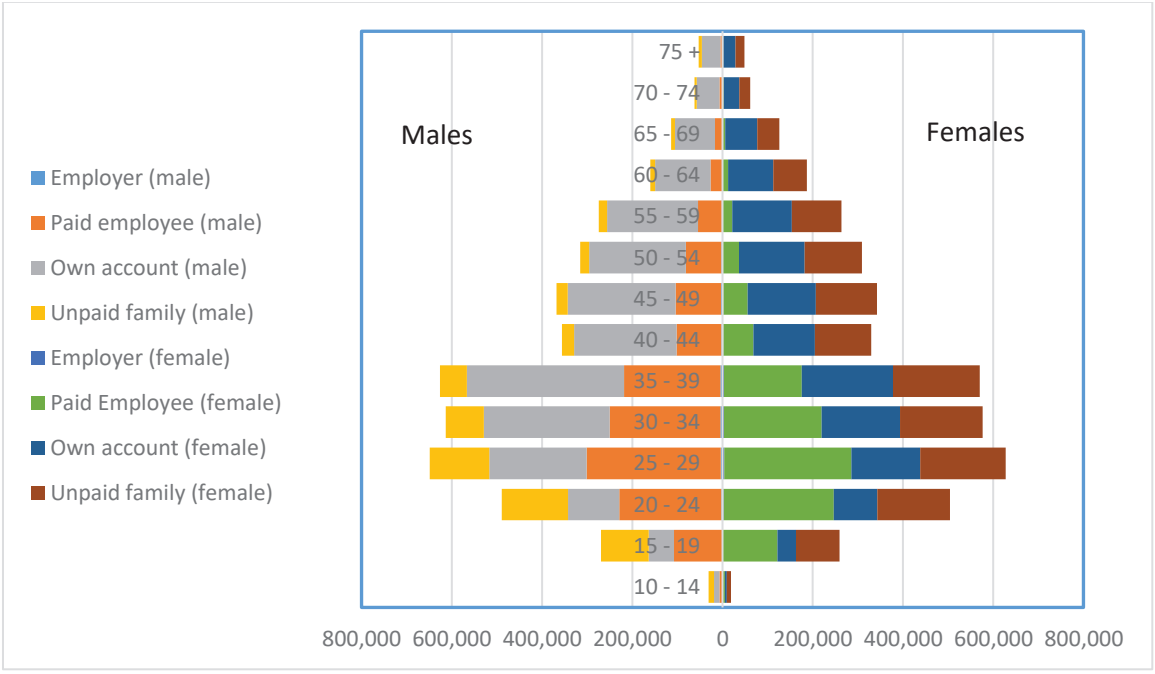
	1998	2008	2019
Employer	66.6	57.6	57.9
Paid employee	73.6	58.5	54.4
Own-account worker	65.4	67.4	60.1
Unpaid family worker	22.8	28.4	30.7

The population pyramid in Figure 2.27 shows the age and sex distribution of the employed labour force by status in employment in greater detail. One notes that own-account workers constitute the largest group among males, while for females this is about evenly divided between own-account workers and unpaid family help. Apparently, positions of contributing family help go relatively more often to females than males. The employment status of *paid employee* tapers off at higher ages as older employees disappear from the payrolls. The own-account workers, however, carry on. In the Cambodian situation of paucity of old-age pensions this is easily explained by the need of the workers for continuing income.

The number of employers, at 52,715 and 0.6 per cent of the employed population is quite small. It may be difficult for own-account workers to grow into a situation of small employers. It would be interesting to look at the particulars of small enterprises, for example farms with a few salaried employees, but that would require an establishment survey or census.

Figure 2.27

Population pyramid of employed persons by sex and status in employment

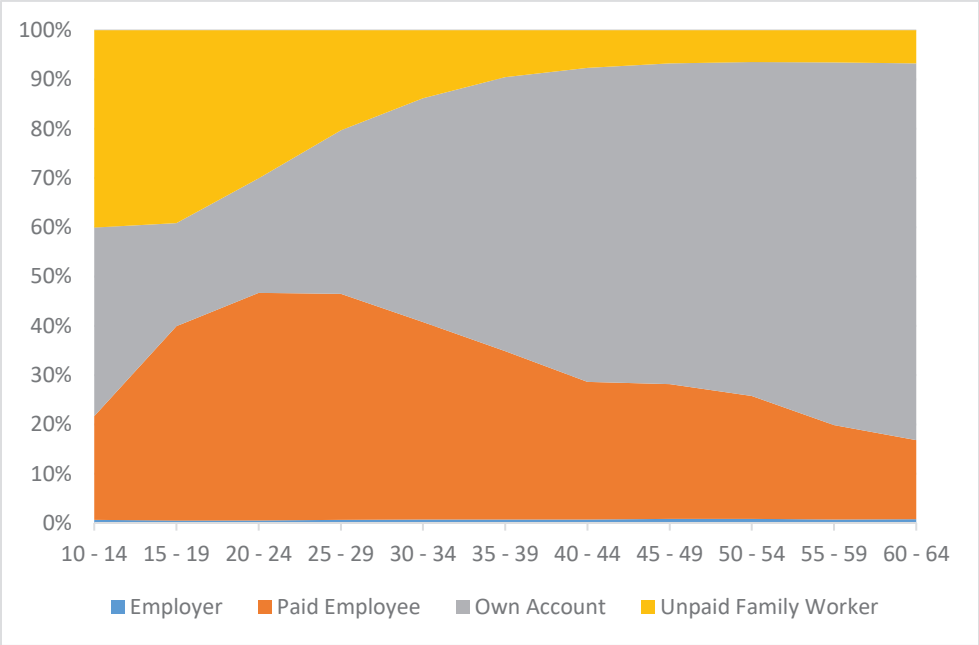


Although the population pyramid shows how at each age the population is divided among the different classes of employment status, it is not able to clearly show the dynamics over the various age-groups of the population. Figures 2.28 displays the relative distribution of

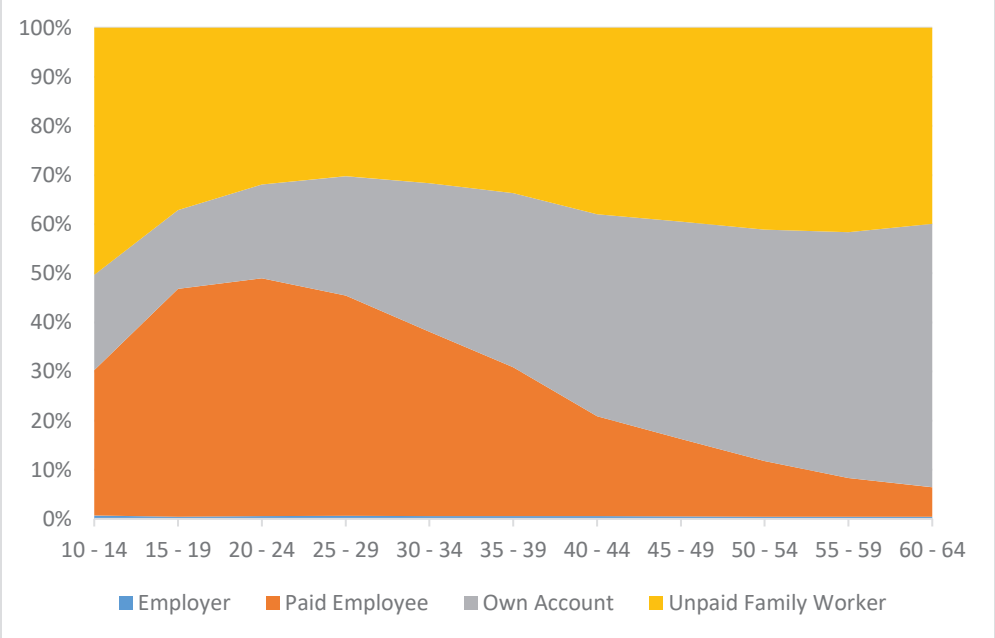
males and females by status in employment by sex and age. The graph is restricted to the age-groups 10-64 because of the rather erratic patterns after age 65. It is remarkable to observe how male unpaid family workers at higher age gradually disappear, giving rise to an ever-increasing mass of male own-account workers. Among employed females the fraction of contributing family workers remains relatively stable at around 35 per cent. But there too, the segment of own-account workers increases at higher ages, as female paid employment fades away.

Figure 2.28

Percentage of employed population by type of employment, sex and age
Males



Females



2.4.2 Trends and international context

The three censuses of 1998, 2008 and 2019 used largely the same definitions and methodology. Therefore the results can be compared and conclusions drawn as to how status in employment has evolved over the years. Any anomalies would raise an interest in checking the reliability of the data involved.

The number of employers remains low over the years, but close inspection of Fig. 2.29 reveals a growing trend. The same is true for paid employees. The percentage of female paid employees has grown especially. In 2019 it was about four times greater than in 1998.

Own-account worker remains the largest segment among males, although the percentage is declining. Among women, contributing family members are still the largest group, but in the intercensal period 2008 – 2019 their percentage nearly halved, dropping from 60.9 per cent to 35.5 per cent of the employed females. The number of women own-account workers is at 34.7 per cent now only slightly behind.

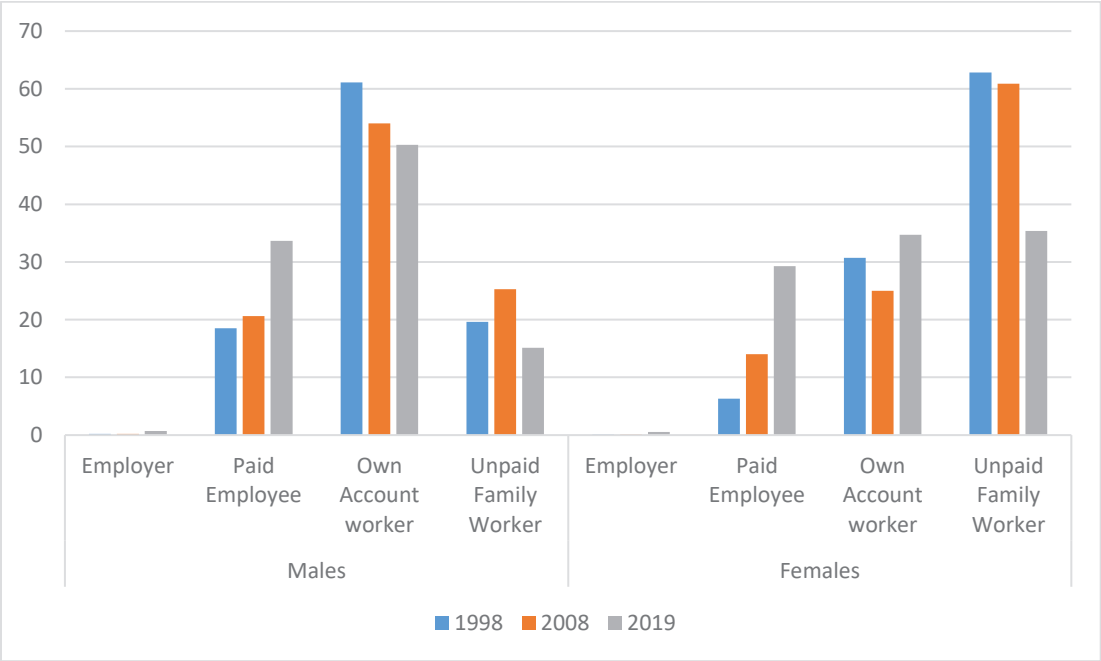
The results are unsurprising in the sense that this is what one would expect in an economy that is developing and in which women are increasingly taking responsibility. Nevertheless the figures also show that there is still much to win.

With continuing economic expansion, the further development of the private sector and the shift of workers from low-productivity agriculture to higher productive non-agricultural activities, it can be expected that the proportions of employers and paid employees will further increase over the coming years. One would also assume the similarities of the distributions of men and women over the categories to further increase.

Censuses are not the only source of information on this variable. There is, for example, the 2007 Labour Force Survey [NIS10]. For the important category of *Contributing family workers* it found 30 per cent among males and 52 per cent among females. These numbers fit in reasonably well with the bars in Fig. 2.29. The same is true for the 2013 Cambodia Intercensal Population Survey [NIS13a]. This survey reports 22.8 per cent for males and 53.3 per cent for females. It's a different story though for the Cambodia Socio-Economic Survey 2017 [NIS18b], which reports that only 4 per cent of men and 4.7 per cent of females are unpaid family workers. CSES 2016 is not much different. The large discrepancy between the socio-economic surveys and other sources begs investigation.

Figure 2.29

Employed persons: Sex by Status in employment, 1998, 2008 and 2019 censuses (%)



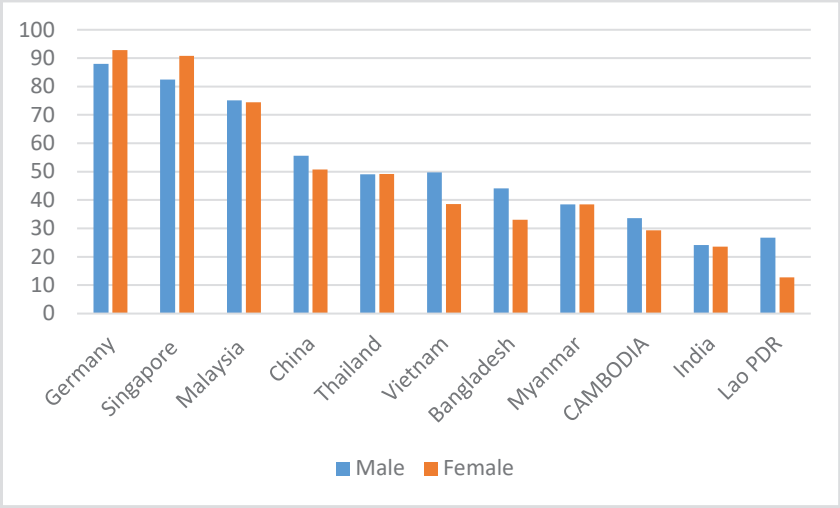
Section 2.4.3 will discuss in some further detail own-account workers and contributing family workers. In Fig. 2.30 the other large class of employment status, paid employees, described by the World Bank as wage and salaried workers, is depicted for a number of countries. The bars show, for males and females, the percentages of workers that fall into this class.

In developed economies a large part of the workers tend to be paid employees. Germany and Singapore score well over 80 per cent for both sexes. Despite its growing secondary economic sector, Cambodia with 33.6 per cent for males and 29.3 per cent for females still resides at the lower end of the scale. If trends perceived between the 2008 and 2019 Censuses continue, this will soon change.

It is interesting that in developed countries the fraction of female paid employees tends to be larger, while elsewhere more males are salary earners. One would guess that in the developed world females seek more the relative safety of paid formal employment, while elsewhere women still have little choice other than accepting any chance to be gainfully employed.

Figure 2.30

Paid employees: Sex by percentage of total male/female employment, various countries [WB20]



2.4.3 Vulnerable employment

According to the ILO's report *World Employment and Social Outlook - Trends 2020* [ILO20a] so-called *vulnerable* employment remains prominent in developing countries. Such employment refers to those who are employed as own-account workers or contributing family workers and therefore are in a relatively risky position. As such it is closely connected to the ILO's notion of *Decent Work*. Vulnerable employment as a percentage is measured by adding the number of own-account workers and the number of contributing family workers, multiply this total by 100 and then divide by the total number of persons employed. For the whole region of Asia and the Pacific it was estimated as 52 per cent in 2019 [ILO19b].

The vulnerable employment rate is an indicator that gives information on the extent of workers' vulnerability to economic risks because of the fragility of informal employment arrangements. Own-account workers and contributing family workers are considered to be vulnerable because they are likely to:

- Lack contractual arrangements which would improve job security;
- Do not benefit from social protection and social safety regulations that govern wage and salaried workers in most countries; they are therefore not likely to benefit from social security, health or unemployment coverage.

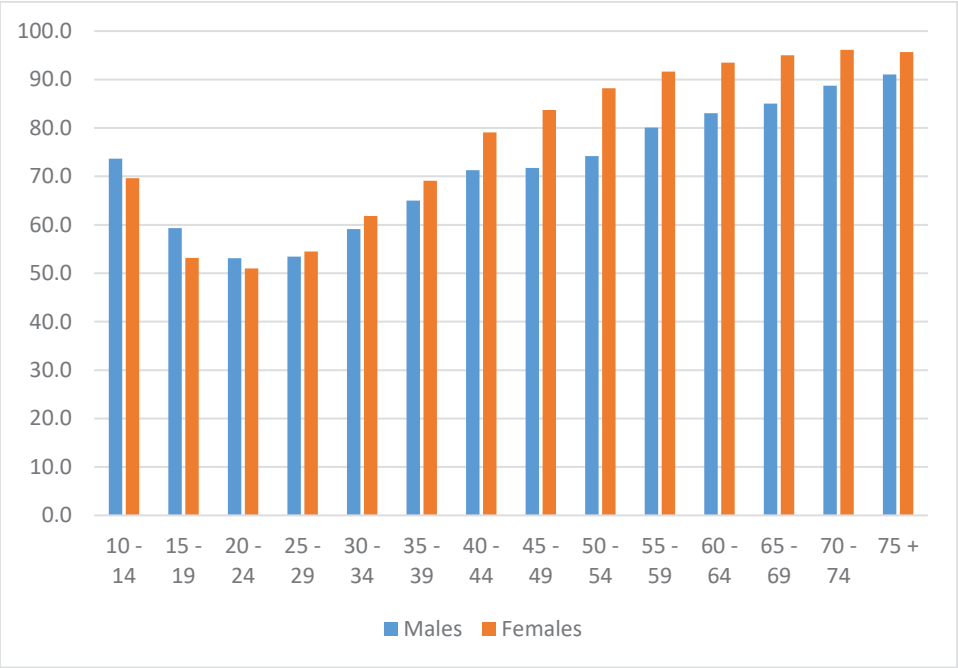
In Cambodia the percentage of workers in vulnerable employment is highest for men and women in their sixties and seventies. In these age groups, Figure 2.31 shows that the vulnerable employment rate is well above 90 per cent for women and only some 10 per cent lower for men. Since younger people enter a more modern, job-oriented economy, while older workers are often stuck in conventional situations, they enjoy a lower vulnerability rate. Obviously this is not true for everyone. Many young women are still victims of outdated role concepts and even some children are forced into child labour.

Note that the nature of vulnerability between the young and the old is different. While many young people were employed as contributing family workers, older people were more often reported as own-account workers. Also, it should be mentioned that

vulnerability among children is not necessarily confined to contributing family workers and own-account workers. All children who have paid or unpaid economic activities as their principal engagement should be considered as vulnerable. To a certain extent, the same holds for older persons in the labour market.

Figure 2.31

Persons in vulnerable employment: % of total employment by sex and age



Large differences exist in vulnerability in employment as a function of various social attributes of persons. Figure 2.32 depicts the percentage of persons aged 15 to 64 who work in vulnerable employment by various background characteristics. Persons residing in rural areas have a nearly twice greater chance of being in vulnerable employment than urban dwellers: 80.6 per cent compared with 44.4 per cent. Sex differences are smaller with 64.0 per cent for males and 68.5 per cent for females.

Single persons had the lowest vulnerability (49.9 per cent) while widowed persons (79.8 per cent) scored significantly above the national average. This should not come as a surprise, since single persons are mostly younger than widowed persons, and the younger generations are more engaged in paid employment, either in the government or the private sector. Vulnerability in employment was average among persons who had renounced their marriage. They are on average older, but one might speculate that they would be a little more educated and enterprising. It would be possibly to apply here a logistic regression analysis as in Section 2.3. But such statistical probes have been limited in number, to keep this report to a manageable size.

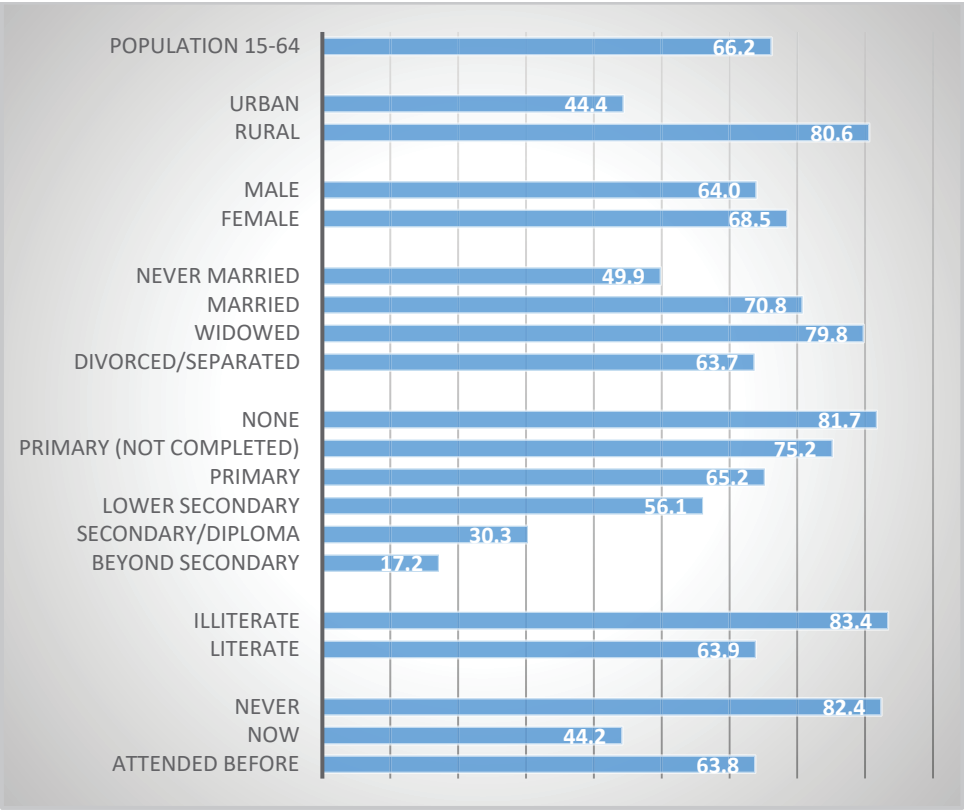
Type and level of education are an important indicators for people's vulnerability in employment. Illiterate persons scored higher in vulnerability than literate persons: 83.4 per cent compared with 63.9 per cent. As a function of the education level, vulnerability descends in a virtual straight line from 81.7 per cent (*No grade completed*) to 17.2 per cent for those who had progressed beyond secondary. This is a powerful argument for the role education can play in leaving workers less exposed to unfavorable conditions. For details

about how education levels were aggregated, consult Section 2.1.2. Further analysis would be required to determine the effects of co-variability. As mentioned before, the person attributes as used in in Fig. 2.32 are not independent from each other.

Unsurprisingly, those who are in school or who frequented before have better vulnerability scores than those who never attended. The nearly identical score for *No education* and *Never went to school* confirms consistency within the data set. Obviously those who never went to school are unlikely to have completed any grade, although the opposite is not necessarily true. Unfortunately there continues to be a group of children who leave school already during their first year there.

Figure 2.32

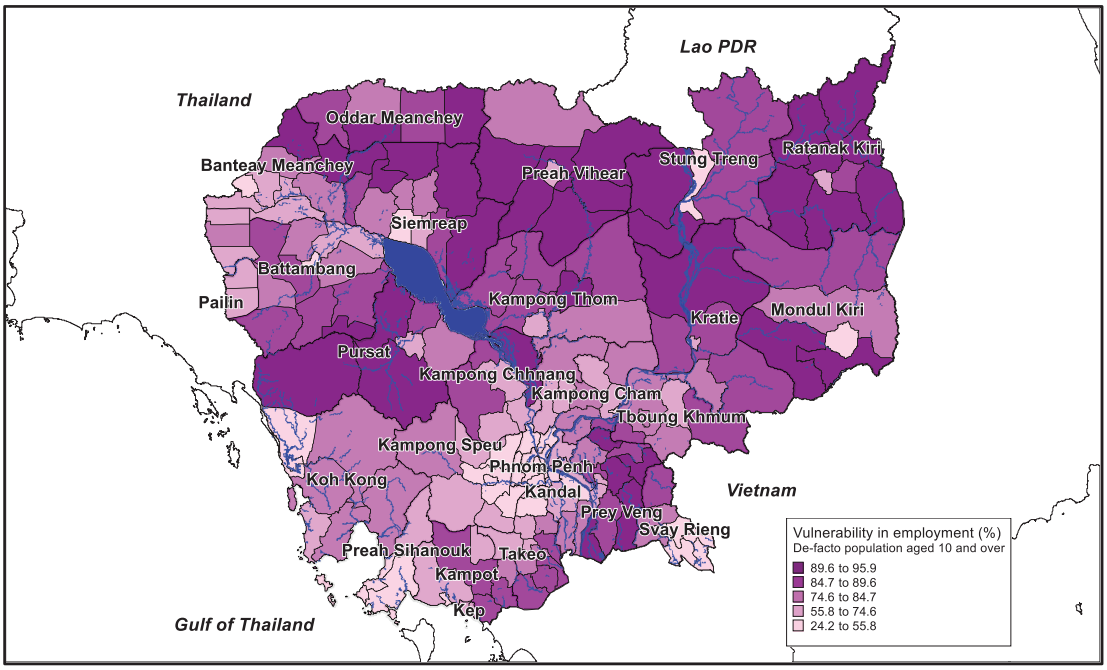
Persons aged 15-64 who work in vulnerable employment by various characteristics (%)



The diversity in the proportion of the working population in vulnerable employment is further demonstrated in the map at Figure 2.33. It visualizes the degree of vulnerability at the District level. Vulnerable employment is typically lowest in the urban centres of Phnom Penh, Battambang, Preah Sihanouk and Siemreap, while the highest levels exist in some of the Districts in Pursat, Prey Veng, Preah Vihear and Ratanak Kiri Provinces. The Districts with lowest vulnerability are Pou Senchey (24.2 per cent) and Sen Sok (30.9 per cent) in Phnom Penh Province. The largest vulnerability was measured in Ou Ya Dav (95.2 per cent) and Veun Sai (95.8 per cent), both in Ratanak Kiri Province. There are in total 34 districts with vulnerability levels in employment exceeding 90 per cent.

Figure 2.33

Employed population in vulnerable employment, Districts (%)



Vulnerability in employment is closely related to informality. The ILO has defined this as all remunerative work (i.e. both self-employment and wage employment) that is not registered, regulated or protected by existing legal or regulatory frameworks, as well as non-remunerative work undertaken in an income-producing enterprise. Informal workers do not have secure employment contracts, workers' benefits, social protection or workers' representation [ILO03b]. So the two notions are not exactly the same, since an own-account worker may have secure money-earning contracts, while some informal workers may be a wage earners but with inadequate protection in that status. Since vulnerability is, in accordance with ILO definitions, relatively easy to measure, censuses tend to report that indicator. That does not make informality a less important exponent of the labour market.

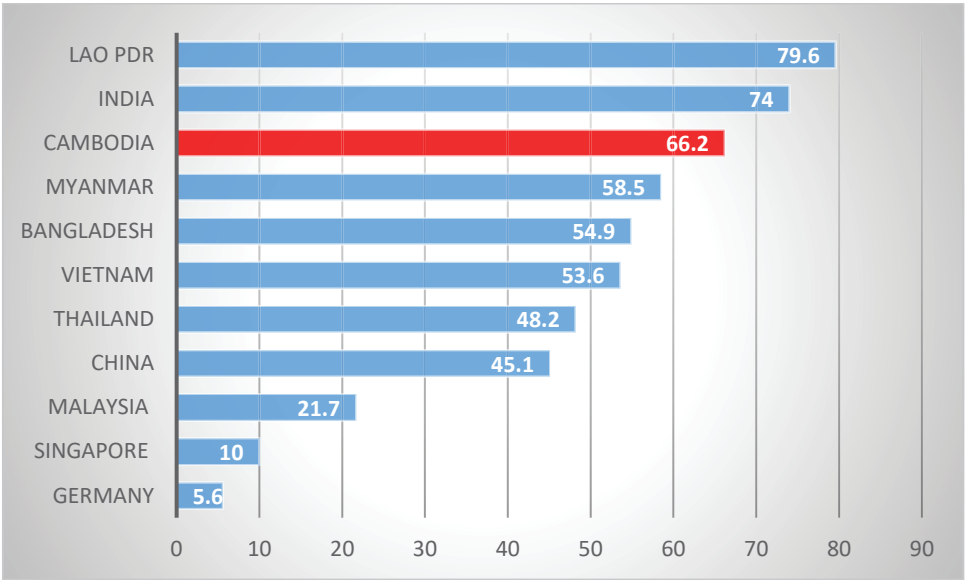
The Census showed that the percentage of all people working in vulnerable employment at 66.2 per cent is higher in Cambodia than in the region as a whole. Obviously it is also higher than in most neighboring countries. As in the rest of the South-East Asian and Pacific region, a higher proportion of women than men work in vulnerable employment: 68.5 per cent for females against 64.0 per cent for males. While it is still quite high, vulnerable employment has decreased considerably since 2008. At that time the Census reported that 90.1 per cent of all workers were working in vulnerable positions: 87.6 per cent of the males and 92.5 per cent of the females

Figure 2.34 compares the vulnerability in employment in Cambodia with other countries in the region, using data from the World Bank website [WB20] derived from ILOSTAT. As mentioned already, Cambodia scores on the high side as compared to other countries in South-East Asia. The country sits about midway between Vietnam (53.6 per cent) and the Lao PDR (79.6 per cent). Again, these results confirm the expectations of informed observers. Such results confirm the view that the Cambodia 2019 Census has been successful in collecting data normally.

Singapore is an outlier in the graph, with only 10.0 per cent of its working population in vulnerable employment, only a fraction of that of large countries such as China and India.

Figure 2.34

Percentage of the working population in vulnerable employment, various countries: data for other countries from the World Bank [WB20] and for Cambodia from the 2019 Census



2.5 Occupation

The question on occupation was asked of all employed or unemployed (earlier employed) members of the *de-facto* population. Thus, no information on occupation was collected on absent residents or those who were never employed. The *de-jure* population is not a suitable universe for processing this and most other economic variables.

Responses to the occupation question were coded at the 3-digit level, using ISCO-08. The *National Report on Final Census Results* [NI21] states that the older ISCO-88 was still used, but that appears to be a slip-up. The coding set was adapted to the newest official release of occupation codes from the ILO before the processing of Census returns began. The applied level of coding provides detailed information on the type of occupation in which people are engaged.

2.5.1 Occupation by Census variables sex and age; occupation and vulnerability in employment

Over the years, Cambodia has remained a country where the majority of people rely on agricultural, forestry and fishery activities to make their daily living. Out of a total employed population (excluding *Armed forces* and *Occupation not reported*) of 8.54 million people enumerated, about 4.56 million (or 53.4 per cent of the reported employed persons aged 5 and over) were classified in the major ISCO-08 category *Skilled Agricultural, Forestry and Fishery workers* (see Table 2.10). The number of men and women working in agriculture, forestry and fishing was about equal, at 2.24 million and 2.32 million respectively.

Table 2.10

Employed population: Main occupational categories by Sex

	Both sexes	Males	Females	Both sexes	Males	Females	Sex Ratio
Total	8,536,358	4,315,762	4,220,596	100.0	100.0	100.0	102.3
Managers	74,182	48,139	26,043	0.9	1.1	0.6	184.8
Professionals	302,972	180,410	122,562	3.5	4.2	2.9	147.2
Technicians and Associate Professionals	121,175	87,469	33,706	1.4	2.0	0.8	259.5
Clerical Support Workers	277,840	165,621	112,219	3.3	3.8	2.7	147.6
Services and Sales Workers	1,073,090	436,106	636,984	12.6	10.1	15.1	68.5
Skilled Agricultural Forestry and Fishery Workers	4,560,482	2,244,708	2,315,774	53.4	52.0	54.9	96.9
Craft and Related Trades Workers	1,418,029	652,237	765,792	16.6	15.1	18.1	85.2
Plant and Machine Operators and Assemblers	194,496	173,316	21,180	2.3	4.0	0.5	818.3
Elementary Occupations	514,092	327,756	186,336	6.0	7.6	4.4	175.9

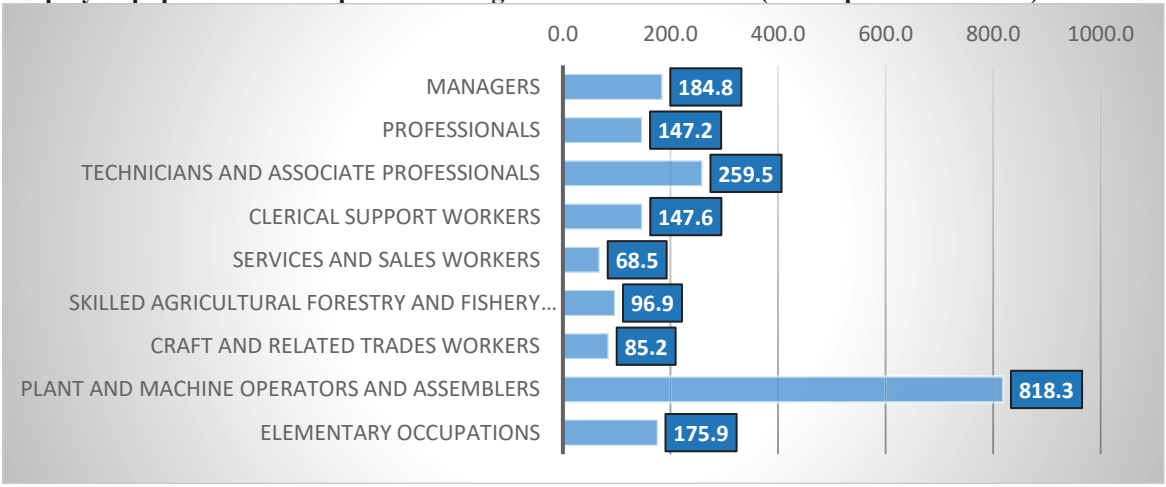
Behind *Skilled Agriculture, Forestry and Fishery Workers*, the second largest occupational group is *Craft and Related Trades Workers* with nearly 1.42 million people, followed by *Services and Sales Workers* (1.07 million) and *Elementary Occupations* with 0.51 million workers. The other groups are small in comparison. The remaining five groups together constitute only 11.3 per cent of the total.

Some occupational categories are particularly male dominated while some others have more females. The last column of Table 2.10 lists the sex ratio (the number of males per 100 females) within each occupational category, and Figure 2.35 displays these ratios in the form of a bar chart There are three classes where women are in the majority: *Service and Sales Workers*, *Craft and Related Trades Workers* and, interestingly, the leading group of *Skilled Agricultural, Forestry and Fishery workers*.

Women are seriously in the minority in *Plant and Machine Operators and Assemblers* and, to a lesser extent, in *Technicians and Associate Professionals*, *Managers*, *Elementary Occupations* and *Professionals*. The female underrepresentation in *Plant and Machine Operators and Assemblers* is spectacular. There is a long way to go there for the emancipation process.

Figure 2.35

Employed population: Occupational categories* and Sex ratios (males per 100 females)



* *Excluding Armed forces and class not reported*

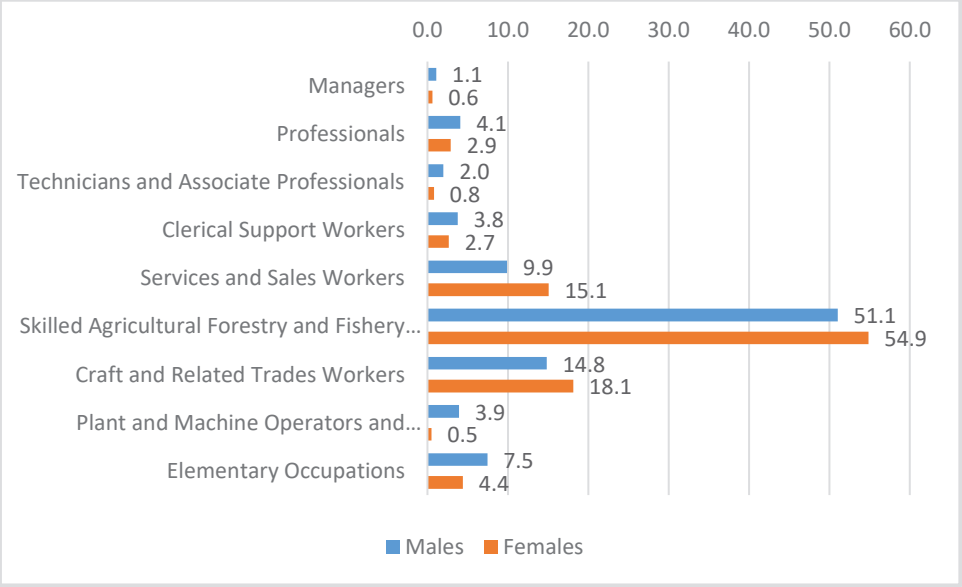
The fact, as shown in Fig. 2.36, that women make up some 40 per cent of *Professionals* and 35 per cent of *Managers* is important. Females in Cambodia apparently are already moderately successful in advancing to the higher echelons of the labour force.

The group of *Plant and Machine Operators and Assemblers* shows the highest sex ratios. In this category, about 8 males were employed for each female, with 3.9 per cent of men and 0.5 per cent of women working in this particular group. Another occupational category with very high male versus female participation measure is *Technicians and Associate Professionals*, with a sex ratio of 259.5 compared to a ratio of 104.2 for the entire employed labour force.

Among *Skilled Agricultural, Forestry and Fishery Workers*, the country's largest occupational group, there were 96.9 male workers for every 100 female workers, which is not much different from *Craft and Related Trade Workers* (85.2 per cent).

Figure 2.36

Employed population: Percentage in main occupational categories (ISCO-08) by sex



The pattern of the age profile within occupational groups is shown in Fig. 2.37. It shows the predominance of agricultural occupations at all ages, but it can be seen that the proportion of people in *Agriculture, Forestry and Fishery* is relatively smaller for young adults. *Craft and Related Trade Worker*s are much more prevalent at younger than at older ages; the same holds true for *Elementary Occupations*. The proportion of persons employed as *Services and Sales Workers* remains quite stable over age groups. Finally, the relatively small proportions of *Managers*, *Professionals*, *Technicians and Associate Professionals* and *Clerical Support Workers* show that the economy is still largely based on the primary, and to a lesser extent the secondary, economic sectors.

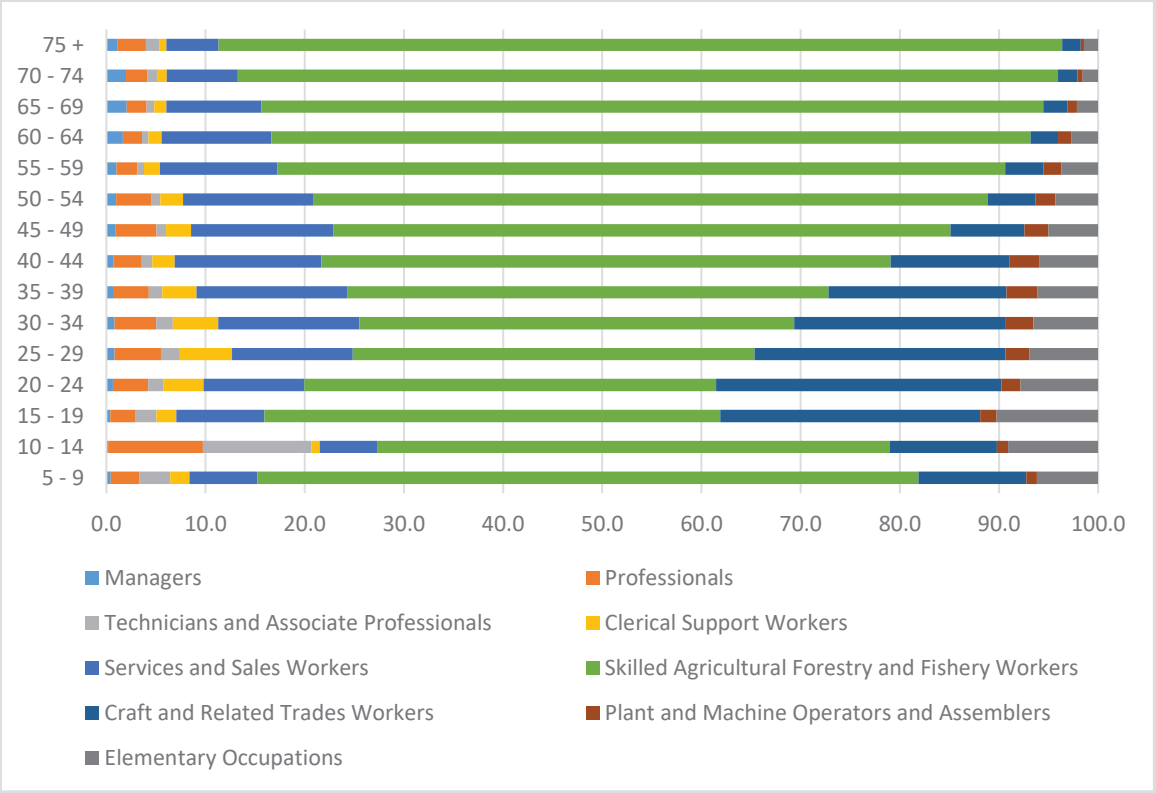
In the age group 10 – 14 the remarkable large fractions of *Professionals* and *Technicians and Associate Professionals* draw attention. They each make out about 10 per cent of the universe for this age group. It should be noted that employed persons in this age group are a small minority of only 3 per cent of the total – most children of these ages are obviously still in school. Therefore the two fractions are not large in numbers, counting around 4,600

and 5,400 persons each. Upon investigation in turns out that the individuals are overwhelmingly male and highly concentrated in two ISCO codes, namely Code 263 for *Social and Religious Professionals*, and Code 341 for *Legal, Social and Religious Associate Professionals*. More likely than not these are boys that spend time in Buddhist monasteries.

In a general census one should exercise caution when looking at Fig. 2.37, since the strata of very young and the old are much smaller in numbers than the other classes in this graph.

Figure 2.37

Employed population: Age group by Percentage distribution over major occupation categories



In Section 2.4.3 vulnerability in employment was already discussed. Vulnerability is closely connected to occupational category since the numbers of persons working as own-account workers or as contributing family workers vary considerably among occupation classes. Persons working in the occupational category *Skilled Agricultural, Forestry and Fishery Workers* had the highest degree of vulnerability. No less than 99.1 per cent of persons in this group were reported as being in vulnerable employment (Figure 2.38), which was much higher than the national vulnerable employment average of 66.2 per cent for all occupational groups in the labour force aged 15 – 64 (67.7 per cent if the entire labour force aged 5 and over is considered). Another category with high employment vulnerability is *Services and sales workers*. Many of this category work as street and market vendors who sell their wares from day to day in the informal sector without little social security of any kind.

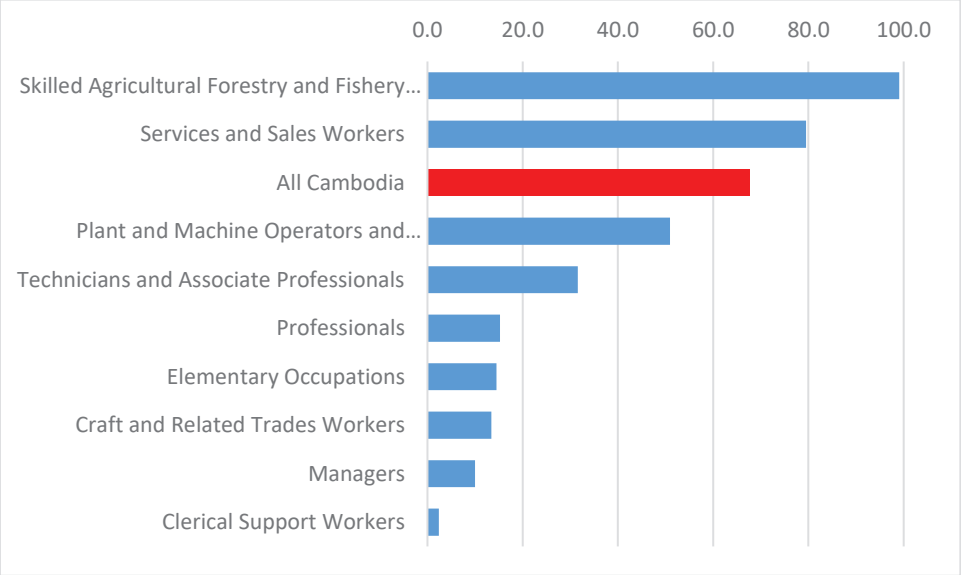
Persons who work in the least vulnerable occupations were those in the categories *Clerical Support Workers* (2.4 per cent), *Managers* (10.0 per cent), *Elementary Occupations* (14.5 per cent) and *Professionals* (15.2 per cent). Apparently *Elementary Occupations* offer

greater job security than most other sectors. These jobs, even while elementary in nature, often provide salaried employment.

The high national average for vulnerability is concerning. Apparently, about two-thirds of the labour force work in occupations in which they are subject to very little job security.

Figure 2.38

Employed population: Percentage in vulnerable employment by occupation category



Within any country, it is always interesting to know the most common occupations. Table 2.11 shows Cambodia's 10 largest occupational groups, ranked larger to smaller for all workers, males and females. The table clearly shows the importance of occupations related to agriculture. In total, two out of the top three largest occupational groups are related to agriculture: *Market gardeners and crop growers* and *Subsistence crop farmers*. The other category in the top three is *Garment and related trades workers*. As will be seen in Section 2.6 the garment industry is a major pillar under the Cambodian economy.

The top 10 occupations contain 6.63 million workers, representing more than three quarters (76.8 per cent) of all persons working. Despite the dominance of agriculture in the Cambodian economy, some manufacturing/construction occupations and service jobs also make it into the top 10.

Cambodia is much dependent on its motorized rickshaws (tuk-tuks) and motorcycles (motodups) for public transport. Some 69,400 males (and 3,117 females) were employed in this trade. On the female side one notes that *Primary school and early childhood teachers* with 39,220 just ranks into the top ten. They have quite a few male colleagues, numbering 37,462, but that's only number 16 in the male hierarchy.

Table 2.11

Top 10 most common occupational groups, ranked for both sexes, males and females

Both sexes		Males		Females	
Market gardeners and crop growers	3,431,243	**Market gardeners and crop growers**	1,683,329	**Market gardeners and crop growers**	1,747,914
Subsistence crop farmers	1,002,598	**Subsistence crop farmers**	479,603	**Garment and related trades workers**	650,096
Garment and related trades workers	920,075	**Garment and related trades workers**	269,979	**Subsistence crop farmers**	522,995
Shop salespersons	336,435	**Mining and construction labourers**	170,966	**Shop salespersons**	215,216
Mining and construction labourers	225,968	**Building frame and related trades workers**	125,464	**Street market salespersons**	134,018
Street market salespersons	204,420	**Shop salespersons**	121,219	**Agricultural forestry and fishery labourers**	67,214
Building frame and related trades workers	148,001	**Client information workers**	79,341	**Mining and construction labourers**	55,002
Agricultural forestry and fishery labourers	145,617	**Agricultural forestry and fishery labourers**	78,403	**Client information workers**	54,760
Client information workers	134,101	**Street market salespersons**	70,402	**Cooks**	50,504
General office clerks	85,505	**Motodup and tuk-tuk drivers**	69,400	**Primary school and early childhood teachers**	39,220
Total top 10	6,633,963		3,148,106		3,536,939

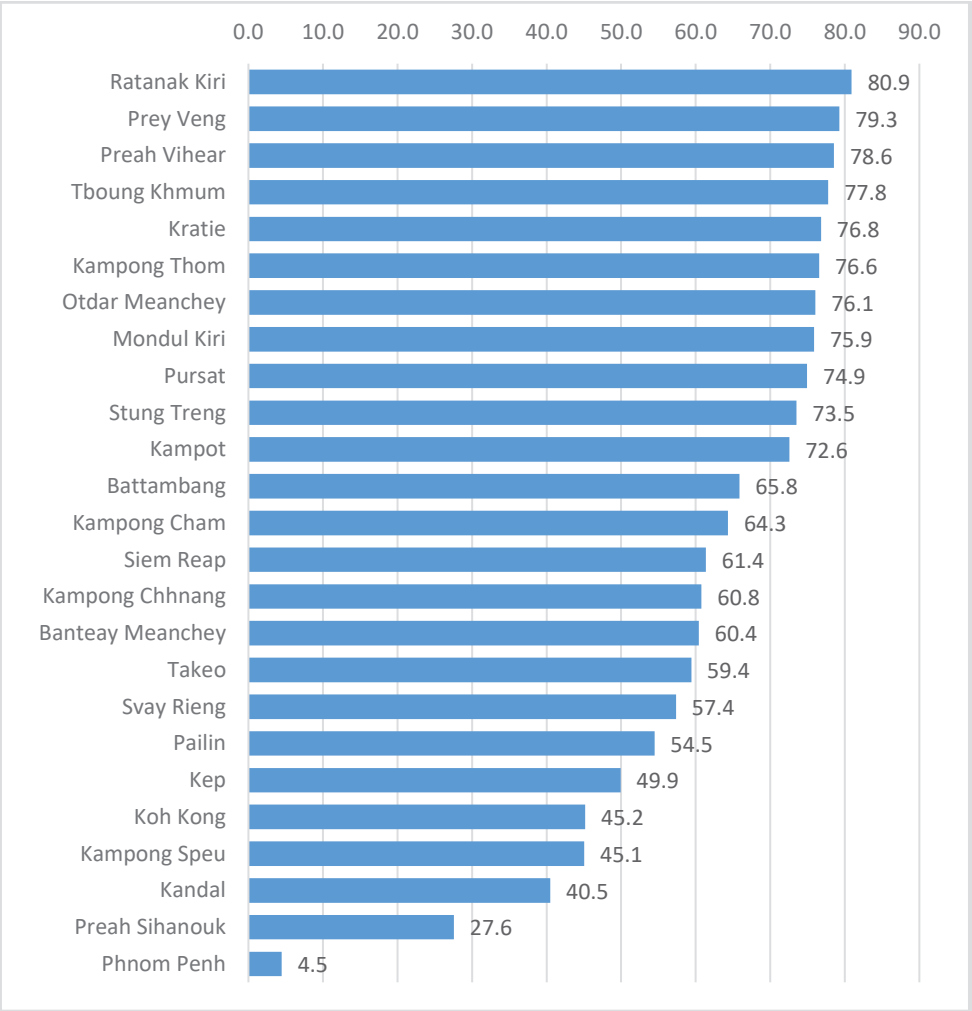
2.5.2 Focus on occupation in agriculture, forestry and fisheries

Because of the preponderance of the agricultural sector in Cambodia, it warrants some particular attention. The group of workers coded as *Skilled agricultural, forestry and fishery workers* does not include all workers in this sector. Considering the minor occupational categories (using the 3-digit ISCO-code), some employments that fall in other major occupational categories need to be also taken into account, for example code 131: *Production managers in agriculture, forestry and fishery* and code 921: *Agriculture, forestry and fishery labourers*. Using all applicable codes, all persons working in agriculture, forestry and fishery profession were considered together as much as possible. This added up to 4.71 million persons working in the sector altogether, for an impressive 54.6 per cent of the employed population.

Figure 2.39 shows that the two provinces with the highest proportion of their workforce in agriculture, forestry or fishing jobs (defined in this way) are in Ratanak Kiri (80.9 per cent) and Prey Veng (79.3 per cent). Another nine provinces all have percentages of their employed population in agricultural jobs above 70 per cent. By far the least agricultural province is Phnom Penh, where only 4.5 per cent of the labour force are engaged in agricultural occupations.

Figure 2.39

Employed population by Province: Percentage working in agriculture

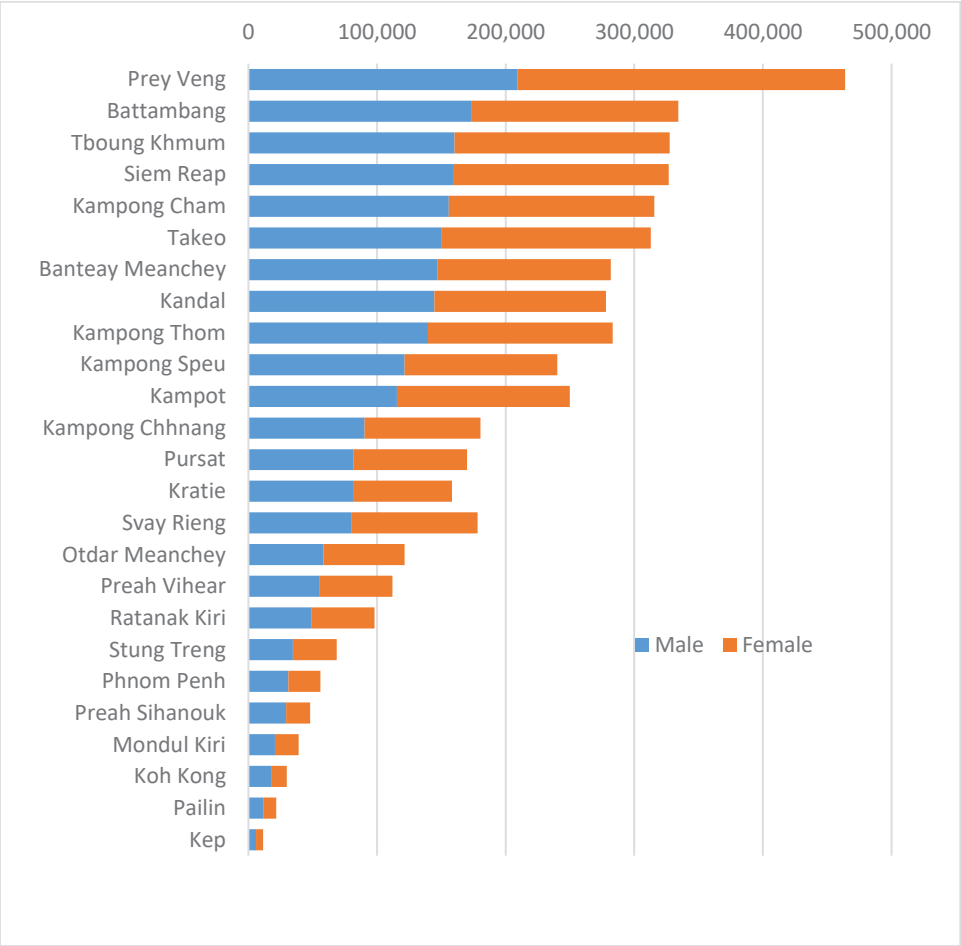


However, looking only at the percentages (and not the absolute numbers) of the population who are active in agriculture/forestry/fishing gives a one-sided perspective of the regional importance of this sector. Figure 2.40 displays the regional distribution of the absolute number of persons working in agricultural/forestry/fishery jobs by sex. With nearly 464,000 working in these occupations, Prey Veng is by far the Province with the largest agricultural sector. Ratanak Kiri, which topped the previous graph, has now shifted to the bottom half of the chart with only about 98,000 people active in agricultural occupations. Kep, which is numerically the smallest Province, counted just some 11,000 agriculture/forestry/fishing workers.

Phnom Penh Province with only 4.5 per cent of its labour force in the sector provides work there for 31 thousand males and 25 thousand females.

Figure 2.40

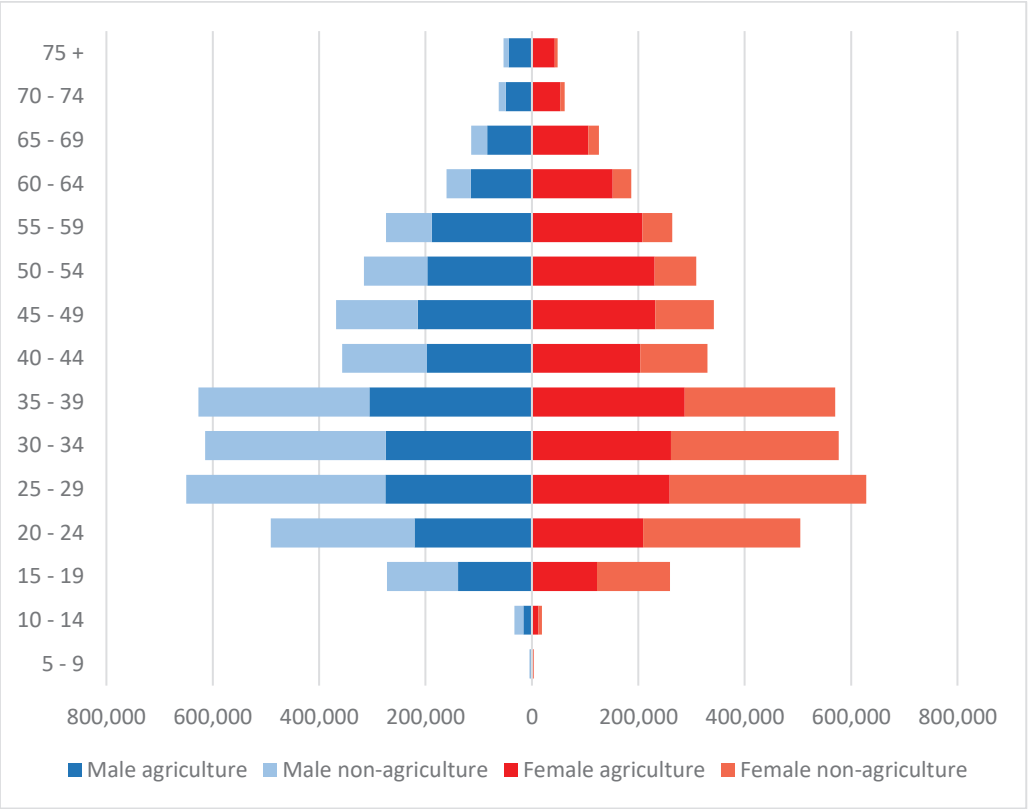
Employed population by Province: Numbers working in the agriculture sector by sex



The number of persons with occupations in agriculture/forestry/fishery, compared to those involved in other types of work shows interesting distinct age patterns. Figure 2.41 displays a population pyramid with the number of males and females working in agriculture/forestry/fishery and those in other, non-agricultural, professions. The pyramid shows a typical pattern with men prevailing in the younger age groups while women become relatively more numerous in age groups over 40. One might speculate that health and life span are factors here, since men at higher ages tend to be less vital - and have a shorter life expectancy.

Figure 2.41

Employed population: Population pyramid by sex and whether or not working in agriculture



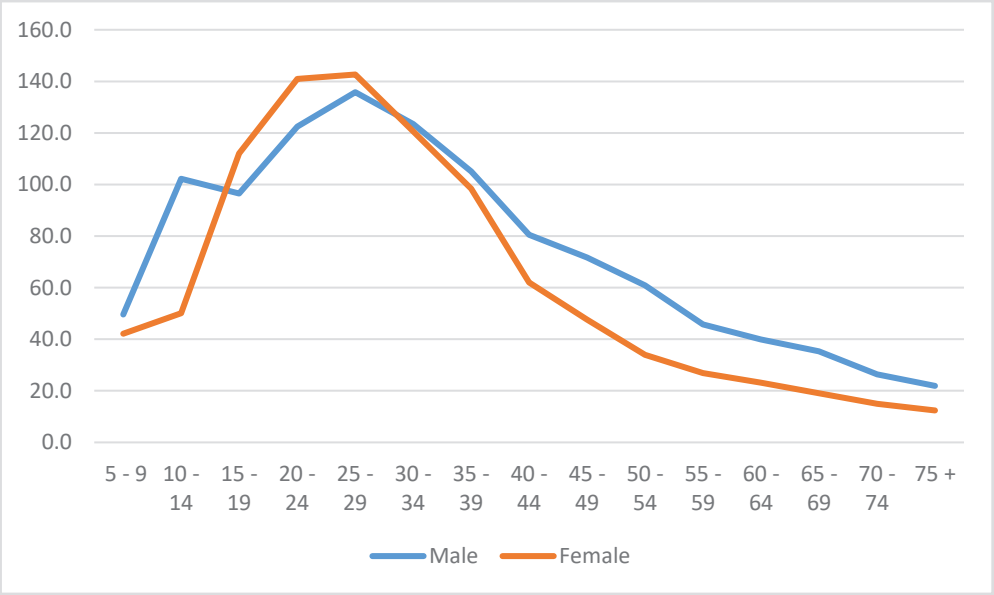
The graph in Figure 2.42 shows the pattern of differential employment in terms of the ratio of persons not employed in agriculture/forestry/fishery to every 100 working in that sector. This is called here the non-agri rate, as an equivalent to sex rate, dependency rate and so forth, which are similarly defined.

The graph shows that men are always more active in agriculture, except between the ages of 10 to 35. At very young ages and after 35, they have more non-agricultural activities than women. It confirms the somewhat conservative life styles of the rural populations.

In both cases, though, one notes that non-agricultural work is concentrated in the middle age groups, while the young and the old work the fields. Those who are still in the labour force at very old ages do hardly anything else than cultivate, exploit the resources of the forest and fish. This is not unique for Cambodia, but typical for rural societies.

Figure 2.42

Non-agri rate: Number of persons working in non-agricultural occupations per 100 persons employed in agriculture, by age group and sex

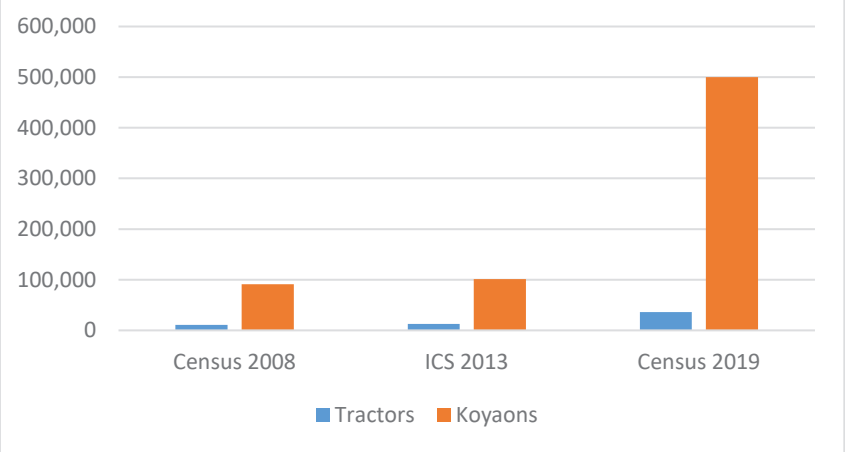


Greater productivity is an important reason for the agricultural labour force to go back in size. By using modern machinery farmers can produce the same or an even greater harvest using fewer working hours. This process is ongoing worldwide. Apart from increasing mechanization, there is also a process of scaling up. Farms are becoming larger and thereby fewer in number as long as the area of arable land undergoes little change.

Since in Cambodia farming is often still subsistential in nature, the process of up-sizing is probably only in its early stages. In any event, one would need an agricultural survey or census to measure this phenomenon. But for mechanization the Census provides some information in terms of the number of tractors and koyaons (small hand-managed tractors) owned by households. Fig. 2.43 reveals a massive increase over the interval between the Censuses of 2008 and 2019. The figures for the ICS 2013 are estimated, as that was a sample survey. The number of koyaons increased from 91,393 to 500,269 between the two censuses.

Figure 2.43

Number of tractors and koyaons owned by households as reported by three recent inquiries



Looking at this topic across provinces one notes big differences between them, see Table 2.12. It reports the numbers of tractors and koyaons per 100 individuals employed in agriculture. The list has been sorted by koyaons. The rate for those in Preah Vihear Province is nearly eight times higher than in Pailin. There are comparatively many large tractors in Banteay Meanchey, Battambang, Pailin and Svay Rieng Provinces, all border regions. It would be interesting to take account of the size of the agricultural holdings, but that question is in the domain of an agricultural census or survey.

Table 2.12

Households: Tractors, koyaons and farmers by Province

	Tractors/100 farmers	Koyaons/100 farmers
Preah Vihear	0.6	21.7
Kampong Chhnang	0.3	20.6
Otdar Meanchey	1.1	19.4
Banteay Meanchey	1.8	17.8
Kampong Speu	0.4	15.0
Battambang	1.8	14.8
Pursat	0.7	14.0
Stung Treng	0.5	13.2
Siem Reap	0.8	12.6
CAMBODIA	0.8	10.6
Kampong Thom	0.7	10.6
Prey Veng	0.7	10.1
Kampot	0.3	9.4
Kratie	0.4	9.0
Mondul Kiri	0.5	8.5
Takeo	0.4	7.0
Koh Kong	0.3	7.0
Svay Rieng	1.8	6.7
Kep	0.4	6.2
Tboung Khmoum	0.4	5.2
Kampong Cham	0.5	5.1
Ratanak Kiri	0.4	4.9
Phnom Penh	1.2	4.7
Kandal	0.5	2.9
Preah Sihanouk	0.2	2.8
Pailin	1.7	2.8

2.5.3 Focus on occupation and education

The next item to be explored is the relationship between occupation and education. In the coding system of ISCO-08 there is a skill element involved. For example, the workers in the group *Professionals* would normally be higher skilled than those in *Technicians and Associate Professionals*. Persons in *Elementary Occupations* are expected to have relatively few skills and more limited education levels. For the purpose of Table 2.13 values for the variable P16C- *Highest Grade Completed* have been summarized into five major classes, the same classes that the Census final report [NIS20] did already formulate before:

- No grade completed to Grade 4
- Grades 5 to 8
- Grades 9 to 12
- Secondary education completed
- Any academic degree.

An investigation of Table 2.13 provides some glimpses of a phenomenon called inadequate employment [ILO03a]. A well-known phenomenon in developing economies is that the number of educated persons is growing, but that the availability of proper employment opportunities for these persons is lagging. That is, they find no job at the level they are trained for and eventually have to settle for work in which they cannot properly deploy the skills their education has provided. In Cambodia, with its agricultural prevalence and export industries aiming to exploit cheap labour that might well be an issue.

While the underuse of acquired education is a serious problem, not all is gloom. For example, in countries like Cambodia many farmers are skilled without ever having obtained a formal education. Their skill in being competent farmers has been passed on from parent to child over generations. Now, to move their farms from subsistence farming into small but modern agricultural enterprises, they would need more educational background than a primary education. A farmer's child with suitable schooling may find opportunity to turn the own-account subsistence business into something more productive and rewarding.

Table 2.13

Employed persons aged 15 - 64: Occupation by Sex and Education level (row percentages)

	Males					Females				
	None – Grade 4	Grades 5 - 8	Grades 9 - 12	Secondary	Academic	None – Grade 4	Grades 5 - 8	Grades 9 - 12	Secondary	Academic
Total	31.0	38.0	22.8	3.7	4.5	39.5	37.6	17.3	2.8	2.8
Managers	12.3	23.9	31.6	10.5	21.7	17.9	27.9	28.3	9.1	16.9
Professionals	8.1	14.7	31.2	18.2	27.9	5.0	9.1	33.4	24.0	28.4
Technicians and Associate Professionals	13.8	24.4	29.5	9.6	22.7	15.5	20.6	26.6	9.9	27.5
Clerical Support Workers	6.4	12.4	33.1	12.5	35.7	7.2	15.6	31.2	11.9	34.2
Services and Sales Workers	17.3	33.3	36.6	6.7	6.2	25.9	38.6	28.0	4.6	2.8
Skilled Agricultural Forestry and Fishery Workers	42.4	40.8	15.3	1.2	0.3	53.0	35.5	10.6	0.8	0.1
Craft and Related Trades Workers	20.9	45.3	29.5	2.9	1.3	23.8	51.8	22.1	1.9	0.4
Plant and Machine Operators and Assemblers	20.5	42.4	32.1	3.8	1.3	32.9	39.8	22.1	2.9	2.3
Elementary Occupations	36.2	42.6	18.4	1.8	0.9	46.9	37.5	13.4	1.5	0.7

Table 2.13 can be looked at in two different ways. Firstly, looking at the table vertically shows the men and women with a given skill level who seem to be overqualified or underqualified for the work they are doing. Secondly, looking at the table horizontally

shows the fraction of persons in a given occupational category who are over or underqualified, or where the occupation appears to be on a par with their education.

The table displays information that is largely in line with expectations, but with notable outliers. For example looking at the *Managers* and *Professional*s one notes that they are definitely well educated as compared to other groups, but there are also some persons there who have not progressed beyond even Grade 4. One would hope that these have acquired the necessary skills through on-the-job training. It should also be noted that some small business persons like shopkeepers or market traders may have been adorned with the term *Manager* by over-enthusiastic enumerators.

For *Elementary occupations* the education levels as expected are low, but one still finds a few persons there with academic credentials.

The highest percentage of academically educated persons is encountered somewhat surprisingly among *Clerical Support Workers*. On inspection one finds that these are mostly *General office clerks* (code 411, numbering 85,505), *Tellers, money collectors and related clerks* (code 421, numbering 49,902), and *Client information workers* (code 422, numbering 134,101). Looking down in the column on the lowest education level, one finds that it is best represented among *Skilled Agricultural, Forestry and Fishery Workers*, at 42.4 percent males, 53.0 percent females. In *Elementary Occupations* the lowest education level is represented at 36.2 per cent males and 46.9 per cent of the females.

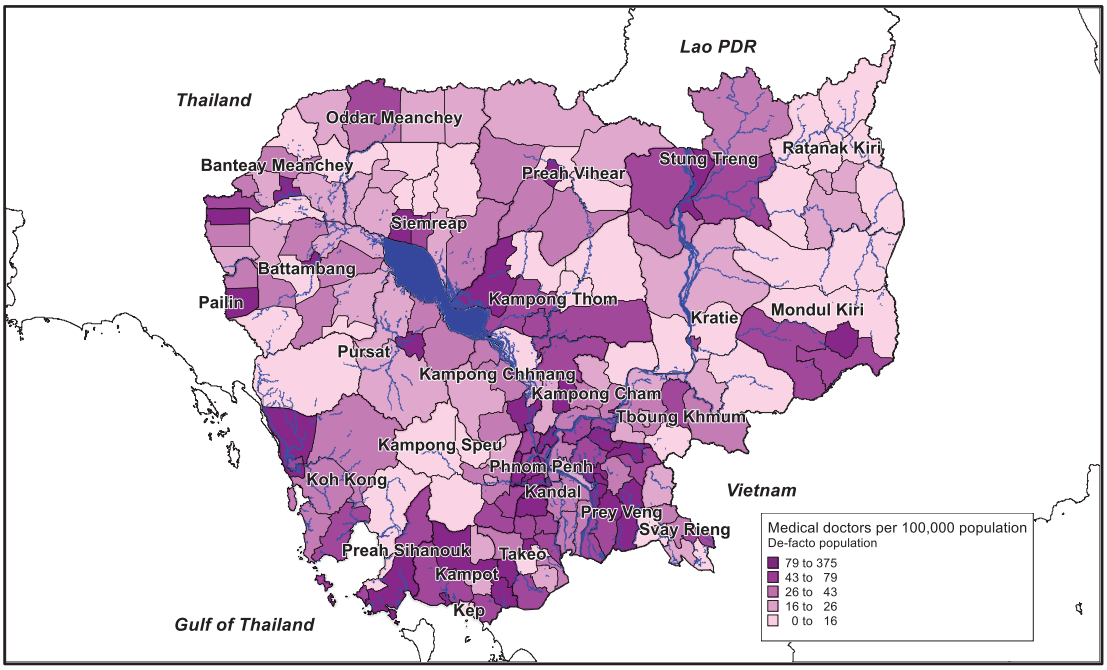
The numbers show that for its economic development the country still has a considerable reservoir of employed persons with relatively higher skills, who can be drawn from their current work into employment for which they are probably more suitably qualified. On the other hand, quite a few other people seem to be underqualified in terms of the education required for the work that they are doing. This may in the long run act as a brake on rapid economic development. As these issues are quite important for the country's further development, more in-depth research is needed on the subject. Once again it is to be noted that census results are often suitable to identify areas warranting deeper analysis, but that subject-oriented sample surveys are usually required to get to the bottom of the issues concerned.

The number of medical doctors per 100,000 population is an important indicator for the quality of medical care and also shows whether there is good coverage of the entire country. Fig. 2.44 shows a concentration on Phnom Penh, but also on most of the provincial urban centers. The very country side appears to be less well served. Overall Cambodia has 68 physicians per 100,000 population. This compares to 81 for Thailand, 43 for Indonesia and 68 for Myanmar.

It should be noted that this information, as most in the Census, results directly from answers provided by respondents. Interviewers had no means to check the correctness of the responses. In fact they were discouraged from disputing the information collected.

Figure 2.44

Medical doctors per 100,000 population by District



2.5.4 Occupation and wealth

The type of occupational group to which a person belongs is often related to the wealth status of the household in which he or she resides. The Census did not provide direct information about the financial situation of households or individuals. However, it is possible to link a household, and its members, to a particular wealth level, using information from the housing conditions, amenities and assets. Five wealth levels were determined, using the following available indicators:

- H02 Main source of light
- H03 Main cooking fuel
- H04 Toilet facility
- H05 Whether toilet shared
- H06 Source of drinking ware supply
- H07 Distance to water supply
- H08 Number of rooms (calculated per household member)
- H09 Availability of separate kitchen
- H11 Television
- H12 Landline telephone
- H13 Mobile phone
- H14 Computer
- H16 Motorcycle
- H17 Refrigerator
- H18 Washing machine
- H20 Air conditioner
- H21 Car/Van
- H24 Internet at home

Information about dwelling attributes: floors, walls, roof, was available but has been

excluded, since the correlation with wealth is disputable. In rural areas many relatively well-to-do households live in primitive housing, while in the cities numerous poor households can be found in cramped quarters of dilapidated "modern" housing.

Variable H01 *Occupation status* was also dropped from this list. Home ownership is widespread throughout Cambodia and does not correlate positively with wealth indicators. H09 *Availability of separate kitchen* also turned out to be indistinctive, perhaps since poor rural households still find opportunity to do their cooking away from the living space. H04 and H05 were combined to make sure that a shared toilet facility is always considered unimproved.

The wealth levels were determined in such a manner that each level encompasses 20 per cent of the households, creating equal-sized so-called quintiles. This does not mean that the population also falls precisely into five equal wealth groups, since population sizes may vary between household quintiles. The methods applied were factor analysis and ranking, using the analytic package IBM SPSS Statistics. For a detailed discussion about how to apply this type of analysis the World Food Programme has issued a handy guidance paper [WFP17]. Each household was assigned a wealth variable in the range 1 to 5.

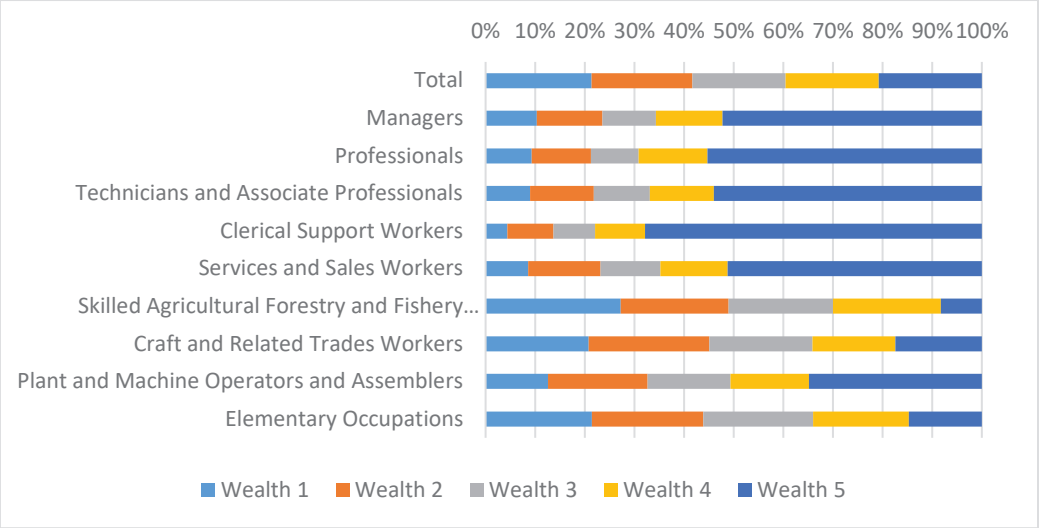
Figure 2.45 shows the percentage of persons belonging to each wealth segment by major occupational group. The group with the largest representation in the highest wealth sector are *Clerical support workers*, with 64.4 per cent at this level. This group also had the highest education levels in Table 2.13, so seeing relative wealth there comes as no surprise. Nevertheless one would not have expected this category to come out on top. It appears to have collected many salary earners who could not be characterized as managers or professionals.

Managers, *Professionals*, *Technicians and Associate Professionals* and *Service and sales workers* all come in at close to 50 per cent in the highest echelon. This may be related to the fact that many of these workers live in urban areas where housing amenities tend to be better. This puts them into higher wealth segments due to the criteria for wealth selected.

Skilled Agricultural Forestry and Fishery Workers, Elementary Occupations and *Craft and Related Trades Workers* are overrepresented in the lower wealth segments. Since the agricultural workers are so numerous they balance out the several occupational classes with higher wealth levels. Low wealth levels are not very pronounced, as no occupational class has more than 27 per cent of its members at level 1.

Figure 2.45

Employed population: Occupation by wealth levels from 1 (low) to 5 (high)



However interesting these distributions may be, one has to admit that the approach through census data is rather imprecise. A household income and expenditure survey based on the census sampling frame could provide much more pertinent information. This is generally true for census information that goes beyond the obvious basic questions of age, sex, relationship, marital status and religion. While it is true that a census is perhaps the only source of complete information on non-core questions, the difficulties of collecting accurate information concerning occupation at the 3-digit level as well as about other somewhat complex or sensitive variables in a census environment are great. This has to do with the limitations of the brief interview between enumerator and householders who both have imperfect mastery of the issues. Later in the coding room incomplete or uninformative entries for Occupation and Industry cannot be simply remedied. The pressure for speedy work there – given the mass of questionnaires to be processed – is another impediment for quality.

The quality assessment in Section 1.2 of the current report (Table 1.2) confirms this view. There was usually good agreement between attribute values collected in the Census proper and in the Post-enumeration survey. But as soon as choices became more subjective, such as whether a person was to be considered unemployed or outside the labour force, the index of inconsistency turned out to be much higher. As far as employment status was concerned, there were net differences of 5 to 10 per cent for *Paid employee*, *Own-account worker* and *Unpaid family worker*. For the topics Occupation and Industry the consistency between the two collections was not investigated, but there is little doubt that at the 3-digit coding level the differences encountered would have been considerable.

Thus, exploring these more complex but highly important attributes through in-depth sample surveys based on the frame constituted by the Census is important. The annual Cambodia Socio-Economic Survey [NIS18b] is a vital tool for such more profound information collection. The survey may have to be strengthened in terms of range of topics and sample size in order to properly complement the Census. Any serious discrepancies between the Census and the CSES's, such as those noted in Section 2.4.2, need to be investigated and preferably resolved.

2.6 Industry

Information on the type of Industry where employed persons work was, as with Occupation discussed in the previous section, collected for the *de-facto* population, results for the *de-jure* population are not available. Enumerators were instructed to ask for the *Nature of the Industry, Trade or Service* in which a person worked most of the time over the last 12 months. They should write as detailed a description as possible from the response given. These written responses were subsequently coded using the International Standard Industrial Classification of All Economic Activities - Revision 4 (ISIC–04). Coding was done at the level of three-digits, but most of the tables in the present report refer to the higher Section level. These Sections are formed of 21 broad groupings (labelled A to U) of ISIC-classes that divide the large spectrum of economic activity [UNDESA08].

Industrial activities are often grouped into three sectors: the primary sector (extraction of raw materials: agriculture, hunting, forestry, fishing, mining); the secondary sector (manufacturing and industry: making of goods, construction and public utilities - electricity, gas and water); and the tertiary sector (services: wholesale and retail trade, restaurants and hotels, transport, storage and communications, finance, insurance, real estate and business services, and community, social and personal services). The ILO provides guidelines to aggregate ISIC-04 sections into these three industrial sectors: ISIC section A is classified as the primary sector; sections B to F are classified as belonging to the secondary sector; and sections G to U together form the tertiary sector.

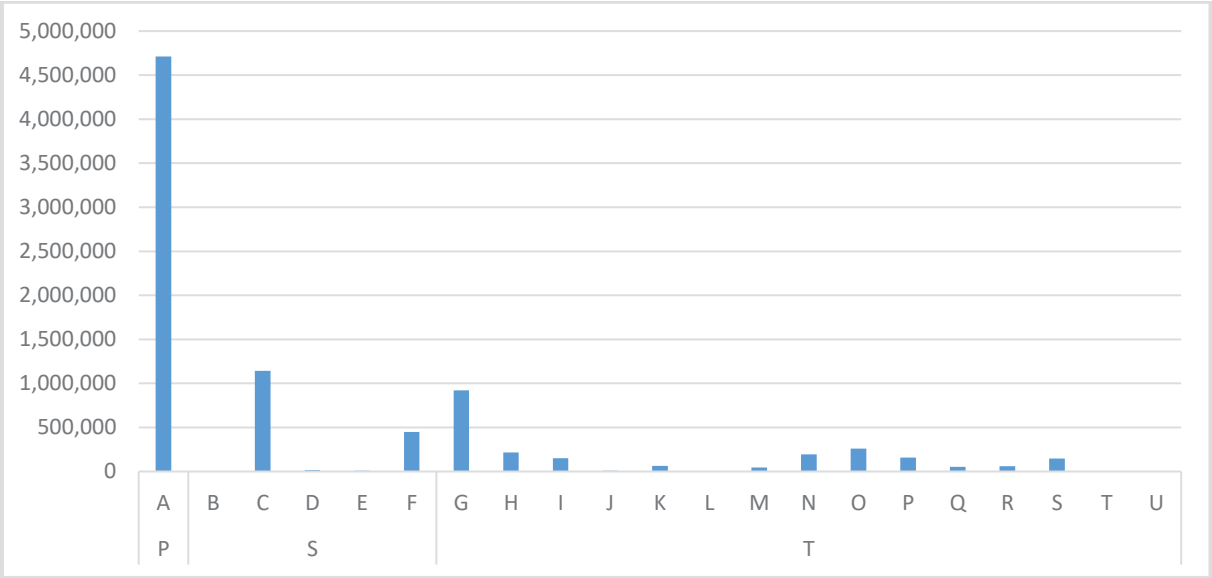
2.6.1 Industry and related Census variables

Table 2.14 presents the number of employed persons by major industrial categories and by sex, at the national level. Totals for each of the three industrial sectors are included. According to the Census, 4.71 million out of 8.63 million employed persons (54.6 per cent) were reported working in *A - Agriculture, forestry and fishing*. They were about evenly divided between males and females, at 2.32 and 2.39 million respectively. Thus, for every 100 females in the sector, there were 97.5 males. The second largest industrial category was *C- Manufacturing* with 1.14 million people (13.2 per cent of all employed persons); and the third largest *G - Wholesale and retail trade; repair of motor vehicles and motorcycles*, encompassing a total of 0.92 million people (10.7 per cent). Each other industrial category had less than 0.5 million workers.

To show the relative distribution of each industrial category by industrial sector, the chart displayed at Figure 2.46 represents each category by a vertical bar.

Figure 2.46

Employed population by Industrial sectors*



**Bottom row: P(rimary), S(econdary) and T(ertiary) sectors.*
Letters at the second level refer to the ISIC code for each industrial category, see Table 2.14.

This graph clearly shows the importance of each industrial sector on Cambodia's labour market. Some of the classes are so small as to become invisible in the graph. This holds for *B – Mining and quarrying*, *D – Electricity, gas steam and air conditioning supply*, *E - Water supply; sewerage waste management and remediation activities*, and several others. That would be true in other countries too, ISIC has not been designed to create classes of more or less equal size.

As economies develop, the tertiary sector tends to grow at the expense of the other sectors. In Cambodia there already exists a fairly developed secondary sector with 1.62 million workers, most of them employed in export industries in the textile sector. Nevertheless the tertiary services sector, with 2.29 million (26.6 per cent) is numerically larger.

In the tertiary sector the class *G - Wholesale and retail trade; repair of motor vehicles and motorcycles* dominates with 0.92 million persons (10.7 per cent). It is obviously the retail trade that absorbs a large number of workers. Next come government officials in *O - Public administration and defense; compulsory social security* with 0.26 million and 3.0 per cent. One would expect the tourist industry to be visible in this sector, but it is somewhat hidden in different classes such as *H - Transportation and storage* (0.22 million, 2.5 per cent), *I - Accommodation and food service activities* (0.15 million, 1.8 per cent) and *S - Other service activities* (0.15 million, 1.7 per cent). Of particular interest is *P – Education* which comprises some 158 thousand teachers and other educational personnel, 1.8 per cent of the working population. Sector *T - Activities of households as employers; undifferentiated goods and services* at only a total of 314 persons seems exceptionally small. In fact coding at this level requires good knowledge of and familiarity with the classification scheme. Occasional coders, basing themselves on imperfect information from the field, are liable to make mistakes.

Some industrial categories are strongly dominated by men and some by women. The last

column of Table 2.14 shows the sex ratios (in this case, the number of employed men per 100 employed women) in each industrial category. *H - Transportation and storage* is completely dominated by men – 795 men work in this category for every 100 women. In the secondary sector, all categories have sex ratios higher than 100, with the exception of Manufacturing which employs 734 thousand female workers compared with just 409 thousand males. No doubt many work in weaving and sewing in the garment industry.

In the tertiary sector *G - Wholesale and retail trade; repair of motor vehicles and motorcycles*, and *I - Accommodation and food service activities* are strongholds of women. Men dominate in *O - Public administration and defense; compulsory social security*. It noticeable that the Education industry is not mostly the domain of women. Per one hundred female teachers, 118 men were employed there. In many countries primary school teachers these days are practically exclusively women. This is not the case in Cambodia, although at these schools there is slightly more female staff. In primary education one finds 38,439 men and 39,139 women.

Table 2.14

Employed population: Numbers by Major industrial category by Sex; Sex ratio

	Total	Male	Female	% Total	% Males	% Females	Sex ratio
Grand total	8,626,777	4,396,850	4,229,927	100	100	100	103.9
Total Primary Sector	4,709,845	2,324,621	2,385,224	54.6	52.9	56.4	97.5
A - Agriculture forestry and fishing	4,709,845	2,324,621	2,385,224	54.6	52.9	56.4	97.5
Total Secondary Sector	1,622,149	788,934	833,215	18.8	17.9	19.7	94.7
B - Mining and quarrying	5,997	4,158	1,839	0.1	0.1	0.0	226.1
C - Manufacturing	1,142,820	408,690	734,130	13.2	9.3	17.4	55.7
D - Electricity gas steam and air conditioning supply	16,676	14,397	2,279	0.2	0.3	0.1	631.7
E - Water supply; sewerage waste management and remediation activities	9,447	5,585	3,862	0.1	0.1	0.1	144.6
F - Construction	447,209	356,104	91,105	5.2	8.1	2.2	390.9
Total Tertiary Sector	2,294,783	1,283,295	1,011,488	26.6	29.2	23.9	126.9
G - Wholesale and retail trade; repair of motor vehicles and motorcycles	920,496	388,458	532,038	10.7	8.8	12.6	73.0
H - Transportation and storage	217,416	193,118	24,298	2.5	4.4	0.6	794.8
I - Accommodation and food service activities	151,416	63,218	88,198	1.8	1.4	2.1	71.7
J - Information and communication	10,620	7,002	3,618	0.1	0.2	0.1	193.5
K - Financial and insurance activities	63,180	37,803	25,377	0.7	0.9	0.6	149.0
L - Real estate activities	2,108	1,443	665	0.0	0.0	0.0	217.0
M - Professional scientific and technical activities	44,316	24,847	19,469	0.5	0.6	0.5	127.6
N - Administrative and support service activities	193,636	113,925	79,711	2.2	2.6	1.9	142.9
O - Public administration and defense; compulsory social security	260,149	213,327	46,822	3.0	4.9	1.1	455.6
P - Education	157,904	85,400	72,504	1.8	1.9	1.7	117.8
Q - Human health and social work activities	52,292	27,469	24,823	0.6	0.6	0.6	110.7
R - Arts entertainment and recreation	60,896	32,064	28,832	0.7	0.7	0.7	111.2
S - Other service activities	146,891	87,453	59,438	1.7	2.0	1.4	147.1
T - Activities of households as employers; undifferentiated goods and services	314	144	170	0.0	0.0	0.0	84.7
U - Activities of extraterritorial organizations and bodies	223	142	81	0.0	0.0	0.0	175.3
Not stated or not adequately described	12,926	7,482	5,444	0.1	0.2	0.1	137.4

The particular role that men and women play in the labour market is illustrated by the top

10 ISIC industrial groups at the 2-position level in which men and women were reported to be working. Although the largest share of both sexes is in the group *Growing of non-perennial crops*, Table 2.15 shows that there are large disparities within the other categories. The Census reported that twice as many women than men were active in the retail trade, while more men than women were employed in *Other land transport* and *Construction of buildings*. A number of the top 10 ISIC-divisions are dominated either by men or by women. Construction and land transport are typical male-led industrial divisions, while the manufacture of wearing apparel and various kinds of food services are in the domain of females.

Table 2.15

Top 10 most common industrial groups ranked by sex

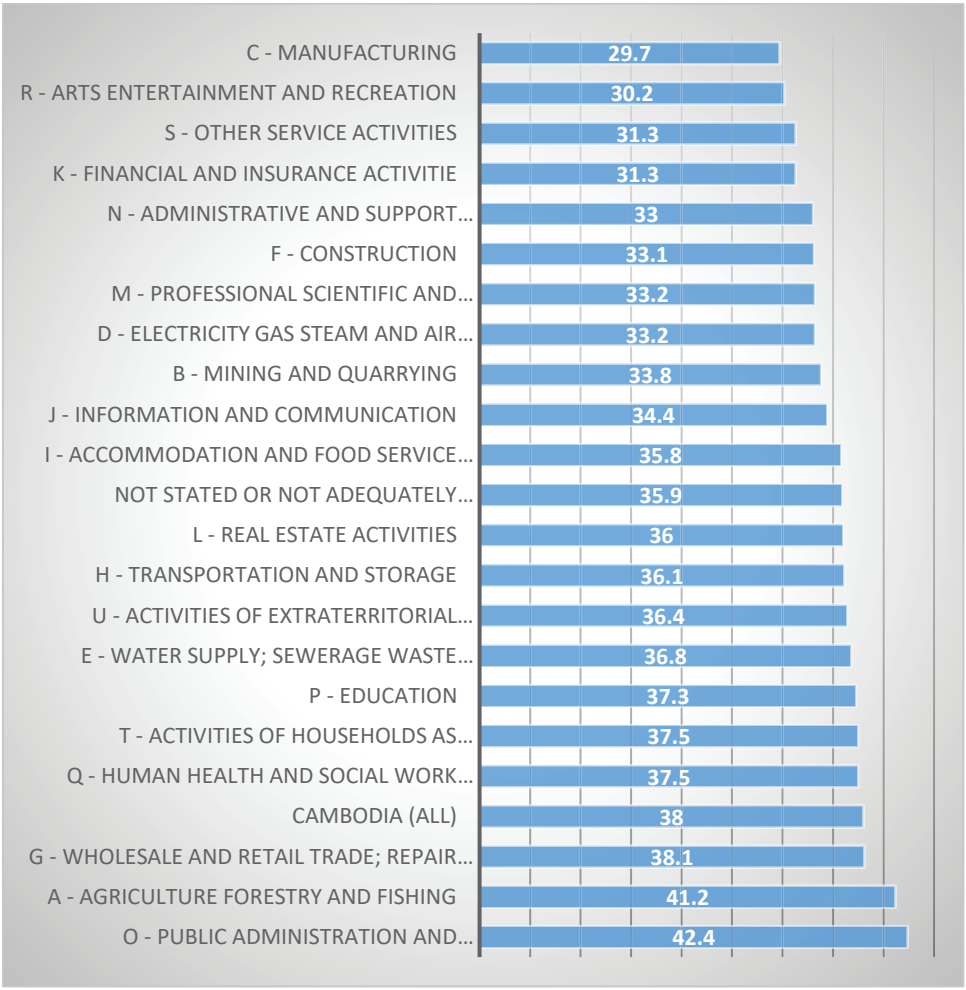
Male			Female	
	Total	4,396,850	**Total**	4,229,927
1	**Growing of non-perennial crops**	2,021,915	**Growing of non-perennial crops**	2,137,931
2	**Manufacture of wearing apparel except fur apparel**	266,543	**Manufacture of wearing apparel except fur apparel**	639,047
3	**Other land transport**	150,982	**Retail sale in non-specialized stores**	272,618
4	**Construction of buildings**	147,775	**Retail sale of food beverages and tobacco in specialized stores**	148,797
5	**Growing of perennial crops**	143,408	**Growing of perennial crops**	135,159
6	**Retail sale in non-specialized stores**	140,828	**Restaurants and mobile food service activities**	59,294
7	**Provision of services to the community as a whole**	123,991	**Support activities to agriculture and post-harvest crop activities**	57,324
8	**Other specialized construction activities**	105,085	**Office administrative and support activities**	54,216
9	**Administration of the State and the economic and social policy of the community**	88,495	**Other personal service activities**	53,709
10	**Retail sale of food beverages and tobacco in specialized stores**	87,542	**Primary education**	39,139

The importance of the industry of manufacturing wearing apparel requires little elaboration. More than 905 thousand men and women find their work in this economic branch, which constitutes well over 10 per cent of the labour force. The importance of this industry for the national economy cannot be overestimated. Its existence offers a way out of traditional subsistence farming for men and, even more so, for women. In earlier days it was reported that working conditions in this industry left a lot to be desired. Recent reviews signal improvements [ILO18].

Some large differences exist in the ages of persons working in the various industrial categories of Cambodia. Figure 2.47 shows the mean age of all persons working in each major industrial category. The results of the Census revealed that *Manufacturing* is the category with the youngest population, with an average age of 29.7 years. The employed population is oldest in the public sector (42.4 years), followed by those working in *Agriculture, forestry and fishing* (41.2 years), *Wholesale and Retail Trade* (38.1 years), and in *Human health and social work* (37.5 years). These results fit the expected pattern in which older persons work the land and populate the government offices, while younger people are employed in the textile industry and – in much smaller numbers – in the *Arts, entertainment and recreation industry*.

Figure 2.47

Employed population: Mean age by Industrial category



Reflecting the pattern of the distribution of occupations discussed in Section 2.5, the industrial profile of the labour force differs greatly between urban and rural areas. As could be expected, the number of people reported as working in *Agriculture, forestry and fishing* was very high in rural areas and relatively low in urban areas. Table 2.16 shows that 3.99 million persons were working in this industrial category in rural areas, against only 716 thousand in urban areas. While more than three quarters of all employed people in rural areas worked in agriculture, forestry and fishing, only 21.3 per cent of the urban population earned a living in these industries. In fact, no other industrial category in rural areas provided work for more than 7.5 per cent of the overall working population.

Table 2.16

Employed population: Industrial category by urban/rural residence and urban/rural ratio

	Total	Urban	Rural	% Total	% Urban	% Rural	U/R ratio
Grand total	8,626,777	3,362,357	5,264,420	100.0	39.0	61.0	63.9
Total Primary Sector	4,709,845	715,872	3,993,973	54.6	8.3	46.3	17.9
A - Agriculture forestry and fishing	4,709,845	715,872	3,993,973	54.6	8.3	46.3	17.9
Total Secondary Sector	1,622,149	1,043,859	578,290	18.8	12.1	6.7	180.5
B - Mining and quarrying	5,997	3,940	2,057	0.1	0.0	0.0	191.5
C - Manufacturing	1,142,820	766,635	376,185	13.2	8.9	4.4	203.8

D - Electricity gas steam and air conditioning supply	16,676	12,787	3,889	0.2	0.1	0.0	328.8
E - Water supply; sewerage waste management and remediation activities	9,447	7,173	2,274	0.1	0.1	0.0	315.4
F - Construction	447,209	253,324	193,885	5.2	2.9	2.2	130.7
Total Tertiary Sector	2,294,783	1,602,626	692,157	26.6	18.6	8.0	231.5
G - Wholesale and retail trade; repair of motor vehicles and motorcycles	920,496	630,556	289,940	10.7	7.3	3.4	217.5
H - Transportation and storage	217,416	151,436	65,980	2.5	1.8	0.8	229.5
I - Accommodation and food service activities	151,416	117,997	33,419	1.8	1.4	0.4	353.1
J - Information and communication	10,620	7,104	3,516	0.1	0.1	0.0	202.0
K - Financial and insurance activities	63,180	45,731	17,449	0.7	0.5	0.2	262.1
L - Real estate activities	2,108	1,812	296	0.0	0.0	0.0	612.2
M - Professional scientific and technical activities	44,316	35,464	8,852	0.5	0.4	0.1	400.6
N - Administrative and support service activities	193,636	172,369	21,267	2.2	2.0	0.2	810.5
O - Public administration and defense; compulsory social security	260,149	180,114	80,035	3.0	2.1	0.9	225.0
P - Education	157,904	76,536	81,368	1.8	0.9	0.9	94.1
Q - Human health and social work activities	52,292	34,820	17,472	0.6	0.4	0.2	199.3
R - Arts entertainment and recreation	60,896	48,316	12,580	0.7	0.6	0.1	384.1
S - Other service activities	146,891	91,364	55,527	1.7	1.1	0.6	164.5
T - Activities of households as employers; undifferentiated goods- and services-	314	132	182	0.0	0.0	0.0	72.5
U - Activities of extraterritorial organizations and bodies	223	223	0	0.0	0.0	0.0	0.0
Not stated or not adequately described	12,926	8,652	4,274	0.1	0.1	0.0	202.4

The second highest category in rural Cambodia was *Manufacturing* in which 4.4 per cent of the working population were active; *Wholesale and retail trade; repair of motor vehicles and motorcycles* came in third with 3.4 per cent. As to be expected, the distribution of the working population over different industries was much more diverse in urban than in rural areas. The three most prevalent industrial categories in urban setting were *Manufacturing* with 8.9 per cent, *Agriculture forestry and fishing* (still) with 8.3 per cent and W*holesale and retail trade; repair of motor vehicles and motorcycles* with 7.3 per cent.

Note that some categories, typical of a modern economy, such as *Information and communication*, *Financial and insurance activities*, *Real estate activities* and *Professional, scientific and technical activities* comprised only a small proportion of the working population. Together, these four categories employed 90 thousand persons in urban areas and 30 thousand in rural areas, representing respectively, 2.7 and 0.6 per cent of the urban and rural employed. Taking the larger view, the primary sector is dominant in rural areas, while the secondary and tertiary sectors are mostly urban, and by a considerable margin.

As with occupation, the industrial sector in which a person is working is related to the wealth status of the household in which he or she lives. Figure 2.48 shows clear differences in the percentage distribution of employed persons by industrial sector by wealth level. The industrial section which contains most people, *Agriculture, forestry and fishing*, is

also among the ones with the poorest profiles. Only 8.2 per cent of persons working in the primary sector appear at the highest wealth level. It should not come as a surprise that those who work in *C - Manufacturing* and *F - Construction* also score quite poorly, as most of them are low-paid wage earners or casual labourers. At the other extreme, some of the industrial classes in the tertiary sector stand out in terms of their presence in the highest level. Most have half or more of their members in the highest wealth category, but all of these classes employ only a limited number of persons. For example, *Real estate activities*, which has 73 per cent at wealth level 5, provides work to no more than some 2 thousand persons. Another high flyer, *Human health and social work activities*, employs a more substantial 52 thousand. Classes T and U have been left out of the graph because of their very low numbers.

Figure 2.48

Employed population: Industrial category by wealth levels from 1 (low) to 5 (high)

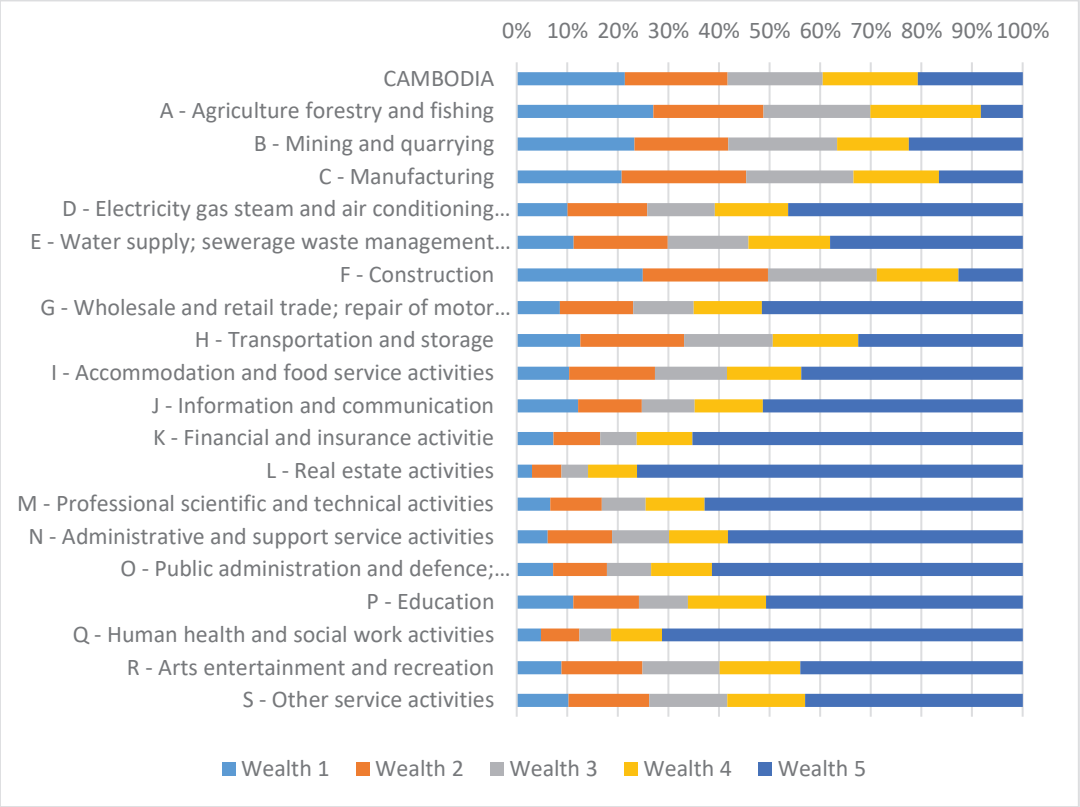


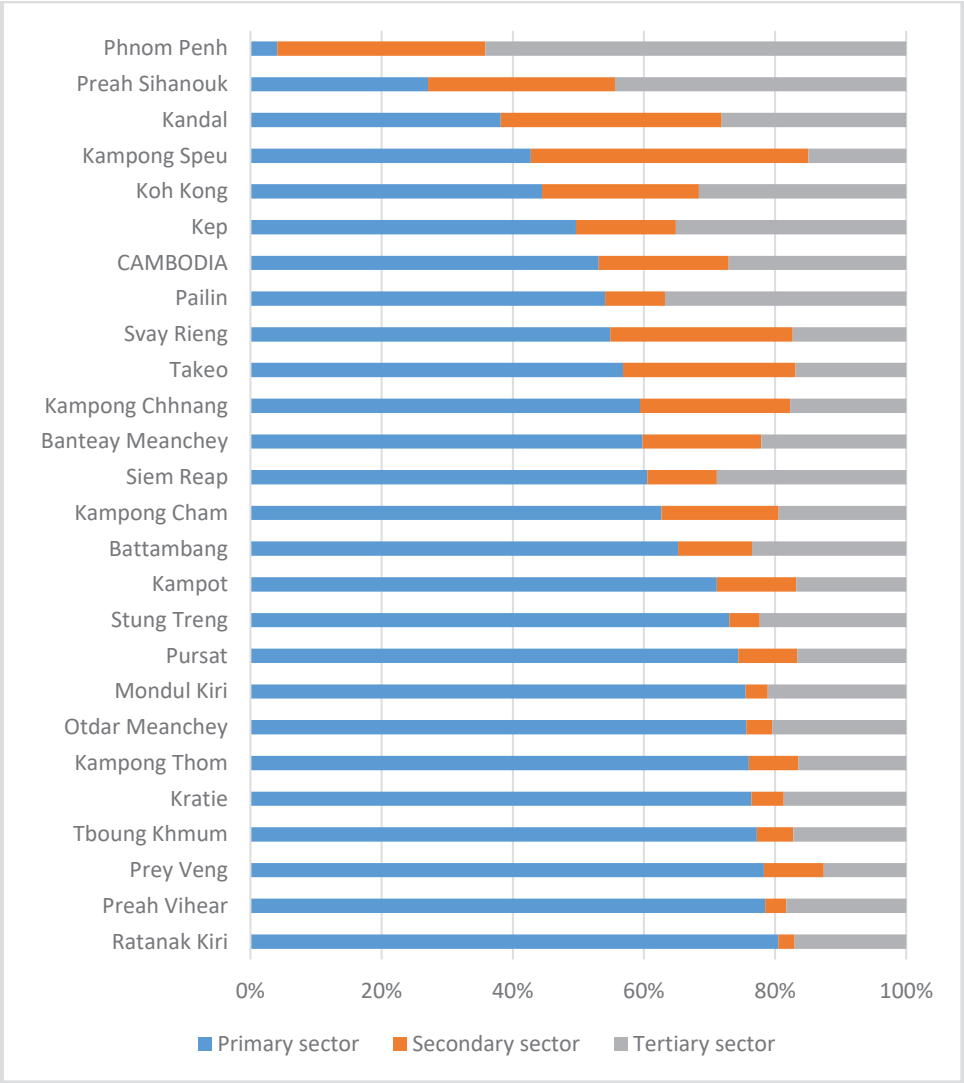
Figure 2.49 displays the difference in the industrial profile between provinces in the country. It presents the percentage of all employed persons in the primary, secondary and tertiary sector for the age group 15 - 64. Provinces are ranked in order of the percentage of the working population in the primary sector.

At the top of the bar chart is the highly urbanized Phnom Penh area. Phnom Penh only has a relatively small percentage of its population in the agriculture/forestry/fishery sector (4.1 per cent) and a larger industrial sector (31.6 per cent). By far the largest sector, however, is the tertiary services sector where 64.0 per cent of the capital's population is employed. It should come as no surprise that the service sector in Phnom Penh is well developed, since most of the government departments are situated here; this, in turn, attracts other service industries. Tourism is also an important industrial sector in the metropole. Phnom Penh and Preah Sihanouk are the only Provinces where the tertiary sector has already

become leading.

Figure 2.49

Employed population aged 15 - 64: Provinces by Industrial sector



At the other end of the spectrum are the typically agricultural provinces, with very high proportions of people working in the primary sector and low percentages in the manufacturing and service sectors. Ratanak Kiri and Preah Vihear score lowest, reflecting the higher proportions of people in agricultural occupations. Many provinces still have a quite undeveloped secondary sector. They have stayed nearly completely agricultural, with some services from local government, schools, shops and market traders, and so forth. Industrial development has passed them by.

But in some other outlying provinces there is now sizable manufacturing. Fig. 2.49 shows this to be the case in Kampong Speu (42.3 per cent), Kandal (33.7 per cent) and Svay Rieng (27.8 per cent), among others. The process of industrialization with a number of centers of growth also outside of Phnom Penh can be distinguished from the graph.

As with occupations, different industrial categories employ staff of varying average education levels. Basically, each industrial category needs people from all five education

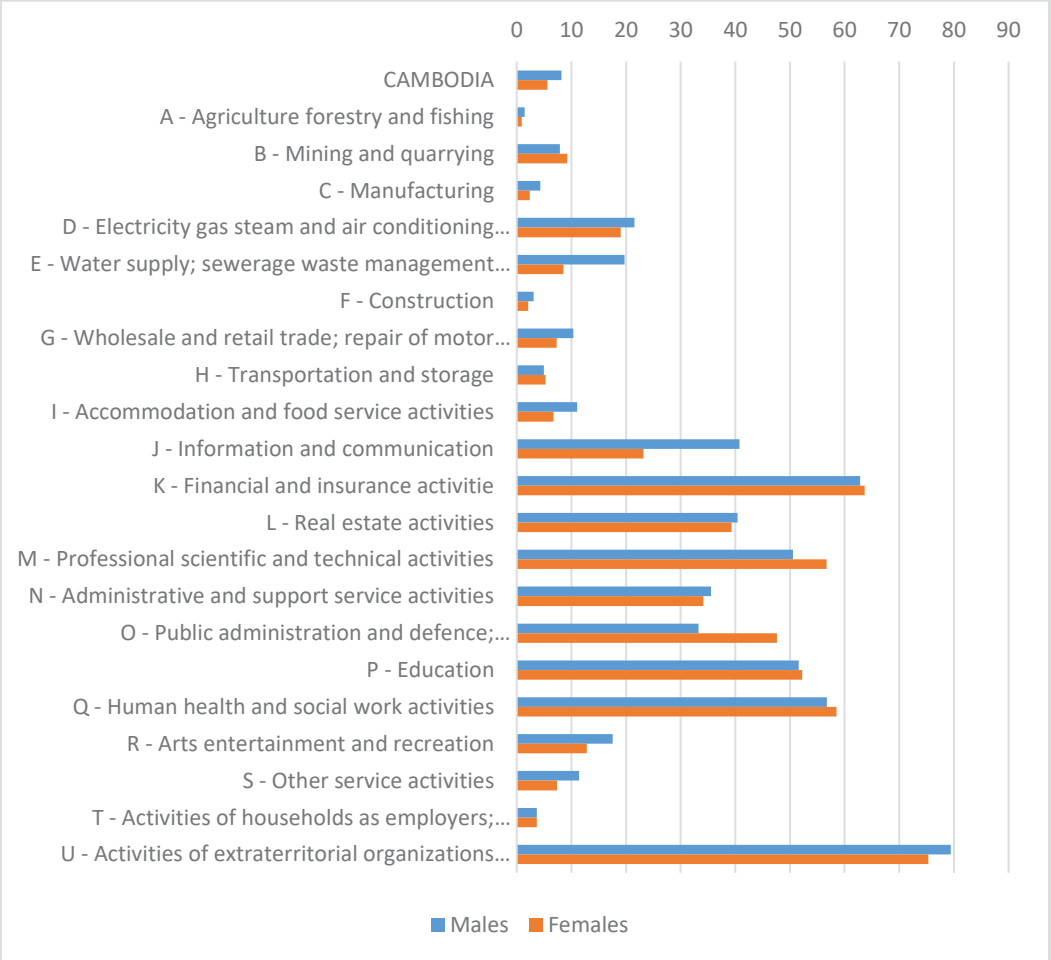
levels defined in Section 2.5.3. The agricultural sector needs manual labourers, but also skilled farmers and agricultural engineers and managers. The banking sector not only needs bankers, but also data processing personnel, cleaning staff, and security guards, among others. For manpower planning it is useful to look at which sectors have the highest and lowest degrees of highly educated labour. Figure 2.50 shows the percentage of employed men and women in each industrial category that have an education level beyond that of completed primary school.

As was to be expected the highest educated persons are to be found in the services sector in *Financial and insurance activities*, *Human health and social work activities* and *Professional scientific and technical activities*, with *Education* coming closely behind. *Category U - Activities of extraterritorial organizations and bodies* is so small in numbers that it does not warrant elaboration.

As concerns gender distribution one notes that *Manufacturing* and *Information and communication* have relatively few well educated women, while in *O - Public administration and defense; compulsory social security* women are better educated than men. One might speculate that in *Manufacturing* women are largely the workers (garment industry), while men fulfill management functions. Public administration may be attractive for educated women since the Government would normally provide a safe and non-discriminatory environment.

Figure 2.50

Employed population: Industrial category by Percentage with secondary or academic education



2.6.2 Trends and international context

In Fig. 2.51 the development of the distribution into industrial sectors is compared between three censuses, 1998, 2008 and 2019. The primary sector is contracting over the years, while both the secondary and tertiary sectors expand. In Cambodia this development since 2008 seems to have taken up speed, since the differences between 2008 and 2019 are much larger than those between 1998 and 2008. Furthermore, the manufacturing sector grows relatively faster than services. Over the last census interval the secondary sector has astoundingly more than doubled in percentage.

As the economic development of the country continues, one expects to end up with a situation where the tertiary sector becomes predominant, like in many developed nations. This imbalance has led to calls for splitting off knowledge management from other services, to create a quaternary sector [Sch18]. In Cambodia the need for such a realignment is not yet manifest.

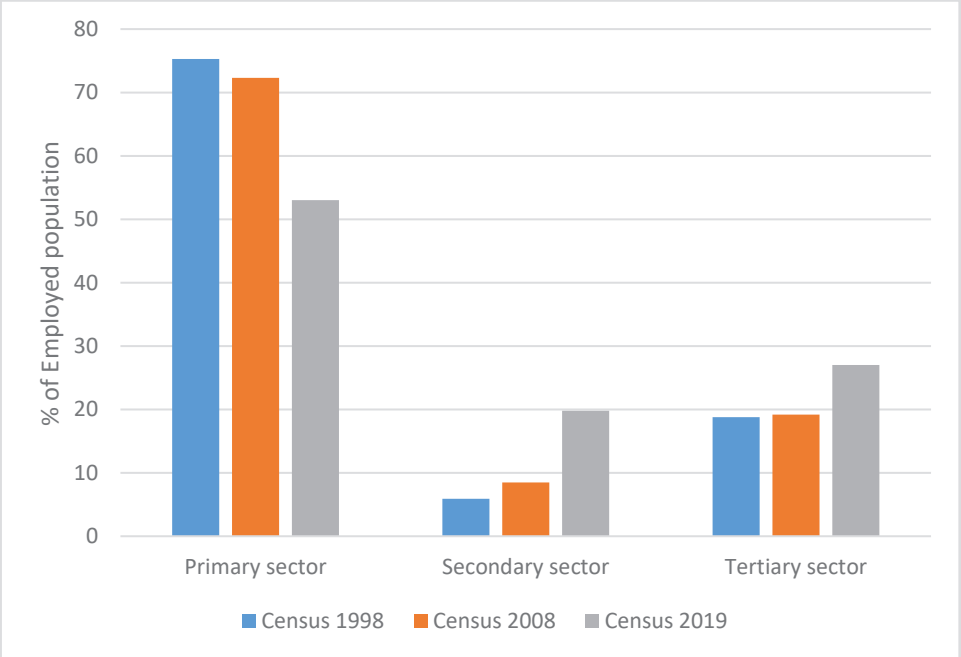
The trends in Fig. 2.51 seem clear and beyond dispute. But CSES 2017 [NIS18b] gives rather different numbers, at 37.0 per cent of workers in agriculture, 26.2 per cent in manufacturing and 36.8 per cent in services. CSES reports from earlier years are consistent in confirming the trend shown by the censuses, but at considerable lower levels for the primary sector, combined with higher rates for the other sectors. Going back to the 2013 Cambodia Inter-censal Population Survey [NIS13], we find 64.2 per cent primary, 11.5 per cent secondary and 24.3 per cent tertiary sector. It confirms Census reports of a steadily declining primary sector which, however, still comprises more than half the working population. Both other sectors increased their shares, but the secondary sector grew more rapidly than the tertiary sector.

To further check the census numbers we can also go back to Section 2.5 of this report, since Occupation too provides insight in the distribution of the employed labour force over the three services. The numbers are not completely comparable, since agricultural industries employ workers who are not farmers (i.e. accountants, repairers of agricultural equipment), while not all agriculturists work in farms (i.e. specialized teachers). Nevertheless it is interesting to note in Section 2.5.2 that 54.6 per cent of employed workers are classified as workers with occupations in agriculture, forestry or fishing. This is in good agreement with the distribution over sectors shown in Fig. 2.51.

It is difficult to find an explanation for this discrepancy between the censuses and the socio-economic surveys. Of course CSES is only a survey, but sampling error cannot explain such major differences. There are diversions in definition, since CSES's measure *current* economic activity, rather than the *usual* economic activity registered by the censuses. Further investigations are needed.

Figure 2.51

Employed population aged 15 – 64: Percentage by industrial sector, Censuses of 1998, 2008 and 2019



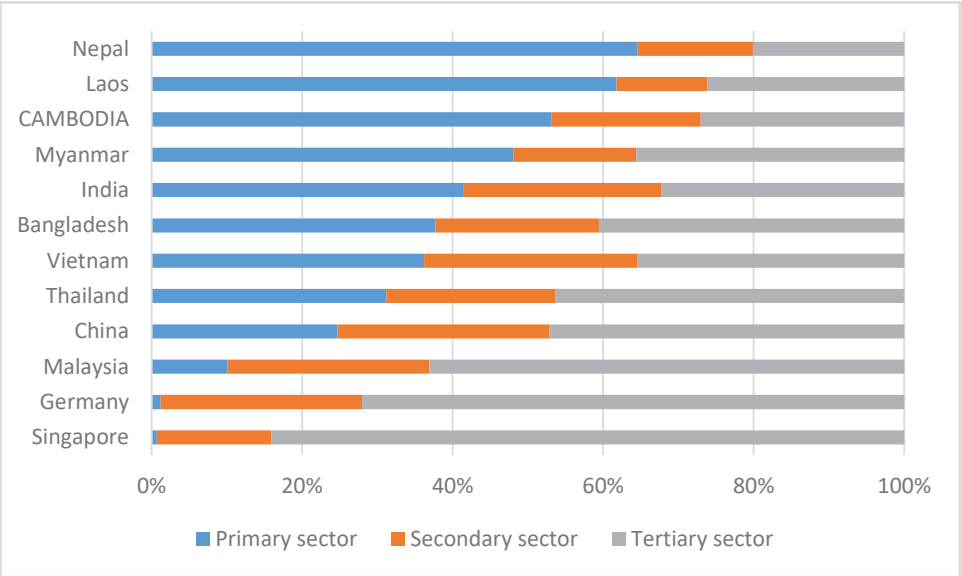
Moving to international comparisons, one notices in Fig. 2.52 how in developed nations such as Germany and Singapore the services sector has become completely predominant. Cambodia is still far from reaching that point. In the company of the PDR of Laos and Myanmar it still has a primary sector that, although rapidly shrinking in percentage, employs the relatively largest share of today's labour force. These data, as others earlier in this report, come from the World-Statistics.org [Wo20]. This is a database directed by Jean-Michel Durr that attempts to collect as many time-series in official statistics as possible. For this purpose the non-profit World Statistics explores the databases of the World Bank, United Nations Statistics Division, ILO and so forth, to bring all available information together on a single platform. The source organizations in turn rely on countries to feed their databases with fresh data. But they cannot just copy national information, since countries tend to use differing definitions. For example, in the case of labour statistics the universe may be the working age population 15 - 64 or the populations aged 15 and above, or something else again. Therefore the ILO makes an effort to make the indicators comparable, producing so-called modeled ILO estimates. Note that the Cambodia Census collected labour data over an even large age range, namely for all persons aged 5 and above.

Fig. 2.52 contains modeled ILO estimates derived from the World-Statistics platform, plus the result from the Cambodia 2019 Census. For the reasons mentioned above the process of making results comparable may not have been perfect.

It is interesting to note that already Cambodia has a secondary sector percentage that exceeds that of Singapore. This illustrates the process whereby economic development makes the work force move from the primary into the services sector by way of the secondary manufacturing sector.

Figure 2.52

Employed population aged 15 – 64 in selected countries by Industrial sector



2.7 Sector of employment

2.7.1 Sector of employment and related Census variables

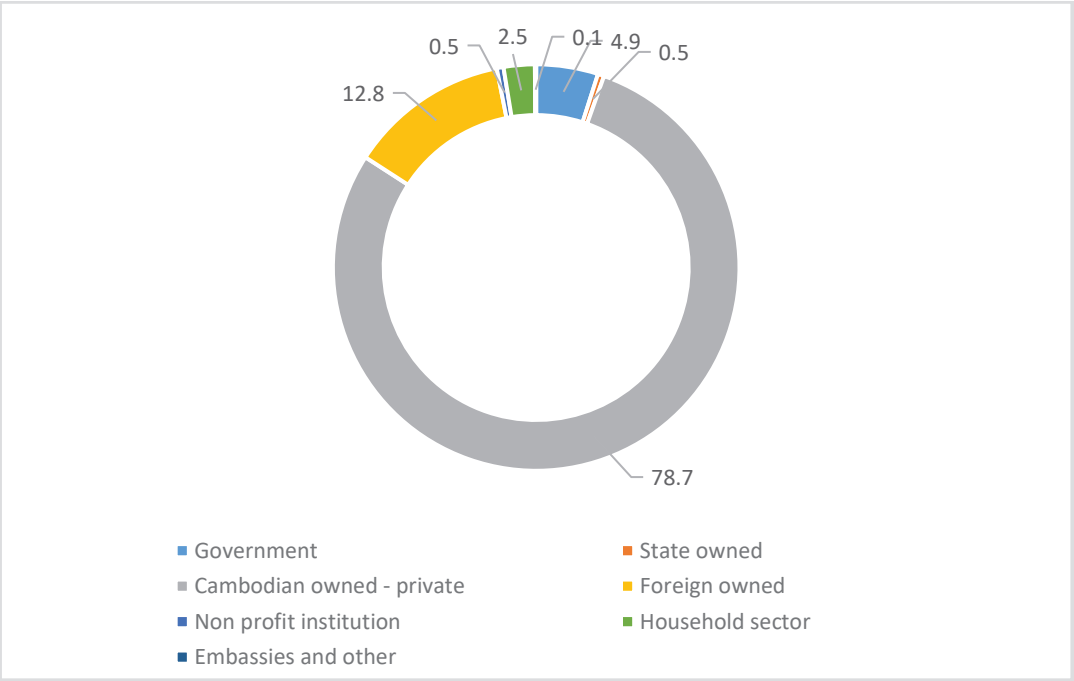
Employed people were classified into one of eight different sectors of employment:

- government;
- state-owned enterprises;
- Cambodian private enterprises;
- foreign-owned private enterprises;
- non-profit institutions;
- household sector;
- embassies, international institutions and foreign aid/development agencies;
- other.

Figure 2.53 shows that among the total population aged 5 and over who were employed, the group of workers in Cambodian-owned enterprises made up 78.7 per cent, foreign-owned companies employed 12.8 per cent, Government accounted for 4.9 per cent, the household sector employed 2.5 per cent and state-owned enterprises and non-profit institution each 0.5 per cent. Embassies and other employers came in at a tiny 0.1 per cent.

Figure 2.53

Employed population: Percentage distribution by sector of employment



The population pyramid in Figure 2.54 shows the age and sex distribution of the employed labour force by status in employment. One notes that workers employed by Cambodian private companies constitute by far the largest group among both sexes at all ages. Foreign-owned companies come second. They employ mostly people under age 40, with relatively more females than males. Government staff is more male than female, with the higher ages well represented. The *Others* group is quite small compared to the rest.

With nearly full employment, the pyramid in Fig. 2.54 takes on characteristics comparable to the overall population pyramid for Cambodia. That is to say that from age 25 the population strata are fairly stable until age 40 and then start to decline. This is mostly since these higher age groups were smaller to begin with. The effects of the most troubled era in Cambodian recent history, now a little over 40 years ago, are clearly reflected in the pyramid. The narrower cohorts at the youngest age groups are explained by the fact that at these ages many persons are still in school and have not entered the labour market.

Figure 2.54

Population pyramid of employed population by sex and sector of employment

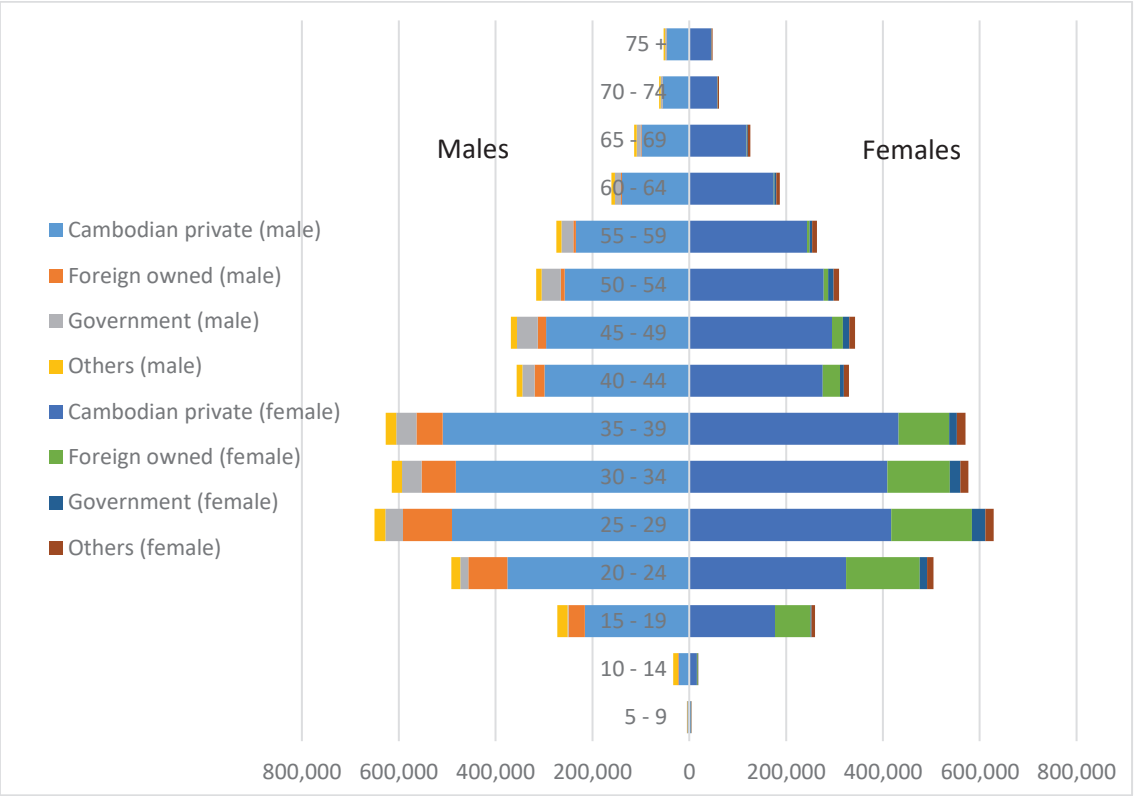


Fig. 2.55 explores the distribution over gender and ages further in two 100 per cent stacked area charts. While these provide further insights, it should be noted that, since all age groups are expanded to 100%, relatively small effects in the youngest and oldest age groups seem more important than they are. This is since these age groups encompass comparatively small numbers of workers.

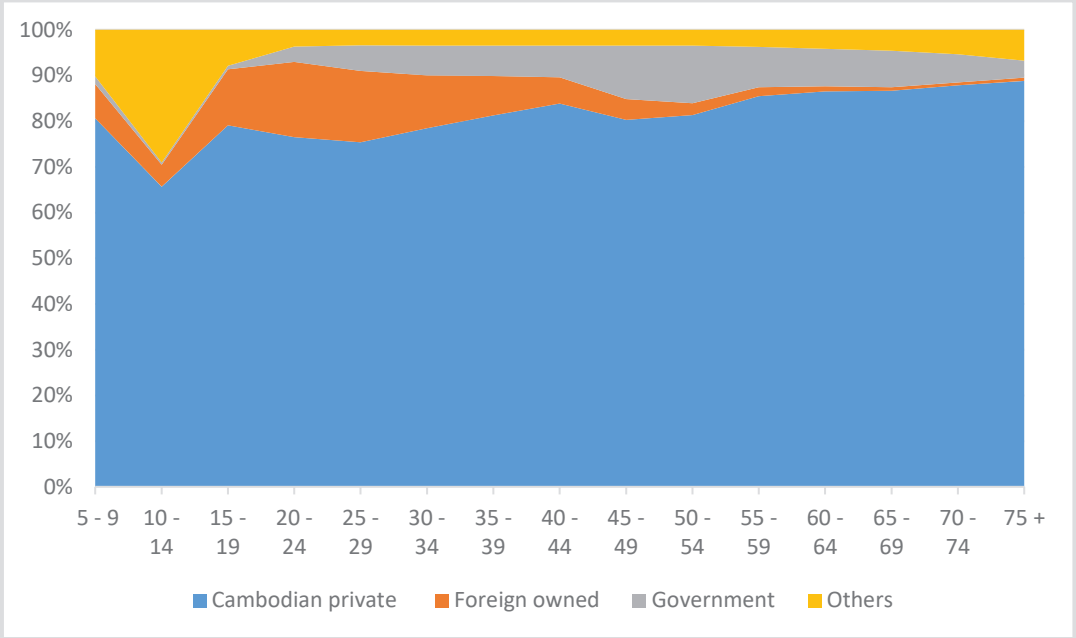
The effects already noted from Fig. 2.54 now become more manifest. Government staff is mostly male and a little older. The staff of foreign companies consists mostly of younger and female staff. One might as well argue that this expresses a preference of younger females to work for these foreign enterprises. But there is a strong feeling that the curve typically results from the hiring policies practiced by the companies.

As mentioned before in Section 2.5.1 there is a particular peak of the *Others* category for boys aged 10 to 14. These are young male workers that apparently could not be classified into one of the seven specific employment sectors. From Fig. 2.55 one deducts a large effect, but Fig. 2.54 shows that the actual numbers are small. Detailed tabulations show that the effect is caused by no more than about 800 boys.

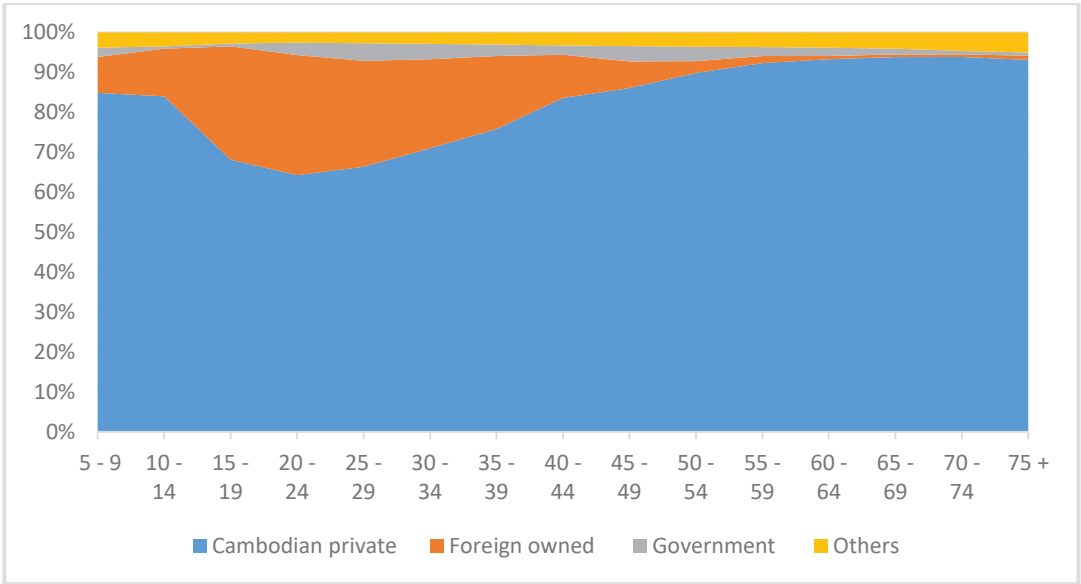
Figure 2.55

Employed population by sex, age group and sector of employment

Males



Females

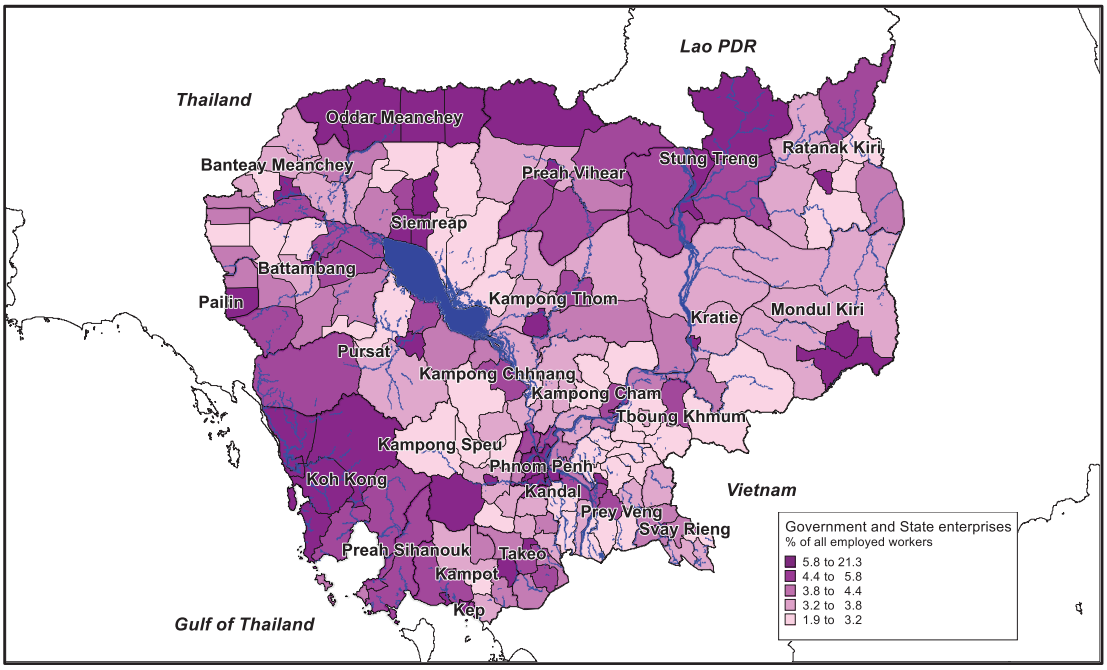


2.7.2 Government and the foreign-owned sector

Cambodian private enterprises exist all over the country, if only since nearly all farms, large and small, fall into this category. The next two important sectors are Government and foreign-owned enterprises. It might be interesting to see how these sectors are distributed throughout the country. The maps in Fig, 2.56 and Fig. 2.57 answer this question.

Figure 2.56

Employees of Government and State-owned enterprises: percentage among employed workers by District



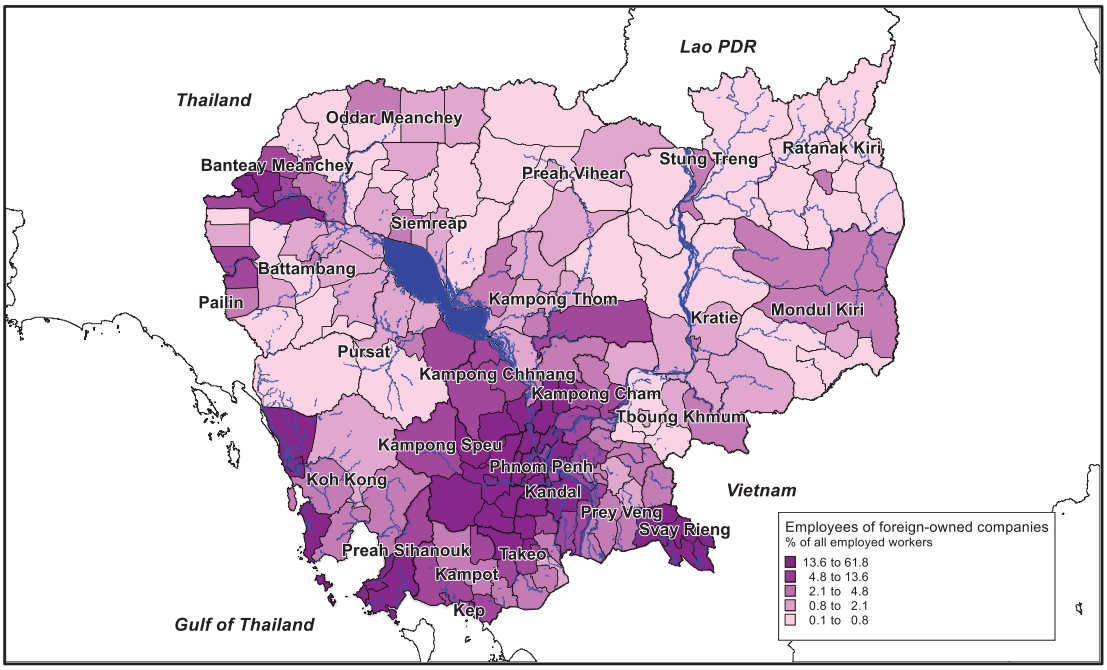
In the capital Phnom Penh the percentage of Government employees is high, as expected. Since this concerns a relatively large fraction of a large universe (all employed workers in the capital), we may conclude that there are quite a few persons on the Government's payroll in Phnom Penh.

In peripheral provinces the universes are smaller, so a dark area on the map does not necessarily represent a great number of Government workers. Nevertheless one notes a preponderance of Government staff in several border areas in the North and West.

Keeping the size of the public sector in check is one of the challenges governments face. Too many officials are a drain on the budget and can reduce the productivity of the national economy. But a distinction needs to be made between those managing the affairs of the state and those who work for public companies. The map in Fig. 2.56 does include those who work for state-owned enterprises. Some countries continue to have a large public-owned production apparatus. That is not the case in Cambodia, since the number of employees in state enterprises is no more than 10 per cent of that of regular public servants.

Figure 2.57

Employees of foreign-owned businesses: percentage among employed workers by District



Contrary to some of the maps shown earlier in this report, Fig. 2.57 is quite distinctive. It shows that the mass of workers for foreign-owned companies is concentrated in three or four areas: greater Phnom Penh, Banteay Meanchey, parts of Koh Kong and Preah Sihanouk Provinces, and also Svay Rieng Province. It is understandable that foreign firms concentrate in areas where the conditions for their activities in terms of infrastructure, land price, power supply and availability of staff are optimal.

The District with the highest percentage of workers in foreign-owned enterprises is Krong Preah Sihanouk at 61.8 per cent. Next come Angk Snuol, Kandal Province, at 48.8 per cent and Pou Senchey, Phnom Penh Province, at 48.8 per cent. There are 18 Districts where the percentage of workers in foreign companies exceeds 30 per cent.

2.7.3 Trends and international context

All three censuses of 1998, 2008 and 2019 did inquire about sector of employment. But while the categories in 2008 and 2019 were the same, the 1998 Census did not distinguish between businesses of Cambodian and foreign ownership. Therefore in Fig. 2.58 these categories have been left out for 1998.

One notices that the percentage of male government employees has remained stable, but the relative share of female government staff has increased. In fact from 2008 to 2019 the absolute number of females in Government service rose from 72 thousand to 129 thousand. *Others*, including state enterprises, non-profit institutions, household businesses and embassies (and so forth) have also increased, but their share in 2019 of 4.1 per cent for males and 3.1 per cent for females remains small.

The percentages of males as well as females working for foreign-owned businesses have more than doubled over the 2008 – 2019 intercensal period. As a mirror image of this, the

share of Cambodian-owned companies has declined. Yet, this is still by far the largest sector of employment.

In 1998 the percentage for private companies, both Cambodia and foreign owned, was 85.9 per cent for males and an overwhelming 96.6 per cent for females. This had evolved to 92.0 and 97.2 in 2008. In 2019 males in private enterprise were 89.2 per cent and females had 93.8 per cent. One concludes that the private sector remains the principal employer by far as about nine out of every ten workers find employment there. This preponderance is even greater for women than for men. Within the private sector the importance of foreign-owned businesses is rapidly increasing.

Figure 2.58

Employed population: Sex by sector of employment, 1998, 2008 and 2019 censuses

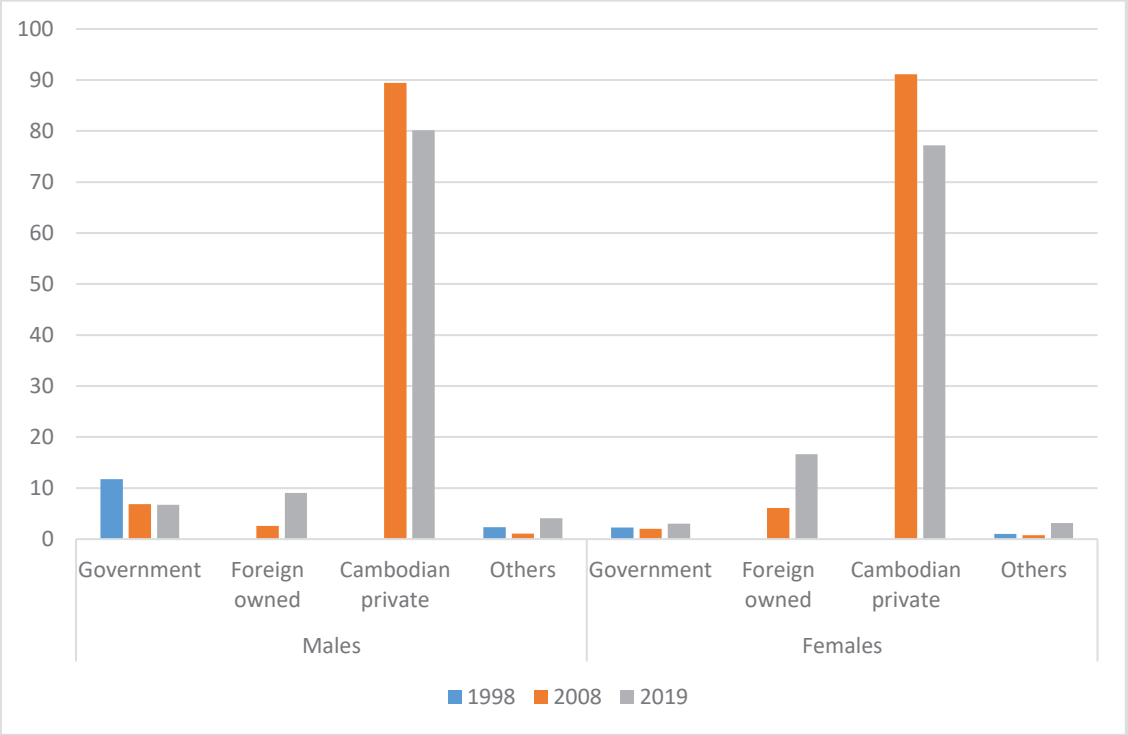
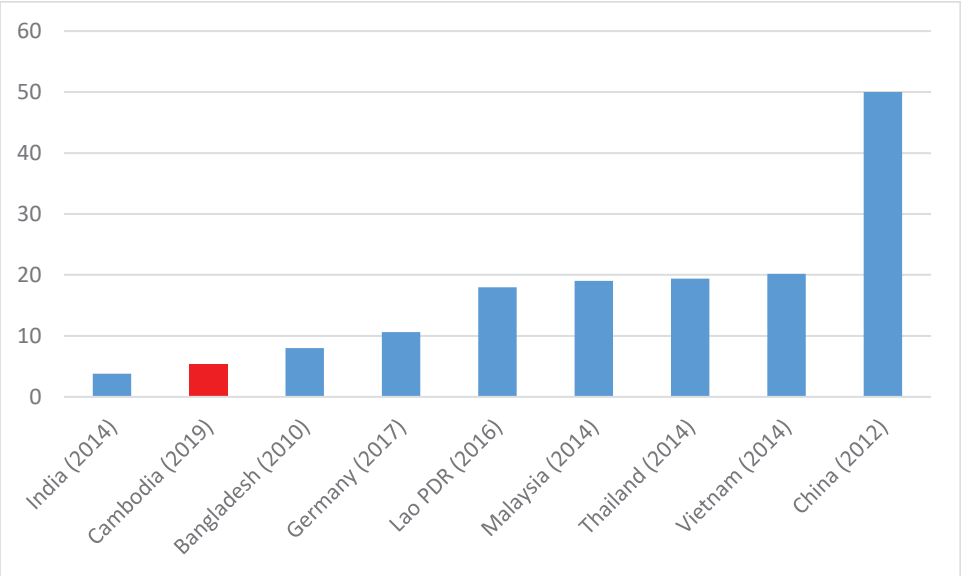


Fig. 2.59 attempts to compare the size of the public sector for a number of counties in terms of percentages of the employed population. Data are rare. Despite its indisputable importance, this is not an indicator routinely found in databases such as those maintained by World-Statistics and the ILO. Eventually, data were obtained from the site of the OECD [OECD19].

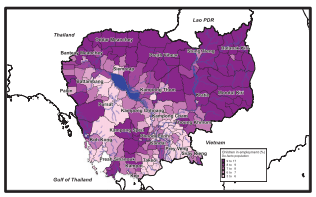
Figure 2.59

Employed population in the public sector: Percentages for various countries [OECD19]



These results include the employees of state-owned companies. Obviously this distorts the picture for some countries were public ownership of commercial enterprises is common. The PR of China stands out, but that information is already rather dated. At 5.4 per cent the score for Cambodia is not alarming.

Chapter 3 Disadvantaged and vulnerable groups in the labour force



Employed children

What exactly constitutes a disadvantaged and/or vulnerable groups in the labour force can be a matter of debate. A specific group may be perceived to be vulnerable or disadvantaged in one particular environment or regional setting, but not in another. The vulnerability of individuals or groups of people is dependent on the interplay of specific factors that make people prone to exploitation, unhealthy or undesirable work conditions, or exclusion and violation of their human rights. For instance, in some cases migrants may have a vulnerable position in the labour market, while in other cases being a migrant may even be an advantage – depending on the legal, social and economic context. Vulnerability can sometimes lead to exclusion from the labour market, but on other occasions to situations of exploitation, forced labour, or exposure to hazardous or insalubrious circumstances. Children often occupy a particularly vulnerable position because they can be defenseless to exploitation. Disabled persons' vulnerability may result from their inability to find suitable work other than what is offered by those who try to exploit their scarcity of options.

This current chapter reviews some of the groups that are considered to occupy disadvantaged and vulnerable positions in the labour market, and investigates their particular situation within Cambodia. In some cases, the ability of the study to assess the position of these groups is hampered by the limitations of the data, as population censuses typically do not provide in-depth information on working conditions and labour market dynamics. The following themes will be discussed: child work and labour, youth, older persons, individuals living with disabilities and migrants.

3.1 Children

Child labour – as opposed to child work - is a violation of human rights and should be abolished in all its forms. It prevents children from reaching their full potential and can lead to lifelong health problems and psychological issues. Ending child labour is not only a moral, but also an economic objective. It has been shown that eliminating child labour and placing the concerned children in school results in important economic benefits

Over the years, the international community has taken steps to eliminate child labour. The Sustainable Development Goals also clearly state that by 2025 child labour should be a thing of the past. Target 8.7 states: *Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms* [ILO09].

The notion of child labour is hard to operationalize. The difficulty with defining it is that

work performed by children is not necessary child *labour*. Some work that children do cannot be considered as harmful child labour. For example, in the many cases where children or adolescents do some work at home, on the family farm, or in a family business to earn pocket money. As long as the work does not hamper their education, health or personal development, it could be positive and can even contribute to their social development. Child work becomes child labour the moment it involves activities that, *deprive children of their childhood, their potential and their dignity, and that is harmful to physical and mental development* [ILO04]. Child labour can be distinguished from child work when it: (a) is physically, mentally, morally or psychologically unhealthy and harmful; (b) places a burden on education; (c) prevents children from attending school; or (d) forces them to drop out of school or forces them to combine school with long and/or heavy working hours.

For the study of child labour it is important to determine what age boundaries should be used. In its Convention 138 the ILO has a long time ago proposed the following age criteria, linked to duration of work and labour conditions [ILO73]. Child labour exists for:

- A child under 12 who is economically active for one or more hours per week.
- A child 14 and under who is economically active for at least 14 hours per week.
- A child 17 and under who is economically active for at least 43 hours per week.
- A child 17 and under who participates in activities that are "hazardous by nature or circumstance" for one or more hours per week.
- A child 17 and under who participates in an "unconditional worst forms of child labour" such as trafficked children, children in bondage or forced labour, armed conflict, prostitution, pornography, and various illicit activities.

In Cambodia, the legal framework controlling child labour is laid down principally in the 1997 Cambodia Labor Law. Furthermore the country has ratified all key international conventions concerning child labour [US19].

Unfortunately, the Census is not an ideal source to establish the prevalence rate, or to study the characteristics of child labour in Cambodia. This is due to several reasons:

(a) It is virtually impossible in a census to make a distinction between *child work* and *child labour*. To determine child labour, additional questions on hours worked and the possibly hazardous nature of work (heavy loads, dangerous tools, operates heavy machinery, exposed to dust/fumes/gas, exposed to extreme cold/heat/humidity or exposed to loud noise or vibration) would have needed to be asked.

(b) In Cambodia the employment status of every respondent was measured on the basis of the *usual activity* concept. This means that children who work, but also go to school, will have been classified as students if they spent more time during the 12 months before the Census in school than working. Nothing was then recorded about their work. On the other hand one can be fairly sure that if any child was reported as working, it means that this was his/ her major activity.

In this Section of the report, child work is analyzed for the age-group 5 - 17. In Section 3.2 *Youth labour* the age-group 15 - 24 is covered. The overlap of 16 and 17 year olds concerns children who according to Cambodia law are allowed to work, but where there nevertheless is a preference for a continuing education. It was considered useful to expand the lowest age group since reported child labour is now quite reduced at lower ages. The overlap in ages allows both sections to cover all individuals of interest.

3.1.1 Employment status

Of the 3,960,712 children in the age-group 5 - 17 for whom valid information was collected, 280,428 (7.1 per cent) were classified as being usually employed in the year before the Census. Tables 3.1 and 3.2 cannot reveal the fact that other children may also have been working, but were recorded as not economically active because other activities (such as being a student, or being a home maker) took up more of their time. In addition, 12,779 children (0.3 per cent) reported their usual activity as *looking for work*. This group would have been part of the working population if they had been given the opportunity.

Table 3.1 and 3.2 present the absolute number and percentage of children aged 5 - 17 by employment status (three categories) and sex. At ages under 10, less than 1 per cent of children were already working, slightly more boys than girls. While these low percentages are heartening, there are still many thousands of children for whom work has reportedly started at a very young age.

After age 9, clear gender differences emerge, with more boys entering the labour market than girls. At age 15, 18.8 per cent of boys were working or looking for work, compared to 14.7 per cent of girls. At age 17, this gender disparity relatively declined, with 40.6 per cent of boys and 37.4 per cent of girls working. Note that even at age 17 a large majority of children is not economically active.

Table 3.1

Children aged 5-17: Year of age by Sex and Employment status (numbers)

Age	Total			Male			Female		
	Emplo-yed	Unemplo-yed	Not economically active	Emplo-yed	Unemplo-yed	Not economically active	Emplo-yed	Unemplo-yed	Not economically active
Total	280,428	12,779	3,667,505	157,232	7,200	1,861,061	123,196	5,579	1,806,444
5	1,849	607	302,115	982	287	154,134	867	320	147,981
6	1,497	460	307,933	782	235	158,749	715	225	149,184
7	1,484	364	292,331	779	176	149,877	705	188	142,454
8	1,669	318	281,919	953	173	143,509	716	145	138,410
9	1,844	370	278,344	1,078	206	141,621	766	164	136,723
10	3,686	534	346,857	2,268	281	178,179	1,418	253	168,678
11	4,152	485	304,419	2,736	256	155,172	1,416	229	149,247
12	7,922	739	346,118	5,171	430	175,627	2,751	309	170,491
13	12,612	910	312,636	8,493	550	159,144	4,119	360	153,492
14	23,130	1,102	282,575	14,146	639	139,799	8,984	463	142,776
15	50,020	1,896	257,020	28,863	1,079	129,905	21,157	817	127,115
16	70,217	2,315	194,404	38,135	1,354	95,840	32,082	961	98,564
17	100,346	2,679	160,834	52,846	1,534	79,505	47,500	1,145	81,329

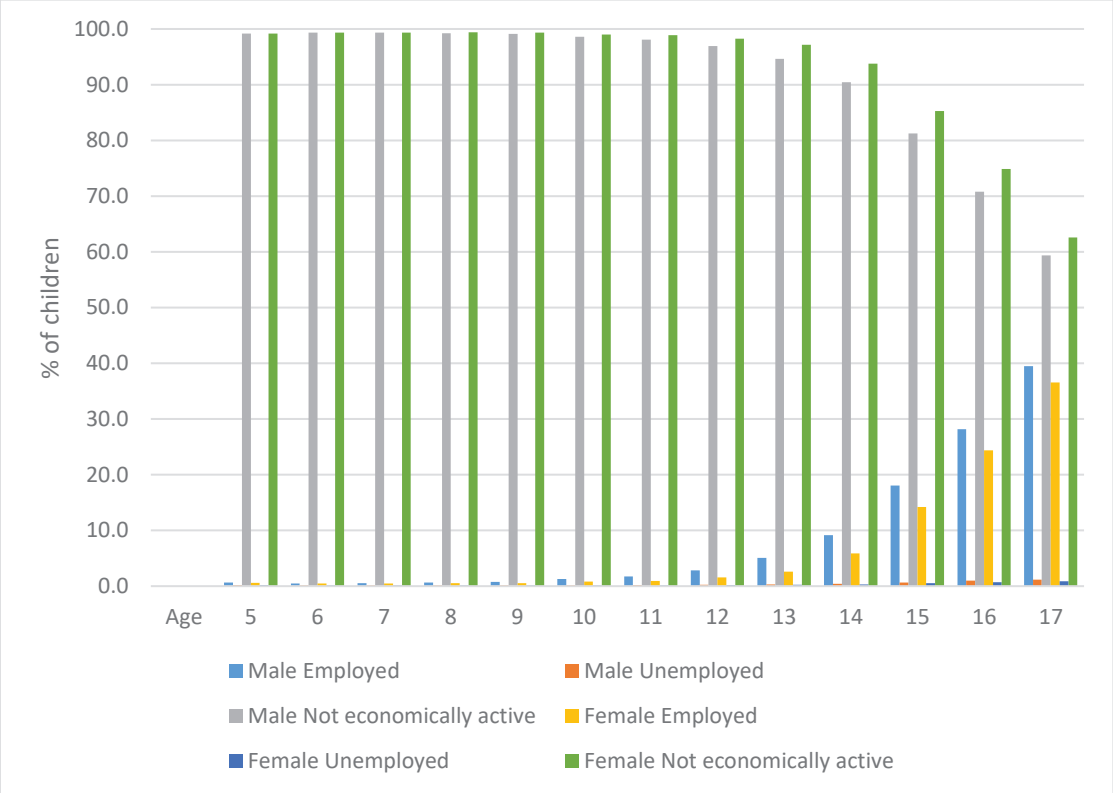
Table 3.2

Children aged 5-17: Year of age by Sex and Employment status (row percentages)

Age	Total			Male			Female		
	Employed	Unemplo-yed	Not economically active	Emplo-yed	Unemplo-yed	Not economically active	Emplo-yed	Unemplo-yed	Not economically active
Total	7.1	0.3	92.6	7.8	0.4	91.9	6.4	0.3	93.3
5	0.6	0.2	99.2	0.6	0.2	99.2	0.6	0.2	99.2
6	0.5	0.1	99.4	0.5	0.1	99.4	0.5	0.1	99.4
7	0.5	0.1	99.4	0.5	0.1	99.4	0.5	0.1	99.4
8	0.6	0.1	99.3	0.7	0.1	99.2	0.5	0.1	99.4
9	0.7	0.1	99.2	0.8	0.1	99.1	0.6	0.1	99.3
10	1.0	0.2	98.8	1.3	0.2	98.6	0.8	0.1	99.0
11	1.3	0.2	98.5	1.7	0.2	98.1	0.9	0.2	98.9
12	2.2	0.2	97.6	2.9	0.2	96.9	1.6	0.2	98.2
13	3.9	0.3	95.9	5.0	0.3	94.6	2.6	0.2	97.2
14	7.5	0.4	92.1	9.2	0.4	90.4	5.9	0.3	93.8
15	16.2	0.6	83.2	18.1	0.7	81.3	14.2	0.5	85.3
16	26.3	0.9	72.8	28.2	1.0	70.8	24.4	0.7	74.9
17	38.0	1.0	61.0	39.5	1.1	59.4	36.5	0.9	62.6

Figure 3.1

Children aged 5-17: Year of age by Sex and Employment status



Levels of child work are somewhat higher in rural than in urban areas. Table 3.3 presents the total number of children aged 5 - 17 by single years of age and employment status for urban and rural areas of residence. The Census enumerated 191,906 children in rural areas

who reported working as their economic activity in the larger part of the preceding 12 months. This was almost twice as much as the number of children working in urban areas (88,522). In addition, 7,457 children in rural areas were looking for work compared with 5,322 in urban areas. The greater absolute numbers in rural areas should not come as a surprise, as Cambodia is still mostly a rural society. Figure 3.2 shows the percentage distributions, thereby disregarding the difference in absolute numbers between both areas.

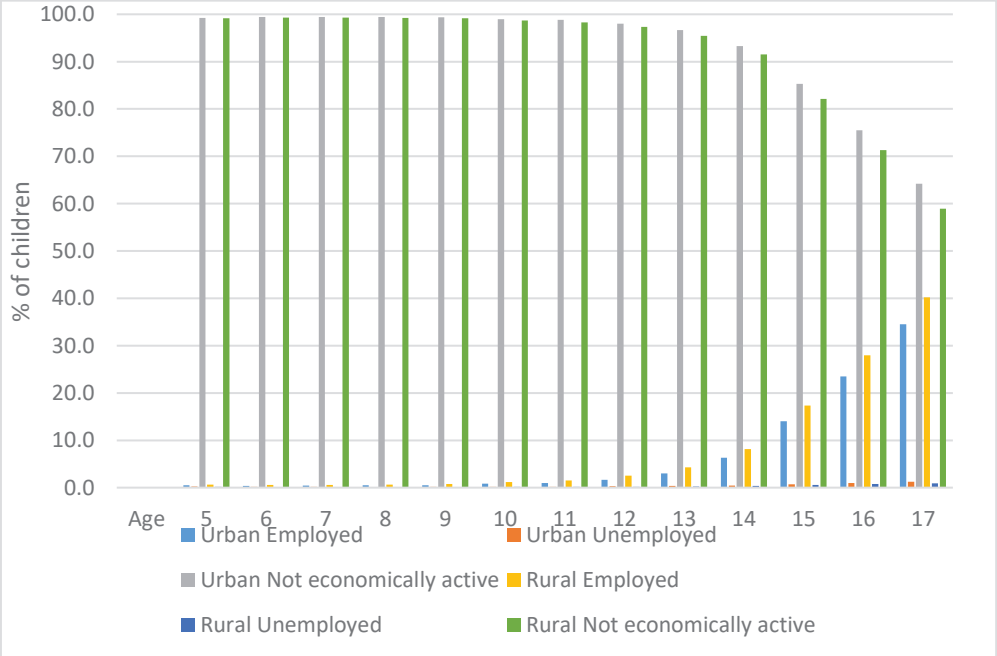
Table 3.3

Children aged 5-17: Year of age by Urban/rural and Employment status

	Total			Urban			Rural		
Age	Emplo-yed	Unemplo-yed	Not economically active	Emplo-yed	Unemplo-yed	Not economically active	Emplo-yed	Unemplo-yed	Not economically active
Total	280,428	12,779	3,667,505	88,522	5,322	1,269,886	191,906	7,457	2,397,619
5	1,849	607	302,115	556	237	106,610	1,293	370	195,505
6	1,497	460	307,933	391	210	108,299	1,106	250	199,634
7	1,484	364	292,331	418	149	102,527	1,066	215	189,804
8	1,669	318	281,919	446	120	94,837	1,223	198	187,082
9	1,844	370	278,344	456	159	91,892	1,388	211	186,452
10	3,686	534	346,857	1,028	197	117,774	2,658	337	229,083
11	4,152	485	304,419	1,039	177	104,719	3,113	308	199,700
12	7,922	739	346,118	1,973	328	115,536	5,949	411	230,582
13	12,612	910	312,636	3,178	364	102,559	9,434	546	210,077
14	23,130	1,102	282,575	6,523	422	96,412	16,607	680	186,163
15	50,020	1,896	257,020	14,874	753	90,471	35,146	1,143	166,549
16	70,217	2,315	194,404	22,958	977	73,775	47,259	1,338	120,629
17	100,346	2,679	160,834	34,682	1,229	64,475	65,664	1,450	96,359

Figure 3.2

Children aged 5-17: Year of age by Urban/rural and Employment status (percentages)



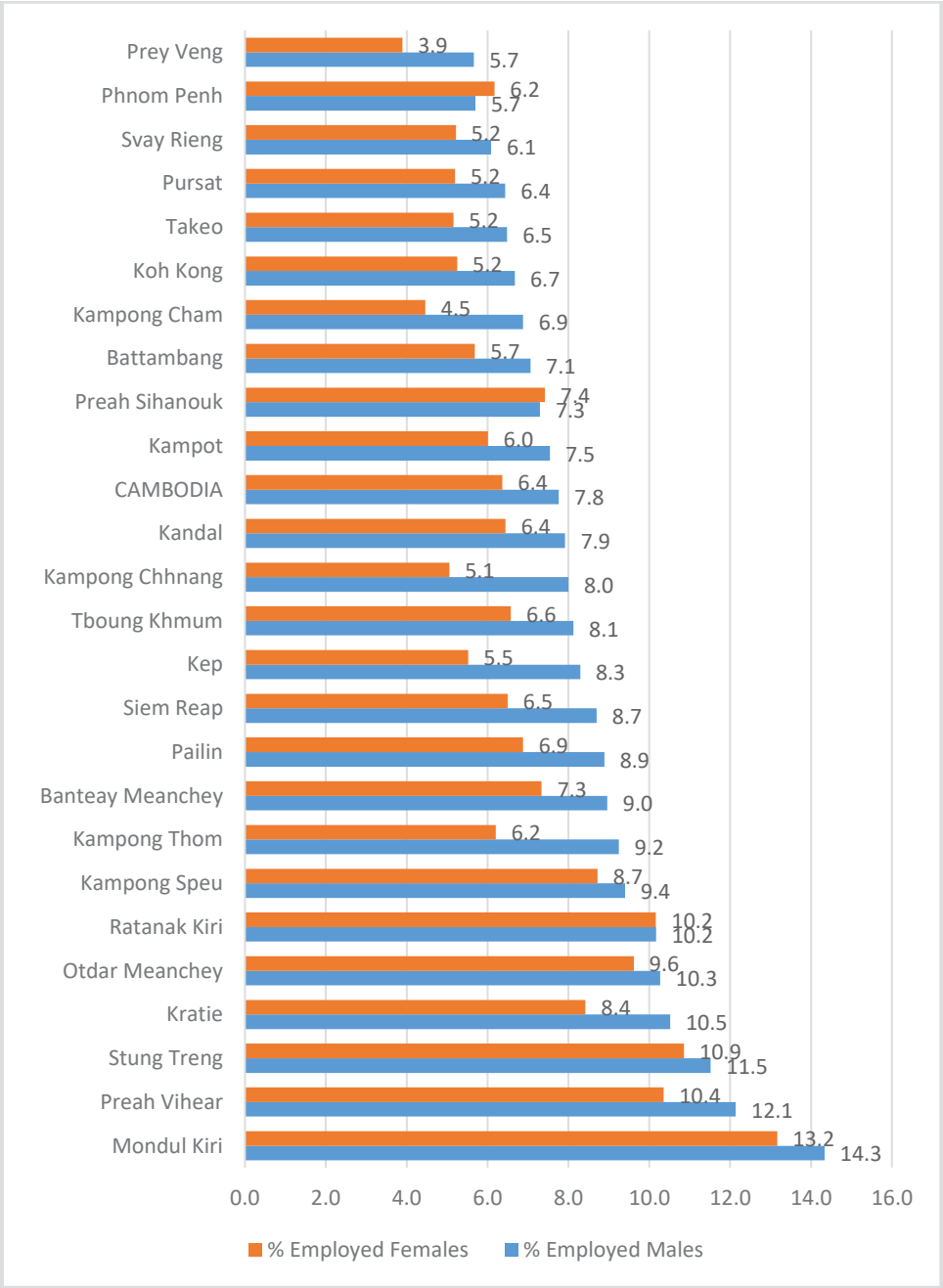
From age 10 onwards, age-specific percentages of children working were significantly higher in rural than in urban areas. With increasing age, the differences between areas continue to exist. At age 10, 0.9 per cent of children in urban areas were working compared with 1.1 per cent in rural areas. At age 15, these percentages were 14.0 and 17.3, respectively, and at age 17, 34.5 and 40.2 per cent. While the differences are consistent and statistically significant, they are not extreme. It would seem that efforts to reduce child work and improve school attendance in rural areas work nearly as well as in the cities.

At ages below 10 unemployment rates are as low to be virtually invisible in Figure 3. 2. This does not take away the woe of the remaining hundreds of young children who apparently are attempting to find some gainful employment or for whom others are prospecting.

Figure 3.3 shows that the percentage of children who worked varies considerably between provinces. The highest level, by far, was reported in Mondul Kiri Province, where 14.3 per cent of 5 - 17 year boys and 13.2 per cent of girls were working. The lowest level was in Prey Veng Province, where around 4.8 per cent of youngsters was reportedly working - about three times lower than in Mondul Kiri. As expected, the industrial centres of Phnom Penh and Battambang were at the lower end of the scale, as children there have more opportunities for education. In all provinces levels of child work were lower for girls than for boys, with the exception of Phnom Penh and Preah Sihanouk. In these non-agricultural centers there is likely to be relatively more demand for the employment of young girls.

Figure 3.3

Children: Percentage who are employed, by Province and Sex

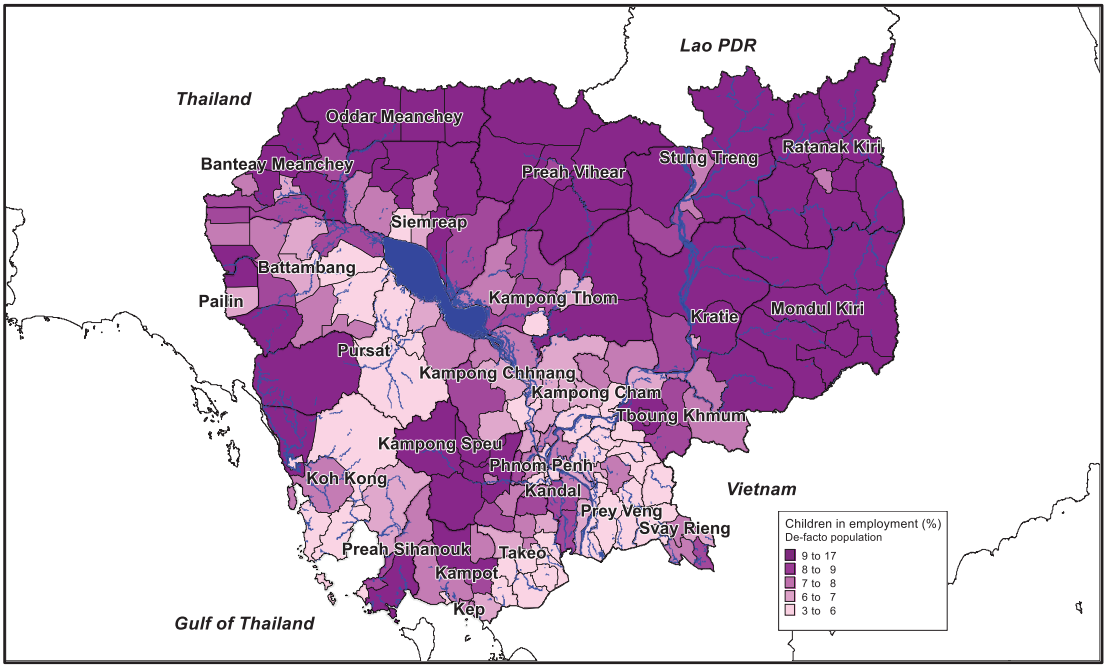


The map at Figure 3.4 displays this information as a thematic district map. The chart shows that child employment is highest in the Northern and Northeastern Provinces. The districts with the highest employment rates under children are Kaoh Nheaek (17.3 per cent) in Mondul Kiri Province, Sesan (14.9 per cent) in Stung Treng Province, and Tbaeng Mean Chey (14.6 per cent) in Preah Vihear Province. At the bottom of the scale are Kaoh Soutin (2.8 per cent) in Kampong Cham Province, Me Sang (3.2 per cent) in Prey Veng Province, and Angkor Borei (3.2 per cent) in Takeo Province.

Looking at percentages can be misleading since it does not show the magnitude of the numbers. The map in Fig. 3.13 later in this report displays the absolute numbers of employed children, again shown by district.

Figure 3.4

Children in employment: Percentage of all children, by District



3.1.2 Children not in ordinary households

Of the total of 4.0 million children aged 5 - 17 reported in the Census, 64,015, only 1.5 per cent, were not enumerated in traditional households. These were mainly institutions such as orphanages, monasteries, convents, boarding schools and medical long-stay facilities. There were also children enumerated as homeless, among the boat population and as transients. The number of 64,015 is divided into 43,201 boys and 20,814 girls.

Out of these children living under special conditions a total of 21,497, or 33.6 per cent were employed. This is much more than the percentage of working children in ordinary households, which stands at 7.1 per cent (Table 3.2).

When looking at the gender distribution, one finds that of those 21,497 working children as many as 19,141 are boys. The number of employed girls is much lower: 2,356. Outside ordinary households the fraction of employed boys is 44.3 per cent. Among all boys it amounts to 7.8 per cent. The percentage of employed girls not in regular households is 11.0 per cent, and among all girls: 6.4 per cent.

Concluding, one finds that out of the children not in ordinary households the girls work considerably more than their peers in regular households. For the boys not in ordinary households the relationship is even more skewed, since they are about six times more likely to be employed than those in regular households.

Working children not in ordinary households have, for two reasons, the highest degree of vulnerability; firstly because of the very fact they have no regular home, and secondly because they have to work at a young age.

Table 3.4

Children not in ordinary households: Year of age by Type of household

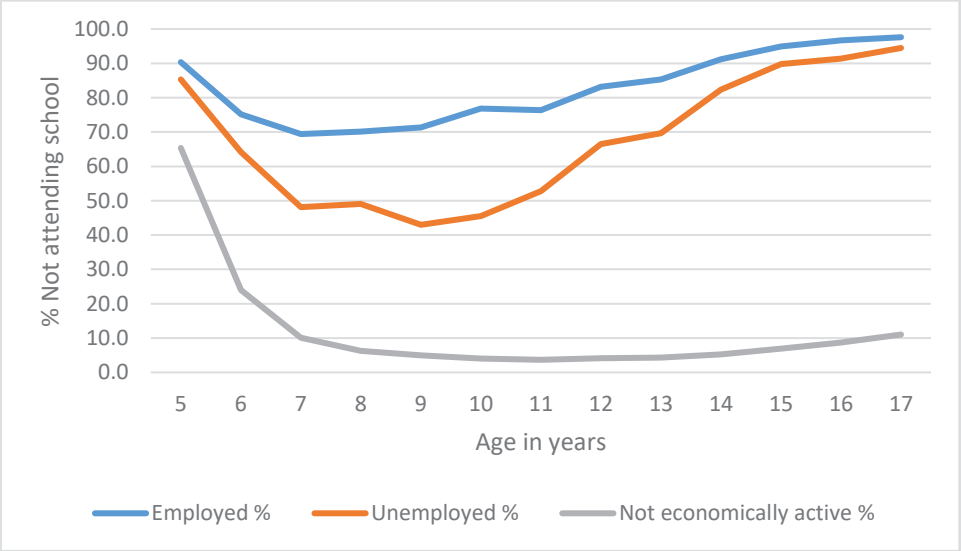
Year of age	Type of household				
	Total	Institutional Household	Homeless Household	Boat Population	Transient Population
Total	64,015	55,063	1,922	1,075	5,955
5	2,592	1,877	170	102	443
6	2,630	2,013	159	85	373
7	2,444	1,839	153	96	356
8	2,424	1,899	128	71	326
9	2,529	1,959	153	82	335
10	3,514	2,828	190	104	392
11	3,670	3,077	139	78	376
12	5,154	4,390	167	81	516
13	6,400	5,705	139	83	473
14	6,972	6,262	136	71	503
15	8,030	7,267	136	82	545
16	8,575	7,727	132	66	650
17	9,081	8,220	120	74	667

3.1.3 Child employment as related to other variables

The fact that children are working has a significant effect on their chances of obtaining an education. Figure 3.5 clearly shows the effect on the school attendance of children who are already active in the labour market. For all children who were working, the percentage not attending school was very high. At age 10, more than three quarters (76.8 per cent) reported that they were no longer at school or had never attended. At age 14, this had risen to 91.1 per cent. Note that the levels were only a little lower for children who indicated they were looking for work. By comparison, children who were not in the labour force had much better levels of non-attendance. At age 10, just 4.1 per cent of children who were economically inactive were not attending school, and at age 14, this proportion had only risen to 5.2 per cent.

Figure 3.5

Children: Not attending school by Age and Employment status (percentages)

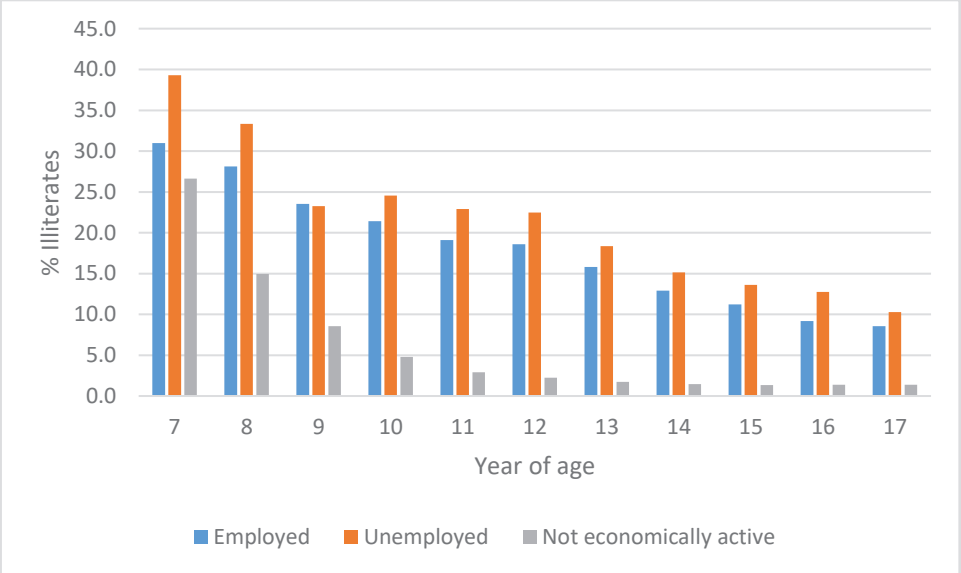


Being economically active at a very young age also has an effect on children's opportunity and ability to learn to read and write. Children who were in the labour force at a very young age were reported as having much higher levels of illiteracy (Fig. 3.6). Children who were working at age 10 had an illiteracy rate of 21.4 per cent, and children looking for work at that age had a rate of 24.5 per cent, compared with a level of only 4.8 per cent among those who were not economically active. At older ages, the degree of illiteracy among employed persons drops rapidly as more and more young people enter the labour market after having finished at least part of their education. But even at age 17 illiteracy among employed persons is still as high as 8.5 per cent. This is to be compared to an adult illiteracy rate in Cambodia of 12.3 per cent [NIS20]. But adult illiterates are in large majority older persons who did not benefit from the gradually improving education system of Cambodia.

It is a little surprising that the number of illiterates amongst unemployed children exceeds systematically that among those who are working, as shown in Fig. 3.6. The numbers, though, are quite small. Unemployed children numbered 12,779, while 280,428 are reportedly employed. These numbers are dwarfed by the universe of children aged 5 – 17, which stands at 3.96 million.

Figure 3.6

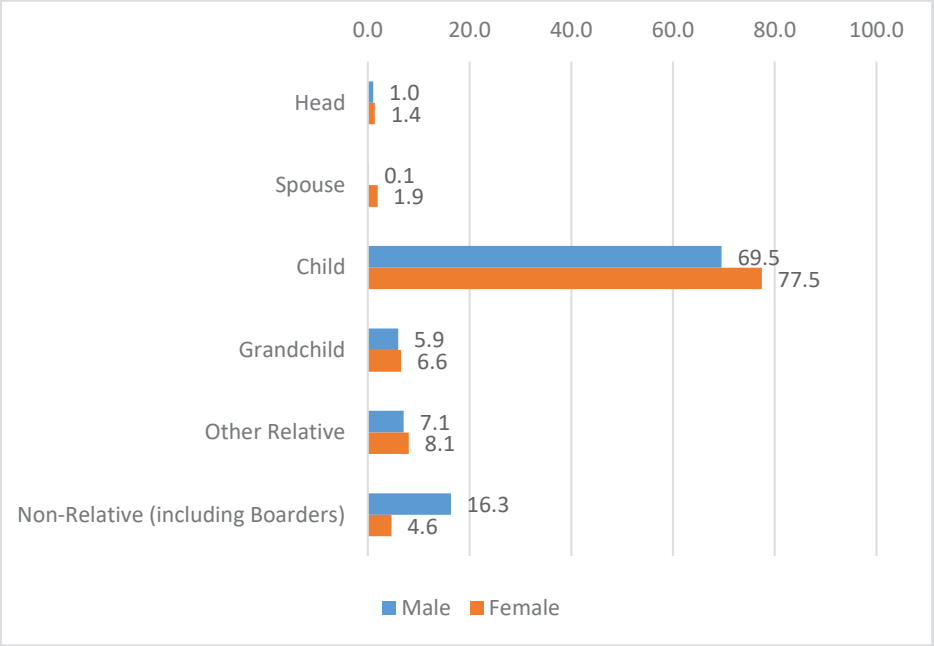
Children: Year of age by Illiteracy and Employment status (percentages)



The position a child occupies in the household could affect his/her participation in the labour market. The Census reports that a large majority of the 280,428 children working is in fact a child of the head of the household. No doubt much of the work concerns assisting in the household business. A small fraction of the working children has already become head of household.

Figure 3.7

Working children: Sex and Relationship to the head of the household (percentages)



Boys seem to be relatively more liable to find employment elsewhere than girls, as 16.3 per cent is staying with a non-relative. Since this information was collected for the entire *de-facto* population, we seem to encounter here again the excess of boys in non-regular households.

The small fraction of heads of households and spouses is only normal for this age group.

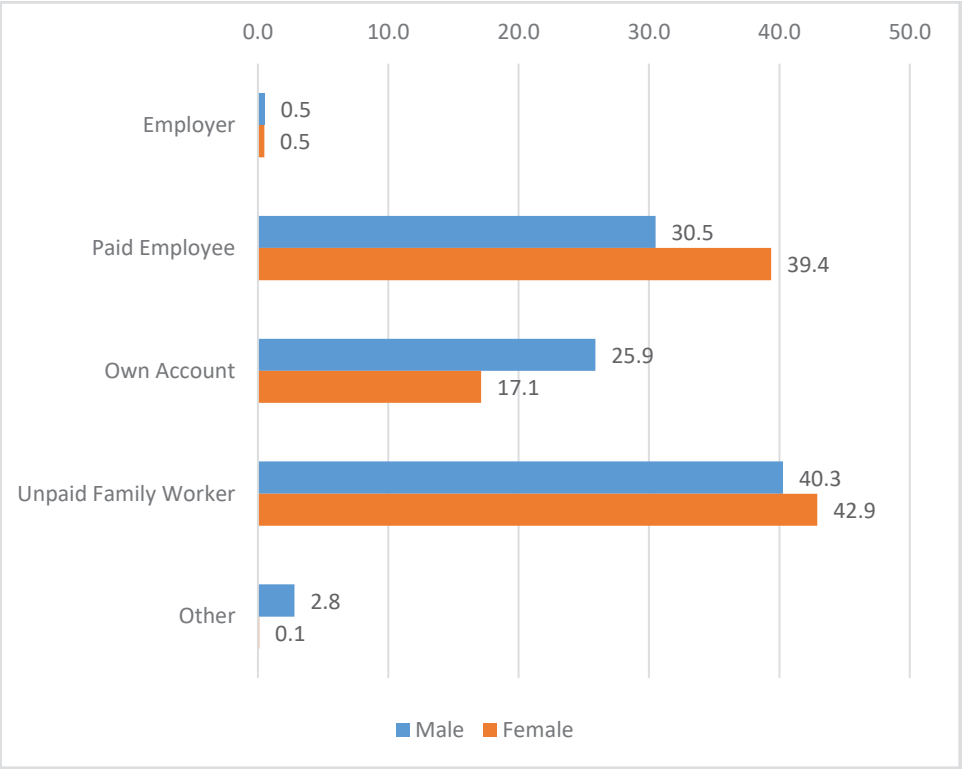
Most children in the age group 5 - 17 who were working, were active as contributing family members: 40.3 per cent of the working boys, numbering 63 thousand, and 42.9 per cent of the working girls, amounting to 53 thousand (Figure 3.8). The percentage of girls is higher, since there are fewer female workers overall. The second biggest group of young workers received regular salary payment (48 thousand boys and also 48 thousand girls). It is interesting to note that so many children were working already as own account workers: a total of 62 thousand, comprising 41 thousand boys and a minority of 21 thousand girls.

Comparing the distribution of employment status in Fig. 3.8 with that for the entire labour force (Fig. 2.25) one notes that children are more likely to be unpaid family workers, as the percentage overall in Cambodia is only 25.0 per cent. There are among children fewer own-account workers, as the national rate is 42.7 per cent. Finally among children the paid employee rate is not far from the national average which is 31.5 per cent.

No surprises there, apart from the fact that about a third of the working children, according the Census, are being paid a regular wage. Among this group females earn a salary for a greater percentages than males. It would be interesting to have an idea of the level of these payments, but the Census cannot provide that.

Figure 3.8

Working children: Percentage by Sex and Status in economic activity



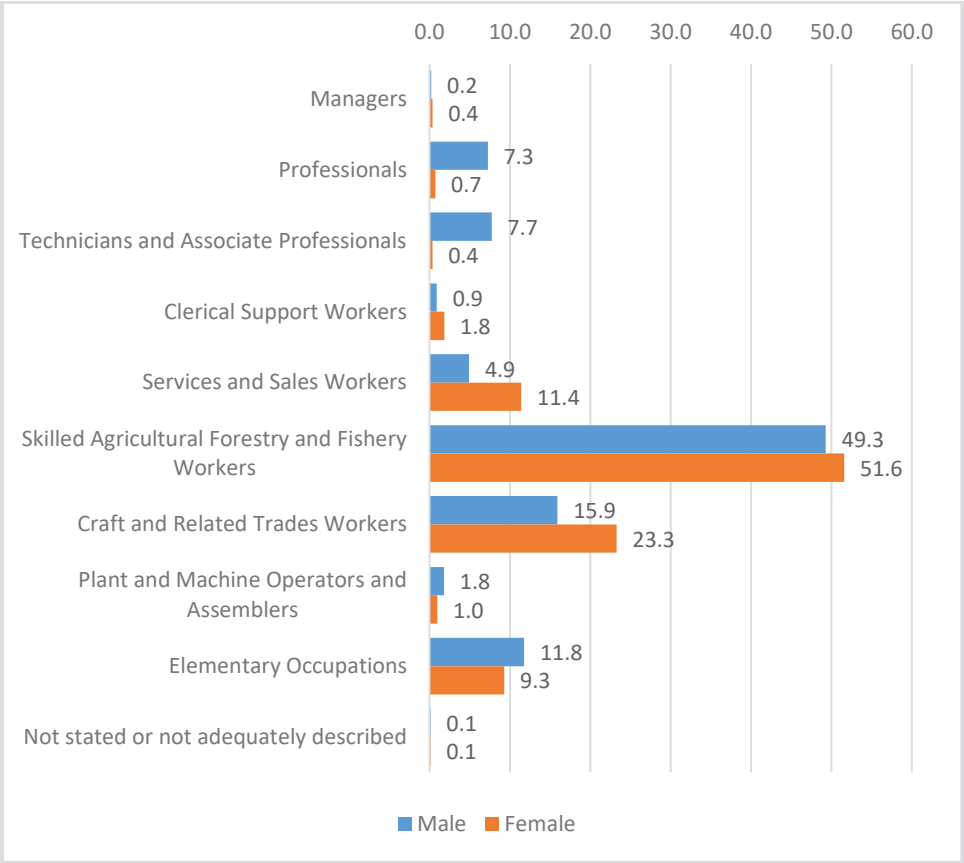
The high numbers of children employed as own account workers or contributing family workers means that the percentages of them working in what is referred to as *vulnerable employment* (see Section 2.4.3) is high: 66.2 per cent for boys and 60.0 per cent for girls. However, in the case of child work it is better not to define any one specific group as being in vulnerable employment, since all working children below the age of 18 should be considered as vulnerable.

Figure 3.9 shows that children were, with a few exceptions, found in four major occupational categories, the largest being *Skilled agricultural, forestry and fishery workers* (49.3 per cent of boys and 51.6 per cent of girls); followed by *Craft and related trade workers* (15.9 and 23.3 per cent), *Elementary occupations* (11.8 and 9.3 per cent), and *Services and sales workers* (4.9 and 11.4 per cent).

Among the other ISCO-categories one notes sizeable percentages of male *Professionals* and *Technicians and Associate Professionals*. Here we have the young boys again who took up religious occupations, supposedly of a temporary nature.

Figure 3.9

Working children: Sex and Occupation class (percentages)



Within the occupational categories, children were working in a large variety of different jobs. Table 3.5 presents the 10 largest occupational groups in which children were employed. The table again shows how agricultural occupations attracted most of the young workers. *Market gardeners and crop growers* was the largest occupational category for both boys and girls. For both sexes combined, more than 110 thousand young workers were active in this occupation class.

After the main agricultural occupation group, three other occupations related to the primary sector appear in the top 10: *Subsistence crop farmers*, *Agricultural, forestry and fishery labourers* and *Fishery workers, hunters and trappers*. Altogether these three occupations account for about 150 thousand workers under 18 years of age, which is over 53 per cent of all employed children.

The garment industry is also an important source of work, attracting some 24 thousand girls and 10 thousand boys, over 12 per cent of the employed children. The lower salaries young workers command make them attractive to the sector.

Table 3.5

Working children: Top 10 most common occupational groups, males and females

Males		Females	
Market gardeners and crop growers	60,078	**Market gardeners and crop growers**	50,099
Subsistence crop farmers	13,506	**Garment and related trades workers**	24,157
Legal social and religious associate professionals	11,298	**Subsistence crop farmers**	11,359
Social and religious professionals	10,423	**Agricultural forestry and fishery labourers**	4,807
Garment and related trades workers	10,168	**Shop salespersons**	3,260
Mining and construction labourers	8,180	**Mining and construction labourers**	3,122
Agricultural forestry and fishery labourers	6,067	**Street market salespersons**	2,017
Building frame and related trades workers	4,721	**Waiters and bartenders**	1,938
Fishery workers hunters and trappers	2,437	**Cooks**	1,373
Transport and storage labourers	1,874	**Fishery workers hunters and trappers**	1,351
Total males in top 10	**128,752**	**Total females in top 10**	**103,483**

With so many children working in agricultural jobs, it should come as no surprise that a large majority work in the primary industrial sector; the Census reported that 58.5 per cent of boys and 61.1 per cent of girls worked in *A - Agriculture, forestry and fishing* (table or graph not shown). For boys, the second highest category is *S - Other service activities* at 15.3 per cent. This is where the young religious workers were categorized. Other male strongholds were *C - Manufacturing* at 11.1 per cent and *F - Construction* at 10.4 per cent.

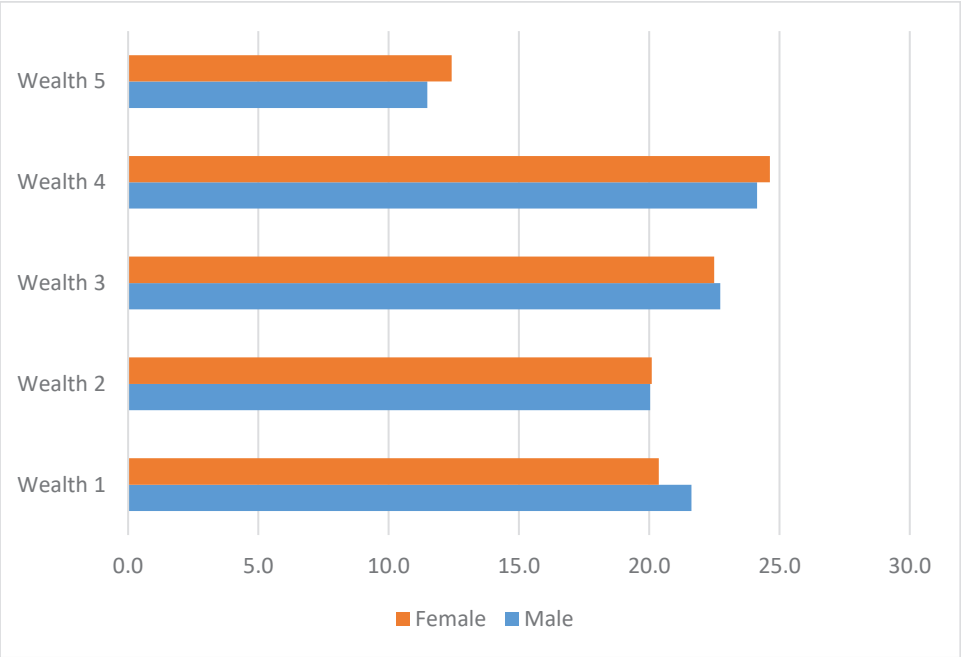
Female employment is clustered also in *C – Manufacturing* (the garment industry) at 24.5 per cent and *G - Wholesale and retail trade; repair of motor vehicles and motorcycles* at 8.3 per cent.

Considering that the work of children and the ensuing economic benefits would often be a necessity for poorer households, one would expect an inverse relationship between wealth level and the percentage of employed children. Fig. 3.10 is not entirely convincing in that respect. It is clear that the prevalence of work for 5 – 17 year olds is much lower for the wealthiest quintile. But at subsequent levels there is no evidence of a form of proportionality. So, the effect looked for is present only at wealth level 5, where the chances of children to be working are about half of those for children at lower wealth levels.

The explanation could be in the definition of the wealth levels, which is highly dependent on household amenities. Variables that would have a stronger predictive value, such as household income and value of food consumption are not available from the Census.

It might also be that the relationship between wealth and child labour is less strong than expected, because placing children in the labour force is also a cultural phenomenon. That would mean that the prevailing opinion in certain households is that children ought to go to work rather than continuing their education, even if there is no absolute economic need for that.

Figure 3.10
Working children: Wealth level and Sex (percentages)



3.1.4 National and international comparisons

At the national level the most specific source of information for employment is the 2012 Labour Force and Child Labour Survey [NIS13b]. This ILO-supported survey was conducted in the context of the International Programme on the Elimination of Child Labour (IPEC). It uses a focused approach to provide a broad understanding of the situation in the domain of children's economic activities. The report distinguishes between child work, which covers economic activities that are considered normal and acceptable, and child labour where a child is exposed to harmful conditions or/and exploitation. To divide these strata a detailed set of guidelines is being applied.

Our main interest is to compare the Census result for working children in 2019 to what was obtained in 2012. The numbers in the survey report, however, are not entirely comparable. In the first place, the survey has followed the *current* rather than the *usual* approach for determining economic activity. Secondly, the survey takes a much wider view of the notion of *economically active.* Persons who had been working at least one hour over the last week (or who were absent from an ongoing job) were considered economically active. This is in contrast to the Census, where the question was about the most time-consuming activity over the last year. Those who did part-time work but over a shorter duration than other activities were not counted in the labour force. Consequently the census results turn out lower than if the survey definitions had been used.

The annual CSES surveys also reports economic activity under age 18, but from a sample of only some 2,000 children. Those surveys too use current rather than usual activity[1].

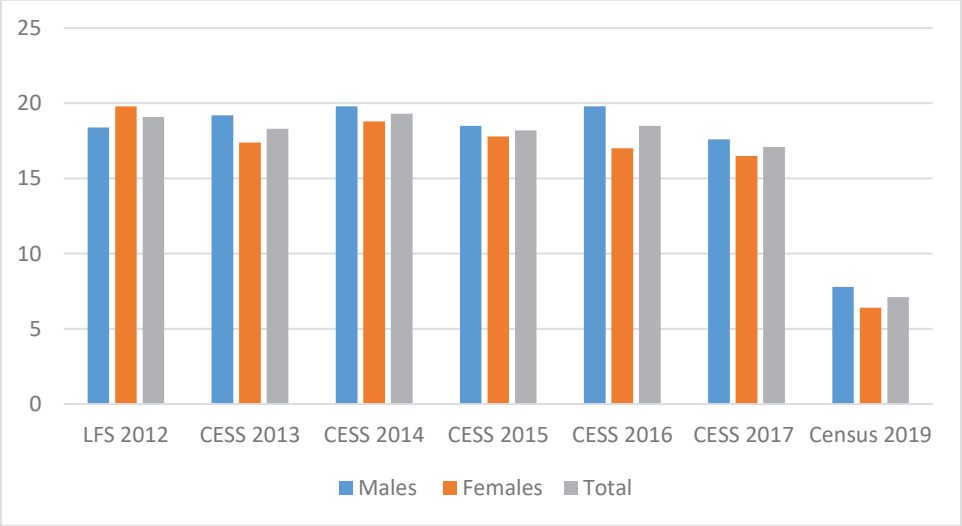
One notes in Fig. 3.11 that the CSES numbers have remained mostly stable over earlier

[1] The CSES is conducted throughout the year, thereby reducing seasonal effects on the results.

years. The impressive difference between CESS 2017 and Census 2019 is most likely directly related to the narrower definition of child work practiced in the Census. A somewhat smaller employment rate for female child workers as compared to the males is confirmed.

Figure 3.11

Percentage of working children: Statistical collection and Sex

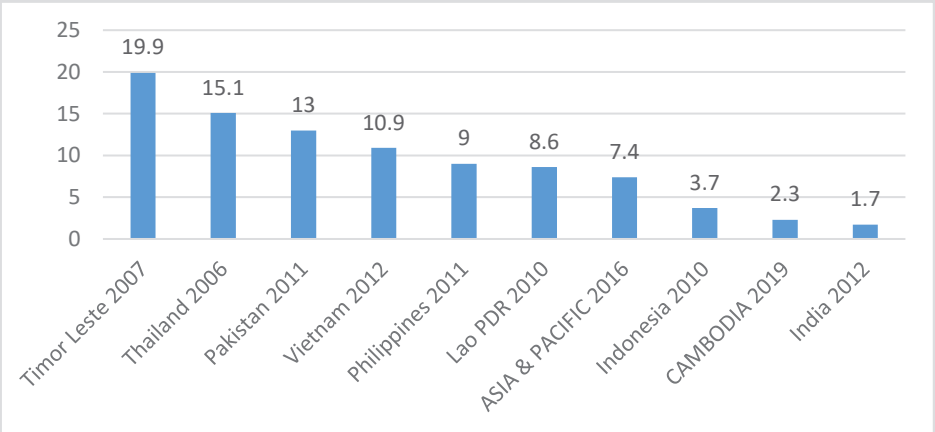


Most countries are not proud of child work within their borders. Accurate statistics about this topic are rare. But some, albeit from different years and a token collection of countries could be assembled. The overall rate for Asia and the Pacific was sourced from the ILO database [ILO20c], the remainder from the World Bank [WB20].

Do note that Fig. 3.12 shows values for children aged 7 - 14, since information for that age group is more readily available.

Figure 3.12

Working children aged 7-14: Percentage of all children for various countries and years*



**Data for this graph - except Cambodia - have been derived from the World Bank statistical database and for Asia & the Pacific from ILOSTAT.*

In conclusion here it should be reiterated that the rate of child employment, which is a serious problem in many countries, is extremely difficult to determine. The definitions can

be complex, respondents are usually reticent and employers even more so. Much is hidden behind the confines of household and in some cases factory walls.

3.1.5 Geographic distribution of working children

Figure 3.13

Employed children aged 5-17: Distribution of absolute numbers over the Districts

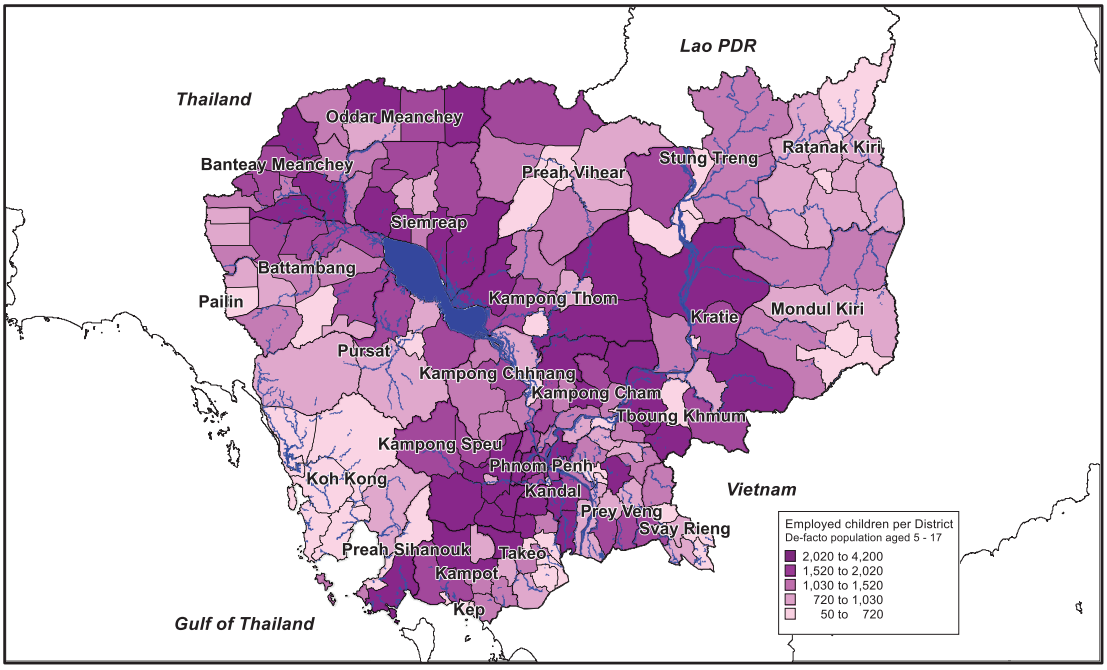


Fig. 3.13 shows the numbers of working children per District (*Khan, Krong*). A wide semi-circle from Banteay Meanchey Province via Siem Reap, Kampong Cham and Phnom Penh to Preah Sihanouk Province contains the largest absolute numbers. Note again that these are the children that were *reported* as employed for most of their time over the last year. There are likely to be many other youngsters who contribute economically to sustain their households.

3.2 Youth

This Section discusses the employment situation of young people who are no longer considered children. These formative years are of great importance to the individuals themselves as well as to their communities and countries. Too many lives and potential careers are affected negatively by cultural bias or the absence of opportunities.

While there are no universally accepted definitions of adolescence and youth, the United Nations understands *adolescents* to include persons aged 10 - 19 years and *youth* as those between 15 - 24 years for statistical purposes, without prejudice to other definitions by Member States [UNFPA21]. Together, adolescents and youth are referred to as young people, encompassing the ages from 10 to 24 years. Due to differing perceptions, these terms can refer to varying age groups that are separately defined as required. There are about two billion young people in the world today, 90 per cent of whom live in developing countries, where they tend to make up a large proportion of the population. There are more than 250 million youth in India and 230 million in China alone. In this report, the United Nations definition of youth will be used. The tables on youth will therefore refer to the

age-group 15 - 24.

A recent report by the ILO discussed the global problems of youth employment [ILO20b], pointing out the difficulty of interpreting existing trends. Over recent years the labour participation rate of young people has steadily declined. But that is not necessarily bad news, since a large number of those not in the labour force are continuing their studies. It is the fraction of youth that is neither working nor studying that raises most concern. During crucial formative years in which they should build a foundation for future life, they are held back – for whatever reason – from doing so. The ILO reports that young women are more likely to be in that situation than men.

Global unemployment among young people has the attention of the international community and is addressed by the Sustainable Development Goals. Target 8.6 of the SDGs states: *By 2020, substantially reduce the proportion of youth not in employment, education or training.* Another SDG-target (8b) directly deals with the problem of youth employment stating: *By 2020, develop and operationalize a global strategy for youth employment and implement the Global Jobs Pact of the International Labour Organization* [UN15a]

To monitor progress, a statistical indicator called NEET (*Not in Education, Employment or Training*) has become common since the latter part of last century. Applied on youth between 15 and 24, it covers the seemingly purposeless group of those who are neither being economically active nor preparing formally in schools for their future.

The ILO report referred to before informs: *Globally, one-fifth of young people currently have NEET status, which means they are neither gaining experience in the labour market, nor receiving an income from work, nor enhancing their education and skills. Clearly, their full potential is not being realized, though many may be contributing to the economy through unpaid work, which is particularly true of young women. Globally, young women are twice as likely as young men to have NEET status* [ILO20b].

3.2.1 Employed and unemployed youth

As noted in Chapter 2, levels of unemployment, although generally low in Cambodia, were comparatively high among young people. The Census recorded that, 2.7 per cent of males and 2.2 per cent of females aged 15 - 19 were unemployed. For the next age group, 20 – 24, the rates were 1.6 and 1.4 per cent, respectively.

The relationship between socio-economic status and unemployment for Cambodia's youth is explored in Fig. 3.14. Differences are minor, except for the highest level of affluence where unemployment rates are clearly greater. This is likely related to a more advanced level of education in this segment and the time youth with higher skills are taking to find jobs appropriate to their potential.

The differences at lower wealth level are so small as to be statistically insignificant. Note that the numbers of youth involved are small. For example, at age 16 there are 266,936 individuals, 70,217 of whom are employed and 2,315 who are reported to be unemployed. At each of the five wealth levels we deal in Cambodia with no more than some 500 individuals who are reportedly unemployed.

Figure 3.14

Unemployed youth: Percentage by Year of age and Level of wealth

Unemployment goes steadily down over the age intervals and at age 24 there is nearly full employment. That does not mean that each person has landed an appropriate job. Or, to use the term that has become common to describe this, for some their situation in employment is not adequate. Young people may have gotten tired of prospecting and in the end have settled for a position that does not do justice to their education and acquired skills.

The NEET indicator for young persons as resulting from the Census is a little compromised in that the economic activity of persons refers to their *usual* activity status, while school attendance looks at their *current* status. That means that a person currently not in school and not working would be outside NEET if having worked most of the preceding year. Moreover, educational status in the Census puts a focus on formal education, although there is a modality *Any other course* in Question 16b about which grade is currently being attended by those in school. This modality was selected for only some 1,400 of the 3.6 million individuals currently in school, a statistically insignificant minority.

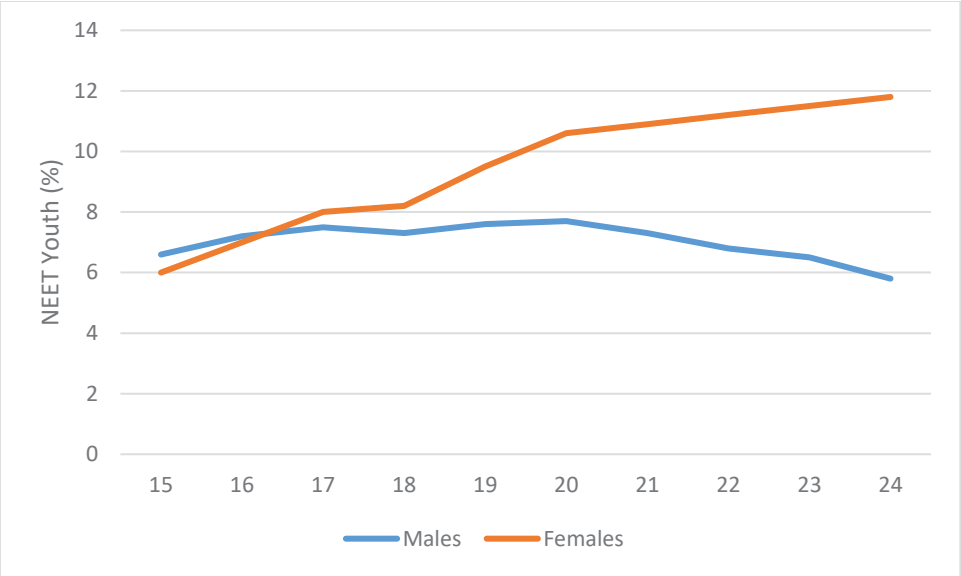
Figure 3.15 shows the percentage of the youth population that was neither in education nor in employment or training. In total for all youth, the NEET indicator stood at 8.2 per cent. The percentage was a little higher for women (9.4) than for men (7.0), and the age profile was significantly different for female youth as compared to for male youth. While between the ages of 15 and 24 the percentage of NEET for women rises with age, it declines for men after age 20. At age 15, the percentage not in employment or education was 6.6 for men and 6.0 for women. For women, the NEET rate increase is initially almost linear, reaching a level of 10.6 at age 20, then starts a slower rise to 11.8 at age 24. For men there is an increase to 7.7 per cent at age 20, then the rate goes down to only 5.8 per cent at age 24.

The increase among women can be attributed to those who leave education and then remain outside the labour force as home makers. They take time off from other activities for the

purpose of, among other things, bearing children and taking care of these. Combining a job with raising a family is a challenge anywhere, but certainly too for many Cambodian women.

Figure 3.15

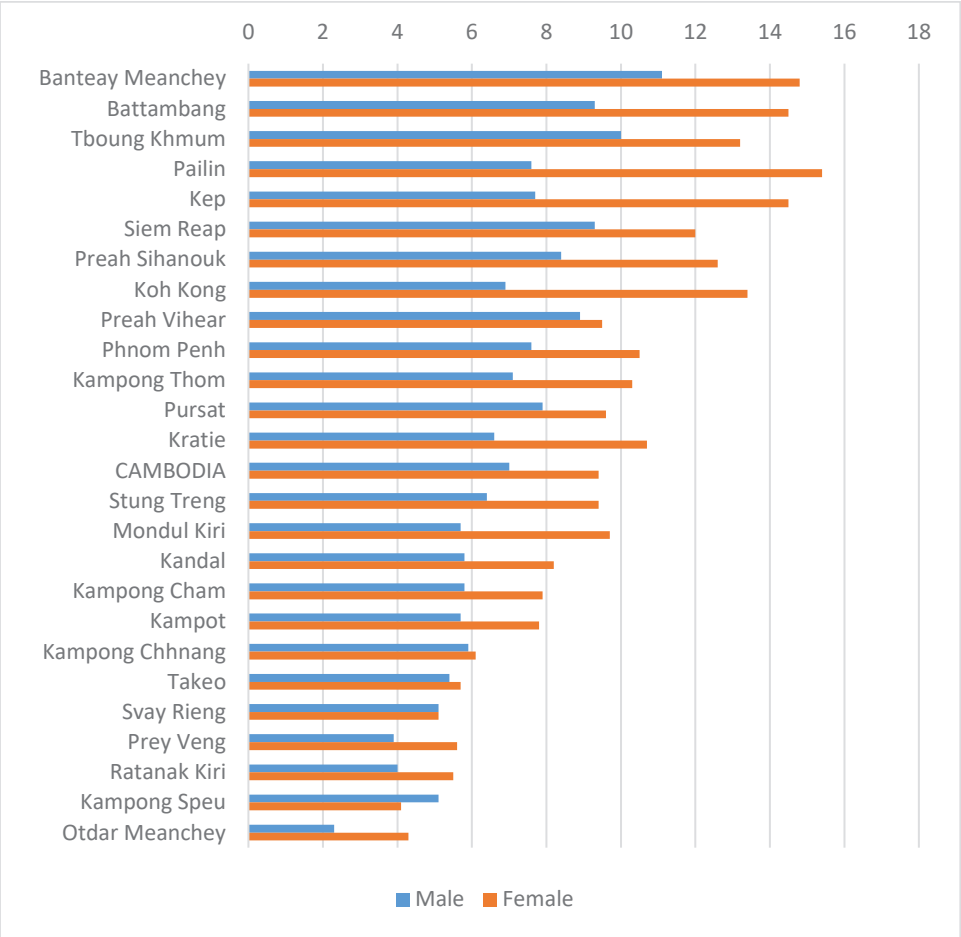
Youth: Percentage of NEET by Age and Sex



Large differences in the NEET indicator for youth exist between provinces, though Figure 3.16 shows that for each province the NEET is higher for women than for men, with the sole exception of Kampong Speu and Svay Rieng Provinces. The highest youth NEET, both for males and females, can be observed in Banteay Meanchey Province, where 14.8 per cent of young women and 11.1 per cent of young men were not in employment, education, or training. Low levels of NEET for men and women existed in largely agricultural provinces such as Otdar Meanchey, Ratanak Kiri and Prey Veng. Kampong Speu Province, which at first seems like an outlier, has a large industrial sector which, by employing many young people, reduces the NEET rate. With some imagination it can even be observed that the garment factories there have a preference for female workers.

Figure 3.16

Youth: Percentage of NEET by Province and Sex



Furthermore, in comparing the NEET rate across various characteristics (Figure 3.17) several phenomena can be observed. Women always score higher than men on this negative indicator. So relatively more female than male talent is lost.

As expected, NEET is comparatively lower in rural settings: there is often work to do in agriculture. A high peak for females exists for marital status: *Married before* (widowed, divorced or separated). Females in this condition have difficulty accessing the labour market. There are fortunately not that many women who had seen their marriages ending so prematurely. Only 13,432 young women had to cope with this situation.

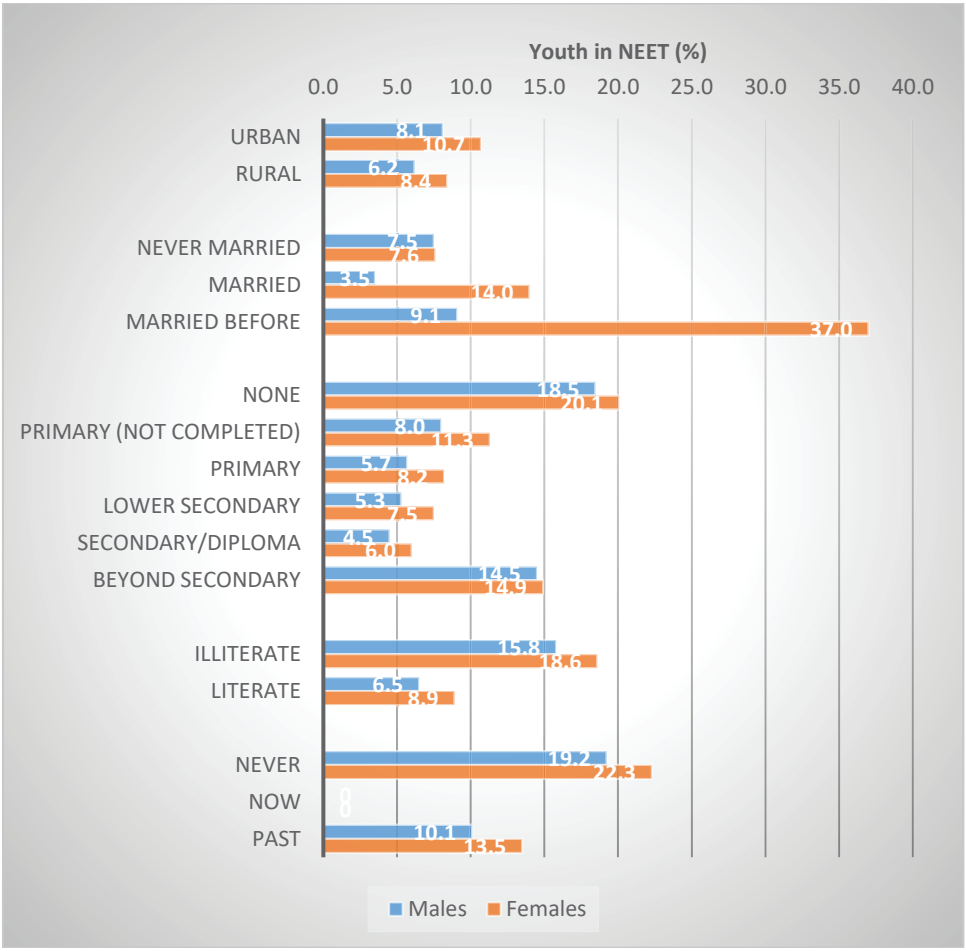
Some peaks exist again for those who have no completed education grade or who never went to school. This obviously is roughly the same group. The higher level of NEET youth at education *Beyond secondary*, as compared to the next lower education ranks, is intriguing. These higher educated young individuals apparently take some time before entering the labour force. This is age-related, since in Section 2.1.2 (Fig. 2.9) it was noted that this particular education group for ages 15 - 64 has a very high labour-force participation rate at 88.0 per cent.

The NEET level correlates positively, as expected, with illiteracy and no school attendance. Those currently in school obviously have a NEET percentage of zero, since

they fall outside the definition of NEET youth.

Figure 3.17

Youth: Percentage of youth in NEET status, by various characteristics



For a comparison of the rate for the NEET parameter over three successive censuses, see Section 4.1.4, Fig. 4.6. That graph shows a descending trend.

3.2.2 Geographic distribution of employed youth

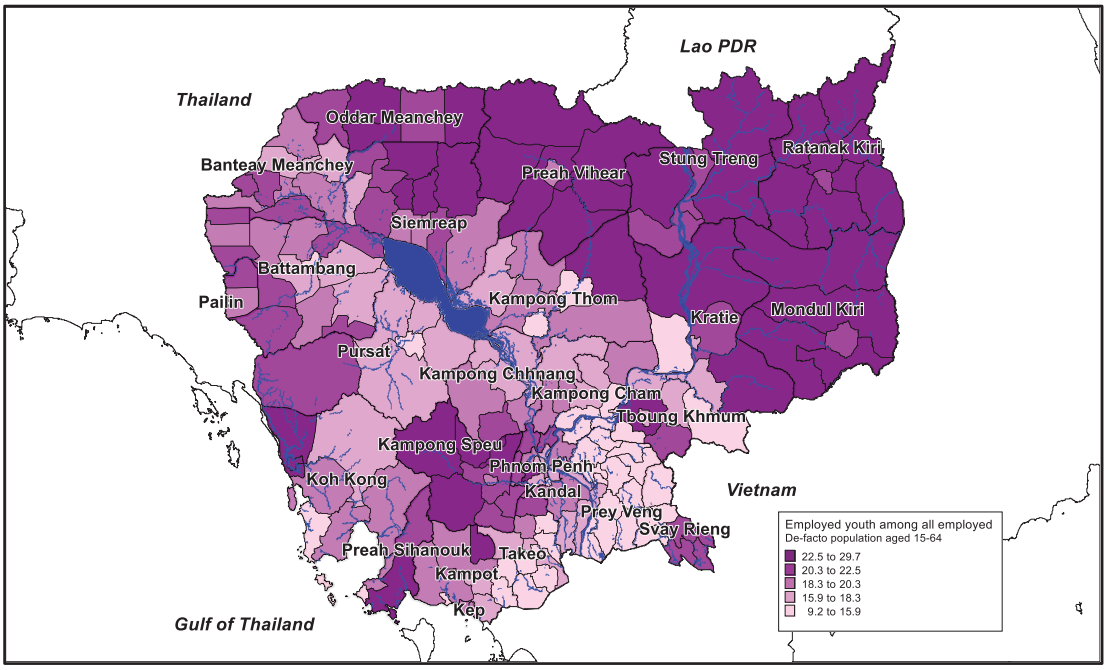
In the map of Fig. 3.18 the number of employed young persons aged 15 – 24 is shown as a percentage of the employed regular labour force from 15 to 64 for each district. This percentage tends to be higher in rural areas, especially in North and Northeastern Cambodia. It possibly reflects the fact that there are relatively fewer students there. From this particular graph one cannot deduct that there is an exodus of young workers from these areas. In fact, looking at Figs. 3.46 and 3.47 in Section 3.5.2 one notes that over recent years there have been more in-migrants than out-migrants in these relatively thinly populated regions of the nation. In the periphery of Phnom Penh Province there are many districts with comparatively few young workers, with the exception of Kampong Speu Province. The garment industry there employs many young workers.

The District of Kaoh Soutin on the southern Mekong shore in Kampong Cham Province stands out with fewer than 10 per cent young labour. Most probably young workers there

are drawn away by opportunities in nearby Phnom Penh.

Figure 3.18

Employed youth: Percentage as compared to the employed labour force aged 15 - 64



3.3 Older persons

With life expectancy at birth now over 75 years [NIS20], Cambodia is on the path to a rapidly increasing absolute number and proportion of older people. In 2019 the percentage of population 60 and over had already increased to 8.9, with 7.3 per cent of the males and 10.4 per cent of the females having crossed that border.

The ageing of a population is the inevitable effect of the demographic transition. Not only will there be more old people, some of them needing living assistance, but the composition of the labour force will also change, including a higher mean age. At the present time the country is still benefitting from the so-called *demographic dividend*. The fraction of children is decreasing, while that of older people is still relatively small. The *Age dependency ratio*, which in Cambodia is usually expressed as 100 times the sum of the young (0-14) plus the old (60+), that total divided by those in the most active ages (15-59), stands at 62.0, while in 2008 it still was 66.8.

Most countries would use a cut-off age of 65 for the active population in the dependency ratio. For Cambodia this reduces the indicator to 55.5 for males, 53.5 for females and 54.5 for the total population. This compares to higher numbers for more developed nations: Japan 68.3, France 61.8. But many countries in the region have still lower dependency ratios: Vietnam 44.4, Myanmar 46.9, and Thailand 41.3. The PR of Laos is marginally higher at 57.4. So most of the neighboring countries enjoy a larger demographic dividend than Cambodia.

Older persons' vulnerability in the labour market is visible in many aspects of their employment status. A negative view of the productivity level of the elderly workers often results in higher long-term unemployment rates at these advanced ages. Once the elderly

leave the labour force temporarily because of illness or some other cause, they may encounter major obstacles in re-entering it. Various characteristics of older persons contribute to their vulnerable position in the labour market: their disability rate is higher; their educational attainment is lower; their physical and mental fitness is lesser; and they are perceived to be less flexible and more conservative in their approach.

However, there are also opposing aspects of older persons' labour-force participation. From the macro-economic point of view, retirement at an older age is beneficial as it limits the use of retirement resources from public and private funds. It also allows the nation to continue benefitting from the most experienced part of the labour force in producing goods and services. At the micro-economic level, a longer working life can contribute to active ageing with positive effects on individuals' psychological well-being and health.

On the other hand, a person may have to extend his or her active lifespan out of pure monetary necessity, as their only means of economic survival during old age. This necessity to work, even if one's physical and mental conditions are not conductive to it, may in fact have a negative effect on elderly persons' quality of life.

3.3.1 Older persons and main activity

The Census did not collect enough detailed information to fully assess the status of older persons in Cambodia in terms of the number of hours worked or their specific labour force conditions. It only allows data analysts to draw a general picture of the economic activities performed by older persons. Following an approach common in this type of analysis, the older persons will be subdivided into three categories:

- younger-old (60 - 69 years of age),
- mid-old (70 - 79), and
- older-old (80 and over).

Figures 3.19 to 3.22 show how older persons gradually withdraw from the labour market as age increases. The first graph gives an overview of all persons aged 60 and over by activity status and sex. The other three look at each of the three elderly age groups.

At the time of the Census, only 6.9 per cent of males and 4.8 per cent of females aged 60 and over reported that they were recipients of income from retirement funds or other sources. Overall, older males remain more economically active than older females: 70.9 per cent of males were still working compared with 51.0 per cent of females.

For the younger-old group (those aged 60 - 69), only 5.2 per cent of males and 3.1 per cent of females were reported in the Census as income recipients. As might be expected, these rates increased significantly for the mid-old (those aged 70 -79), to 9.0 per cent and 7.1 per cent, respectively, and increased further to 11.1 per cent of males and 8.2 per cent of females for the oldest group (80 and over). Starting from the mid-old group the percentages of *Dependents* starts to exceed the *Income recipients*. In the older-old group there are as many as 40.8 per cent male dependents and 55.3 per cent female dependents. Clearly, social security is still insufficiently present and families need to take care of many of their elderly members.

Figure 3.19

Persons aged 60 and older: Percentage by Activity status and Sex

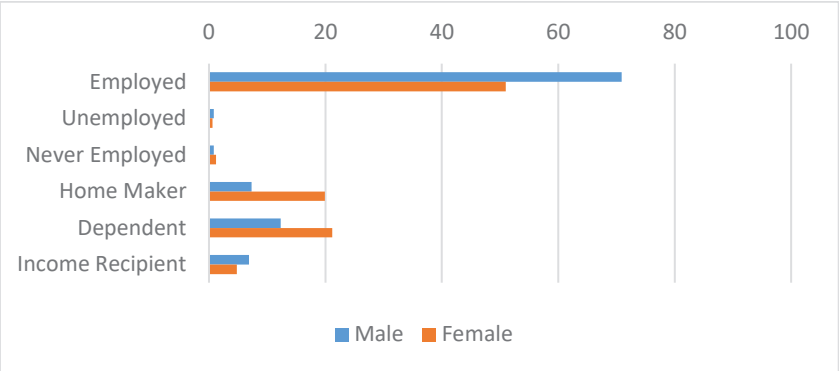


Figure 3.20

Persons aged 60 to 69: Percentage by Activity status and Sex

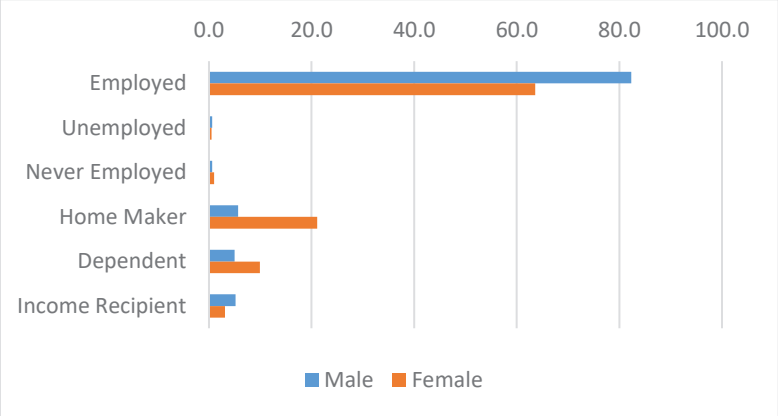


Figure 3.21

Persons aged 70 to 79: Percentage by Activity status and Sex

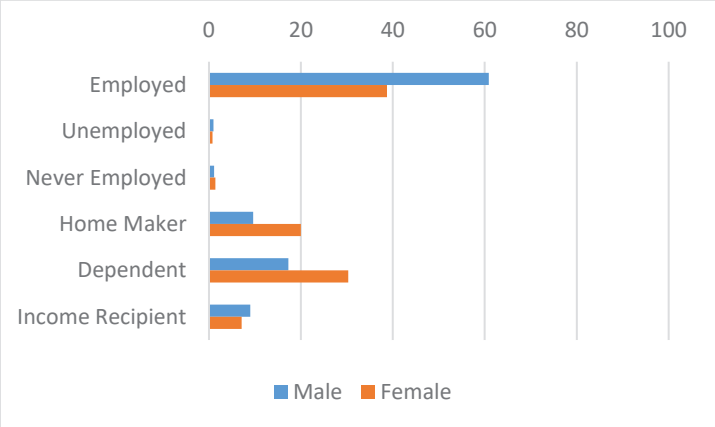
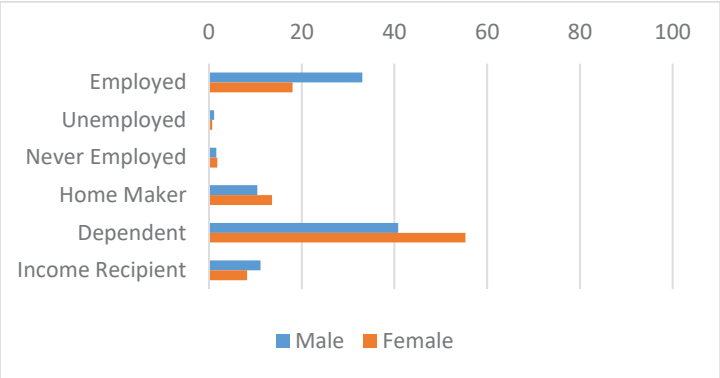


Figure 3.22 shows that despite age there is a group (particularly of males) who do not retire, even among the oldest. Almost one third of the males reported that they were still working after the age of 80, while for women, only 18.0 per cent did so. Quite a few old-aged women still took on the role of *Home makers*, although their percentage had dropped from 21.1 via 20.0 to 13.6. In this role they were increasingly assisted by males. Home-making males increased over the age groups from 5.7 via 9.6 to 10.4 per cent.

Figure 3.22

Persons aged 80 and older: Percentage by Activity status and Sex

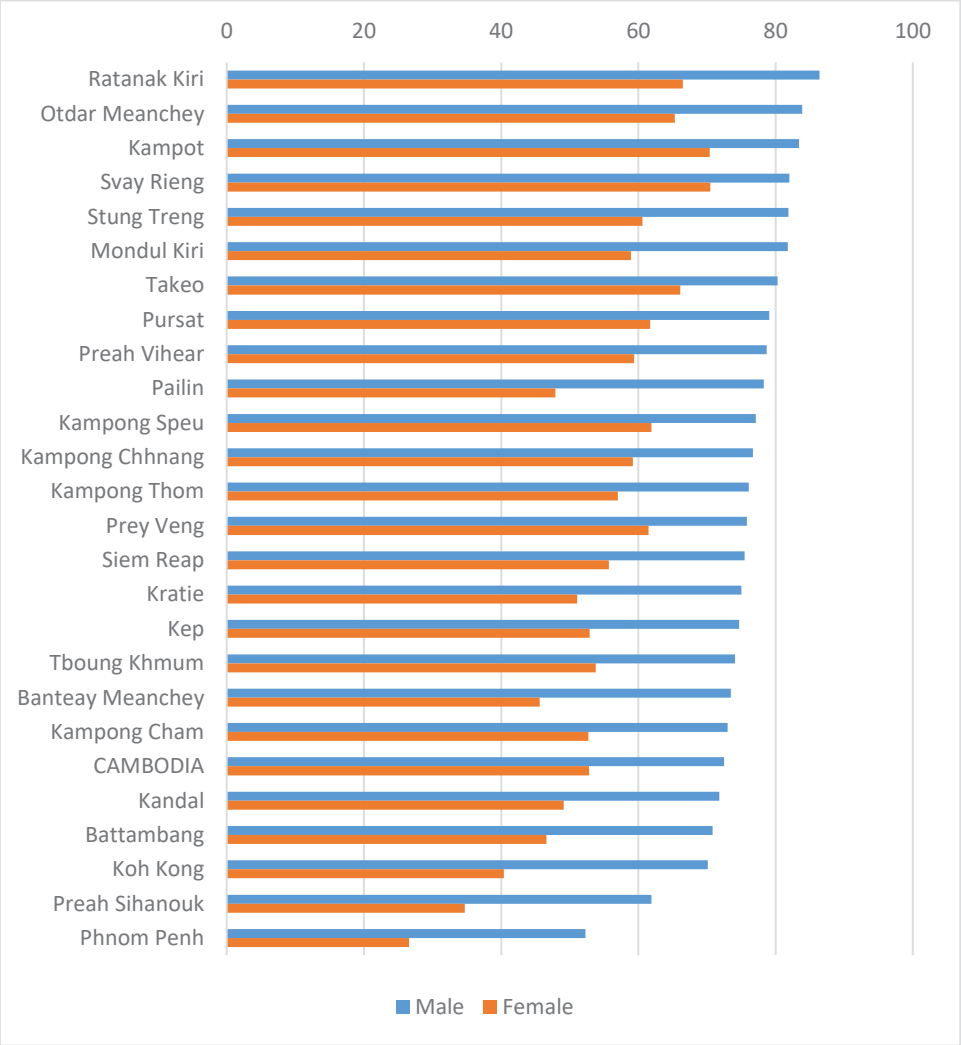


3.3.2 Employed older persons

Figure 3.23 shows that the highest levels of labor force participation for older males were reported in the Provinces of Ratanak Kiri, Otdar Meanchey, Kampot, Svay Rieng, Stung Treng, Mondul Kiri and Takeo, all of which had male participation rates above 80 per cent. Levels for females were a little lower with Svay Rieng and Kampot being the only Provinces having a female participation rate above 70 per cent. A high labour-force participation of older men usually implies that the participation for older women is also high. The lowest levels were recorded in Phnom Penh, where 52.3 per cent of older males and 26.6 per cent of older females were still economically active. Here, many older people were employed before in non-agricultural occupations from which retirement or stepping down is generally earlier than from agricultural jobs. Preah Sihanouk Province has characteristics similar to the capital.

Figure 3.23

Population 60 and over: Labour-force participation rates of persons aged 60 and over by Province and Sex



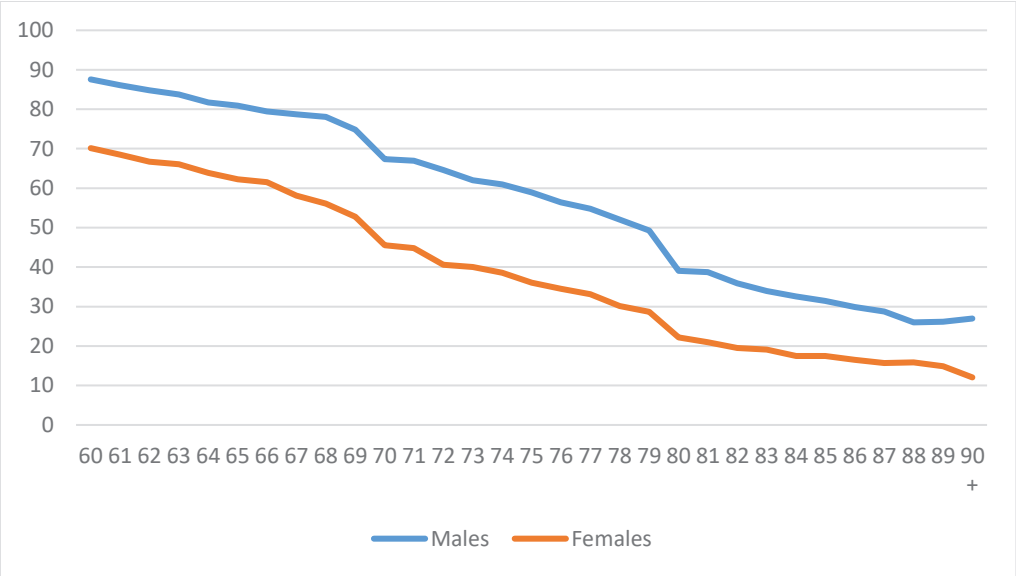
Nationwide there is a fairly large gap between labour force partition rates for older men and women, as 72.5 per cent of older men and 52.8 per cent of older women reported economic activity. Of course we always have to take account of the fact that the figures only cover the principal usual activity. Many older women may in fact contribute to the farm or family business, but if they do so for an amount of time smaller than that used in other activities, it remains unreported here.

Figure 3.24 presents the employment-to-population ratios by single years of age of older males and females, and clearly shows the much higher levels for men than women. Employment-to-population ratio, as it may be recalled, is the percentage of the total population at each age that is employed. By age 60, an overwhelming majority (87.6 per cent) of men were, at the time of the Census, reported as still working. This compared with 70.1 per cent of women. The age by which half the male population were no longer in the labour force was 79 years, while for females the proportion of women working had already dropped below 50 per cent by the age of 70. For both males and females, after age 60 the employment-to population ratios declined steadily and dropped to an average of about 20 per cent by the age of 87.

Altogether the conclusion can be that men and women continue to contribute substantially to the national economy as they grow older.

Figure 3.24

Population 60 and over: Employment-to-population ratio by Year of age by Sex



Elderly people usually leave the labour force either through retirement or mortality. The relatively lesser effect of international migration on the size of the labour force exists but, particularly in respect of the elderly – who tend to be less mobile - is considered of minor importance here.

The working-life table brings together the attrition from mortality and retirement/withdrawal in one overview and calculates the net average number of years of economically active and inactive life remaining at each age. Net years of active life take into account both the level of economic activity at each age and the mortality experience of the population. It shows the average number of working years for a population, including for persons who never reach retirement because of decease. Section 2.1.4 of the present report contains a detailed discussion of this topic and national working-life tables for males as well as for females. It is reported there that males aged 60 have on average another 13.5 years of active and 6.7 years of inactive life before them. The figures for females are 10.0 and 11.3 years respectively. The total life expectancy thus is, as expected, a little longer for females.

A large part of the older population who were still working were employed in primary sector occupations. Table 3.6 shows that among the top 10 most prevalent occupational groups for older persons, 289 thousand men and 355 thousand women were in occupations that are related to agriculture or fishery. Both sexes are most active as *Market gardeners and crop growers* and *Subsistence crop farmers*. Quite a few older men report to still being employed as *Legislators and senior officials.* For older women the third most common occupation is *Shop salespersons*.

Table 3.6

Population 60 and over economically active: Top ten occupations among males and females

Males		Females	
Market gardeners and crop growers	216,990	**Market gardeners and crop growers**	259,943
Subsistence crop farmers	68,102	**Subsistence crop farmers**	90,887
Legislators and senior officials	10,873	**Shop salespersons**	16,651
Shop salespersons	10,477	**Street market salespersons**	9,798
Street market salespersons	5,832	**Cooks**	4,235
General office clerks	5,724	**Street food snack sellers**	4,097
Social and religious professionals	5,633	**Agricultural forestry and fishery labourers**	3,979
Motodup and tuk-tuk drivers	4,712	**Street vegetable and fruit sellers**	2,964
Agricultural forestry and fishery labourers	3,549	**Garment and related trades workers**	2,317
Building frame and related trades workers	3423	**Other sales workers**	2,241

Table 3.7 shows that older persons who work are mainly concentrated in occupations with lower skill levels. But a non-negligible 4.6 per cent of older workers are still active as *Managers*, *Professionals* or *Technicians and associate professionals*. These high-level workers are preponderantly male, reflecting the lack of opportunities for women to develop themselves that existed in the somewhat distant past. The mid-old and older-old groups (aged 70-79 and 80 and over) have still somewhat higher levels of people working as *Skilled agricultural, forestry and fishery workers* as compared to the younger-olds. At these older ages the second largest occupation class was *Services and sales workers*, although the numbers there are dwarfed by the dominant agricultural class.

Table 3.7

Population 60 and over economically active: Occupation by Sex and Age group

Occupation	Both sexes				Male				Female			
	Total	**60 - 69**	**70 - 79**	**80 +**	**Total**	**60 - 69**	**70 - 79**	**80 +**	**Total**	**60 - 69**	**70 - 79**	**80 +**
Cambodia	836,871	599,075	196,805	40,991	398,645	278,425	99,317	20,903	438,226	320,650	97,488	20,088
Managers	14,282	10,610	3,418	254	12,080	8,736	3,114	230	2,202	1,874	304	24
Professionals	17,389	11,643	4,408	1,338	13,218	8,245	3,764	1,209	4,171	3,398	644	129
Technicians and Associate Professionals	6,775	4,119	2,011	645	3,891	2,632	976	283	2,884	1,487	1,035	362
Clerical Support Workers	9,519	7,627	1,665	227	7,284	5,725	1,402	157	2,235	1,902	263	70
Services and Sales Workers	75,825	61,397	12,486	1,942	31,050	24,462	5,612	976	44,775	36,935	6,874	966
Skilled Agricultural Forestry and Fishery Workers	645,456	453,814	159,629	32,013	290,961	197,255	77,695	16,011	354,495	256,559	81,934	16,002
Craft and Related Trades Workers	19,852	15,398	3,581	873	12,242	9,675	2,095	472	7,610	5,723	1,486	401
Plant and Machine Operators and Assemblers	7,812	6,810	888	114	7,114	6,234	787	93	698	576	101	21
Elementary Occupations	18,159	14,709	2,858	592	10,102	8,117	1,599	386	8,057	6,592	1,259	206
Not specified	21,802	12,948	5,861	2,993	10,703	7,344	2,273	1,086	11,099	5,604	3,588	1,907

As noted above, a large proportion of older workers were, as reported in the Census,

employed in the primary sector. Table 3.8 shows that out of 278 thousand younger-old male workers aged 60-69 (of which about 2 thousand could not be allocated an industrial classification), some 200 thousand belong to the section *A - Agriculture, forestry and fishing*. In total, around 0.84 million older persons of the *de-facto* population were reported in the Census as working, of which 78.0 per cent were in the primary sector. The second largest industrial group was *G- Wholesale and retail trade; repair of motor vehicles and motorcycles* with a little more than 67 thousand workers. *O - Public administration and defense; compulsory social security* came in third with a distant 3.3 per cent. For details concerning the ISIC classes here shown only in capital letters, refer to Section 2.6.1 of the present report.

Table 3.8

Population 60 and over economically active: Industry class by Sex and Age group

Industry	Both sexes				Male				Female			
	Total	60 - 69	70 - 79	80 +	Total	60 - 69	70 - 79	80 +	Total	60 - 69	70 - 79	80 +
Cambodia	836,871	599,075	196,805	40,991	398,645	278,425	99,317	20,903	438,226	320,650	97,488	20,088
A	652,973	459,710	160,980	32,283	294,450	199,936	78,351	16,163	358,523	259,774	82,629	16,120
B	193	160	27	6	134	108	21	5	59	52	6	1
C	13,365	9,916	2,638	811	6,367	4,711	1,265	391	6,998	5,205	1,373	420
D	458	375	75	8	353	280	66	7	105	95	9	1
E	533	427	90	16	284	216	57	11	249	211	33	5
F	9,799	8,338	1,184	277	8,195	7,034	939	222	1,604	1,304	245	55
G	67,450	54,272	11,433	1,745	27,313	21,238	5,191	884	40,137	33,034	6,242	861
H	8,476	7,339	996	141	7,515	6,557	842	116	961	782	154	25
I	9,162	7,536	1,410	216	3,519	2,787	626	106	5,643	4,749	784	110
J	575	409	134	32	310	213	80	17	265	196	54	15
K	980	759	176	45	626	481	119	26	354	278	57	19
L	83	71	7	5	68	59	6	3	15	12	1	2
M	1,583	1,232	298	53	1,273	983	244	46	310	249	54	7
N	4,881	4,015	722	144	3,336	2,726	512	98	1,545	1,289	210	46
O	28,086	22,637	5,017	432	24,365	19,384	4,599	382	3,721	3,253	418	50
P	6,729	5,086	1,388	255	4,367	3,138	1,030	199	2,362	1,948	358	56
Q	3,288	2,736	470	82	2,096	1,704	332	60	1,192	1,032	138	22
R	1,197	939	214	44	918	714	164	40	279	225	50	4
S	11,287	5,464	4,240	1,583	8,035	3,790	3,085	1,160	3,252	1,674	1,155	423
T	32	22	9	1	8	4	4	0	24	18	5	1
Not stated	15,741	7,632	5,297	2,812	5,113	2,362	1,784	967	10,628	5,270	3,513	1,845

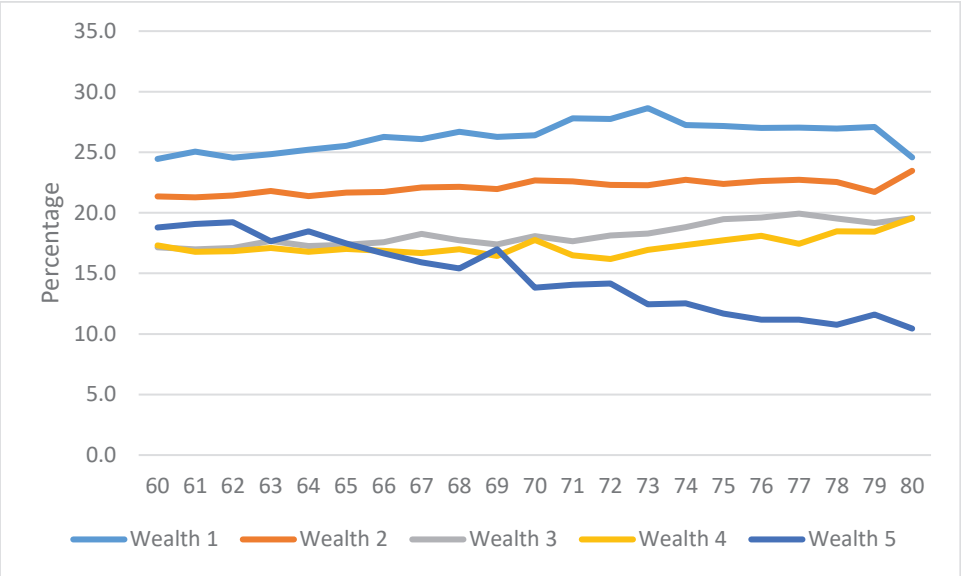
Fig. 3.25 shows that old persons belonging to the highest wealth class, level 5, are leaving the labour force faster, possibly since there is no monetary necessity. Consequently, at older ages those at lower wealth levels take up larger percentages of the remaining workers, even while the absolute numbers are declining.

Over age 70 there is a direct relationship between wealth level and labour-force participation rate, with the least prosperous households providing most workers. As the numbers of those still in the labour force decline rapidly after age 80, these have not been included in the graph.

In considering the graph one should take into account the approximate way in which wealth levels were determined. It is mostly the facilities at household level that could be taken into account, since the Census did not collect data about income, financial resources, or consumption. A detailed household consumption survey would be more authoritative.

Figure 3.25

Population 60 to 80 in the labour force: Year of age by Wealth level (percentages)

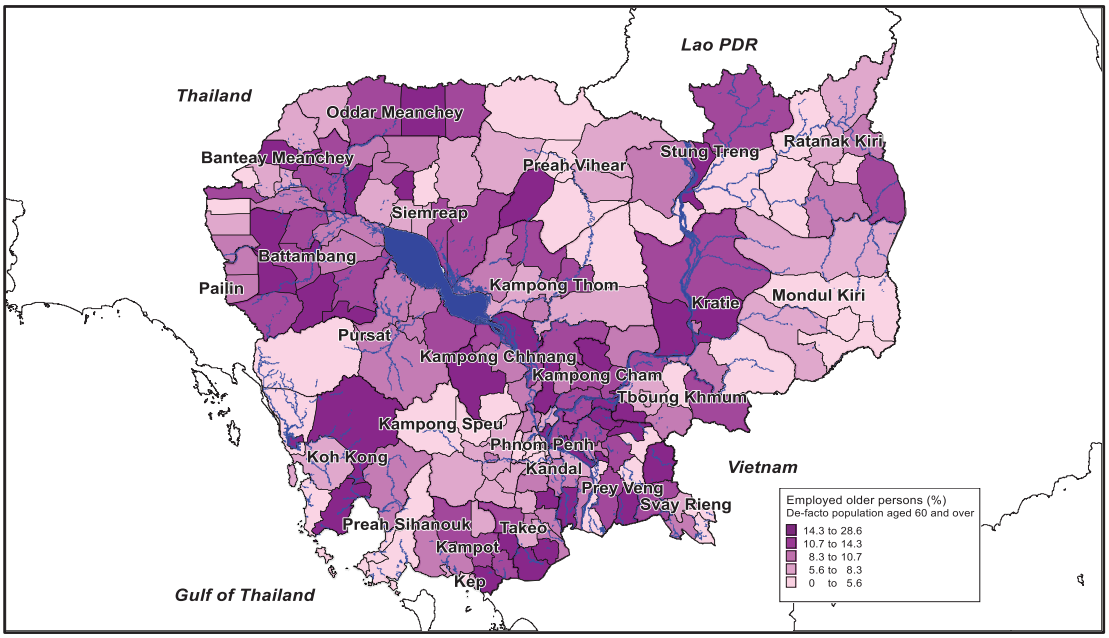


3.3.3 Geographic distribution of employed older persons

In the map of Fig. 3.26 the number of employed older persons is shown as a percentage of the regular labour force from 15 to 64 for each District. These percentages vary widely over the various districts. Some Districts of Central Phnom Penh such as Chamkar Mon, Doun Penh and Prampir Meakkakra have rates exceeding 15 per cent. Again the economic axis of the country, from the North-West to the South-East, shows the highest rates, indicating that the elderly there may have better chances for employment than elsewhere. Or, looking at it from another angle, that the economic need to continue working may be greater in those areas.

Figure 3.26

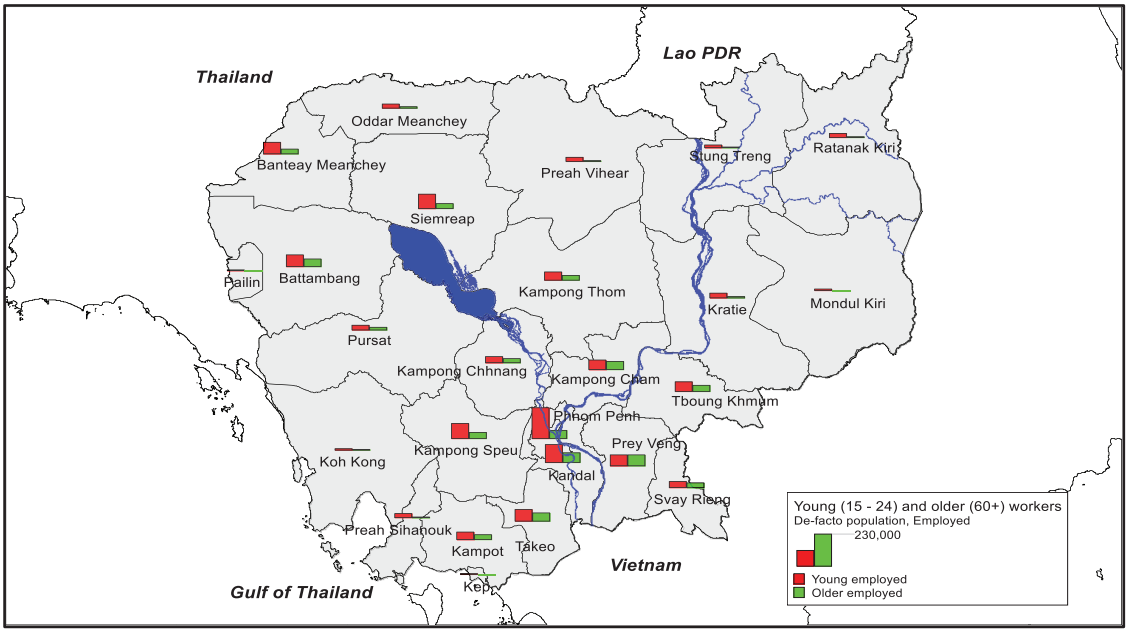
Employed population 60 and over: Percentage as compared to the employed labour force 15- 64



Finally, the map of Fig 3.27 compares the numbers of young and older employed persons by Province. Nearly everywhere the younger cohort is (still) larger than

Figure 3.27

Employed population, young (15 – 24) and older (60 and over)



the older cohort. This is clearly visible in the populous Provinces of Phnom Penh and Kandal. The one exception here is the Province of Prey Veng. It has about 79 thousand older workers and a slightly smaller number of 76 thousand employees between ages 15 and 24. There is little doubt that ongoing demographic developments will cause everywhere the balance to shift in the direction of a greater fraction of older workers.

The bar charts also illustrate the small size of the labour forces in provinces like Koh Kong and Mondul Kiri, which are thinly populated.

3.4 Disabled persons

The word *disability* does not occur in the 17 SDG's and in their brief description [UN15a]. However, several targets are specifically geared towards persons living with a disability, proposing actions to reduce inequality and protect disabled people. SDG Target 8.5 is directed towards decent work for all, but places emphasis on the position of disabled persons: *By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value*. Countries in the Asian and Pacific region have adopted a common strategy to strive towards an inclusive, barrier-free and rights-based society for disabled persons. This agenda is named after the South-Korean city Incheon, where a concerned ESCAP Intergovernmental Meeting was conducted in 2012. It is valid for the period 2013-2022. A mid-term review took place in 2017 in Beijing [UNESCAP17].

The Incheon Strategy includes 10 interrelated goals, 27 targets and 62 indicators. Goal 1 is directly aimed at improving the position of disabled persons in the labour market and its objective is to: *Reduce poverty and enhance work and employment prospects*. This goal is further clarified by*: the decade must see greater progress in reducing poverty among persons with disabilities and their families.* This goes along with Target 1B that aims to: *Increase work and employment for persons of working age with disabilities who can and want to work*. In Cambodia, the Government has taken various measures to improve the life of persons with disabilities. These measures are laid down in the National Disability Strategic Plan 2019 - 2023, the successor of the earlier Plan for 2014 – 2018 [DAC14]. This strategy, among many other things, encompasses the establishment of job facilities for disabled people who complete vocational training and are capable to work.

3.4.1 Disability as covered in the census

The Census adopted a six-part set of questions (Fig. 3.28) developed by the Washington Group on Disability Statistics to measure the characteristics of disabled persons [WG20]. Thereby the Cambodia Census went further than most other national censuses.

Figure 3.28

Census questionnaire – disability part

Functional Difficulty							**Column 17: Functional Difficulties**
For persons 5 years old and more							Do you have difficulty ……. 17.1 seeing, even if wearing glasses? 17.2 hearing, even if using a hearing aid? 17.3 walking or climbing step? 17.4 remembering or concentrating? 17.5 with self-care (such as washing all over or dressing)? 17.6 using your usual (customary) language, do you have difficulty speaking, for example understanding or being understood? **Codes for column 17** 1. No – no difficulty 2. Yes – some difficulty 3. Yes – a lot of difficulty 4. Cannot do at all
17							
See the note below							
(Enter code from list below)							
1	2	3	4	5	6		

The upcoming Census thematic report on Disability (Analytic Theme number 9) will separately analyze the levels and characteristics of persons with a disability in relation to

most other personal attributes. The current study complements this work from the perspective of labour-force participation only.

The degree of disability has an effect on a person's chance of finding decent employment. Therefore, persons with a reported disability were classified for the purposes of the Census as having *some*, *major* or *full disability* of a particular kind. The disabilities are not mutually exclusive: a person having a visual disability may also suffer from problems with self-care or another handicap. The disability question was asked from the *de-facto* population aged 5 or more. Thus, no information is available for the youngest children or for absent residents.

According to the Census, 167,378 persons aged between 15 and 64 with a mild visual disability, 19,897 with a major visual problem and 5,131 fully blind were employed despite their disability. In fact in all six disability categories a number of persons suffering from a complete disability still found employment. Their numbers were for seeing: 5,131, hearing: 3,530, walking: 2,601, remembering: 3,258, self-care 4,427 and speaking 2,772. While working with a complete disability is certainly not unheard of, these fairly high numbers, especially for the latter three disabilities, raise questions. It might be that mistakes were made in the interviewing or coding process.

3.4.2 Employed disabled persons

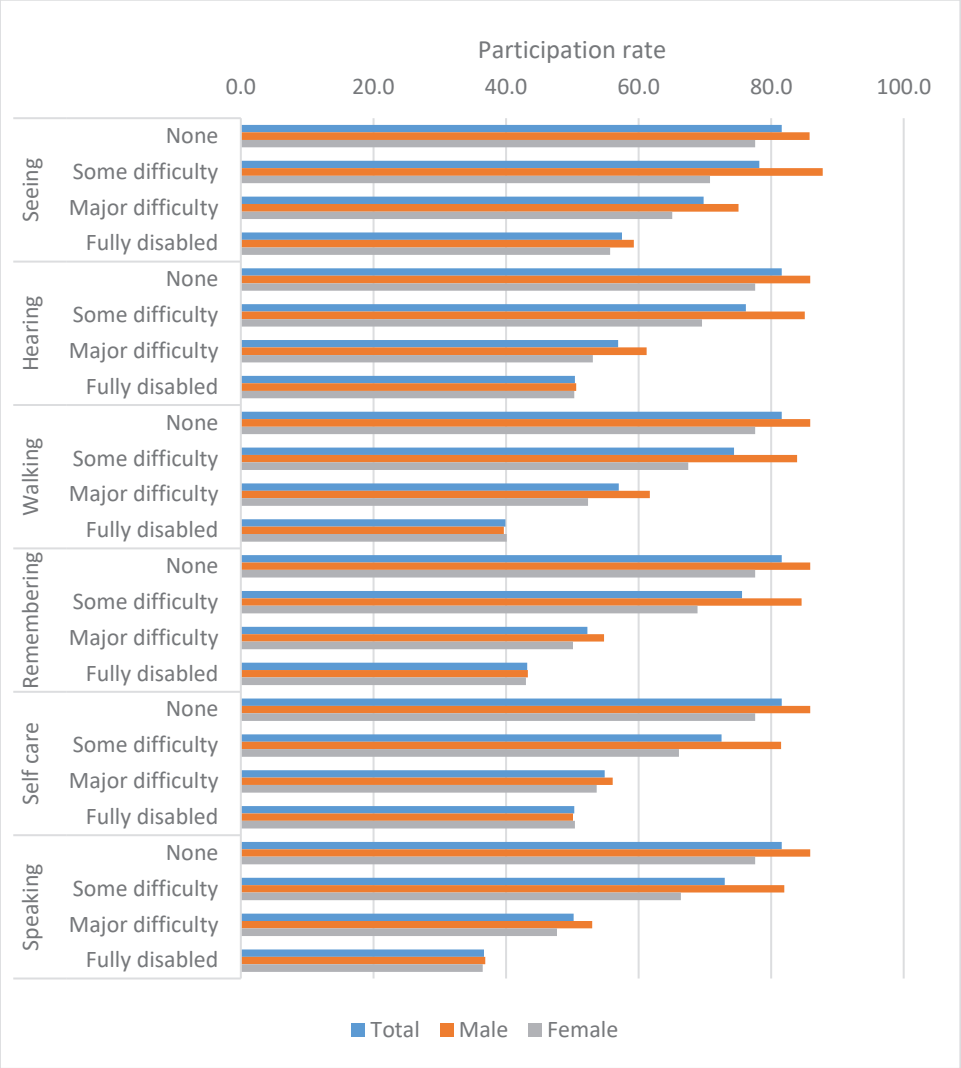
Figure 3.29 shows the participation rates for persons by type (domain) of disability and the degree of such disability (identifying no disability, mild disability, major and full disability). For this analysis, only persons in the age group 15-64 were considered, in order to obtain figures for the group most international agencies have traditionally recommended as the age band concerned. Figure 3.29 shows that for those with a mild disability, both men and women, participation rates hardly differ from persons without such problems. Apparently the Cambodian context allows mild problems to be overcome to the extent that work is available. At the same time even a slight handicap may well diminish people's chances for work that is in accordance with their levels of skill.

As disabilities are more severe, participation rates decline roughly at a similar rate for the various categories. But even for a complete disability the rates remain at about half of the level of those who are not dealing with a handicap. It seems strange that persons who are fully disabled in self-care or speaking should nevertheless be working. For each type and degree of disability, male participation rates are clearly higher than female rates. In this respect people with disabilities have a similar profile to those without disabilities.

Those who have a complete disability in speaking their language and in being orally understood have the lowest participation rate with some 37 per cent for males as well as females. The absolute numbers at this level are low, with only 1,298 males and 1,474 females concerned. When looking at this information one may wonder how the degrees of disability were determined between an unspecialized enumerator and a possibly naïve respondent. Certainly there is an element of conjecture involved.

Figure 3.29

Population aged 15-64: Labour-force participation rate by Type and degree of disability and Sex



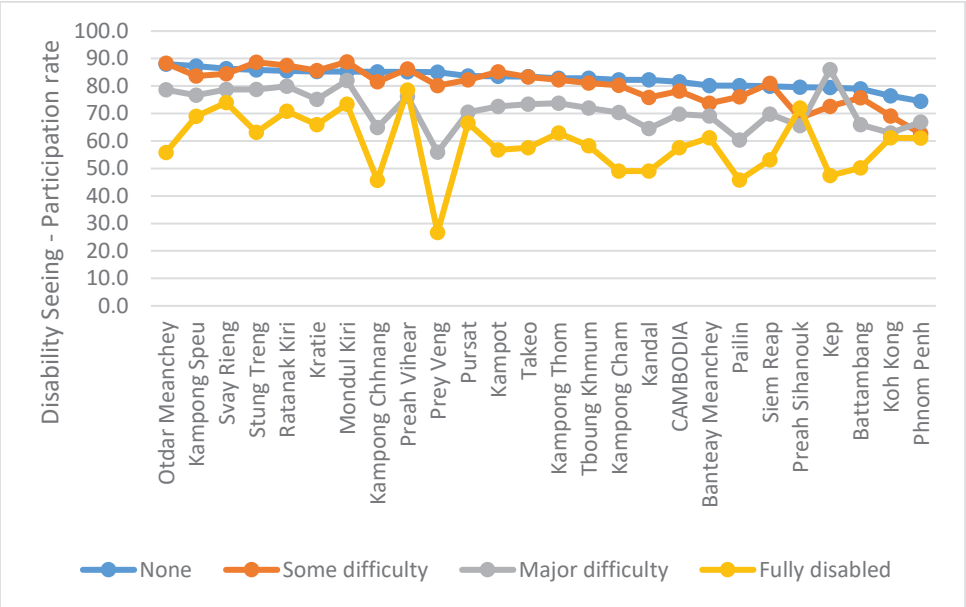
Figures 3.30 to 3.35 present the profile of labour-force participation by type and degree of disability at the province level. For most provinces participation is considerably lower only for persons with a major or even full disability. Male participation was higher than for females in all provinces and for each domain of disability. Generally, people who reported a cognitive disability had the lowest participation rates, followed by those with mobility problems.

Certain provinces stand out for having significantly higher or lower participation rates for severely disabled persons. But in considering the graphs one should take into account that the absolute numbers at the full disability level are small, often in the low hundreds or below. So fluctuations due to the existence of institutions caring for the disabled or differing interpretations by field staff can play an important role. The most populous Province of Phnom Penh, on the right hand of the scale, shows throughout a fairly logical pattern with a declining rate of labour-force participation as disabilities are more serious.

In these graphs the provinces are ranked according to the labour-force participation rates for those who reported *None* for the particular disability.

Figure 3.30

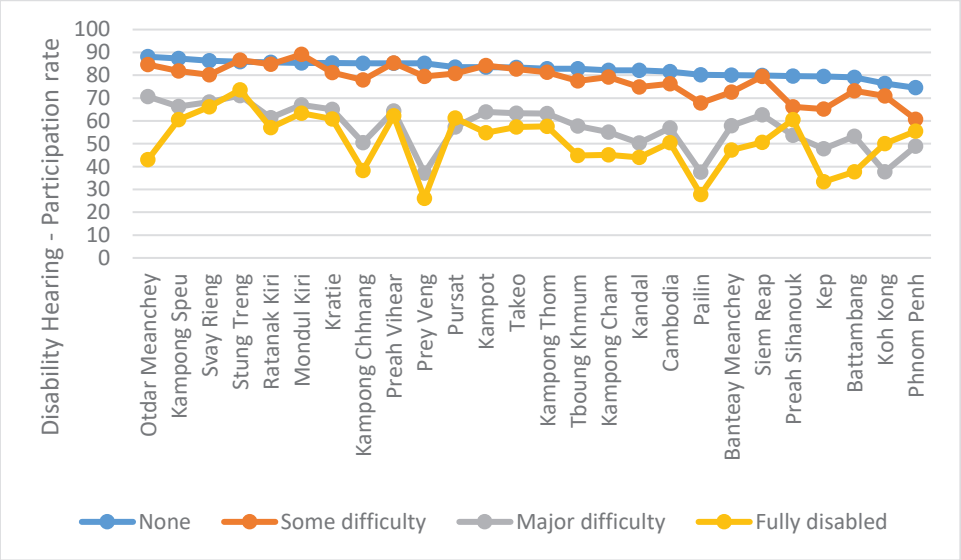
Persons aged 15-64: Labour-force participation rate for Disability Seeing



Remarkably in Kep Province persons with a major visual disability do better than those who have good sight. In Kep there are only 57 such persons on this level, out of a total labour force of 27,762. For the remainder, and apart from some strong fluctuations at the lowest level, the graph provides no surprises. The relatively high participation rate of blind people in most provinces constitutes a positive finding.

Figure 3.31

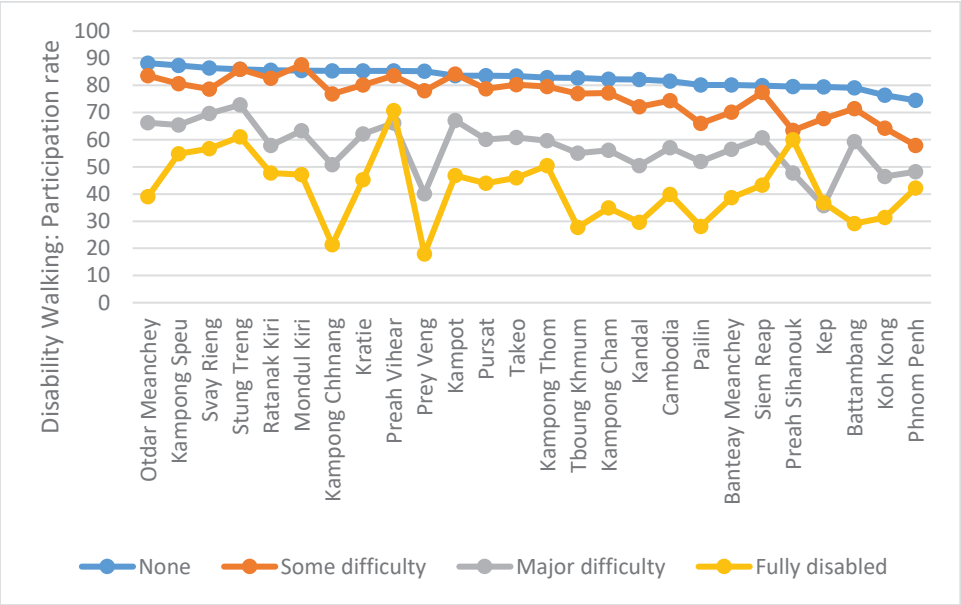
Persons aged 15-64: Labour-force participation rate for Disability Hearing



Here, as in the other graphs of this series, the Provinces of Kampong Chhnang and Prey Veng stand out for relatively low participation rates of severely disabled persons. On the other side the Provinces of Preah Vihear and Preah Sihanouk often form peaks. It appears that outlying provinces have better numbers than those in the greater Phnom Penh area.

Figure 3.32

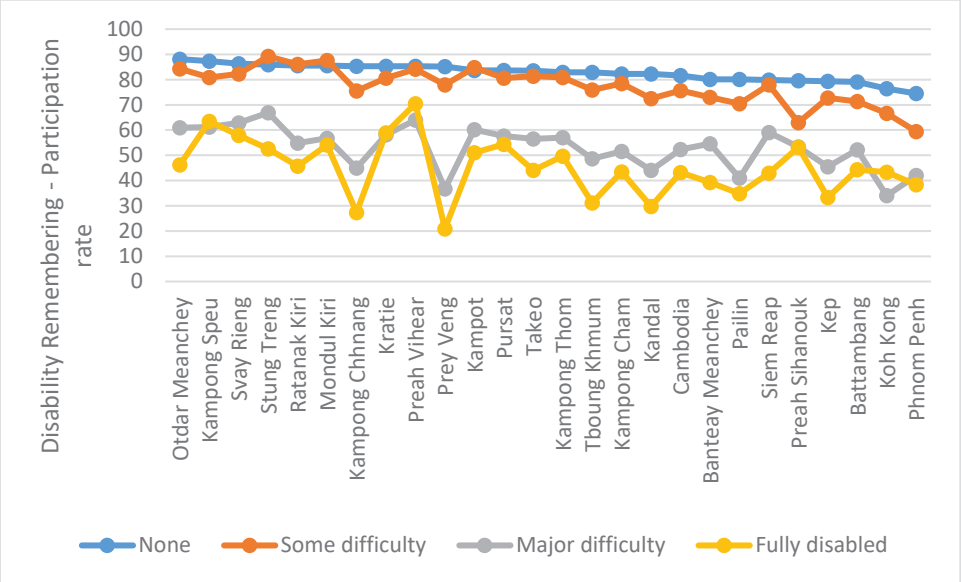
Persons aged 15-64: Labour-force participation rate for Disability Walking



Those who have a full mobility disability are clearly at a disadvantage, even as compared to those whose problem in walking is major.

Figure 3.33

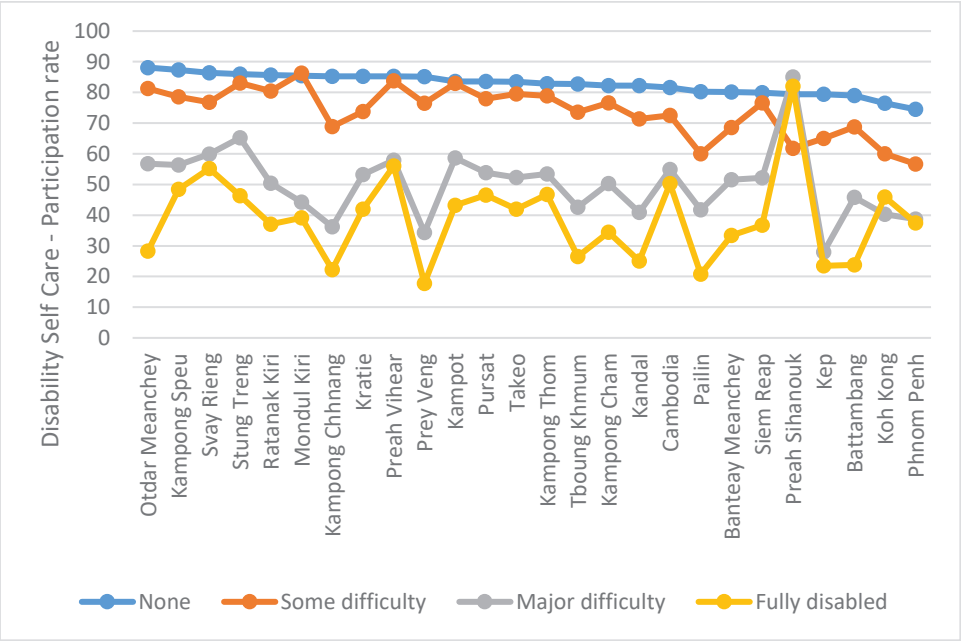
Persons aged 15-64: Labour-force participation rate for Disability Remembering



Many persons with a serious disability in cognition (thinking, knowing, remembering, judging, and problem-solving) were nevertheless reported as employed, most likely in menial jobs.

Figure 3.34

Persons aged 15-64: Labour-force participation rate for Disability Self Care

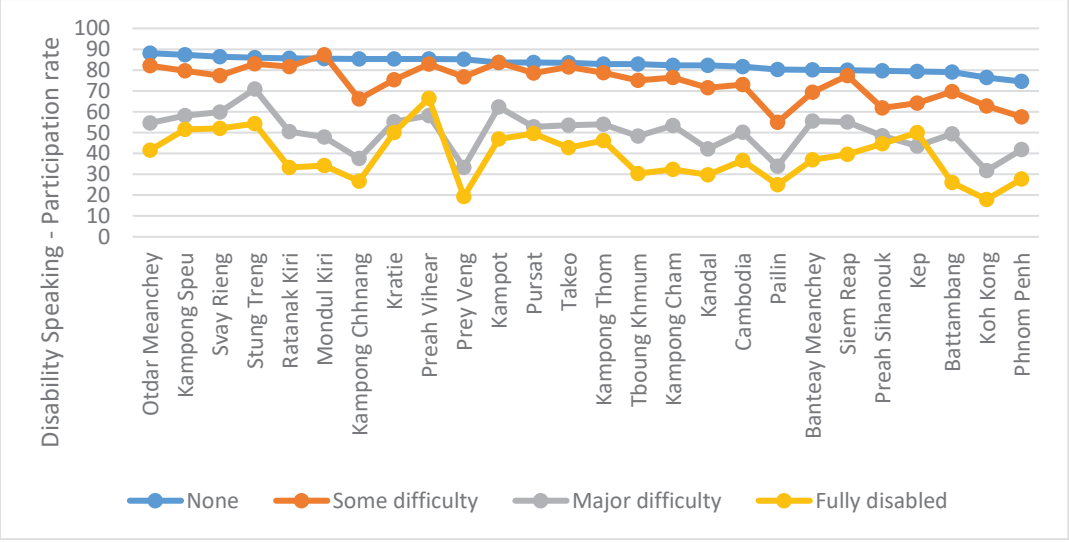


The graph for self-care disability (Fig. 3.34) follows the familiar pattern. A major disability, or full disablement, severely reduce the participation rate, but still many of the disabled continue to be economically active. Preah Sihanouk Province presents strange outliers, with severely disabled persons showing a higher rate than those without disability. This Province has a labour force of 229,665 persons, of whom an unusually high numbers of 3,251 and 2,808 were recorded as having a major or full disability in self-care.

On detailed inspection it was found that the large majority of these disabled are situated in the District of Krong Preah Sihanouk. The other three Districts of the Province: Prey Nob, Stueng Hav and Kampong Seila, show much lower rates, in accordance with what was found elsewhere in the country. The peak in Krong Preah Sihanouk is most likely caused by a misinterpretation of the enumeration guidelines in this city with its many foreign immigrants.

Figure 3.35

Persons aged 15-64: Labour-force participation rate for Disability Oral Communication



Not surprisingly, participation rates for those with a disability in oral communication are relatively low, dropping below fifty per cent in most Provinces for those with a major inability.

To estimate the net effect of having a particular disability on a person's chances of participation in the labour force, we here apply once more a logistic regression, in which the dependent variable is whether the person participated in the labour force (either employed or unemployed) or not (inactive). The six disability domain variables were added as explanatory variables. The categories for these disability variables were once again: no disability, mild disability, major disability and fully disabled. To calculate the net effect of disability, other intervening factors had to be controlled. For instance, people with a disability generally have lower educational attainment than non-disabled persons, while the degree of disability is higher among females than among males.

A set of additional explanatory variables was introduced in the regression model: Region, urban/rural, sex, age group, marital status, and educational attainment level. Again, the exponential functions of the regression coefficients (Exp (B)) were calculated. These measures give the odds ratio of a person for being in the labour force, as compared to a person in the reference category. In the case of the disability variables, *No disability* was the reference category. Table 3.9 presents the odds ratios obtained through the logistic regressions. These are shown graphically in Figure 3.36.

Table 3.9

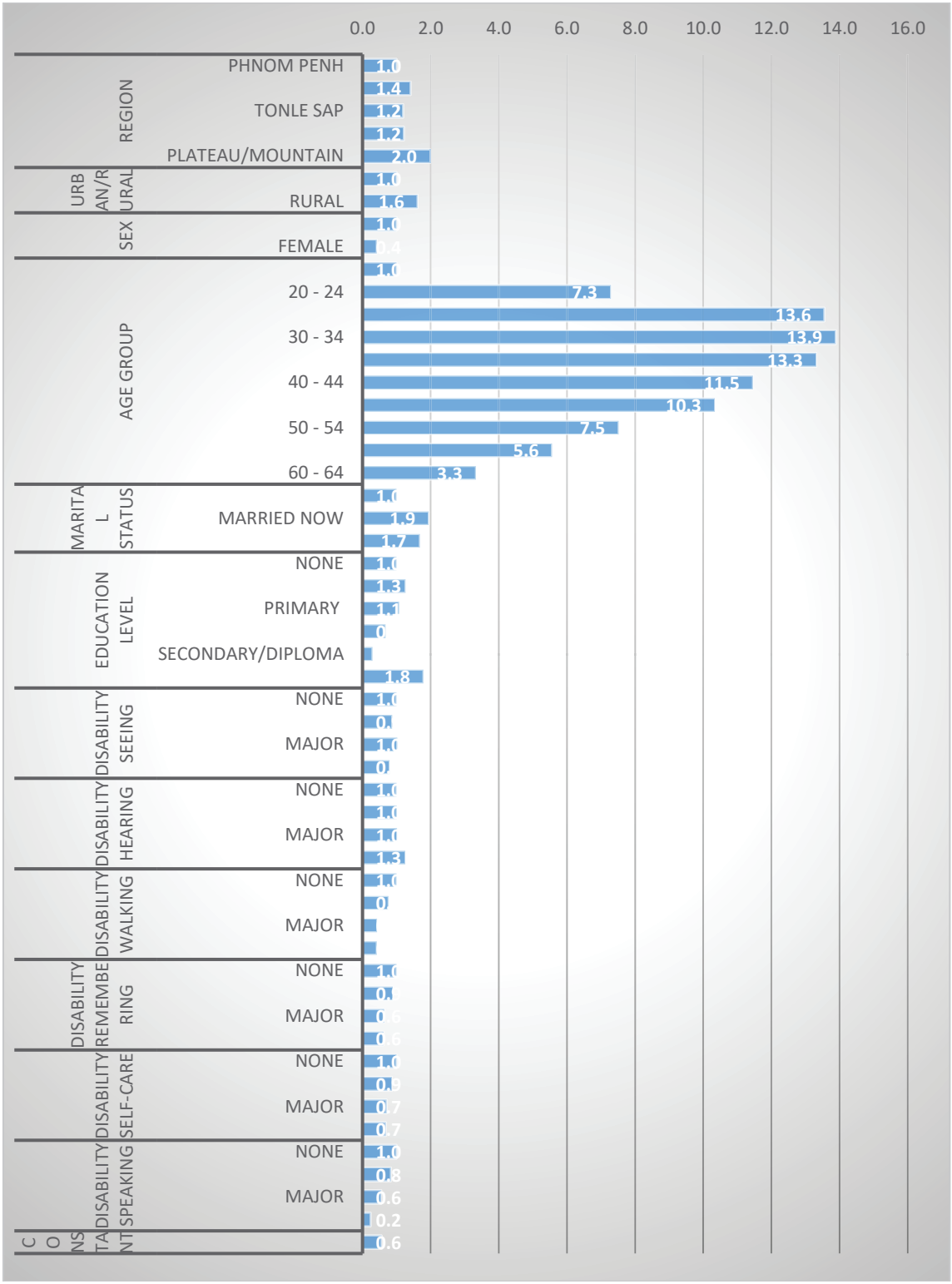
Population aged 15-64: Logistic regression results for participation in the labour force

		B	Sig.	Exp(B)	95% C.I. for EXP(B)	
					Lower	Upper
Region	**Phnom Penh**			1.0		
	Other Plains	.346	0.000	1.4	1.405	1.422
	Tonle Sap	.178	0.000	1.2	1.187	1.202
	Coastal	.194	0.000	1.2	1.204	1.224
	Plateau/Mountain	.688	0.000	2.0	1.974	2.005
Urban/Rural	**Urban**			1.0		
	Rural	.480	0.000	1.6	1.610	1.624
Sex	**Male**			1.0		
	Female	-.866	0.000	0.4	.419	.422
Age group	**15 - 19**			1.0		
	20 - 24	1.986	0.000	7.3	7.242	7.334
	25 - 29	2.607	0.000	13.6	13.454	13.661
	30 - 34	2.631	0.000	13.9	13.768	14.008
	35 - 39	2.589	0.000	13.3	13.199	13.437
	40 - 44	2.439	0.000	11.5	11.340	11.581
	45 - 49	2.336	0.000	10.3	10.236	10.446
	50 - 54	2.017	0.000	7.5	7.443	7.590
	55 - 59	1.716	0.000	5.6	5.511	5.618
	60 - 64	1.203	0.000	3.3	3.299	3.363
Marital status	**Single**		0.000	1.0		
	Married now	.665	0.000	1.9	1.934	1.955

	Married before	.521	0.000	1.7	1.667	1.701
Education level	**None**			1.0		
	Primary not completed	.232	0.000	1.3	1.252	1.269
	Primary	.073	.000	1.1	1.069	1.083
	Lower secondary	-.385	0.000	0.7	.676	.685
	Secondary/Diploma	-1.229	0.000	0.3	.290	.296
	Beyond secondary	.582	0.000	1.8	1.764	1.817
Disability seeing	**None**			1.0		
	Some	-.135	.000	0.9	.859	.888
	Major	.018	.388	1.0	.978	1.059
	Full	-.234	.000	0.8	.739	.847
Disability hearing	**None**			1.0		
	Some	.007	.529	1.0	.986	1.029
	Major	.014	.626	1.0	.958	1.074
	Full	.230	.000	1.3	1.153	1.374
Disability walking	**None**			1.0		
	Some	-.271	.000	0.8	.744	.782
	Major	-.855	0.000	0.4	.408	.444
	Full	-.874	.000	0.4	.383	.455
Disability remembering	**None**			1.0		
	Some	-.121	.000	0.9	.864	.908
	Major	-.455	.000	0.6	.598	.672
	Full	-.483	.000	0.6	.569	.668
Disability self-care	**None**			1.0		
	Some	-.143	.000	0.9	.839	.896
	Major	-.346	.000	0.7	.668	.749
	Full	-.380	.000	0.7	.635	.736
Disability speaking	**None**			1.0		
	Some	-.180	.000	0.8	.809	.863
	Major	-.594	.000	0.6	.517	.590
	Full	-1.424	.000	0.2	.223	.260
	Constant	-.580	0.000	0.6		

Figure 3.36

Population aged 15-64: Logistic regression of odds for labour-force participation (including disability odds)



The results are somewhat surprising in the sense that for persons with seeing or hearing disabilities the odds of being part of the labour force appear to be hardly affected by their disability, even if severe. The fact that their real participation rates are nevertheless lower would be a result of other factors, such as education and marital status. Things are different for the other four disabilities where severe cases indeed lessen peoples' chances of being

employed. The worst are speaking and walking, where major or complete disabilities reduce the chances of being employed by 50 per cent or more. A person with a complete speaking disability is four times less likely to be in the labour force than someone without any such communicative problem.

In case any disability is minor, the effect on the labour-force participation rate is only marginal. But note that being in the labour force is not the same thing as being employed. The labour force also includes those who are unemployed and looking for work.

The distribution of people by *Main activity* varies for people with different disability statuses. Table 3.10 shows that those with *Some difficulty* have a disproportional chance of being unemployed. This serves as a warning for the interpretation of earlier results that showed this category to have equal chances to be part of the labour force, as compared to those with no disability. It now materializes that although they are in the labour force, they are substantially more likely to be unemployed, either as *Unemployed (employed before)*, or *Never employed*.

Looking at the categories that are not in the labour force, one notes that *Students* rarely have a disability. Unfortunately, this probably should be interpreted in the opposite sense, concluding that the disabled have small chances to become students. The disabled are relatively numerous among those who are *Dependents* and even more so among *Income recipients*. As follows from Fig. 2.1 there are many more dependents than rent receivers in the population. Considering only the age group 15 to 64, this ratio is nearly five to one (no table in the present text). So, it can be concluded that a large fraction of those disabled who remain outside the labour force are being taken care of in households as dependents. Looking specifically at the fully disabled, Table 3.10 shows that among the main activity categories their percentage is by far the largest among the class of *Dependents*.

Table 3.10

Population aged 15-64: Detailed disability status by Main activity during last year (column percentages)

	Employed	Unemployed	Never Employed	Home Maker	Student	Dependent	Income Recipient	Other
Seeing								
None	97.7	91.5	93.9	95.3	99.6	87.5	85.4	96.9
Some difficulty	2.0	7.6	4.4	4.0	0.3	8.4	12.2	2.1
Major difficulty	0.2	0.7	1.4	0.5	0.1	2.7	1.9	0.7
Fully disabled	0.1	0.2	0.3	0.1	0/0	1.4	0.6	0.3
Hearing								
None	98.4	92.8	95.5	96.6	99.7	87.6	88.7	97.5
Some difficulty	1.4	6.7	3.1	2.9	0.3	8.1	9.4	1.6
Major difficulty	0.1	0.4	1.1	0.3	0/0	2.8	1.5	0.6
Fully disabled	0/0	0.1	0.3	0.1	0/0	1.5	0.4	0.3
Walking								
None	98.6	92.2	95.3	96.7	99.8	86.9	87.8	97.4
Some difficulty	1.2	6.8	2.8	2.7	0.2	7.6	9.1	1.4
Major difficulty	0.2	0.8	1.5	0.5	0	3.7	2.5	0.8
Fully disabled	0	0.2	0.4	0.1	0	1.8	0.6	0.4
Remembering/ Concentration								

None	98.6	92	94.7	96.7	99.8	86.9	88.7	97.4
Some difficulty	1.3	7.3	3.4	2.8	0.2	7.8	9/0	1.5
Major difficulty	0.1	0.5	1.4	0.3	0	3.3	1.7	0.7
Fully disabled	0.0	0.2	0.5	0.1	0	1.9	0.6	0.4
Self-care								
None	99	79.6	96.5	97.6	99.7	88.1	90.7	97.7
Some difficulty	0.9	6.3	2/0	2/0	0.2	7/0	7.2	1.1
Major difficulty	0.1	7.7	1.1	0.3	0.1	3.1	1.5	0.7
Fully disabled	0/0	6.4	0.4	0.1	0.1	1.8	0.6	0.5
Speaking								
None	99	92.9	95.8	97.4	99.8	88	90.5	97.7
Some difficulty	0.9	6.6	2.4	2.1	0.2	7.0	7.4	1.2
Major difficulty	0.1	0.4	1.3	0.3	0.0	3.1	1.4	0.7
Fully disabled	0/0	0.1	0.6	0.2	0.0	1.9	0.6	0.5

Taking the broader view we can look at the group of persons who report no disability at all, as compared to the universe of persons between ages 15 and 64. The results are as in Table 3.11. One notes how those with any disability make up disproportionate percentages of the unemployed (presently unemployed or never employed), dependents and income recipients.

Table 3.11

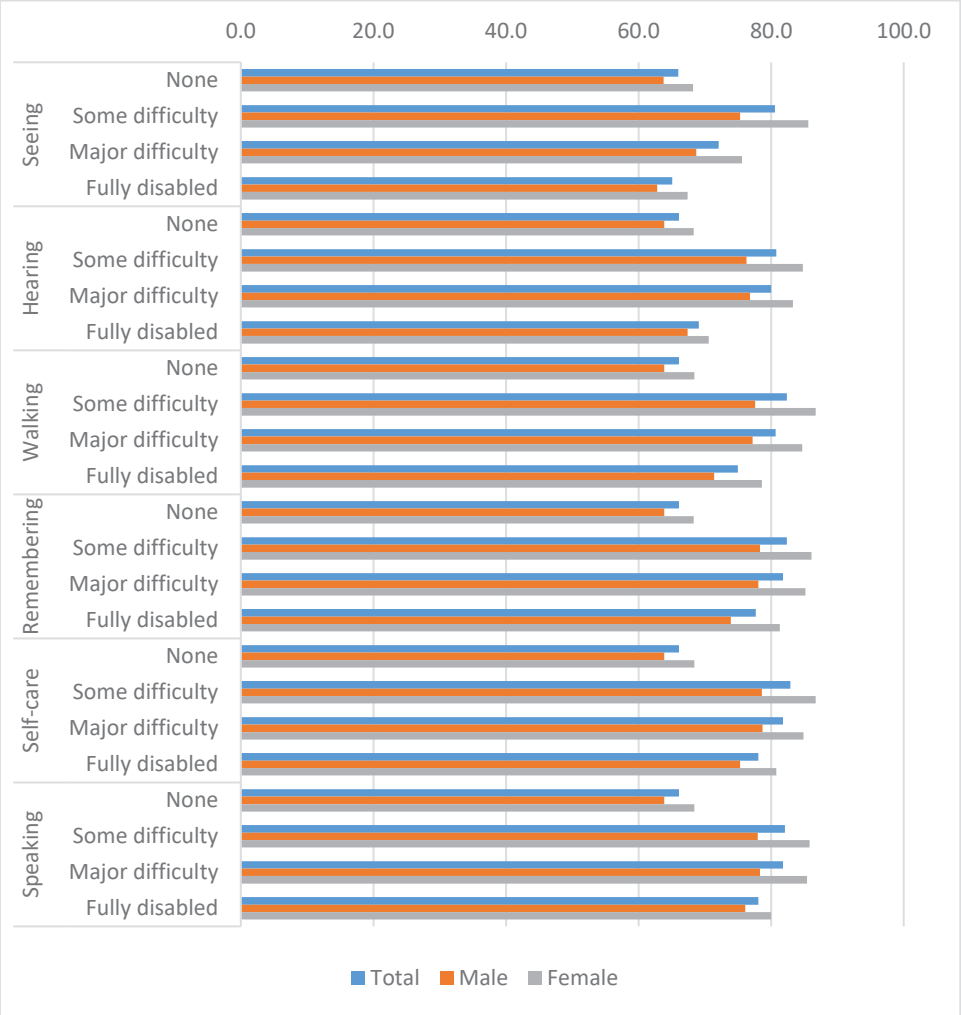
Population aged 15-64: Sex and Any disability by Main activity

	Row percentages							
	Employed	**Unemployed**	**Never Employed**	**Home Maker**	**Student**	**Dependent**	**Income Recipient**	**Other**
All persons	80.5	0.4	0.6	6.4	10.0	1.5	0.3	0.3
Male	84.8	0.4	0.6	1.7	10.5	1.3	0.4	0.4
Female	76.4	0.4	0.6	10.9	9.5	1.7	0.3	0.2
Any disability	73.1	2.5	1.5	11.2	2.3	7.2	1.7	0.3
Male	80.6	2.6	1.7	3.8	2.5	6.5	1.9	0.4
Female	66.9	2.5	1.4	17.3	2.1	7.8	1.6	0.4
Column %	3.4	25.2	9.3	6.4	0.8	17.5	18.9	5.1
Male %	3.3	24.5	9.7	7.9	0.8	16.7	18.4	3.8
Female %	3.4	25.8	8.9	6.2	0.9	18.2	19.5	7.5

Among persons aged 15 - 64 who were working, the percentage who were engaged in vulnerable employment (that is, own account workers or contributing family workers) was higher among those with some or major disability than among persons with no disability. Figure 3.37 shows that among persons with some visual disability, 80.6 per cent were engaged in vulnerable employment, compared with 66.0 per cent of those with no visual disability. The percentage working in vulnerable jobs was mostly well above 80 per cent for women reporting some or major disabilities. The fully disabled – who constitute only a few per cent of all disabled – do not show greater vulnerability in employment than those with milder disabilities. Some of them may be benefitting from preferential treatment in programs by the Government or NGOs.

Figure 3.37

Employed population of persons aged 15-64: Type and Degree of disability by Rate of vulnerable employment



Employed people with a disability were more often reported to be in occupations that require lower skill levels. This is a consequence of the fact that persons with disabilities often have lower educational attainment levels than persons with no disability. That observation is illustrated in Figure 3.38 which shows the percentage of employed persons who were working as skilled agricultural workers or in elementary occupations, by type and degree of disability and sex. In this graph *Major disability* and *Fully disabled* have been combined to into the single category of *Much difficulty*. This because the distinction between major and full disability turned out to be poorly defined, as discussed in relation to Fig. 3.29.

For each type of disability and sex, the percentage of persons employed as agricultural workers or involved in elementary occupations was considerably higher among persons who reported having a form of disability than for persons without a disability. For example, 72.3 per cent of persons with much difficulty hearing were employed as agricultural workers or in elementary occupations, compared with 57.2 per cent of those with no hearing problem. Differences between persons with a severe specific disability and those without a disability were highest for remembering, self-care and speaking. Seeing demonstrated the same effect, but to a lesser extent. Those with a large visual impairment

worked for 64.8 per cent in agriculture and elementary occupations, against 57.1 per cent for those with regular vision.

Figure 3.38

Employed population of persons aged 15-64: Type and Degree of disability by Rate of employment in agriculture and elementary occupations (percentage of all employed)

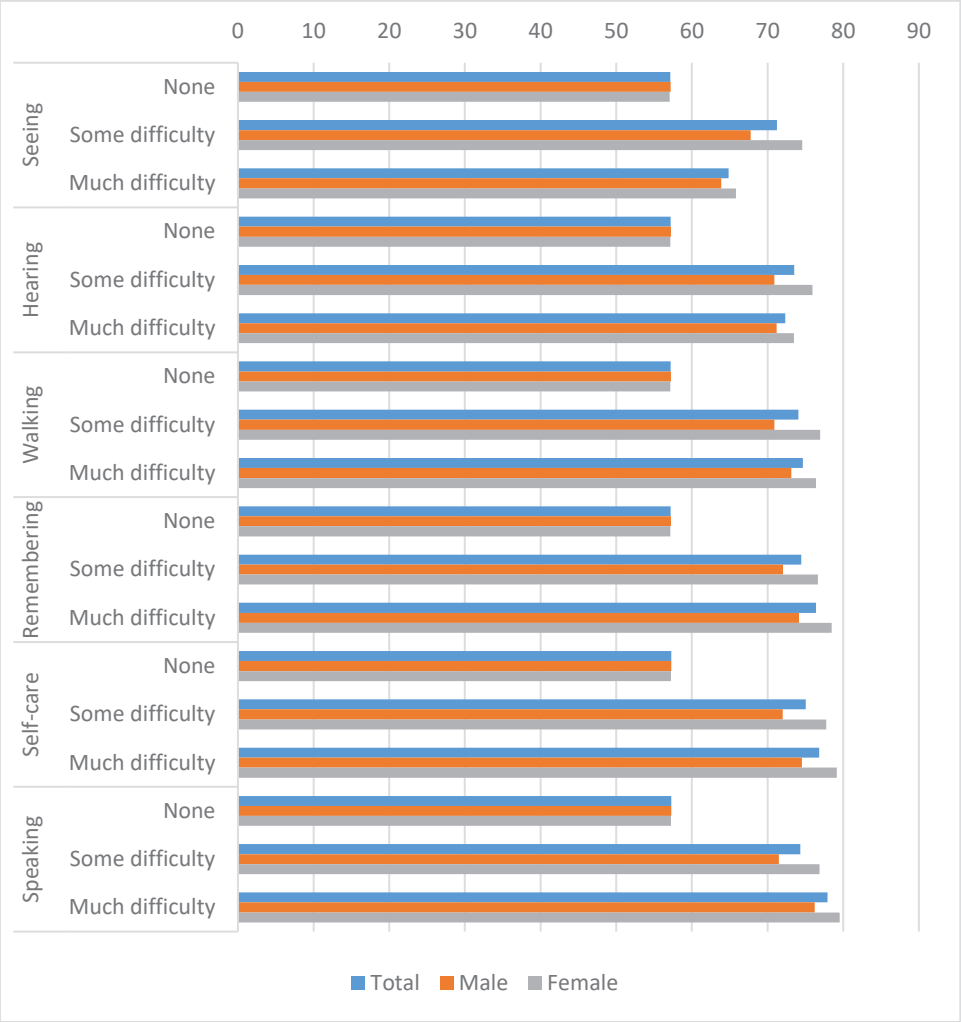


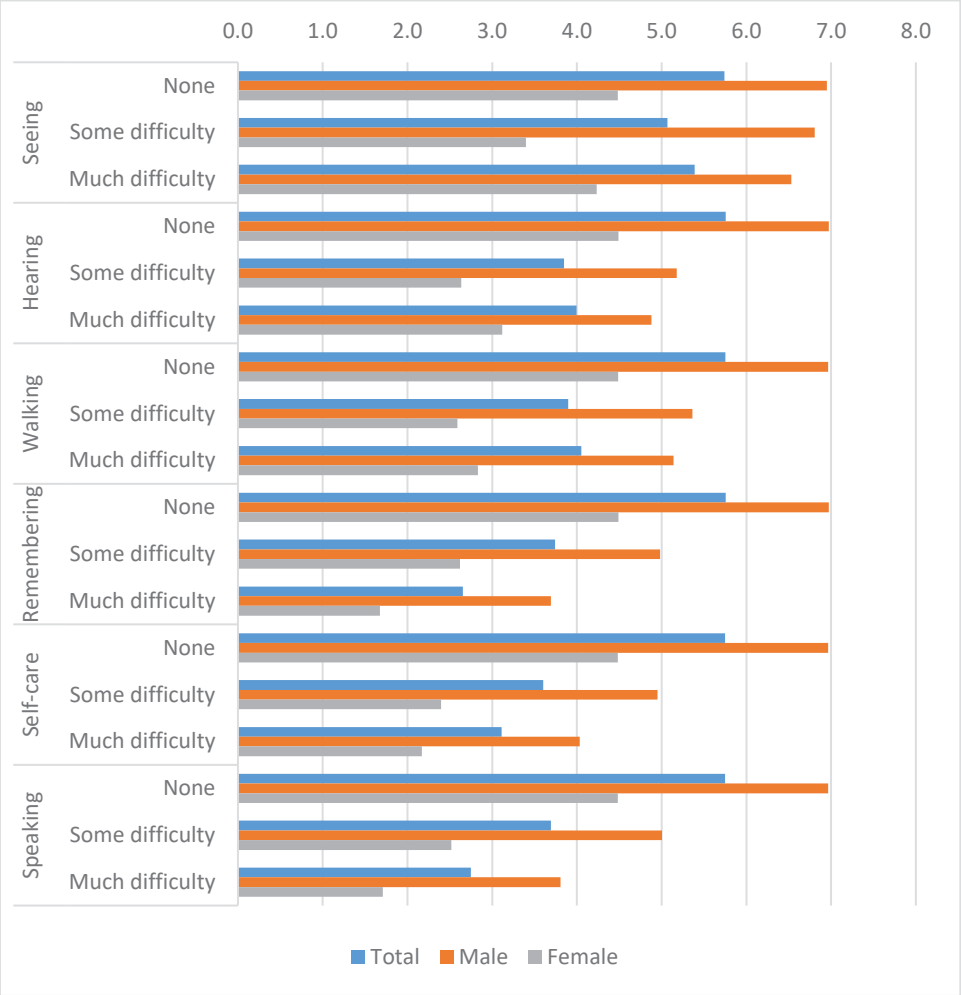
Figure 3.39 concerns occupations that require high skill levels. The bar chart shows the percentages of persons who are employed as managers, professionals or technicians and associate professionals by type of disability, degree of disability and gender. Once again the two most serious disability classes have been added together as *Much difficulty*.

What catches the eye immediately in this graph is how males have considerable higher scores than females in every sub-graph. Where disabled persons are concerned, women are often only half as successful as men in gaining senior occupation levels. Only 2.8 per cent of women with a major walking disability had reached a senior job, as compared to 5.1 per cent of similarly impaired males and 5.8 per cent of the employed without a walking disability.

The lowest scores are obviously among those who have major or complete disabilities in remembering, self-care or speaking. Their impairments make successful functioning at higher skill levels quite challenging, but many still find work in less demanding occupations.

Figure 3.39

Employed population of persons aged 15-64: Type and Degree of disability by Rate of employment in senior occupations (percentage of all employed)



Most persons with disabilities who work are employed in the primary industrial sector. For instance, 60.0 per cent of males and 44.9 per cent of females with a moderate or severe visual disability reported that they were active in agriculture, forestry or fishing. However, in the case of people with disabilities, generally, the number of persons who did not provide sufficient information in the Census for an industrial sector to be derived was so great that any further analysis would lead to misleading results: almost a third (32.7 per cent) of women with a moderate or severe visual disability were not allocated an industrial category; in the case of walking this was 42.8 per cent and for those with moderate or severe remembering/ concentration difficulties the proportion was almost half (48.7 per cent).

Closely related to the pattern of the occupation and industrial groups in which disabled people are employed is their prosperity. Table 3.12 shows the percentage of people aged 10 and over who are in the various wealth levels (defined in Section 2.5.4) by type and degree of disability

Table 3.12

Employed population aged 10 and over: Sex and Disability by Wealth level (Row percentages)

		Wealth 1	Wealth 2	Wealth3	Wealth 4	Wealth 5
Population	**Total**	20.5	19.7	18.3	18.3	20.6
	Male	19.9	19.2	17.8	18.1	21.5
	Female	21.1	20.1	18.7	18.5	19.6
Seeing	**None**	20.5	19.7	18.2	18.2	20.6
	Some difficulty	21.3	19.5	18.7	20.6	18.5
	Much difficulty	19.5	20.4	19.0	21.0	18.7
Hearing	**None**	20.4	19.7	18.2	18.3	20.7
	Some difficulty	22.8	20.6	19.2	20.2	15.7
	Much difficulty	21.1	21.2	20.4	22.0	13.8
Walking	**None**	20.4	19.7	18.2	18.3	20.7
	Some difficulty	22.8	20.3	19.0	20.5	16.0
	Much difficulty	20.7	20.8	22.0	22.0	12.8
Remembering	**None**	20.4	19.7	18.2	18.2	20.7
	Some difficulty	22.5	20.4	19.3	20.8	15.6
	Much difficulty	21.5	21.5	21.4	22.3	11.0
Self-care	**None**	20.4	19.7	18.2	18.3	20.7
	Some difficulty	23.8	20.7	18.9	20.0	15.3
	Much difficulty	22.4	21.7	21.6	21.2	11.1
Speaking	**None**	20.4	19.7	18.2	18.3	20.7
	Some difficulty	23.7	20.7	19.0	19.7	15.6
	Much difficulty	22.9	21.7	20.8	21.6	11.1

Table 3.12 shows that households at the lowest wealth generally have a percentage of all employed disabled persons that is above their share in the overall working population. So, as to be expected, the disabled in poorer households still are more required to be in the labour force than those at higher wealth levels. In contrast, the disabled living in relatively well-to-do households are less likely to be in the labour force. The distribution is more or less the same for the various disabilities, except for seeing, where labour-force participation at wealth level 5 is still fairly high even for those severely handicapped.

Once again *Major difficulty* and *Fully disabled* have been added together in the category *Much difficulty*, since apparently enumerators – and perhaps even respondents - had difficulty to draw the line between these two serious degrees of disability.

The reader is reminded that the wealth quintiles are calculated for households. So 20 per cent of households come in wealth level 1, but that does not mean the same for employed persons. It emerged that 20.5 per cent of employed persons belong to wealth level 1. This means that households of wealth level 1 include on average more employed persons than other households. To be noted also that among the total employed population, disabled or not, males enjoy somewhat greater wealth than females.

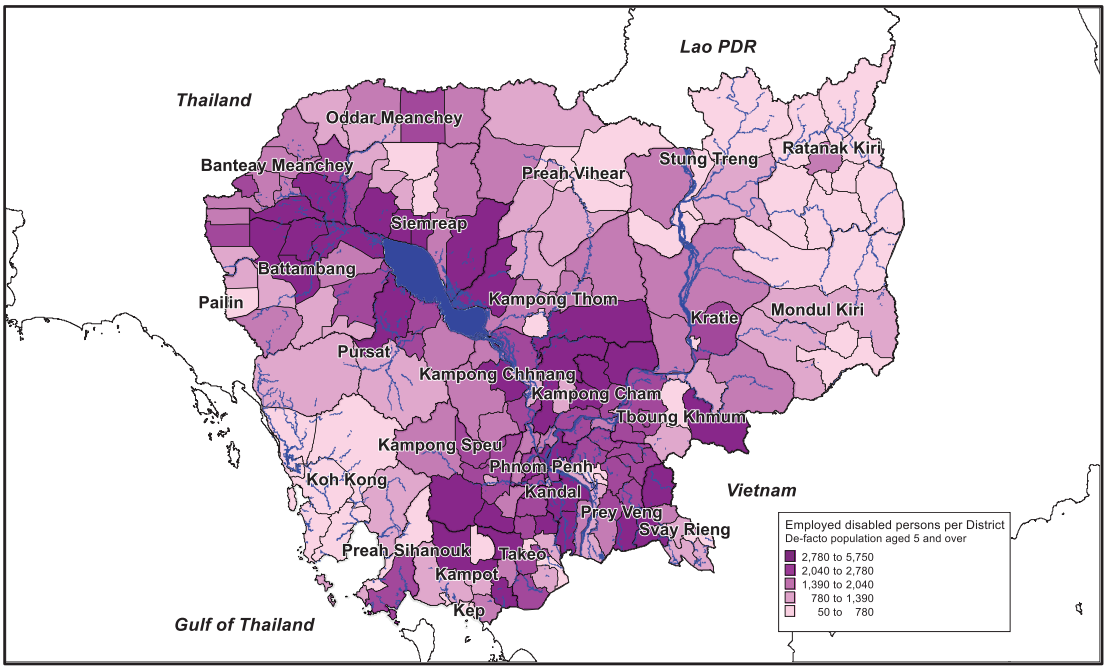
3.4.3 Geographic distribution of employed disabled persons

Fig. 3.40 looks at how the working disabled are distributed over the country. Note that this covers all disabled persons, no matter how severe their disability. The largest numbers are

along the Tonle Sap Lake and further down to Phnom Penh and Kandal Provinces. There are comparatively smaller numbers in the North-East and South-West parts of the country. Disabled workers may have better chances in parts of the country that are economically further developed.

Figure 3.40

Employed disabled persons aged 15-64: Distribution of absolute numbers over the Districts



It is interesting to also look at the totals here. For the age group 15 – 64 there are 8,101,882 employed persons, 4,130,101 of whom are male, 3,971,681 are female. The employed disabled of the same age band number 364,973, including 179,863 males and 185,110 females. So the fraction of handicapped workers is about 4.5 per cent, fractionally lower for males and higher for females. This is an important part of the labour force, warranting official attention to maintain and improve their options.

3.5 Migrants

Over the years, Cambodia has witnessed significant levels of outmigration to surrounding countries and further abroad. That these numbers are substantial is not a matter of dispute. The Ministry of Labour comes to an estimate of about 1.25 million [NIS20]. The ILO Regional Office for Asia and the Pacific speaks of *Over one million* [ILO19b]. The Census obviously could not enumerate Cambodians abroad, nor is there a specific census question about household members working abroad. Statement 1.3 of the questionnaire concerns *Usual Members Absent on Census Night,* for household members who have been away for less than six months. There the location of these absentees at Census night, whether in Cambodia or abroad, is to be recorded. This section assists primarily in determining the official *de-jure* population. Census tabulations give the following distribution:

Residents found at home	15,239,975
Absent residents	242,505
Visitors	312,236

This gives rise to totals as follows:

De-facto population	15,552,211
De-jure population	15,482,480

Clearly the Census has not been able to capture the mass of out-migrants. That is not surprising. Many migrants had been abroad for over six months. This means they will no longer be enumerated by the Census, as they are now formally residing in their destination countries[1]. In other cases out-migrants may have been absent for less than six months and have an intention to soon return home, but they were traveling with the entire household. Their home in Cambodia may have been locked, without neighbors being able to provide accurate information about the composition of this household and their plans for the future. This means that in practical situations enumerators would have little chance to gather correct information concerning this household of absent residents. For these various reasons out-migration will not be covered in the present report.

3.5.1 Migrants and main activity

In spite of the implications of international labour migration for Cambodia's economic and social development, this subject thus lies outside the scope of this report, since insufficient information was available from the Census. More evidence exists on the effect of internal migration on the national labour market. In the present Section, the position of these internal migrants will be reviewed. There is also data about in-migration from abroad, which turned out to be significant and centered on certain destination areas.

The migration situation of visitors is not fully clear. In the main body of the questionnaire they have been taken along with the present resident population, so their *Place of Birth* and *Previous residence* were recorded. But in the main body of the questionnaire there is no question concerning usual residence, since for present residents that is the place of enumeration. For visitors this is not necessarily true, depending on where they came from. There is another section of the questionnaire, Statement 1.2, especially devoted to *Visitors present on Census night*. It does inquire after the *Usual residence* of the visitors, which would complete the information. But that item was never captured, possibly because of the difficulties of linking data between the two parts of the questionnaire. So for visitors, who constitute about 2 per cent of the *de-facto* population, no reliable migration information is available.

For absent residents age and gender are available, but the regular questionnaire was not administered persons for these persons. Therefore there is no information concerning the previous residence, economic activity and employment of these people. So for this group too, migration issues cannot be studied. Therefore the discussion here of migration in relation to labour force parameters needs to be limited to the, admittedly predominant, group of present residents.

The analysis then concentrates on migration status of present residents at the national level

[1] United Nations guidelines have now expanded the required absence for change of residency from six to twelve months [UN15b]. This amendment was not applied in the Census.

as determined by the moves between various parts of Cambodia, plus what is reported about incoming migration. Four migration categories were identified from the information collected in the Census: migration within the same district, migration from a different district in the same province, migration from another province in Cambodia and in-migration from abroad. A move within the borders of the commune of residence was not considered a form of migration.

The total number of persons who had migrated over their lifetimes was determined at 3,103,590, which amounts to 20.4 per cent of the 15,239,975 present residents. Table 3.12 shows that the largest group of migrants moved inside Cambodia to another province. Looking at the *Duration of stay in the present commune*, one notes that migration has always been common. Quite a few people report having moved a long time ago. It should be noted that the table only accounts for the most recent move. A person having moved within the same province may well have migrated to that particular province from elsewhere at an earlier point in time, but that is not reflected in this table. As the *Place of birth* is also available, the analysis could be more detailed, but that is beyond the purpose of the present study.

Table 3.13

Resident and present migrants: Migration class and sex by Duration of stay in the present commune

Place of prior residence	Total	Duration in the Place of enumeration					
		Less than 1 year	1 - 4 years	5 - 9 years	10 - 19 years	20 years or more	Not reported
Both sexes	3,103,590	207,468	857,164	543,582	731,290	757,168	6,918
Same District	423,572	18,177	94,156	66,983	97,684	145,646	926
Same Province	751,053	40,444	187,497	130,197	184,990	206,447	1,478
Cambodia elsewhere	1,835,236	125,337	544,687	339,137	438,799	384,583	2,693
Abroad	77,129	21,914	26,983	4,996	6,210	16,942	84
Not classified	16,600	1,596	3,841	2,269	3,607	3,550	1,737
Male	1,623,163	113,984	452,518	287,938	384,625	380,679	3,419
Same District	235,039	9,751	53,663	38,649	55,601	76,892	483
Same Province	390,010	20,692	98,614	69,905	97,404	102,676	719
Cambodia elsewhere	932,949	63,284	275,686	175,202	226,359	191,131	1,287
Abroad	56,631	19,470	22,538	2,987	3,395	8,182	59
Not classified	8,534	787	2,017	1,195	1,866	1,798	871
Female	1,480,427	93,484	404,646	255,644	346,665	376,489	3,499
Same District	188,533	8,426	40,493	28,334	42,083	68,754	443
Same Province	361,043	19,752	88,883	60,292	87,586	103,771	759
Cambodia elsewhere	902,287	62,053	269,001	163,935	212,440	193,452	1,406
Abroad	20498	2444	4445	2009	2815	8760	25
Not classified	8066	809	1824	1074	1741	1752	866

Looking at the labour force in the light of migration status, it can be noted that the age profile of migrants is quite different from that of non-migrants. Figure 3.41 shows how migrants collectively, as reported in the Census, are mainly concentrated in the active age group 15-64. Very few migrants are young children - they have not yet had the time to migrate. In the oldest age groups there are also comparatively few migrants, since

migrating apparently was less usual in much earlier days. Note that somewhat fewer young females than young males were recorded as migrants. In the group of non-migrants women form a clear majority, as they do in the general population.

Figure 3.41

Population: Age group by Migration status

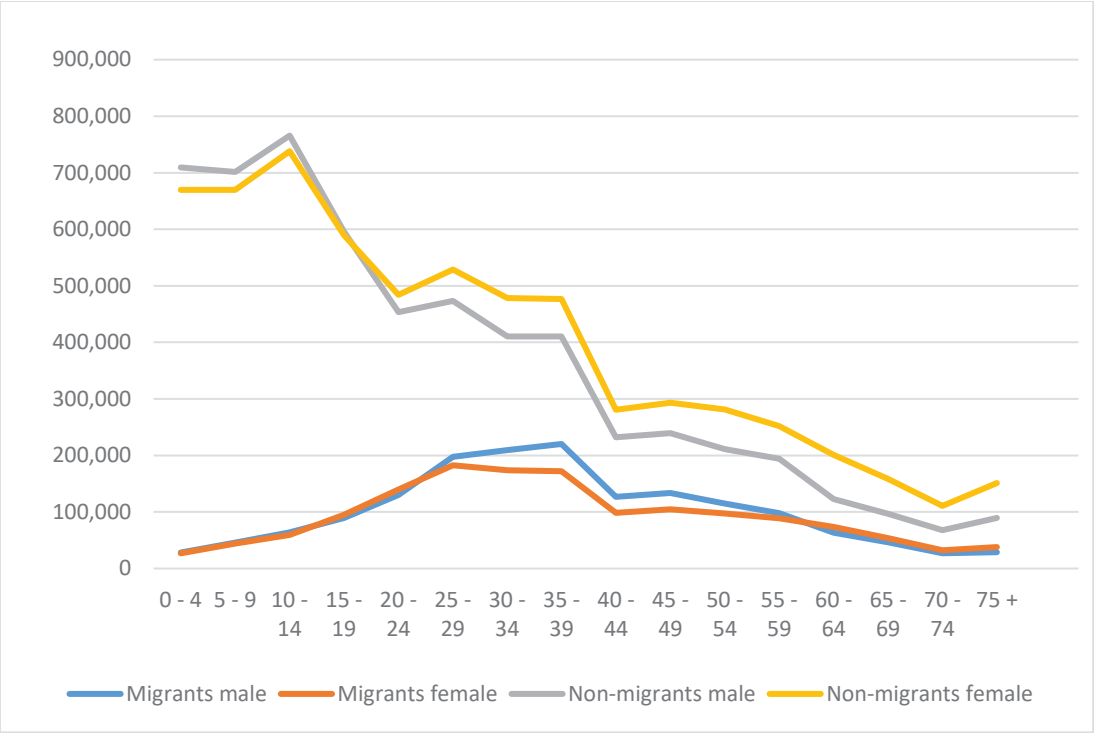


Table 3.14 shows the distribution of the total population and migrants over age 4 in relation to their *Main activity*. In total there are 13,805,481 persons involved, of whom 3,048,393 were migrants. Those who came from the same district number 416,244, from another district but the same province 735,995, from elsewhere in Cambodia 1,803,949 and from abroad 76,453. For some 16 thousand immigrants the place of origin could not be identified.

Table 3.14

Population aged 5 and over by Main activity and Migration status (column percentages)

	Population	Migrants				
Main Activity		Total	Same District	Same Province	Cambodia elsewhere	Abroad
BOTH SEXES	100.0	100.0	100.0	100.0	100.0	100.0
Employed	61.1	74.3	77.2	71.3	74.7	79.6
Unemployed	0.3	0.4	0.4	0.3	0.3	4.0
Never Employed	0.5	0.6	0.6	0.6	0.6	0.4
Home Maker	5.7	9.2	7.4	9.6	9.7	5.4
Student	26.4	10.6	9.5	12.7	10.1	6.7
Dependent	5.1	3.4	3.5	3.6	3.3	2.3
Income Recipient	0.7	1.2	1.3	1.4	1.1	1.3
Other	0.1	0.1	0.1	0.1	0.1	0.2
Not Stated	0.1	0.2	0.1	0.2	0.2	0.1

MALE	100.0	100.0	100.0	100.0	100.0	100.0
Employed	64.4	82.5	84.8	79.9	82.9	83.9
Unemployed	0.3	0.5	0.4	0.4	0.3	4.7
Never Employed	0.4	0.4	0.4	0.4	0.4	0.3
Home Maker	1.7	2.3	1.9	2.5	2.4	1.2
Student	27.7	10.4	8.9	12.5	10.0	7.2
Dependent	4.6	2.4	2.3	2.5	2.4	1.4
Income Recipient	0.7	1.3	1.2	1.5	1.3	1.2
Other	0.1	0.1	0.1	0.1	0.1	0.1
Not Stated	0.1	0.1	0.1	0.1	0.1	0.1
FEMALE	100.0	100.0	100.0	100.0	100.0	100.0
Employed	58.1	65.3	67.7	62.1	66.1	67.7
Unemployed	0.3	0.3	0.3	0.3	0.3	2.0
Never Employed	0.6	0.8	0.8	0.9	0.8	0.7
Home Maker	9.4	16.8	14.3	17.2	17.2	17.1
Student	25.1	10.8	10.3	13.0	10.1	5.4
Dependent	5.6	4.5	5.0	4.8	4.2	4.8
Income Recipient	0.7	1.1	1.3	1.3	1.0	1.7
Other	0.1	0.1	0.1	0.1	0.1	0.2
Not Stated	0.2	0.2	0.2	0.2	0.2	0.2

As the table shows, migrants are rather different from the general population in their activity status. They are significantly more employed, which is understandable since finding employment is a good reason to move. There also are more *Home makers*, possibly because only one of the partners has been able to find paid employment. There are relatively fewer students among the migrants, since these mostly are young. Also, larger households with school children may find it more difficult to relocate.

The differences between migrants and non-migrants are much larger for males than for females. Many migrations possibly take place because a male partner sees better perspectives. In this respect Table 3.13 bears witness to traditional attitudes and fewer chances for women.

Those who came in from abroad have characteristics similar to other migrants, but somewhat more pronounced. Migrants from abroad, at 2.5 per cent, constitute just a tiny fraction of all migrants. But even this small segment comprises a mixed lot. First there are those who returned to Cambodia after a period of working abroad. This may have been successful in the sense that the returnees are able to now own their house and enjoy a better life. No doubt there are also those who return disappointed. There may be also immigrants – Cambodians or others - who come to the country to enjoy pensioned retirement in a low-cost but service-oriented environment. And finally there is a group of foreigners who see chances in rapidly developing sectors of the Cambodian economy. The unemployment is relatively high among immigrants from abroad and the percentage of students is quite small. The upcoming thematic study on international and internal migration (Census thematic report no. 3) is intended to investigate such issues.

3.5.2 Employed migrants

Figure 3.42

Population in vulnerable employment by Sex and Migration status

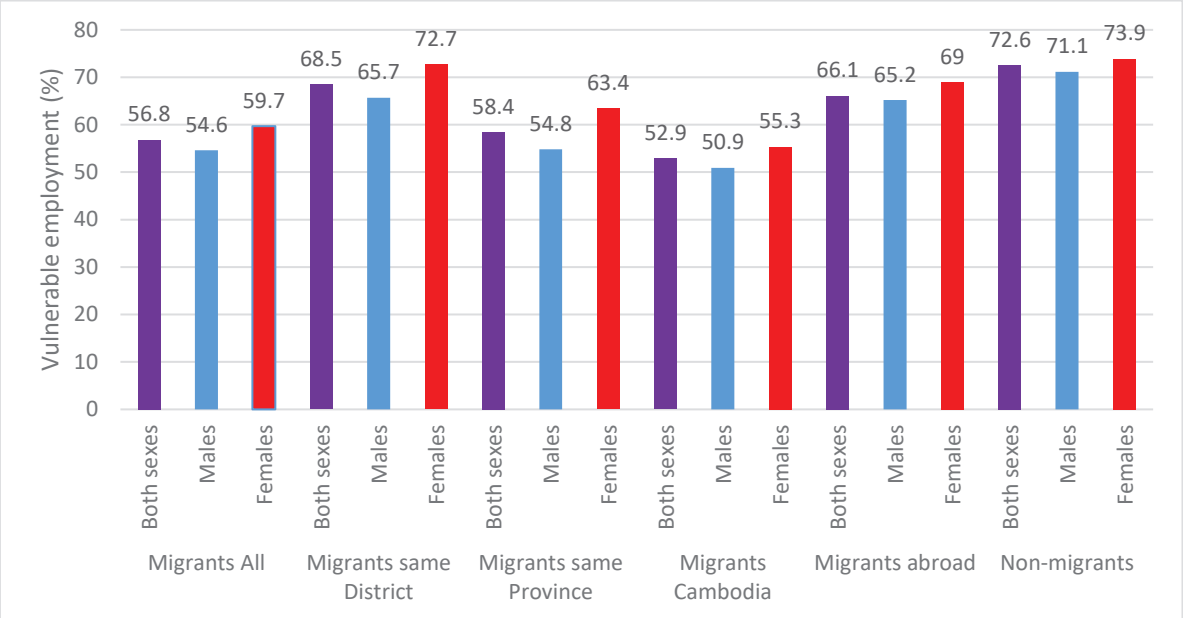


Figure 3.42 shows that migrants mostly have a much lower percentage in vulnerable employment than non-migrants. Respectively 54.6 and 59.7 per cent of male and female working migrants were engaged in vulnerable employment, compared with 71.1 and 73.9 per cent of male and female non-migrants. The exception is for migrants moving only in the same district, where there is only a small difference. Such a minor migration apparently has little effect on vulnerability in employment. In contrast, those who came from another province in Cambodia appear to have benefitted the most. As seen before elsewhere in gender in relation to vulnerability in employment, in all migrant categories women work more often in vulnerable jobs than men.

The Census shows that migrants play a crucial role in the development of the new, modern economy in Cambodia. Table 3.15 displays which occupations have been taken by people who had left their previous home to go and live elsewhere. It is especially striking to see how the percentage of workers in agriculture has declined, especially for migrants who moved far from their earlier residences. The population employed as *Skilled Agricultural Forestry and Fishery Workers* stands at 31.9 per cent for migrants against 52.9 per cent for the entire employed population. The difference is even greater for females than for males.

While reduced in their participation in agriculture, migrants have larger shares in skilled occupations: *Managers, Professionals* and so forth, as well as in *Elementary occupations*. It would seem that there are two tendencies here. The first is for well qualified persons to move for better jobs elsewhere. The second is for poor people to relocate to areas where at least they can find some work, even if only at the bottom of the ladder. In Cambodia with its still growing population, it becomes more difficult for young people to find land for subsistence agriculture. Thus, they move away, often landing in elementary jobs elsewhere. Jobs as *Services and Sales Workers* are also popular among migrants. The threshold to become a salesperson is relatively low for newcomers, especially if undertaken as an own-account worker.

As seen before, most trends are clearer for migrants who relocated within Cambodia to another province. They apparently took the step to move to far-away areas with better opportunities. Those staying in the same province or even the same district did gain less. The migrants coming from abroad are a rather smaller group, but here too there seems to be over-representation of the extremes of skilled workers and labourers in basic occupations. This is true for men as well as for women.

Table 3.15

Employed population by Occupational group and Migration status (column percentages)

Occupation	Employed population	Employed migrants				
		Total	Same District	Same Province	Cambodia elsewhere	Abroad
Both sexes	100.0	100.0	100.0	100.0	100.0	100.0
Armed forces	1.0	2.3	1.5	2.3	2.5	0.3
Managers	0.9	1.5	1.3	1.7	1.4	2.5
Professionals	3.5	5.1	5.5	6.7	4.4	5.4
Technicians and Associate Professionals	1.4	2.3	2.0	2.7	2.2	2.9
Clerical Support Workers	3.2	6.4	4.1	8.5	6.1	7.8
Services and Sales Workers	12.4	20.5	15.2	20.6	21.5	23.5
Skilled Agricultural Forestry and Fishery Workers	52.9	31.9	48.7	34.1	26.8	36.3
Craft and Related Trades Workers	16.4	18.3	12.9	13.0	22.0	11.1
Plant and Machine Operators and Assemblers	2.3	3.8	3.0	3.4	4.2	1.7
Elementary Occupations	6.0	8.0	5.9	7.0	8.8	8.4
Male						
Total	100.0	100.0	100.0	100.0	100.0	100.0
Armed forces	1.5	2.9	1.9	3.2	3.2	0.4
Managers	1.1	1.6	1.5	1.9	1.5	2.2
Professionals	3.8	5.4	5.8	6.7	4.9	5.1
Technicians and Associate Professionals	1.8	2.7	2.2	3.0	2.6	3.0
Clerical Support Workers	3.7	6.9	4.2	8.9	6.8	6.1
Services and Sales Workers	9.9	16.2	11.5	15.8	17.2	22.0
Skilled Agricultural Forestry and Fishery Workers	52.0	32.9	48.9	34.4	27.7	38.4
Craft and Related Trades Workers	14.8	16.8	13.0	13.1	19.5	11.9
Plant and Machine Operators and Assemblers	3.9	6.0	4.5	5.4	6.9	2.1
Elementary Occupations	7.4	8.6	6.5	7.4	9.7	8.8
Female						
Total	100.0	100.0	100.0	100.0	100.0	100.0
Armed forces	0.2	0.3	0.3	0.4	0.3	0.1
Managers	0.6	1.2	1.0	1.4	1.2	2.2
Professionals	2.9	4.2	4.3	6.1	3.5	5.7
Technicians and Associate Professionals	0.7	1.4	1.1	1.7	1.3	2.2
Clerical Support Workers	2.6	5.7	3.8	8.0	5.2	5.9
Services and Sales Workers	15.0	27.5	21.4	28.1	28.5	33.3
Skilled Agricultural Forestry and Fishery Workers	55.3	32.6	50.2	35.0	27.8	34.5
Craft and Related Trades Workers	17.9	19.8	12.6	12.5	24.4	8.5
Plant and Machine Operators and Assemblers	0.5	0.8	0.6	0.7	0.9	0.5
Elementary Occupations	4.3	6.4	4.7	5.9	6.9	6.9

The distribution of working migrants among the country's industrial categories is significantly different from those of non-migrants. Table 3.16 shows that although the Census reported that the primary industry sector (comprising jobs in agriculture, forestry and fishing) is where the largest proportion of migrants was employed, their percentage was far less prominent than non-migrants. This reflects the move of migrants away from the agriculture, forestry and fishing economic sectors. While 55.3 per cent of the employed population was working in *Agriculture, forestry and fishery*, this number was only 51.4 per cent for migrants from the same district, 36.8 per cent for migrants from other districts in the same province, and 30.2 per cent for migrants from elsewhere in Cambodia. Female migrants show a profile similar to that of the males.

Outside of the primary sector, the highest proportion of male migrant workers were active in *Manufacturing, Construction, Wholesale and retail trade,* and *Public Administration*, each of which employed more than 8 per cent of the total male migrant workforce. The industrial divisions in which large proportions of female migrant workers were employed are *Manufacturing*, *Wholesale and retail trade* and *Accommodation and food service activities*. *Manufacturing* especially stands out with over 23 per cent of the female migrants coming from other provinces. Many will have come to find employment in the garment industry. Migrants, both male and females, are also strongly overrepresented in Sector *G - Wholesale and retail trade; repair of motor vehicles and motorcycles*. One suspects (again) numerous small traders under the migrants.

Table 3.16

Employed population by Industry and Migration status (column percentages)

Industry	Employed population	Employed migrants				
		Total	Same District	Same Province	Cambodia elsewhere	Abroad
Both sexes	100.0	100.0	100.0	100.0	100.0	100.0
A - Agriculture forestry and fishing	55.3	35.0	51.4	36.8	30.2	39.1
B - Mining and quarrying	0.1	0.1	0.1	0.1	0.1	0.3
C – Manufacturing	13.2	14.0	9.3	9.5	17.2	7.5
D - Electricity gas steam and air conditioning supply	0.2	0.3	0.2	0.3	0.4	0.3
E - Water supply; sewerage waste management and remediation activities	0.1	0.2	0.1	0.2	0.2	0.1
F – Construction	5.1	5.7	4.9	5.0	6.0	7.5
G - Wholesale and retail trade; repair of motor vehicles and motorcycles	10.7	17.8	13.2	17.6	18.9	22.2
H - Transportation and storage	2.5	4.3	3.1	3.7	4.8	2.1
I - Accommodation and food service activities	1.7	3.0	2.0	2.8	3.3	4.0
J - Information and communication	0.1	0.2	0.1	0.2	0.2	0.3
K - Financial and insurance activities	0.7	1.2	1.0	1.6	1.1	0.7
L - Real estate activities	0.0	0.1	0.0	0.1	0.1	0.1
M - Professional scientific and technical activities	0.5	0.9	0.6	1.1	0.9	1.5
N - Administrative and support service activities	2.2	4.4	2.5	5.2	4.6	4.9
O - Public administration and defense; compulsory social security	2.9	5.7	4.7	7.7	5.3	1.5
P – Education	1.8	2.3	3.0	3.4	1.7	2.3
Q - Human health and social work activities	0.6	1.1	0.9	1.3	1.0	0.5
R - Arts entertainment and recreation	0.7	1.2	0.7	1.1	1.3	1.4
S - Other service activities	1.4	2.3	2.0	2.1	2.4	3.1

Male						
Total	100.0	100.0	100.0	100.0	100.0	100.0
A - Agriculture forestry and fishing	53.8	35.1	50.8	36.4	30.1	40.0
B - Mining and quarrying	0.1	0.1	0.1	0.1	0.1	0.3
C – Manufacturing	9.3	10.4	7.6	7.7	12.4	7.6
D - Electricity gas steam and air conditioning supply	0.3	0.5	0.3	0.5	0.6	0.4
E - Water supply; sewerage waste management and remediation activities	0.1	0.2	0.1	0.2	0.2	0.1
F – Construction	8.0	8.2	7.0	7.2	8.9	8.5
G - Wholesale and retail trade; repair of motor vehicles and motorcycles	8.9	14.4	10.0	13.3	15.6	20.5
H - Transportation and storage	4.4	6.7	4.8	5.8	7.8	2.5
I - Accommodation and food service activities	1.4	2.2	1.5	2.0	2.4	3.5
J - Information and communication	0.2	0.2	0.2	0.3	0.2	0.3
K - Financial and insurance activities	0.9	1.2	1.0	1.7	1.2	0.7
L - Real estate activities	0.0	0.1	0.0	0.1	0.1	0.1
M - Professional scientific and technical activities	0.6	1.0	0.6	1.1	0.9	1.5
N - Administrative and support service activities	2.5	4.6	2.5	5.2	5.0	4.9
O - Public administration and defense; compulsory social security	4.6	8.2	6.5	10.7	8.0	1.6
P – Education	1.9	2.5	3.3	3.4	1.9	2.1
Q - Human health and social work activities	0.6	1.1	0.9	1.2	1.1	0.5
R - Arts entertainment and recreation	0.7	1.1	0.7	1.0	1.2	1.4
S - Other service activities	1.5	2.0	2.0	1.9	2.0	2.9
Female						
Total	100.0	100.0	100.0	100.0	100.0	100.0
A - Agriculture forestry and fishing	56.9	34.9	52.2	37.3	30.2	36.0
B - Mining and quarrying	0.0	0.1	0.1	0.1	0.1	0.2
C – Manufacturing	17.2	19.1	12.0	11.9	23.5	7.1
D - Electricity gas steam and air conditioning supply	0.1	0.1	0.1	0.1	0.1	0.0
E - Water supply; sewerage waste management and remediation activities	0.1	0.2	0.1	0.2	0.2	0.2
F - Construction	2.1	2.2	1.6	2.0	2.3	4.4
G - Wholesale and retail trade; repair of motor vehicles and motorcycles	12.6	22.7	18.2	23.6	23.1	28.2
H - Transportation and storage	0.6	0.9	0.5	0.8	1.0	0.8
I - Accommodation and food service activities	2.0	4.1	2.8	3.8	4.5	5.7
J - Information and communication	0.1	0.1	0.1	0.1	0.1	0.2
K - Financial and insurance activities	0.6	1.0	0.8	1.5	0.9	0.6
L - Real estate activities	0.0	0.0	0.0	0.0	0.0	0.0
M - Professional scientific and technical activities	0.4	0.9	0.6	1.2	0.8	1.4
N - Administrative and support service activities	1.8	4.2	2.5	5.2	4.1	4.9
O - Public administration and defense; compulsory social security	1.1	2.2	2.0	3.5	1.8	1.0
P - Education	1.7	2.1	2.5	3.3	1.5	2.8
Q - Human health and social work activities	0.6	1.1	1.0	1.4	1.0	0.5
R - Arts entertainment and recreation	0.6	1.3	0.7	1.2	1.5	1.5
S - Other service activities	1.3	2.7	1.9	2.5	2.9	3.7

Migrants play a more predominant role in the labour force in some provinces than in others. Figure 3.43 shows that Pailin had the highest proportion - more than three quarters (77.1 per cent) - of employed people in this border area on the road to Thailand were migrants, most of them coming from other provinces. The capital Phnom Penh comes in second with over 65 per cent migrants. Note that many of those may already have been living in the capital for a considerable number of years. Here there is a sizable group, 14.1 per cent, of persons who moved within Phnom Penh Province. It represents the attraction of the city proper for those seeking work or wanting to avoid increasingly tedious commutes. On the other hand outlying areas appeal to people trying to find affordable housing.

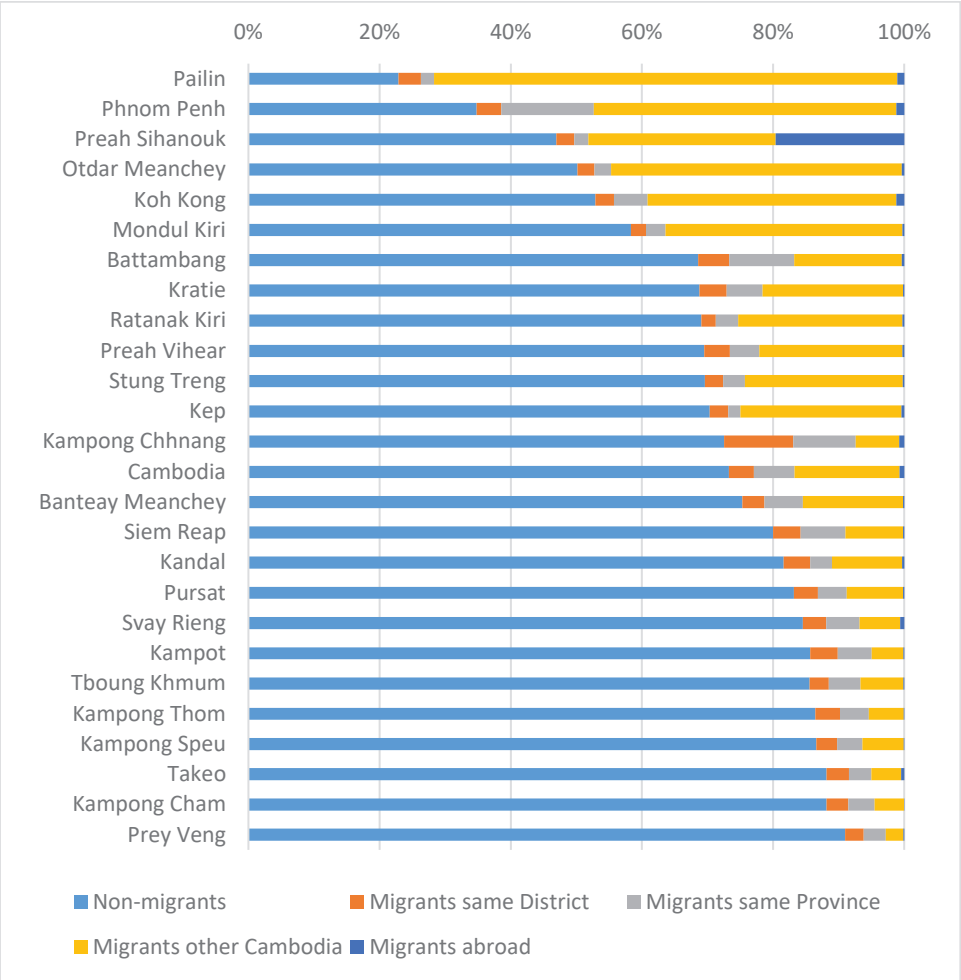
Preah Sihanouk Province draws attention with a disproportionate percentage of employed migrants coming from abroad. It is well known that this Province with its sea port and tourist sector acts as a magnet to foreign workers. Over 28 thousand people were recorded there as incoming employed migrants from abroad, next to the 45 thousand who came from other provinces in Cambodia. Note again that we deal only with present residents here, since the information concerning visitors in the *de-facto* population is inconclusive as to their place of usual residence. Preah Sihanouk Province also contains a remarkably large number of employed visitors. In fact in the *de-facto* population of Preah Sihanouk Province a total of 174,001 were listed as employed persons. Among these there are 28,527 who report to be present residents having migrated from abroad and 28,194 who are enumerated as employed visitors.

Kampong Chhnang Province draws attention with a relatively large number of short-distance migrants. Textile factories there apparently attract migrant labour from their surrounding areas in the Province.

At the bottom end of the graph quite a few provinces have less than 10 per cent employed migrants from other parts of Cambodia, and hardly any from abroad. Clearly these provinces are not considered attractive migration destinations.

Figure 3.43

Employed persons: Province by Migration status (percentages)



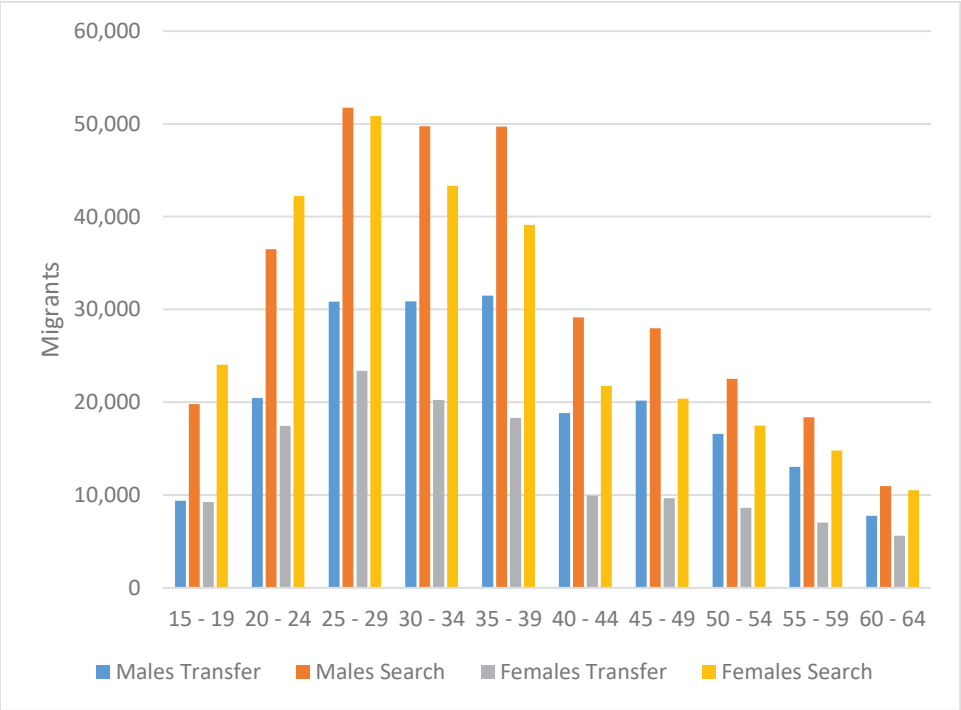
Of the 3.33 million migrants a number of 1.01 million (30.3 per cent) reported that they had moved for reasons directly related to employment. Of these 362 thousand had migrated because of *Transfer of work place*, the remainder *In search of employment.* Other common reasons for migration were *Family moved* (1.299 million), and *Marriage* (658 thousand). One may safely assume that employment for one of the household members was often the reason that entire families moved. Thus, finding or following employment was by far the most important impetus for migration.

Fig. 3.44 shows work-related reasons for migration among the current labour force between 15 and 64 years old. Indeed, the search for employment was for most respondents the primary motive.

It should be noted that for part of the respondents the migration had taken place years ago. Nevertheless young adults still dominate the graph. Males and females are more or less in balance, so women are as mobile as men in searching for work.
There is ample space for further research here, for example singling out only recent migrants and their moves and motives.

Figure 3.44

Migrants aged 15 - 64: Employment-related reasons for migration



If *Transfer of the workplace* or *In search of employment* are the primary reasons for migration, the question can be asked how these migrants for work are distributed in terms of a number of their other attributes. This question is answered in Fig. 3.45.

As can be seen about 32 per cent of migrants moved for reasons of work. Of course they took along many others as family members. They went mostly to urban areas and there were somewhat more males than females among them.

Those without schooling and/or illiterate migrated for work a little less than better educated people. The group of *Divorced/separated*, which counts some 67 thousand persons, migrated for work more than any other category. On the other extreme persons now attending school did, for obvious reasons, rarely choose work as a reason for migration.

Note that Fig. 3.45 can be easily misinterpreted. The universe for each bar is the percentage of migrants for work with a particular attribute. For example, from those migrants at the time of the Census residing in urban Cambodia, 37.9 per cent report to have moved for work. The migrants now in rural Cambodia came there in 20.8 per cent of the cases for work-related reasons. Looking at the totality of migrants for work, one finds that 76.2 per cent live in urban areas and the other 23.8 per cent in rural Cambodia (see Table 3.16). Similarly, 27.4 per cent of illiterate migrants have moved for work, but among those who have migrated for work there are no more than 8.7 per cent illiterates.

Figure 3.45

Migrants age 15 or over who moved for work reasons: Various attributes

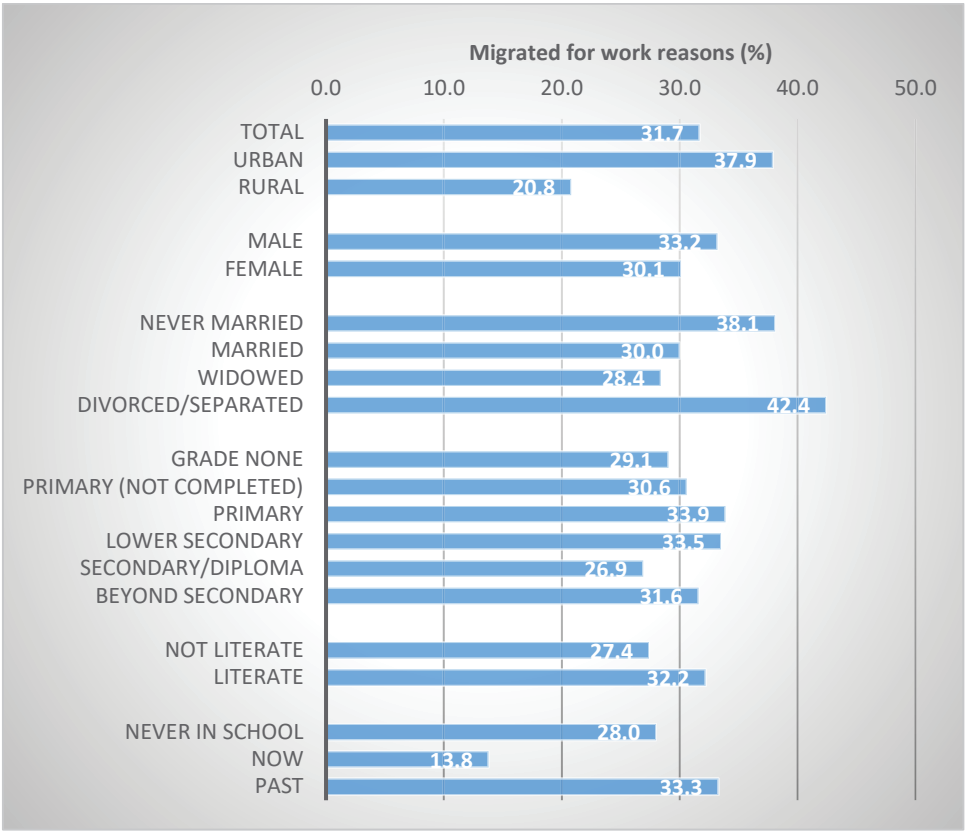


Fig. 3.45 here above provides information about all migrants, that is to say those who no longer live at their place of birth. Some of these migrations are a long time ago. As follows from Table 3.13, nearly half of the migrants have been in their current commune for ten years or more. In Table 3.16 all migrants are compared to those who moved only over the last three years (Duration of stay = 0, 1 or 2 years).

The first thing that draws attention is that a much larger fraction, 51.7 per cent, of recent migrants moved for work reasons. The pull of urban areas is clearly visible, as nearly seven out of eight recent migrants for work went to urban areas. The fraction of never married persons who moved for work is even larger, which is logical also because recent migrants are a comparatively younger group.

Illiterates are a diminishing group in the Cambodian labour force. Of the 39 thousand who migrated over the last three years less than half did so for reasons of work. There must be quite a few following their mostly younger families to a new home.

It is strange to report that you moved for work reasons and that at the same time are in school. Perhaps respondents made the migratory move with an eye on employment opportunities after completing their education.

Table 3.17

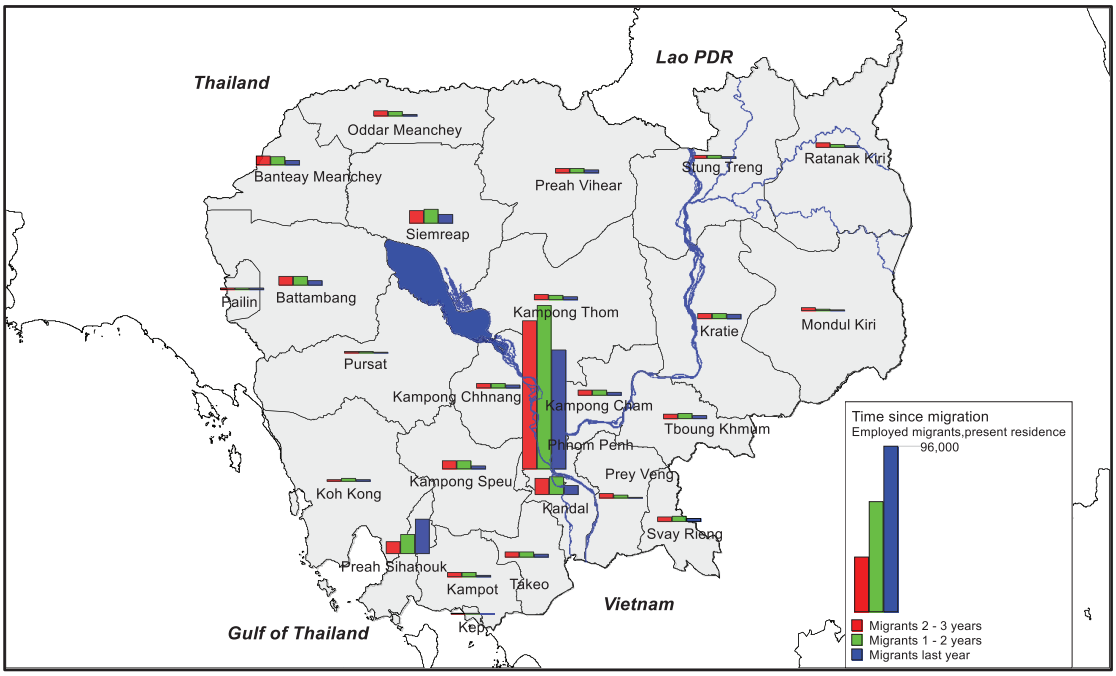
Migrants aged 15 or over: Percentage who moved for work by various attributes

		All migrants			Migrants last 3 years		
		Total	For work	%	Total	For work	%
Urban/rural	Total	2,835,693	899,858	31.7	609,963	315,480	51.7
	Urban	1,810,357	686,891	37.9	480,640	273,073	56.8
	Rural	1,025,336	212,967	20.8	129,323	42,407	32.8
Sex	Male	1,485,431	493,548	33.2	328,125	176,812	53.9
	Female	1,350,262	406,310	30.1	281,838	138,668	49.2
Marital status	Never Married	535,250	204,121	38.1	186,312	109,644	58.8
	Married	2,125,113	636,582	30.0	382,580	179,486	46.9
	Widowed	108,003	30,686	28.4	19,920	12,134	60.9
	Divorced/Separated	67,001	28,420	42.4	21,111	14,186	67.2
Highest grade	None	26,319	7,649	29.1	5,300	2,777	52.4
	Primary (not completed)	754,928	231,245	30.6	127,573	69,939	54.8
	Primary	700,072	237,145	33.9	156,863	87,832	56.0
	Lower secondary	720,952	241,341	33.5	180,758	93,210	51.6
	Secondary/Diploma	126,980	34,147	26.9	40,241	14,197	35.3
	Beyond secondary	173,518	54,850	31.6	51,357	23,838	46.4
Literacy	Not literate	286,488	78,627	27.4	39,243	19,299	49.2
	Literate	2,549,205	821,231	32.2	570,720	296,181	51.9
School attendance	Never	331,848	92,916	28.0	47,374	23,407	49.4
	Now	141,175	19,504	13.8	45,128	8,951	19.8
	Past	2,361,882	787,244	33.3	517,332	283,075	54.7

As follows from the preceding table, migration has been strong over the last few years. It is therefore interesting to compare recent migratory volumes among destination provinces, see Fig. 3.46. One notes three magnets for in-migration, with

Figure 3.46

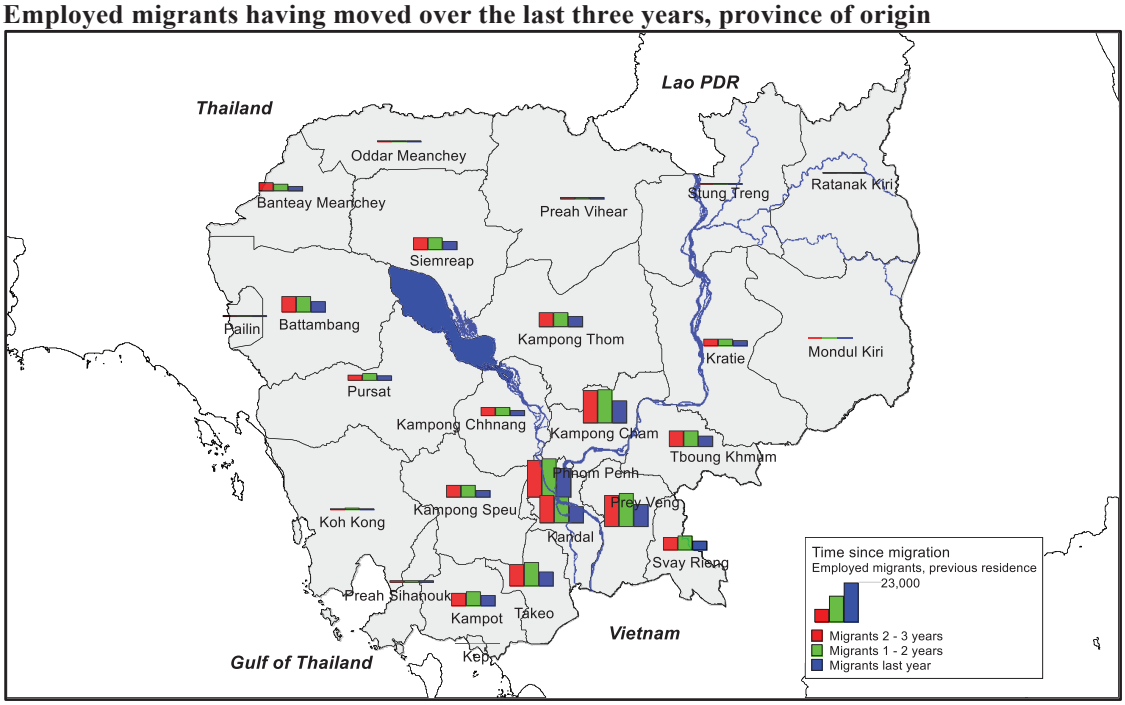
Employed migrants having moved over the last three years, province of destination



Phnom Penh Province the strongest by far, although the inflow seems to be tapering off, as in Siem Reap and Kandal Provinces. Preah Sihanouk Province is seeing an important increase over the last few years.

Figure 3.47

Employed migrants having moved over the last three years, province of origin



If we know where migrated employed persons have taken up residence, then it would also be interesting to see where they came from. This distribution, see Fig. 3.47, is much more even, as migrants came from everywhere in Cambodia, but obviously in smaller numbers

from thinly populated areas. This map does not account for migrants arriving from abroad. There is a high level of out-migration from Kampong Cham, Prey Veng and Takeo Provinces.

According to the results shown here, migratory movements over the last year were smaller nearly everywhere than they were over the years before that. There is no obvious reason for such a decrease and it could well be a response issue. Migrants having moved recently may not be entirely clear about whether that was before or after March 3, 2018. Since life tends to be hectic after a relocation, many may have somewhat overestimated the time already spent at their new place of residence.

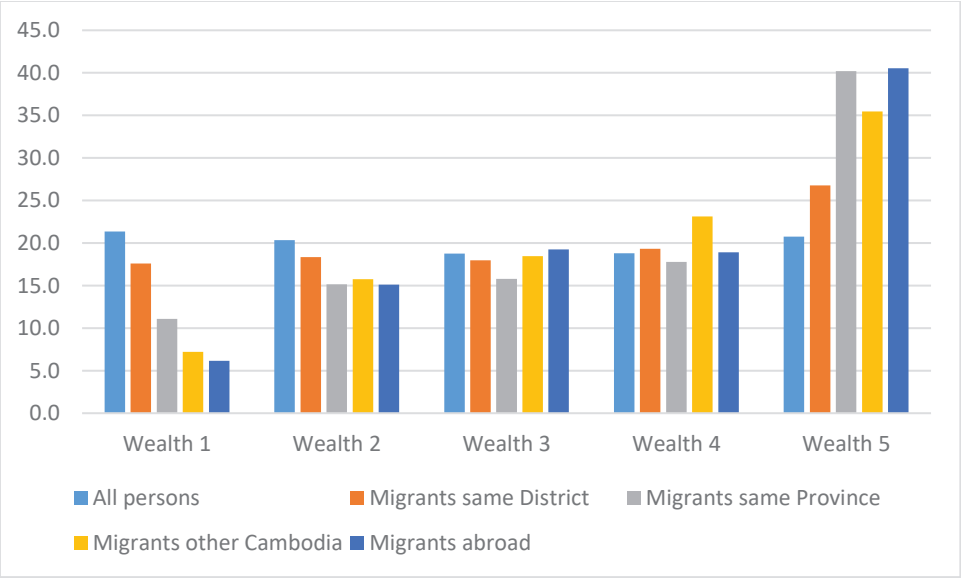
Migration brings a better life to many people. Fig. 3.48 shows, for each of the four migration statuses, the relative distribution of employed migrant across the five wealth index groups.

At the highest wealth level migrants from further away are overrepresented. They are doing relatively well. Even those who have come from the same district still are more numerous at wealth level 5 than elsewhere, but not to the same extent as the other migrants. A positive effect of migration is also distinguishable over wealth levels 2, 3 and 4.

At wealth level 1 the effect is clearly visible in the other direction. Slightly more than 20 per cent of all employed persons appear at this level – the quintile - but there are considerably fewer migrants. The further they came from, the more they have, on average, been able to escape from wealth level 1.

Figure 3.48

Employed persons: Wealth level by Migration status (percentages)



3.5.3 Geographic distribution of migrant labour

Figure 3.49

Employed migrants: Distribution of absolute numbers over the districts

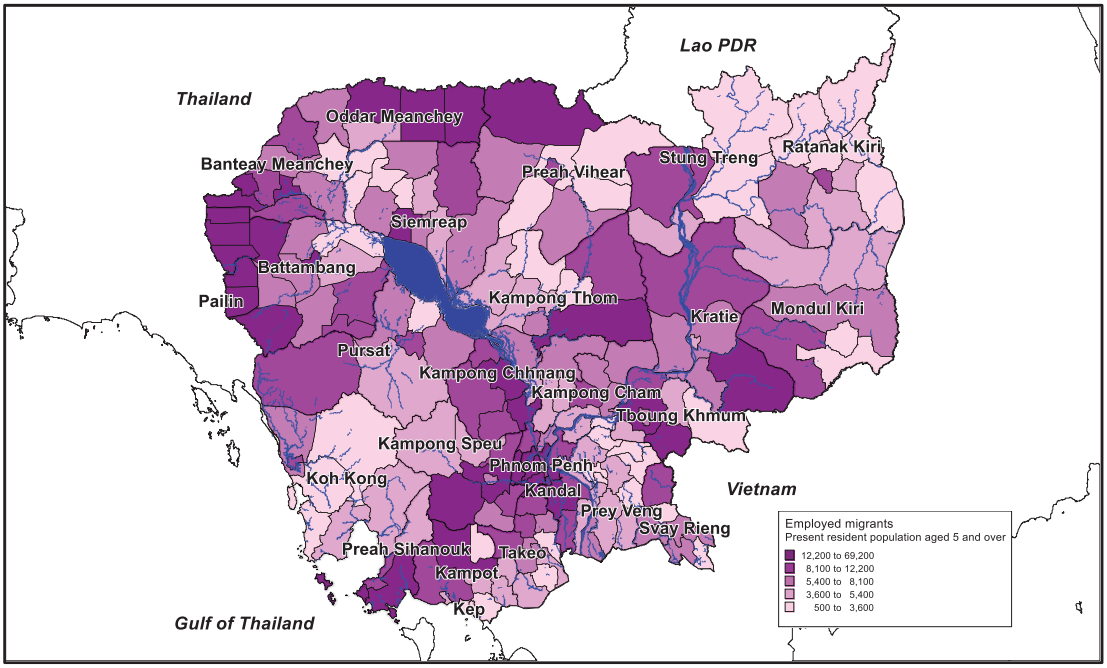


Fig. 3.49 shows how employed migrants are distributed over the districts (*Khan/Krong*) of Cambodia. The largest numbers are in the North-West and in a corridor from Phnom Penh to Preah Sihanouk. The North-East drew fewer migrants, although they may still constitute a fair size of the population, due to the lower population densities there.

Figure 3.50

Phnom Penh Province Communes: In-migrants over the last five years who migrated for reasons of work - as a percentage of the total de-facto population

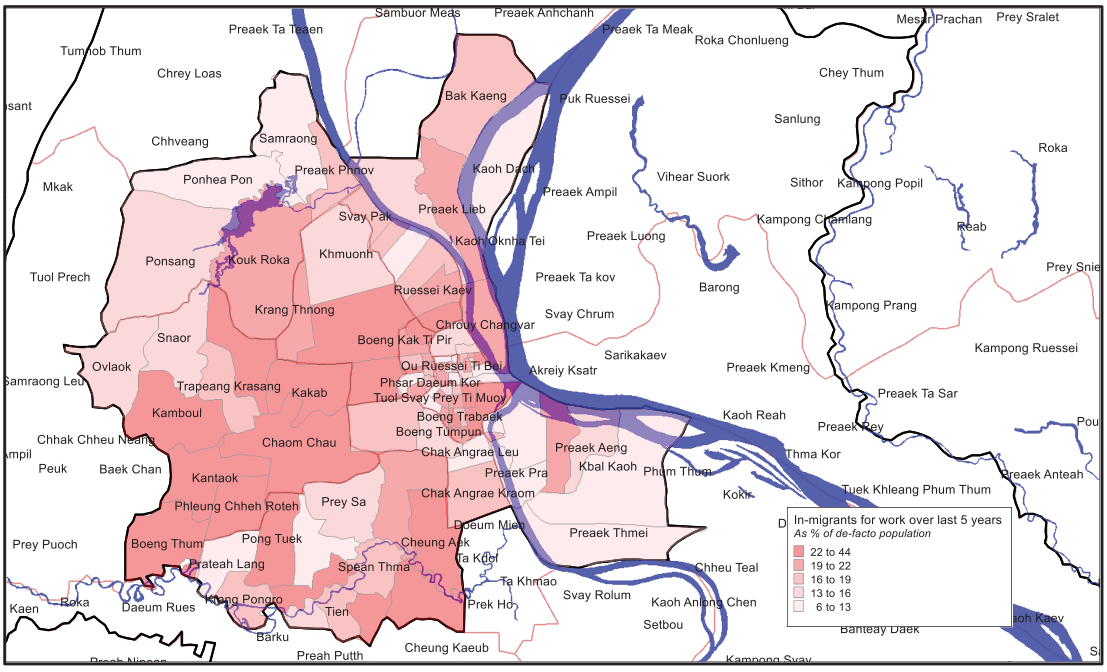


Fig. 3.50 looks at Phnom Penh Province only, showing the percentage in each commune there of immigrants who arrived over the last five years (duration of stay from 0 to 4) for reasons of work – either a transfer of the work place or because they were searching for work. The communes with the highest such percentage in the population are in District Pou Senchey, where percentages reach up to 50. In District Prampir Meakkakra percentages get as low as only 6.

It is obviously possible to study any indicator at such greater administrative detail. A practical problem there is that the coding system of the Census at commune level does not always agree in complete detail with the system of the available digital maps.

Chapter 4 Chapter 4. Progress towards Sustainable Development Goals; Labour force projections

SDGs

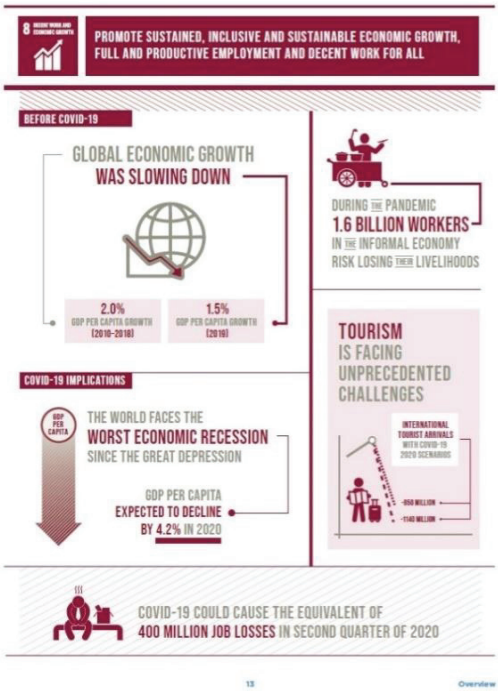
In the preceding Chapters the Cambodian economic activity and composition of the labour force were analyzed, first in a broad sense and later focusing on particular groups of interest. The present Chapter will attempt to arrive at specific conclusions in order to measure progress, if any, towards realization of the SDGs. Furthermore, the principal parameters concerning the current labour force will be projected towards the years 2025, 2030 and 2035.

On both fronts one has to take account of the covid-19 pandemic that developed about a year after census night. It has affected the economy, and therefore the labour market, worldwide. Even while Cambodia coped comparatively well with the virus, various lockdown measures have suppressed, and at the time of writing continue to suppress economic activity. The important touristic sector came to a virtual standstill.

Fig. 4.1 draws an alarming picture about the short-term effects of the pandemic

Figure 4.1

Effects of the covid-19 pandemic as pictured by the United Nations Department of Economic and Social Affairs [UN-DESA20]



4.1 Sustainable Development Goals

The United Nations Statistics Division has been assigned the task of coordinating statistical work concerning the SDGs. To this end an inventory is maintained of all Goals and their associated Targets and Indicators. In this report only those will be discussed that have a direct relationship with Census outcomes in the area of interest. This reduced list runs as follows:

GOAL 8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
…
TARGET 8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services
INDICATOR 8.3.1 Proportion of informal employment in total employment, by sector and sex
Proportion of informal employment in total employment, by sector and sex (%)
…
TARGET 8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value
…
INDICATOR 8.5.2 Unemployment rate, by sex, age and persons with disabilities
Unemployment rate, by sex and age (%)
Unemployment rate, by sex and disability (%)
TARGET 8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training
INDICATOR 8.6.1 Proportion of youth (aged 15-24 years) not in education, employment or training
Proportion of youth not in employment, education or training, by sex and age (%)
TARGET 8.7 Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms
INDICATOR 8.7.1 Proportion and number of children aged 5-17 years engaged in child labour, by sex and age
Proportion of children engaged in economic activity and household chores, by sex and age (%)
Proportion of children engaged in economic activity, by sex and age (%)
…

So, in all we arrive at six employment-related indicators where the Census can be informative. These will be discussed one by one.

4.1.1 Indicator 8.3.1

Proportion of informal employment in total employment, by sector and sex (ILO harmonized estimates) (%)

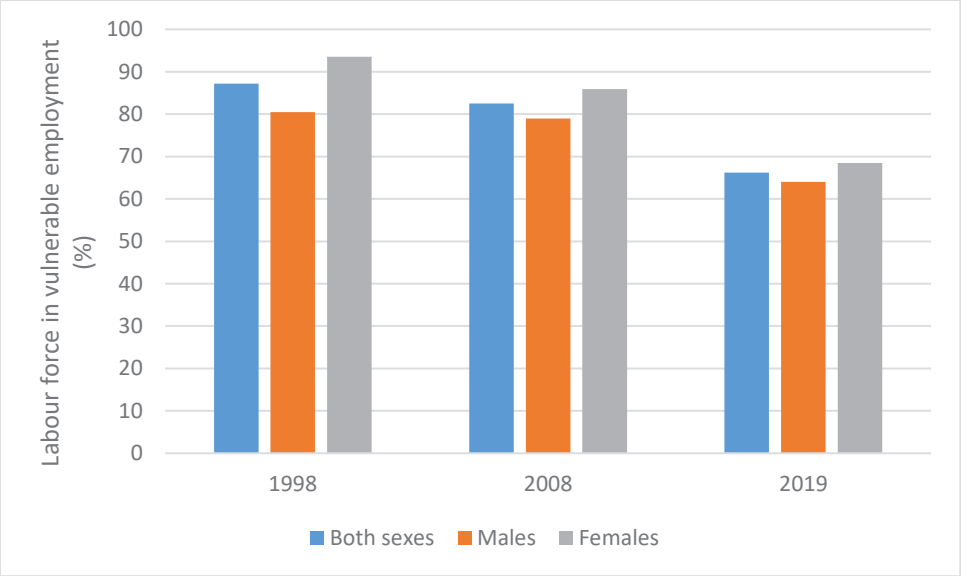
The United Nations Global SDG database [UNSD20] reports for Cambodia: *The proportion of informal employment was 93.6 % in 2012*.

Informal employment is not the same as vulnerable employment, although the definition overlap. In fact, informal employment is mostly wider. Own-account workers are always in informal employment, unless they have a firm arrangement with an enterprise from the formal sector – a rare occurrence. Contributing family workers are by definition in the informal sector. But employers and employees can be in the informal sector too, if their work is not subject to appropriate official regulation [ILO04b]. The Census data cannot be used to easily distinguish between the two kinds of employment. Therefore, this report looks at vulnerable employment as underlying the greater sector of informal employment. The trend in vulnerable employment is most likely the trend in informal employment.

According to Section 2.4.3 the overall number for vulnerable employment for the labour force aged 15 - 64 as measured by the Census was 66.2 per cent, 64.0 per cent for males and 68.5 per cent for females. Fig. 4.1.2 here below shows how this evolved over three censuses. Clearly the rates are getting lower, with the reduction between 2008 and 2019 even larger than that between 1998 and 2008. So apparently the rates are improving, and perhaps this improvement is accelerating. The relative disadvantage of females as compared to males is also decreasing. The information in the UN database looks like an over-estimate. As concerns Target 8.3 it appears that Cambodia is on the right track, but there is still a long way to go.

Figure 4.2

Labour force in vulnerable employment (%)



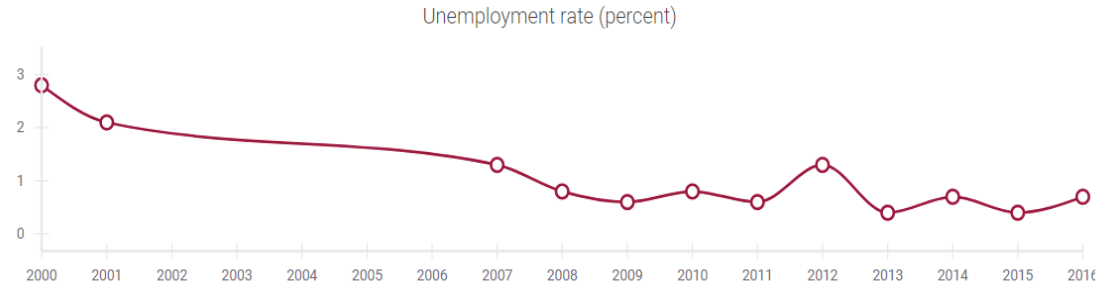
4.1.2 Indicators 8.5.2

Unemployment rate, by sex and age (%)

The United Nations Global SDG database [UNSD20] reports for Cambodia: *The total unemployment rate declined from 2.8 % in 2000 to 0.7% in 2016*. Furthermore Fig. 4.3 is provided by that database.

Figure 4.3

United Nations Global SDG database: Unemployment rate for Cambodia



As is well known, in countries with proud respondents and little social security unemployment rates as measured by interviewing people are not very informative. Respondents will report being employed, while in fact they have little productive work to do in the family enterprise or as an own-account worker. Therefore, in this environment a low unemployment rate is not necessarily convincing news.

Section 2.2 summarizes unemployment figures as measured by the Census. Among the labour force aged 15 - 64 the rate was 1.2 per cent overall, 1.1 per cent for males and 1.3 per cent for females, larger than the number 0.7 per cent overall for 2016 quoted by UNSD. Should these numbers be really comparable, then this does not necessarily indicate a worsening of the labour market. It would confirm the move of Cambodia towards a more modern economy. In developed economies a *friction* unemployment of some 3 to 4 per cent is considered entirely normal. This level of unemployment is the typical result of a balanced situation where workers are on the lookout for better jobs and employers strive after an optimized work force. Both sides undertake some prospecting before making a deal and this causes some people to be temporarily out of work. There is also a small group of job seekers who, because of poor qualifications, severe disabilities or other problems have great difficulty finding employment. Governments would normally mount special programs to guide these people towards meaningful work.

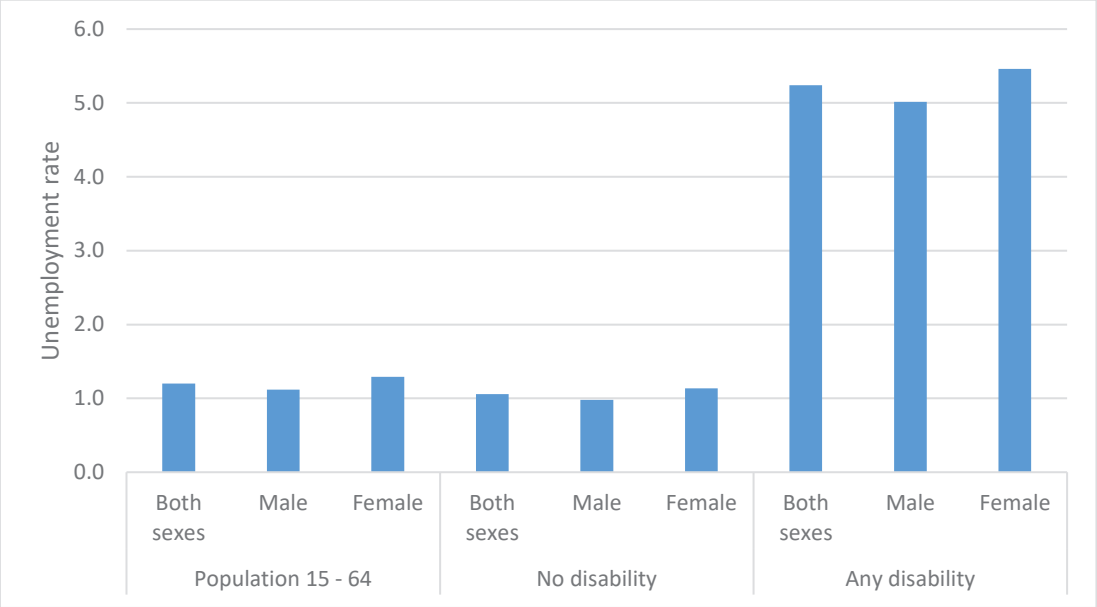
Unemployment rate, by sex and disability (%)

The United Nations Global SDG database [UNSD20] reports for Cambodia: *Among persons with disability, the unemployment rate was 1.1 % in 2012.*

Section 3.4 of the present report deals in particular with the situation of disabled persons in the labour market. As follows from Table 3.11, a disability increases substantially a person's chances to unemployed. Looking at the group of persons who suffer from no particular disability, a tabulation of census data shows that their unemployment rate is 1.2 per cent (1.1 per cent for males, 1.3 per cent for females). If there is any disability whatsoever, the rate increases to 5.2 per cent, 5.0 for disabled males and 5.5 per cent for disabled females (Fig. 4.1.4). Note that comparing this with Table 3.11 requires some shuffling of the numbers, since that table shows the unemployed as a fraction of the total population rather than the labour force.

Figure 4.4

De-facto population aged 15 – 64: Unemployment rates and Disability



The overall unemployment rates are rather higher than UNSD reports for the year 2012. But most developed countries have to deal with – often considerable - higher levels for this indicator of the labour market. The rates for disabled people are much higher. They indicate that quite a few disabled persons would like to find employment, but their attempt have not met success. Providing suitable opportunities for the disabled who are able and wanting to be employed needs to remain an ongoing concern for the Cambodian authorities.

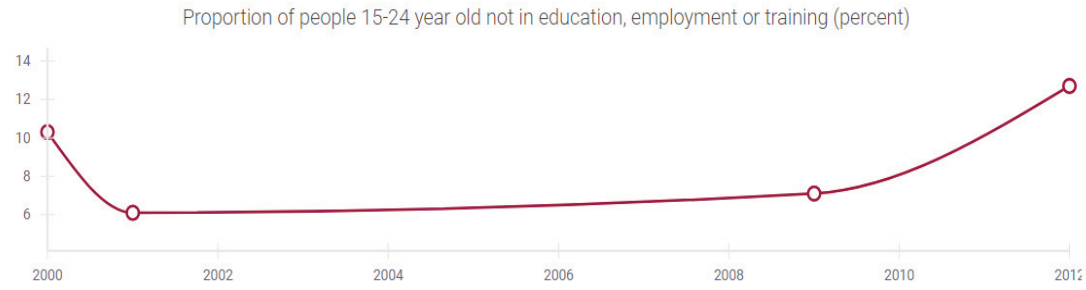
4.1.3 Indicator 8.6.1

Proportion of youth not in employment, education or training, by sex and age (%)

The United Nations Global SDG database [UNSD20] reports for Cambodia: *The proportion of youth not in education, employment or training increased from 10.3 % in 2000 to 12.7% in 2012*. Furthermore Fig. 4.5 is provided by that document.

Figure 4.5

United Nations Global SDG database: NEET rate for Cambodia



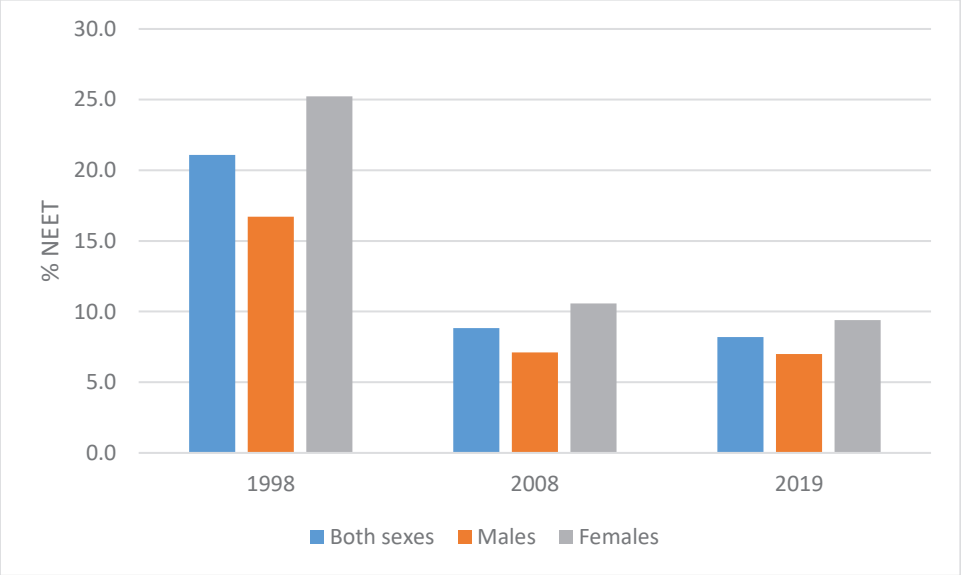
For 2019 the Census results in a NEET rate of 8.2 per cent overall, 7.0 per cent for males

and 9.4 per cent for females (Fig. 3.16). This downward trend is the development one would expect in a society where the young are encouraged to stay in school and where there exists nearly full employment. Urban scores are higher than rural: 9.5 – 8.1 – 10.7 versus 7.3 – 6.2 – 8.4 (Fig. 3.17), reflecting the fact that agriculture will absorb some idle youth in rural areas.

Fig. 4.16 shows the development in NEET percentages over three censuses. The data for this graph were prepared using the available Redatam census databases. The 1998 and 2008 databases are accessible from the NIS website. For this methodology see Section 1.2 of the present report and reference [CE20].

Figure 4.6

Youth not in Education, Employment or Training: three censuses



It appears that Cambodia is making continuing progress towards fulfilling the requirements of Target 8.6. The UNSD figure appears to require an update.

4.1.4 Indicators 8.7.1

Proportion of children engaged in economic activity and household chores, by sex and age (%)

The United Nations Global SDG database [UNSD20] reports for Cambodia*: The proportion of children engaged in economic activity was 11.5 per cent in 2012, 12.2 per cent for boys and 10.8 per cent for girls.*

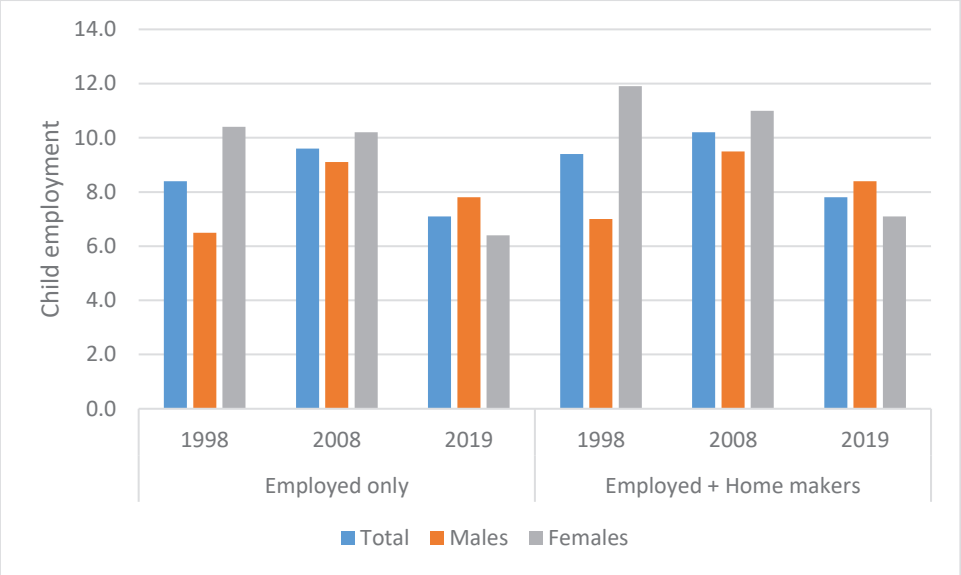
Child work and child labour were discussed in Section 3.1. It was noted there that 280,428 children between the ages of 5 and 17 were reported to be economically active. That represents 7.1 per cent of all children, 7.8 per cent of the boys and 6.4 per cent of the girls. To find out who was involved in household chores one has to add the children reported to be home makers. That brings the overall percentage up to 7.8 per cent, 8.4 for boys and 7.1 for girls. These numbers are considerably lower than what UNSD quoted for 2012, a trend that would be certainly welcome.

To check this further, similar information was extracted from the 1998 and 2008 Census

data. The result is shown in Fig. 4.7. It can be seen that there is an overall downward trend that is roughly in agreement with the number on the UNSD site. This trend would be clearer if the age distribution among young people was not changing as a result of demographic developments. In 1998 there were still substantially more young children, ages 5, 6, 7 than those older at ages 15, 16, 17. In 2019 the reverse is true, since older children now are more numerous than the younger ones. Since older children are more likely to be employed, a more balanced age distribution would raise the indicators for 1998 and reduce them for 2019.

Figure 4.7

Children aged 5 – 17: Employment rates by sex as reported by three censuses



Clearly the official employment rates of children are dropping, which is a good thing, although it does not inform about children who are exploited without the census enumerator being informed about that.

SDG Target 8.7 is strongly focused on the more severe aspects of child employment and abuse. It speaks about child labour rather than work. As mentioned before, children's work is under certain conditions and for certain older age groups acceptable. The Census has not been able to uncover any excesses that might still exist in Cambodia, even while it is certain that there are very few countries entirely free of child exploitation. The formal and reported employment rates for children show an encouraging downward trend.

This concludes the discussion of SDGs in the area of Goal 8. The Census provides numerous indicators that are pertinent in other domains, such as education, migration, housing conditions and health, in particular maternal health, birth attendance and mortality among infants and young children. These will be explored in other thematic reports covering the 2019 Cambodia Census.

4.2 Labour force projections

Knowing the exact future size and structure of the labour force would be useful in managing economic and social development. But obviously the future labour force cannot be predicted with certainty or precision. Demographers therefore rely on scenarios to show what the future outcome would be if a particular set of conditions specified in these scenarios were to be fulfilled. As such, labour force projections are the outcome of hypotheses that themselves are subject to discussion. Obviously, the settings that are formulated are based on past experience and try to follow the most likely path of development that the labour force is taking. However, the reader should always be aware that projections are not the same as predictions. Given the ongoing rapid economic and political changes that are taking place in Cambodia, it is not easy to outline these scenarios and to sketch the course that the labour force might be taking. The covid-19 pandemic, still ongoing at the time of writing this report, is another spoiler of the usual projection methods.

Labour force projections in this report are made for the 15-year period 2020-2035 and then, with even greater reservations, for 2050. These projections are restricted to persons in the age-group 15-80 years. As follows from Sections 3.1 and 3.3, persons under age 15 are steadily disappearing from the labour force due to the suppression of child work and longer school attendance. The contribution of older workers continues to be substantial and may even become relatively more important as the fraction of older persons in the population grows. But extending projections over age 80 has little practical value. This concerns a tiny fraction of the labour force (less than 0.5 per cent in 2019) and unforeseeable changes in life style and social security might greatly affect labour-force participation of the oldest generations.

Projecting the labour force involves two steps: (a) a projection of the national population by age and sex; and (b) applying age and sex participation rates for each sex/age group to this projected population. The result of these two steps gives the total number of people in the labour force by age and sex for each year for which a projection is made. It should be noted that it is the number of persons in the labour force that is projected rather than the number of persons in employment. The labour force consists of both employed and unemployed persons.

The projection of the national population follows the results of a so far unpublished study by the NIS. In due course Thematic Census Report No. 16 on Population Projections will appear. This report will discuss in full detail how these projections were arrived at. For the time being it should be noted that:

- The population 0 - 4 was adjusted in accordance with mortality and fertility rates
- The population 5 and older was adjusted in accordance with the PES
- The base population numbers were all recalculated back to 3 March 2019

So the figures used here are as input still unofficial and should be considered an early release, subject to possible amendment. The labour force projections themselves involve the second step described above, in which a set of age and sex specific participation rates is applied to the projected total population.

A simple, straightforward approach was chosen. The projection scenarios are based on the assumption that over time Cambodia's economic conditions in terms of labour-force participation for age 15 to 79 are stable. This means that while the numbers of persons in

each sex and age group are changing, the sex and age specific labour-force participation rates are not. This does not mean that the characteristics of the work force remain the same. In the past workers have steadily moved from the primary to the secondary (industry) and tertiary (services) sectors. This trend is likely to continue.

Fig. 4.8 shows data from five statistical collections that underlay the assumption of a stable labour-force participation rate. Applying time-series analysis to these terms predicts a practically horizontal trend with a comparatively large margin of error. Rather than using disproportionate scientific finesse it seems safer to conclude that no spectacular changes from the current situation are to be expected over the near term.

Figure 4.8

Labour force partition rates (ages 15 – 79) for five statistical collections; the censuses of 1998, 2008 and 2019, and the inter-censal surveys of 2004 and 2013

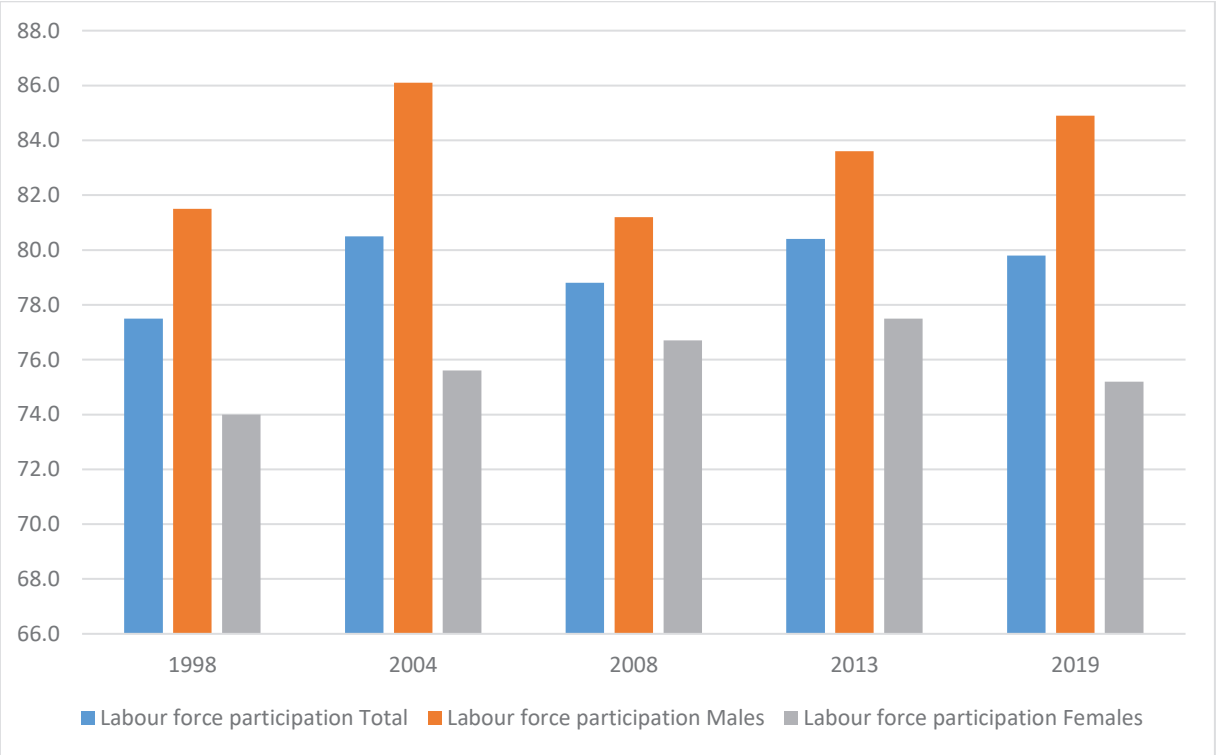


Table 4.1 shows the projected number of persons in the population for the concerned ages as obtained from the NIS informally. The labour-force participation rates are those determined by the 2019 Census, and remain stable over the five reporting points of time. As can be seen the labour force is projected to continue growing steadily, as a result of more young people entering than others – for one reason or another – leaving.

Table 4.1

Projected numbers of people in the labour force aged 15 - 79 by sex 2020-2035, 2050

	2020			2025		
	Total	**Males**	**Females**	**Total**	**Males**	**Females**
Projected population aged 15-79	11,411,051	5,462,051	5,949,000	12,746,702	6,163,971	6,582,731
Labour force participation rate (%)	79.8	84.9	75.2	79.8	84.9	75.2
Projected labour force	9,111,580	4,639,248	4,473,371	10,171,868	5,233,211	4,950,214
	2030			**2035**		
	Total	**Males**	**Females**	**Total**	**Males**	**Females**
Projected population aged 15-79	13,889,045	6,771,263	7,117,782	15,002,977	7,371,997	7,630,980
Labour force participation rate (%)	79.8	84.9	75.2	79.8	84.9	75.2
Projected labour force	11,083,458	5,748,802	5,352,572	11,972,376	6,258,825	5,738,497
				2050		
				Total	**Males**	**Females**
Projected population aged 15-79				17,042,374	8,499,201	8,543,173
Labour force participation rate (%)				79.8	84.9	75.2
Projected labour force				13,599,814	7,215,822	6,424,466

In Table 4.2 the numbers are split by age group, making use of age-specific labour force participation rates as determined for 2019. For the younger echelons there is barely growth, but the older cohorts are increasing over time as the population distribution casts off its pyramidal shape and starts resembling a rectangular block with a roof top. The development in the age groups 40 - 44, 45 - 49 and 50 - 54 is particularly dynamic. Remarkably, applying age-specific labour force participation rates would not significantly affect the totals in Table 4.1. The numbers for the year 2050 are highly hypothetical and merely serve to illustrate what might happen if current trends persist unchanged.

Table 4.2

Projected numbers of people in the labour force by age group and sex 2020-2035, 2050 (thousands)

	2020			2025			2030			2035			2050		
	Both	**Ma**	**Fe**	**Both**	**Ma**	**Fe**	**Both**	**Ma**	**Fe**	**Both**	**Ma**	**Fe**	**Both**	**Ma**	**Fe**
15 - 19	585	302	283	652	340	313	587	306	282	600	313	288	442	230	212
20 - 24	1,041	517	525	1,212	621	591	1,353	701	653	1,218	631	588	1,057	548	510
25 - 29	1,312	666	646	1,168	593	575	1,361	715	648	1,520	807	716	1,348	716	635
30 - 34	1,255	646	609	1,329	682	646	1,184	609	575	1,381	735	649	1,425	766	662
35 - 39	1,281	670	612	1,254	648	605	1,330	686	643	1,187	613	573	1,396	754	645
40 - 44	791	412	379	1,267	666	602	1,243	646	597	1,320	685	635	1,539	837	707
45 - 49	724	376	348	777	407	371	1,249	660	590	1,227	642	586	1,362	737	629
50 - 54	662	334	328	693	364	331	748	397	354	1,205	645	565	1,129	598	535
55 - 59	577	294	282	624	317	307	658	349	312	714	382	335	1,211	646	570
60 - 64	386	182	205	498	261	243	545	285	267	579	316	273	1,007	555	471
65 - 69	263	123	140	330	159	172	433	232	208	480	256	231	910	518	414
70 - 74	141	70	71	187	92	95	242	123	120	323	183	148	429	256	188
75 - 79	74	39	36	99	50	48	138	69	68	185	96	89	310	186	134

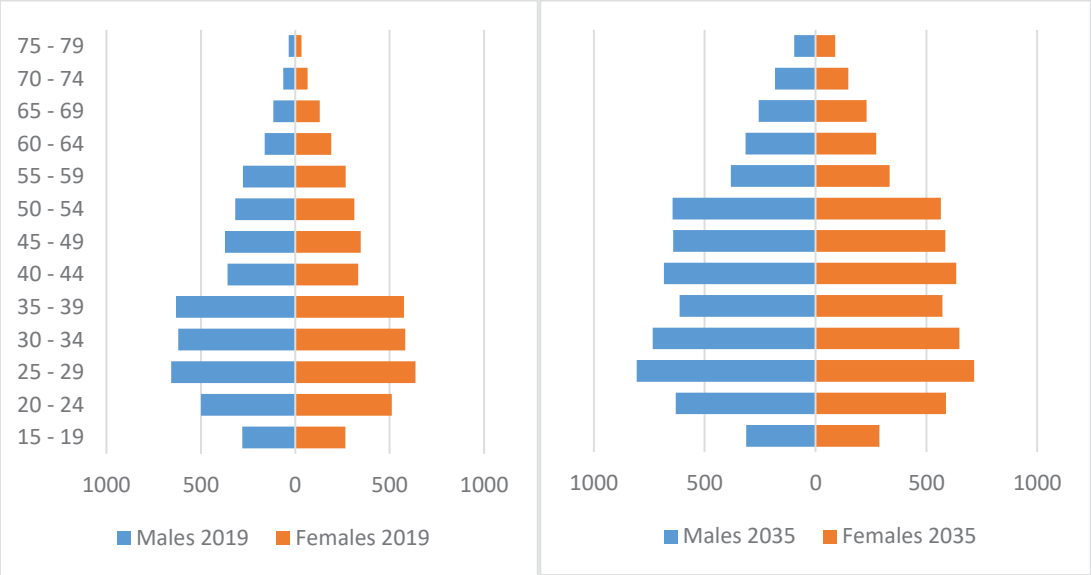
Fig. 4.9 shows how the population pyramid concerning the members of the labour force is

projected to evolve over time. One notes that over the period 2019 to 2035 the cohorts of ages from 40 to 55 are expanding strongly. Eventually there is no longer much difference in size between the various 5-year groups from 20 to 55. Females continue to contribute nearly as much as males in terms of their numbers. The total size of the labour force aged 15 to 79 is projected to increase from 8.87 to 11.97 million, a growth of about 34.9 per cent. Note that this is much more than the increase of the total population of all ages, which is projected to increase from 15.55 million to 19.30 million, plus 24.1 per cent.

These projections come with reservations. First, the projections for the total population are unofficial and should be considered provisional. The upcoming thematic report number 16 will be entirely devoted to thorough population projection studies. Second, international migration, both in-migration and out-migration, has been disregarded. Such migration flows are highly dependent on the economic situation, political developments, and the course of the current covid-19 pandemic. Any prognosis on migration would be highly speculative. But the effect on the size and composition of the Cambodian population is certain to be significant.

Figure 4.9

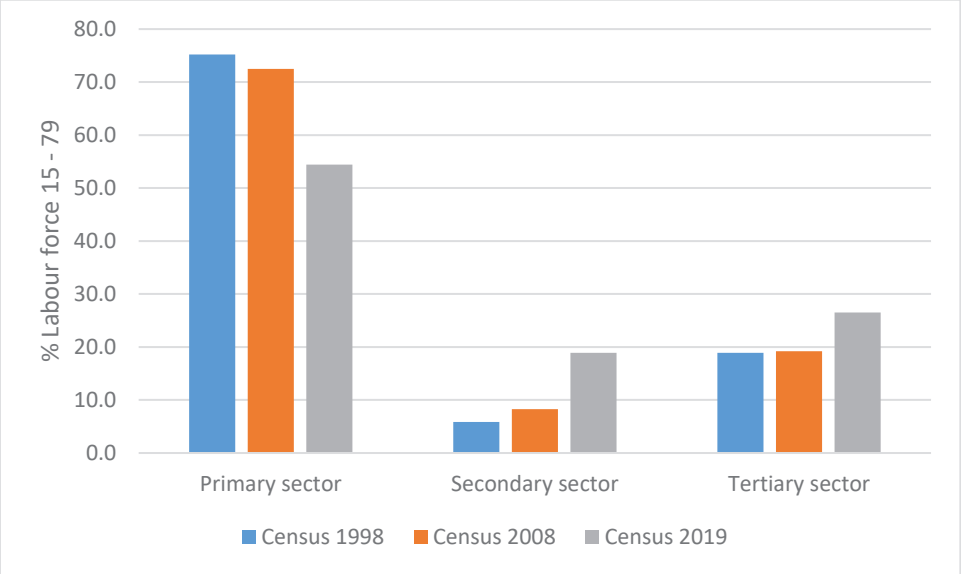
Members of the labour force (ages 15 – 79): projection until the year 2035



One of the most important developments in the labour market is the shift of workers from the primary sector to the secondary and tertiary sectors of the economy. Fig. 2.51 presented that information over three censuses using the employed population aged 15 – 64. In keeping with the approach in the present report section this graph is reconstituted here for the labour force aged 15 - 79 (Fig. 4.10). This increases somewhat the share of the primary sector, since older people are overrepresented there.

Figure 4.10

Labour force aged 15 - 79: Percentage by industrial sector, Censuses of 1998, 2008 and 2019



Providing a mathematical projection of these shares on the basis of the scarce available information is an exercise of little practical value. There are too many intervening factors that will affect the trend. Among the most important there is how the international economy will be developing. If, as a consequence of the covid-19 pandemic or other external factors, the international economic situation deteriorates, this will be felt clearly in Cambodia with its secondary and tertiary sectors strongly dependent on international trade (industry) and tourism (services). Should the pandemic cause only a temporary setback and worldwide trade and traffic flourish again, then the trend away from the primary economic sector will continue unabatedly.

Nevertheless, one can safely assume that within the next decades the economy will cease to be predominantly agricultural. The tertiary sector and even more so the secondary sector are developing strongly, with the expectation being that the industrial sector will overtake the services sector in terms of the number of employed population. But this too is a stage, since in most fully developed economies the tertiary sector eventually prevails in terms of its numbers.

Chapter 5 Conclusions and recommendations

Policy making

5.1 Conclusions

This report has attempted to study the situation concerning economic activity and employment in Cambodia in greater detail than the National Report on Final Census Results [NIS20] had already done. By providing greater analytic detail, showing more cross-references between census variables and adding attempts to explain significant trends, it makes an effort to shed more light on the data treasure the Census has collected.

It is only once in every ten years that interviewers come to each and every household to collect information, and that the particulars of every individual person are incorporated in the data files. For a census there is no need to attach sample weights or to calculate error margins, since it concerns a complete enumeration. Although inevitably some households and persons will be missed, it is common practice to report census results in complete detail, stating for example that the *de-facto* population of Cambodia at 0:00 AM on March 3, 2019 was 15,552,211 persons. Of course that cannot be entirely correct, because there has been some under-enumeration. But publishing exact numbers underlines the purpose to leave no household and no person uncounted.

A complete enumeration does not provide perfect results. For one thing, some households are missed and others are counted twice. Furthermore, there is plenty of room for miscommunication between enumerators and respondents and, down the processing line, for coding and data capturing mistakes. The information had to be obtained from the household in a single visit of just an hour or so, and often not all of the persons to be enumerated were present and available for clarifications. Thus there could easily be uncertainty or misunderstanding about a person's education or even age, especially in the case of visitors to the household who had already departed at the time of the interview.

In the area of employment, information was gathered, among other things, about occupation and industry, both to be coded later at the 3-digit level. It is rather optimistic to suppose that such detailed information can as a rule be gained correctly from an interview between an interviewer with only superficial training and a respondent with incomplete understanding about how the information will be treated. Thereby comes the difficulty for coders to make sense out of a possibly incomplete or cryptic description of the occupation and/or industry jotted down on the questionnaire.

Since a census is a complete enumeration it requires large resources in terms of field staff and funding. Most countries will use one enumerator per around 500 population. For Cambodia 2019 that rate has been even a little lower, with over 38,000 enumerators being been employed, about one per 400 population. Together with a field supervisory staff of

some 9,000 and the many coders and data capturing staff at the NIS Headquarters, it is safe to state that around 50,000 persons have been working for the Census for shorter or longer periods of time.

An approximate figure for the cost of traditional censuses in developed countries is between US$ 10 and 60 per capita [UNECE14]. The United States 2020 Census has been budgeted at US$ 15.6 billion, or about US$ 50 per head. In Cambodia the per capita costs no doubt are lower. Also, even while the Government has borne most of the costs, there were contributions in kind from a variety of donors. Such support in expertise or material is difficult to quantify. A minimum, and admittedly quite imprecise, estimate for the cost of the entire operation would be some US$ 2 per person counted in the Census, for a total investment of over 30 million US dollars.

Expenditure at this level needs prior justification, then subsequent action to make sure that the available benefits are obtained and therefore the money was well spent. The purpose here is to provide planners and evaluators with the much needed statistical information to base their work on. The *National Report on Census Results* [NIS20] summarizes the Census outcomes, but it cannot go in great detail. The document will be enough for those who need a general understanding of the demographic parameters of Cambodia at the time of the field count. For those who must explore (much) deeper there is the possibility to obtain a subset of the Census file of microdata, the so-called Public-Use File. They can then undertake their own analysis, focusing on what is of interest to them and drill down to obtain relevant detail. The PUF file has been anonymized to protect individual's right to protection of their privacy.

The current study fulfills an in-between role between these extremes. It has attempted to sketch the situation in the area of economic activity and employment in considerably greater detail than the national report could. In-theme topics of particular interest were discussed in separate sections and clarified with additional tables, graphs and maps. There was also a spotlight on particular population groups of concern: children, youth, older people, disabled persons and migrants. The attention for females as a depriviliged section of the population runs throughout the report. The dichotomy male/female has routinely been used in the majority of cross-tabulations as recommended in the SDG's (Target 8.5 among others) and by the United Nations Agency UN Women [UNWomen20].

Seeing that the current results fit in well with the statistical trends over the last twenty or so years, as well as with the figures reported by neighboring countries, increases confidence in the reliability of 2019 Census results. There had been accounts of outdated mapping resources, occurrences of absence of respondents that were temporarily working abroad, and various logistical challenges. These clearly have not resulted in a conspicuous loss of quality in reporting about the various statistical indicators concerning the national labour force.

As discussed before, there were five questions in the Census that related directly to the present theme, namely:

- Q18: Main activity
- Q19: Occupation
- Q20: Status in employment
- Q21: Industry, and
- Q22: Sector of employment

The first four of these questions address what the *United Nations Principles and Recommendations* [UNDESA15] describe as *core topics*. Sector of employment is also described there as a topic, but it is not included in the core set. This means that the Cambodia 2019 Census has been comprehensive in terms of the coverage of issues under the current theme. That is not an obvious choice, since increasingly countries opt for a minimal census questionnaire in order to save cost and/or to avoid the difficulties described earlier for large-scale data gathering on somewhat complex issues. If a minimal questionnaire is used it can be accompanied by a more in-depth questionnaire administered to only a sample of the households. That will usually improve the data quality at the expense of introducing sampling error. Alternatively, the census outcome can be used as a sampling frame for specialized labour-force surveys to be conducted later on

In working with the 2019 Census one finds that its operational parameters are remarkably similar to the 2008 Census in many ways. This concerns the questionnaire proper, the approach to the field work and even the office processing methodologies. For example, while most countries now apply some data capturing method that circumvents manual keyboarding, Cambodia continued to use paper questionnaires filled out by enumerators, storage of the returns in a spacious document archive, and data-entry by a small army of operators in a large hall full of networked PCs.

Using proven methods has many advantages. It avoids the risks of newer methodologies that might cause trouble in the Cambodian environment. Since the work has been done before along similar lines, the process is already known and thereby more predictable in terms of the required resources and time scale. Using similar questionnaires and questions in a series of censuses also makes sure that the results will be comparable and thereby facilitates studies of the evolvement of indicators over time.

But holding on to old ideas also has its downsides. Gathering data on electronic devices (rather than paper) can be more reliable, since the equipment will alert the interviewer in case responses are inconsistent or incomplete. It avoids the error-prone transcription from paper questionnaires to data records by keyboard staff. Maintaining old questionnaire designs disregards newer insights about which questions should be asked and how they should be formulated.

Here are a couple of examples about more or less outdated notions having survived in the 2019 Census:

- The ILO has decided to abandon the notion of *economically-active population* in favor of *labour force*.
- The ILO recommends to use *current* rather than *usual* economic activity to gather information about labour force status, occupation, industry and so forth.
- To establish whether persons have changed residence the guidelines now recommend an observation period of twelve months. The Census still stuck with only six. This is of particular interest in view of the many Cambodian migrant workers who tend to depart for extended period abroad, but mostly with a firm intention to return.
- To determine the labour force status *(*"*Main activity*") modern insights demand that the responses should be based on what is preponderant in the respondents' life rather than focusing on the activity that occupied the greatest amount of their time.

With these provisions, it should be emphasized that the Census results have not given reason to serious concerns about their reliability. In most cases there were no major surprises, since indicators have developed in the directions that were already expected and that confirm tendencies that existed before. The degree to which these trends continued constitutes the core of the findings and underlies the major part of the analysis in the present report.

Some observers and the popular press have expressed concerns about the 2019 Census in terms of coverage, methodology and management [Hu19]. These concerns have not been confirmed. But as the time schedule is concerned, final results have been seriously delayed due to several reasons that were discussed in Chapter 1 of the present report. It took nearly two years between Census date and launching the Final Report. Even while some of the delays were unavoidable because of the pandemic, it is unfortunate that up-to-date demographic information did not reach information users earlier.

In preparing the current analysis it was important to identify developments over time by comparing results for 2019 with those from earlier collections, in particular the Censuses of 1998 and 2008 and the Cambodia Intercensal Population Surveys of 2004 and 2013. Since the analysis had to be done mostly remotely – again because of the covid-19 pandemic – there has been a reliance on on-line access to such sources. Both censuses are represented by Redatam databases on the NIS website[1], so additional cross-tabulations could be generated as required. The 1998 database worked flawlessly, but the 2008 database had an unfortunate tendency to crash.

Results from the 2013 CIPS are available both from the NIS website and from the site of the Statistics Bureau of Japan. During the era of this survey there was intensive bilateral cooperation between the two national statistical agencies. As for the 2004 CIPS, its publications seem to not have been put into electronic format, in any event, they could not be traced via the internet. Results from this survey were obtained indirectly as they are quoted in reports for the 2008 Census and the 2013 CIPS.

As to the various individual topics covered, the major conclusions are as follows:

Labour-force participation

Labour-force participation for ages 15 – 64 was determined as follows:
2019: Both sexes 81.4 per cent, males 85.8 per cent, females 77.4 per cent
2008: Both sexes 80.0 per cent, males 81.6 per cent, females 78.5 per cent
1998: Both sexes 79.0 per cent, males 82.3 per cent, females 76.1 per cent

These figures are close together and trends are difficult to discern. What is clear is that over recent years Cambodia has persistently had a very high labour-force participation rate. This is testament to the fact that there is much ambition among the population to work, but also often an economic necessity for those who are less fit to be part of the labour force.

[1] Actually the Redatam databases are hosted on the servers of CELADE in Chile, but can be reached via a link on the NIS site.

Unemployment

The unemployment rates for ages 15 – 64 were determined as follows:
2019: Both sexes 1.2 per cent, males 1.1 per cent, females 1.3 per cent
2008: Both sexes 1.7 per cent, males 1.5 per cent, females 1.8 per cent
1998: Both sexes 5.3 per cent, males 4.8 per cent, females 5.9 per cent

Unemployment rates have dropped to levels that would seem unrealistically low in fully developed market economies. This is a trend seen throughout Southeast Asia. Unemployment among females is a little higher than among males.

Labour force-to-population ratio

The labour force-to-population ratio for ages 15 – 64 was determined as follows:
2019: Both sexes 80.5 per cent, males 84.8 per cent, females 76.4 per cent
2008: Both sexes 78.6 per cent, males 80.3 per cent, females 78.6 per cent
1998: Both sexes 74.8 per cent, males 78.4 per cent, females 71.7 per cent

The already high labour force-to-population ratio has appreciated still a little more for males and dropped somewhat for females. With nearly full employment, those who constitute the fraction not in the labour force are mostly students and dedicated home makers.

Employment status

An important indicator relating to employment status is the percentage of employed workers in vulnerable employment. This is the sum of own-account workers and contributing family workers. The percentages observed were:
2019: Both sexes 66.2 per cent, males 64.0 per cent, females 68.5 per cent
2008: Both sexes 81.5 per cent, males 78.0 per cent, females 84.9 per cent
1998: Both sexes 86.5 per cent, males 79.4 per cent, females 93.1 per cent

It becomes apparent that in about 11 years a large number or workers have been able to leave vulnerable employment for more secure wage-paying jobs. That is good news, but it should not be over-emphasized. Economic conditions will strongly affect companies' policies in terms of the management of human resources. An economic recession or other unfavorable conditions would still endanger employees' livelihood. The long-term effects of the covid-19 pandemic remain to be seen.

There exist a remarkable level of inconsistency between the three censuses and the CSES surveys on this particular variable. Notably the surveys show a much smaller fraction of contributing family members in the labour force (see Section 2.4). The cause of this discrepancy requires investigation.

Occupation

Both among males and females the agricultural occupations are still employing more than 50 per cent of the labour force. But other occupational groups such as *Craft and Related Trades Workers* and *Service and Sales Workers* are rapidly gaining ground. Females constitute a clear majority in these two expanding classes. Males dominate the categories

of *Managers*, *Professionals*, *Plant and Machine Operators and Assemblers* and *Elementary Occupations*. Regarding the ages of workers, one notes that both the quite young and the relatively old are overrepresented in agriculture.

Looking at greater detail among occupations – the second and third digit of ISIC-08 – it can be observed that those reporting as *Garment and Related Trades Workers*, code 755, are quite numerous, especially among females. Altogether this group employs nearly a million persons, well over twelve per cent of the national labour force.

Industry

This report shows that in Cambodia the primary economic sector is shrinking as compared to the other sectors. Both the secondary and the tertiary sector are expanding, but most distinctively so the secondary sector. This reflects the effect of increasing industrialization. More likely than not the tertiary sector will catch up later, as has been the case in many developed economies. There are striking differences between the provinces, with some of them: Ratanak Kiri, Preah Vihear, Prey Veng, persisting as largely agricultural societies with only some services and hardly any industry. Others like Phnom Penh, Preah Sihanouk, Kandal and Kampong Speu now have industrial and service sectors that are larger or on a par with agriculture in terms of their share in the labour force. The Census has not collected financial information, so it cannot inform about the contributions of the various sectors to the GDP.

For greater wealth levels one has to look at those in relatively lightly populated industrial sectors such as *L – Real estate activities* and *Q – Human health and social work activities*.

While in terms of employment numbers Cambodia's agricultural sector is declining on the path to greater economic development, it has not progressed as far in this respect as Vietnam, Thailand and Malaysia. It should be noted that smaller employment may go together with greater efficiency, thereby sustaining or even surpassing earlier production levels. This holds for every industrial sector, including *Agriculture, Forestry and Fishing*.

Sector of employment

The Census has enquired about the ownership of enterprises where the respondents work. It was found that 78.7 percent of workers are employed in Cambodian-owned businesses – often their individual own-account subsistence farms. Some 12.8 per cent now work for foreign-owned private enterprise, and the remainder mainly for the Government. Making the distinction between Cambodian and foreign ownership may have been difficult for some of the less-informed workers, since ownership constructions can be confusing. Nevertheless the outcome is interesting. In the 2008 Census the fraction of workers in foreign companies still was only 4.4 per cent.

Child work and child labour

Section 3.1 of this report covers the topic of work performed by children aged 5 - 17. The numbers collected concerning the fraction of children employed are a little confusing in the series of successive censuses:
2019: Both sexes 7.1 per cent, males 7.8 per cent, females 6.4 per cent
2008: Both sexes 9.1 per cent, males 10.2 per cent, females 9.6 per cent

1998: Both sexes 8.4 per cent, males 6.5 per cent, females 10.4 per cent

It should be noted that the 1998 and 2008 Censuses did not collect data about employment of children aged 5 and 6. For the purpose of calculating the percentages here above, the labour-force participation rate of these very young children has been set at 0.

There is some difficulty in interpreting the information here, as since 2008 child work appears to have dropped, while over preceding intercensal period 1998 – 2008 it apparently increased. The 2012 Cambodia Labour Force and Child Labour Survey [NIS13b] is of little help, since it used much wider limits to count child labour. For the censuses child work was only observed if it occupied most of the child's time.

At this point the safest conclusion is probably that child work, and probably child labour, are currently on a descending trend. As before, boys are comparatively part of the labour force more than girls.

Youth employment and unemployment

Youth not part of the labour force are likely to still be continuing their studies. Longer studies are likely to benefit both the individual and the nation. If, however, youth report to be unemployed, that clearly constitutes a problem. In terms of the employment rates for youth in the labour force the three censuses reports as follows:
2019: Both sexes 57.3 per cent, males 57.8 per cent, females 56.9 per cent
2008: Both sexes 58.1 per cent, males 55.1 per cent, females 61.2 per cent
1998: Both sexes 53.3 per cent, males 49.3 per cent, females 57.1 per cent

The relatively larger employment rates for females as reported in 1998 and 2008 now have disappeared. In 2019 the rates for the two sexes are virtually identical. The growth in labour-force participation that was noted between 1998 and 2008 has not persisted. Most likely there is a balance here between improved opportunities for young people in the labour market and a desire to pursue studies in order build a better future.

Unemployment among youth continues to be somewhat larger than under the general population. But at 1.8 per cent of the young labour force (males 2.0 per cent, females 1.6 per cent) this figure is not particularly alarming. A more important issue is whether modern youth with greater skills than their ancestors can find fitting employment.

Older persons

Older persons continue to report relatively high employment rates and constitute an important part of the labour force. For persons aged 60 and over the censuses inform about employment rates as follows:
2019: Both sexes 58.9 per cent, males 70.9 per cent, females 51.0 per cent
2008: Both sexes 62.0 per cent, males 74.9 per cent, females 53.0 per cent
1998: Both sexes 53.8 per cent, males 69.8 per cent, females 42.3 per cent

Older females continue to be much less employed than males. For both sexes the employment rates have slightly declined since 2008. More likely than not this does not reflect a diminished working ethos, but an increase of the segment of the very old who are no longer physically fit to actively participate in the labour force.

In 2019 the number of older employed in Cambodia amounted to over 812 thousand, against a regular labour force aged 15 – 64 of 8.1 million. So already the older workers constitute a group that exceeds 10 per cent of the entire labour force. A look at the population pyramid (Fig. 2.2) makes clear that this percentage over coming years will rapidly increase.

Disabled persons

A census enumerator is not a medical professional and a disabled person is not an unbiased observer of his or her own impairment. Therefore there can be some reservation about the Census inquiring after six forms of disability, each possibly present in three gradations. Once again such detailed data gathering would probably be better served in the context of a specialized survey.

In any event, it turns out that of the 8.1 million persons in the labour force 15 – 64 some 135 thousand males and 137 females suffer from a form of disability. That amounts to 3.4 per cent of the total. Generally speaking it appears that people in Cambodia are not easily discouraged from working by disability. Even at the most severe categories – fully disabled in seeing or in hearing or in any of the other four forms of disability - one finds quite a few persons who are in the labour force. Perhaps in the dialogue between interviewers and respondents levels of disability have sometimes been overstated. The distribution among participating - not participating in the age group 15 – 64 for the six categories is as follows (male, female in parentheses):

Seeing:	All 81.6 (85.8, 77.6) – Any disability 76.5 (85.1, 69.7)
Hearing:	All 81.6 (85.9, 77.6) – Any disability 73.4 (81.2, 67.5)
Walking:	All 81.6 (85.9, 77.6) – Any disability 70.5 (78.2, 64.6)
Remembering:	All 81.6 (85.9, 77.6) – Any disability 71.8 (79.2, 66.1)
Self-care:	All 81.6 (85.9, 77.6) – Any disability 68.6 (75.3, 63.6)
Speaking:	All 81.6 (85.9, 77.6) – Any disability 68.2 (75.5, 62.8)

Unsurprisingly, disabilities in oral communication and self-care have the greatest impact, but still a considerable majority of the disabled persons in those categories manages to be part of the labour force.

The unemployment rate amongst disabled people is higher than in the general population. For those aged 15 – 64 in the labour force it amounts to 5.2 per cent, 5.0 per cent for males and 5.5 per cent for females. This should be taken into account when considering the labour-force participation rates

Disability is relatively new as a census topic. Census 1998 did not cover it yet, but 2008 did.

Migrants

Unfortunately, the Census could not provide comprehensive information about the important phenomenon of out-migration whereby numerous persons and households move abroad, mostly motivated by economic reasons.

The search for work is also an important driver for internal migration. Some 30 per cent

of migrants mention this as their primary reason to have moved. No doubt they took along many others from their households, who responded that they migrated for family reasons. Among the migrants who moved for work a large majority, 65 per cent, headed for urban areas.

Migration is not a recent phenomenon. Many persons report to have migrated a long time ago and have now stayed in their new location for extended periods of time (Table 3.12). Not surprisingly, Phnom Penh Province acts as a magnet to migrants. In many communes of the Capital Province the percentages of residents having moved there over the last five years for work-related reasons exceeds 25 per cent.

Preah Sihanouk Province draws attention with an untypical level of in-migration. About one-third of the *de-facto* working population there reports having migrated from abroad.

And then

The Census has gathered an enormous amount of information. It can be studied from multiple angles, cross-classifying variables in the various areas of interest. Methods of statistical analysis can be applied to identify correlations between indicators and possible causal relationships. Visual methods, including graphs, thematic maps and modelling charts can be applied. The Census can be placed in the context of other statistical collections; there now exists a series of three successive modern national censuses of housing and population. In addition to that there have been successful censuses of agriculture and establishments. An ongoing programme of sample surveys further reinforces the platform of data collected from all corners of the country. It can serve to find out how the country is developing in demographic, economic and social respects. Since small-area information is often available, studies can focus on particular geographic areas or drill down from the national level to provinces, districts, communes and villages.

In the past planners and evaluators from government and private sectors have complained about the scarcity of statistical information. They were forced to determine policies without sufficient facts from the ground or a good understanding of the baseline situation. That excuse is no longer convincing. If policies are determined remote from existing realities that is a mistake that could have been avoided.

At the same time the existing statistical system is far from perfect. Individual censuses, surveys and collections of administrative data could be enhanced in terms of the details of data being collected, the quality control and the timeliness. It is therefore of utmost importance that information users remain in close contact with the NIS in order to point out what could be improved and to what extent their requirements remain unmet. Bodies like the Technical Committee for the Census are important, but at a more pedestrian level the exchange between the NIS and its clients, the data users, needs to be closely monitored and used to the benefit of the data collection and dissemination program.

All of this cannot be done well without a sound financial basis and well-qualified staff. Even while the Government has made a serious attempt to replace donor funding by national resources, this process is far from complete.

In the area of staff resources the NIS has to compete in the context of a rapidly developing economy in which qualified young people now have many more opportunities than before.

Furthermore, young Cambodians are increasingly aware of attractive opportunities abroad. As the Ministry of Labour and Vocational Training has pointed out [MOL18] the number of Cambodians working abroad is quite large and growing. Some of them may return and in the meantime are a welcome source of remittance payments. But others may eventually settle in their destination countries and become gradually detached from the Cambodian national economy and labour force. It is feared that better educated youth are especially susceptible to the temptation of seeking better conditions elsewhere. The Institute needs to be in a position to offer them competitive conditions and a clearly defined career path.

Because of the covid-19 pandemic the present study had to be undertaken between a lead author residing abroad and the remainder of the editorial team at the NIS in Cambodia. This obviously provided obstacles in communication and the interplay of ideas that would not have existed in a normal situation. The cooperation process was nevertheless experienced as productive by those participating.

5.2 Recommendations

It is beyond the scope of this report to provide a detailed list of policy recommendations. To do this, an in-depth study of the current policy environment and the labour laws of Cambodia would be indispensable. The current analysis only allows for some broad suggestions for desirable policy interventions. The recommendations are, therefore, of a broad nature and should by no means be considered to be exhaustive. Additionally, some more specific advice about data collection methods and technology will be given here.

5.2.1 Broader issues

The Census showed that labour-force participation rates of persons aged 15 - 64 were still a little higher for males than for females: 85.8 versus 77.4 per cent. Government policies and developing social notions that encourage women to become part of the labour force appear to have worked. But women continue to remain overrepresented in agricultural jobs and vulnerable employment. They are underrepresented in the ranks of managers and professionals. Persistent efforts to improve the opportunities for women are needed. Mobilizing the underused female talent will benefit both the individuals and the nation.

Cambodia is successful in incorporating the disabled into the labor force, although unemployment among the handicapped remains substantial. Disabled women have fewer chances than men and are underrepresented in high-level occupations. Focused support to assist disabled women in fulfilling their potential will benefit both these individuals and the nation.

The analysis of the Census shows large differences between provinces in the area of several labour force indicators. In its quest to promote economic growth and to improve the living and working conditions of the population, the Government should take this regional diversity of the labour market into account. It needs to take measures to promote equality in regional economic development. Private investors will find that some areas are still hardly touched by industrial development and offer them opportunities in terms of the costs of doing business and the availability of personnel that are not available elsewhere.

Any labour policy should also take into account the changes that are currently occurring in the size and age composition of the population. These changes are due to the

demographic transition that is taking place in Cambodia. During the coming years, the cohorts of young people entering the labour market will still exceed considerably in number those who, voluntarily or involuntarily, are leaving it. The demographic dividend will continue to be there, with the fraction of the population in the most active ages 15 - 64 further increasing from its present level of 64.7 per cent. This translates in the dependency ratio of 54.5 per cent further declining.

But once the ageing process takes hold seriously, the dependency ratio will start to come up again, especially because of a growing number of older people, who, for understandable reasons, tend to be less economically productive. This additional burden will put a brake on economic development. It is up to the Government and Cambodian society in general to use the current window of opportunity to increase the national wealth and wellbeing in a sustainable manner, while benefitting from the demographic dividend. That will build a foundation for future prosperity, once the population stabilizes in size and age composition.

Another issue requiring attention is diversification of economic activities. As this report has shown – any many before it – the Cambodian labour force is still strongly dependent on employment in subsistence agriculture. Apart from that, mostly foreign-owned enterprises have expanded in the textile industry, often in the manufacture of garments for export purposes. Tourism adds to the range of expanding business, although currently held back by the covid-19 pandemic. These three economic sectors provide only limited opportunities for the better educated young people that are now graduating in increasing numbers from institutes of higher learning. Unemployment or underemployment may become more common for persons with a complete education. Government needs to emphasize its efforts to create jobs that respond to this demand.

Over the last few years in-migration has come to the fore, which is quite focused on certain geographical areas, in particular Preah Sihanouk Province. This relatively new occurrence should continue to be monitored and regulatory action considered if deemed necessary. At the same time out-migration for employment, which the Census did cover only very partially, is still much more common. Since the parameters of this highly important subject are poorly known, specific data collection and analysis are much required.

5.2.2 Specific advice about statistical data collection

Consider reducing census questionnaires in favor of more comprehensive specialized sample surveys

Censuses are not ideal for collecting detailed information, since interviewers are not subject-matter specialists and procedures need to be simple. Large questionnaires also make censuses more expensive.

Limit coding of Occupation and Industry to two digits or a reduced set of three-digit codes

Distinguishing between classifications at the three-digit level exceeds the usual skills of interviewers and coders, let alone respondents.

Strengthen the annual CSES in depth of inquiry and sample size

To fill the void resulting from simpler censuses, the survey program should be reinforced. Certain inconsistencies between CSES results and outcomes from the three recent censuses require examination. These disparities concern, for example, the fraction of the labour force classified as contributing family workers and the relative size of the primary economic sector as compared to the other two sectors.

Limit all age ranges to 0-98, with 99 reserved for 99 and over, The information collected for ages over 98 is highly unreliable and of little consequence for policy purposes.

As has been proved over and over again, age reporting for the very old is usually highly flawed. Mistakes are fueled by the old overstating their ages and by the young showing respect by accepting these inflated figures. Documents for verification purposes are rarely available.

In future censuses employ the most recent international recommendations, unless these are clearly unfit for the situation in Cambodia

The 2019 Census occasionally used outdated concepts.

For future censuses employ state-of-the-art data collection methods, including the use of handheld tablets and greater use of the internet

The tendency of the NIS to hold on to proven but increasingly outdated technology cannot be maintained forever.

Increase analytical capacity at the NIS; alternatively involve Cambodian academic institutions more.

Much of the analysis concerning the Census has been undertaken with expatriate consultants in the lead. It is time for the country to develop its own expertise in this regard.

Annex 1. Glossary of Terms and Definitions

Activity status: This is the relationship of a person to economic activity, based on a specified reference period. In the Census, the concept used is the usual activity status based on the 12-month period prior to the Census night. The status recorded referred to the activity carried out for the greater part (six months or more) of the 12-month period. Persons classified as part of the labour force (economically active) included those whose activity was recorded as:

- Employer
- Paid employee (government or private organization)
- Own-account worker
- Unpaid family worker
- Other employment
- Sought work

Persons classified as outside the labour force (not economically active) included those whose activity was recorded in the Census as:

- Home maker
- Student
- Dependent (ill, disabled, young child, elderly)
- Rent receiver, retired on pension or other income recipient
- Other non-economic activity

Age: Total number of years completed by a person on his/her last birthday.

Age Dependency Ratio: The percentage of population in the younger (0-14) and older (60 +) age groups relative to the population in the age group 15-59. This ratio can also be calculated as Youth dependency ratio (with only the young dependent population in the numerator) and Old age dependency ratio (with only the older population in the numerator). The older group is sometimes defined alternatively from 65 upward.

Child labour: According to the ILO, child labour refers to work that deprives children (any person under 18) of their childhood, their potential and their dignity, and that is harmful to their physical and/or mental development. It refers to work that is mentally, or morally dangerous and harmful to children and/or interferes with their schooling.

Contributing family worker: Those contributing to the business or farm of another household/family member without a formal monetary compensation.

Disability: Disability refers to a condition where a person experiences unusual difficulties in performing routine activities (including activities of daily life) or participating in roles, such as work, if no supportive measures are available. The types of disabilities (or domains) reported in the Census included:

- Seeing difficulties (low vision, blind)
- Hearing difficulties (partially or completely) deaf
- Walking difficulties (requiring the use of wheel chairs, crutches, limping, problems climbing steps)
- Remembering difficulties (slow learning development making it hard to compete with counterparts at school, or other mental health conditions)
- Self-care difficulties (unable to take care of themselves in washing, dressing, etc.)
- Communicating difficulties (insufficiently able to produce or process speech or sign language – this does not include non-native speakers)

Dependency ratio: See Age Dependency Ratio.

Economically active: The economically active population is known as the labour force. It consists of those employed and those actively looking for work. See also Activity status.

Educational attainment: This is the highest grade/diploma/degree completed. For the purpose of analysis it was reclassified as follows: 1= None: (codes 0 and 88), 2= Primary Not Completed: (1 to 5), 3= Primary: (6 to 8), 4= Lower Secondary: (9 to 13) 5= Secondary/Diploma: [Secondary School/Baccalaureate, Technical Diploma/Pre-Secondary and Technical Diploma/Post-Secondary (14 to 16)] and 6=Beyond Secondary [Undergraduate and Graduate/Degree Holder (17 to 19)].
Emigrant (or out-migrant): A migrant who has moved out of a migration-defining area.

Employed: The activity status of those who undertook work for more than 6 months in the 12-month period prior to the Census for pay or profit, such as a wage, salary, allowance, business gains, etc. Also included in this category are persons working in family businesses, on farms, in stores, in cattle herding, etc., even though they are not paid any wages.

Employment rate: The percentage of the total labour force that is employed.

Employment status: The classification of all employed persons according to the activity status in the place where they worked during the 12-month period prior to the Census or if they worked in more than one place, where they worked most of the time. There were five employment status categories:

- Employer: persons who during the reference period worked in their own business, which also employed one or more other persons;
- Paid employee: those employed and working for the government, state enterprises, private employers, international institutions and so forth;
- Own-account worker: self-employed persons who worked in their own business or worked in their own/family business for family gain and did not have any employees;
- Unpaid family worker: persons who worked in a business, farm, trade or professional enterprise operated by a member of the household/family and received no pay;
- Other employed persons.

Employment-to-population ratio: A statistical ratio that measures the proportion of the country's working-age population (usually aged 15-64) that is employed. Age-specific ratios can be calculated for any particular age-group.

Gender: Refers to roles, attitudes and values assigned by culture and society to women and men.
Household: A group of people who live together and eat from the same kitchen. This includes those who live together but have a special job that prevents them from eating with the other members. Divides into Regular and Institutional (or Collective) households.

Industry: (branch of economic activity) refers to the kind of production or activity of the establishment in which the job(s) of the employed person was located during the time-reference period established for the data being collected.

Informal sector: This is the part of a country's economy that is not controlled, monitored or taxed by its government.

Immigrant (or in-migrant): A migrant who has moved into a migration-defining area.

Institutional household: A unit where a group of people are living together long-term other than in a regular household. Examples include: old people's homes, orphanages, hospitals, boarding schools, hostels and guest houses, institutions for persons with disabilities, prisons, monasteries, convents, military and police barracks, and camps for workers.

Labour force: The total of employed and unemployed persons in the population. For the purposes of this report, this refers to the economically-active population measured in terms of the persons' usual activity in the past 12 months.

Labour-force participation rate: The ratio between the labour force and the overall size of the total population of the same age range. This is an important indicator as it measures the proportion of the population that is economically active.

Literacy: Literacy is the ability to read and write with understanding in any language. A person is defined as literate when he/she can both read and write a simple message in a language or dialect. A person who cannot read and write a simple message in any language is considered illiterate. A person is considered illiterate if they have the ability to read and write only their own name or a few numbers.

Migrant: A person who has changed his/her usual place of residence from one area to another at least once during the migration-defining period. For the purpose of the present report moving within the same Commune (Khum, Sangkat) is not considered migration.

Not in the labour force: This category comprised persons who had no work and did not make efforts to find a job during the twelve months before the Census. This included full-time students, home makers, retired people, etc.

Occupation: The type of work undertaken in a job by the person employed (or the type of work done previously, if the person was now unemployed), irrespective of the industry or the status in employment in which the person was classified.

Primary sector: Industries covered by the agricultural, forestry and fishing sections of ISIC.

Public use file: a file of census microdata, usually an anonymized sample of the full clean file.

Regular household: Includes one or more persons who are either related or unrelated and share living quarters (single quarter or compound) and meals. In most cases, there would be one person acknowledged by the household members as the head of the household.

Rural area: Enumeration area categorized as such by the NIS. Generally, these areas have a relatively low population density and a land use which is predominantly agricultural. See also Urban area.

Secondary sector: Industries covered by the following sections of ISIC: Manufacturing; Electricity, gas, steam and air conditioning supply; Water supply, sewerage and waste management and remediation activities; and Construction.

Sex ratio: The number of males for every 100 females.

Tertiary sector: Those industries not covered by the primary and secondary sectors of ISIC.

Underemployment (time-related): A status based on conditions which comprise three criteria:
Willing to work additional hours
Available to work additional hours
Worked less than a nominal number of hours set forth during a specified reference period.

Unemployed: This refers to those who had no work but were able to work and actively sought employment during the reference period.

Unemployment rate: The fraction of the total labour force that was unemployed but actively seeking employment.

Unpaid family worker: See contributing family worker.

Urban area: Enumeration area categorized as such by the NIS. Generally, these areas are relatively closely built-up, with more than average infrastructure and population density. A complete reclassification of urban areas in Cambodia was undertaken over June and July 2020 [NIS20]. The distinction between urban and rural remains subjective.

Usual activity status: See Activity status.

Vulnerable employment: This refers to the more vulnerable categories of employment, encompassing those who are employed as own-account workers or contributing family workers. The vulnerable employment rate is an indicator providing insights on the extent of vulnerability due to economic risk caused by frail employment engagements. It is calculated by dividing the number of own account and contributing family workers by the total number of employed persons.

Annex 2. Data quality assessment

Post-enumeration survey

The PES was conducted immediately after the census proper. It covered 130 out of the around 37,000 enumeration areas (EAs). These EAs were once again fully enumerated, but with a much reduced questionnaire. An additional question was added about whether the household and each person having spent Census night there were indeed enumerated by the regular census. The field staff for the PES consisted of experienced workers, many of them employees of the NIS regional statistical offices. It was, therefore, expected that the quality of the PES in terms of coverage and response quality would exceed that of the Census itself.

Since the city of Phnom Penh with its dense urban areas and highly mobile citizens was considered comparatively difficult to enumerate, it was oversampled in comparison to the remainder of the country. For a full report of the PES, consult the pertinent official document [NIS19b].

The PES report was made public quite early on, well before final Census results had been released. This resulted in the somewhat awkward situation that final Census outcomes were not yet available, but their error margins were already known. Of course, provisional Census results were also published soon after Census night [NIS19a] and data users assumed (justly) that these would not differ greatly from the final numbers.

Principal coverage results are summarized in Table 1.1.

Table A2.1

Census coverage estimates

Estimate	Cambodia	Phnom Penh	Rest of Cambodia
Completion rate	97.5	93.7	97.2[1]
Missed rate	3.4	7.1	2.8
Over-count rate	0.9	0.8	0.9
Net missed rate	2.5	6.3	1.9

One notes that indeed Phnom Penh has a considerable higher *missed* rate than other parts of the country. Those missed individuals are persons that were not covered by the Census proper. *Over-counts* are persons enumerated twice. Double counts usually were not committed by the same enumerator, but by enumerators not correctly observing the limits of their assigned EAs and thus covering households that had already been canvassed by a neighboring colleague.

From an international point of view an undercount ("Net missed rate") of 2.5% is more or less average and no particular cause of concern. But missing over 7% of the population of Phnom Penh is statistically significant. No doubt those missed constitute a stratum with statistical characteristics different from the rest of the population. They are likely to be less

[1] There seems to be a mistake here, since values for Cambodia (as a whole) should be situated between Phnom Penh and Rest of Cambodia. Close reading of the PES report allows the conclusion that this number should be 98.1.

educated and poorer, as well as more probable to be recent migrants.

In Table A2.2 we look at the difference between Census and PES results for some of the individual variables. To study these differences at the attribute level, one needs to compare persons that were covered in both operations. The total number of persons satisfying this condition amounted to 51,165. As mentioned, the PES covered only part of the Census questionnaire, so there are only partial results. Of the variables of particular interest in the current study, there are results for *Question 18 – Main activity* and *Question 20 – Status in employment.*

The net difference rate in Table A2.2 is the net difference of between those reporting the particular attribute, divided by the size of the universe, and then expressed as a percentage. For example, the Census reported 182 more Heads of household than the PES. The Net difference rate then becomes:

100 * 182 / 51165 = 0.355 %, rounded in the table to 0.4 %

For attributes occurring relatively infrequently this means that a relatively large difference between Census and PES does not translate in a large Net difference rate. For example, the Census counted 9 per cent more grandchildren than the PES. Nevertheless the net difference rate amounts to only 0.7 %.

It should be noted that net differences do not tell the whole story. In a net situation some differences between the collections compensate each other. For example, if person A is classified as male by the census and female by the PES, while for person B the opposite report has been made, then the net totals for the sexes do still agree. At the individual level there is obviously disagreement and analytical results may be distorted.

Looking at the *Question 18 – Main activity*, one notes that the PES found substantially more *unemployed* than the Census, while the classes *home maker* and *student* were smaller. The effect on the calculated unemployment rate would be substantial.

In *Question 20 – Status in employment*, in the PES the class of *unpaid family worker* was nearly halved as compared to the Census. *Paid employee* and *own account worker* absorbed most of that deficit.

On the premise of the PES enumerators being more qualified than those of the Census one could guess that the PES came closer to the truth. In any event, the results of this exercise serve as a warning about how susceptible to differences of interpretation or mistake these attributes are. Small differences in indicators derived from the Census, for example in unemployment rates between Provinces, may not be statistically significant. They could well have been caused by differing interpretations of the guidelines for enumeration.

The Index of inconsistency provides a broader measure of the relative number of cases for which the response varied between the census and the PES. If the index crosses the level of 20 the response variance goes from a reassuring *low* to a more concerning *moderate* [UNDESA05].

Table A2.2

Net Difference Rates and Indexes of Inconsistency

Indicators	Cases in Census	Cases in PES	Net Difference rate (%)	Index of inconsistency
Relationship				
Head	12003	11821	0.4	1.0
Spouse	8938	8930	0.0	2.5
Child	20119	19811	0.6	2.8
Parent	859	792	0.1	15.4
Grandchild	4302	3941	0.7	12.7
Other Relative	4180	4289	-0.2	22.4
Marital Status				
Never married	24618	24757	-0.3	0.3
Married	24318	23288	2.0	3.8
Widowed	1480	2187	-1.4	30.9
Divorced	719	906	-0.4	12.0
Separated	30	27	0.0	3.5
Literacy in Khmer				
Yes	38744	38322	0.8	2.2
No	12421	12843	-0.8	2.2
Main activity				
Employed	28627	28714	-0.2	0.4
Unemployed	142	408	-0.5	20.3
Home Maker	2849	2596	0.5	8.8
Student	11758	11466	0.6	1.6
Dependent	7414	7581	-0.3	1.7
Income Recipient	362	393	-0.1	4.1
Other	13	7	0.0	30.0
Employment status				
Employer	108	142	-0.1	0.0
Paid Employee	11126	13088	-6.8	13.1
Own Account	11334	12474	-4.0	14.3
Unpaid Family Worker	6076	3082	10.4	18.1
Other	8	38	-0.1	20.3

Editing and imputation of the raw data file

Raw data as collected in the field and recorded by the data-entry staff go through a process of editing and imputation to convert *raw* into *clean* data. The main purpose of this process is to remove or set right information that is obviously incorrect or inconsistent. Examples are variables that are out of range (Sex = 3) or combinations that could not normally occur (Age = 6 and Highest grade obtained = Bachelor). Interventions do not usually improve the statistical data quality, since more often than not they include an element of speculation. Therefore these interventions should be kept to a minimum, while ensuring that no offending data combinations remain.

Table A2.3 reports the interventions by the editing and imputation program that resulted in the clean data file being different from the raw data. Where the frequency in Table A2.3

is 0, no changes were applied since the problem did not present itself. For example, P18_010 addresses the situation where *P18 - Main activity* has not been reported for a qualifying respondent, who is a member of the *de-facto* population aged 5 or over. Such a case was not encountered, which means that the data-capturing software has correctly functioned in preventing this problem. That software was intended to make sure the operator did provide valid input for this field. Furthermore, later manipulations of the raw data file did not result in distorting or dropping the information from P18.

P18_020 looks at persons over age 49 having reported a main activity of *student*. Demographic advice had been that such a case most likely would be a mistake. In a relatively small number of cases the code for student (5) was replaced by *Not stated* (9).

P19_010 inspects variable *P19 – Occupation*. Out-of-range codes are being replaced by *Not stated* (999). Similarly *P20 – Employment status*, *P21 – Industry* and *P22 – Employment sector* are all set to *Not stated* if out of range.

P20_030 deals with the special case that someone is reported to be employed (P18 = 1), but does not have valid information for P20. This information then is hot-decked. Under the supposition that persons recorded closely together – in the same or neighboring households – are likely to have similar employment characteristics, the program looks for the last individual who was processed as employed and reported a valid P20. This value of P20 is then copied to the offending field. The problem occurred 1,495 times, which is quite rarely in view of the denominator of 8,675,955. Statistical distributions will not be affected.

Denominators establish the size of the universe over which the control is applied. For P18 this the total of all members of the *de-facto* population aged 5 or over. For the other questions the universe is those from this group who have codes 1 or 2 for P18. Note that this is not the labour force, since the *Unemployed (not employed before)* were excluded.

Table A2.3

Interventions by the editing and imputation software

Program line	Fre-quency	Frequency (%)	Message	Denominator
1591	0	0.0	P18_010: Main activity not reported for qualifying person. Imputed 999	14,102,052
1596	13,953	0.1	P18_020: Person over 49 cannot be a student. Imputed Not stated (9)	14,102,052
1601	0	0.0	P18_030: Main activity reported for unqualifying person. Imputed NotAppl	14,102,052
1612	14,037	0.2	P19_010: Occupation not correctly reported for qualifying person. Imputed 999	8,675,955
1617	0	0.0	P19_020: Occupation reported for unqualifying person. Imputed NotAppl	8,675,955
1626	14,036	0.2	P20_010: Employment status not correctly reported for qualifying person. Imputed 9	8,675,955
1631	0	0.0	P20_020: Employment status reported for unqualifying person. Imputed NotAppl	8,675,955
1638	1,495	0.0	P20_030: Employment status not reported for employed person. Hot-decked from preceding	8,675,955
1650	14,039	0.2	P21_010: Industry not correctly reported for qualifying person. Imputed 999	8,675,955
1655	0	0.0	P21_020: Industry reported for unqualifying person. Imputed NotAppl	8,675,955
1664	14,035	0.2	P22_010: Employment sector not correctly reported for qualifying person. Imputed 9	8,675,955
1669	0	0.0	P22_020: Employment sector reported for unqualifying person. Imputed NotAppl	8,675,955

Table A2.3 shows that the automatic interventions in this segment of the data file have been quite limited in quantity. Most questionnaires were apparently completed sufficiently well and the keyboard-capturing software and file management caused no major problems. CSPro software [US20] was used throughout in data capture, editing/imputation and most tabulations. Since the data file - or a systematic sample thereof - now are widely available, other analysts and researchers may use alternative tabulators and various kinds of analytic software of their own choice. The raw data file also remains available for research purposes.

Annex 3. Economic activity by administrative area

Table A3.4

De-facto population aged 15-64: Economic activity by Administrative area and Sex

	Total				Male				Female			
	Total	Employed	Unemplo-yed	Not economi-cally active	Total	Employed	Unemplo-yed	Not economi-cally active	Total	Employed	Unemplo-yed	Not economi-cally active
Cambodia	10,068,625	8,101,782	98,588	1,868,255	4,868,446	4,130,101	46,696	691,649	5,200,179	3,971,681	51,892	1,176,606
Banteay Meanchey	563,464	441,640	8,283	113,541	278,810	237,728	4,522	36,560	284,654	203,912	3,761	76,981
Mongkol Borei	123,409	86,807	2,281	34,321	61,179	50,945	1,018	9,216	62,230	35,862	1,263	25,105
Phnum Srok	42,475	37,377	268	4,830	20,600	18,599	142	1,859	21,875	18,778	126	2,971
Preah Netr Preah	80,163	65,592	764	13,807	39,563	34,257	348	4,958	40,600	31,335	416	8,849
Ou Chrov	41,025	33,960	531	6,534	20,331	17,692	231	2,408	20,694	16,268	300	4,126
Krong Serei Saophoan	68,677	47,502	2,516	18,659	34,728	27,085	1,872	5,771	33,949	20,417	644	12,888
Thma Puok	50,797	44,481	303	6,013	25,006	22,393	132	2,481	25,791	22,088	171	3,532
Svay Chek	54,165	47,058	236	6,871	26,735	24,069	121	2,545	27,430	22,989	115	4,326
Malai	34,637	27,529	780	6,328	17,061	14,494	365	2,202	17,576	13,035	415	4,126
Krong Paoy Paet	68,116	51,334	604	16,178	33,607	28,194	293	5,120	34,509	23,140	311	11,058
Battambang	620,516	476,987	11,904	131,625	302,431	253,347	5,134	43,950	318,085	223,640	6,770	87,675
Banan	54,072	41,890	1,362	10,820	26,164	21,807	721	3,636	27,908	20,083	641	7,184
Thma Koul	66,052	50,695	1,031	14,326	31,975	27,484	286	4,205	34,077	23,211	745	10,121
Krong Battambang	83,094	54,356	3,008	25,730	40,216	29,792	993	9,431	42,878	24,564	2,015	16,299
Bavel	55,660	45,805	460	9,395	26,743	23,233	218	3,292	28,917	22,572	242	6,103
Aek Phnum	45,687	33,846	849	10,992	22,439	19,039	371	3,029	23,248	14,807	478	7,963
Moung Ruessei	61,322	46,034	1,297	13,991	29,464	24,556	769	4,139	31,858	21,478	528	9,852
Rotonak Mondol	25,025	19,979	289	4,757	12,509	10,825	156	1,528	12,516	9,154	133	3,229
Sangkae	70,867	53,456	984	16,427	34,251	28,390	509	5,352	36,616	25,066	475	11,075
Samlout	28,187	24,295	594	3,298	14,122	12,445	245	1,432	14,065	11,850	349	1,866
Sampov Lun	24,150	19,271	190	4,689	11,986	10,341	86	1,559	12,164	8,930	104	3,130

	Total				Male				Female			
	Total	Employed	Unemplo-yed	Not economi-cally active	Total	Employed	Unemplo-yed	Not economi-cally active	Total	Employed	Unemplo-yed	Not economi-cally active
Phnom Proek	28,355	23,708	194	4,453	14,004	12,202	88	1,714	14,351	11,506	106	2,739
Kamrieng	34,631	28,547	1,003	5,081	17,291	15,193	428	1,670	17,340	13,354	575	3,411
Koas Krala	18,314	14,578	266	3,470	9,017	7,697	87	1,233	9,297	6,881	179	2,237
Rukhak Kiri	25,100	20,527	377	4,196	12,250	10,343	177	1,730	12,850	10,184	200	2,466
Kampong Cham	552,800	450,141	3,460	99,199	260,995	221,934	1,544	37,517	291,805	228,207	1,916	61,682
Batheay	70,601	59,552	238	10,811	33,300	28,820	111	4,369	37,301	30,732	127	6,442
Chamkar Leu	62,551	51,232	383	10,936	30,017	26,080	168	3,769	32,534	25,152	215	7,167
Cheung Prey	59,805	49,031	837	9,937	27,705	23,109	393	4,203	32,100	25,922	444	5,734
Krong Kampong Cham	29,453	20,446	249	8,758	14,345	10,720	92	3,533	15,108	9,726	157	5,225
Kampong Siem	57,331	45,005	403	11,923	27,118	22,609	202	4,307	30,213	22,396	201	7,616
Kang Meas	51,299	41,956	162	9,181	24,098	20,660	78	3,360	27,201	21,296	84	5,821
Kaoh Soutin	26,347	19,800	288	6,259	11,892	9,587	129	2,176	14,455	10,213	159	4,083
Prey Chhor	82,959	70,749	231	11,979	38,657	33,784	100	4,773	44,302	36,965	131	7,206
Srei Santhor	49,019	38,388	535	10,096	22,785	19,206	214	3,365	26,234	19,182	321	6,731
Stueng Trang	63,435	53,982	134	9,319	31,078	27,359	57	3,662	32,357	26,623	77	5,657
Kampong Chhnang	330,065	276,873	3,607	49,585	156,595	134,339	1,916	20,340	173,470	142,534	1,691	29,245
Baribour	33,839	29,023	72	4,744	16,071	14,120	26	1,925	17,768	14,903	46	2,819
Chol Kiri	18,369	15,967	69	2,333	9,124	7,971	28	1,125	9,245	7,996	41	1,208
Krong Kampong Chhnang	28,714	21,138	1,063	6,513	14,315	10,918	862	2,535	14,399	10,220	201	3,978
Kampong Leaeng	25,868	21,590	150	4,128	12,665	11,019	59	1,587	13,203	10,571	91	2,541
Kampong Tralach	65,459	53,583	582	11,294	30,501	25,747	284	4,470	34,958	27,836	298	6,824
Rolea B'ier	64,564	53,949	768	9,847	30,149	26,121	376	3,652	34,415	27,828	392	6,195
Sameakki Mean Chey	53,834	47,021	669	6,144	25,197	22,046	208	2,943	28,637	24,975	461	3,201
Tuek Phos	39,418	34,602	234	4,582	18,573	16,397	73	2,103	20,845	18,205	161	2,479
Kampong Speu	578,193	501,451	2,692	74,050	277,647	242,096	1,339	34,212	300,546	259,355	1,353	39,838
Basedth	88,238	77,003	466	10,769	41,027	35,724	258	5,045	47,211	41,279	208	5,724

	Total				Male				Female			
	Total	Employed	Unemplo-yed	Not economi-cally active	Total	Employed	Unemplo-yed	Not economi-cally active	Total	Employed	Unemplo-yed	Not economi-cally active
Krong Chbar Mon	35,252	27,309	150	7,793	17,281	13,620	83	3,578	17,971	13,689	67	4,215
Kong Pisei	97,728	84,741	407	12,580	46,762	40,762	218	5,782	50,966	43,979	189	6,798
Aoral	24,897	22,153	46	2,698	12,316	10,926	13	1,377	12,581	11,227	33	1,321
Odongk	96,787	84,903	400	11,484	46,006	40,605	194	5,207	50,781	44,298	206	6,277
Phnum Sruoch	71,774	61,475	261	10,038	36,287	31,689	109	4,489	35,487	29,786	152	5,549
Samraong Tong	122,416	106,745	872	14,799	58,361	51,063	424	6,874	64,055	55,682	448	7,925
Thpong	41,101	37,122	90	3,889	19,607	17,707	40	1,860	21,494	19,415	50	2,029
Kampong Thom	418,312	343,400	2,727	72,185	201,441	174,059	1,255	26,127	216,871	169,341	1,472	46,058
Baray	103,666	83,482	759	19,425	49,323	42,194	335	6,794	54,343	41,288	424	12,631
Kampong Svay	56,026	45,584	493	9,949	27,141	23,241	205	3,695	28,885	22,343	288	6,254
Krong Stueng Saen	35,193	26,246	145	8,802	17,198	13,900	57	3,241	17,995	12,346	88	5,561
Prasat Ballangk	29,400	25,444	81	3,875	14,136	12,473	46	1,617	15,264	12,971	35	2,258
Prasat Sambour	26,642	21,719	57	4,866	12,634	10,761	35	1,838	14,008	10,958	22	3,028
Sandan	39,116	34,562	38	4,516	19,380	17,535	24	1,821	19,736	17,027	14	2,695
Santuk	63,848	53,382	510	9,956	31,378	27,652	248	3,478	32,470	25,730	262	6,478
Stoung	64,421	52,981	644	10,796	30,251	26,303	305	3,643	34,170	26,678	339	7,153
Kampot	382,882	315,583	4,111	63,188	184,263	156,398	1,848	26,017	198,619	159,185	2,263	37,171
Angkor Chey	46,754	39,751	212	6,791	22,051	18,813	90	3,148	24,703	20,938	122	3,643
Banteay Meas	49,393	41,459	521	7,413	23,291	19,794	212	3,285	26,102	21,665	309	4,128
Chhuk	64,873	56,745	139	7,989	31,217	27,360	66	3,791	33,656	29,385	73	4,198
Chum Kiri	31,619	27,297	112	4,210	15,091	13,246	50	1,795	16,528	14,051	62	2,415
Dang Tong	36,779	30,971	227	5,581	17,495	14,843	113	2,539	19,284	16,128	114	3,042
Kampong Trach	56,557	46,352	1,210	8,995	27,403	22,846	543	4,014	29,154	23,506	667	4,981
Tuek Chhou	73,451	57,487	1,089	14,875	36,449	30,776	477	5,196	37,002	26,711	612	9,679
Krong Kampot	23,456	15,521	601	7,334	11,266	8,720	297	2,249	12,190	6,801	304	5,085
Kandal	789,621	642,503	4,648	142,470	380,174	327,947	2,172	50,055	409,447	314,556	2,476	92,415

	Total				Male				Female			
	Total	Employed	Unemplo-yed	Not economi-cally active	Total	Employed	Unemplo-yed	Not economi-cally active	Total	Employed	Unemplo-yed	Not economi-cally active
Kandal Stueng	66,878	57,138	426	9,314	31,992	27,946	160	3,886	34,886	29,192	266	5,428
Kien Svay	77,589	61,265	405	15,919	37,586	32,205	177	5,204	40,003	29,060	228	10,715
Khsach Kandal	92,021	75,662	412	15,947	44,334	38,508	192	5,634	47,687	37,154	220	10,313
Kaoh Thum	82,479	68,439	461	13,579	39,693	35,004	219	4,470	42,786	33,435	242	9,109
Leuk Daek	34,766	27,980	100	6,686	16,853	14,658	48	2,147	17,913	13,322	52	4,539
Lvea Aem	44,962	36,712	115	8,135	21,731	18,959	59	2,713	23,231	17,753	56	5,422
Mukh Kampul	47,716	36,267	223	11,226	23,281	19,558	109	3,614	24,435	16,709	114	7,612
Angk Snuol	81,499	69,463	942	11,094	37,794	32,991	499	4,304	43,705	36,472	443	6,790
Ponhea Lueu	68,394	55,106	531	12,757	32,588	28,122	231	4,235	35,806	26,984	300	8,522
S'ang	137,271	114,941	683	21,647	66,286	58,549	321	7,416	70,985	56,392	362	14,231
Krong Ta Khmau	56,046	39,530	350	16,166	28,036	21,447	157	6,432	28,010	18,083	193	9,734
Koh Kong	83,698	63,317	479	19,902	42,529	36,156	246	6,127	41,169	27,161	233	13,775
Botum Sakor	12,239	9,096	24	3,119	6,257	5,462	13	782	5,982	3,634	11	2,337
Kiri Sakor	4,929	3,125	125	1,679	2,780	2,224	72	484	2,149	901	53	1,195
Kaoh Kong	4,873	3,277	36	1,560	2,615	2,179	9	427	2,258	1,098	27	1,133
Krong Khemarak Phoumin	21,659	16,451	92	5,116	10,691	9,116	50	1,525	10,968	7,335	42	3,591
Mondol Seima	10,776	8,473	105	2,198	5,351	4,610	45	696	5,425	3,863	60	1,502
Srae Ambel	24,879	19,458	92	5,329	12,551	10,629	54	1,868	12,328	8,829	38	3,461
Thma Bang	4,343	3,437	5	901	2,284	1,936	3	345	2,059	1,501	2	556
Kratie	228,470	193,583	1,120	33,767	113,643	101,125	452	12,066	114,827	92,458	668	21,701
Chhloung	32,469	26,230	142	6,097	15,794	13,911	53	1,830	16,675	12,319	89	4,267
Krong Kracheh	19,009	13,728	300	4,981	9,299	7,733	115	1,451	9,710	5,995	185	3,530
Preaek Prasab	38,979	33,663	191	5,125	19,367	17,275	74	2,018	19,612	16,388	117	3,107
Sambour	41,748	36,794	68	4,886	21,052	19,135	35	1,882	20,696	17,659	33	3,004
Snuol	58,341	51,746	225	6,370	29,281	26,684	93	2,504	29,060	25,062	132	3,866
Chitr Borie	37,924	31,422	194	6,308	18,850	16,387	82	2,381	19,074	15,035	112	3,927

	Total				Male				Female			
	Total	Employed	Unemployed	Not economically active	Total	Employed	Unemployed	Not economically active	Total	Employed	Unemployed	Not economically active
Mondul Kiri	57,754	48,973	371	8,410	29,692	26,491	209	2,992	28,062	22,482	162	5,418
Kaev Seima	18,211	15,535	66	2,610	9,347	8,398	48	901	8,864	7,137	18	1,709
Kaoh Nheaek	13,568	11,665	136	1,767	6,962	6,205	79	678	6,606	5,460	57	1,089
Ou Reang	4,038	3,359	41	638	2,025	1,776	21	228	2,013	1,583	20	410
Pech Chreada	12,413	11,048	11	1,354	6,418	5,890	7	521	5,995	5,158	4	833
Krong Saen Monourom	9,524	7,366	117	2,041	4,940	4,222	54	664	4,584	3,144	63	1,377
Phnom Penh	1,655,749	1,214,464	15,561	425,724	797,560	645,545	6,966	145,049	858,189	568,919	8,595	280,675
Chamkar Mon	110,620	79,762	672	30,186	54,840	43,656	317	10,867	55,780	36,106	355	19,319
Doun Penh	121,980	87,297	922	33,761	57,646	44,818	357	12,471	64,334	42,479	565	21,290
Prampir Meakkakra	54,156	38,259	646	15,251	25,992	20,220	194	5,578	28,164	18,039	452	9,673
Tuol Kouk	115,190	80,206	1,346	33,638	56,901	43,896	470	12,535	58,289	36,310	876	21,103
Dangkao	120,498	87,324	2,389	30,785	58,945	47,441	1,396	10,108	61,553	39,883	993	20,677
Mean Chey	191,042	141,806	901	48,335	90,388	73,755	356	16,277	100,654	68,051	545	32,058
Ruessei Kaev	205,840	148,620	1,997	55,223	98,330	79,841	796	17,693	107,510	68,779	1,201	37,530
Sen Sok	139,743	92,862	955	45,926	69,989	51,972	586	17,431	69,754	40,890	369	28,495
Pou Senchey	240,498	196,308	1,650	42,540	109,667	94,466	693	14,508	130,831	101,842	957	28,032
Chrouy Changvar	112,597	82,672	1,372	28,553	55,177	45,518	658	9,001	57,420	37,154	714	19,552
Prek Pnov	127,855	98,202	1,344	28,309	63,025	53,792	616	8,617	64,830	44,410	728	19,692
Chbar Ampov	115,730	81,146	1,367	33,217	56,660	46,170	527	9,963	59,070	34,976	840	23,254
Preah Vihear	160,282	135,227	1,309	23,746	80,753	69,926	642	10,185	79,529	65,301	667	13,561
Chey Saen	16,499	14,126	107	2,266	8,203	7,155	43	1,005	8,296	6,971	64	1,261
Chhaeb	15,600	13,376	66	2,158	7,855	6,824	29	1,002	7,745	6,552	37	1,156
Choam Khsant	35,340	29,538	242	5,560	17,989	15,897	112	1,980	17,351	13,641	130	3,580
Kuleaen	21,654	18,938	256	2,460	10,758	9,676	132	950	10,896	9,262	124	1,510
Rovieng	29,475	25,703	192	3,580	14,494	12,886	109	1,499	14,981	12,817	83	2,081
Sangkum Thmei	15,010	13,224	176	1,610	7,404	6,534	86	784	7,606	6,690	90	826

	Total				Male				Female			
	Total	Employed	Unemplo-yed	Not economi-cally active	Total	Employed	Unemplo-yed	Not economi-cally active	Total	Employed	Unemplo-yed	Not economi-cally active
Tbaeng Mean Chey	8,403	7,224	129	1,050	4,298	3,812	63	423	4,105	3,412	66	627
Krong Preah Vihear	18,301	13,098	141	5,062	9,752	7,142	68	2,542	8,549	5,956	73	2,520
Prey Veng	634,410	537,436	1,354	95,620	292,067	251,981	568	39,518	342,343	285,455	786	56,102
Ba Phnum	46,640	39,697	145	6,798	21,095	18,075	69	2,951	25,545	21,622	76	3,847
Kamchay Mear	52,459	45,827	185	6,447	23,943	20,816	65	3,062	28,516	25,011	120	3,385
Kampong Trabaek	68,608	58,936	42	9,630	31,511	27,049	22	4,440	37,097	31,887	20	5,190
Kanhchriech	37,164	31,650	87	5,427	16,915	14,587	44	2,284	20,249	17,063	43	3,143
Me Sang	56,281	48,798	68	7,415	24,701	21,077	30	3,594	31,580	27,721	38	3,821
Peam Chor	37,989	32,705	50	5,234	18,454	16,013	19	2,422	19,535	16,692	31	2,812
Peam Ro	39,477	30,236	130	9,111	19,018	16,143	65	2,810	20,459	14,093	65	6,301
Pea Reang	71,436	61,018	201	10,217	32,512	28,583	63	3,866	38,924	32,435	138	6,351
Preah Sdach	71,755	59,727	143	11,885	33,284	28,518	57	4,709	38,471	31,209	86	7,176
Krong Prey Veng	21,855	16,360	39	5,456	10,450	8,632	16	1,802	11,405	7,728	23	3,654
Kampong Leav	27,532	22,986	33	4,513	13,278	11,197	14	2,067	14,254	11,789	19	2,446
Sithor Kandal	37,134	32,370	101	4,663	16,352	14,366	42	1,944	20,782	18,004	59	2,719
Svay Antor	66,080	57,126	130	8,824	30,554	26,925	62	3,567	35,526	30,201	68	5,257
Pursat	256,284	211,235	2,727	42,322	123,447	104,787	1,147	17,513	132,837	106,448	1,580	24,809
Bakan	73,102	60,790	1,003	11,309	34,819	29,500	399	4,920	38,283	31,290	604	6,389
Kandieng	32,336	27,083	253	5,000	15,182	13,093	79	2,010	17,154	13,990	174	2,990
Krakor	55,053	46,886	409	7,758	26,131	22,869	198	3,064	28,922	24,017	211	4,694
Phnum Kravanh	40,270	33,287	299	6,684	20,038	16,824	151	3,063	20,232	16,463	148	3,621
Krong Pursat	37,495	28,104	514	8,877	17,853	14,233	202	3,418	19,642	13,871	312	5,459
Veal Veaeng	18,028	15,085	249	2,694	9,424	8,268	118	1,038	8,604	6,817	131	1,656
Ratanak Kiri	134,696	114,761	483	19,452	68,042	59,073	275	8,694	66,654	55,688	208	10,758
Andoung Meas	10,466	9,385	31	1,050	5,302	4,786	25	491	5,164	4,599	6	559
Krong Ban Lung	21,932	16,688	120	5,124	11,311	9,439	62	1,810	10,621	7,249	58	3,314

	Total				Male				Female			
	Total	Employed	Unemplo-yed	Not economi-cally active	Total	Employed	Unemplo-yed	Not economi-cally active	Total	Employed	Unemplo-yed	Not economi-cally active
Bar Kaev	17,635	15,061	49	2,525	8,843	7,705	34	1,104	8,792	7,356	15	1,421
Koun Mom	19,037	16,751	20	2,266	9,686	8,593	6	1,087	9,351	8,158	14	1,179
Lumphat	17,007	14,808	127	2,072	8,595	7,507	75	1,013	8,412	7,301	52	1,059
Ou Chum	15,589	13,528	25	2,036	7,775	6,714	10	1,051	7,814	6,814	15	985
Ou Ya Dav	14,873	12,916	32	1,925	7,401	6,490	13	898	7,472	6,426	19	1,027
Ta Veaeng	4,550	4,020	16	514	2,275	1,996	10	269	2,275	2,024	6	245
Veun Sai	13,607	11,604	63	1,940	6,854	5,843	40	971	6,753	5,761	23	969
Siem Reap	640,821	504,042	7,621	129,158	312,047	262,822	3,170	46,055	328,774	241,220	4,451	83,103
Angkor Chum	34,460	29,810	229	4,421	15,817	13,998	89	1,730	18,643	15,812	140	2,691
Angkor Thum	18,162	15,306	103	2,753	8,843	7,732	37	1,074	9,319	7,574	66	1,679
Banteay Srei	28,032	22,517	871	4,644	13,831	11,712	388	1,731	14,201	10,805	483	2,913
Chi Kraeng	76,953	62,919	842	13,192	36,882	32,191	348	4,343	40,071	30,728	494	8,849
Kralanh	31,377	26,017	496	4,864	14,467	12,416	174	1,877	16,910	13,601	322	2,987
Puok	81,068	66,877	643	13,548	39,191	33,828	288	5,075	41,877	33,049	355	8,473
Prasat Bakong	50,799	38,414	761	11,624	25,082	21,165	353	3,564	25,717	17,249	408	8,060
Krong Siem Reab	173,624	116,610	2,368	54,646	86,210	66,262	933	19,015	87,414	50,348	1,435	35,631
Soutr Nikom	69,082	57,558	754	10,770	33,618	29,493	290	3,835	35,464	28,065	464	6,935
Srei Snam	21,942	19,432	71	2,439	10,402	9,253	40	1,109	11,540	10,179	31	1,330
Svay Leu	26,338	23,016	361	2,961	13,293	11,788	167	1,338	13,045	11,228	194	1,623
Varin	28,984	25,566	122	3,296	14,411	12,984	63	1,364	14,573	12,582	59	1,932
Preah Sihanouk	229,665	169,733	12,608	47,324	121,243	98,124	5,815	17,304	108,422	71,609	6,793	30,020
Krong Preah Sihanouk	127,427	90,554	10,521	26,352	69,022	53,680	4,861	10,481	58,405	36,874	5,660	15,871
Prey Nob	73,235	58,023	1,369	13,843	36,997	31,558	668	4,771	36,238	26,465	701	9,072
Stueng Hav	18,724	13,377	538	4,809	9,911	8,412	215	1,284	8,813	4,965	323	3,525
Kampong Seila	10,279	7,779	180	2,320	5,313	4,474	71	768	4,966	3,305	109	1,552
Stung Treng	103,715	88,238	838	14,639	53,237	47,139	488	5,610	50,478	41,099	350	9,029

	Total				Male				Female			
	Total	Employed	Unemplo-yed	Not economi-cally active	Total	Employed	Unemplo-yed	Not economi-cally active	Total	Employed	Unemplo-yed	Not economi-cally active
Sesan	16,324	14,697	44	1,583	8,431	7,785	18	628	7,893	6,912	26	955
Siem Bouk	14,628	12,675	75	1,878	7,272	6,386	24	862	7,356	6,289	51	1,016
Siem Pang	15,627	13,758	60	1,809	8,359	7,486	37	836	7,268	6,272	23	973
Krong Stueng Traeng	27,080	20,123	568	6,389	13,885	11,599	364	1,922	13,195	8,524	204	4,467
Thala Barivat	30,056	26,985	91	2,980	15,290	13,883	45	1,362	14,766	13,102	46	1,618
Svay Rieng	335,439	286,323	2,901	46,215	157,743	136,439	1,260	20,044	177,696	149,884	1,641	26,171
Chantrea	21,145	18,501	267	2,377	10,515	9,334	137	1,044	10,630	9,167	130	1,333
Kampong Rou	44,673	39,496	163	5,014	21,557	19,082	69	2,406	23,116	20,414	94	2,608
Rumduol	30,593	25,950	193	4,450	14,130	12,189	97	1,844	16,463	13,761	96	2,606
Romeas Haek	65,718	57,282	261	8,175	29,817	25,806	107	3,904	35,901	31,476	154	4,271
Svay Chrum	73,671	62,257	707	10,707	33,602	28,651	285	4,666	40,069	33,606	422	6,041
Krong Svay Rieng	28,367	22,230	590	5,547	13,453	11,090	216	2,147	14,914	11,140	374	3,400
Svay Teab	39,801	33,926	390	5,485	18,979	16,501	195	2,283	20,822	17,425	195	3,202
Krong Bavet	31,471	26,681	330	4,460	15,690	13,786	154	1,750	15,781	12,895	176	2,710
Takeo	581,621	481,833	3,095	96,693	275,892	232,253	1,447	42,192	305,729	249,580	1,648	54,501
Angkor Borei	25,853	18,540	319	6,994	12,564	9,797	130	2,637	13,289	8,743	189	4,357
Bati	106,440	90,135	551	15,754	50,241	43,253	283	6,705	56,199	46,882	268	9,049
Borei Cholsar	15,022	11,896	254	2,872	7,511	6,251	109	1,151	7,511	5,645	145	1,721
Kiri Vong	54,884	44,796	88	10,000	26,425	22,351	42	4,032	28,459	22,445	46	5,968
Kaoh Andaet	26,612	21,266	237	5,109	12,916	10,727	124	2,065	13,696	10,539	113	3,044
Prey Kabbas	63,307	51,064	233	12,010	30,029	24,427	116	5,486	33,278	26,637	117	6,524
Samraong	84,152	70,854	643	12,655	39,259	33,083	305	5,871	44,893	37,771	338	6,784
Krong Doun Kaev	30,538	24,476	202	5,860	14,694	12,313	70	2,311	15,844	12,163	132	3,549
Tram Kak	110,004	94,590	323	15,091	51,259	43,901	170	7,188	58,745	50,689	153	7,903
Treang	64,809	54,216	245	10,348	30,994	26,150	98	4,746	33,815	28,066	147	5,602
Otdar Meanchey	173,937	152,566	486	20,885	87,552	78,911	199	8,442	86,385	73,655	287	12,443

	Total				Male				Female			
	Total	Employed	Unemplo-yed	Not economi-cally active	Total	Employed	Unemplo-yed	Not economi-cally active	Total	Employed	Unemplo-yed	Not economi-cally active
Anlong Veaeng	36,701	32,129	48	4,524	18,706	16,847	17	1,842	17,995	15,282	31	2,682
Banteay Ampil	35,184	31,297	59	3,828	17,930	16,232	29	1,669	17,254	15,065	30	2,159
Chong Kal	17,727	15,787	35	1,905	8,608	7,711	19	878	9,119	8,076	16	1,027
Krong Samraong	46,165	39,378	239	6,548	23,172	20,756	91	2,325	22,993	18,622	148	4,223
Trapeang Prasat	38,160	33,975	105	4,080	19,136	17,365	43	1,728	19,024	16,610	62	2,352
Kep	27,762	21,637	377	5,748	13,715	11,509	148	2,058	14,047	10,128	229	3,690
Damnak Chang'aeur	12,496	10,067	257	2,172	6,144	5,219	88	837	6,352	4,848	169	1,335
Krong Kaeb	15,266	11,570	120	3,576	7,571	6,290	60	1,221	7,695	5,280	60	2,355
Pailin	48,724	38,133	798	9,793	24,584	21,116	474	2,994	24,140	17,017	324	6,799
Krong Pailin	24,930	18,564	306	6,060	12,677	10,754	147	1,776	12,253	7,810	159	4,284
Sala Krau	23,794	19,569	492	3,733	11,907	10,362	327	1,218	11,887	9,207	165	2,515
Tboung Khmum	479,320	391,345	5,025	82,950	232,125	198,664	3,460	30,001	247,195	192,681	1,565	52,949
Dambae	22,819	17,751	119	4,949	11,008	9,350	52	1,606	11,811	8,401	67	3,343
Krouch Chhmar	107,957	85,605	709	21,643	51,474	43,941	294	7,239	56,483	41,664	415	14,404
Memot	46,532	39,183	200	7,149	21,642	18,998	72	2,572	24,890	20,185	128	4,577
Ou Reang Ov	50,596	37,877	647	12,072	24,096	19,261	304	4,531	26,500	18,616	343	7,541
Ponhea Kraek	54,241	46,385	153	7,703	26,206	23,001	82	3,123	28,035	23,384	71	4,580
Krong Suong	98,240	79,361	3,023	15,856	48,968	40,578	2,570	5,820	49,272	38,783	453	10,036
Tboung Khmum	98,935	85,183	174	13,578	48,731	43,535	86	5,110	50,204	41,648	88	8,468
Diplomats abroad	425	358	3	64	219	192	0	27	206	166	3	37

Annex 4. References

[Ah20] Iftikhar Ahmad: Cambodia Decent Work Check 2020, WageIndicator Foundation, Amsterdam 2020

[Br21] Brown Economic Consultancy Inc.: Working-life/Life Expectancy Calculator, website at www.brownecon.com.

[CE20] Latin American and Caribbean Demographic Centre, website at cepal.org/en/topics/redatam

[DAC14] Disability Action Council: National Disability Strategic Plan 2014 – 2028, Cambodia Ministry of Social Affairs, Phnom Penh, 2014

[EU11] Increasing the impact of EU Development Policy: an Agenda for Change, Brussels 2011

[Hu19] David Hutt: What does Cambodia's new Census Reveal", The Diplomat, Diplomat Media Inc., Washington, August 2019

[ILO73] International Labour Organization: Minimum Age Convention, Convention Nr.138, Geneva, 1973

[ILO99] International Labour Organization: Decent Work, International Labour Conference 88th Session, Geneva 1999

[ILO03a] International Labour Organization: International Training Compendium on Labour Statistics, Statistics of Employment, Unemployment, Under-employment: Economically Active Population, Geneva 2003

[ILO03b] International Labour Organization: 17th International Conference of Labour Statisticians, Geneva 2003

[ILO04a] International Labour Organization: Child Labour: a textbook for university students, INT/00/000/AAA, Geneva 2004

[ILO04b] International Labour Organization: Statistical Definition of Informal Employment: Guidelines Endorsed by the Seventeenth Conference of Labour Statisticians, Geneva 2004

[ILO09] International Labour Organization: Recovering from the crisis: A Global Jobs Pact, Geneva 2009

[ILO13a] International Labour Organization: Underemployment, Concepts and definitions (slide presentation on the website), Geneva 2103

[ILO13b] International Labour Organization: Guide to the Millennium Development Goals, Employment Indicators, 2nd Edition, Geneva 2013

[ILO17] International Labour Organization: Quick Guide on Sources and Uses of Labor Statistics, Geneva 2017

[ILO18] International Labour Office; International Finance Corporation: Better Factories Cambodia: an industry and compliance review, Geneva 2018

[ILO19a] International Labour Organization: World Employment and Social Outlook - Trends 2019, Geneva 2019

[ILO19b]International Labour Organization, Regional Office for Asia and the Pacific: TRIANGLE in ASEAN Programme, Quarterly Briefing Note, Bangkok, September 2019

[ILO20a] International Labour Organization: World Employment and Social Outlook -

Trends 2020, Geneva 2020

[ILO20b] International Labour Organization: Global Employment Trends for Youth, Geneva 2020

[ILO20c] International Labour Organization: website at ilostat.ilo.org/resources/concepts-and-definitions

[MOL18] Ministry of Labour and Vocational Training: Report of the Annual General Meeting 2018, Phnom Penh 2018

[NIS10] National Institute for Statistics: Labour Force Survey 2007, Phnom Penh 2010

[NIS12] National Institute for Statistics: Economic Census of Cambodia 2011, Phnom Penh 2012

[NIS13a] National Institute for Statistics: Analytical Reports of the 2013 Cambodia Inter-censal Population Survey, Phnom Penh 2013 (10 separate reports)

[NIS13b] National Institute for Statistics and ILO: Cambodia Labour Force and Child Labour Survey: Child Labour Report, Phnom Penh 2013

[NIS18a] National Institute for Statistics: General Population Census of Cambodia 2019, Enumerator's Manual, Phnom Penh 2018

[NIS18b] National Institute for Statistics: Cambodia Socio-Economic Survey 2017, Final Report, Phnom Penh 2018

[NIS19a] National Institute for Statistics: General Population Census of Cambodia 2019, Provisional Population Totals, Phnom Penh, June 2019

[NIS19b] National Institute for Statistics: General Population Census of Cambodia 2019, Report on the Post-Enumeration Survey, Phnom Penh, September 2019

[NIS20] National Institute for Statistics: General Population Census of the Kingdom of Cambodia 2019: National Report on Final Census Results, Phnom Penh 2020

[OECD16] Organization for Economic Cooperation and Development: An SDG-based results framework for development cooperation, Paris 2016

[OECD19] Organization for Economic Cooperation and Development: Government at a Glance 2019, Paris 2019

[Ox20] University of Oxford: Our World in Data, SDG Tracker (database at sdg-tracker.org) 2020

[Pr20] Precisely Inc. (formerly Pitney Bowes), website at precisely.com/product/precisely-mapinfo/mapinfo-pro

[Sch18] Alex Schafran et al: Replacing the services sector and three-sector theory: urbanization and control as economic sectors, Regional Studies, 52:12, 1708-1719, 2018

[UN15a] United Nations General Assembly: The 2030 Agenda for Sustainable Development, A/RES/70/1, New York 2015

[UN18] United Nations Statistical Commission: Guidelines on Data Flows and Global Data Reporting for Sustainable Development Goals, New York 2018

[UN20] United Nations: The Sustainable Development Goals Report 2020, New York 2020

[UN21] United Nations: Website genderstat.un.org

[UNDESA05] United Nations Department of Economic and Social Affairs: Household

Sample Surveys in Developing and Transition Countries, ST/ESA/STAT/SER.F/96, New York 2005

[UNDESA08] United Nations Department of Economic and Social Affairs: International Standard Division of All Economic Activities (ISIC), Rev.4,ST/ESA/STAT/SER.M/4/Rev.4, New York 2008

[UNDESA10] United Nations Department of Economic and Social Affairs & International Labour Organization: Measuring the Economically Active in Population censuses - A Handbook, ST/ESA/STAT/SER.F/102

[UNDESA15] United Nations Department of Economic and Social Affairs: Principles and Recommendations for Population and Housing Censuses, ST/ESA/STAT/SER.M/67/Rev.3, New York 2015

[UNDESA20] United Nations Department of Economic and Social Affairs, website at sdgs.un.org/goals/goal8

[UNECE14] Measuring Population and Housing, Practices of UNECE Countries in the 2010 Round of Censuses, Geneva 2014

[UNESCAP17] United Nations Economic and Social Commission for Asia and the Pacific: High-level Intergovernmental Meeting on the Midpoint Review of the Asian and Pacific Decade of Persons with Disabilities, 2013-2022, Beijing 2017

[UNFPA21] UNFPA: Adolescent and Youth Demographics: A Brief Overview, retrieved from the website at unfpa.org, undated

[UNSD20] United Nations Statistics Division: United Nations Global SDG Database, at unstats.un.org/sdgs/indicators/database (database updated regularly)

[UNWomen20] UN Women: Progress of the World's Women 2019-2020: Families in a changing world, New York 2020

[US17] United States Census Bureau: Demographic Analysis and Population Projection System, Getting Started Guide, Washington 2017

[US19] United States Department of Labor, Bureau of International Labor Affairs: Child Labor and Forced Labor Reports: Cambodia, Washington 2019

[US20] United States Census Bureau: CSPro User's Guide Version 7.5.0, Washington 2020

[WFP17] World Food Programme: VAM Guidance Paper, Creation of a Wealth Index, Rome 2017

[WG20] Washingtongroup-disability.com (website of the Washington Group on Disability Statistics)

[WB20] World Bank: Online Data Bank at databank.worldbank.org (world-wide database of official statistics, economic focus) 2020

[Wo20] World-Statistics.org (world-wide database of official statistics, all areas)

National Institute
of Statistics
Ministry of Planning
CAMBODIA

UNFPA

កិច្ចសហប្រតិបត្តិការ
អាល្លឺម៉ង់
DEUTSCHE ZUSAMMENARBEIT

European Union

ស៊ុយអែត
Sverige

中国援助
CHINA AID