



**Timor-Leste Population and Housing
Census 2015**

**Analytical Report
on
Education**



Timor-Leste Population and Housing Census 2015

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General Directorate of Statistics (GDS)

United Nations Children's Fund (UNICEF), United Nations Population Fund (UNFPA)

Foreword

The 2015 Timor-Leste Population and Housing Census with the theme “**Census from people to people: Be part of it**” was conducted in July 2015 on a *de facto* basis by the General Directorate of Statistics, Minister of Planning and Finance. The 2015 Census is the third after those conducted in 2004 and 2010 (post independent Timor-Leste) and fifth after the 1980 and 1990 Censuses, both taken in Indonesian times. This Census was undertaken within the provision of the Statistics Decree Law No. 17/2003 and the 2015 Population and Housing Census Government Resolution no. 11/2014 of 9 April 2014.

The main objective of the 2015 Census was to collect, analyze and effectively disseminate demographic and socio-economic information required for policy and programme formulation, decision making in planning and administrative processes, and research. The Census preliminary results were published in Volume 1 on 21 October 2015 and were launched by His Excellency the then Prime Minister of RDTL Dr. Rui Maria de Araújo. The 2015 Census priority tables were published in three volumes: 2, 3 and 4, and launched by the Vice Minister of Finance Eng. Helder Lopes on 17 November 2016. The ‘Sensus fo Fila fali’ (returning back the results of the Census) was launched by His Excellency Minister of State Dr. Deoniso Babo Soares on behalf of the Prime Minister of RDTL on 2 March 2017. After that an ambitious “Sensus Fo Fila Fali” project was undertaken by the General Directorate of Statistics, Ministry of Planning and Finance that culminated in a Census report for each of the 442 sucos in the country.

This fourth phase comprises drafting of analytical reports covering Census thematic topics including fertility, nuptiality, mortality, migration, population projections, education, labour force, housing, agriculture, gender, youth and an atlas. The preparation of these reports was a collaborative effort between the Government of Timor-Leste, the United Nations Population Fund (UNFPA), the United Nations Children’s Fund (UNICEF), the International Labour Organisation (ILO) and the Food and Agriculture Organisation (FAO). Drafting of the thematic reports involved local and international experts. The reports were authored under the supervision and guidance of the Census Technical Specialist from UNFPA. The authors were recruited on a competitive basis, ensuring that they had adequate knowledge of the topics they were to analyse.

The Government of Timor-Leste wishes to extend its sincere gratitude to the United Nations Population Fund (UNFPA), the United Nations Children’s Fund (UNICEF), the International Labour Organisation (ILO) and the Food and Agriculture Organisation (FAO) for providing technical, financial and administrative support throughout the Census process. Further gratitude is extended to the authors of the analytical reports, the Director of Systems and Reports, General Directorate of Statistics and his team, the Census Technical Specialist and Census Project technical staff for their commitment and tireless efforts to successfully undertake the thematic analysis exercise.

Last but not least, all Timorese people deserve special praise for their patience and willingness to provide the requisite information which forms the basis of these reports and hence benchmark information for development. We in the Ministry of Planning and Finance and Government as a whole hope that the data contained in these thematic reports will be fully utilized in the national development planning process by all stakeholders for the welfare of the Timorese people.



Rui A. Gomes, Ph.D.
Minister of Planning and Finance

Executive Summary

Education matters. It is the way through which one generation passes on its knowledge, experience and cultural legacy to the next generation. Education has the means to empower individuals and impacts every aspect of life. It is the vehicle to how one develops and understands the world. It creates opportunities for decent work and higher income and is correlated to many other components which can enrich one's quality of life and contribute to happiness, health, mental well-being, civic engagement, home ownership and long-term financial stability. Besides the economic implications, education is a fundamental right of each and every child. It is a matter of fulfilling basic human dignity, believing in the potential of every person and enhancing it with knowledge, learning and skills to construct the cornerstones of healthy human development (Education Matters, 2014)¹.

It is important to consider those most vulnerable and deprived of learning and ensure they receive the access to education they deserve. Simply stated: all children form an integral part of a country's future and therefore all should be educated. To protect the right of every child to an education, it is crucial to focus on the following components²: a) early learning in pre-schools, b) equal access to education for all children, c) guarantee education for children in conflict or disaster-prone areas and emergencies, d) enhance the quality of the schools, e) create partnerships to ensure funding and support and f) Build a strong education system. Such ambitions are underpinned in the 2030 Agenda aiming to transform the world through the Sustainable Development Goals. The fourth SDG goal states: '*Ensure inclusive and quality education for all and promote lifelong learning*'. Successfully implementing Agenda 2030 and reaching the goals requires high quality data. This report uses data from the 2015 Census to assess the situation of education in Timor-Leste. It is an attempt to present a comprehensive picture of the situation of education in the country. Successfully implementing Agenda 2030 and reaching the goals requires high quality data. As such, its overall goal is to produce information which supports evidence-based national planning and programming, which can create strong and well-educated future generations. Besides informing national decision-making, the report allows for international comparison and wants to facilitate the path to implementing and executing the sustainable development goals.

The education system in Timor-Leste consists of four layers: a) Pre-School Education (3 – 5 years), b) Basic Education (6 – 11 years), c) Secondary Education (12 -14 years) and d) Higher Education (Polytechnic/Diploma and University, 18 – 23 years). To be prepared to enter basic education it is important that children attend pre-school education at the right age.

An important group to consider are those children who have never attended school. According to the census, a total of 31,440 children between the age of 6 and 14 years had never been to school. This constitutes 11.3 percent of all children between 6 and 14 years old. The non-attendance of boys in primary education is slightly higher than for girls, 11.7 percent compared to 11.0 percent, respectively. The analysis further showed that many children do not enroll in the primary school system at the appropriate age.

Primary and secondary education together constitute basic education, which according to the National Education Strategic Plan should be universal, compulsory and free. It is compulsory that upon completion of primary school children continue with pre-secondary. In 2015, the net-attendance ratio for pre-secondary school stood at 44.2 percent. The fact that the gross attendance ratio (83.3 percent) is so much

¹ Education Matters (2014). Why Education Matters. Retrieved from <http://emcincy.org/why-education-matters2/>

² https://www.unicef.org/education/bege_61627.html

higher than the net attendance ratio clearly indicates that a large proportion of students are older than the normal age of being in pre-secondary education. This trend is highest in Dili municipality, where the Gross Attendance Ratio (GAR) is higher than 100 percent. This means that actually more students are in pre-secondary school than the population aged 13 – 15 years old.

In 1975, Timor-Leste counted only two Secondary General Schools, one Technical-Vocational School, a Teacher Training College and two training schools (for teachers of sport and agriculture). Since then, great progress has been made both in educational infrastructure and in the number of teachers (Ministry of Education, 2011). In 2015, there were 106 secondary schools: 61 being public and 45 private (EMIS, 2015). The net attendance ratio of secondary school currently stands at 32.8 percent, with a higher percentage for females (35.9 percent) than for males (29.9 percent). Gross attendance ratios are more than twice as high as net attendance ratios, indicating that again a large portion of secondary students fall outside the bracket of appropriate ages.

The majority of students in higher education (25,597 out of 38,395, i.e. 66.7 percent) are residing in Dili municipality. The net attendance ratio for tertiary education equals 16.3 percent. This is considerably higher than in 2010, when the Net Attendance Ratio (NAR) was 6.7 percent, indicating great progress at the higher end of the educational scale. As so many young persons moved to Dili to pursue higher education, both the net and gross attendance ratios are much higher in Dili than in the other municipalities. Almost one third of all young people between the age of 19 and 24 in Dili are pursuing a tertiary education.

The country has four working languages: Portuguese, Tetum, Bahasa Indonesia, and English. A person is considered literate if he/she can, with understanding, read and write a short, simple statement on their everyday life in any of the four languages. Great strides have been made to reducing illiteracy in Timor-Leste. The literacy rate for all persons 10 years of age and over is 67.3 percent, which is significantly higher than in 2010. Women have a lower literacy rate than men (63.9 versus 70.6 percent). Impressive progress has been made for younger, but also older age groups. The increase in adult literacy show the effect of the mass adult literacy campaigns that were organized after the country's independence. Above age 20, in each five-year age group, illiteracy is considerably higher for females than for males. At younger ages the gender parity index (GPI) is almost equal to one, indicating almost equal levels of literacy for males and females. After age 20, the GPI drops below 1, when literacy becomes lower for females than for males. Currently, the youth literacy rate (15 – 24 years) stands at 84.4 percent. There is still a clear difference between urban and rural areas: 94.3 percent of youth in urban areas can read and write compared to 78.5 percent in rural areas. Large regional differences exist in Timor-Leste with regards to youth literacy, which shows that special efforts will be needed to bring high quality education to even the more remote regions of the country. Timor-Leste is a multi-lingual society and that literacy by language is improving quite rapidly. In 2010, 53.4 percent of persons 5 years of age and older could read and write in Tetun. In 5 years' time, this increased to 62.5 percent.

Twenty-six percent of people aged 6 years and above never went to school. This accounts to 251,849 persons in the country. This percentage is considerably smaller than the one observed in the 2010 census, when 33 percent of the population never went to school. Both in absolute and relative terms, the number of females who never attended school is considerably higher than the number of males. Furthermore, it is significantly higher in rural than in urban areas. Over the last 11 years, substantial progress has been made in reducing the proportion of the population which has never attended school however. In 2004, 49 percent of the population had never attended school, reducing to 33 percent in 2010 and 26 percent in 2015.

About a quarter of all persons 15 years of age and older (25.9 percent) had some primary education, but did not finish such education. This is much higher than in 2010, when 13 percent had pre-primary or some primary education. Completed primary school was the highest level of education attained for 11.7 percent of the population, while slightly more (12.6 percent) finished pre-secondary. Large regional differences exist between the percentages of persons aged 15 years and older in terms of their completion of pre-secondary, secondary or higher education. The first feature that catches the eye is the fact that for both males and females, the percentage of those who finished pre-secondary education or above is more than two times higher in urban areas than in rural areas. In the census, 44,928 persons 17 years of age and older were enumerated who had at least some tertiary education: 6,840 of them had completed at least some Polytechnic/Diploma studies. The number of persons 17 years and older with a tertiary education accounts for 3.8 percent of the total population. The number of persons with tertiary education in 2010 was 25,299 persons, with a total of 6,181 people who had completed some Polytechnic/Diploma studies. The gender parity index for higher educational attainment still shows some inequality favoring men. The gender parity index stands at .88 for the whole country.

International efforts to bring quality education to ‘every citizen in every society’ is governed by the ‘Education for All’ (EFA) initiative. The initiative adopted a human rights-based approach to education which assures that every child has ‘*quality education that respects and promotes her or his right to dignity and optimum development*’ (UNICEF & UNESCO, 2007). Within the Sustainable Development Goals, education is a goal (SDG-4) in its own right, but also a means to reach all the other SDGs and is therefore an essential component to reach a sustainable and equitable society by 2030. To reach the SDGs it is important to reach vulnerable children and youth. As stated in the National Education Strategic Plan, Timor-Leste is fully committed to achieving the Education for All goals and aims to ‘*Expand and improve comprehensive early childhood care and education, especially for the most vulnerable and disadvantaged children*’ (Ministry of Education, 2011).

The analysis showed that vulnerable groups still have a serious disadvantage in terms of education:

- Persons with disabilities: while 64.0 percent of persons without disabilities 5 years of age and older are literate, only 15.3 percent of persons with disabilities can read and write in any of the four working languages in the country (Portuguese, Tetum, Bahasa Indonesia and English). Disabled females have much lower literacy rates than male persons with disabilities, 10.5 percent against 20.5 percent. Children and young persons with a disability face a serious disadvantage in school attendance compared to their non-disabled counterparts.
- Young female farmers: Young female farmers occupy a vulnerable position, as they often belong to poorer sections of society and tend to have less access to social services. They also have a clear disadvantage in terms of educational outcome. They are less likely to be in school. Only 6.4 percent of young female farmers were still in school compared to 70.1 percent of females who were non-farmers. Their illiteracy levels are significantly higher, with 36.7 percent of young female farmers being illiterate against 10.5 percent of females who are non-farmers.
- Young parents: education and adolescent pregnancy/fertility are inter-related in different ways. Education plays a key role in influencing behavior and life decisions of adolescents and has a direct impact on their health and well-being. On the other hand, early pregnancy often influences the girl’s chances of successfully finishing school. It was found that at age 19, 64.6 percent of young mothers reported that they had stopped school compared to 21.8 percent of non-mothers, being a clear indicator that early childbirth intervenes with an extended time in school.

- Young workers: approximately 13,904 children aged 5 to 17 years old were employed, among which 398 were below the age of 10. While more than 88 percent of male and female children are still in school between the ages 10 and 17, only 31.6 percent of boys and 33.2 percent of girls who are working are still doing so. The percentage of illiteracy for the total group of children between the age of 10 – 17 years is 26.2 percent for those who were not working, against 49.9 percent for those who were working.
- Young migrants: they are often considered a vulnerable group. In the case of Timor-Leste many young people move to Dili to pursue an education. Therefore, they are in a more favorable position than young people residing in Dili who did not move in the past year.

Those who are not in education, employment or training (NEET) has recently become a popular addition to international statistics as it displays a broad array of vulnerabilities of young people on the labour market. According to the 2015 census, the percentage of youth who were NEET was 20.3 percent, 16.8 for males and 23.7 percent for females. The NEET for persons aged 20 – 24 stood at 27.7 percent: 21.3 percent for males and 33.9 percent for females. The problem of youth unemployment is closely connected to the NEET. According to the analytical census report on the labour force, youth unemployment stood at 12.3 percent. One would expect that young people who are illiterate would have more difficulties with entering the labour market, but the results from the census show an opposite trend. Reported youth unemployment was found to be much higher for young persons who were literate than for those who were illiterate. Unemployment has been called an ‘extreme situation of total lack of work’ (Ralf Hussmanns, ILO Bureau of Statistics, 1992). The poorest segments of society in developing countries simply cannot afford to be fully unemployed for an extensive period of time and will engage in whatever work becomes available. Obviously, the pressure to accept any type of work will be much stronger among the poorest segments of society, to which illiterate youth normally belong. As such, it is well possible that a selection process is operating in which people with no education will do anything and accept any form of work to avoid having any income at all. Moreover, illiterate youth belong more to the group of subsistence farmers, who – despite of the very low yields of their work – are working.

A total of 16,618 persons indicated in the census their main occupation was teacher. The teaching occupation is still dominated by men: 10,030 men against 6,588 women. For all types of teaching jobs, the number of males is larger than the number of females, except for the small group of early childhood educators. However, the younger age groups (20 – 29 years) of teachers are dominated by women, while at older ages more men are present.

In the report, education projections were made for the period 2015 - 2030. Two different projections were made based on two separate scenarios. In the first projection, it was assumed that during the period 2015 – 2030 no changes in net school attendance would take place. In the second scenario, it was assumed that the quantitative goals of the National Education Strategic Plan will be realized during the indicated period of 2015 – 2030. The no change model showed that demographic changes in the population would have a rather small effect on the composition of the school-going population. However, large changes in the size and structure of the school population may be expected if the goals set in the National Education Strategic Plan 2011 – 2030 would be realized.

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Acronyms

DHS	Demographic and Health Survey
EFA	Education for All
EMIS	Education Management Information System
GAR	Gross Attendance Ratio
GDS	General Directorate of Statistics
GER	Gross Enrollment Rate
GIS	Geographical Information System
GPI	Gender Parity Index
IAEG-SDGs	Inter-Agency and Expert Group on SDG Indicators
ILO	International Labour Organization
ISCO	International Standard Classification of Occupations
Lao PDR	Laos People's Democratic Republic
NAR	Net Attendance Ratio
NEET	Not in Education, Employment, or Training
OECD	Organization for Economic Co-operation and Development
MOEC	Ministry of Education and Culture
NER	Net Enrollment Rate
NSD	National Statistics Directorate
NESP	National Education Strategic Plan
OOSCI	Out-of-School Children Initiative
RR	Relative Risk
SDG	Sustainable Development Goals
TFR	Total Fertility Rate
UIS	UNESCO Institute for Statistics
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UNESCO	United Nations Educational, Scientific and Cultural Organization
WHO	World Health Organization

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SDG Indicators related to education, census Timor-Leste, 2015.

SDG Indicator			
4.2.2 Participation rate in organized learning (one year before the official primary entry age), by sex	Male	Female	Total
	44.7	47.1	45.9
4.3.1 Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex			
4.3.1.a. Percentage of young people 15 - 24 years old in formal or non-formal education	63.3	58.6	61.0
4.3.1.b. Percentage of adults 25 - 34 years old in formal or non-formal education	16.6	11.8	14.1
4.5.1 Parity indices (female/male, rural/urban, bottom/top wealth quintile and others such as disability status, indigenous peoples and conflict-affected, as data become available) for all education indicators on this list that can be disaggregated			
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4.5.1.c. Gender parity index primary education (GAR)		0.95	
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4.5.1.e. Gender parity index pre-secondary education (GAR)		1.03	
4.5.1.f. Gender parity index secondary education (NAR)		1.20	
4.5.1.g. Gender parity index secondary education (GAR)		0.98	
4.5.1.i. Urban/rural parity index primary education (NAR)		1.06	
4.5.1.j. Urban/rural parity index primary education (GAR)		0.88	
4.5.1.k. Urban/rural parity index pre-secondary education (NAR)		1.72	
4.5.1.l. Urban/rural parity index pre-secondary education (GAR)		1.35	
4.5.1.m. Urban/rural parity index secondary education (NAR)		2.45	
4.5.1.n. Urban/rural parity index secondary education (GAR)		2.23	
4.6.1 Proportion of population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex			
4.6.1.a. Literacy rate: 10 years of age and older	70.6	63.9	67.3
4.6.1.b. Literacy rate by age			
10 - 14	79.2	81.3	80.2
15 - 19	85.6	86.0	85.8
20 - 24	83.4	81.7	82.5
25 - 29	80.4	77.0	78.6
30 - 34	77.1	69.2	73.1
35 - 39	72.6	62.1	67.3
40 - 44	69.9	55.5	63.0
45 - 49	63.8	41.0	53.1
50 - 54	55.0	30.1	43.2
55 - 59	45.6	22.9	34.9
60 - 64	33.9	15.7	24.6
65 - 69	19.6	8.5	13.7
70 - 74	15.6	9.0	12.3
75 - 79	16.2	8.5	12.2
80 - 84	16.1	9.7	12.7
85+	18.2	12.0	14.8
8.6.1 Proportion of youth (aged 15–24 years) not in education, employment or training			
	16.8	23.7	20.3

Chapter 1: Introduction

1.1 Background to the study

Education matters. It is the way through which one generation passes on its knowledge, experience and cultural legacy to the next. Education has the means to empower individuals and impacts every aspect of life. It is the vehicle to how one develops and understands the world. It creates opportunities for a job and higher income and is correlated to many other components which can enrich one's quality of life and contribute to happiness, health, mental well-being, civic engagement, home ownership and long-term financial stability. Besides the economic implications, education is a fundamental right of each and every child. It is a matter of fulfilling basic human dignity, believing in the potential of every person and enhancing it with knowledge, learning and skills to construct the cornerstones of healthy human development (Education Matters, 2014)³.

It is important to consider those most vulnerable and deprived of learning and ensure they receive the access to education they deserve. Simply stated: all children form an integral part of a country's future development and therefore all should be educated. To protect the right of every child to an education, it is crucial to focus on the following components⁴:

- Focus on **early learning** in order to construct a foundation in which young children are prepared to attend school and start learning at the right age;
- Ensure that there is **equal access** to education. For those who do not have access, such as girls, children with disabilities or those who are discriminated, find ways for them to do so;
- Ensure that children in conflict or disaster-prone areas and **emergencies** can continue accessing an education;
- Enhance the **quality** of the schools by making them safer, healthier, more inclusive and with teaching directed towards essential knowledge and skills;
- Create **partnerships** to ensure there is sufficient funding and support for education for all;
- Building a strong education **system** which responds to the needs of communities and is innovative, effective and transparent (United Nations Children's Fund, n.d.).

Such ambitions are underpinned in the 2030 Agenda aiming to transform the world through the Sustainable Development Goals. The fourth SDG goal states: '*Ensure inclusive and quality education for all and promote lifelong learning*'. This goal has the following targets⁵:

- *By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and Goal-4 effective learning outcomes*
- *By 2030, ensure that all girls and boys have access to quality early childhood development, care and preprimary education so that they are ready for primary education*
- *By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university*

³ Education Matters (2014). Why Education Matters. Retrieved from <http://emcincy.org/why-education-matters2/>

⁴ https://www.unicef.org/education/bege_61627.html

⁵ United Nations (n.d.). Sustainable Development Goals. Retrieved from <http://www.un.org/sustainabledevelopment/education/>

- *By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship*
- *By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations*
- *By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy*
- *By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development*
- *Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, nonviolent, inclusive and effective learning environments for all*
- *By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries*
- *By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing states*

Source: United Nations (n.d.).

Successfully implementing Agenda 2030 and reaching the goals requires high quality data. This report uses data from the 2015 Census to assess the situation of education in Timor-Leste. It is an attempt to present a comprehensive picture of the situation of education in the country. As such, its overall goal is to produce information which supports evidence-based national planning and programming, which can create strong and well-educated future generations. Besides informing national decision-making, the report will allow for international comparison and will facilitate the path to implementing and executing the sustainable development goals.

The government of Timor-Leste is fully committed to maximizing the educational capacity of its population and sees education and training as key to improving the living conditions of its people. This commitment is clearly stated in the Timor-Leste Strategic Development Plan 2011-2030: *'We will invest in education and training to ensure that by 2030, the people of Timor-Leste are living in a nation where people are educated and knowledgeable, able to live long and productive lives, and have opportunities to access a quality education that will allow them to participate in the economic, social and political development of our nation. The strategies and actions we take will recognize that attaining our education goals requires a multi-sector approach and that an accessible, quality education system must be supported by a safe and healthy community with improved economic stability for families'* (Republica Democratico de Timor-Leste, n.d.). To meet this commitment the Ministry of Education and Culture has developed a sector-wide plan to direct the education reform throughout the country. The principles of this plan are explained in the Timor-Leste National Education Strategic Plan 2011-2030.

The education system in Timor-Leste consists of four layers: a) Pre-School Education, b) Basic Education, c) Secondary Education and d) Higher Education. Pre-school education is for children from

three to five years old to prepare them for basic education. Basic education starts at six and lasts nine years. According to the Strategic Plan for Education, it is universal, compulsory and free. It is planned that students may ‘*use available schoolbooks and materials free of charge and transportation, food and accommodation may also be provided, where necessary*’ (Ministry of Education, 2011, p.45). After basic education, students may enroll in secondary education which has a three-year duration and is optional. Secondary education has two separate modalities: Secondary General Education and Technical-Vocational Secondary Education. Students who have finished secondary education successfully may enter higher education either in university or in higher technical education.

In the census, a distinction was made in basic education between primary/basic education and pre-secondary/basic education. This distinction was kept in the current report for the sake of comparability between the current census and the 2010 census and because internationally, primary education normally refers to the six-year cycle starting at 6 years of age.

1.2. About this publication

The 2015 Timor-Leste Population Census was held in July 2015. Census moment was determined to be the night between the 11th and the 12th of July. All 13 municipalities of Timor-Leste were covered in the census. Throughout the census, UNFPA provided technical support, helped with the dissemination of the results and promoted the information to be widely utilized and distributed for policy making and development planning. Data from the census has already been used to produce several thematic reports. This report was developed in close collaboration with UNICEF, which also provided financial support.

To achieve the national educational priorities and create an updated baseline for advancing these as well as the SDGs, this report presents results on the following:

Chapter 2: Methods and Procedures for Analysis

In this chapter concepts and definitions used in this report will be explained. Methodological issues will be discussed. Because of the large scale of the operation, population censuses in developing countries often suffer from problems with coverage and content. These issues may have an impact on the quality of the information gathered in population censuses. Data quality of the education information is briefly discussed in this chapter.

Chapter 3: School Attendance

Attendance ratios are among the most important indicators to measure a country’s social and economic development. Much progress has been made in the education system of Timor-Leste in the past few years. The number of individuals attending school has significantly increased compared to 2010, when the previous census was undertaken. The level of education has also improved with now more individuals attending higher levels of education compared to 2010. The report presents specifics on the school attendance for each level of education. In addition, the gender gap in education is also narrowing with more and more women being educated.

Chapter 4: Literacy and language

Literacy is a key target of the 2030 Sustainable Development Goals. Target 4.7 states that ‘*By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and*

numeracy' (United Nations, n.d.). This report covers literacy based on the four working languages used in the country: Tetun, Portuguese, Bahasa Indonesia and English. It presents the status of literacy in the country by age, sex, migration status, urban/rural residence, among others.

Chapter 5: Education level

The level of education, asked to the head of the household, was also a component of the census. This chapter provides insight into those who never attended school and the educational attainment by level of education per municipality, age group and sex.

Chapter 6: Vulnerable groups

As mentioned earlier, it is crucial to consider those most vulnerable and deprived of learning and ensure they receive the access to education they deserve. Therefore, this chapter will venture into specific vulnerable group's literacy rates and school attendance, covering persons with disabilities, young female farmers, adolescent mothers, working children and young urban migrants.

Chapter 7: Education and work

Whilst the relationship between education and the labour market has been extensively discussed in the census analytical report on the labour force, this chapter provides additional insights into youth not in employment and not in education and training (NEET) as well as youth unemployment and their relationship to education.

Chapter 8: Teachers and Educators

As the title of this chapter already reveals, this chapter covers those who are teaching children the essential skills and knowledge they deserve. The demographic characteristics of the teachers are presented, how they are distributed across the country by municipality and urban/rural residency as well as the type of work that they do.

Chapter 9: Education projections

Projections provide policy makers with the tools for developing strategies and planning. They can be used to construct scenarios in specific development areas such as health care, the labour force or education. This report used the population projections made after the 2015 census to construct educational projections (using the medium projection), as presented in this chapter. Two different projections are presented based on two separate scenarios. In the first projection, it was assumed that during the period 2015 – 2030 no changes in net attendance would take place. Of course, this is a very unlikely scenario, but it is executed to show the net effect of demographic changes on the number and composition of the school-going population in the next 15 years. Planners should be aware that changes in the student population are not only due to getting a higher proportion of children into school, but also that ongoing population dynamics will play a role in determining what the future composition of the school population will be. This projection scenario is referred to as the 'zero-change' model. In the second scenario, it was assumed that the quantitative goals of the National Education Strategic Plan will be realized during the period 2015 – 2030. This scenario is referred to as the 'NESP' model. The assumptions for each scenario are explained in further detail in the chapter.

Chapter 2: Methods and Procedures for Analysis

2.1 Definitions and concepts

All information in the census refers to the situation at census moment, i.e. the night between the 11th and the 12th of July 2015. The questions on education form somewhat of an exception to that rule. Three questions in the census referred to the educational status of persons in the household. The first question asked whether persons had ever attended school. If the person had done so, i.e. currently in school or attended before or left school, then it was asked what the highest educational level was that the person had reached. For persons still attending school, this means that it was not asked what the current level was, but rather the level reached before. In the analysis, this somewhat different approach needs to be considered. The third question was asked to both persons who were still in school and those who had finished their education. The question was what the highest education class or year was that the respondent had completed.

The thematic report on education uses the following concepts and definitions:

- An **Adolescent** is a person aged 10–19 years. Young adolescents refer to 10–14 year olds, while older adolescents refer to age 15–19. ([UNFPA, n.d](#))
- The **Adult Literacy Rate** is the percentage of people aged 15 and above who can both read and write with understanding a short, simple statement on their everyday life.
- The **Census Moment** is the point in time to which all information in the census refers to. In the case of Timor-Leste, census moment was the night between the 11th and 12th of July 2015.
- The **Gender Parity Index (GPI)** is the ratio of female to male values of a given indicator. In this report the GPI is used to indicate the difference between school attendance ratios between males and females. A GPI equal to 1 indicates parity between females and males. In general, a value greater than 1 indicates a disparity in favour of boys and a value greater than 1 indicates a disparity in favour of girls ([UNESCO, 2017](#)).
- The **Gross Attendance Ratio (GAR)** is the total number of students attending a particular level of education, regardless of their age, expressed as a percentage of the total official school age population. For example, the primary school GAR is calculated as the number of children of any particular age, who attend primary school divided by the number of children of primary school age in the population ([UNESCO, 2004](#)).
- The **Gross Enrollment Rate (GER)** is the number of children enrolled in a level (primary or secondary), regardless of age, divided by the population of the age group that officially corresponds to the same level ([UNESCO, 2004](#)).
- **Life expectancy** is the average number of years that a person could expect to live at birth (or a particular age), if current mortality trends were to continue for the rest of the person's life ([Preston, 2001](#)).
- A **Lifetime migrant** is a person whose administrative post of residence at the time of the census is different from his/her administrative post of birth.
- The **NEET** is the share of youth not in education, employment or training. It conveys the number of young persons not in education, employment or training as a percentage of the total youth population ([ILO, n.d](#))

- The **Net Attendance Ratio (NAR)** is the percentage of children attending a particular level of schooling appropriate for their age. For example, the primary NAR is calculated as follows: Number of children of primary school age, who attend primary education divided by the number of children of primary school age in the population (UNESCO, 2004).
- The **Net Primary School Enrollment Ratio (NER)** is "the number of children enrolled in primary school who belong to the age group that officially corresponds to primary schooling, divided by the total population of the same age group" (UNICEF, n.d)
- **School Attendance** is defined as '*regular attendance at any regular accredited educational institution or programme, public or private, for organized learning at any level of education at the time of the census or, if the census is taken during the vacation period, at the end of the school year or during the last school year*'. Information on school attendance was gathered in the census for all persons 3 years of age and older (United Nations, Principles and Recommendations for Population and housing Censuses (2008)).
- The **School Life Expectancy** indicates how many years of education an average child at a given age would receive during his/her lifetime, if the school attendance ratios would stay the same as of today (UNESCO, 2017).
- The **Sex Ratio** is defined as the number of males in a given population per 100 females (United Nations, 2008).
- **Tertiary Education** builds on secondary education, providing learning activities in specialized fields of education. It aims at learning at a high level of complexity and specialization. Tertiary education includes what is commonly understood as academic education but also includes advanced vocational or professional education (<http://uis.unesco.org/en/glossary-term/tertiary-education-iscsed-levels-5-8>).
- The **Total Fertility Rate (TFR)** is the number of children a woman would have at the end of her reproductive life, if she experienced a given set of age-specific fertility rates throughout her reproductive life (Preston, 2001).
- **Young Persons** (or youth) are defined as persons between ages 15 and 24 years.
- The **Youth Literacy Rate** is the percentage of people ages 15-24 who can, with understanding, read and write a short, simple statement on their everyday life (<http://uis.unesco.org/en/glossary-term/youth-literacy-rate>).

The school participation indicators used in this report are attendance ratios and not enrollment ratios. Administrative sources usually focus on the enrollment of students at the beginning of the school year, while census and survey data measure attendance at some point in the school year. In the case of the census, attendance was measured at census moment (the night between the 11th and the 12th of July 2015).

2.2 Methodology

The methodology used in this report is driven by the demands of the national needs for evidence on education to facilitate adequate planning and policy, and to fulfill international needs to monitor international development programs. Throughout the report, the methodology presented in the '*Guide to*

the Analysis and Use of Household Survey and Census Education Data (UNESCO et al, 2004) will be followed.

A set of indicators were identified that are closely related to literacy, school attendance, educational attainment, socio-economic characteristics of teachers and educators and the position of vulnerable groups in education. As much as possible, these indicators were then quantified, and their background considered.

Using census data has its limitations. The census draws a socio-economic picture of the country at an exact point in time (census moment). Because of this, it is not possible to calculate some of the indicators normally used in the study of education. For instance, the drop-out rate cannot be calculated as it compares a person's current school attendance status with the one from the year before. This information is not available in the census. Other indicators that for this reason cannot be calculated are intake rates, enrollment rates, promotion rates, repetition rates and transition rates. These indicators require specialized surveys or can be retrieved from the Educational Management Information System (EMIS).

An important global programme to achieve universal primary education is the Out-of-School Children Initiative (OOSCI), which is a partnership between UNICEF and the UNESCO Institute for Statistics (UIS) and was started in 2010. It is the aim of the OOSCI to assist countries with studying the vulnerable group of children who are out of school and those who are at risk of leaving school prematurely. The initiative published a manual with principles and recommendations concerning how to study out of school children of primary school age⁶. The analysis in this report will – as much as the census data allow – use the recommendations made in this manual.

Throughout the report, background characteristics of persons in the census will be linked to their educational outcome. The two main background characteristics used are sex and age. As much as possible, regional variations are looked at. For educational planning, data at the administrative post level are needed. In a few cases this is done in the text, but most of the information at the administrative post level are brought together in a number of tables in the annex. Also, where possible, comparisons are made with other countries in the Southeast Asia region.

In some instances in the report, logit regressions were used. The logit regression model belongs to the family of multivariate linear regressions. To quantify the net effect of an explanatory variable on a chosen dependent variable, statisticians rely on multivariate regression techniques. The goal of a multivariate regression is typically to quantify how variable A influences variable B, controlling for the intervening effects of a set of other variables. Many multivariate regression techniques exist. If the dependent variable is a dichotomy (0,1) then a logistic regression is used. As with any multivariate regression, the model produces a set of regression coefficients. In the case of a logit regression, these coefficients (B) are the natural logarithms of the odds of a person to have a certain characteristic (e.g. to be literate). The larger the B-coefficient, the larger the effect of the variable on the logit. As this measure is hard to interpret, the exponential function of the regression coefficients ($\text{Exp}(B)$) is calculated. This transformed coefficient gives the odds ratio, i.e. the ratio to have the characteristic versus not to have the characteristic, compared to a pre-determined reference category. For each variable in the regression equation, a reference category has to be determined. Note that these odds ratios present the net effect of the explanatory variable on the dependent variable, while statistically controlling for the intervening factor of the other variables in the equation.

⁶ UNICEF (2015), Global Out-of-School Children Initiative Operational Manual. Global Initiative on Out-of-School Children. United Nations Children's Fund (UNICEF), Education Section, Programme Division, New York, USA

With regards to education attendance and attainment, the following categories were applied in the census:

1. Pre-Primary
2. Primary
3. Pre-Secondary
4. Secondary
5. Polytechnic / Diploma
6. University
7. Non-formal

While categories 1 to 6 are clearly defined within the Timor-Leste educational system, category 7 (non-formal education) is a rest of category which is poorly demarcated. Many persons who attend(ed) non-formal education are adults, but the level of education may vary from very basic to tertiary level. Therefore, limited attention is paid to this category in this report.

Information provided by the 2015 census incorporates a complication to calculate pre-primary attendance ratios, and as matter of fact, any other attendance ratio. The problem is caused by the fact that a person's educational level and grade was not asked for the education they were attending at that moment, but for the education they completed. The census was conducted in July, which is in the middle of Timor-Leste's school year. Hence, respondents typically indicated their education from a year earlier, when they were also a year younger. Therefore, when looking at reported pre-primary education attendance one must take both ages 5 and 6 into account. Therefore, to calculate the attendance ratio an adjustment had to be made. At age 6, a number of children were reported to be already going to primary school while others were still reported to be in pre-primary school. Therefore, to calculate the net attendance ratio, the number of children aged 5 and 6 in pre-primary school were divided by the total number of children aged 5 and 6. As a number of children at age 6 were already in primary education (while for some others no information was available about their education level), they were subtracted from the denominator of the attendance ratio.

Census data was analyzed using SPSS and Excel. A set of tables were produced at the administrative post level. Some maps were produced by the GIS-department of the General Directorate of Statistics. As much as possible, results are presented in a graphical form for easier understanding and the numbers related to the graphs are added as data labels.

2.3. Data quality

Census errors are almost unavoidable. The Timor-Leste census is no exception. Errors in the census can typically be classified as coverage errors and content errors. Coverage errors are caused by the inability of enumerators to correctly canvass all persons living in their enumeration area. In the case of the study of education, coverage errors lead to an undercount (or overcount) of the true number of people attending school and may result in a misrepresentation of the educational attainment of the population. Content errors are caused by the incorrect reporting or recording of people's or households' characteristics. They may be caused by many factors ranging from errors in questionnaire design, to interviewing errors, misunderstandings or deliberate misreporting by respondents, to coding errors, data entry errors, errors caused by computer editing to tabulation errors⁷.

⁷ For a detailed overview of the types of errors see: United Nations, Department of Economic and Social Affairs Statistics Division (2010).

In terms of coverage of the 2015 Timor-Leste census, there is evidence of underreporting of very young children. As questions on education were only asked for children aged 3 and older, this does not pose much of a problem for this analysis.

In terms of content, the census showed that age-misreporting - although improved since 2010 - is still somewhat of a problem. Especially people with a lower education have the tendency to round their age to digits ending with 0 or 5. This is commonly referred to as age-heaping. The 2015 census thematic report on fertility (2017) examined age-heaping by calculating the Myers' Blended Index. This index varies between 0 and 90 according to the level of age heaping. Any value higher than 10 is considered a sign of serious problems with age heaping. In the 2015 census, Myers' Blended Index was 4.1 for urban and 5.5 for rural areas, indicating that some problems with age reporting are present, but not in a dramatic fashion.

A more serious data quality problem is formed by the fact that many inconsistencies exist between answers to the three questions related to education. As much as possible, it was attempted to edit out these inconsistencies, but many discrepancies remain. The census questionnaire tried to collect information on school attendance and educational attainment in one question: *'Has (Name) ever attended school?'* One would expect a 'Yes/No' type of answer to this question, but the question had in fact four possible answers: 1) *Yes, Attending School*, 2) *Yes, attended before/left school*, 3) *No, never attended school* and 4) *Don't know*. If the answer to this question was 'Yes' (either category 1 or 2), it was then asked what the highest level reached by the respondent was. This means that for persons who are currently attending school, the level they had reached in the previous school year was asked. This introduced an extra complication. Finally, it was asked what the highest education class or year was that the respondent had completed. There were 31 answer categories to this question. If, for instance, the respondent indicated that he/she was attending year 2 of the university, the enumerator had to fill in '19', which was the year ended in the previous year. The number of inconsistencies in the data between the answers to the three education questions proves that the way the education questions were set up was far too complicated for the team of enumerators, who were often young and inexperienced interviewers with sometimes minimal educational qualifications.

Another set of inconsistencies exist between the education questions and the question on main economic activity. Question P32 asked *'What did (Name) do last week?'*. Among the 13 possible answers, one indicated that the person was a full-time student. A large group of persons gave inconsistent answers between the questions on age, education and economic activities. It can be expected that some bias may be present for some of the indicators presented in this report.

In this report, frequent comparisons will be made between the 2015 and the 2010 census. In the 2010 census, questions on education were exactly the same as in the 2015 census. An examination showed the same inconsistencies as in the 2015 census. To avoid the same type of inconsistencies and errors, it is advisable that for the 2020 census the questions on education should be adapted.

Chapter 3. School attendance

3.1. School attending population

According to the 2015 Population and Housing Census, the population of Timor-Leste counted 1,183,643 persons, 601,112 males and 582,531 females. The census tabulations indicated that 442,290 persons were attending school and 316,351 had attended school before. The number of students in 2015 was considerably higher than in the 2010 Census, when 343,187 students were recorded. As in 2010, more males than females are currently in education, 218,000 against 211,000. This implies a sex ratio of 108.8 male students per hundred female students. Compared to the 2010 census, the participation of females in school vis á vis males has somewhat improved. At that time, the sex ratio stood at 110.3. The difference between males and females is largest at the university level, where 120.7 male students per 100 female students are attending. Evidence does however show improvement in this imbalance. In 2010, the sex ratio among university students was much higher and stood at 141.9 male student per 100 female students.

The sex ratio of 110.7 among children in primary school would suggest that in Timor-Leste a gender gap exists between boys and girls who enter education. However, to make a comparison between both sexes in education, it is necessary to control for differences in the age structure between males and females. In the case of primary education, it is important to consider that in the 5-11 year age group – the appropriate age category for primary education – more boys than girls are present. There are 113,372 boys against 106,048 girls, implying a sex ratio of 106.9. This at least partially explains the differences between boys and girl in primary education. A better way to look at gender differences is to compare attendance ratios for both sexes, which is elaborated upon later in this chapter.

Table 3. 1 Total number of students by level of education and sex, Timor-Leste 2015⁸

	Male		Female		Total		Sex ratio
	Numbers	Percentage	Numbers	Percentage	Numbers	Percentage	
Pre-Primary	10,826	5.0%	10,440	5.2%	21,266	5.1%	103.7
Primary	112,233	51.4%	101,353	50.4%	213,586	50.9%	110.7
Pre-Secondary	38,915	17.8%	39,067	19.4%	77,982	18.6%	99.6
Secondary	31,652	14.5%	29,487	14.7%	61,139	14.6%	107.3
Polytechnic / Diploma	998	0.5%	762	0.4%	1,760	0.4%	131.0
University	20,037	9.2%	16,598	8.3%	36,635	8.7%	120.7
Non formal	1,011	0.5%	1,236	0.6%	2,247	0.5%	81.8
Undetermined	2,540	1.2%	2,150	1.1%	4,690	1.1%	118.1
Total	218,212	100.0%	201,093	100.0%	419,305	100.0%	108.5

Despite the relatively short period of time between 2010 and 2015, the distribution of students by level of education has changed (see Figures 3.1.a and b). While in 2010, 56.6 percent of all persons in education

⁸ Note that the figures in Table 3.1 are slightly different from the ones presented above. This is due to insufficient information provided for a number of cases in the census. This problem in the data causes that some tables in the report may not be completely consistent with others.

were in primary education, this was 51.1 percent in 2015. The percentage of children in pre-primary education among all students stayed more or less the same, 5.3 in 2010 and 5.1 percent in 2015. On the other hand, the percentage of students in secondary and tertiary education has gone up. In 2010, 14.1 percent of students were in secondary education versus 14.9 percent in 2015; whilst the percentage of all students attending university increased from 4.6 to 9.0 percent.

Figure 3. 1.a. Percentage distribution of school-going population, Timor-Leste, 2015

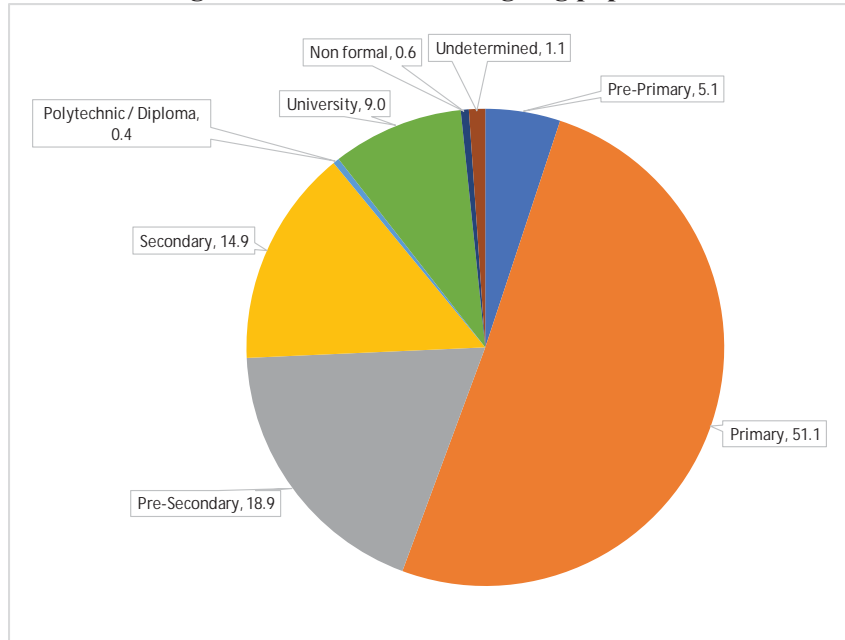
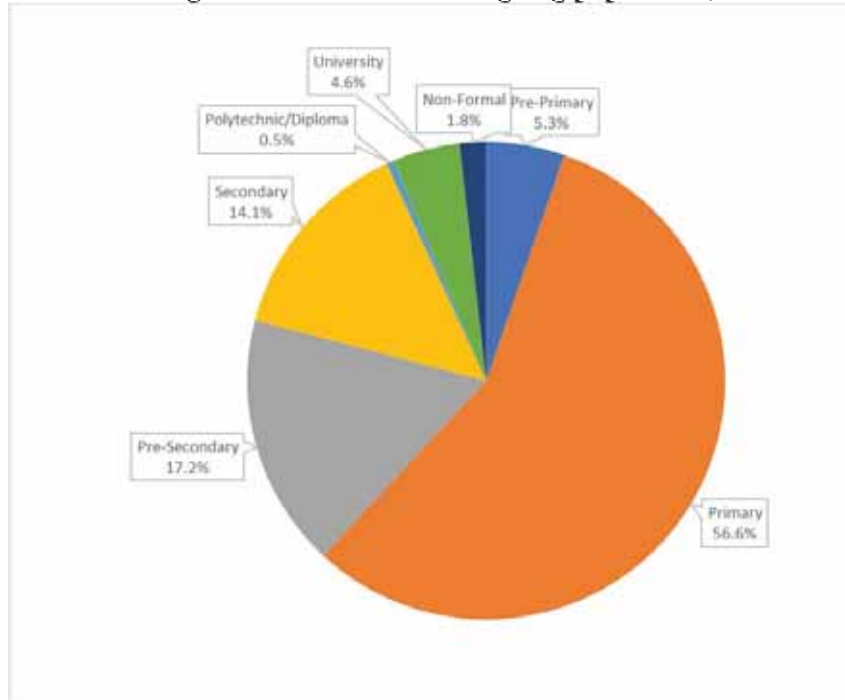
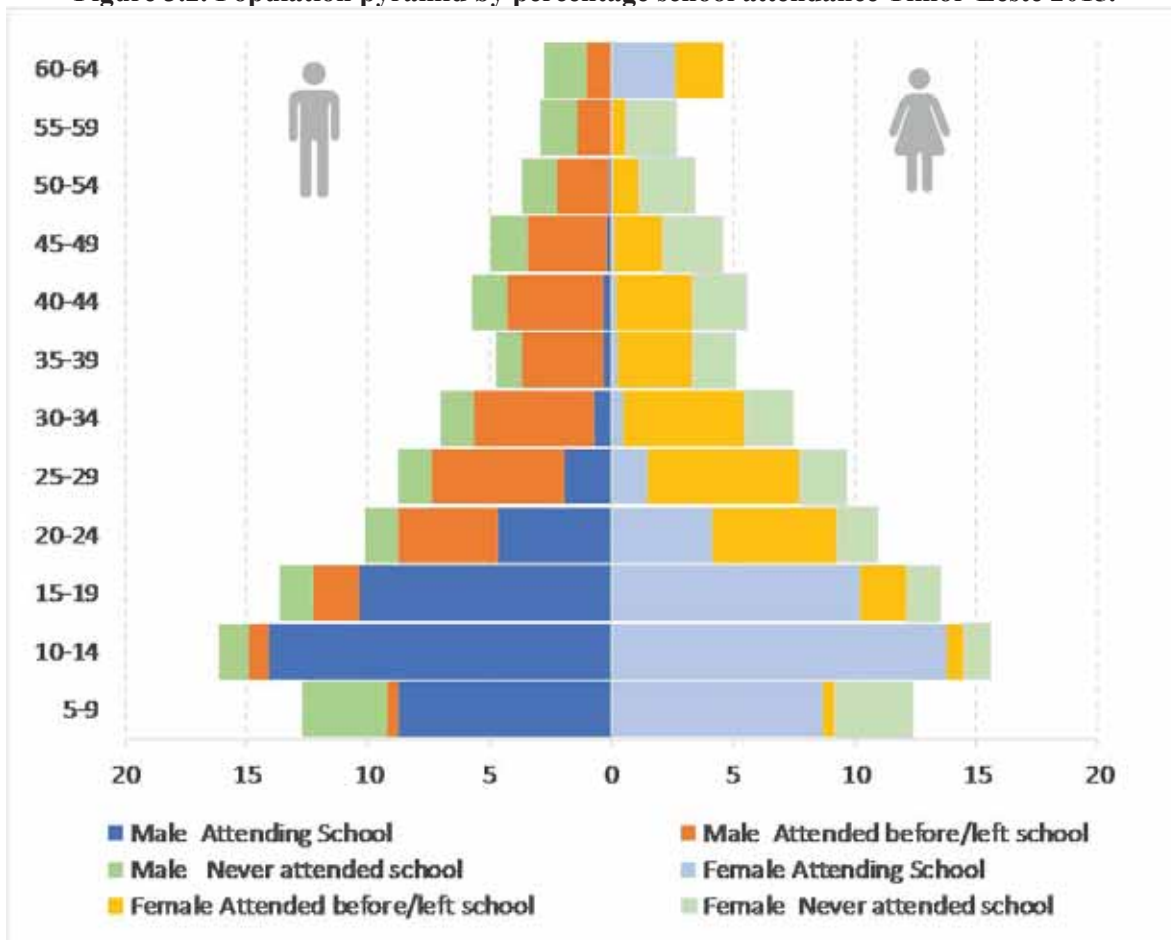


Figure 3.1.b. Percentage distribution of school-going population, Timor-Leste, 2010



An important indicator for a country's performance in the field of education is the percentage of persons in each age group that are attending school. Figure 3.2 shows a population pyramid for each five-year age group and the number of persons who are attending school. At the side of each bar in this population pyramid, the percentage of persons who attend school is shown. The pyramid clearly indicates that in 2015 school attendance was still far from being universal. For both sexes, the largest absolute number of students can be found in age group 10 to 14 years. This age group also has the highest percentage of persons attending school: 88.1 percent for females and 87.4 percent of males. The fact that less than three quarters of children between 5 and 9 years of age are in school proves that a significant proportion of young children don't make it into primary education, or at least not at the appropriate age. Another remarkable characteristic is that a considerable amount of people at older ages indicated that they are still attending school. At age 30 – 34, 6.9 percent of women and 9.7 percent of men reported to still be in school. Even at ages above age 50, a small percentage of people still indicate they are in school. It is unclear whether there is an actual trend that people at an older age remain involved in formal or informal adult education or that this is due to data problems. The census question with which a person's current and past education attendance measured was simply: "Has (Name) ever attended school?". It is possible that the three answer categories ("1. Yes, Attending School", "2. Yes, Attended before/left school" or "3. No, never attended school") may have confused some respondents or enumerators placing some people in schools, while in fact they attended them in the past.

Figure 3.2. Population pyramid by percentage school attendance Timor-Leste 2015.



A more detailed picture of the age distribution of school attendance for any type of education is depicted in Figure 3.3. Age-specific school attendance is highest at age 11 for both sexes: 87.9 and 88.7 percent for males and females, respectively. After age 14, school attendance drops rapidly. Between ages 12 to 16 attendance ratios are slightly higher for girls than for boys, but at age 18 this trend reverses. For instance, at age 19, 66.7 percent of young males are still in school against 60.7 percent of young females. These results show that – although young females match, and even outdo, young males in terms of school attendance, at the tertiary level the gender gap still exists.

Figure 3. 2. Percentage of persons 5 - 34 years of age who are currently attending school by sex and age, Timor-Leste 2015

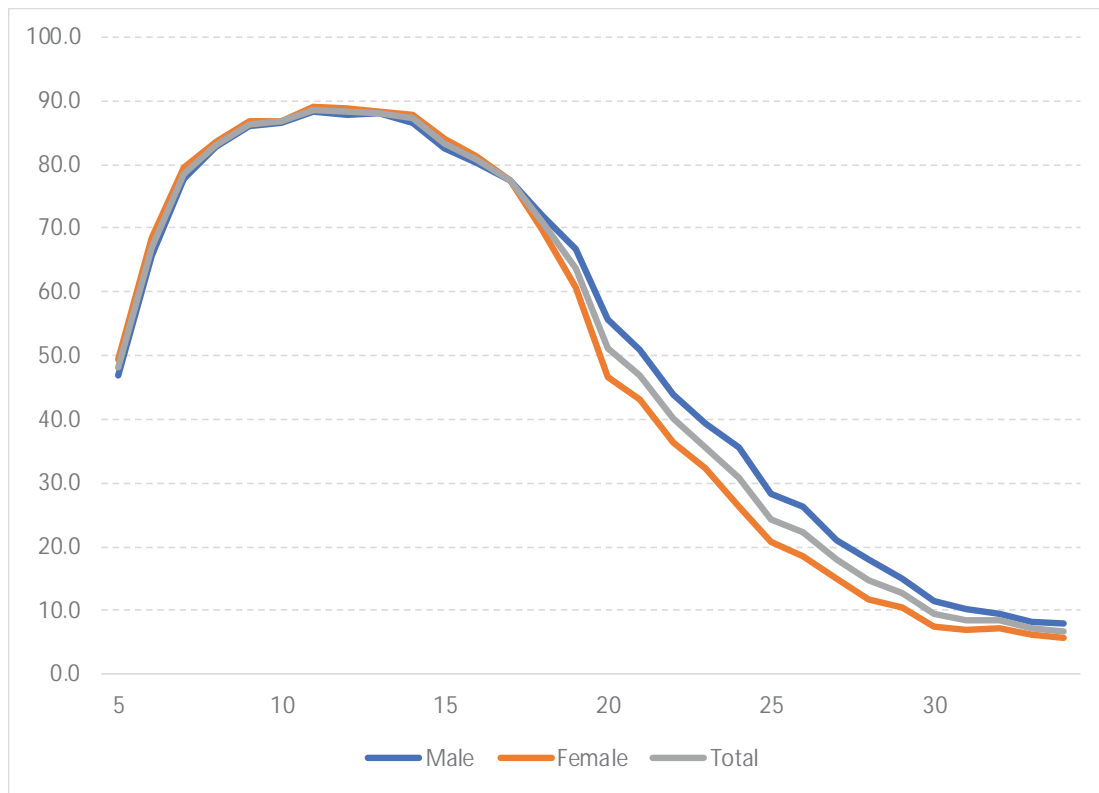


Figure 3.4 shows clearly that Timor-Leste has made important progress to get more young people into education. The figure shows the age-specific attendance ratios – for all levels of education together – as observed in the 2010 and 2015 population censuses. In the age group 5 – 12 years of age, school attendance is significantly higher in 2015 than in 2010. Another age bracket which shows progress is 20 – 24 years, with higher attendance ratios in 2015 than in 2010. Note that apparently in 2010 attendance ratios were a few percentage points higher after age 25. It is unclear what caused this difference. It is likely that this has more to do with age or education misreporting rather than with an actual trend.

The school life expectancy is a simple measure that indicates how many years of education a child at a given age will receive during his/her lifetime, if the school attendance ratios would stay the same as at the time of the census. The school life expectancy is simply calculated by adding up all the age-specific attendance ratios from a certain age and up, as presented in Table 3.2. At age 5, the average child in Timor-Leste can expect to spend 15.2 years in school. The expectancy is higher for boys than for girls,

15.6 years against 14.8 years. In 2010, age-specific school attendance ratios implied a school life expectancy of 13.7 years at age 5. The 2015 census showed that school life expectancy at ages 10, 15 and 18 years were 11.5, 7.1 and 4.7 years, respectively. For each age, young males had a somewhat higher value than young females.

Figure 3. 3. Percentage of persons 5 - 34 years of age who are currently attending school by age, 2010 - 2015

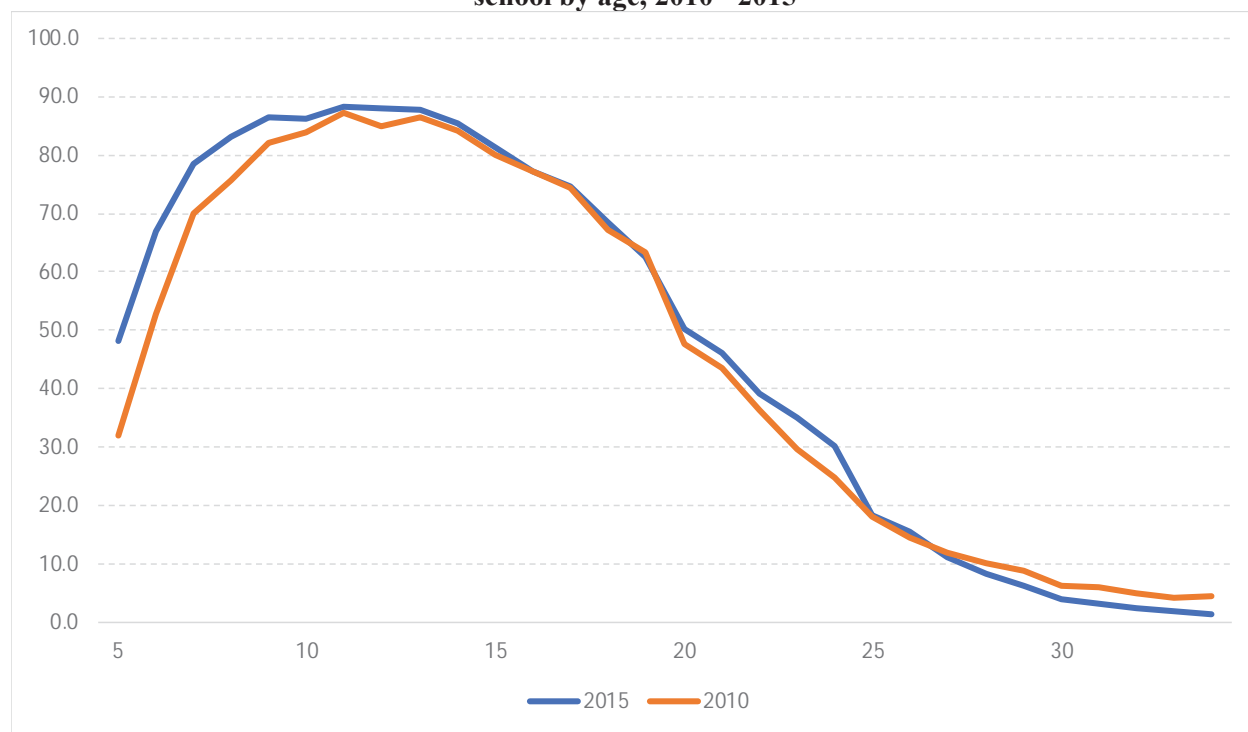


Table 3. 2 School life expectancies for specific ages by sex, Timor-Leste, 2015

	Male	Female	Total
At age 5	15.6	14.8	15.2
At age 10	12.0	11.1	11.5
At age 15	7.6	6.7	7.1
At age 18	5.2	4.3	4.7

3.2. School attendance by level of education

3.2.a. Pre-primary education (the very young)

In the 2015 census, the school system was divided in five levels. The specific ages which correspond to the educational levels are the following:

- Pre-primary school: 3-5 years
- Primary school: 6-11 years (Cycles 1 and 2 of Basic Education)
- Pre-secondary school: 12-14 years (Cycle 3 of Basic Education)
- Secondary school: 15-17 years (Cycle 3 of Basic Education)

- Tertiary (Polytechnic / Diploma and University): 18-23 years

In this report we divide children in pre-primary education in two groups, the very young (i.e. those 3 - 4 years old) and the last year of pre-primary school (5 - 6 years), which is the preparation year for primary education.

In practice, a large group of 3 and 4-year-old children are already attending pre-primary education. According to the 2015 population census, 9,873 children 3 and 4 years old were in pre-primary school. This constitutes 16.2 percent of all children of this age group. Somewhat more boys than girls are in school, 5,021 boys against 4,852 girls. However, there are significantly more boys than girls aged 3 or 4 present in the country. This causes the percentage of young girls in pre-school to be higher than of young boys: 16.6 against 15.9 percent (Table 3.3). As can be expected attendance ratios for 4 year olds were higher than for 3 year olds.

Table 3. 3 Children aged 3 and 4 years old in pre-primary education, Timor-Leste 2015

Total population			
	Male	Female	Total
3 year old	16,586	15,276	31,862
4 year old	15,083	13,956	29,039
Total	31,669	29,232	60,901
Number in pre-primary education			
3 year old	2,224	2,141	4,365
4 year old	2,797	2,711	5,508
Total	5,021	4,852	9,873
Prevalence rates			
3 year old	13.4	14.0	13.7
4 year old	18.5	19.4	19.0
Total	15.9	16.6	16.2

One would expect that the percentage of 3 and 4 year old children in pre-primary education would be higher in urban than in rural areas as more facilities would be available. The census shows that this is not the case. According to the census, 12.7 percent of young children 3 and 4 years old were in pre-primary schools in urban areas, against 17.5 percent in rural areas.

3.2.b. Pre-primary education (one year before the official primary entry age)

Target 4.2 of the Sustainable Development Goals states that ‘By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education’. For this reason, it is important to know the absolute and relative number of children in the population that follow pre-primary education. Also, in a population where a significant proportion of children are not enrolled in pre-primary education, it is important to identify who these children are. The Revised list of Global Sustainable Development Goal indicators (2017) suggests calculating ‘Participation rate in organized learning (one year before the official primary entry age), by sex’, as an indicator for pre-primary education.

According to the 2015 census, 18,436 children below the age of 9 were in pre-primary education, 9,324 boys and 9,112 girls. Compared to 2010, when 15,620 children were in pre-primary education, a significant growth of 18.0 percent has taken place.

Table 3.4 shows the adapted attendance ratios for pre-primary education. Among children 5 and 6 years old who were not in primary school and for whom educational level was reported, 45.9 percent attended pre-primary school. The ratio is slightly higher for girls than for boys (47.1 against 44.7 percent), with a gender parity index equal to 1.05. To standardize for differences in population structure of the appropriate age groups, the Gender Parity Index (GPI) is calculated by dividing the female attendance ratio by the male attendance ratio⁹. Compared to the 2010 census, important progress has been made in pre-primary school attendance. At that moment, the net attendance ratio was equal to 31.1 percent (NSD, UNFPA, 2012). The percentage of pre-primary age children not in school is an important indicator for the Global Out-of-School Children Initiative. Table 3.4 shows that 39.1 percent of all children 5 and 6 years old are not in either pre-school or primary school. Among 5 year old children this is 48.6 percent. Levels for girls are slightly lower than for boys.

Table 3. 4 Pre-primary net attendance ratios (last year), Timor-Leste, 2015

Attendance ratio				
	Male	Female	Total	Gender parity
5 year old	49.1	51.6	50.3	1.1
6 year old	35.3	36.8	36.0	1.0
Total	44.7	47.1	45.9	1.1
% not in school				
5 year old	49.7	30.4	40.3	1.6
6 year old	47.4	28.0	37.9	1.7
Total	48.6	29.2	39.1	1.7

As so many young children miss out on pre-primary education, it is important to determine the characteristics of those who are participating and those who are not participating in pre-primary education. To do so, a logit regression was run among children 5 and 6 years old (who were either attending or not attending pre-primary education) in which the dependent variable indicated whether the child was attending pre-primary school (= 1) or not (= 0). Children in primary education were excluded from the analysis. Six explanatory variables were introduced in the regression model: sex, municipality, educational level of the head of the household in which the child lives, quality of the dwelling in which the household lives, urban/rural residency and migration status of the child. Municipality and urban/region residence both indicate regional differences in socio-economic development, cultural features and the availability of educational infrastructure. Quality of the dwelling is a variable which was developed based on the type of construction material used for the dwelling and could be seen as a proxy for the economic status of the household¹⁰. In constructing the quality of the dwelling indicator, each household received a score depending on the characteristics of the dwelling. As soon as all scores were given, households received a code ranging from 1 to 5 depending on which quintile of the quality

⁹ For a discussion on the Gender Parity Index, see the United Nations Statistical Division website: <https://unstats.un.org/unsd/mdg/Metadata.aspx?IndicatorId=9>

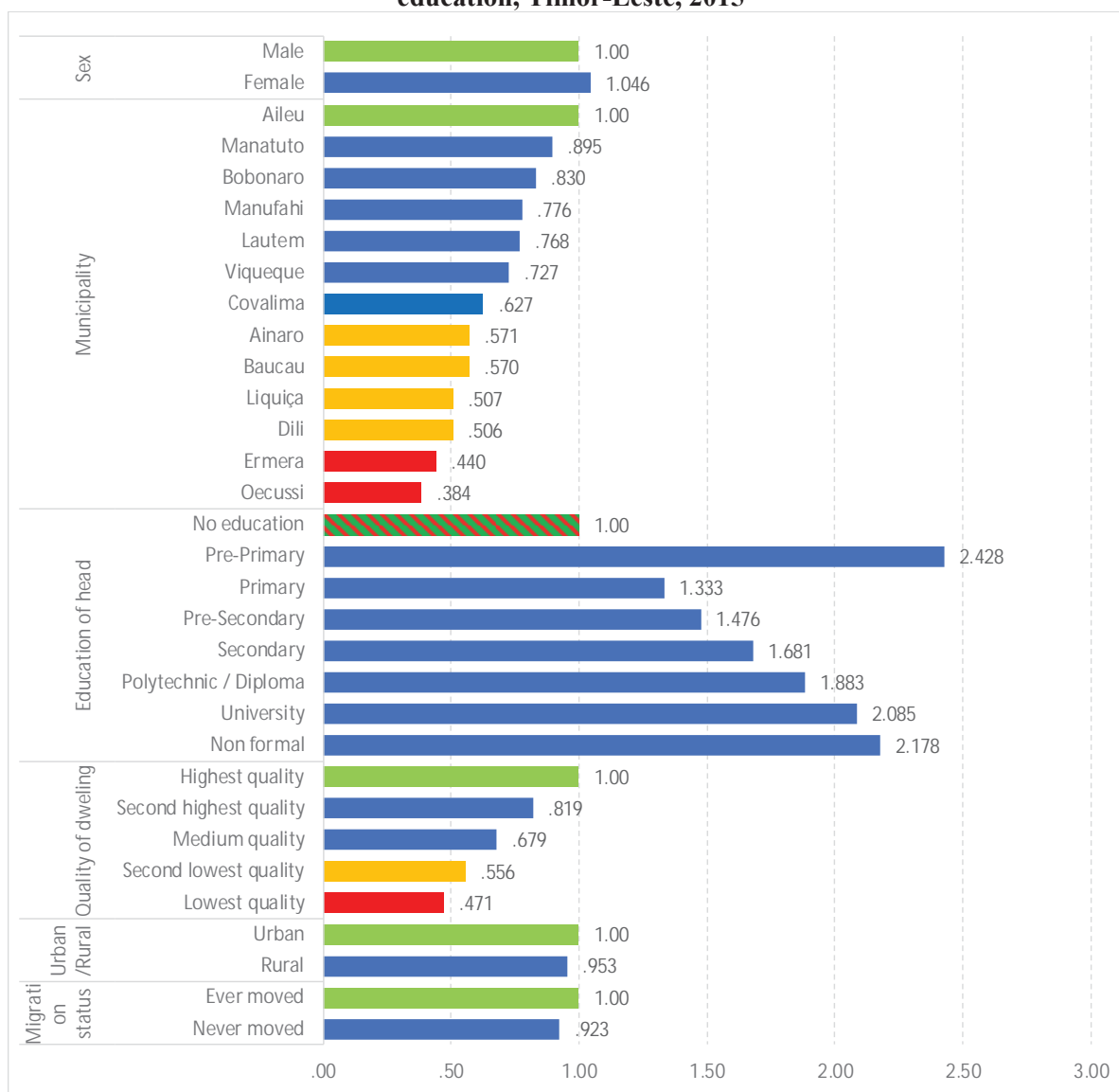
¹⁰ The methodology to calculate the dwelling quality index is explained in the thematic 2010 census report on housing (NSD, UNFPA, 2012). A similar methodology was used in the 2015 census.

distribution their score was situated. Educational level of the head of the household is another indicator of the socio-economic position of the household and may also be linked to the value the parents attach to their child's education. For each variable, a reference category was chosen.

In the logit regression, the regression coefficients are the natural logarithms of the odds ratios for each category of the explanatory variables. The larger the B-coefficient, the larger the effect of the explanatory variable on the logistic of the dependent variable, though this measure is hard to interpret. Therefore, the exponential function of the regression coefficients ($\text{Exp}(B)$) is normally calculated. This measure gives the odds ratio, i.e. the ratio of the probability of experiencing the event against the probability of not experiencing the event compared to the reference category. In this case, it is a measure of the likelihood that a child with a certain characteristic (e.g. being female) is attending pre-primary school, compared to a child belonging to the reference category (e.g. being male), after controlling for the other intervening factors in the regression model. Figure 3.5 presents the odds ratios generated by the logit regression. The reference categories for each explanatory variable have value '1' and are depicted in green. Categories with high risk for children not attending school were depicted in red and those with medium risk were depicted in orange. A category was considered high risk when its relative risk was less than half of the reference category and medium risk when the relative risk was between .5 and .69 of the reference category. The other categories show the odds ratio compared to the reference category. If an odds ratio is larger than 1 it means that a child belonging to that category has a higher likelihood to be in pre-primary school than a child belonging to the reference category, and a lower likelihood if the odds ratio is smaller than 1. Note that no levels of significance were included in the analysis, as the data are taken from a population census data (i.e. the total population) and not a survey.

Some interesting conclusions can be drawn from the results presented in Figure 3.5. After controlling for other variables in the equation, girls have slightly higher odds (1.046) to be attending pre-primary school than boys. Aileu, which is the reference municipality has the highest participation of young children in pre-primary school. Children from Oecussi have the lowest odds (.384). One would expect Dili to score high, but apparently after controlling for the other variables, children's likelihood to attend pre-primary school are about half than in Aileu (.506). Education of the head of the household in which the child resides is an important discriminating factor. Children with a head of household with a university education are more than two times more likely to go to pre-primary school than children whose head never went to school. Generally, the higher the education of the head, the better the child's chances to be in school, with the exception if the head had finished only pre-primary and non-formal education. However, these were only a few cases, which may have distorted the results due to small number variability. The quality of the dwelling where the child lives is an important determining factor for the school-going behavior of the child. The lower the quality of the dwelling, the lower the likelihood for a child to be in pre-primary education. Children living in dwellings of the lowest quality have less than half the likelihood of being in pre-preliminary education than children living in dwellings of the highest quality. These results show that at least in this case, the quality of the dwelling may be an adequate proxy for the poverty status of the household. Almost no difference exists between urban and rural areas once other intervening factors are controlled for. Children who have ever migrated in their lives, have a slightly higher chance to be in pre-primary school. It is difficult to explain what may be the reason for this trend, but perhaps a migrant household may attach more value to education as a way for social and economic emancipation.

Figure 3. 4 Relative risk ratios for children 5 - 6 years old of attending pre-primary school education, Timor-Leste, 2015



Color Code: Green = reference category, Red = high risk not attending pre-primary school (Relative risk < .5), Orange = medium risk not attending pre-primary school (RR > .5 and < .70), Green with red stripe = reference category where there is a high risk of not attending primary school, Blue = neutral.

3.2.c. Primary education

Attendance ratios are among the most important indicators to measure a country's social and economic development. Target 4.1 of the 2030 Sustainable Development Agenda states: 'By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant

and effective learning outcomes'. The indicator linked to this target is the sex-disaggregated participation rate of youth and adults in formal and non-formal education and training in the previous 12 months.

In the census, the question was asked what the highest level of education was that the respondent reached, not the level the respondent was attending. The level of education reached therefore refers to the previous school year, not the current. Because of the way the question was asked, the normal age-bracket for primary education (6 – 11 years) cannot be used as information is provided about the situation about a year back. Therefore, to calculate the attendance ratios the age-bracket 7 – 12 years was used. Out of a total population of 190,375 children in the age bracket 7 – 12 years for whom education status was known, 153,813 indicated in the census they were in primary education: 79,548 boys and 74,265 girls. Among persons of all ages, 213,586 were in primary education, which is about 16 percent of the total population of Timor-Leste. In 2010, the total number in primary school was 195,852 accounting for 22 percent of the population. Primary education in Timor-Leste is divided in 2 cycles of each three years. Of all 205254 persons in primary school for whom the class was in 1 to 6, 113,035 (55.1 percent) indicated they were in cycle 1 and 922,219 (54.9 percent) they were in cycle 2.

Table 3. 5 Net attendance ratios (NAR) and gross attendance ratios (GAR) primary school by sex, background characteristic, Timor-Leste, 2015

Background characteristic	Net attendance ratio				Gross attendance ratio			
	Male	Female	Total	Gender parity index	Male	Female	Total	Gender parity index
Primary school								
Total	80.6	81.0	80.8	1.00	126.0	120.2	123.2	0.95
Residence								
Urban	84.4	84.3	84.3	1.00	113.6	109.2	111.5	0.96
Rural	79.4	79.9	79.6	1.01	130.3	124.1	127.3	0.95
Municipality								
Aileu	84.6	84.3	84.5	1.00	134.5	124.8	129.8	0.93
Ainaro	77.0	77.1	77.1	1.00	120.0	117.2	118.6	0.98
Baucau	81.9	82.4	82.1	1.01	124.2	118.4	121.4	0.95
Bobonaro	79.8	81.3	80.5	1.02	127.1	120.2	123.7	0.95
Covalima	83.0	83.2	83.0	1.00	125.1	116.9	121.1	0.93
Dili	83.9	84.6	84.2	1.01	113.2	109.5	111.4	0.97
Ermera	72.7	71.6	72.2	0.98	139.3	130.0	134.7	0.93
Lautem	86.4	85.8	86.1	0.99	127.9	120.2	124.2	0.94
Liquiça	77.0	76.8	76.9	1.00	135.7	127.6	131.8	0.94
Manatuto	80.9	81.3	81.1	1.01	131.1	129.3	130.2	0.99
Manufahi	83.5	86.0	84.7	1.03	126.1	119.9	123.1	0.95
Oecussi	76.6	78.4	77.5	1.02	134.8	132.2	133.5	0.98
Viqueque	81.3	81.9	81.6	1.01	124.7	119.9	122.5	0.96

Table 3.5 presents the net and gross attendance ratios (NAR) by sex, urban/rural residence and by municipality, together with the gender parity indices. According to the census, the net attendance ratio stood at 80.8 percent. The attendance ratio was about the same for boys (80.6) and girls (81.0). The net attendance ratio observed in the 2016 Timor-Leste Demographic Health Survey (DHS) was found to be 86.2 percent, which is slightly higher than in the census. However, one should take into account that the DHS asked for the current status of school attendance, while the census asked for the level reached (GDS & ICF, 2017, 2017). The EMIS for 2015 showed a net enrollment rate of 87.95 percent. This is considerably higher than the attendance ratio obtained from the census. The EMIS, however, deals with student enrollment while the census deals with attendance of reached education from the previous school year, which can be expected to be lower. Compared to the previous census, primary school attendance has increased significantly. In 2010, the net attendance ratio for primary school was 71.2 percent for boys, 72.1 percent for girls and 71.6 percent for both sexes.

The fact that a child is not in primary school between the age of 7 and 12 does not mean he/she is not in school as they can still be in pre-primary or already in pre-secondary. Therefore, to calculate the primary-age children (7 – 12 years in this case), one must take children in pre-primary and pre-secondary into account. The indicator suggested by the Global Out of School Initiative is the ‘Out-of-school rate for children of primary school age’. In the case of Timor-Leste, this is 15.7 percent for boys, 14.8 percent for girls and 15.3 percent for both sexes together.

The net attendance ratio in primary school is higher in urban than in rural areas: 84.3 against 79.6 percent. The municipality with the lowest net attendance ratio is Ermera where less than three out of 4 are in primary education (72.2 percent). In 2010, Ermera also had the lowest attendance ratio. At that time, the NAR was only 58.2 percent, which means that also in the areas with lowest attendance important progress has been made during the last few years. The highest NAR is in Lautem (86.1), Manufahi (84.7) and Alieu (84.5). Dili follows closely behind with a NAR of 84.2 percent.

The gross attendance ratio (GAR) for primary education links the total number of students in primary school, regardless of age, to the age group 7 to 12. While in 2010, the gross attendance ratio stood at 108.9 percent, in 2015 it was 123.2 percent. This is somewhat higher than the GAR of 116.8 percent in the 2016 DHS, though as mentioned before, a different definition was used. On the other hand, the gross enrollment rate in the 2015 EMIS was about the same (122.3 percent, 211.0 for boys and 123.6 for girls), although the definition here was also different from the census definition.

The gender parity indexes for the NAR are all hovering around 1.0 which means that boys and girls are attending primary education at an almost equal rate. However, for the GAR for all groups the gender parity index is slightly below one, indicating that more males than females outside the normal primary age bracket are still in primary education. The reason behind this trend remains unclear.

Figure 3.6 depicts the age-distribution of boys and girls who were in primary education. Note that during the data editing persons who were 15 years and older are not shown in the graph. Other information on the census indicated that in many cases these persons were either employed and wrongly classified as still in primary school or were in a higher grade than would be possible if they were still in primary education. The pyramid clearly shows that many children do not enroll in the primary school system at the appropriate age. Children at the age of 7, have much lower numbers of children in primary education compared to those at age 9 and 10, which is the age group with the highest number. The fact that far less

children at age 11 than at age 10 are present in school illustrates that more than just a few children drop out of school during the last years of primary education.

Figure 3. 5. Students in primary school by age and sex, Timor-Leste, 2015

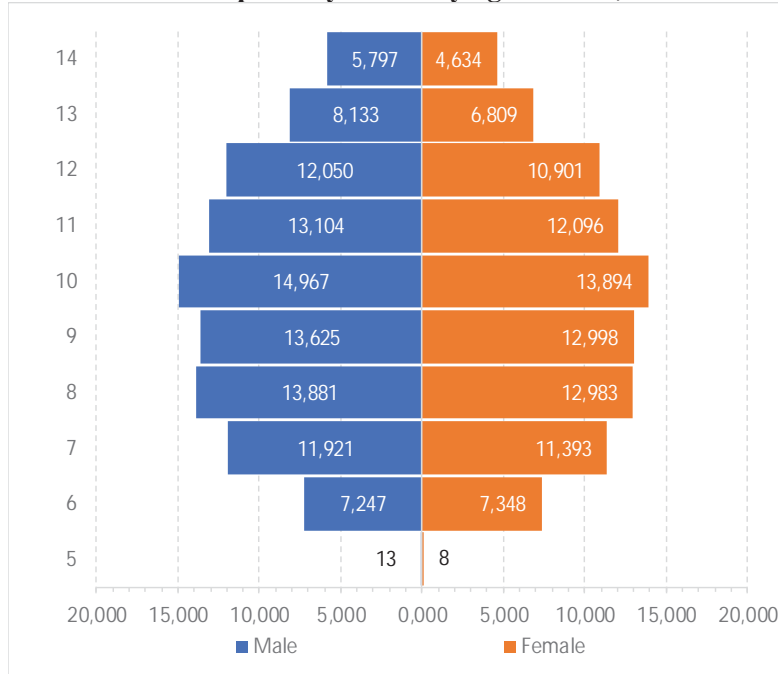
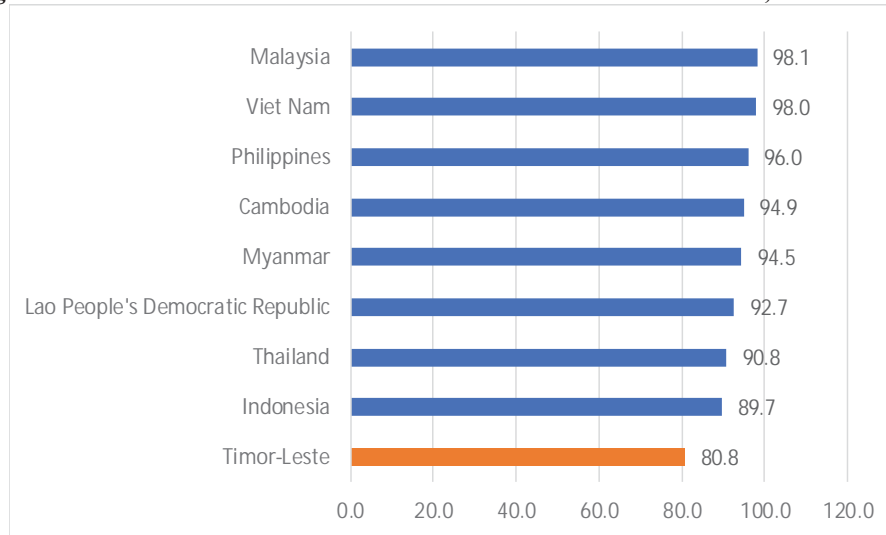


Figure 3.7 illustrates the primary school attendance of Timor-Leste in comparison to the net enrollment rates of other Southeast Asian nations¹¹. The figure clearly shows that Timor-Leste still has one of the lower net enrollment rates of the region. Malaysia has the highest school enrollment in the region (98.1 percent), followed by Viet Nam (98.0 percent) and the Philippines (96.0 percent). Note that this figure gives a rather crude comparison between the countries, as enrollment is shown for the other countries, while attendance is shown for Timor-Leste.

¹¹ World Bank (citing: United Nations Educational, Scientific, and Cultural Organization (UNESCO) Institute for Statistics.). Information was obtained from website: [http://world-statistics.org/index-res.php?code=SE.PRM.NENR?name=School%20enrollment,%20primary%20\(%%20net\)#top-result](http://world-statistics.org/index-res.php?code=SE.PRM.NENR?name=School%20enrollment,%20primary%20(%%20net)#top-result)

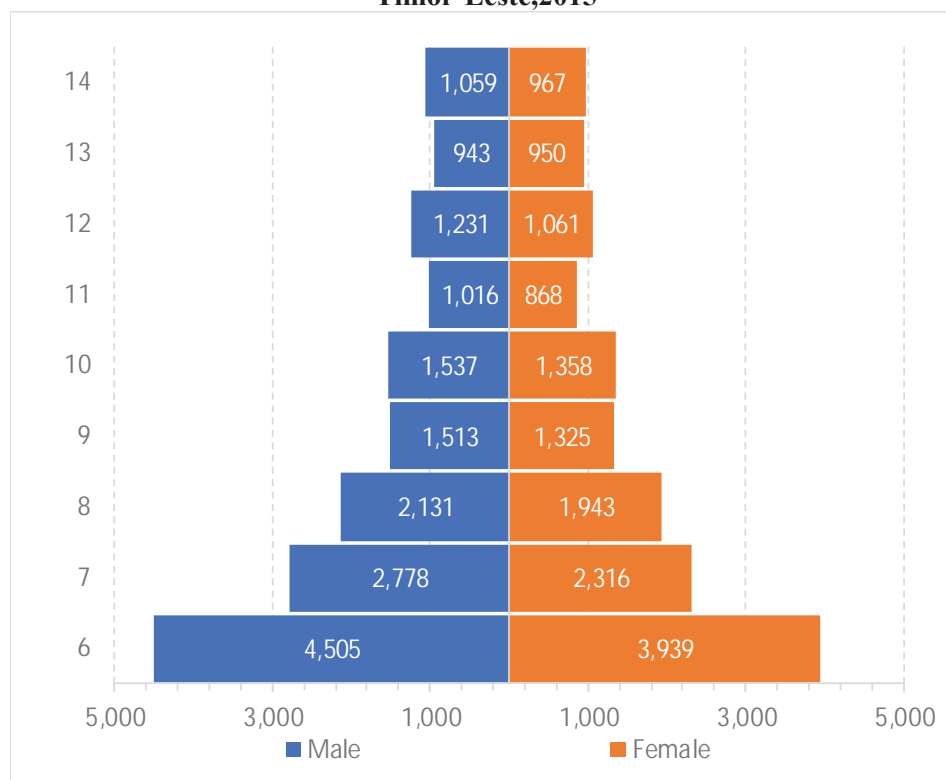
Figure 3. 6. Net enrollment rates for countries in Southeast Asia, 2013 – 2015¹²



An important group consists of children who have never attended school. Figure 3.8 shows the number of girls and boys aged 6 to 14 who have never attended school. A total of 31,440 children, 16,713 boys and 14,727 girls, were enumerated in the census in this age group who had never been to school. This constitutes 11.3 percent of all children between 6 and 14 years old. The non-attendance of boys in primary education is slightly higher than for girls, 11.7 percent against 11.0 percent. The graph shows that a large group of children who had never been to school are 6 years old. For this group, one should take into account that the census asked about the level of education reached, which refers to the school year before the census when many of these children were still in pre-primary education. The graph shows that many children at younger age groups enter the school system later than the appropriate age.

¹² No data were available in the database for Singapore and Brunei.

Figure 3. 7. Persons aged 6 - 14 years old, who have never attended school by sex by age and sex, Timor-Leste,2015



3.2.d. Pre-secondary education

According to Timor-Leste's education policy, it is compulsory that upon completion of primary school children continue with pre-secondary. Pre-secondary education comprises grades 7 until 9. Before 2011, the education system comprised of six years of primary education, three years of pre-secondary and three years of secondary education. This was changed to a system with two components: a basic education of nine years and secondary education comprising three years. Subsequently, the nine years of basic education were made compulsory. Impressive progress was made in the field of education infrastructure at the level of pre-secondary education, which comprises Cycle 3 of basic education. Between 2000 and 2010, the number of pre-secondary schools increased from 97 to 245 and the number of pre-secondary teachers from 65 to 2,411 (Ministry of education, 2011).

Table 3. 6 Net attendance ratios (NAR) and gross attendance ratios (GAR) pre-secondary school by background characteristic and sex, Timor-Leste, 2015

Background characteristic	Net attendance ratio				Gross attendance ratio			
	Male	Female	Total	Gender parity	Male	Female	Total	Gender parity
Pre-secondary school								
Total	40.1	48.4	44.2	1.21	82.0	84.6	83.3	1.03
Residence								
Urban	59.9	67.6	63.8	1.13	103.1	102.9	103.0	1.00
Rural	33.1	41.1	37.0	1.24	74.5	77.7	76.1	1.04
Municipality								
Aileu	35.2	46.7	40.8	1.33	85.5	89.2	87.3	1.04
Ainaro	42.4	49.6	46.0	1.17	86.4	84.8	85.6	0.98
Baucau	38.3	49.7	43.9	1.30	80.4	86.2	83.3	1.07
Bobonaro	33.6	43.0	38.2	1.28	66.7	74.5	70.5	1.12
Covalima	42.0	53.9	47.8	1.28	83.6	89.4	86.4	1.07
Dili	60.3	66.8	63.5	1.11	102.4	99.9	101.2	0.97
Ermera	30.4	35.1	32.7	1.16	75.4	75.3	75.4	1.00
Lautem	38.8	50.5	44.4	1.30	78.4	90.1	84.1	1.15
Liquiça	29.0	37.2	32.9	1.28	73.0	75.2	74.0	1.03
Manatuto	26.1	28.7	27.3	1.10	75.7	68.6	72.2	0.91
Manufahi	43.0	53.7	48.2	1.25	86.5	94.0	90.2	1.09
Oecussi	25.1	31.0	28.0	1.24	61.0	62.2	61.6	1.02
Viqueque	41.1	48.3	44.6	1.17	79.7	84.5	82.0	1.06

In 2015, the net-attendance ratio for pre-secondary school stood at 44.2 percent. According to the 2015 census, a total of 77,982 persons were attending pre-secondary education, 38,915 males and 39,067 females. Because of the retrospective question of the census on the highest level reached and not current attendance, the age-bracket for pre-secondary education was taken as 13 – 15 years of age. In this age group, 38,565 persons were in pre-secondary school (17,856 males and 20,709 females), which is only about half of the total pre-secondary school population.

Attendance ratios for pre-secondary education are presented in Table 3.6. The NAR was significantly higher for females than for males: 48.4 percent against 40.1 percent. This difference led to a gender parity of 1.21. The fact that the GPI is so much higher for pre-secondary education than for primary education is an important indication that girls have a higher chance than boys of being in pre-secondary school at the appropriate age.

A large difference exists between the NARs for urban and rural areas. While the net attendance ratio was 63.8 percent in urban areas, it was only 37.0 percent in rural areas. Gender parity was much more equal in urban areas (1.13) than in rural areas (1.24), but still showed a bias against boys.

Compared to the 2010 census, strong progress has been made. In five years, the NAR almost doubled from 23.7 percent to the current 44.2 percent. Among all municipalities, Dili clearly stands out with the

highest NAR. In Dili municipality, 63.5 percent of all persons 13 to 15 years could be found in pre-secondary education. This is more than two times higher than the two municipalities with the lowest NAR: Manatuto (27.3 percent) and Oecussi (28.0). Manufahi is the municipality which scores highest after Dili (48.2), but still has a NAR which is 15 percentage points lower.

The fact that the gross attendance ratio (83.3 percent) is so much higher than the net attendance ratio clearly indicates that a large proportion of students are older than the normal age of being in pre-secondary education. This trend is highest in Dili municipality, where the GAR is higher than 100, which means that actually more students are in pre-secondary school than the population aged 13 – 15 years old. It is interesting to see that the gender parity index based on the GAR is much lower than the one based on the NAR. The census NAR is more or less in line with the NER provided in the national Education Management Information System, where it was reported that of all children 12 – 14 years old, 43.65 percent were enrolled in pre-secondary education. A comparison with the DHS was not possible, as it does not make a distinction between pre-secondary and secondary education.

The fact that 44.2 percent of all persons 13 – 15 years old are attending pre-secondary school does not mean that all others are no longer in school. Out of 87,315 persons in the age group 13 to 15 years old, 6,570 never attended school while 74,924 are still in school (85.8 percent). The percentage of young persons of pre-secondary school-age who are out of school are 14.3 percent of boys, 13.3 percent of girls and 13.8 percent of both sexes. Figure 3.9 shows that for persons 13 to 15 years in school, 51.5 percent are in pre-secondary school, but 44.3 percent are still in primary education. For 3.7 percent it was unclear what their educational level was. This result shows again that many of Timor-Leste’s children and youth are overaged within the level of education they are attending. This is an important aspect to be dealt with in education policy and planning.

Figure 3. 8. Percentage of population 13 - 15 years old, who are still in school by educational level, Timor-Leste, 2015

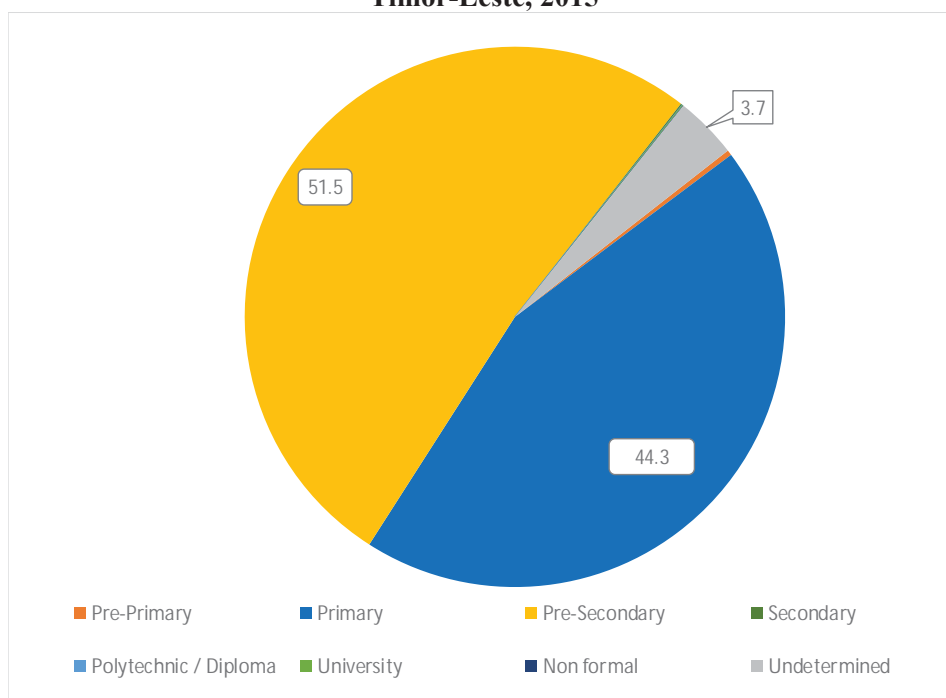
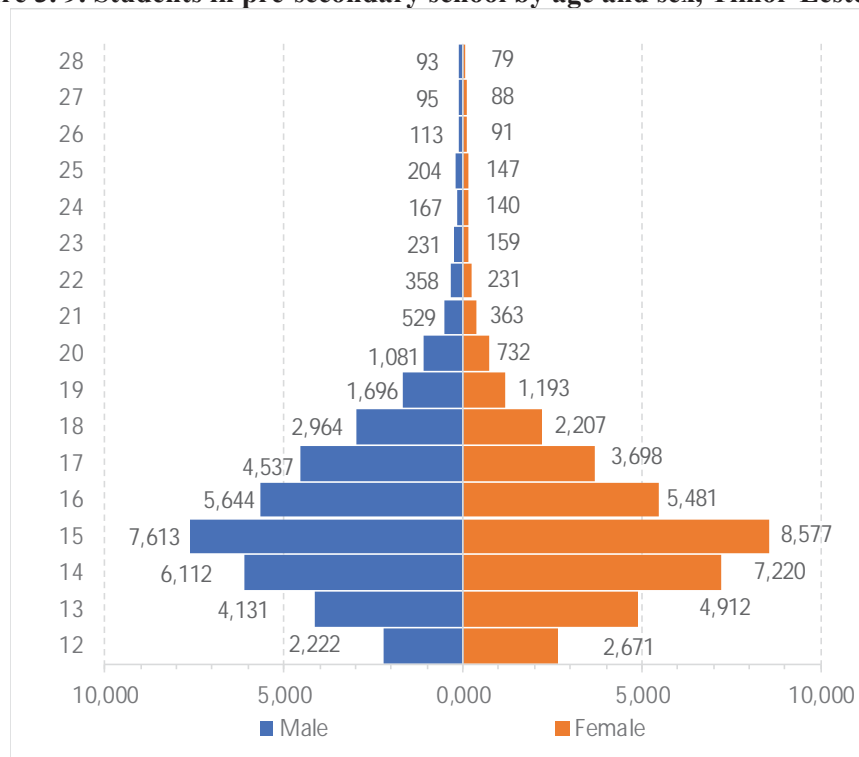


Figure 3.10 shows the high variation in age at the pre-secondary level. The largest group of young people in pre-secondary education are 15 years old. Although the appropriate age for pre-secondary education is

12 to 14, only very few children aged 12 were recorded as being in pre-secondary. This, again has partially to do with the way information about educational attendance was asked in the census, referring to highest education reached rather than educational attendance at the time of the census. The age-pyramid shows that from age 12 to 15, the number of female students is higher than the number of male students. After age 15 however, for each age more males than females are attending pre-secondary education.

Figure 3. 9. Students in pre-secondary school by age and sex, Timor-Leste, 2015



3.2.e. Secondary education

In 1975, Timor-Leste counted only two Secondary General Schools, one Technical-Vocational School, a Teacher Training College and two training schools (for teachers of sport and agriculture). Since then, great progress has been made, both in educational infrastructure and with the number of teachers (Ministry of Education, 2011). In 2015, there were 106 secondary schools, 61 public and 45 private (EMIS, 2015). Out of this total, 26 were located in Dili municipality while four municipalities (Ainaro, Lautern, Manatuto and Oecusse) had only four secondary schools each. During the same year, 2,087 teachers were active in secondary education. Secondary Education is divided into General Secondary and Technical-Vocational.

During the 2015 census, 61,139 persons were enumerated who indicated they were following a secondary education, of which 31,652 males and 29,487 females. Although the appropriate age for secondary education is 15 to 17, in this analysis age 16 – 18 is used, again because of the particular way the census questions were posed (retrospective rather than current). In this age bracket, 26,083 persons were in secondary school, of which 12,144 males and 13,939 females.

The net attendance ratio of secondary school currently stands at 32.8 percent, with a higher percentage for females (35.9 percent) than for males (29.9 percent) (see Table 3.7). This higher NAR results in a gender parity index of 1.20. It is difficult to ascertain what exactly causes the disparity between males and females in secondary education attendance. The assessment report by the Ministry of Education (2015), under auspices of UNESCO, assumes that the higher attendance of female students is most likely caused by the higher repetition rate of boys in the lower education levels. In addition, male students have the tendency to enter secondary education at a slightly lower rate than female students. The NAR on the basis of the census is slightly higher than the NER for secondary education from the EMI (28.8 percent for both sexes; 24.7 percent for males and 33.2 percent for females).

Table 3. 7 Net attendance ratios (NAR) and gross attendance ratios (GAR) secondary school by sex, background characteristic and the Gender Parity Index (GPI), by background characteristics, Timor-Leste, 2015

Background characteristic	Net attendance ratio				Gross attendance ratio			
	Male	Female	Total	Gender parity	Male	Female	Total	Gender parity
Secondary school								
Total	29.9	35.9	32.8	1.20	77.1	75.5	76.3	0.98
Residence								
Urban	50.4	57.9	54.2	1.15	124.3	117.0	120.6	0.94
Rural	20.1	24.2	22.1	1.21	54.6	53.5	54.0	0.98
Municipality								
Aileu	23.0	32.3	27.4	1.41	66.4	70.8	68.5	1.07
Ainaro	27.8	32.8	30.2	1.18	57.4	58.1	57.7	1.01
Baucau	28.7	36.2	32.4	1.26	72.5	74.3	73.3	1.02
Bobonaro	22.8	27.8	25.2	1.22	54.0	55.3	54.6	1.02
Covalima	27.5	36.7	31.8	1.34	61.5	68.4	64.7	1.11
Dili	50.8	57.9	54.4	1.14	135.9	126.7	131.3	0.93
Ermera	18.0	19.4	18.7	1.07	48.0	43.5	45.8	0.91
Lautem	27.6	34.6	31.0	1.25	65.2	70.3	67.7	1.08
Liquiça	19.2	25.4	22.2	1.32	56.8	57.2	57.0	1.01
Manatuto	12.9	16.4	14.5	1.27	42.7	44.7	43.6	1.05
Manufahi	28.4	35.4	31.8	1.25	65.2	61.8	63.5	0.95
Oecussi	19.2	21.4	20.3	1.12	63.1	51.8	57.5	0.82
Viqueque	25.4	28.8	27.0	1.13	58.8	55.1	57.0	0.94

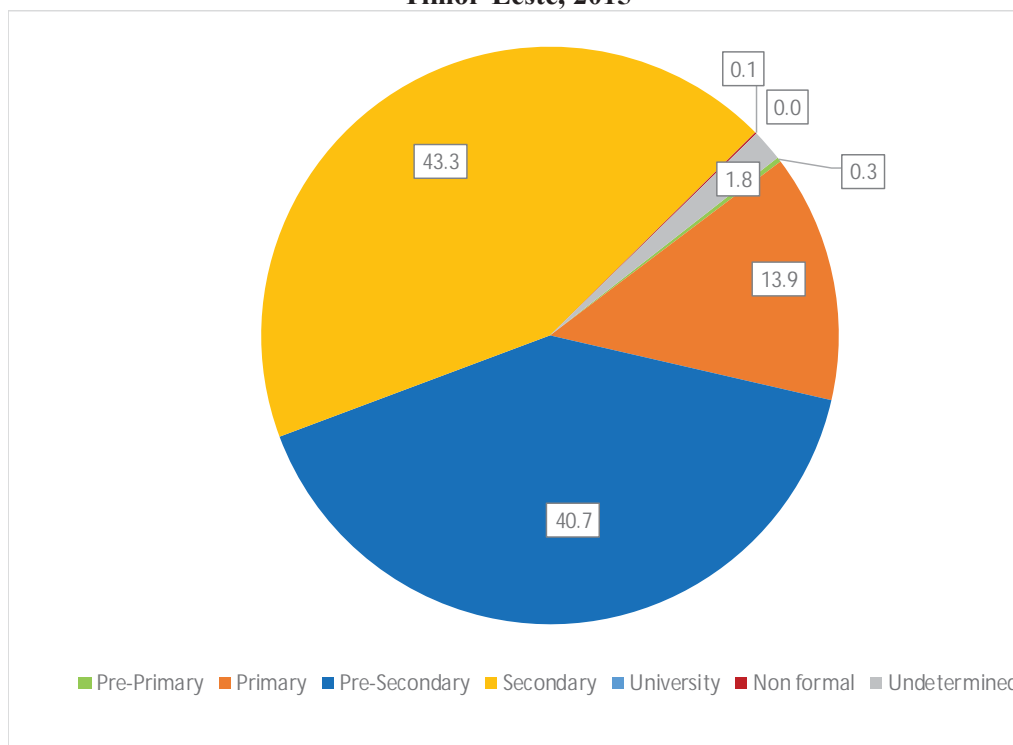
Gross attendance ratios for secondary education are more than twice as high as net attendance ratios, indicating that a large portion of secondary students fall outside the bracket of appropriate ages. The GAR based on the 2015 census equals 76.3 percent. It is interesting that the GPI based on the GAR, is below

one (.98), indicating that overall, males have a somewhat higher gross attendance ratio (77.1) than females (75.5). This finding may be further proof that the higher gender parity in the NAR may indeed be due to a higher repetition rate of male students. Also in the 2010 census, the same differences in GPI's based on the net and gross attendance ratios were observed, suggesting that this is not a recent trend.

Large differences remain between rural and urban residence in terms of attendance of secondary school. The NAR for urban areas is 54.2 percent against only 22.1 percent in rural areas. Similar differences exist in the GAR between both places of residence. Equally, strong differences exist between the country's municipalities. While the NAR is 54.4 percent in Dili municipality, it is only 14.5 percent in Manatuto, 18.7 percent in Ermera and 20.3 percent in Oecussi. Also, the GPI based on the net attendance ratio is quite different between the various municipalities: in Alieu the GPI is 1.41 while it is only 1.07 in Ermera. Note, however, that all GPIs for municipalities are greater than one, indicating a favorable position for girls.

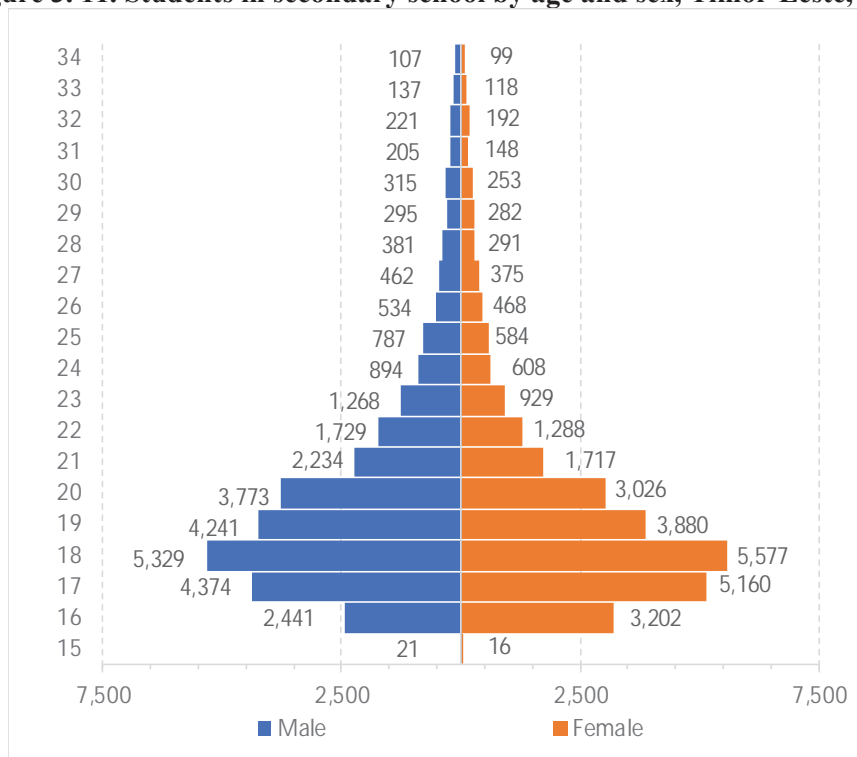
The low net attendance ratio does not mean that the rest of young persons between the ages of 16 to 18 years old are out of school. Among the 79,475 persons in this age group, 7,836 never attended school (9.9 percent) and 10,646 attended school before or had left school prematurely (13.4 percent). Figure 3.11 shows the distribution of person 16 – 18 years old by educational level who were still in school at the time of the census. Among this group, 43.3 were attending a secondary school, while 40.7 percent were in pre-secondary. No less than 13.9 percent were still in primary school. The percentage of young females in secondary education seems to be more in line with their age. Roughly 47.5 percent of school-going young females aged 16 – 18 are in secondary school compared to 39.3 percent of young males. Furthermore, 11.6 percent of young females were still in primary school against 16.0 percent of young males.

Figure 3. 10. Percentage of population 16 - 18 years old, who are still in school by educational level, Timor-Leste, 2015



The age distribution in Figure 3.12 shows just how many young persons are attending secondary education outside the normal age bracket. Among the 57,961 persons 15 – 34 years old in secondary school, 31,841(54.9 percent) are older than 18 years old when in fact they should already have finished secondary education. Only 26,120 (45.1 percent) are in secondary school at the appropriate age. Again, as was the case with pre-secondary education, more females than males are in school at the appropriate age and more males than females are present for the ages beyond the appropriate age bracket. In the age group 15 – 18 years, the number of females per 100 males, who are attending secondary school, is 114.7, while only 81.1 females per 100 males are attending secondary school in the age group 19 – 34 years of age.

Figure 3. 11. Students in secondary school by age and sex, Timor-Leste, 2015



3.2.f. Tertiary education

The total population in the 2015 census following a tertiary education was equal to 38,395 persons, of which 21,035 males and 17,360 females. Timor-Leste’s tertiary education system consists of two separate entities: polytechnic / diploma and university. The census collected information on both types of tertiary education: 1,760 persons were recorded as following a polytechnic / diploma education and 36,635 were engaged in university studies. For the remainder of this chapter, both categories will be looked at together.

The majority of students (25,597, i.e. 66.7 percent) are residing in Dili municipality. This should not come as a surprise, as tertiary education is heavily concentrated in the capital. Because of this, tertiary education is highly related to internal migration within the country. Among all 38,395 persons in tertiary

education, 9,985 (26.0 percent) indicated they had moved for educational reasons. Out of the total 25,597 students in post-secondary education in Dili, 15,061 were life-time migrants to Dili municipality.

Calculating attendance ratios for tertiary education is not as straightforward as for primary or secondary education as the appropriate age groups are less straightforward. Some tertiary educations, such as for a medical specialization or PhD program, may take many years to complete. The calculation of the attendance ratio for tertiary education is normally restricted to the total population of 18 – 23 years, however, because of the retrospective way the census question was posed, the age group 19 – 24 will be looked at.

The net attendance ratio for tertiary education equals 16.3 percent. This is considerably higher than in 2010, when the NAR was 6.7 percent. The NAR for males and females was almost the same: 16.2 percent for males and 16.4 percent for females. As tertiary educational institutes are situated in urban areas, the NAR is much higher in these areas compared to rural areas (29.4 against 7.1 percent).

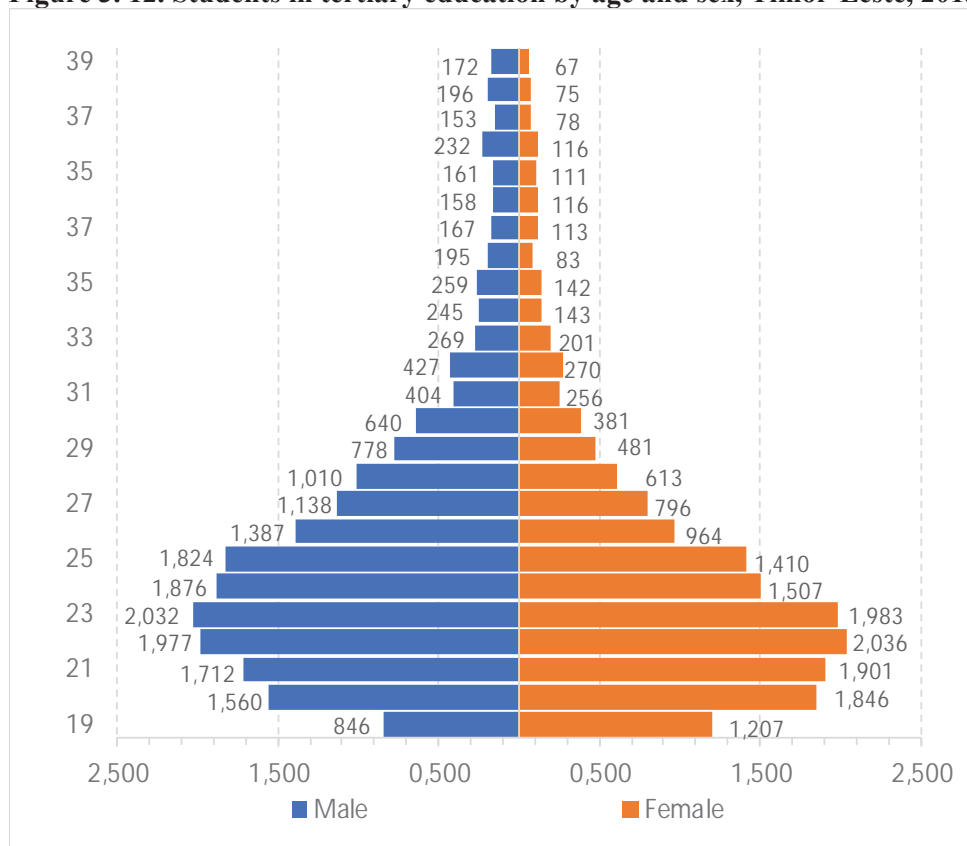
Table 3. 8 Net attendance ratios (NAR) and gross attendance ratios (GAR) tertiary education by sex, background characteristic and the Gender Parity Index (GPI), according to background characteristics, Timor-Leste, 2015

Backgro und character istic	Net attendance ratio				Gross attendance ratio			
	Male	Female	Total	Gender parity	Male	Female	Total	Gender parity
Tertiary education								
Total	16.2	16.4	16.3	1.01	34.0	27.2	30.5	0.80
Residence								
Urban	28.2	30.7	29.4	1.09	55.8	49.5	52.7	0.89
Rural	7.5	6.7	7.1	0.89	18.2	12.0	15.0	0.66
Municipality								
Aileu	7.2	8.0	7.6	1.12	19.3	16.4	17.9	0.85
Ainaro	6.6	6.5	6.6	0.98	15.4	11.9	13.6	0.77
Baucau	10.7	11.4	11.1	1.06	25.1	19.8	22.4	0.79
Bobonaro	5.5	6.0	5.8	1.10	15.2	10.9	13.0	0.72
Covalima	8.0	8.4	8.2	1.05	17.1	12.5	14.8	0.73
Dili	31.3	33.9	32.6	1.08	61.1	54.1	57.6	0.88
Ermera	8.0	5.1	6.5	0.64	18.9	10.1	14.3	0.53
Lautem	9.5	9.4	9.5	0.99	20.2	15.8	18.0	0.78
Liquiça	6.3	5.2	5.7	0.82	16.7	9.5	12.9	0.57
Manatuto	4.8	4.9	4.8	1.02	12.2	9.0	10.6	0.74
Manufahi	6.7	6.3	6.5	0.94	15.1	10.8	13.0	0.71
Oecussi	7.3	5.5	6.3	0.75	21.1	11.4	16.0	0.54
Viqueque	7.7	6.8	7.2	0.89	20.9	13.3	16.8	0.64

As so many young persons moved to Dili to pursue higher education, both the net and gross attendance ratios are much higher in Dili than in the other municipalities. Almost one third of all youngsters 19 – 24 year old in Dili are attending tertiary education. The municipality with the second highest attendance ratio is in Baucau, the location of the second largest urban centre, with a NAR of 11.1 and a GAR of 22.4 percent. Again, the gender parity index based on the GAR is considerably lower than the one based on the NAR. This shows that, although young female students attend higher education at the same ratio as their male counterparts during the ‘normal’ ages, males in general outnumber females. This is caused by the fact that many more males than females are over-aged in higher education.

The fact that male students in higher education are more over-age than female students is illustrated by the age-pyramid of students in tertiary education (Figure 3.13). Among all students in tertiary education, 60.4 percent of all females are in the age-bracket 19-24, against 47.6 percent of males

Figure 3. 12. Students in tertiary education by age and sex, Timor-Leste, 2015



Chapter 4. Literacy and language

According to the Principles and Recommendations for Population and Housing Censuses published by the United Nations (2008), a literate person is defined as someone who can both read and write, with understanding, a short simple statement on his/her everyday life. Literacy may be in any written language.

Literacy is a powerful indicator of a country's social and economic development and is a key target of the 2030 Sustainable Development Goals. Target 4.7 is linked to SDG 4 (Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all) and states that '*By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy*'¹³. To monitor progress for this target, the Inter-Agency and Expert Group on SDG Indicators (IAEG-SDGs) suggested indicator 4.6.1: *Proportion of population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex*. Based on the 2015 census part (a) of this indicator can be calculated, but no information on part (b) is available.

4.1. Literacy by language

In the 2015 Timor-Leste Population and Housing Census, literacy was measured for the four working languages used in the country: Tetun, Portuguese, Bahasa Indonesia and English. In principle, a person who is literate in one of the four languages can be considered as being literate. The approach taken in the census bears a minor disadvantage, that is persons may be literate but not in one of the four working languages (e.g. Chinese). It can be expected that the bias because of this will be minor, however. Information on knowledge and use of the working languages in the country is essential for the determination of educational policy. In the census, the following question was asked to all persons 5 years of age and older: '*Can (Name) speak, read or write in..... language?*' The possible answer categories were: '*1. Do not speak, read or write*', '*2. Speak only*', '*3. Read only*', '*4. Speak and read only*' and '*5. Speak, read and write*'. A person was considered literate in a language if he/she could speak, read and write in the language. As is most often the case in censuses, for practical reasons, the Timor-Leste census used self-assessment questions to determine a person's literacy status.

Table 4.1 presents the results of the four questions asked about literacy by language, for persons 5 years of age and older for the 2015 and 2010 censuses. From the results it is clear that Timor-Leste is a multi-lingual society and that literacy by language is improving quite rapidly. In 2010, 53.4 percent of persons 5 years of age and older could read and write in Tetun. In 5 years' time, this increased to 62.5 percent. The number of persons who can speak, read and write in Tetun has increased dramatically from 481,578 to 642,986. The percentage of people who were not able to speak, read or write Tetun decreased from 12.7 percent to 8.2 percent. Literacy in Portuguese and English is also increasing rapidly; literacy in Portuguese increased from 23.6 to 30.8 percent (7.2 percentage point increase) and English from 11.5 to 15.6 percent (4.1 percentage point increase). Bahasa Indonesia is the only language for which literacy has remained quite constant at around 36 percent. Despite this levelling-off of literacy in Bahasa Indonesia, it remains the second most used language next to Tetun.

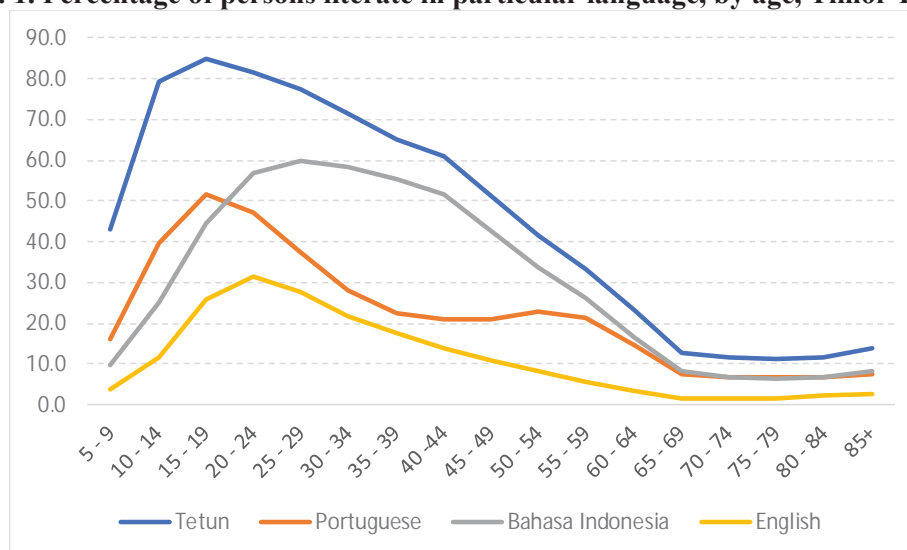
The changes in literacy between the four working languages is highly correlated with age. Figure 4.1 shows the percentage of persons literate in each of the four main languages, by age. For all age groups, Tetun is the language with the highest literacy rate. Literacy for Tetun is highest between ages 15 and 19;

¹³ To learn more about the 2030 Agenda for Sustainable Development, visit website: <https://sustainabledevelopment.un.org/post2015/transformingourworld>

Table 4. 1 Total population aged 5 and above by ability to speak, read and write by language, Timor-Leste 2010 – 2015

2015	Percent of total population	Total population numbers	2010	Percent of total population	Total population numbers
Do not speak, read or write	8.2	84,882	Do not speak, read or write	12.7	115,000
Speak only	25.7	264,922	Speak only	30.5	274,641
Read only	2.2	23,007	Read only	2.4	21,413
Speak and read only	1.3	13,739	Speak and read only	1.0	8,695
Speak, read and write	62.5	642,986	Speak, read and write	53.4	481,578
Total	100.0	1,029,536	Total	100.0	901,327
Portuguese			Portuguese		
Do not speak, read or write	39.3	404,992	Do not speak, read or write	49.5	446,108
Speak only	3.1	31,979	Speak only	4.1	36,597
Read only	24.5	251,750	Read only	20.9	188,765
Speak and read only	2.4	24,229	Speak and read only	1.9	17,103
Speak, read and write	30.8	316,586	Speak, read and write	23.6	212,754
Total	100.0	1,029,536	Total	100.0	901,327
Bahasa Indonesia			Bahasa Indonesia		
Do not speak, read or write	38.0	391,025	Do not speak, read or write	44.6	401,937
Speak only	6.2	63,767	Speak only	7.2	64,676
Read only	17.6	180,973	Read only	11.2	101,185
Speak and read only	1.7	17,261	Speak and read only	1.0	8,793
Speak, read and write	36.6	376,510	Speak, read and write	36.0	324,736
Total	100.0	1,029,536	Total	100.0	901,327
English			English		
Do not speak, read or write	61.0	628,057	Do not speak, read or write	68.6	618,204
Speak only	1.9	19,925	Speak only	2.5	22,602
Read only	19.8	203,522	Read only	16.1	144,901
Speak and read only	1.7	17,845	Speak and read only	1.3	11,940
Speak, read and write	15.6	160,187	Speak, read and write	11.5	103,680
Total	100.0	1,029,536	Total	100.0	901,327

Figure 4. 1. Percentage of persons literate in particular language, by age, Timor-Leste, 2015



at that age 84.8 percent of people know how to speak, read and write Tetun. Illiteracy increases rapidly with age for all four languages. An interesting change can be observed in the age-specific literacy rates between Portuguese and Bahasa Indonesia. Literacy in Portuguese is higher between ages 15 and 24, but after age 25 many more people are proficient in Bahasa Indonesia than in Portuguese.

Figure 4.2 shows that for each of the four working languages, literacy is lower for females than for males. While 65.0 percent of males 5 years of age and older know how to speak, read and write in Tetun, only 59.9 percent of women do so.

Figure 4. 2. Percentage of people aged 5 years and over who are literate in each particular language by sex, Timor-Leste 2015

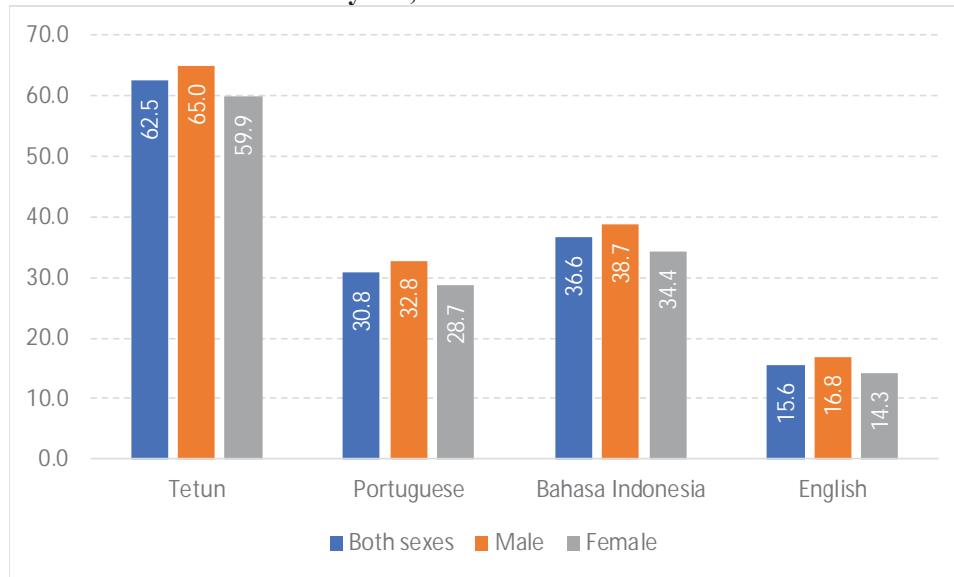
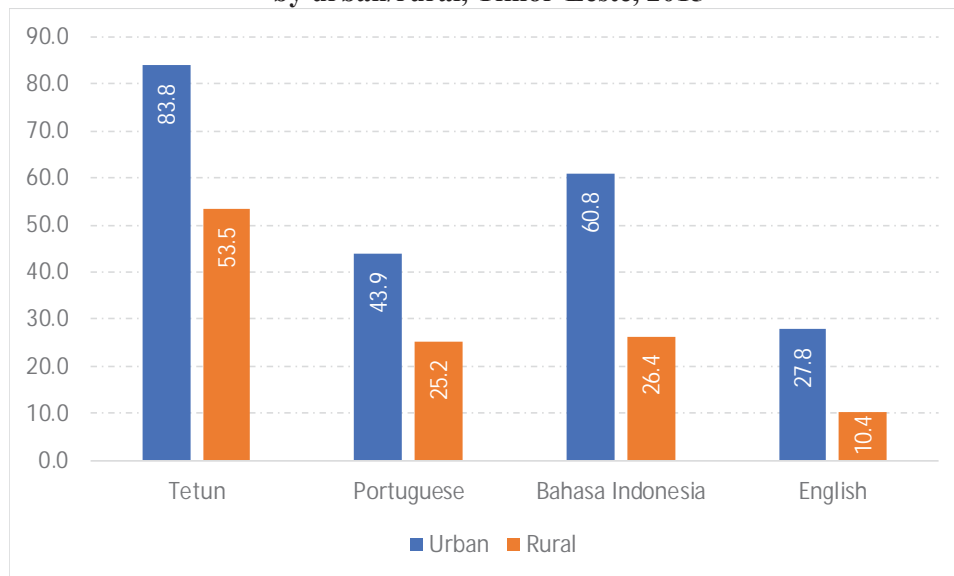


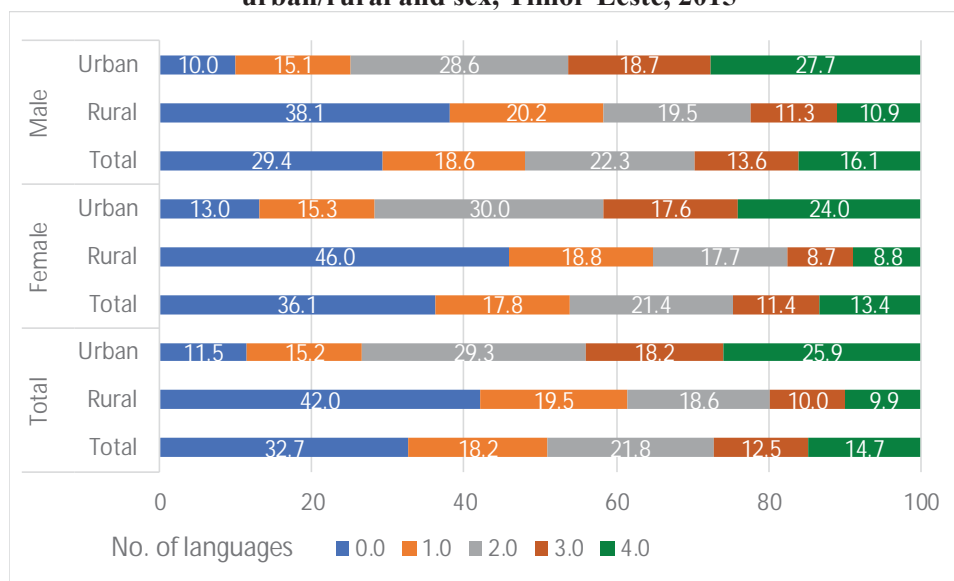
Figure 4. 3. Percentage of people aged 5 years and over who are literate in each particular language by urban/rural, Timor-Leste, 2015



Very large differences exist in literacy rates for all four languages between urban and rural residency. The literacy rate in Tetun is a full 30 percentage points lower in rural areas than in urban areas: 83.8 against 53.5 percent. Among people in urban areas, literacy in Bahasa Indonesia is 60.8 percent, while only 26.4 percent are able to speak, read and write the language in rural areas. Actually, a higher percentage of people in urban areas are literate in Bahasa Indonesia, than people are literate in Tetun in rural areas. Only about 10 percent of people in the rural areas are literate in English against 27.8 percent in urban areas.

In a multi-lingual society it is particularly important to know how many people are literate in more than one language. Figure 4.4 depicts the percentages of persons 10 years of age and older, by literacy in the number of languages by urban/rural residency and sex. Of all persons, 10 years of age and older, 32.7 percent cannot read or write in any of the four main languages, 18.2 percent are literate in one language, 21.8 percent in two languages, 12.5 percent in three languages and 14.7 percent in four languages. Large differences exist between urban and rural areas. While 42.0 percent of people cannot read or write in any language in rural areas, this percentage is 11.5 percent in urban areas. At the other end of the spectrum, in rural areas 9.9 percent of people are literate in all four working languages versus 25.9 percent in urban areas. Also, some differences exist between male and females: 36.1 percent of females are unable to read and write in any of the four languages, against 29.4 percent of males. About 13.4 percent of females are literate in all four languages against 16.1 percent among males.

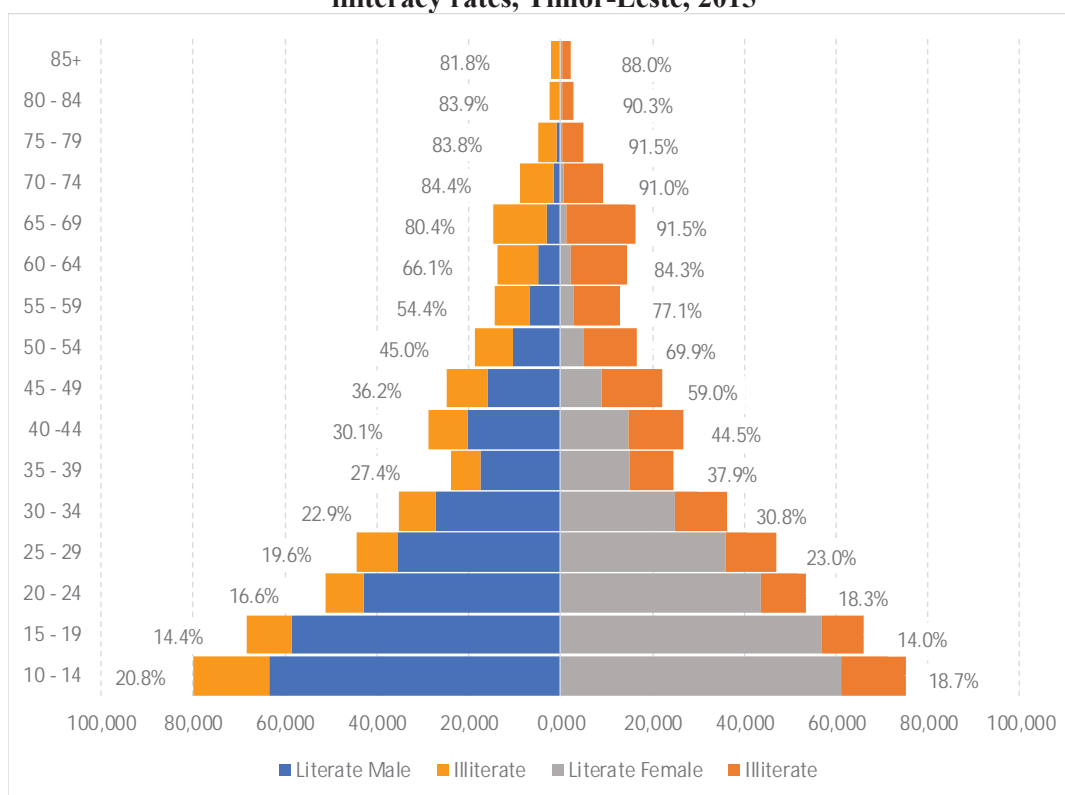
Figure 4. 4. Percentage persons 10 years of age and older, by literacy in number of languages, by urban/rural and sex, Timor-Leste, 2015



4.2. General characteristics of literacy

In the census, a person is considered to be literate if he/she is able to read and write, with understanding, a short, simple sentence about one's everyday life in any of the four languages. Among all persons 10 years of age and older, 283,673 indicated in the 2015 census that they were illiterate. More women than men are illiterate: 155,499 versus 128,174. Compared to the 2010 census, the total number of illiterate persons has decreased. In 2010, 300,880 persons were illiterate, 136,359 males and 164,521 females. The literacy rate for all persons 10 years of age and over is 67.3 percent, with women having a lower literacy rate (63.9 percent) than men (70.6 percent). Illiteracy is highly correlated with age. Figure 4.5 shows a population pyramid with literacy status. The percentages outside the bars indicate the percentage of the sex/age group that is illiterate.

Figure 4. 5. Population 10 years of age and older by literacy status and sex, with age-specific illiteracy rates, Timor-Leste, 2015



The population pyramid clearly shows the very high illiteracy levels of the past. More than half of all women above age 45 and more than half of all men above age 55 are illiterate. Just a small minority of older persons are literate. Between age 65 and 69 more than 90 percent of women and 80 percent of men are unable to read and write in any of the four working languages used in the country. Over the years, serious efforts have been made to combat illiteracy. However, even among young persons, more than just a few are unable to read or write. In the age group 15 – 19 years old, 14.4 percent of males and 14.0 percent of females are illiterate.

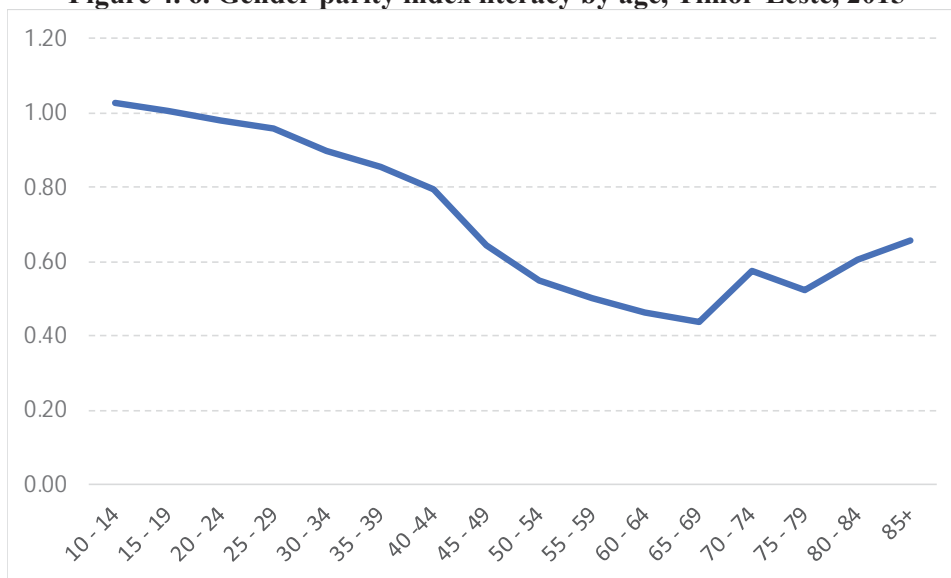
The Convention of the Rights of the Child defines a child as any person under 18¹⁴. As education is a human right, the percentage of children who are literate is an important indicator. As children under five are too young, the literacy rate for children 5 – 17 years old was calculated. According to the 2015 census, literacy in this group was 66.1 percent for boys and 68.1 percent for girls and 67.1 percent for both sexes. The literacy in this group is low because those in age-group 5 – 9 years have high illiteracy levels (55.9 percent)

Above age 20, in each five-year age group, illiteracy is considerably higher for females than for males. Figure 4.6 shows the GPI by age and is calculated by dividing the age-specific literacy rates of females by the corresponding literacy rates for males. One can see that at younger ages the GPI is almost equal to one, indicating almost equal levels of literacy for males and females. After age 20 the GPI drops below 1, when literacy becomes lower for females than for males. For each consequent age category, the GPI drops until age group 65 – 69 years. Women in this age group have almost 60 percent lower levels of literacy

¹⁴ Retrieved from: https://www.unicef.org/crc/files/Rights_overview.pdf

than their male counterparts. It is interesting that at older ages the GPI increases again. It is unclear what exactly causes this trend. It may be that a selection process is operating with better educated women living longer.

Figure 4. 6. Gender parity index literacy by age, Timor-Leste, 2015



About 10 percent of people 10 years of age and above who are illiterate are attending school (Table 4.2). and 14.2 percent indicated that at some point in their life they have attended school in the past. As can be expected, the vast majority (73.9 percent) never attended school.

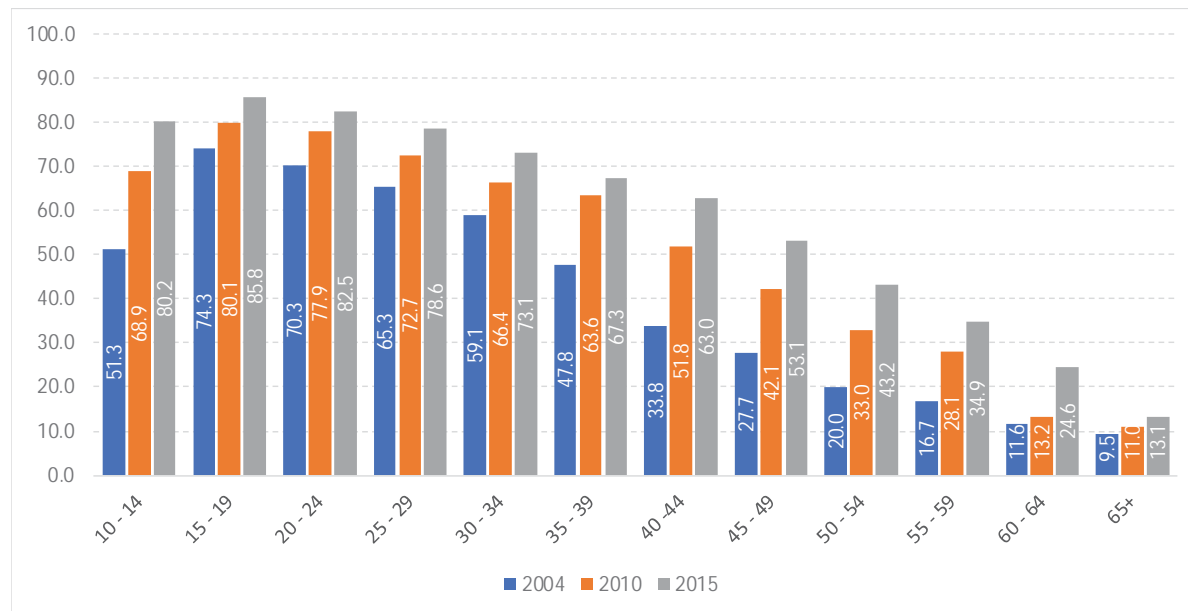
Table 4. 2 Education status and highest level attained by the illiterate populations 10 years and above by sex, Timor-Leste 2010

	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Yes, Attending School	15,614	12.2	13,486	8.7	29,100	10.3
Yes, Attended before/left school	20,799	16.3	19,241	12.4	40,040	14.2
No, never attended school	89,234	69.9	119,661	77.2	208,895	73.9
Don't know	2,003	1.6	2,594	1.7	4,597	1.6
	127,650	100.0	154,982	100.0	282,632	100.0

The progress Timor-Leste has made in its fight against illiteracy is clearly illustrated in Figure 4.7 which shows age-specific literacy rates obtained in the latest three censuses (2004, 2010 and 2015). Impressive progress has been made for all age groups. This progress has the highest impact at the youngest age group. In 2004, among age group 10 – 14 years only 51.3 percent of youngsters were able to read and write, in 2010 the literacy rate had increased to 68.9 percent and in 2015 this stood at 80.2 percent. This is nearly 30 percentage points higher than 11 years prior. Furthermore, most people who are now, for instance in age group 20 – 24, were in 2004 more or less aged 10 – 14. Comparing age groups 10 years apart can show whether literacy fared among the same groups over time. Literacy among the group of 20 – 24 year old, who were 10 – 14 years old in 2004, is now 82.5 percent, while it was only 51.3 percent for 10 – 14 year old persons in 2004. This means that also after age 15 people who are unable to read and write are catching up at a later age. The same holds true to some extent for people at more advanced ages. For instance, people who are now 45 – 49 years old have a literacy rate of 53.1 percent, in 2004 the same group was 35 – 39 years old and at that time had a literacy rate of 47.8 percent, 5.3 percentage points

lower. For each age group, the literacy rates in 2015 are consistently higher than the 10 year younger age group shown in 2004. These results show the effect of the mass adult literacy campaigns that were organized after the country's independence¹⁵.

Figure 4. 7. Trends in literacy levels, 2004 - 2015, by 5-year age-groups, Timor-Leste

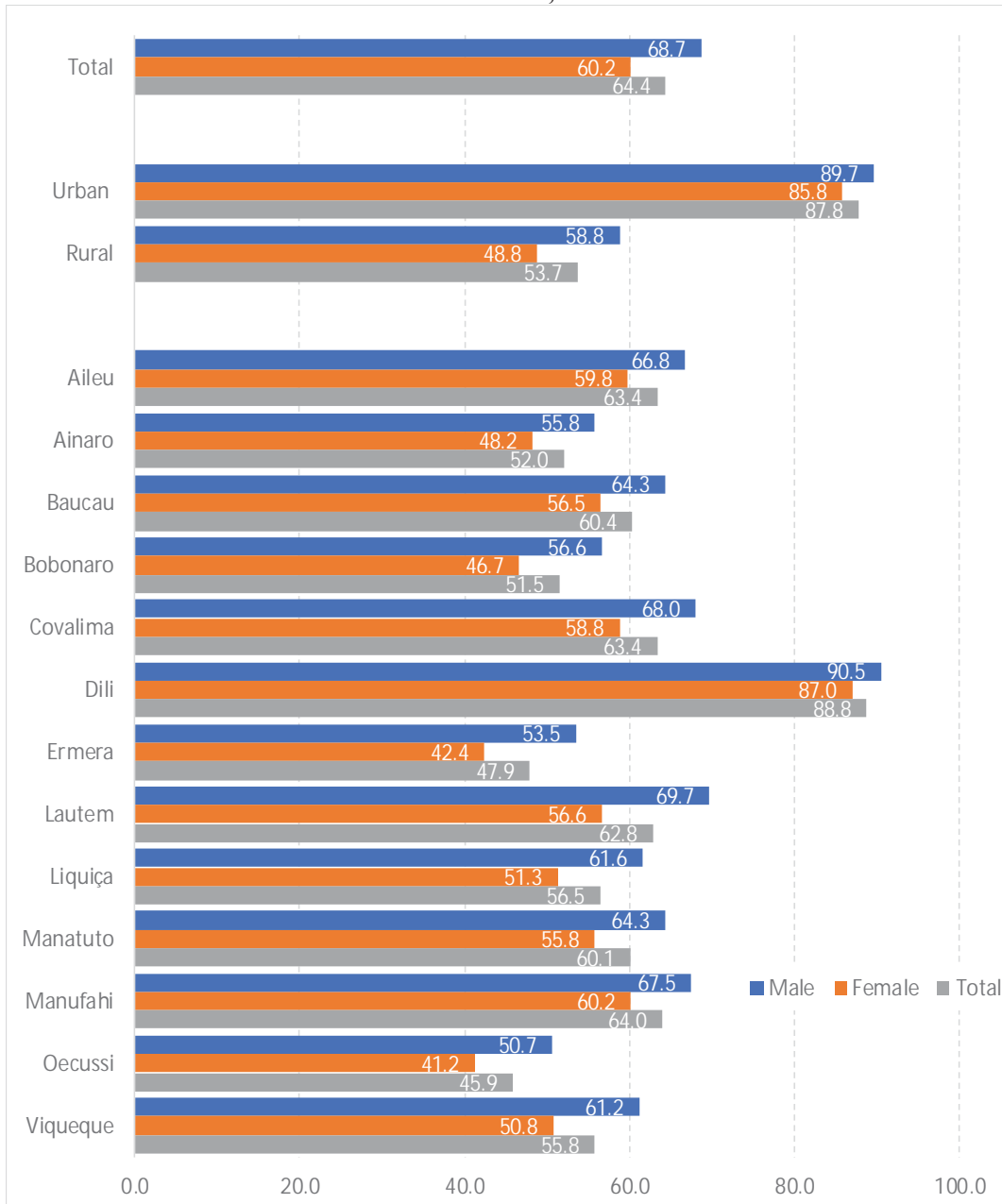


The adult literacy rate (15+ years) is one of the most important indicators of a country's social development. The Timor-Leste adult literacy rate stood at 64.4 percent, based on the 2015 census. Adult literacy is 68.7 percent for males and 60.2 percent for females. In 2010, the adult literacy rate was 57.8 percent indicating significant progress in just five years. Large differences exist between rural and urban areas and between the various municipalities (Figure 4.8). The adult literacy rate is 87.8 percent in urban areas, but is just slightly above half (53.7 percent) in rural areas. Literacy is lowest in Oecussi where only 45.9 percent of people can read and write in any of the four working languages. This is in stark contrast with Dili municipality where 88.8 percent of the population is literate. In Dili, the adult literacy rate is more than 20 percentage points higher than in the second highest municipality (Manufahi, 64.0 percent). In each municipality, the adult literacy rates for males are significantly higher than for females. The differences between both sexes is highest in Lautem where males score 13.1 percentage points higher than females (69.7 versus 56.6 percent).

Even within municipalities there are important differences in adult literacy. Figure 4.9 depicts a thematic map with adult literacy rates by administrative post. The Administrative Post with the lowest adult literacy rate is Atsabe in Ermera municipality where only 35.7 percent of the population can read and write. The highest literacy can be found in Dom Aleixo in Dili municipality where 92.4 percent of the population 15 years of age and older is literate. Generally, literacy is lowest in the North-Western side of the country, together with Administrative Posts in more mountainous areas. Literacy is highest in Administrative Posts where important urban centers are situated.

¹⁵ For an overview of this campaign see for instance Boon, D.A.B (2014), Adult literacy education in a multilingual context: Teaching, learning and using written language in Timor-Leste Tilburg: Tilburg University

Figure 4. 8. Adult literacy rates (15 years and over) by urban/rural and municipality, by sex, Timor-Leste, 2015



Despite the progress made in the last years, Timor-Leste still scores quite poorly compared to most other countries in Southeast Asia. Figure 4.10 shows a comparison between all countries in the region¹⁶. Out of the eleven countries in the region, seven have adult literacy rates well above 90 percent. Only the Lao

¹⁶ The data for Figure 4.10 are based on figures from the World Bank (citing: United Nations Educational, Scientific, and Cultural Organization (UNESCO) Institute for Statistics.) and retrieved from website: [http://world-statistics.org/index-res.php?code=SE.ADT.LITR.ZS?name=Literacy%20rate,%20adult%20total%20\(%20of%20people%20ages%2015%20and%20above\)#top-result](http://world-statistics.org/index-res.php?code=SE.ADT.LITR.ZS?name=Literacy%20rate,%20adult%20total%20(%20of%20people%20ages%2015%20and%20above)#top-result)

Figure 4. 9. Adult literacy rates (15 years and over) by urban/rural and administrative post, Timor-Leste, 2015

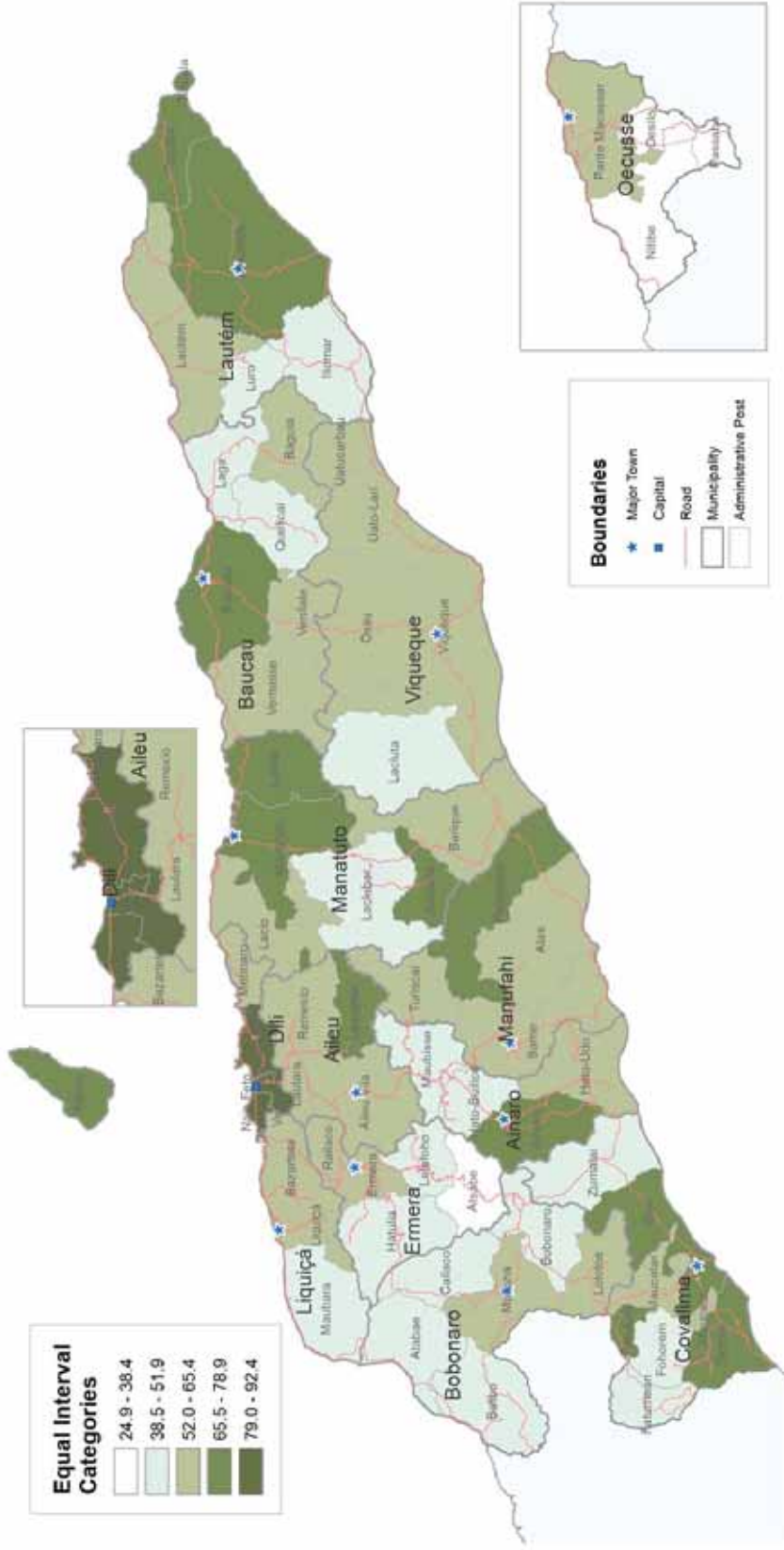
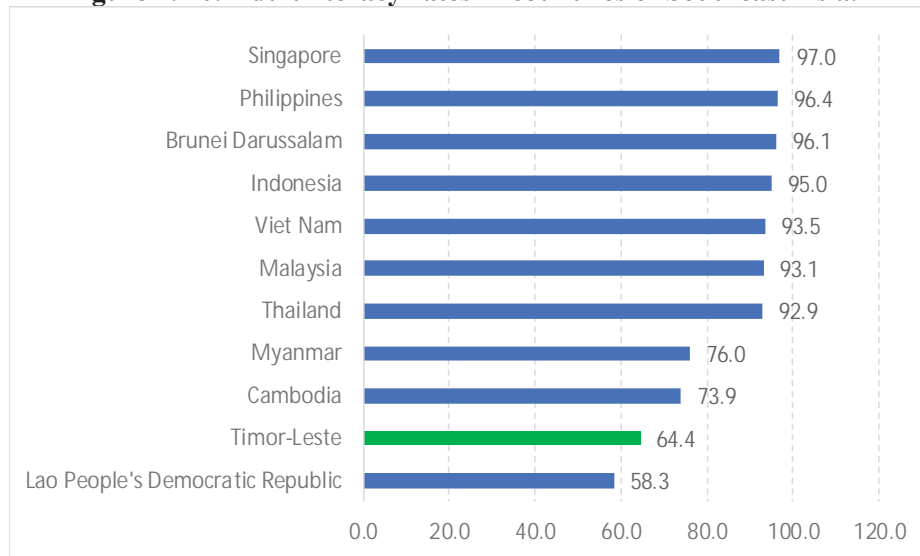


Figure 4. 10. Adult literacy rates in countries of Southeast Asia.¹⁷



People's Democratic Republic (LPDR) has lower adult literacy than Timor-Leste. According to data referring to 2011, 58.3 percent of the Laotian population 15 years of age and over could read and write. The adult literacy rate in Timor-Leste (64.4 percent) refers to 2015, but one has to keep in mind that in 2010 it was 57.8 percent, which is lower than in Lao PDR. In between the high group and the two lowest countries are Cambodia (73.9 percent) and Myanmar (76.0 percent).

4.3 Youth literacy

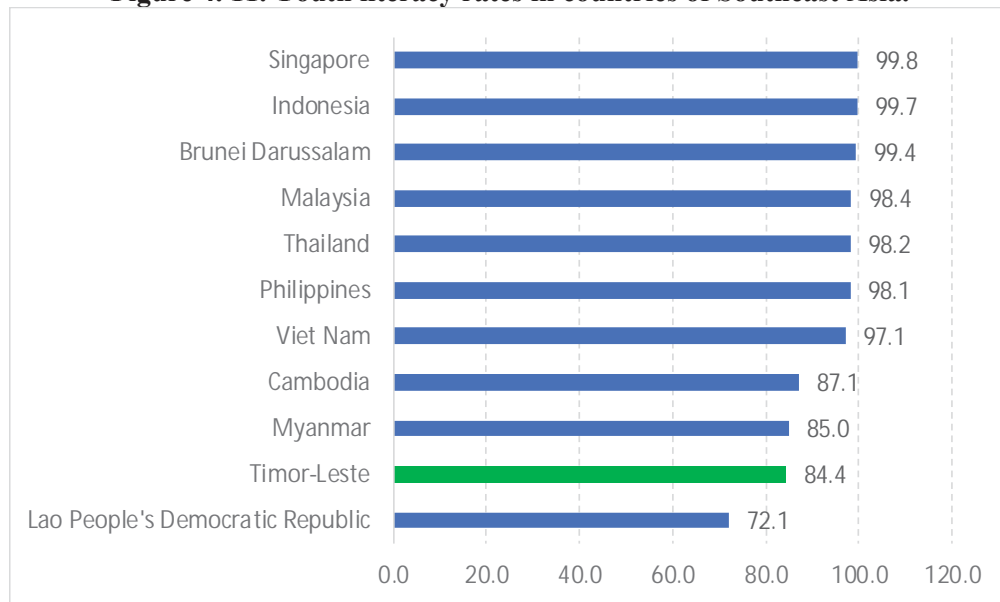
Another indicator that is frequently used in international comparisons is the youth literacy rate, which is defined as the percentage of people ages 15-24 who can, with understanding, read and write a short, simple statement on their everyday life. Currently, the youth literacy rate stands at 84.4 percent. There is still a clear difference between urban and rural areas: 94.3 percent of youth in urban areas can read and write compared to 78.5 percent in rural areas. Very little difference exists between male and female youth literacy. The literacy rate for young males stands at 84.7 percent whilst it is 84.1 percent for young females.

An international comparison shows that Timor-Leste still has a long way to go to catch up with the more affluent countries in the region but that its position is much closer to Myanmar and Cambodia. Myanmar has a youth literacy rate of 85.0 percent and Cambodia of 87.1 percent, just slightly higher than Timor-Leste's 84.4 percent. Singapore, Indonesia, Brunei Darussalam, Malaysia, Thailand, the Philippines and Vietnam all have reached a level of almost universal youth literacy. Still lagging behind is the Lao People's Democratic Republic with only 72.1 percent youth literacy. However, one has to consider that the figure for Lao PDR refers to the situation in 2011 and that also there the situation may have improved.

¹⁷ Data for the different countries are retrieved from website: [http://world-statistics.org/index-res.php?code=SE.ADT.LITR.ZS?name=Literacy%20rate,%20adult%20total%20\(%20of%20people%20ages%2015%20and%20above\)#top-result](http://world-statistics.org/index-res.php?code=SE.ADT.LITR.ZS?name=Literacy%20rate,%20adult%20total%20(%20of%20people%20ages%2015%20and%20above)#top-result) and cite data from the United Nations Educational, Scientific, and Cultural Organization (UNESCO) Institute for Statistics. Information refers to different years: Lao People's Democratic Republic (2011), Cambodia (2011), Myanmar (2016), Thailand (2015), Malaysia (2010), Vietnam (2009), Brunei Darussalam (2010), Viet Nam (2009), Indonesia (2016), Philippines (2013), Singapore (2016).

Large regional differences exist in Timor-Leste with regards to youth literacy. Figure 4.12 presents a map with the youth literacy rates per Administrative Post. As was the case for adult literacy, youth literacy is lowest in the North-western side of the country and in Oecussi. Youth literacy is lowest in Passabe in Oecussi, where only 50.3 percent of young people between 15 and 24 years can read and write at least one of the four working languages. Nitibe, which is in the same municipality, only has a youth literacy rate of 57.9 percent. Some other Administrative Posts, mainly in Ainaro, Bobonaro and Ermera score very low with a youth literacy rate between 60 and 70 percent.

Figure 4. 11. Youth literacy rates in countries of Southeast Asia.



4.4. Differentials in literacy

To determine the differentials in adult literacy, a logit regression was applied to the data. The dependent variable in the regression equation was whether a person, 15 years of age or older, was literate in any of the four working languages included in the census. The dependent variable was then linked to the following explanatory variables: sex, municipality, quality of the dwelling in which the household lives, urban/rural residency and migration status of the person. The results of the logit regression are presented graphically. For each variable a reference category was chosen, which is shown in green and which has the value 1. The results are presented as odds ratios, comparing the literacy of someone belonging to the particular category, to a person belonging to the reference group. A value higher than one indicates that the person belonging to the category has higher odds to be literate than a person belonging to the reference category, and a value lower than one odds that are lower than the reference category.

Figure 4.13 shows the relative risk (RR) ratios for adult persons (15+ years) to be literate, using 15-19 year olds as the reference group. The figure shows the effect of age on levels of literacy. As age increases, the chances of persons being literate diminish rapidly. After controlling for other intervening factors, the odds for a person 25 – 29 years old are almost two times lower than for a person in the reference category 15 – 19 years. A person who is 60 – 64 years old has 25 times lower odds to be illiterate. The RRs for age clearly show how difficult it was in the past for persons to get any form of education. The reference category for the variable ‘municipality’ is Aileu. After controlling for the other variables in the regression model, it shows that still very large differences exist. Literacy is lowest in Ermera (RR = .44) and Oecussi

(RR = .49) where a person's chance to be literate are more than two times smaller than in Aileu. Literacy is highest in Dili, even after controlling for other intervening factors: the odds ratio to be literate in Dili municipality is 25 percent higher than in Aileu. Once again, the quality of the dwelling the person lives in, as a proxy for the degree of poverty of the household, is an important differentiating factor. The poorer the quality of the dwelling he/she lives in, the lower his/her chances of being literate. A person who lives in a dwelling falling in the highest quality quintile, is more than 10 times more likely to be literate than a person in the lowest quality quintile. Persons living in rural areas are over two times less likely to be literate. The fact that women have much lower relative risk of being literate (RR = .58) shows the pattern of the past when more attention was paid to providing an education to boys than to girls. Finally, persons who are life-time migrants, are far more likely to be literate than those who have never moved in their lifetime (RR = .70).

Figure 4. 12. Youth literacy rates (15 years and over) by urban/rural and administrative post, Timor-Leste, 2015

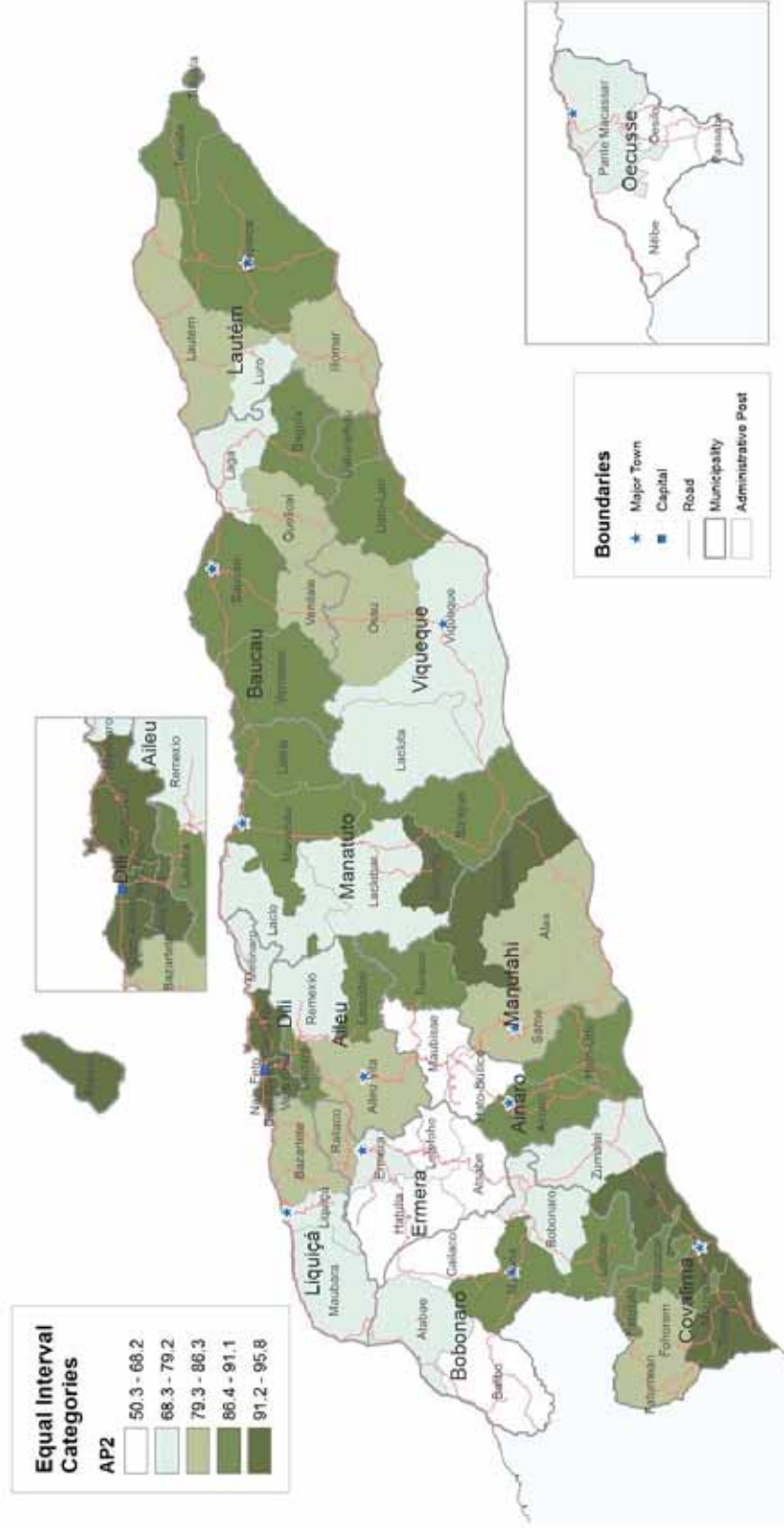
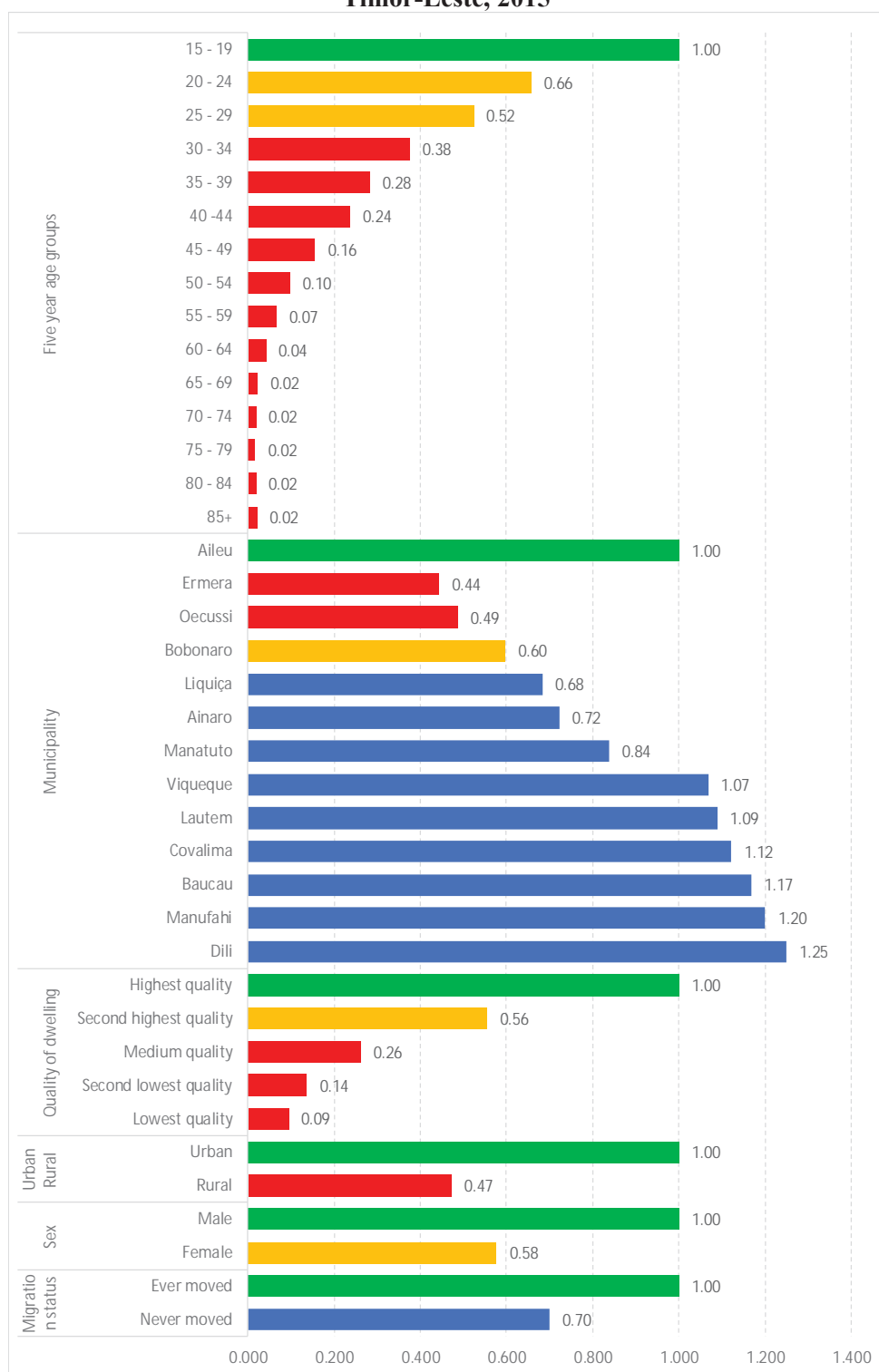


Figure 4. 13. Relative risk ratios for persons 15 years of age and above of being literate, Timor-Leste, 2015



Color Code: Green = reference category, Red = high risk for not being literate (Relative risk < .5), Orange = medium risk for not being literate (RR > .5 and < .70), Blue = neutral.

Chapter 5: Educational level

In the census, the educational level was defined according to the classification used by the Ministry of Education and Culture. The level of education of a person was asked to the head of household, namely ‘*What was the highest level of education the person has reached?*’ (question P.30). It should be clear that the question was not asked about completed level, if a person, for instance reached Grade 4 in primary education then the enumerator coded 2 for primary education. The fact whether a person completed the level indicated was then determined by the question ‘*What is the highest education class or year that (Name) Completed?*’ (question P.31). If a person was still in school, the enumerator was instructed to note down one year less than the current class the person was in. If the person left school upon completing a certain class, then the class was to be noted down.

5.1. Persons with no education

Assessing the educational attainment of the population in Timor-Leste, it is important to first look at the people who had never been to school. Table 5.1 shows the absolute number and the percentage of persons who had never been to school by broad age groups and sex.

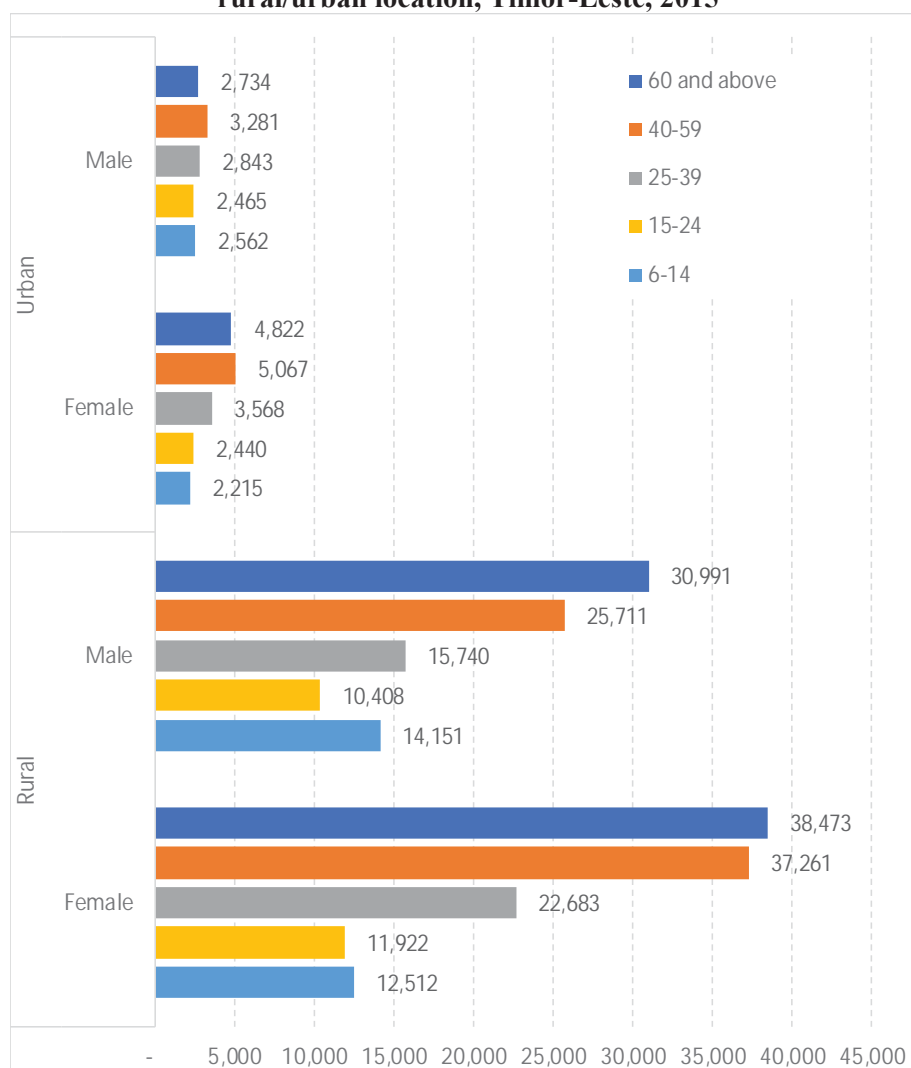
Table 5. 1 Population that has never been to school, by age and sex, Timor-Leste 2015

Age category	Male		Female		Both sexes	
	Number never went to school	% never went to school	Number never went to school	% never went to school	Number never went to school	% never went to school
6-14	16,713	11.8	14,727	11.1	31,440	11.4
15-24	12,873	11.1	14,362	12.4	27,235	11.7
25-39	18,583	18.5	26,251	25.0	44,834	21.8
40-59	28,992	34.2	42,328	55.1	71,320	44.1
60 and above	33,725	74.1	43,295	88.2	77,020	81.4
Total	110,886	22.7	140,963	29.4	251,849	26.0

Twenty-six percent of people aged 6 years and above never went to school. This accounts to 251,849 persons in the country. This percentage is considerably smaller than the one observed in the 2010 census, when 33 percent of the population never went to school. Both in absolute and relative terms, the number of females who never attended school is considerably higher than the number of males: 140,963 (29.4 percent) versus 110,886 (22.7 percent). In the previous chapter, it was noted that Timor-Leste has a very high illiteracy rates among older people. This is obviously closely connected to the fact that the majority of older persons never went to school. Above the age of 60 years, nearly three quarters of men and 88.2 percent of women never attended school. These percentages are lower than in 2010, when 81 percent of male and 91 percent of female elderly never had been to school.

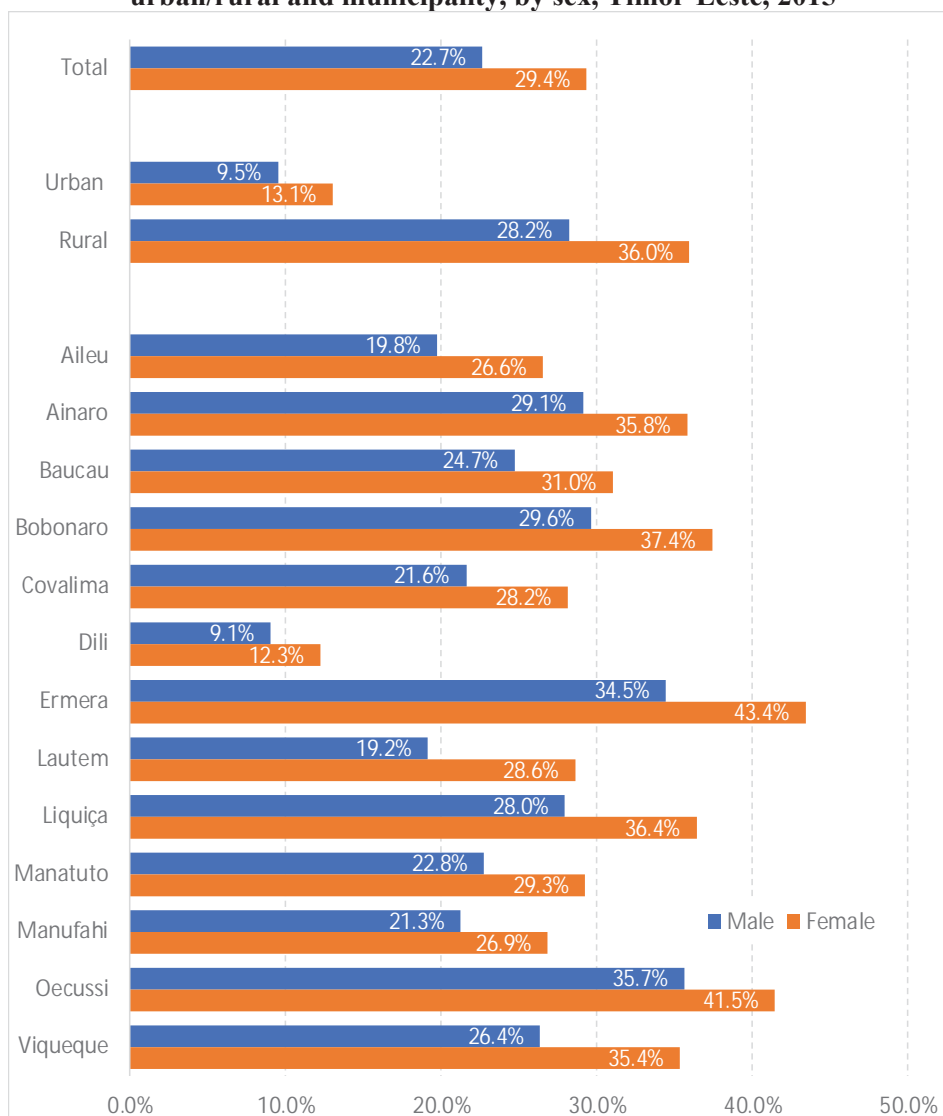
Figure 5.1 clearly shows that the majority of people who never attended school can be found in rural areas. Only 13,885 males and 18,112 females above the age of 6 years residing in urban areas have never attended school. In comparison, in rural areas this amounts to 97,001 males and 122,851 females. The majority of uneducated people are among older persons in rural areas. Actually, there are more females older than 60 living in rural areas who never went to school, than all the people of all age groups who never attended school in urban areas.

Figure 5. 1. Population aged 6 and above who have never been to school by sex, age group and rural/urban location, Timor-Leste, 2015



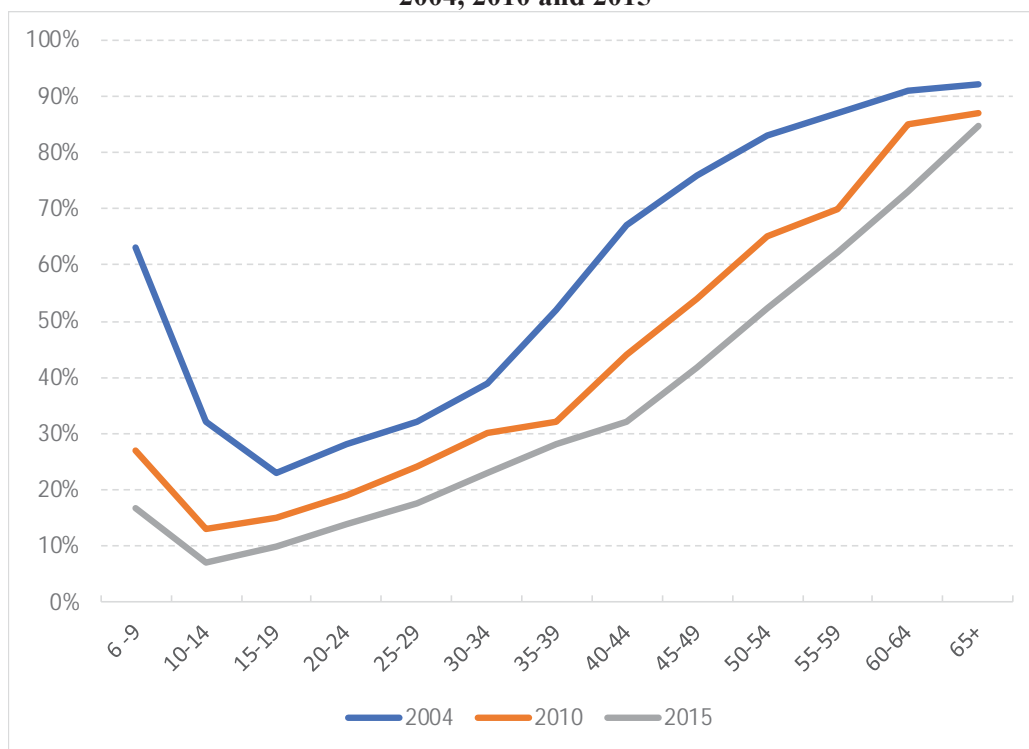
A more detailed regional division of the proportion of the population that never attended school is depicted in Figure 5.2. This shows the percentage of persons 6 years of age and older by municipality and sex. Large variations exist between Timor-Leste’s municipalities. The percentage of people who never went to school is lowest in Dili where 9.1 percent of males and 12.3 percent of females never went to school. Ermera and Oecussi show the highest prevalence of both sexes without an education, with 38.9 and 38.6 percent never attending school, respectively. In each of the municipalities, the female percentage is considerably higher than the male percentage. The difference is greatest in Lautem where the female percentage of never having been to school is 49.3 percent higher than the male percentage. Oecussi has the smallest difference between both sexes, with a 16.3 higher female than male percentage of never having attended school.

Figure 5. 2. Percentage of persons 6 years of age and older, who never went to school by urban/rural and municipality, by sex, Timor-Leste, 2015



Over the last 11 years, significant progress has been made in reducing the proportion of the population which has never attended school. In 2004, 49 percent of the population had never attended school, against 33 percent in 2010 and 26 percent in 2015. Data from 2004 were taken from the 2010 census report on education. This report used adjusted figures for 2004 as at that time more than 40 percent of people aged 6 and above had not stated their educational attainment and only 6 percent indicated they had “no schooling”. Therefore, the figures for 2004 for no schooling include those that were classified as ‘not stated’. Figure 5.3 shows that for the last two censuses the percentage of persons with no schooling is consistently lower than in the previous censuses. Most progress has been made in the age category 6 – 9 years. In 2010, 27 percent of children in the age group 6 to 9 years old had never attended school, against 63 percent in 2004. In 2015, this was brought down to 17 percent. Children who enter the education system over-age has always been a big problem in Timor-Leste. Nevertheless, the census results show that this is becoming less of a problem.

Figure 5. 3. Population aged 6 and above that has never attended school by age group, Timor-Leste 2004, 2010 and 2015



5.2. Educational attainment

The analysis of educational attainment is completely based on the question regarding the highest education class or year the person completed. This question was asked to persons who have completed their education as well as people who were still in school. Text box 5.1 shows the answer categories to this question. After extensive testing it was found that the quality of the information on this question is ambiguous and that it contains many inconsistencies with the question on educational level. The quality of the results has most probably been affected by the complexity of the three questions on education. These questions were asked for both persons who are still attending school and those who completed their education. Interviewing was further complicated by the fact that retrospective questions were asked and not on current attendance and by the large set of answer categories to the question on year and class completed. Another problem which arose during field work was that the education system was different during the Indonesian and the Portuguese administrative period. It is advisable that for the next census a new system should be developed to probe both the population who are currently attending school and those who have finished school. Because of the data problems, the results on educational attainment should be considered somewhat more indicative, rather than an exact description of the situation in 2015.

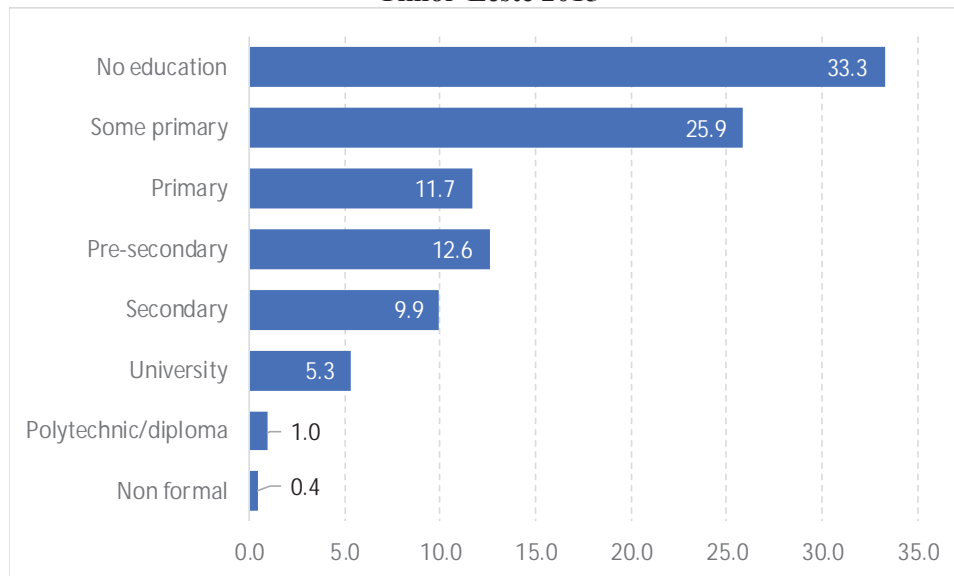
The educational attainment of the population of Timor-Leste was restricted to those 15 years of age and over. It should be noted that, especially among young persons, some may still be in school and that they may reach higher levels of education in the future.

Text box 5.1. Answer categories to the question on highest education class or year completed, Timor-Leste, 2015

P31: Class / Year	Pre-Secondary / Basic Education	University
Pre-Primary / None	10: Class 1 / Class 7	19: year 1
90: Kindergarten	11: Class 2 / Class 8	20: year 2
00: None	12: Class 3 / Class 9	21: year 3
Primary / Basic Education	Secondary / Technical Education	22: year 4
1: Class 1	13: Class 1	23: year 5
2: Class 2	14: Class 2	24: Master and above
3: Class 3	15: Class 3	Non - Formal
4: Class 4	Polytechnic / Diploma	25: less than 1 year
5: Class 5	16: year 1	26: year 1
6: Class 6	17: year 2	27: year 2
	18: year 3	28: year 3
		29: year 4
		30: year 5
		31: year 6

The educational attainment of the population 15 years of age and older is summarized in Figure 5.4. A third of people older than 15 years did not get any education (33.3 percent). In 2010 this was 39 percent and in 2004 almost 50 percent. A quarter of all persons (25.9 percent) had some primary education but did not finish such education. This is much higher than in 2010, when 13 percent had pre-primary or some primary education. Completed primary school was the highest level of education attained for 11.7 percent of the population, while slightly more (12.6 percent) finished pre-secondary. This is about the same as in 2010. Interestingly, in 2015 the percentage of the population which finished secondary school was lower than in 2010. In the former year this stood at 9.9 percent whilst the latter it was 14 percent. Five percent of the population had finished at least some university studies.

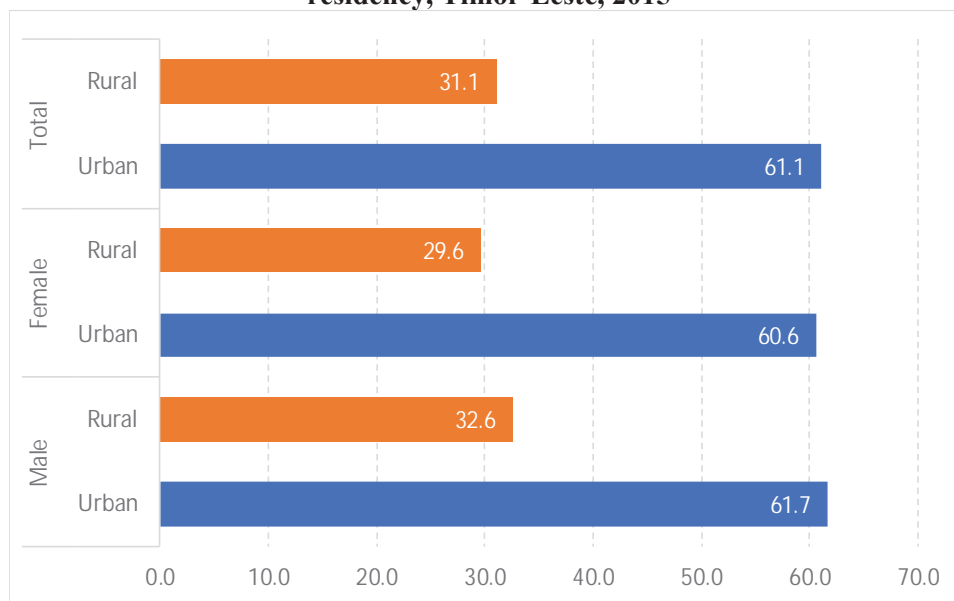
Figure 5. 4. Highest level of education completed, adults aged 15 years of age and over, Timor-Leste 2015



5.2.a. Primary education

The percentage of people in a population that have finished at least primary education (or higher) is an important indicator for socio-economic planning. In Timor-Leste, 40.4 percent of the population 15 years and older indicated they had successfully finished (at least) primary education. The percentage of males (41.9 percent) was slightly higher than the percentage of females (39.1 percent). Large differences exist between rural and urban areas in terms of primary school completion (Figure 5.5). In urban areas, 61.1 percent of the population had completed primary education, against 31.1 percent in rural areas. It should be noted that these percentages are lower than in 2010. It is very unlikely that the percentage of people with at least a primary education would have gone down. There are probably some flaws in the data, either in 2010 or in 2015, or perhaps in both as the same methodology was used in both censuses. Unfortunately, the published 2016 DHS data are of little comparative use, as they provide educational attainment from age 6 and not 15. According to the 2016 DHS information, the percentage of persons 6 years and over with at least primary education is 43.5 for males and 42.3 for females.

Figure 5. 5. Percentage of population with at least primary education by sex and rural/urban residency, Timor-Leste, 2015

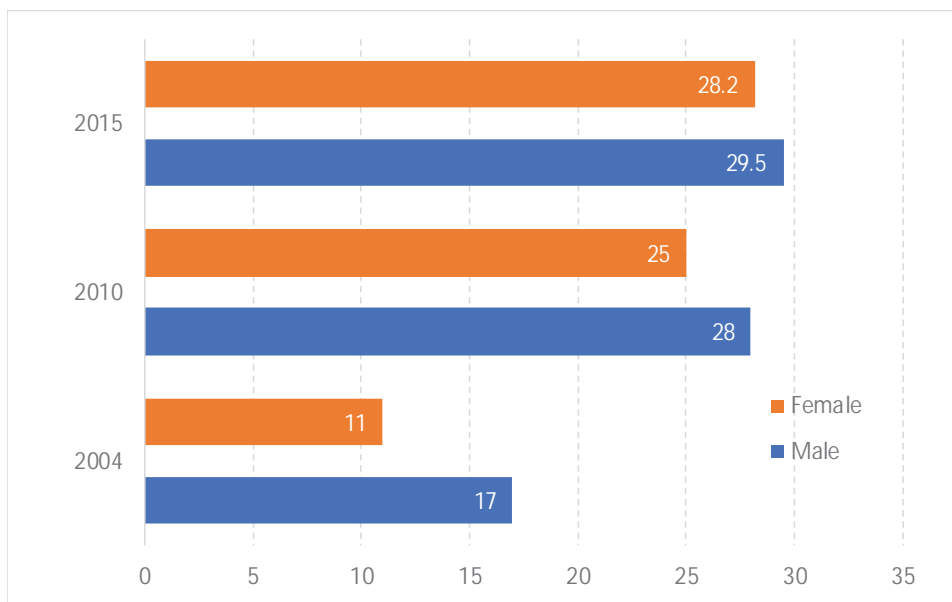


5.2.b. Pre-secondary and secondary education

Another important indicator is the percentage of the population that has finished pre-secondary school or higher. People with this educational level have the skills to operate a position in the work force that requires somewhat more advanced knowledge, skills and competencies. The census indicated that 28.8 percent of the population 15 years of age and older has completed pre-secondary education or higher. Data on pre-secondary/secondary school is also available for the 2004 and 2010 censuses (Figure 5.6). The figures show that over the years, important progress has been made. In 2004, only 17 percent of males and 11 percent of females 15 years of age and older had completed pre-secondary education or higher. In 2010, this was 28 and 25 percent, respectively. Between 2004 and 2010 the percentage of males who finished pre-secondary education increased significantly; since then the percentage increased slightly to 29.5 percent. Among females there was a stronger increase between 2004 and 2010 and since then growth has

continued. In 2015, the percentage was 28.2 percent, which means that women are rapidly closing in on men.

Figure 5. 6. Percentage of population with at least pre-secondary education by sex, Timor-Leste, 2004, 2010 and 2015

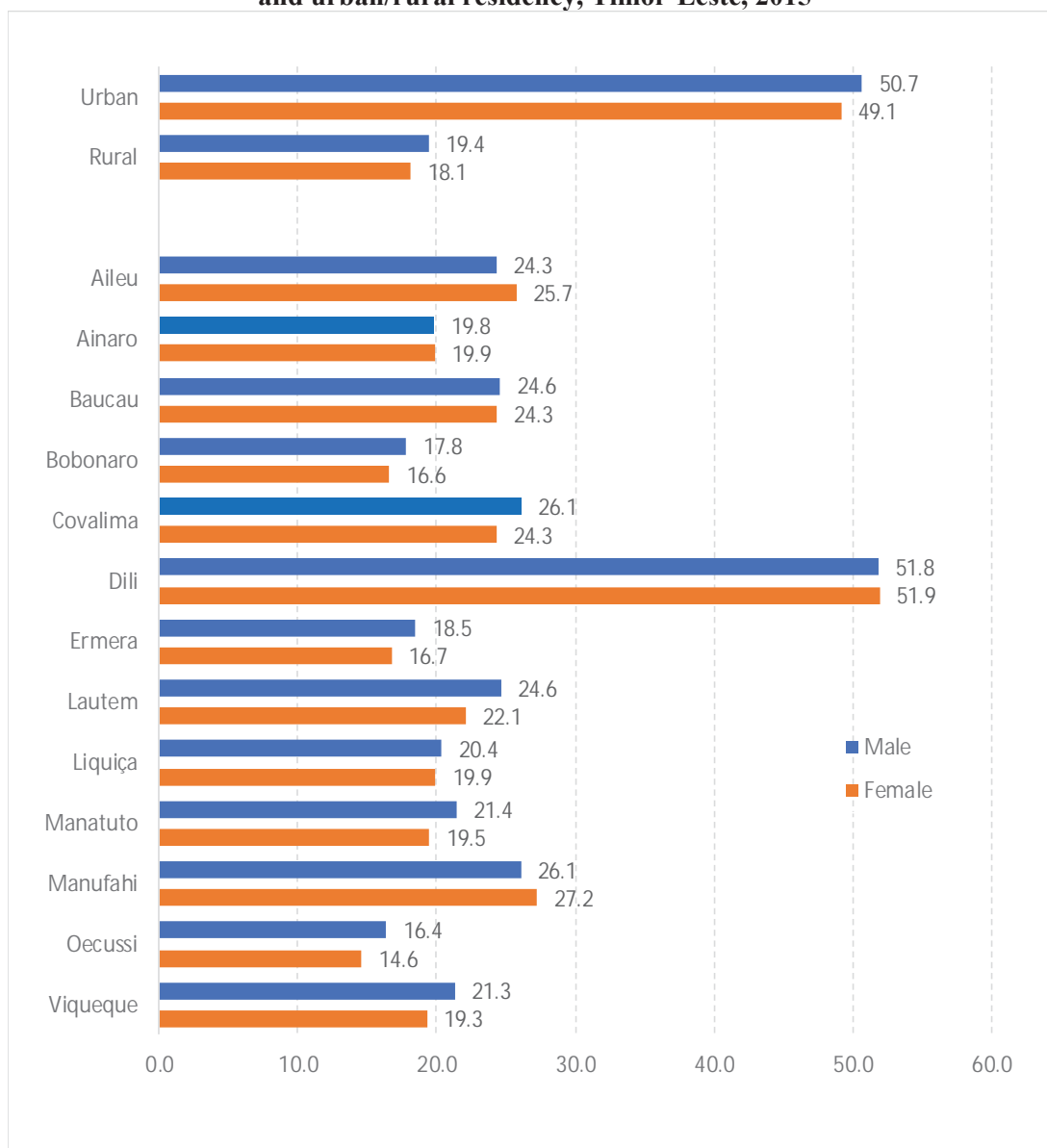


Large regional differences exist between the percentages of persons aged 15 years and older in terms of their completion of pre-secondary, secondary or higher education. The first feature that catches the eye is the fact that for both males and females, the percentage of those who finished pre-secondary education or higher is more than two times higher in urban areas than in rural areas. The 2010 census showed large differences between males and females in the proportion that had completed pre-secondary and secondary education. Figure 5.7 shows that these differences have almost completely disappeared. In four out of 13 municipalities, the percentage of girls who have completed at least pre-secondary education is higher than for males. The percentage completion of pre-secondary education is highest in Dili municipality (51.8 percent for males and 51.9 percent for females). The lowest percentages can be found in Oecussi, where only 16.4 percent of males and 14.6 percent of females finished pre-secondary education or higher levels of education.

5.2.c. Tertiary education

In the census, 44,928 persons 17 years of age and older were enumerated who had at least some tertiary education: 6,840 of them had completed at least some Polytechnic/Diploma studies. The number of persons 17 years and older with a tertiary education accounts for 3.8 percent of the total population. The number of persons with tertiary education in 2010 was 25,299 persons, with a total of 6,181 people who had completed some Polytechnic/Diploma studies. In 2010, 62 percent of all persons who had studied at a university were male, and 38 percent were female. In just 5 years, this balance has drastically changed. In 2015, among all 44,938 persons with a tertiary education 53.4 percent were male and 46.6 percent were female. The percentage of males with at least some tertiary education is 4.0 of the total male population 17 years and older and 3.6 of all females 17 years and older have at least some tertiary education.

Figure 5. 7. Percentage of population with at least pre-secondary education, by sex, municipalities and urban/rural residency, Timor-Leste, 2015

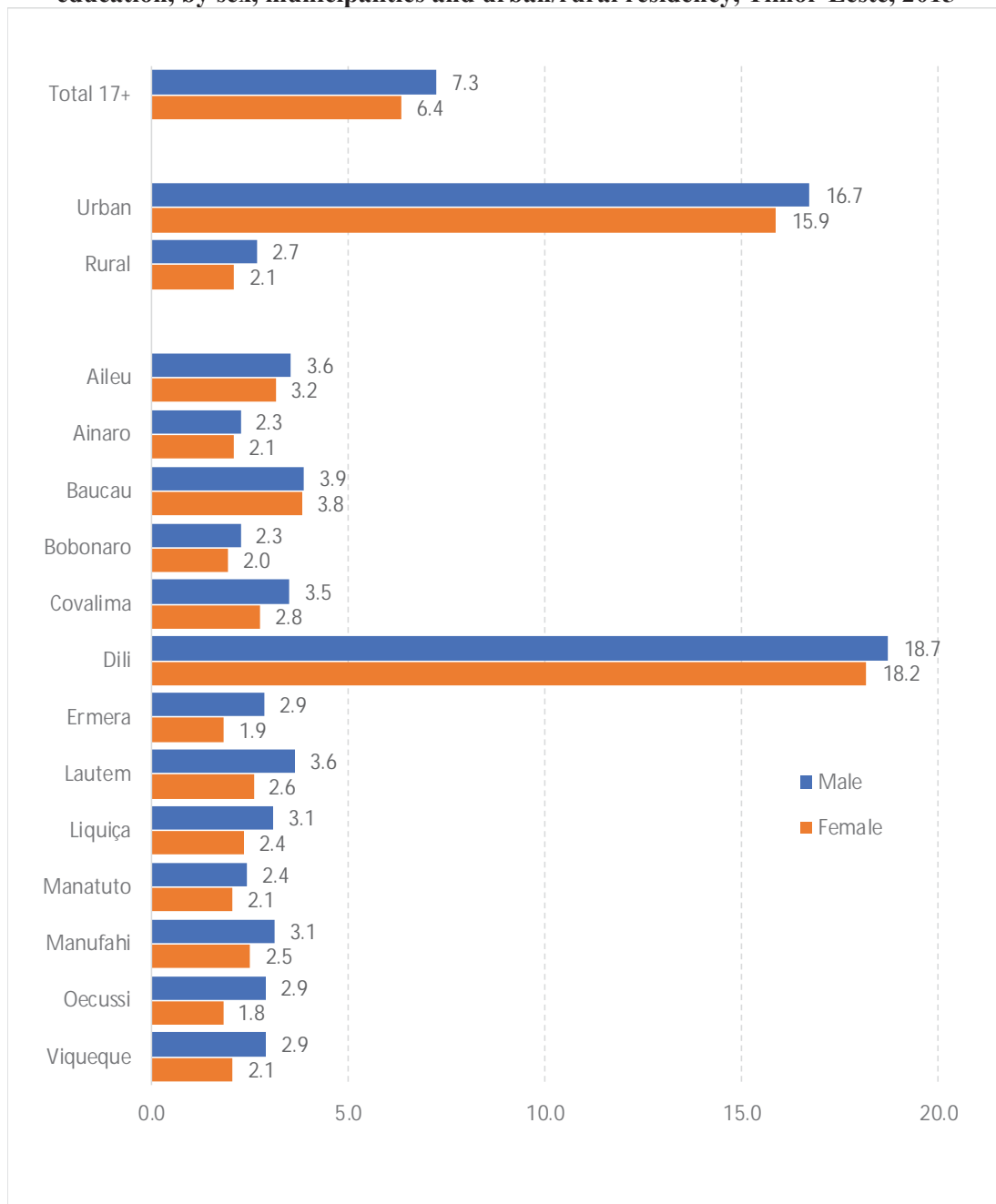


The number of persons in a region who completed a higher education is crucial, as the skills and knowledge obtained through an education are key to driving socio-economic development. The 2015 census shows a highly skewed distribution of persons with at least some university or polytechnic education. Out of all persons with higher education, 31,611 reside in Dili municipality. This constitutes 70.0 percent of all highly educated persons in the country. Out of the 13 municipalities, five have less than a thousand persons with at least some higher education (Aileu, Ainaro, Manatuto, Manufahi and Oecussi).

Figure 5.8 shows the percentage of males and females 17 years of age and older who had at least some tertiary education by municipality and urban/rural residency. In the total population 17 years and older, 7.3 percent of men and 6.4 percent of women have some tertiary education. In urban areas, this is far higher with 16.7 and 15.9 percent for males and females, respectively. In rural

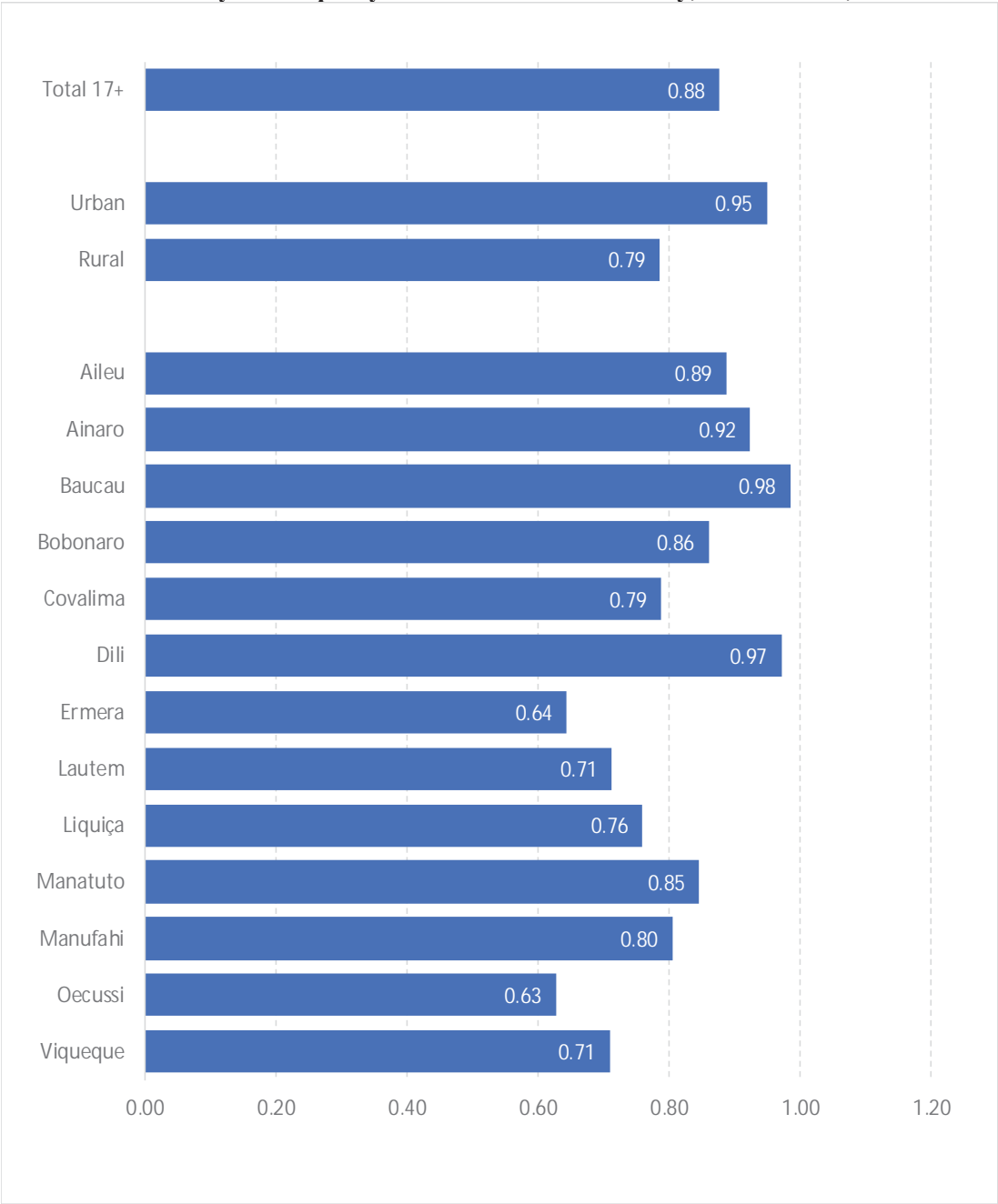
areas, only 2.7 percent of males 17 and older and 2.1 percent of females have at least some tertiary educational attainment. The concentration of the highly educated in the capital is clearly visible with more than 18 percent of all persons 17 and older having at least some tertiary education. This should not come as a surprise as many of the higher-level jobs in the government and in the private sector are in Dili. All other municipalities show between 1.8 and 3.9 percent of their adult population having a higher education.

Figure 5. 8. Percentage of population 17 years of age and older with at least some tertiary education, by sex, municipalities and urban/rural residency, Timor-Leste, 2015



The gender parity index for higher educational attainment still shows some inequality favoring men (Figure 5.9). The gender parity index stands at .88 for the whole country. It is interesting that disparity between both sexes is very small in urban areas (.95) compared to rural areas (.79). Both Dili and Baucau show almost complete parity, while some other municipalities have much higher levels for males than females (Ermera: .64, Lautem: .71, Oecussi: .63).

Figure 5. 9. Gender parity index of population 17 years of age and older with at least some tertiary education by municipality and urban/rural residency, Timor-Leste, 2015



Chapter 6: Vulnerable groups

Until 2015, international efforts to bring quality education to ‘every citizen in every society’ were governed by the ‘Education for All’ (EFA) initiative. The EFA initiative ended in 2015 and has since then been “integrated” into the SDGs, in particular SDG4. The EFA initiative adopted a human rights-based approach to education which assured that every child has ‘*quality education that respects and promotes her or his right to dignity and optimum development*’ (UNICEF & UNESCO, 2007). Within the Sustainable Development Goals, education is a goal (SDG-4) in its own right, but also a means to reach all the other SDGs and is therefore an essential component to reach a sustainable and equitable society by 2030. To reach the SDGs it is important to reach vulnerable children and youth. As stated in the National Education Strategic Plan, Timor-Leste is fully committed to achieving the Education for All goals and aims to ‘*Expand and improve comprehensive early childhood care and education, especially for the most vulnerable and disadvantaged children*’ (Ministry of Education, 2011). In this chapter the situation of children and youth will be looked at in terms of their school attendance and educational achievements. The following groups will be considered: a) Persons with disabilities; b) Young female farmers; c) Adolescent mothers; d) Working children; and e) Young urban migrants. These groups were chosen because internationally they have proven time and again to be at risk for poverty, social inequality and marginalization.

6.1. Person with disabilities

In the census, a person with disabilities was defined as someone with a physical, sensory, mental or other impairment, including a visual, hearing or physical disability, which has a substantial long-term adverse effect on a person’s ability to carry out usual (day to day) activities. A set of six questions based on self-reported difficulties caused by a health problem to perform basic activities was developed by the Washington Group on Disability Statistics¹⁸. The activities chosen were: seeing, hearing, walking or climbing stairs, remembering or concentrating, self-care and communicating. The United Nations Principles and Recommendations for Population Censuses considered four domains essential to determine disability status in a way that can be reasonably measured using a Census: a) seeing; b) hearing; c) walking; and d) cognition (UN Department of Economic and Social Affairs Statistics Division, 2007, p.213). The 2015 Timor-Leste Census used four standard Washington Group questions, out of six, on disability. The United Nations Principles and Recommendations for Population and Housing Censuses (2008) suggests that for population censuses, countries may consider limiting the number of questions on self-reported difficulties to four. The phrasing of the questions in the Timor-Leste census was slightly different from the ones proposed by the Washington Group. The questions asked were: ‘*How much difficulty does (name) have in... (Walking, Seeing, Hearing and Intellectual/mental condition)?*’. The answer categories for each of the four questions were: ‘No - no difficulty’; ‘Yes - some difficulty’; ‘Yes - a lot of difficulty’ and ‘Cannot do at all’.

For the 2010 round of Censuses, the Washington Group recommended that ‘the sub-population disabled includes everyone with at least one domain that is coded as a lot of difficulty or cannot

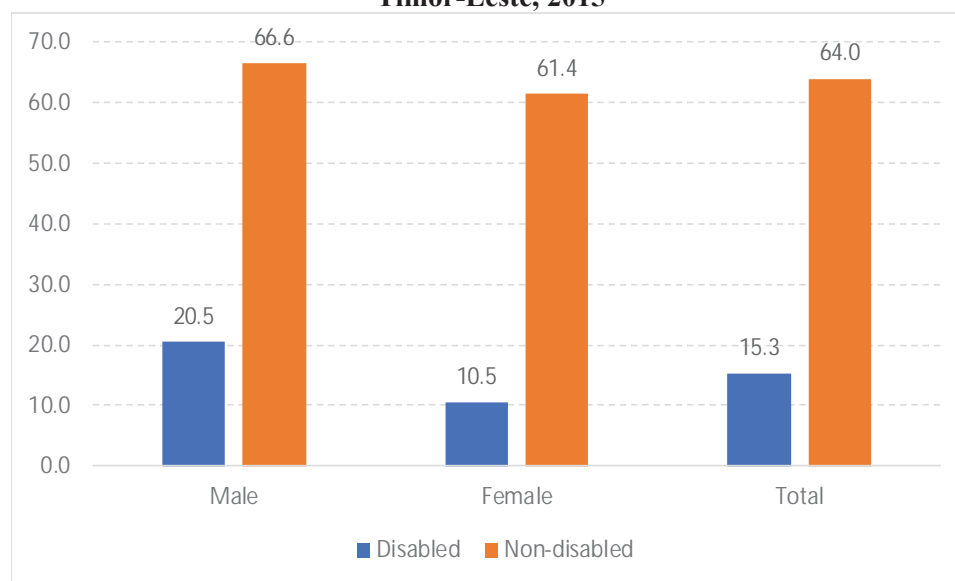
¹⁸ <http://www.washingtongroup-disability.com/>

do at all’, or in other words, the use of ‘moderate or higher’ to define the population with disabilities (Washington Group on Disability Statistics, 2010, p. 2). Applying this criterion, the prevalence rate for disability is unrealistically low in Timor-Leste. Only 0.5 percent of all people indicate they had a disability. The World Report on Disability indicates that globally more than one billion people live with a disability, which is about 15 percent of the total world population, and an estimated 2.9 percent of all people having a severe disability (WHO & World Bank Group, 2011). Given the state of Timor-Leste’s health system and economic development, the estimate of 0.5 percent seems very unlikely to be close to the real situation. The unreliability of the estimate does not mean that the characteristics of those that report they are disabled cannot be examined

Except for the group with serious intellectual impairments, there is no reason why persons with disabilities should not have the ability to learn how to read and write. Being able to read and write is probably even more important for disabled than for non-disabled people. Literacy helps disabled people to avoid social isolation, increases their chances on the labour market, leads to improved health outcomes and empowers them (Erickson, 2006).

Figure 6.1 shows that literacy rates for persons with disabilities are much lower than for persons with no disabilities. While 64.0 percent of persons without disabilities are literate, only 15.3 percent of persons with disabilities 5 years of age and older can read and write in any of the four working languages in the country. Disabled females have much lower literacy rates than male persons with disabilities, 10.5 percent against 20.5 percent.

Figure 6. 1. Literacy rates, person 5 years of age and older, by disability status and sex, Timor-Leste, 2015



Although somewhat distorted by the small number of reported persons with disabilities in some categories, Figure 6.2 demonstrates that at each age group literacy rates for both sexes are considerably higher for non-disabled than for persons with disabilities. Differences are largest at younger ages. For instance, young disabled females have a literacy of 21.9 percent at age 20 to 24 compared to 81.8 percent for non-disabled females of the same age group. This is a difference of almost 60 percentage points. At older ages, the age-specific rates converge. This is caused by the

low literacy rates of all people at older ages, but also by the fact that many persons who became disabled at an older age were already able to read and write.

Children and young persons with a disability face a serious disadvantage in school attendance compared to their non-disabled counterparts: 33.0 percent of disabled females 5 – 24 years old were attending school, against 71.2 percent of non-disabled females. About 13.6 percent of non-disabled females in this age group had never gone to school compared to 54.7 percent of disabled females. A similar pattern can be observed among young males (Figure 6.3). The number of persons in the age group 5 – 24 for whom a disability was reported is only 573 in the whole country. Therefore, an analysis in further detail of the educational position of persons with disabilities cannot be performed. The few aspects presented here, however, do show the strongly disadvantaged position of persons with disabilities in education.

Figure 6. 2. Age-specific literacy rates, by sex and disability status, Timor-Leste, 2015

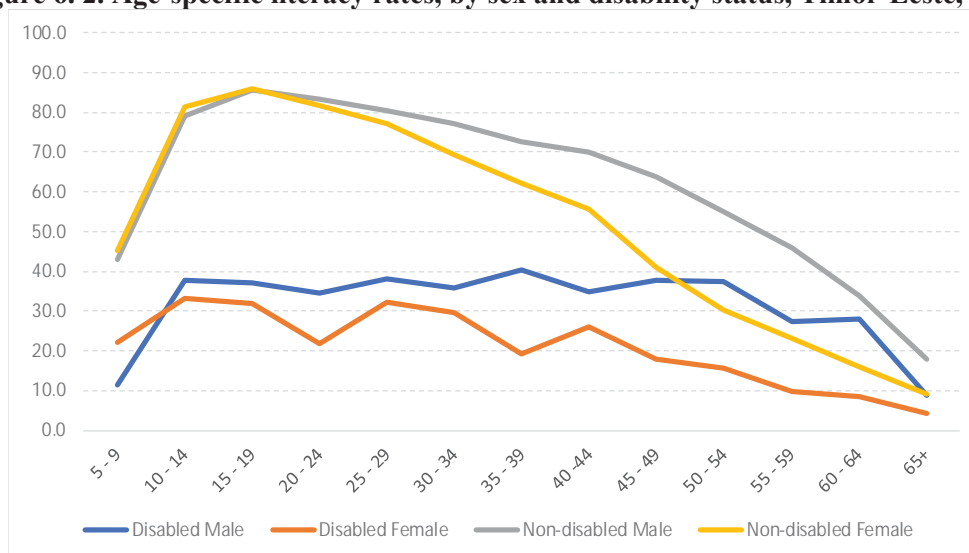
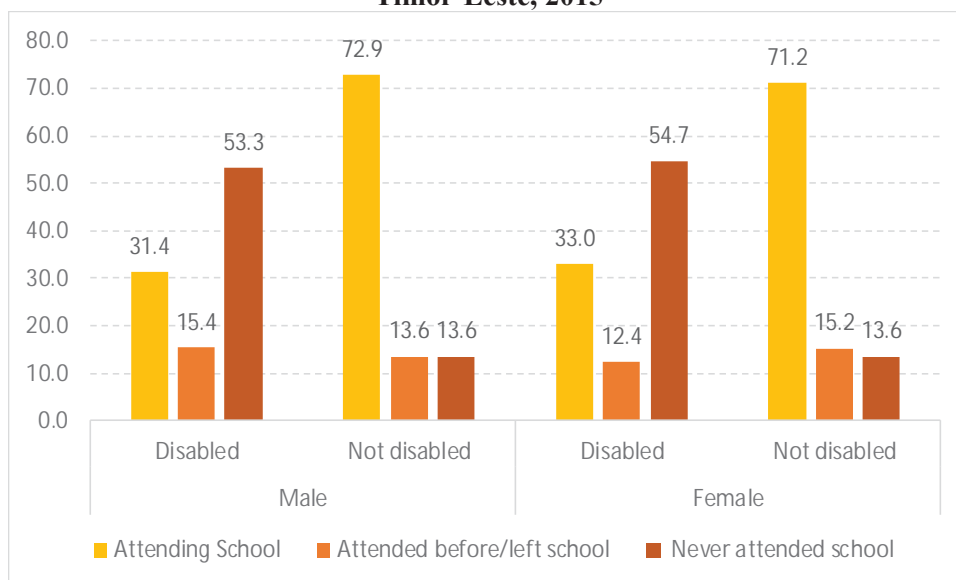


Figure 6. 3. School attendance by persons aged 5 - 24 years, by disability status and sex, Timor-Leste, 2015



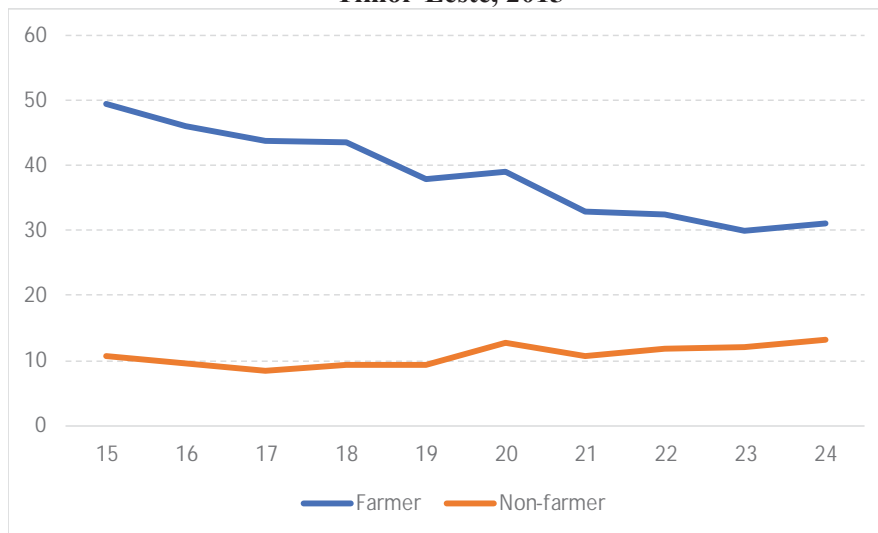
6.2. Young female farmers

For each working person in the census his/her occupation was asked. These occupations were afterwards coded using the International Standard Classification of Occupations, ISCO-88¹⁹. In the analysis a ‘young female farmer’ was defined as being between 15 and 24 years old with an occupation in farming. As many young women in farming do not report themselves as farmers, also females of farming households, who were not employed in other work or attending school were considered “young female farmers”. Using these criteria, a total of 24,389 young female farmers were identified, which constitutes 20.8 percent of all females between the age of 15 and 24 years.

Young female farmers occupy a vulnerable position, as they often belong to poorer sections of society and tend to have less access to social services. They also have a clear disadvantage in terms of educational outcome. They are less likely to be in school: only 6.4 percent of young female farmers were still in school compared to 70.1 percent of females in the same age range who were non-farmers. The percentage who never went to school is also much higher among young female farmers: according to the census, 29.8 percent never had any formal education, against 7.8 percent for young non-farming females.

Among 15 – 24-year-olds, 36.7 percent of young female farmers are illiterate against 10.5 percent of females who are non-farmers. Figure 6.4 shows that age plays an important role in the inter-relationship between literacy and working in agriculture as a young female. About half (49.5 percent) of 15-year-old female farmers cannot read or write in any language, compared to 10.7 percent of women who were non-farmers. By age 24, illiteracy drops to 31.1 percent for female farmers, suggesting that women are continuing to learn to read either through their own efforts, or possibly through adult education or informal schooling.

Figure 6. 4. Percentage of women 15 - 24 years old²⁰ who are illiterate, farmers/non-farmers, Timor-Leste, 2015

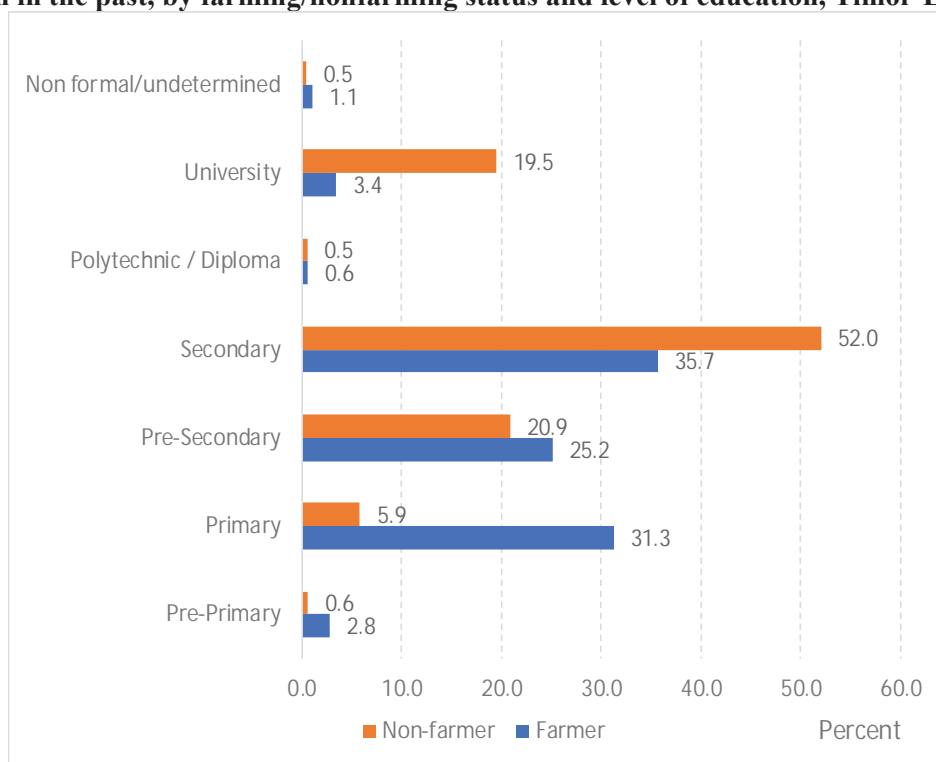


¹⁹ ISCO-88 is a system for classifying and coding occupational information obtained from population censuses and other statistical surveys, and from administrative records. ISCO 88 groups jobs in a hierarchical system based on similarity of skills to do the job and duties required for the job. For more details: <http://www.ilo.org/public/english/bureau/stat/isco/isco88/index.htm>

²⁰ The age-group 15 – 24 years was used as this is the internationally recognized age bracket for ‘young people’.

Figure 6.5 depicts the percentage of young female farmers, who had ever gone to school, by the level of education they have followed in the past or are following now. The percentage of young females who are attending or attended only primary education is much higher (31.1 percent) among farmers than among non-farmers (5.9 percent), but much lower among secondary (35.7 versus 52.0 percent) and university education (3.4 versus 19.5 percent).

Figure 6. 5. Percentage of young females (15 - 24 years) who are currently attending, or attended education in the past, by farming/nonfarming status and level of education, Timor-Leste, 2015.



6.3 Adolescent mothers

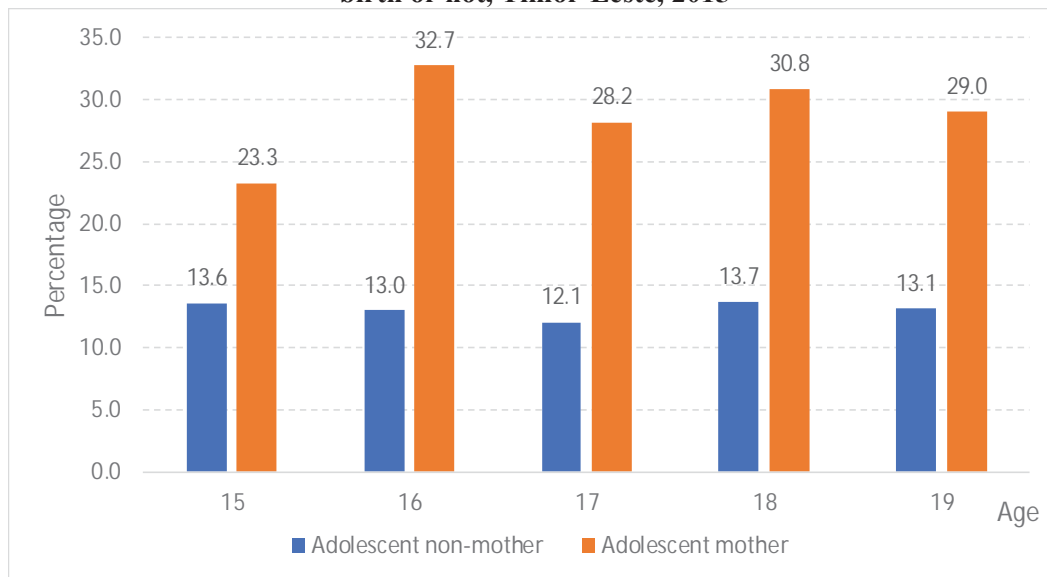
The World Health Organization (WHO), together with other UN organizations, defines an adolescent as a person aged 10–19 years. Young adolescent refers to 10–14 year olds, while older adolescent refers to 15–19 year olds (WHO, 2017). Information on fertility was only asked for women 15 years of age and over. Therefore, the analysis in this section will be restricted to older adolescent females.

Pregnancy and birth at a very young age drastically changes a girl’s life. It has been shown that young mothers are more vulnerable to poverty, isolation and seclusion. Giving birth at a very young can also have a negative impact on the health of the young mother and her child. Education and adolescent pregnancy/fertility are inter-related in different ways. Education plays a key role in influencing behavior and life decisions of adolescents and has a direct impact on their health and well-being. On the other hand, early pregnancy often has an effect on the girl’s chances of successfully finishing school. Many pregnant adolescent girls either drop out of school or are no longer allowed to continue their education.

According to the 2015 census thematic report on fertility (GDS, 2017), the age-specific fertility rate for adolescents (15 – 19 years) stood at 54 children per thousand women for the period 2010 – 2015. Although adolescent fertility was higher than in other countries of Southeast Asia, there is clearly a decreasing trend. For the period 2005 – 2010, adolescent fertility was estimated to be 69 per thousand. Childbearing during adolescence was summarized in the report as *"being concentrated in ages 18 and 19, among married, non-literate, women who had left the education sector and who resided in poorer quality housing in rural contexts. The households they live in were more inclined to be engaged in agriculture for their livelihood. The data suggests that there is clearly a problem with adolescent pregnancy in Bobonaro, Ermera, Liquica, Manatuto, Manufahi, and Oecussi as in these Municipalities the percentages were either relatively high in the 2015 Census and/or had increased slightly between the 2010 and 2015 Censuses"* (GDS, 2017).

Figure 6.6 displays the level of illiteracy by adolescent girls 15 to 19 years old who had given birth or not. It is clearly depicted that levels of illiteracy are much higher among those who had already given birth. Overall, for the total age group 15 – 19, the percentage of illiteracy stood at 29.3 percent for females who had given birth compared to 13.1 percent for those who had never given birth.

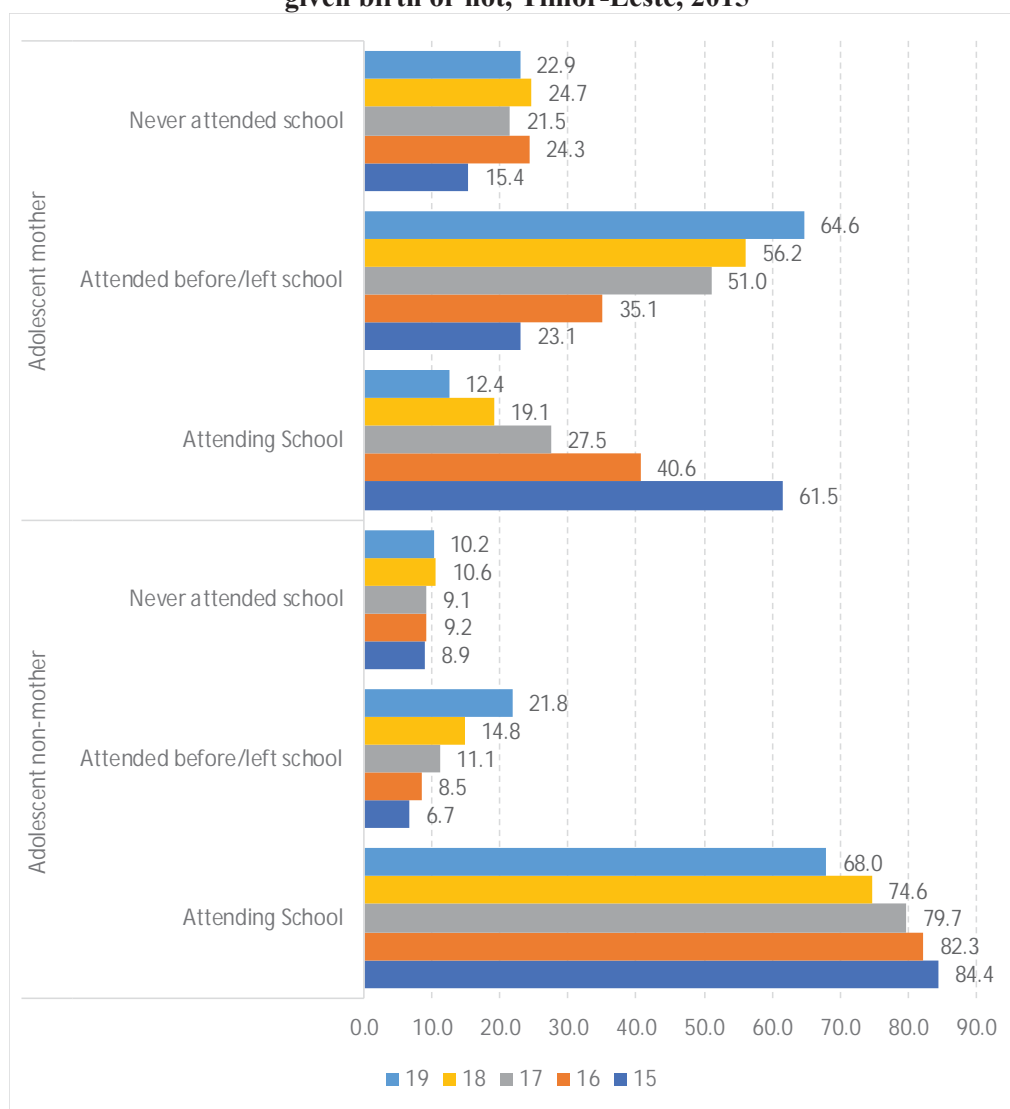
Figure 6. 6. Percentage of adolescent girls who are illiterate, by age and whether they have given birth or not, Timor-Leste, 2015



Another way to look at the inter-relationship between education and adolescent childbirth is through school attendance for those aged 15 to 19 years old, who already gave birth and those who did not. This is displayed in Figure 6.7. There are several interesting aspects of the interaction between education and early childbirth that are shown in the graph. First, for all five single ages, the percentage of adolescent girls who never went to school is much higher for those who already gave birth compared to those who did not. For the total group of 15 to 19-year olds, the percent who never went to school is more than two times higher for adolescent mothers (22.8 percent), than for those who never gave birth (9.5 percent). This is a clear indication that lack of education increases a young girl’s chances of having a child at very young ages. Second, looking at ‘attending school’ for both groups, one can see that among adolescent mothers there is a sharp

decrease between 15 and 19 in attendance. At age 15, 61.5 percent of young mothers are in school compared to 84.4 percent of non-mothers. For each subsequent age, there is a sharp decline in attendance for adolescent mothers. At age 19 only 12.4 percent are still in school. This decline is not as sharp for non-mothers at the same age where 68.0 percent of non-mothers indicated they were still in school. Those who indicated that they attended school before or had left school gives a complementary picture of those attending school. At age 19, 64.6 percent of young mothers reported that they had stopped school compared to 21.8 percent of non-mothers, being an indicator that early childbirth intervenes on an extended time in school.

Figure 6. 7. Percentage of adolescent girls by school attendance and by age and whether they have given birth or not, Timor-Leste, 2015



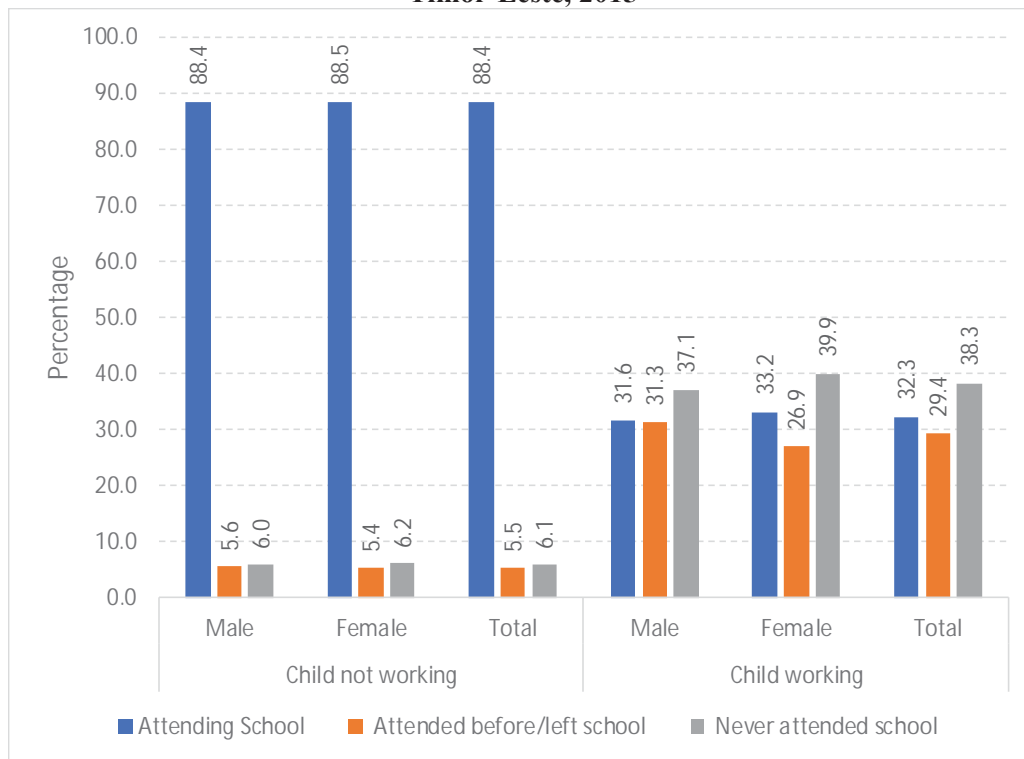
6.4 Working children

Work often deprives children of being a child, it affects their health and prevents them of being in school. Child labour places the child on a path of livelong poverty and deprivation and is a flagrant human rights

abuse. According to the ‘Resolutions concerning statistics of child labour’ (ILO, 2008), a child is defined as “all persons in the age group from 5 to 17 years, where age is measured as the number of completed years at the child’s last birthday” and children in employment are “those engaged in any activity falling within the production boundary of the System of National Accounts for at least one hour during the reference period.” The SDGs take a clear stance against child labour with a clear target to end child labour in all its forms by 2025. Child labour is deeply embedded in the vicious circle between poverty and low levels of education. Poverty drives children to work, but by dropping out of school and entering the labour market they seriously diminish their chances of ever breaking out of poverty.

According to the census, 13,904 children aged 5 to 17 years old were employed, among which 398 were below the age of 10. Figure 6.8 presents the number of persons by sex, school attendance and work status (working/not working). Because of the very small number of working children below the age of 10, the analysis is restricted to those 10 – 17 years old. While more than 88 percent of male and female children are still in school between ages 10 and 17, only 31.6 percent of boys and 33.2 percent of girls who are working are still doing so. These are children who are able to combine work and school. Only about 6 percent of children who are not working had never been to school. In comparison, 37.1 and 39.9 percent of boys and girls, respectively, who were already working had never attended school. Roughly 31 percent of working boys and 26.9 percent of working girls reported they had attended school before, which is much higher than the non-working group (5.6 and 5.4 percent for boys and girls).

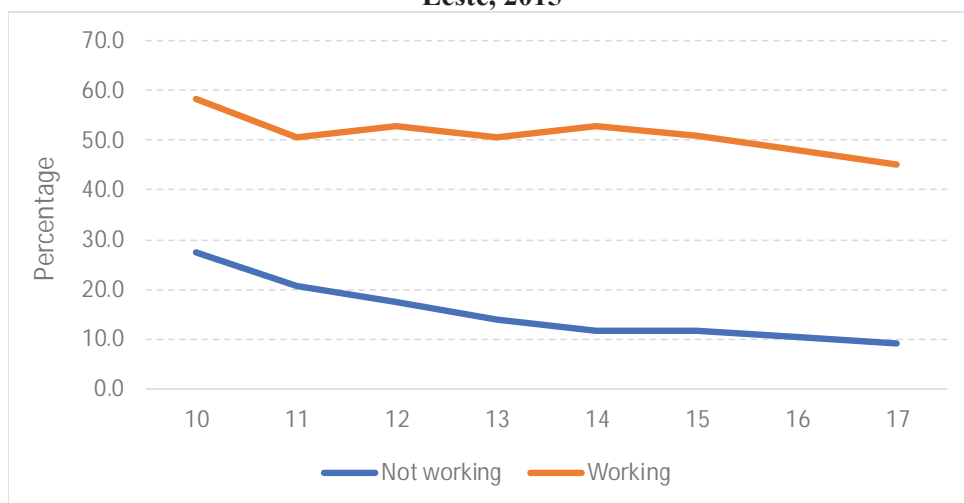
Figure 6. 8. Children 10 - 17 years old by school attendance, sex and work status, Timor-Leste, 2015



The effect of the much lower school attendance of working children is reflected in their much lower literacy rate. Figure 6.9 shows the large difference in the percentage of children who are unable to read

and write. For each age, the percentage of children who are illiterate is much higher for those who were working than for those who were not. The percentage of illiteracy for the total group of children between the age of 10 – 17 years is 26.2 percent for those who were not working, against 49.9 percent for those who were working.

Figure 6. 9. Percentage of children aged 10 - 17 years old who are illiterate, by work status, Timor-Leste, 2015



6.5. Young urban migrants

Internationally, young migrants are often considered a vulnerable group. Many youths migrate for a variety of reasons, ranging from pursuing an education, to find work, or to escape poverty, violence, oppression, natural disasters, war or climate change. In the case of Timor-Leste, the analysis focused on the group of young people (15 to 24 years) who came to Dili in the last 12 months or during the last five years. In Timor-Leste, the majority of young people (55.0 percent) moved to Dili to pursue an education, 59.0 percent for males and 52.9 percent for females.

As so many young persons migrate to Dili specifically for educational reasons, it should not come as a surprise that they have fairly high attendance ratios. Figure 6.10 shows that up until the age of 19, age-specific attendance ratios are more or less the same for migrants and non-migrants. From the age of 20 and onwards migrants have a higher school attendance than non-migrants. These are obviously caused by those migrants who have come to Dili to pursue a higher education.

The aspirations for higher education among young migrants to Dili is also reflected in the age-specific literacy rates depicted in Figure 6.11. Literacy among young people who moved to Dili in the last 12 months is higher at all ages for both males and females, than for those who were living in Dili and did not move during the last 12 months.

Figure 6. 10. School attendance among youth who moved to Dili in the past 12 months by age, Timor-Leste, 2015

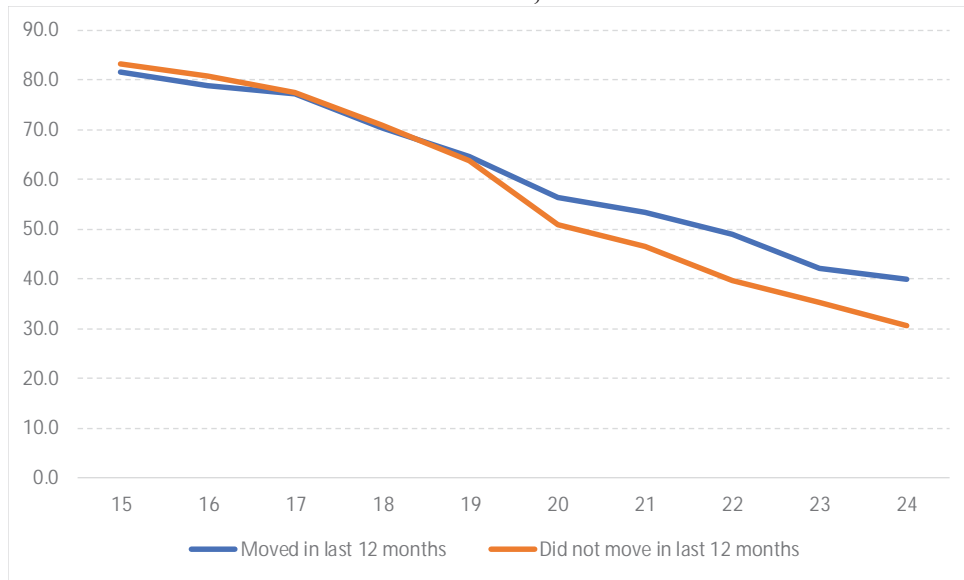
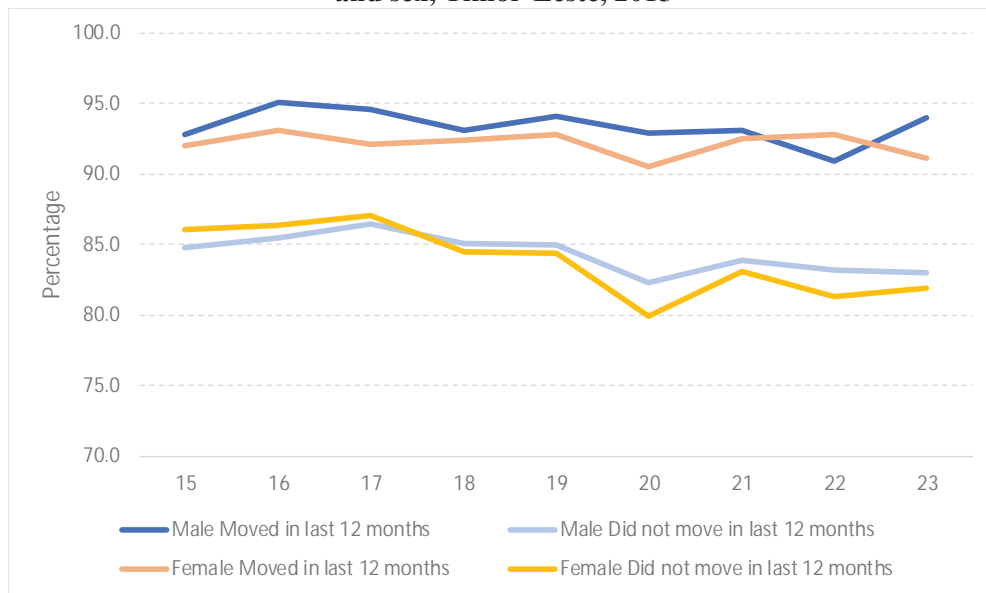


Figure 6. 11. Age-specific literacy rates among youth who moved in the last 12 months to Dili by age and sex, Timor-Leste, 2015



This brief analysis shows that young migrants who came to Dili are, at least in terms of education, not in a disadvantaged position. In fact, they are in a more favorable position than young people residing in Dili who did not move in the past year. Of course, this does not mean that in other fields they may occupy a more precarious position. However, such analysis falls outside the scope of this report.

Chapter 7: Education and work

The relationship between education and the labour market has been extensively discussed in the census analytical report on the labour force (GDS, 2017). For a detailed analysis on the relationship, the reader is referred to this publication. Among others, the report indicated that a large portion of Timor-Leste's labour force has no formal education or only below secondary education (68 percent). The segment of the labour force that had a secondary education was found to be around 21 percent and the segment with university education or polytechnic / diploma was about 10 percent. The unemployment rate was positively associated with level of education, i.e. persons with higher education also had a higher level of unemployment. The unemployment rate was around 3 percent for persons with no formal education, 4 percent for persons with pre-primary or primary education, 5.5 percent for people with pre-secondary education, and 8.3 and 7.3 percent for persons with secondary education and university, respectively (GDS, 2017). A serious problem is formed by the fact that unemployment is highest among young persons (15 – 24 years old), particularly those with a higher education. While the national youth unemployment rate is 12.3 percent, it is 18.1 percent for youth with a secondary education and 20.0 percent for young people with a university diploma.

The proportion of persons 15 – 64 years old, outside of the labour force was highest among those with secondary education (30 percent). This was higher than persons with no education (17 percent) and primary (15 percent). However, it should be taken into account that the majority of economically inactive persons were students.

In this chapter, two aspects of the interaction between education and the labour market will be looked at: a) youth not in employment and not in education and training (NEET) and b) youth unemployment. These themes were selected because of their importance for social and economic development and because they are closely related to 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 (8.b) directly deals with the problem of youth employment: *'By 2020, develop and operationalize a global strategy for youth employment and implement the Global Jobs Pact of the International Labour Organization'* (United Nations, Economic and Social Council (2015). To monitor progress, the UN Statistical Commission proposes to calculate the *'Percentage of youth (aged 15 – 24) not in education, employment or training'*. Both aspects are closely connected as they both deal with young people who are out of work.

7.1. NEET

The NEET is a fairly new indicator which has gained popularity in international statistics to measure a broad array of vulnerability of young people on the labour market. According to the 2015 census, the percentage of youth who are not in employment and not in education or training was 20.3 percent, 16.8 for males and 23.7 percent for females. The NEET for persons aged 20 – 24 stands at 27.7 percent: 21.3 percent for males and 33.9 percent for females. Compared to 2010, the NEET rate has remained more or less constant, with 21.4 percent of youth not in employment, education or training. This analysis will look at the educational aspects of the NEET population.

An interesting way to look at NEET for young people is by calculating the NEET rate for the three education statuses, i.e. *'Attending school'*, *'Attended school/left school'* and *'Never attended school'*. Obviously, the NEET for the group attending school is zero. Figure 7.1 shows the percentage of NEET by

education status. The NEET for the group of young persons who attended school before is 53.4 percent. This means that 53.4 percent of young persons between 15 and 24 years who have ended their education were not working at the time of the census. For those who never went to school, the percentage of youth who are not in employment and not in education or training was almost the same (50.0 percent). Note that the percentage of young people neither in employment nor education or training is higher for females than for males. The same trend of higher NEET for women than men has been observed in most countries by the International Labour Organization (2015).

Figure 7. 1. Percentage of youth 15 -24, who are NEET, by education status, Timor-Leste, 2015

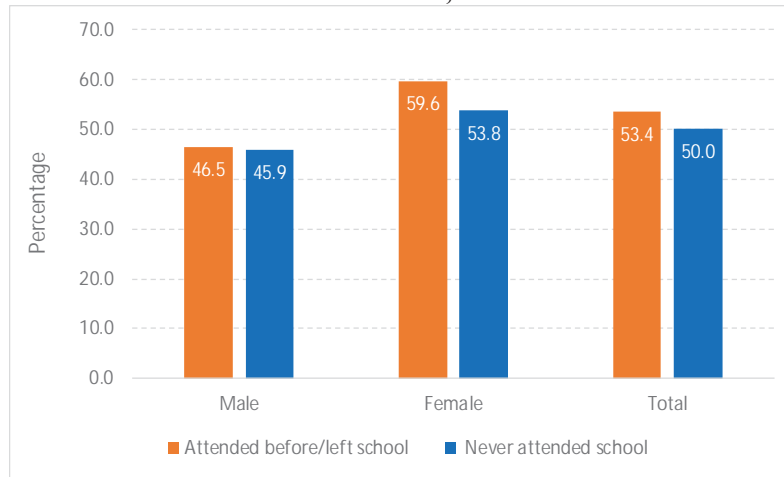
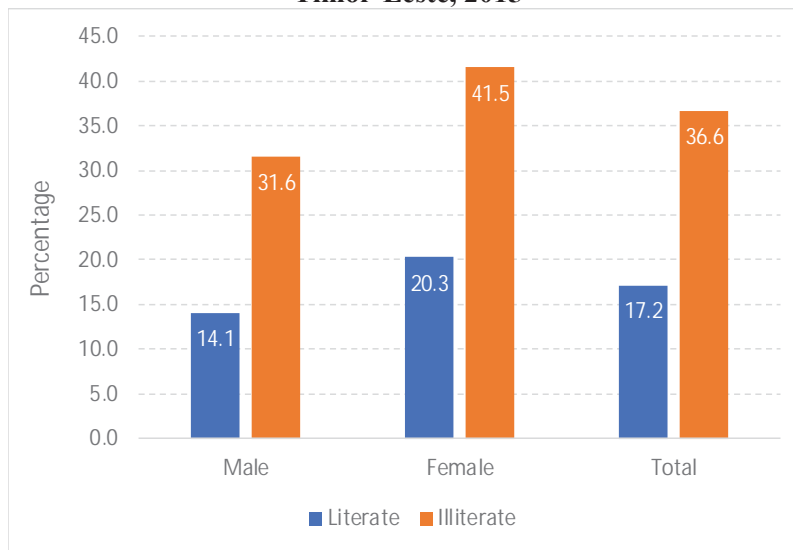


Figure 7. 2. Percentage of youth 15 -24, who are NEET, by literacy status, Timor-Leste, 2015

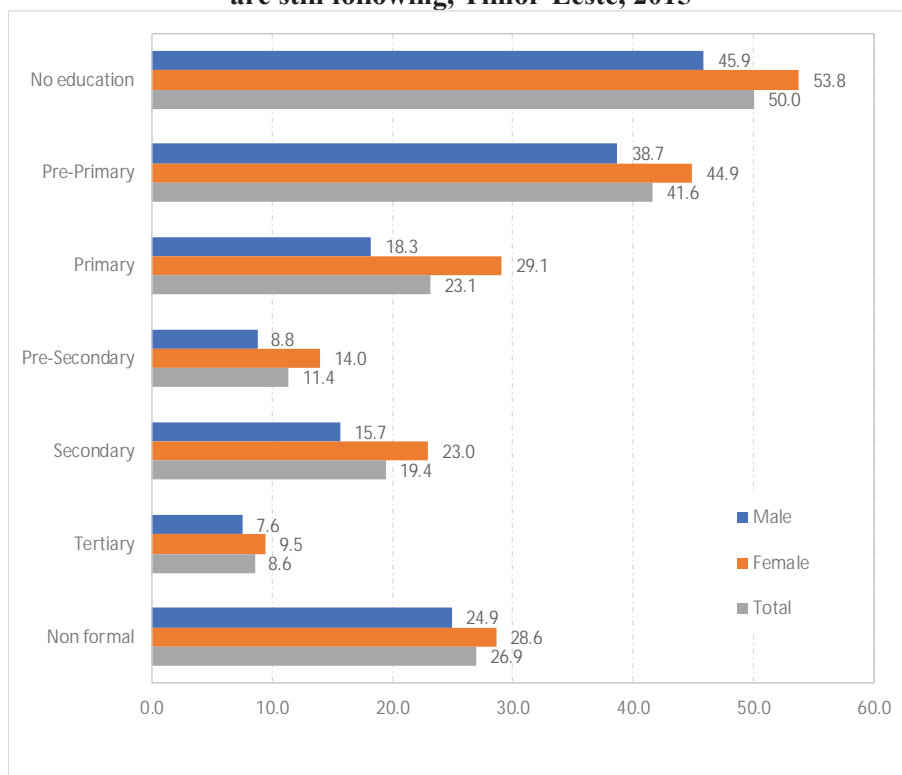


Young people who are illiterate have more than double the chance of not being in employment, education or training; 17.2 percent of literate are NEET versus 36.6 percent of illiterate youth. More than 41 percent of young illiterate females are NEET. Young persons who are not in employment, education or training form a vulnerable group, as their situation is closely linked to unemployment, exclusion from the labour market, early school leaving and discouragement to enter the labour market. Being illiterate, which in

itself is a vulnerable condition, adds an extra dimension to the weak position of young people not in employment, education or training.

The NEET is dependent on the level of education. Often the lowest NEET rate is observed among people with the highest degree of education, which would suggest that young people with higher education find it easier to move into the labour market²¹. Figure 7.3 shows the percentage of people not in employment, education or training by educational level. It should be noted that the level is both for people who finished education as those who were still following education, obviously for those following education the NEET is zero. It is clear from the graph that young persons with no schooling or pre-primary education have a very high NEET rate. Persons with primary, pre-secondary or secondary education have much lower levels (23.1 percent for primary, 11.4 percent for pre-secondary and 19.4 percent for secondary education). Those in tertiary education have a very low NEET rate (8.6 percent). However, one must take into account that there is a serious selection process operating. Among those in the higher education categories, many are still in school, which brings down the NEET rate. Leaving out those still in school would bring no solution, as it would mean bringing in the opposite selection process.

Figure 7. 3. Percentage of persons 15 - 24, who are NEET by level of education they have finished are still following, Timor-Leste, 2015



7.2. Youth unemployment

According to the analytical census report on the labour force, youth unemployment stood at 12.3 percent. Unemployment for young males is slightly higher (13.9 percent) than for young females (10.1 percent). Young people comprise about 14 percent of the total labour force, but they make up 63.2 percent of the

²¹ See for instance, European Training Foundation, 2015.

total unemployed. Dili municipality has the highest youth unemployment (27.0 percent), with Lautem being the next highest (18.5 percent) followed by Baucau (12.7 percent). The lowest youth unemployment was in Oecussi, where slightly more than 5 percent of youth were unemployed. Figure 7.4 shows the age pattern of youth unemployment by sex. After age 15, unemployment is consistently higher for males than for females. Unemployment rates climb from age 16 till 21 and then gradually start declining.

Figure 7. 4. Age-specific unemployment rates among persons 15 - 24 years by sex, Timor-Leste, 2015

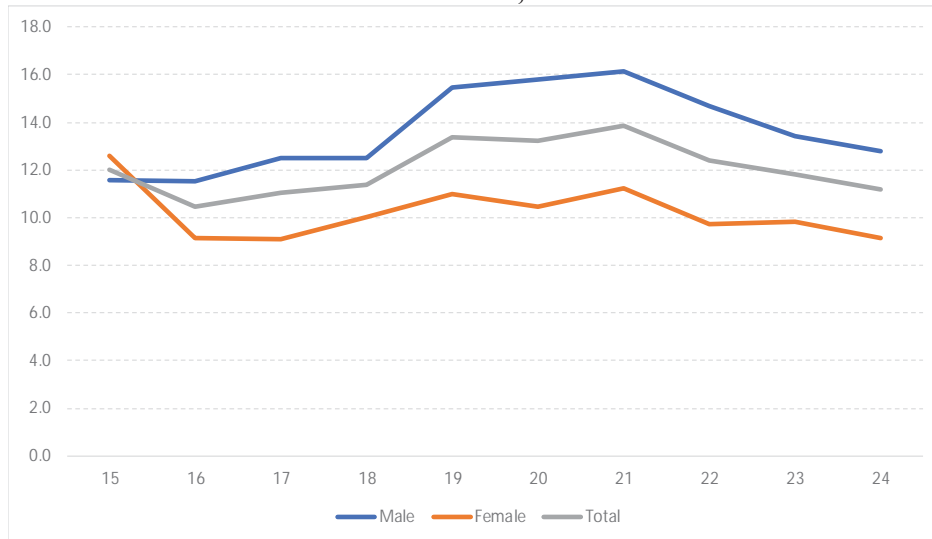
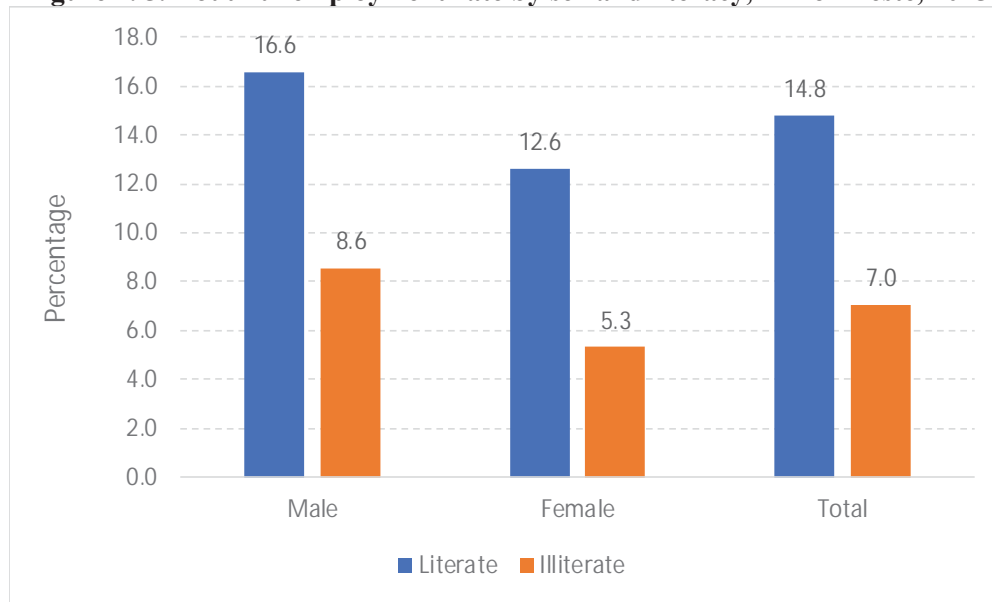


Figure 7.5 shows youth unemployment rates by sex and literacy. One would expect that youngsters who are illiterate would have more difficulties entering the labour market, but the results from the census show an opposite trend. Reported youth unemployment was found to be much higher for young persons who were literate than for those who were illiterate. Unemployment has been called an ‘extreme situation of total lack of work’ (Ralf Hussmanns, ILO Bureau of Statistics, 1992). The poorest segments of society in developing countries simply cannot afford to be fully unemployed for an extensive period of time and will engage in whatever work becomes available. Obviously, the pressure to accept any type of work will be much stronger among the poorest segments of society, to which illiterate youth normally belong. As such, it is highly probable that a selection process is operating in which people with no education will do anything and accept any form of work to earn any income at all. Moreover, illiterate youth belong more to the group of subsistence farmers, who – despite of the very low yields of their work – are working.

To analyze the link between education and youth unemployment in a more detailed way, another logit regression was set up. As indicated before, one of the advantages of a multivariate approach is that the net effect of each explanatory variable can be shown, after controlling for all other variables in the regression equation. The dependent variable in the logit model was whether a person in the age category 15 – 24 years old, who was in the labour force (i.e. either employed or unemployed) was unemployed at the time of the census.

Figure 7. 5. Youth unemployment rate by sex and literacy, Timor-Leste, 2015

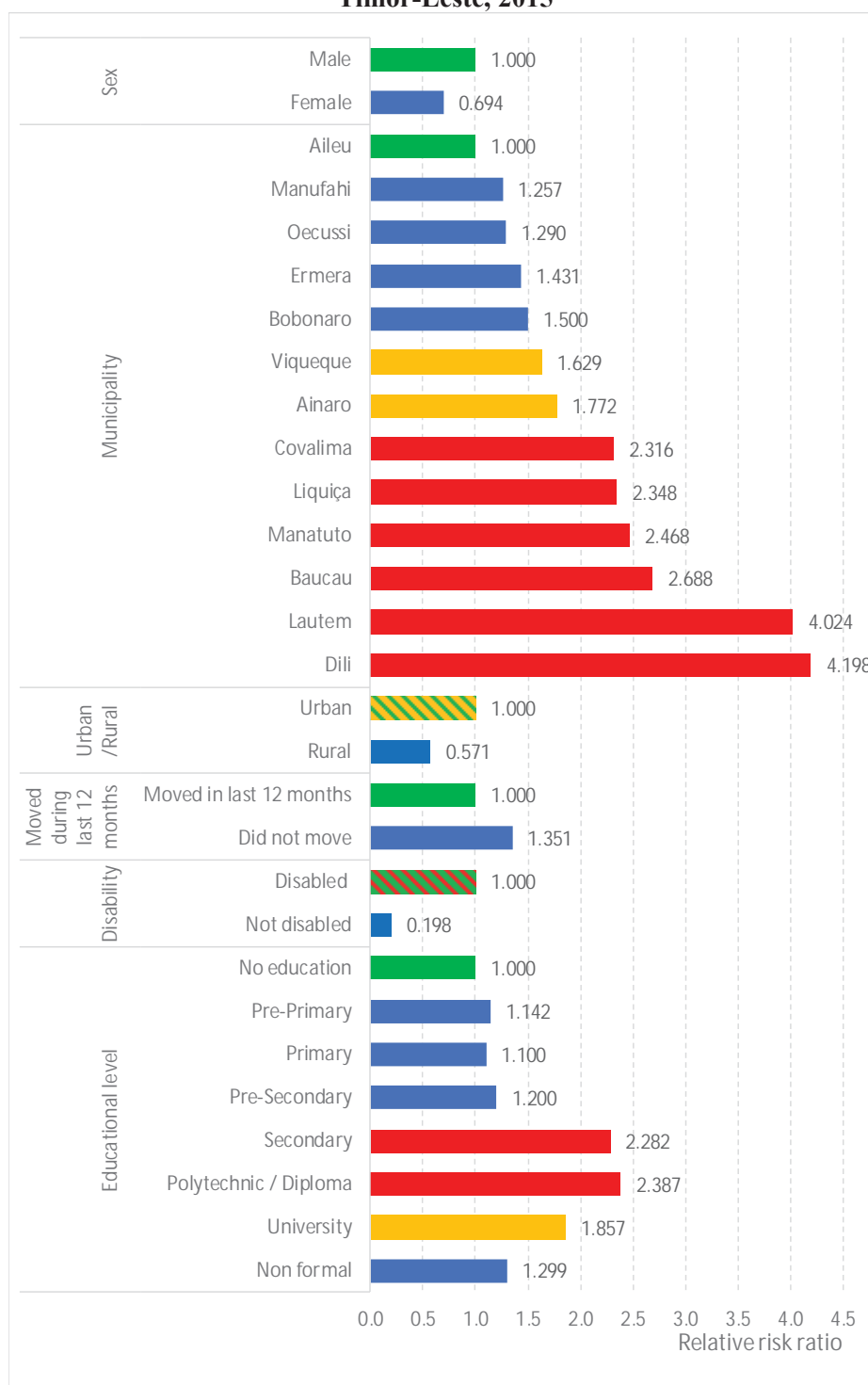


The explanatory variables were sex, age (in single years)²², municipality, urban/rural place of residence, disability, and educational level. Figure 7.6 shows the relative risks, which are the exponentials of the regression coefficients in the regression model. Again, the reference categories were given a green color in the graph and the high and the medium risk categories red and orange colors. If a relative risk (RR) has a higher value than one, it means that persons belonging to that category are more likely to be unemployed than people belonging to the reference category of that particular explanatory variable.

After controlling for the other intervening factors, young females have a much lower risk of unemployment than young males (RR = .694). Dili is clearly the municipality where young people are most likely to be out of work. The relative risk means that young people residing in Dili are 4.2 times more likely to be unemployed than in Aileu. Lautem municipality comes second with a relative risk of 4.0. Note that after controlling for other factors Oecussi is no longer the municipality with the lowest youth unemployment as it has a higher relative risk than Aileu. The relative risk of .571 for rural areas shows that youth unemployment is considerably lower in rural areas than in urban areas. To consider this result, one must take into account the fundamentally different nature of unemployment between urban-industrialized and rural-agricultural areas. Unemployment in urban areas is much more clear-cut than in rural areas, where unemployment is often masked by high levels of underemployment and seasonal low productivity. The disadvantaged position of those who are disabled is clearly shown by the fact that persons without disabilities' likelihood of being unemployed is five times smaller than persons with disabilities' chances. According to the census data, young people with no education are least likely to be unemployed. The highest chance of being unemployed is in the group of young people with a secondary or polytechnic / diploma education. Youth with a university diploma have a 1.9 times higher likelihood of being unemployed than persons with no education. However, probably the same factors as explained above may be at play, i.e. those with a university education operate in a different segment of the labour market with a much sharper division between employed and unemployed and they may afford to stay longer out of work, looking for the most appropriate position, than persons with no education.

²² Age was not included in the graph as it is a continuous variable that was only introduced in the regression equation to control for age on the other independent variables.

Figure 7. 6. Relative risk ratios for youth unemployment, persons 15 – 24 years of age, Timor-Leste, 2015



Color Code: Green = reference category, Red = high risk for youth unemployment (Relative risk > 2.0), Orange = medium risk for youth unemployment (RR > 1.5 and < 2.0), Green with red stripe = reference category where there is a high risk for youth unemployment (RR more than 2 times as high as other category), Green with orange stripe = reference category with medium risk for youth unemployment (RR 1.5 – 2.0 as high as other category), Blue = neutral.

Chapter 8: Teachers and educators

In the census, a question was asked on the kind of work persons were usually doing in the main job/activity during the last week. Answers to this question were coded using the International Standard Classification of Occupations (ILO, 1988). This coded information can be used to obtain information about teachers and educators in Timor-Leste.

A total of 16,618 persons indicated in the census their main occupation was teacher. The teaching occupation is still dominated by men: 10,030 men against 6,588 women. Table 8.1 presents the number of teachers by type of work and sex. The number of teachers enumerated during the census was higher than the number found in the 2015 Education Management Information System (EMIS), where 13,586 teachers were recorded. However, one must take into account that the EMIS did not register University and Higher Education Teachers. In addition, the category of ‘Other teachers’ is quite vague and does not necessarily include regular school teachers. The census enumerated 6,916 primary school teachers while the EMIS had registered 6,722 primary teachers. The number of pre-secondary and secondary school teachers in the census was 6,800 altogether, which is higher than the number of secondary, pre-secondary and escola basica teachers in the EMIS-2015 (6,249 teachers). However, it should be noted that valid information was not always provided by the respondents regarding their specific specialization. Moreover, it remains unclear whether all teachers from private schools were also included in the EMIS.

Table 8. 1 Teachers by type of work and sex, Timor-Leste, 2015

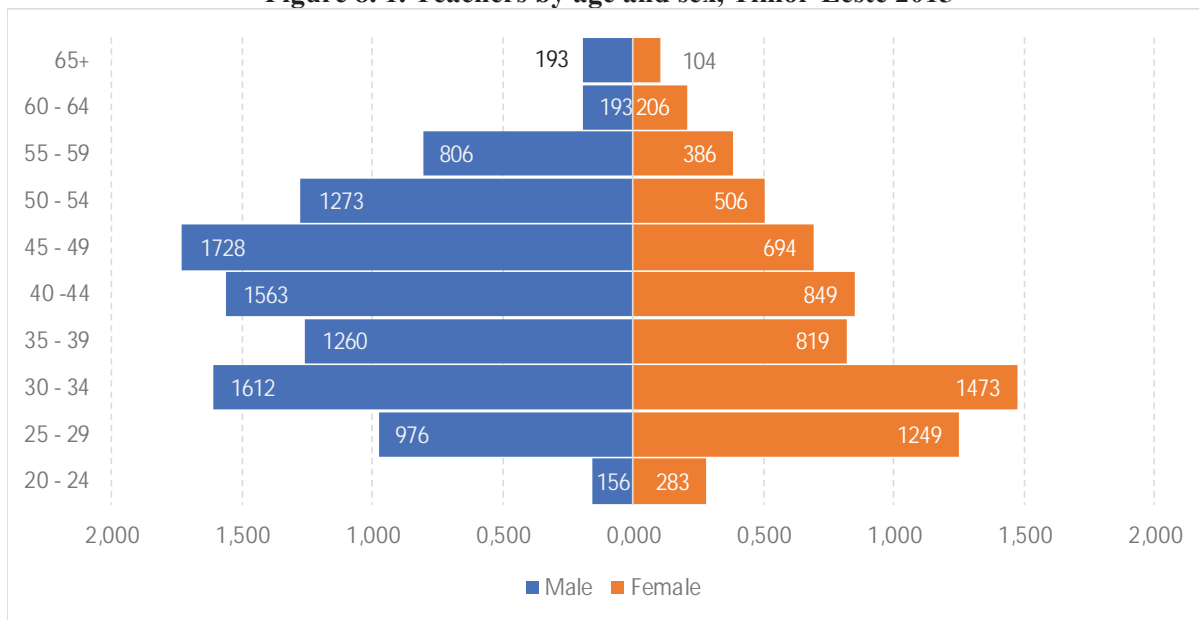
	Sex		Total
	Male	Female	
University and Higher Education Teachers/ Lecturers	861	396	1,257
Secondary Education Teachers	2,011	1,273	3,284
Pre-secondary Education Teacher	2,097	1,419	3,516
Primary School Teachers	4,094	2,822	6,916
Early Childhood Educators	84	129	213
Special School Education Instructor	64	42	106
Special Education Teachers	5	6	11
Other teachers	795	495	1,290
Other Assistant Teacher	19	6	25
Total	10,030	6,588	16,618

The number of school teachers in the 2015 census is considerably higher than in the 2010 census, when only 4,831 people indicated they were working in a teaching occupation. This was clearly an undercount, because the Ministry of Education and Culture indicated that in 2008/2009 11,270 were active in Timor-Leste. According to the EMIS-2015, the number of students in primary education per school teacher was 31. With a total of 6,916 teachers and 213,586 students in primary education, the student to teacher ratio for primary education in the census is 30.9 which comes very close to the EMIS-2015 figure. The student to teacher ratio is much more difficult to calculate for pre-secondary and secondary education, because there may have been some coding problems with the census to determine who was a teacher in pre-secondary and who was a teacher in secondary education, on the basis of the information provided by the interviewers.

For all types of teaching jobs, the number of males is larger than the number of females, except for the small group of pre-school teachers. In 2010, 68 percent of all school teachers were male. Between 2010 and 2015, this percentage decreased to 60.4 percent.

Many countries which are more developed are faced with an ageing teaching workforce. In the 'Education Indicators in Focus' document published by the OECD (2014), it was stated that the age structure of the teaching workforce is a cause of concern, as more than one-third of all teachers in OECD countries are older than 50 years of age. In Timor-Leste, currently 23.5 percent of teachers from all levels are older than 50. The male teacher workforce, however, is older than the female teacher workforce. While the mean age of all teachers is 41.4 years, it is 43.0 years for males and 39.0 years for females. About 26.9 percent of male teachers are older than 50 in comparison to 18.3 percent of female teachers. The difference in age-structure between male and female teachers is clearly depicted in Figure 8.1. One can see that the younger age groups (20 – 29 years) are dominated by women, while at older ages more men are present. In OECD countries, on average 82 percent of teachers at the primary level, 68 percent at the lower secondary level and 56 percent at the upper secondary level are women (OECD, 2014). The age pyramid of teachers suggests that the global trend of teaching being a female dominated profession has also started in Timor-Leste.

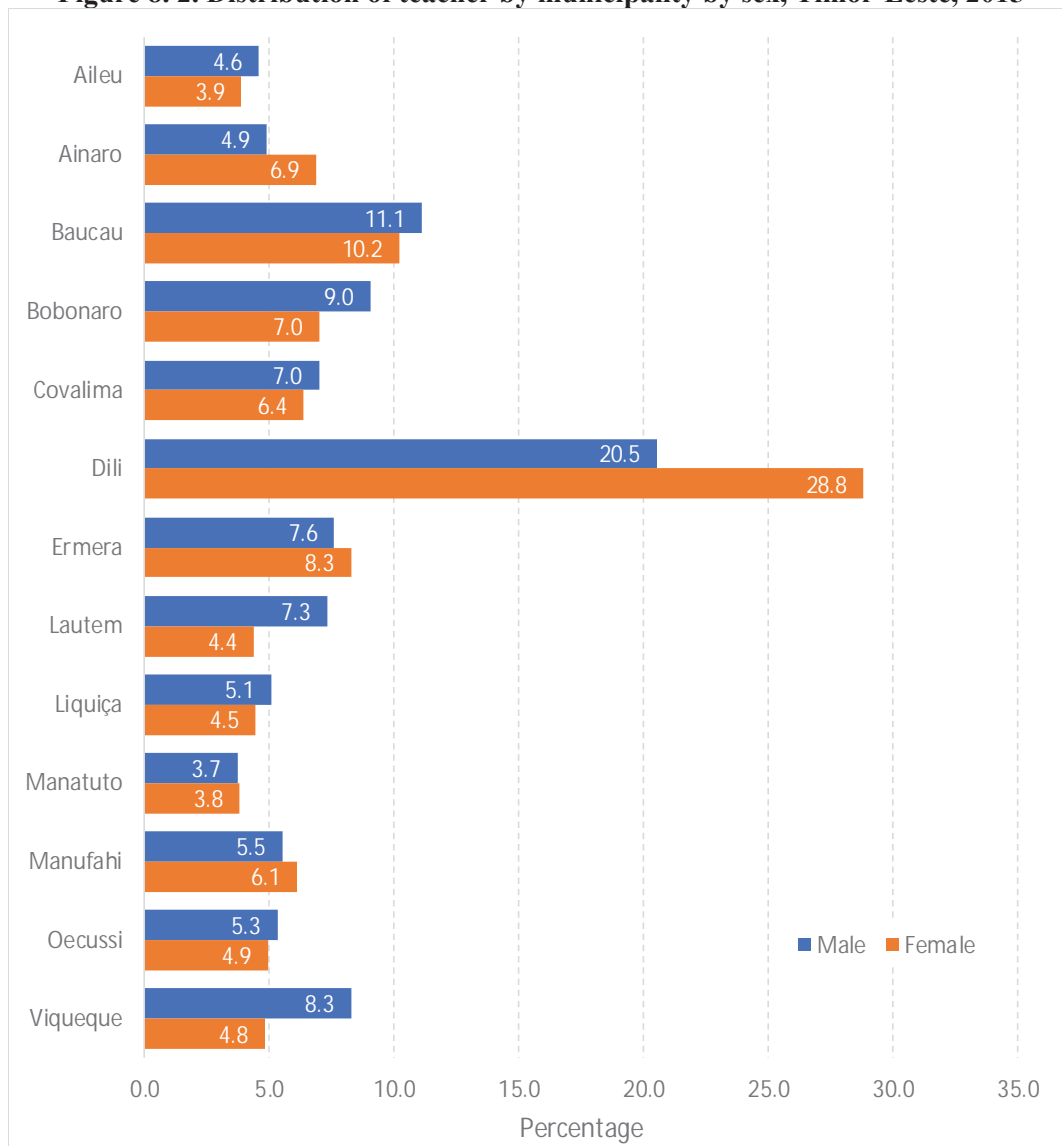
Figure 8. 1. Teachers by age and sex, Timor-Leste 2015



Teachers are not equally distributed across the regions in the country: 36.2 percent of all teachers are working in urban areas and 63.8 percent in rural areas. As a comparison, 29.6 percent of all persons below age 25 live in urban areas and 70.4 in rural areas. The 2010 census showed that 54 percent of all teachers worked in urban centers. This is a far cry from the current level and – as many teachers were missed in the 2010 census – that undercount of teachers was much higher in rural than in urban areas.

Figure 8.2 shows the distribution of teachers over Timor-Leste’s 13 municipalities. The highest percentage of teachers are working in Dili municipality. It is interesting that the percentage of female teachers in Dili is considerably higher than the percentage of male teachers: 28.8 against 20.5 percent (total 23.8 percent). The second largest group of teachers can be found in Baucau, where 11.1 percent of all male teachers and 10.2 percent of all female teachers work/reside. The percentage of teachers working in municipalities is a poor indicator of the distribution of teachers however, as it should be seen in relation to the distribution of their clientele, children and youth. Figure 8.3 therefore shows the percentage of teachers (male and female together) with the distribution of children and youth below age 20. This age group was taken as a proxy for the number of potential ‘clients’ of the teacher workforce.

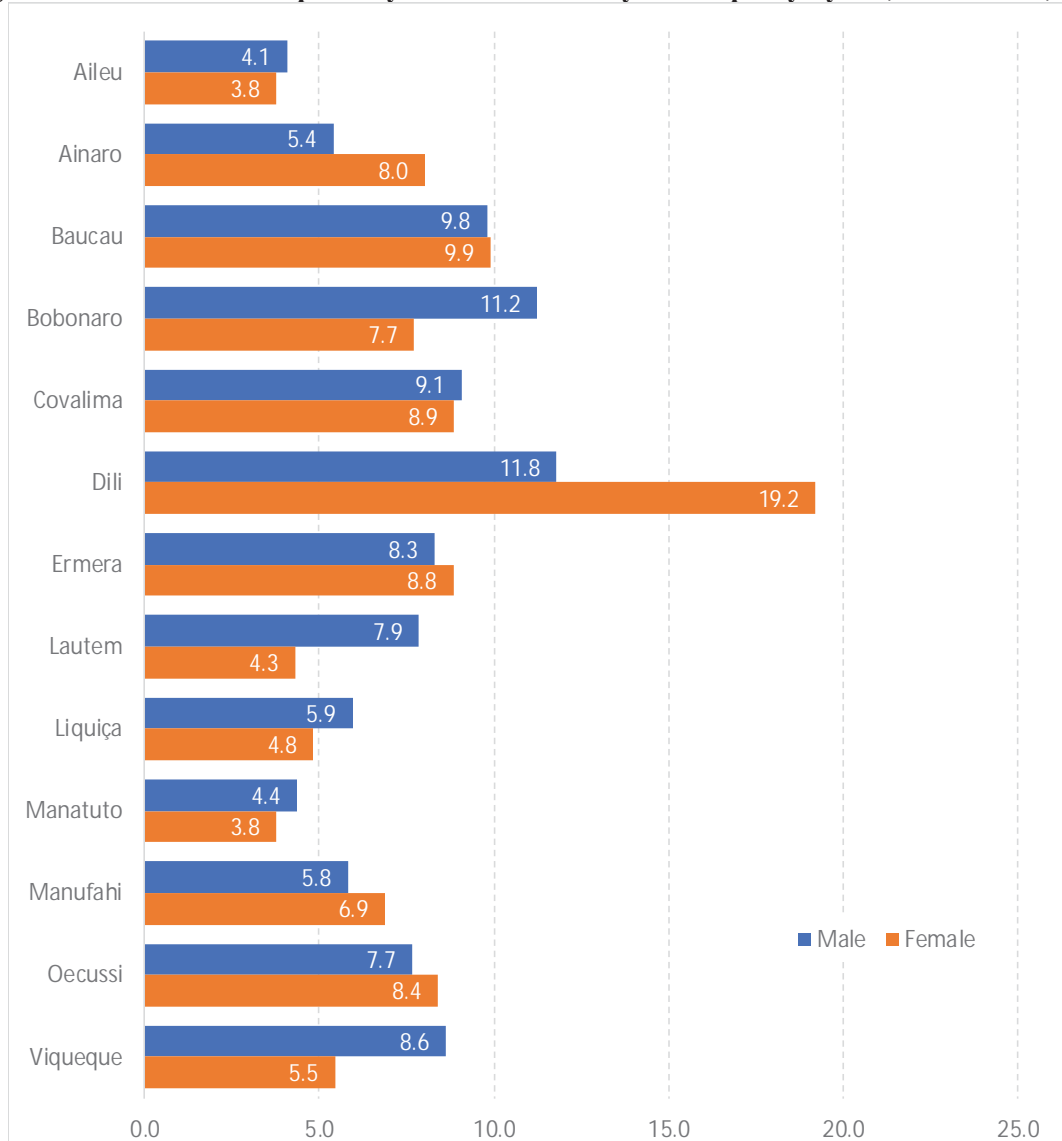
Figure 8. 2. Distribution of teacher by municipality by sex, Timor-Leste, 2015



Because of its importance for children’s educational careers, it is vital that high quality primary education is available around the country. Figure 8.3 shows the regional distribution of primary school teachers by municipality. The percentage of primary school teachers in Dili municipality is much smaller than the

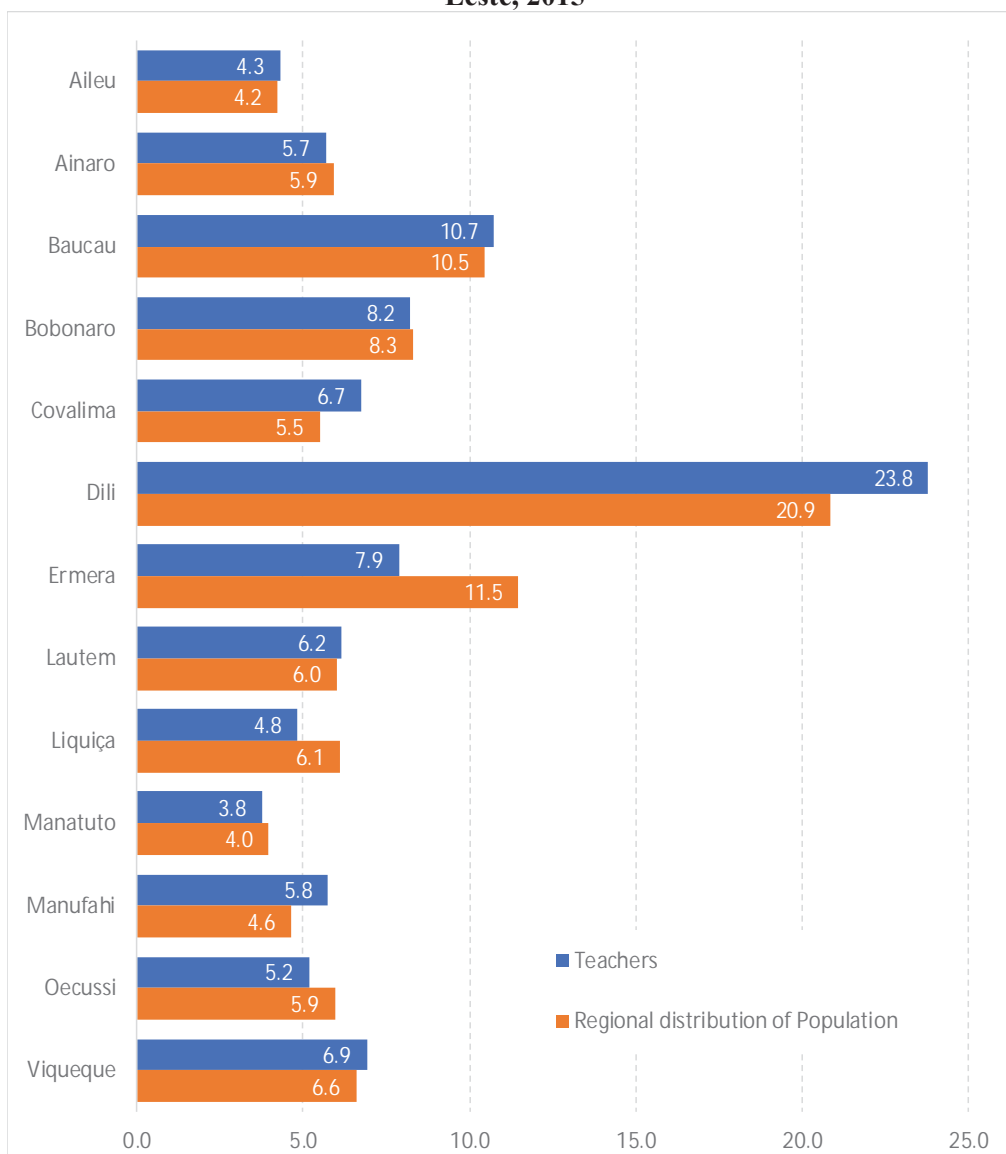
percentage of all teachers: 14.8 percent of primary school teachers of both sexes live in Dili, against 23.8 of all teachers. However, the percentage of female primary teachers is much higher than the percentage of male primary teachers: 19.2 percent for females against 11.8 percent of males. The smallest proportion of primary teachers can be found in Aileu and in Manatuto.

Figure 8.3. Distribution of primary school teachers by municipality by sex, Timo-Leste, 2015



In some municipalities the percentage of all teachers working there is bigger than the regional distribution of persons younger than 20. However, in none of the cases the differences seem to be dramatic. A municipality with a higher proportion of teachers than young persons and children is Dili, which has 23.8 percent of all teachers but only 20.9 percent of all young people and children below age 20. Ermera is the municipality where significantly more students are present compared to the percentage of teachers. This municipality holds 11.5 percent of people below age 20, but has only 7.9 percent of teachers.

Figure 8. 3. Regional distribution of teachers and of total population younger than 20 years, Timor-Leste, 2015



An important aspect of providing quality education to children and adolescents is the qualification of the teaching workforce. According to the EMIS-2015, out of a registered total of 13,586 teachers, 2,704 were university graduates (19.9 percent) and 6,953 were college graduates (41.9 percent). The census showed that among persons who were coded to have a teaching occupation, 6,404 had at least some university education and 2,153 had followed polytechnic / diploma education. The difference between the census and the EMIS-2015 lies in the number of teachers with lower levels of education. According to the census, 5,936 teachers only had a secondary education, while the EMIS-2015 mentions 3,718 with completed secondary education and 23 with an incomplete secondary education. In the census, a rather large group of teachers indicate they have pre-secondary (476) or primary education (853). By comparison, these numbers are very small in the EMIS: 49 and 91 respectively. It is unclear what causes the discrepancies. As noted before, the number of teachers in the census is higher than in the EMIS.

Perhaps the additional teachers are persons who do not hold an official position of teachers. Another possibility is that some errors are present in the census in terms of the classification of people as teachers who are not due to miscoding, that education of some teachers was miscoded, or perhaps a combination of all three factors.

Chapter 9: Education projections

9.1. Projection methodology

Population projections are no prediction of the future. They are mere scenarios of the size, age composition and distribution of a population if certain assumptions about the level and age structure of fertility, mortality and migration would become reality. Projections provide policy makers with the tools for developing strategies and planning. Population projections can also be used to construct scenarios in specific development areas such as health care, the labour force or education. The present chapter will use the population projections made after the 2015 census to construct educational projections.

The 2015 population projections applied the cohort component method in which both national and municipality estimates were made²³. Three scenarios were used: low, medium and high, in which the medium scenario was considered to be the most likely. The present education projections will solely use the medium population projection as a base to make estimates about the number of school-going children and young people. Projections will be made for the period 2015 – 2030. This projection period coincides with the Timor-Leste National Education Strategic Plan 2011 – 2030, as well as the SDG Agenda 2030. Only national projections will be made.

The 2015 medium projection used the following assumptions:

- a) Fertility: a gradual decline in the level of fertility from a Total Fertility Rate of 4.29 to a level of 2.63 in 2030.
- b) Mortality: a steady increase in the life expectancy for males from 64.45 years in 2015 to 68.88 years in 2030, and for females from 67.14 years in 2015 to 72.45 years in 2030.
- c) Net international migration: a set of absolute presumed age and sex specific number of annual international migrants was used. It was assumed that net migration would be negative between 2015 and 2030 meaning that there would be a net outflow for both males and females.

As base population the 2015 population projections used the population enumerated in the 2015 Census, both adjusted for age misreporting and the under-enumeration of children below the age of 10. The adjustment added 17,522 persons (10,370 boys and 7,152 girls) to the population under 5 years of age and 4,815 persons (4,221 boys and 594 girls) to the population 5 – 9 years.

The methodology for the education projection is rather straightforward. For each projection year (2015 – 2020 – 2025 and 2030) it uses the population in single years of age for males and females produced by the population projection. To these population figures, the age-specific set of net attendance ratios are applied to calculate the number of school-going persons for each single age. The education projection will only be executed for persons in pre-primary, primary, pre-secondary and secondary education. No projection will be made for tertiary education. The reason for this is that the National Strategic Plan for Education 2011 – 2030 gives clear quantitative goals for future attendance in these four education levels, but no objectives were set for tertiary education.

²³ For a full explanation of the projections and the assumptions used please consult: GDS, UNFPA (2017).

Two different projections were made based on two separate scenarios. In the first projection, it was assumed that during the period 2015 – 2030 no changes in net attendance would take place. Although this is a very unlikely scenario, but it is executed to show the net effect of demographic changes on the number and composition of the school-going population in the next 15 years. Planners should be aware that changes in the student population are not only due to getting a higher proportion of children in school, but also that ongoing population dynamics will play a role in determining what the future composition of the school population will be. This projection scenario will be referred to as the ‘zero-change’ model. In the second scenario, it will be assumed that the quantitative goals of the National Education Strategic Plan (NESP) will be realized during the period 2015 – 2030. In the next section the assumptions of this scenario will be explained. This scenario will be referred to as the ‘NESP’ model. In both models it will be assumed that no students 25 years or older are still in primary, pre-secondary or secondary education. Data from the EMIS-2015 show that these numbers are negligible.

Currently, a significant proportion of the school-going population is overage, i.e. they are in a lower grade and level of what could be expected for their age. A normal procedure to calculate the number of persons per level for each age in the projection would be to calculate the total number of school-going children, and then make a subdivision by level, according to an assumed proportion in each level. However, the National Education Strategic Plan (NESP) 2011 – 2030 aims to reach 100 percent net enrollment for all levels below tertiary education. This would mean that soon no more overaged students would be present. Therefore, the total projected number of students will be simply sub-divided according to schooling appropriate for their age, i.e. pre-primary school (3 – 5 years), primary school (6 – 11 years), pre-secondary (12 – 14 years) and secondary school (15 – 17 years). To make the switch from a system with a large number of overaged students to a system without overaged students, a simple adaptation was made. In the projection model it is assumed that the age-specific attendance ratios for students aged 18 – 24 years old in 2020 will be half of those in 2015, and in 2025 half of those in 2020. For 2030, it is assumed that no more overaged students will be present in this age group, with the exception for some aged 18 and 19 years old, to compensate for those who did not pass their exams. Note that this adaptation was only made for the ‘NESP model’, as the ‘no change’ model would still have a large number of overaged students.

9.2. Education projection

9.2.a. ‘No Change’ Model

The size and age composition of the future school population is a direct function of the age-specific attendance ratios together with population dynamics. The purpose of the ‘no change’ model is in the first place to show the net effect of the demographic changes on the school population between 2015 and 2030. As explained above, in the ‘no change’ model the age-specific attendance ratios observed in the census are kept constant and applied to the medium projected population aged 3 to 29 for each of the projected populations for 2020, 2025 and 2030. Table 9.1 shows the total projected population by sex for those aged 3 – 29 for the period 2015 – 2030 according to the medium projection scenario. In the period 2015 – 2030, the total population 3 – 29 will increase from 759,701 persons in 2015 to 816,088 persons in 2030. However, the thematic fertility report of the 2015 census showed that fertility had dropped dramatically in recent years. It was noted in the report that the rate of fertility decline was the fastest for any country in the world, between 2000–2005 and 2010–2015. This recent fertility decline has consequences for the children and youngsters in the age categories which are linked to pre-primary until secondary education. Between 2015 and 2030, the projection shows that the population 3 – 17 years of age will drop from a level of 485,000 to 462,000. This means that even if the school attendance ratio would increase, absolute numbers of school-going children will not necessarily increase.

Table 9.1 Projected population aged 3 - 29, by age and sex, medium scenario, Timor-Leste, 2015 - 2030

Age	2015			2020			2025			2030		
	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females
3	34,227	17,996	16,231	31,905	16,348	15,557	31,823	16,271	15,552	32,703	16,719	15,984
4	33,898	17,805	16,093	31,935	16,441	15,494	31,441	16,074	15,367	32,211	16,465	15,746
5	33,572	17,641	15,931	32,123	16,624	15,499	31,182	15,950	15,232	31,822	16,273	15,549
6	33,197	17,469	15,728	32,282	16,790	15,492	30,899	15,809	15,090	31,407	16,065	15,342
7	32,832	17,301	15,531	32,376	16,920	15,456	30,559	15,637	14,922	30,926	15,822	15,104
8	32,521	17,152	15,369	32,650	17,206	15,444	30,579	15,688	14,891	30,640	15,676	14,964
9	32,266	17,014	15,252	32,766	17,246	15,520	30,942	15,948	14,994	30,529	15,618	14,911
10	32,096	16,898	15,198	32,534	17,119	15,415	31,193	16,151	15,042	30,327	15,512	14,815
11	31,995	16,795	15,200	32,166	16,938	15,228	31,347	16,307	15,040	30,049	15,370	14,679
12	31,921	16,688	15,233	31,777	16,753	15,024	31,419	16,419	15,000	29,691	15,183	14,508
13	31,873	16,583	15,290	31,481	16,609	14,872	31,693	16,701	14,992	29,724	15,240	14,484
14	31,744	16,437	15,307	31,295	16,507	14,788	31,865	16,771	15,094	30,120	15,514	14,606
15	31,434	16,215	15,219	31,194	16,428	14,766	31,689	16,675	15,014	30,418	15,744	14,674
16	30,879	15,892	14,987	31,161	16,359	14,802	31,384	16,527	14,857	30,617	15,923	14,694
17	30,127	15,484	14,643	31,159	16,293	14,866	31,056	16,374	14,682	30,738	16,060	14,678
18	29,341	15,068	14,273	31,118	16,179	14,939	30,768	16,222	14,546	31,007	16,328	14,679
19	28,530	14,630	13,900	30,930	15,976	14,954	30,523	16,065	14,458	31,122	16,342	14,780
20	27,532	14,075	13,457	30,567	15,705	14,862	30,369	15,932	14,437	30,895	16,194	14,701
21	26,318	13,379	12,939	29,959	15,330	14,629	30,277	15,809	14,468	30,536	15,992	14,544
22	24,968	12,594	12,374	29,155	14,871	14,284	30,219	15,690	14,529	30,153	15,786	14,367
23	23,499	11,743	11,756	28,331	14,413	13,918	30,132	15,530	14,602	29,823	15,589	14,234
24	22,106	10,945	11,161	27,492	13,941	13,551	29,909	15,290	14,619	29,549	15,398	14,151
25-29	92,825	45,425	47,400	101,571	48,927	52,644	125,972	62,287	63,685	141,081	70,573	70,508
Total	759,701	391,229	368,472	787,927	405,923	382,004	807,240	416,127	391,113	816,088	419,386	396,702

Table 9.2 Age-specific attendance ratios by sex, according to the 2015 census, Timor-Leste, 2015

Age	Age-specific attendance ratio		
	Both sexes	Male	Female
3	11.26	11.10	11.43
4	16.12	15.69	16.59
5	48.16	46.98	49.40
6	67.28	66.04	68.58
7	78.86	78.07	79.70
8	83.25	83.06	83.45
9	86.54	86.28	86.82
10	86.75	86.54	86.98
11	88.78	88.43	89.16
12	88.40	87.92	88.92
13	88.34	88.30	88.38
14	87.38	86.75	88.02
15	83.76	83.08	84.46
16	80.92	80.48	81.37
17	77.68	77.69	77.66
18	71.10	72.21	69.91
19	64.70	67.74	61.63
20	52.32	56.90	47.84
21	48.03	52.05	44.12
22	41.32	45.21	37.53
23	36.84	40.44	33.37
24	32.12	36.77	27.58
25-29	20.21	23.61	16.96

Table 9.2 shows the age specific attendance ratios that were applied to the population figures in Table 9.1 for each 5-year time interval.

The projected population of students by age and sex is presented in Table 9.3. Next to the number of students, the table presents the number of students by level, according to the appropriate age of being in a specific education level. As noted before, Timor-Leste has a large number of students that are overaged.

Applying the age-specific attendance ratios to the base population of the projections shows that 431,304 students between ages 3 and 29 were present in the country in 2015. If no change in age-specific attendance ratios would occur than this number will increase to about 453,739 by 2020, and would end up at 459,146 in 2030. The number of students between ages 3 and 29 by sex is presented in Figure 9.1. The number of students between 3 and 17 years will – after an initial increase – drop from 332,240 to 326,907. It is interesting to see that the percentage of students 3 to 17 years old in the total population will decrease from the current level of 27.7 percent to 22.0 percent in 2030. This is the result of the rapid decline in fertility.

Figure. 9. 1. Projected number of persons in school, ‘no change’ scenario: 2015 – 2030

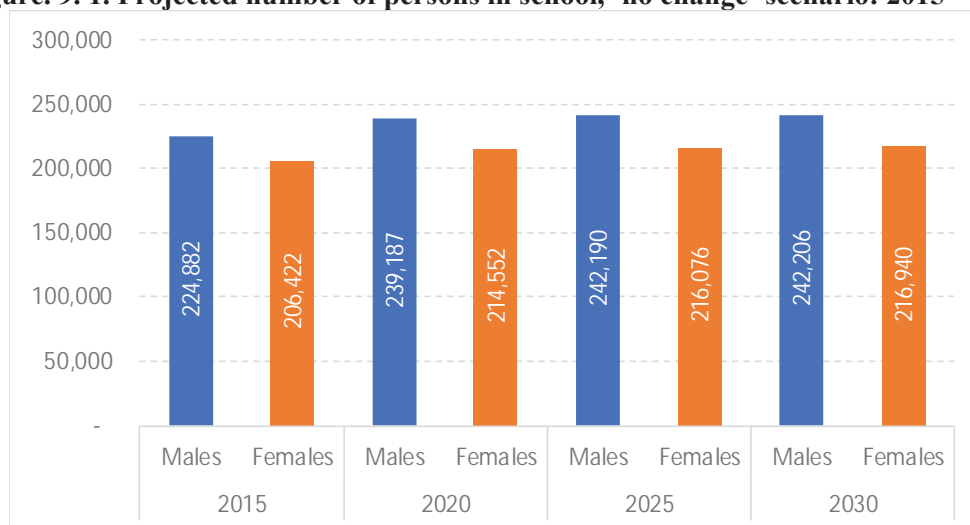


Figure 9.2 and Tables 9.3 and 9.4 show that demographic changes in the population will have a small effect on the composition of the school-going population. The largest change will occur among children in the primary school age group 6 – 11. In 2015, 157,112 children were at primary school age, from 2020 onwards this will start to drop to 154,479 in 2025 to 147,698 in 2030. The difference of roughly 9,000 children would be the equivalent of 300 classes, given the fact that about 30 children on average are in a class in primary education (EMIS, 2015). If the number of classes in the country would remain the same in the period 2015 – 2030, the decrease in the number of children would result in average class sizes in primary education of around 28 children. The percentage of children in primary education, among all school-going children would drop from 47.3 percent in 2015 to 45.2 percent in 2003, purely because of changes in the age structure of the population. Is it worth noting that pre-secondary would experience little change and secondary will increase by just over two percentage points as a result of demographic change

Table 9. 3 Projected number of students by age and sex, No-Change Scenario, Timor-Leste, 2015 – 2030

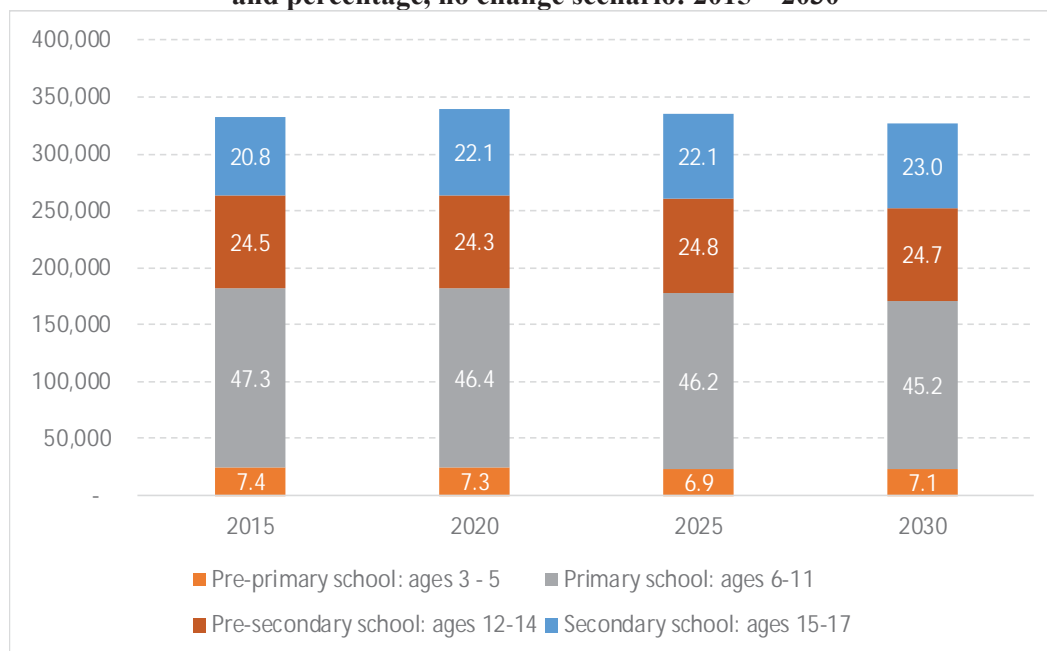
Age	2015			2020			2025			2030		
	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females
3	3,737	1,940	1,797	3,634	1,864	1,770	3,480	1,755	1,724	3,537	1,784	1,753
4	5,292	2,714	2,576	5,218	2,654	2,564	4,928	2,453	2,475	4,987	2,482	2,505
5	15,662	8,058	7,593	15,713	8,083	7,630	14,727	7,370	7,357	14,757	7,365	7,393
6	21,709	11,235	10,460	22,032	11,388	10,644	20,814	10,531	10,283	20,540	10,313	10,226
7	25,310	13,192	12,113	25,650	13,364	12,286	24,597	12,608	11,989	23,917	12,110	11,808
8	26,636	13,950	12,685	26,777	14,069	12,708	26,096	13,545	12,551	25,017	12,767	12,250
9	27,625	14,398	13,225	27,498	14,455	13,043	27,189	14,166	13,023	25,695	13,100	12,595
10	27,651	14,352	13,299	27,310	14,374	12,936	27,494	14,454	13,040	25,788	13,189	12,598
11	28,182	14,535	13,648	27,782	14,597	13,185	28,288	14,830	13,458	26,742	13,718	13,023
12	27,788	14,256	13,532	27,573	14,443	13,129	28,010	14,661	13,350	26,890	13,842	13,047
13	27,279	14,033	13,245	27,528	14,446	13,082	27,724	14,594	13,131	27,047	14,061	12,986
14	26,323	13,432	12,889	27,219	14,134	13,085	27,127	14,204	12,923	26,851	13,932	12,920
15	24,576	12,518	12,055	26,059	13,441	12,618	25,763	13,477	12,286	25,963	13,565	12,398
16	23,086	11,774	11,311	25,025	12,857	12,169	24,693	12,928	11,765	25,178	13,151	12,027
17	21,386	10,935	10,451	23,743	12,201	11,542	23,590	12,377	11,212	23,998	12,581	11,417
18	18,712	9,661	9,046	21,297	11,070	10,227	21,530	11,415	10,115	21,716	11,548	10,168
19	16,154	8,531	7,626	18,876	10,073	8,803	19,582	10,628	8,954	19,547	10,693	8,854
20	12,295	6,682	5,625	14,861	8,202	6,659	15,823	8,837	6,986	15,681	8,871	6,810
21	10,618	5,697	4,924	13,236	7,257	5,979	14,409	7,959	6,450	14,259	8,015	6,244
22	8,678	4,665	4,010	10,961	6,039	4,923	12,227	6,774	5,453	12,190	6,885	5,305
23	7,485	4,020	3,463	9,316	5,108	4,207	10,667	5,894	4,772	10,822	6,094	4,728
24	6,403	3,582	2,811	7,670	4,346	3,324	9,030	5,179	3,851	9,409	5,483	3,926
25-29	18,760	10,723	8,038	18,761	10,723	8,038	20,477	11,549	8,927	28,615	16,659	11,957
Total students	431,344	224,882	206,422	453,738	239,187	214,552	458,266	242,190	216,076	459,146	242,206	216,940

	2015			2020			2025			2030		
	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females
Total population	1,200,379	613,386	586,993	1,299,412	660,360	639,052	1,391,221	702,592	688,629	1,483,947	745,203	738,744
% 3 - 17 year olds in school, within total population	27.7	27.9	27.4	26.1	26.7	25.4	24.0	24.8	23.3	22.0	22.5	21.5
Pre-primary school: ages 3 - 5	24,691	12,711	11,966	24,565	12,602	11,964	23,134	11,578	11,556	23,281	11,630	11,651
Primary school: ages 6-11	157,112	81,662	75,430	157,049	82,247	74,802	154,479	80,135	74,344	147,698	75,198	72,501
Pre-secondary school: ages 12-14	81,390	41,721	39,666	82,319	43,023	39,296	82,862	43,459	39,404	80,788	41,834	38,954
Secondary school: ages 15-17	69,047	35,226	33,818	74,828	38,498	36,329	74,046	38,782	35,263	75,139	39,297	35,843
Total students 3 - 17 years	332,240	171,321	160,880	338,761	176,370	162,391	334,521	173,954	160,567	326,907	167,959	158,948

Table 9. 4 Projected number of students (5 - 23 years) by type of education: 2015 – 2030

	2015	2020	2025	2030
Pre-primary school: ages 3 - 5	24,691	24,565	23,134	23,281
Primary school: ages 6-11	157,112	157,049	154,479	147,698
Pre-secondary school: ages 12-14	81,390	82,319	82,862	80,788
Secondary school: ages 15-17	69,047	74,828	74,046	75,139
Total	332,240	338,761	334,521	326,907

Figure. 9. 2: Projected number of students (5 - 23 years) by appropriate age of level of education and percentage, no change scenario: 2015 – 2030



9.2.b. ‘NESP’ Model

Whereas the ‘no change’ scenario showed the effects of demographic changes on the size and structure of Timor-Leste’s school-going population, the NESP scenario will show the combined effects of the demographic changes together with the changes that will be generated by the implementation of the National Education Strategic Plan 2011 – 2030. The NESP is an ambitious plan that is designed to drastically increase the school attendance of children and young people, among other goals. The overall objectives of the NESP for school attendance are as follow:

Pre-primary school (ages 3 – 5 years)

- ‘By 2030, children in all the 442 sucos of the country will be enrolled in a good quality Pre-School which is a reasonable distance from their home’.
- ‘By 2015 at least half of the total population of children between 3 and 5 years old will be enrolled and receive quality Pre-School Education.’

The 2015 census showed that the goal of having half of children in pre-primary was not reached. This conclusion was confirmed by the 2015 EMIS, where pre-school NER was 14.3 percent. In the projection it was still envisaged that by 2030 all children aged 3 – 5 years old would be in school. To reach that goal it

was assumed that in 2020 two thirds of children would be in pre-primary school and 83 percent in 2025. These attendance ratios were included in the projection model.

Basic education (ages 6 – 14 years)

- *‘By 2030 all children, boys and girls alike, will be able to complete a full course of quality Basic Education’.*
- *‘By 2015, 95% of eligible students will be enrolled and receive quality Basic Education and student retention to Grade 9 will be significantly improved’.*

Although significant progress was made to increase the number of students in basic education, the objective to reach 95 percent was not met. The projection scenario assumes that the goal of full attendance will be reached by 2030. For 2020, the attendance ratios for those 6 – 14 years old were placed at 91 percent and at 97 percent for 2025. In 2030, attendance ratios were set at 100 percent.

Secondary education (15 – 17 years)

- *By 2030 all children, boys and girls alike will be able to select and enroll in quality and relevant Secondary Education.*

It is envisaged that an enrollment rate of 99 percent will be reached by 2030. To reach this goal, the projection scenario assumes an attendance of 89 percent in 2020, 94 percent in 2025 and 99 percent in 2030. As it can be assumed that not every student will pass their exams it is assumed that in 2030, 10 percent of 18-year-olds and 5 percent of 19-year-olds will still be in secondary education. The model assumes that through reaching universal schooling for all persons 3 – 17 years old, that the number of overaged students in the future will be gradually phased out. It is assumed that in 2020 the attendance ratio for those older than 17 will be half as in 2015, and in 2025 half as in 2020. It is assumed that in 2030 overaged students will be a thing of the past.

The base populations for the NESP-model are the same as those presented in Table 9.1. The age-specific attendance ratios used in the NESP-projection are presented in Table 9.5.

Applying the age-specific attendance ratios to the population in each of the 3 projection years, gives the number of students by age and sex. These projected number of students are shown in Table 9.6. The total number of students by year and sex are depicted in Figure 9.3. The first characteristic of the projection that catches the eye is that, despite the large increase in age-specific attendance ratios, the projected number of students in 2030 in the 'NESP' model would be only marginally larger than in the 'no-change' model. In the 'NESP' model, there would be 461,841 students (238,491 males and 223,350 females), while there would be 459,146, if attendance ratios would remain the same as they were at the time of the census. This has everything to do with the fact that as young people start following education at the appropriate time, the pool of overaged students dries up. In the end, the 'NESP' model assumes that by 2030 there will be no more overaged students present. However, compared to the situation in 2015, the number of students will increase significantly from 431,344 to 461,841. Actually, the number of students will rise most rapidly between 2015 and 2020 because during this period the number of new students in the system will join the number of those who are overaged. In 2020, more students will be present than in

Table 9. 5 Age-specific attendance ratios by sex, NESP-scenario, Timor-Leste, 2015 -2030

Age	2015			2020		2025		2030	
	Both sexes	Males	Females	Males	Females	Males	Females	Males	Females
3	0.11	0.11	0.11	0.67	0.67	0.83	0.83	1.00	1.00
4	0.16	0.16	0.17	0.67	0.67	0.83	0.83	1.00	1.00
5	0.48	0.47	0.49	0.67	0.67	0.83	0.83	1.00	1.00
6	0.67	0.66	0.69	0.91	0.91	0.97	0.97	1.00	1.00
7	0.79	0.78	0.80	0.91	0.91	0.97	0.97	1.00	1.00
8	0.83	0.83	0.83	0.91	0.91	0.97	0.97	1.00	1.00
9	0.87	0.86	0.87	0.91	0.91	0.97	0.97	1.00	1.00
10	0.87	0.87	0.87	0.91	0.91	0.97	0.97	1.00	1.00
11	0.89	0.88	0.89	0.91	0.91	0.97	0.97	1.00	1.00
12	0.88	0.88	0.89	0.91	0.91	0.97	0.97	1.00	1.00
13	0.88	0.88	0.88	0.91	0.91	0.97	0.97	1.00	1.00
14	0.87	0.87	0.88	0.91	0.91	0.97	0.97	1.00	1.00
15	0.84	0.83	0.84	0.89	0.89	0.94	0.94	0.99	0.99
16	0.81	0.80	0.81	0.89	0.89	0.94	0.94	0.99	0.99
17	0.78	0.78	0.78	0.89	0.89	0.94	0.94	0.99	0.99
18	0.71	0.72	0.70	0.36	0.36	0.18	0.18	0.10	0.10
19	0.65	0.68	0.62	0.32	0.34	0.16	0.17	0.05	0.05
20	0.52	0.57	0.48	0.26	0.28	0.13	0.14		
21	0.48	0.52	0.44	0.24	0.26	0.12	0.13		
22	0.41	0.45	0.38	0.21	0.23	0.10	0.11		
23	0.37	0.40	0.33	0.18	0.20	0.09	0.10		
24	0.32	0.37	0.28	0.16	0.18	0.08	0.09		
25-29	0.20	0.24	0.17	0.10	0.12	0.05	0.06		

Figure. 9. 3. Projected number of persons in school, ‘NESP’ scenario: 2015 – 2030

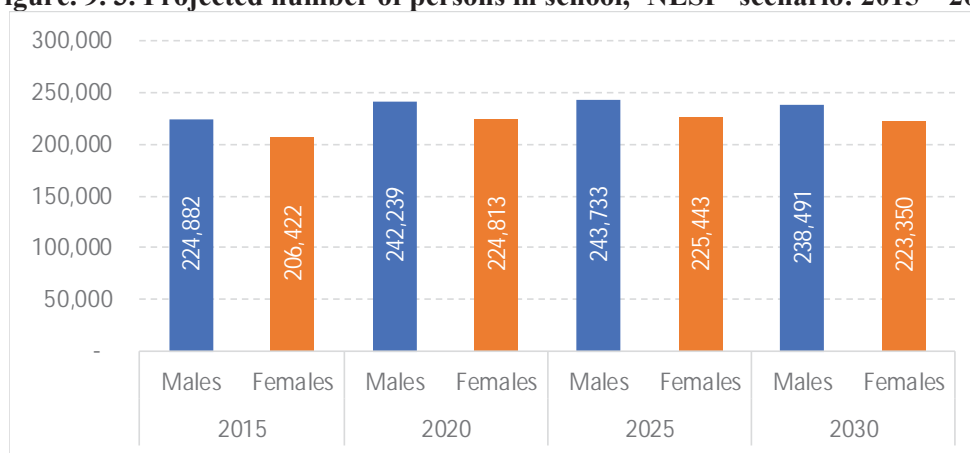


Table 9. 6 Projected number of students by age and sex, NESP Scenario, Timor-Leste, 2015 – 2030

Age	2015			2020			2025			2030		
	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females
3	3,737	1,940	1,797	21,532	11,199	10,333	25,739	13,169	12,570	31,407	16,065	15,342
4	5,292	2,714	2,576	21,595	11,286	10,309	25,456	13,026	12,430	30,926	15,822	15,104
5	15,662	8,058	7,593	21,778	11,476	10,301	25,472	13,068	12,404	30,640	15,676	14,964
6	21,709	11,235	10,460	29,817	15,694	14,123	30,014	15,470	14,544	30,529	15,618	14,911
7	25,310	13,192	12,113	29,606	15,578	14,028	30,257	15,666	14,591	30,327	15,512	14,815
8	26,636	13,950	12,685	29,271	15,414	13,857	30,407	15,818	14,589	30,049	15,370	14,679
9	27,625	14,398	13,225	28,917	15,245	13,672	30,476	15,926	14,550	29,691	15,183	14,508
10	27,651	14,352	13,299	28,648	15,114	13,534	30,742	16,200	14,542	29,724	15,240	14,484
11	28,182	14,535	13,648	28,478	15,021	13,457	30,909	16,268	14,641	30,120	15,514	14,606
12	27,788	14,256	13,532	28,387	14,949	13,437	30,738	16,175	14,564	30,418	15,744	14,674
13	27,279	14,033	13,245	28,357	14,887	13,470	30,442	16,031	14,411	30,617	15,923	14,694
14	26,323	13,432	12,889	28,355	14,827	13,528	30,124	15,883	14,242	30,738	16,060	14,678
15	24,576	12,518	12,055	27,695	14,399	13,296	28,922	15,249	13,673	30,697	16,165	14,532
16	23,086	11,774	11,311	27,528	14,219	13,309	28,692	15,101	13,591	30,811	16,179	14,632
17	21,386	10,935	10,451	27,205	13,977	13,227	28,547	14,976	13,571	30,586	16,032	14,554
18	18,712	9,661	9,046	10,732	5,450	5,282	5,422	2,810	2,612	3,054	1,599	1,454
19	16,154	8,531	7,626	9,648	4,811	4,838	4,998	2,538	2,460	1,508	789	718
20	12,295	6,682	5,625	7,730	3,770	3,960	4,109	2,031	2,077	-	-	-
21	10,618	5,697	4,924	6,875	3,348	3,527	3,738	1,836	1,902	-	-	-
22	8,678	4,665	4,010	5,724	2,759	2,965	3,190	1,548	1,642	-	-	-
23	7,485	4,020	3,463	4,876	2,326	2,550	2,788	1,342	1,446	-	-	-
24	6,403	3,582	2,811	4,114	1,898	2,216	2,415	1,131	1,284	-	-	-
25-29	18,760	10,723	8,038	10,185	4,590	5,594	5,579	2,472	3,107	-	-	-
Total students	431,344	224,882	206,422	467,051	242,239	224,813	469,176	243,733	225,443	461,841	238,491	223,350

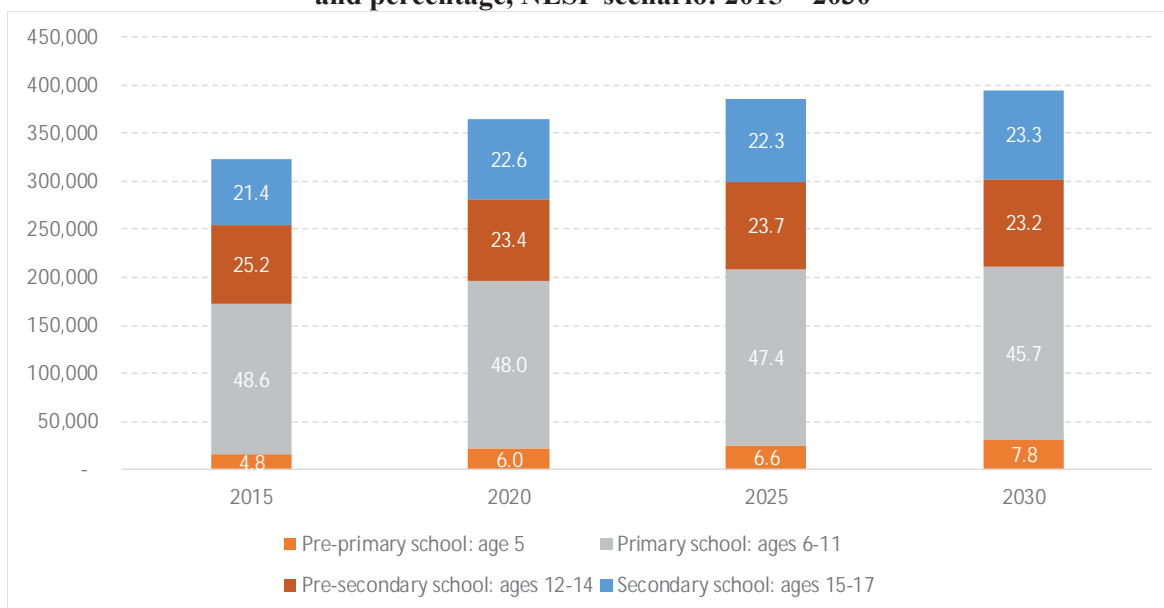
	2015			2020			2025			2030		
	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females
Total population	1,200,379	613,386	586,993	1,299,412	660,360	639,052	1,391,221	702,592	688,629	1,483,947	745,203	738,744
% in school	35.9	36.7	35.2	35.9	36.7	35.2	33.7	34.7	32.7	31.1	32.0	30.2
Pre-primary school: age 5	15,662	8,058	7,593	21,778	11,476	10,301	25,472	13,068	12,404	30,640	15,676	14,964
Primary school: ages 6-11	157,112	81,662	75,430	174,737	92,067	82,671	182,805	95,348	87,457	180,440	92,437	88,003
Pre-secondary school: ages 12-14	81,390	41,721	39,666	85,098	44,663	40,435	91,305	48,089	43,216	91,773	47,727	44,046
Secondary school: ages 15-17	69,047	35,226	33,818	82,427	42,595	39,832	86,160	45,326	40,835	92,094	48,375	43,718
Total students 3 - 17 years	323,210	166,668	156,507	364,040	190,801	173,239	385,743	201,831	183,912	394,947	204,215	190,731

2030: 467,051, i.e. 36,000 more than in 2015 and 5,000 more than in 2030. Significant investments will be needed to accommodate this large group of new students in the system. Because of the changes in fertility, the proportion of the total population in school will diminish in the next 15 years from 35.9 percent in 2015 to 31.1 percent in 2030.

The large number of overaged students would gradually disappear in the school population. However, those who are in the appropriate age groups for each educational level will increase rapidly. The number of children aged 5 in pre-primary would almost double between 2015 and 2030, from 15,662 to 30,640. Students in primary school (6 – 11 year) would increase from 157,112 in 2015 to 180,440 in 2030; the group of pre-secondary students (12 – 14 years) would grow from 81,390 to 91,773 and the number of secondary students (15 – 17 years) would rise to 92,094 thousand from the 2015 level of 69,047. Note that for each educational level, the number of boys is bigger than the number of girls. This is not caused by higher attendance ratios for boys than for girls (in the projection model they were kept the same), but because more boys than girls are present at each age between 3 and 17 years of age.

Figure 9.4 shows the cumulated number of students by appropriate age for each level of education, inside the bars the percentage of each level among the total school-going population is shown. Despite an absolute growth in the number of students for each level, one can see that there are some changes in the relative sizes of each level. The proportion of primary students will drop from 48.6 percent in 2015 to 45.7 percent in 2030. Pre-primary will expand from 4.8 percent in 2015 to 7.8 percent in 2030, whilst secondary education will also grow from 21.4 to 23.3 percent in 2030.

Figure. 9. 4: Projected number of students (5 - 23 years) by appropriate age of level of education and percentage, NESP scenario: 2015 – 2030



The current projections showed what changes in the school-going population may be expected if the National Education Strategic Plan would be fully executed. However, one should be aware that the projection follows a ‘what-if’ scenario. Over time, as conditions change, and the NESP is further executed, it will be necessary to update this projection by using adapted scenarios.

Chapter 10: Conclusions and recommendations

Education is a basic human right and forms a pillar for sustainable development and equitable growth. Schooling liberates people from ignorance and allows them to acquire the knowledge and skills to reach their full social, economic and cultural potential. Because of its importance, education occupies a central position in the 2030 Agenda for Sustainable Development. Data from the census allow the quantification of a whole group of indicators for the Sustainable Development Goals as well as national and international development programs. The SDG indicators related to education that could be derived from the census are presented at the beginning of this report.

A population census offers a unique opportunity to draw a picture of a country's student population and the educational attainment of its population at a specific point in time. Therefore, it is important that the right questions are incorporated in the questionnaire, that the questions are asked in an easy, uniform way by the enumerators, and that they can be clearly understood and answered by the respondents. As indicated in section 2.3 on data quality, the way the questions on education were formulated in the 2010 and 2015 population census led to some serious inconsistencies in the data. It is advisable that questions on school attendance and educational attainment are not asked in one question, but in two separate questions: a) one on current school attendance and b) one on past education attainment. Then, for those who are still in school and those who finished school, a different set of questions can be asked to get more in-depth information. It is recommended that the questionnaire for the next census is modified to further improve the quality of the collected information. In addition to changes in the census questionnaire, clear editing rules and a corresponding computer editing script has to be developed to correct for content errors in the education variables. The editing protocol and editing programs should be developed well in advance of the census fieldwork to allow efficient processing of the census data.

Pre-school education is an essential part of the school system and starts at age 3. It prepares children for a successful start in primary education. It is the aim of the National Education Strategic Plan to increasingly integrate pre-school education into basic education and in the long run to achieve universal enrollment. Currently, this goal is still far from being achieved as only 16.2 percent of 3 - 4 year old children are attending pre-primary school. This is 45.9 percent among 5 - 6 year olds. To increase the enrollment of 3 - 5 year old children in pre-school education, the school network and teaching staff for the youngest school generation needs to be further expanded.

The analysis of school attendance based on the 2015 census showed that impressive progress has been made in several areas since the census of 2010. In the age group 5 - 12 years of age, net school attendance was found to be significantly higher in 2015 than in 2010. In the past, many children did not start primary school at the proper age of 6. The 2015 census showed that attendance of primary school at the proper age has improved substantially. However, the fact that the net primary attendance ratio in 2015 stood at 80.8 percent indicates that an intensified effort is needed to reach the goals of the National Education Strategic Plan to provide universal basic education. Significant differences in net primary attendance ratios still exist between the various municipalities. Therefore, efforts will have to be concentrated in some of the more disadvantaged areas.

Pre-secondary education is the third cycle of basic education, which according to the Education Act lasts for nine years. The Education Act states that basic education should be '*universal, compulsory, and free*'. The census shows that currently pre-secondary education is not yet universal. According to the 2015 census, the net attendance ratio for pre-secondary school stood at 44.2 percent and the gross attendance

ratio at 83.3 percent. The much higher gross attendance ratio compared to the net attendance ratio is caused by the large proportion of students who are older than the normal age of being in pre-secondary education. Over the years, the government has made significant efforts to increase the number of pre-secondary schools and to hire many pre-secondary school teachers, but the census shows that there is still a long way to go to reach universality in the third cycle of basic education. Efforts are needed in two areas: a) to increase the number of students in pre-secondary education and b) to get students in pre-secondary education at the proper age. The latter effort is closely connected to getting young children at the appropriate age in pre-primary and primary school.

Since 2010, the school life expectancy increased from 13.7 years to 15.2 years. This is additional proof of significant progress made within the education system. However, compared to boys, girls still have a lower school life expectancy: 14.8 years against 15.6 years. The higher school life expectancy is caused by the higher Gross Attendance Ratios of boys compared to girls at all educational levels, except for pre-secondary education. The fact that the net attendance ratios are about the same or even somewhat higher for girls than for boys indicates that girls are slightly more prevalent in school at the appropriate ages, but that ultimately boys have a somewhat higher presence than girls in education. Although the gender gap has narrowed in recent years, in order to reach full equity in educational attainment, higher attendance rates for girls and young women should be further promoted. Especially for tertiary education, the gender parity index based on the GAR is still quite low (.80). The gender gap for tertiary education is highest in rural areas where the GPI is only .66 for the gross attendance ratio and .89 for the net attendance ratio. These results show that within the national education plan, special action is needed to increase the number of young women in tertiary education, especially in rural areas.

An important characteristic of the school-going population in Timor-Leste is the high proportion of over-aged students at all levels, where many children and young persons do not start schooling at the appropriate age. There is evidence that this problem is more prominent for boys than for girls. It will be a challenge for the authorities to change this trend and have children start schooling at the appropriate age. An important initial step for the authorities will be to identify children who are not in school at the appropriate age. Encouraging universal birth registration and certification would be a step in the right direction, as it would enable local politicians and government officials to better understand the size and structure of the child population and make sure everyone was attending school from the right age onwards. To make basic education universal and compulsory, a monitoring system is necessary to check if children are enrolled in school. A birth registration system would help to identify children who are not in school at the appropriate age and open the way to other basic services such as health and social security.

Another important characteristic of Timor-Leste's educational system is the large discrepancy between rural and urban areas as well as between the various municipalities. In general, rural areas score much worse in a large number of indicators varying from attendance ratios to literacy to educational attainment. Pursuing an education is an important motivation to migrate to the capital city. Extra efforts will be needed to bring high quality education to even the more remote regions of the country. To attain equal educational opportunities between rural and urban areas and between the different municipalities in the country, proper investment in school infrastructure and a quality workforce will have to be made in more remote areas.

Great strides have been made to bring down the levels of illiteracy in Timor-Leste. The literacy rate for all persons 10 years of age and over is 67.3 percent, with women having a lower literacy rate than men, 63.9 against 70.6 percent. The census showed that illiteracy is significantly lower for both sexes than in 2010. However, because literacy in the census is based on a self-assessment without any proficiency test,

it is well possible that actual illiteracy rates are higher. Active literacy tests in schools may provide a better understanding of the efficiency and effectiveness of the school system to learn children to read and write.

Although most illiterate people are older people, a significant proportion of young people is also unable to read or write. Among 15 – 19-year olds, 14.4 of males and 14.0 percent of females are illiterate. Continued attention will have to be paid to the group of young people who are devoid of schooling and who will soon enter the labour market without basic skills of reading and writing. Because of the very high levels of adult illiteracy, the country needs to increase efforts to organize adult literacy programs.

Educational attainment of various vulnerable groups was also included in the current report. Specific attention was given to persons with disabilities, young female farmers, adolescent mothers and young urban migrants. The analysis clearly showed the disadvantaged position of persons belonging to these groups, with the exception of young urban migrants, in terms of their school attendance and educational attainment.

Addressing the situation of people belonging to vulnerable groups requires specific action plans to increase their access to quality education. Their position will have to be studied more in depth, to allow the formulation of specific programs. In general, statistical information about persons belonging to vulnerable groups in Timor-Leste is still rather limited.

The census found that only 0.5 percent of the population was living with a disability, which is unrealistically low. The World Report on Disability indicates that globally more than one billion people live with a disability, which is about 15 percent of the total world population, and an estimated 2.9 percent of all people have a severe disability. It is likely that the very low observed percentage of persons living with a disability is closely related to the negative connotations related to disability and the cultural hesitation by both respondent and interviewers to discuss this matter. Therefore, special efforts should be made in Timor-Leste to investigate the prevalence of disability and the living conditions of persons with a disability.

The rights of people with disabilities are reflected in the Sustainable Development Goals, the Asian and Pacific Decade of Persons with Disabilities 2013-2022 and the 2012 Incheon Strategy to *'Make the Right Real'* for persons with disabilities in Asia and the Pacific (UNESCAP, 2012). Timor-Leste still has a long way to go to reach the Incheon goal to *'Halve the gap between children with disabilities and children without disabilities in enrolment rates for primary and secondary education'*. The census information for persons with a disability shows that their level of literacy, school attendance and educational attainment is very low compared to persons with no disabilities. Therefore, further steps need to be taken to make the educational system more inclusive, i.e. enroll children with disabilities in mainstream education and enable them to participate fully in schools' social and intellectual environment. In addition, steps should be taken to improve special education for children with a disability to fulfill their specific needs and to prepare them for further education, employment and an independent and satisfying life.

Around half of 15-year-old female farmers are illiterate, against about 10 percent of women who were non-farmers. Young female farmers should be recognized in educational programs as a vulnerable group that needs special attention. The same holds for young working children. Actions should be taken to allow children of poor farmers to pursue an education and literacy programs and assistance should be developed to cater for the educational needs of young females working in agriculture.

Young adolescent mothers are another vulnerable group in terms of educational attainment. School attendance rates for adolescent mothers in Timor-Leste are very low compared to other adolescent females. In the first place, steps should be taken to avoid teenage pregnancies, which may jeopardize the health and economic and social position of the mother and newborn child. Schools can play a crucial role in preventing teenage pregnancy, through sexual and reproductive health information and communication to adolescents. As girls most likely to become mothers at a very young age are often from poor families and with no education, special programs have to be put in place for this group to improve access to formal education, especially at the pre-secondary and secondary level. Access to good quality education is a basic human right. Pregnant adolescent girls and adolescent mothers should therefore be given the opportunity to continue their education to equip them for a better life and to fulfill their human potential. Special arrangements should be made to assist young pregnant adolescents and young teenage mothers to continue their schooling as effortless as possible.

The demographic characteristics of teachers is slowly changing, with more young women entering the profession and a gradually ageing of male teachers. The education projections showed that if the goals of the National Education Strategic Plan would be realized that compared to the situation in 2015, the number of students will increase significantly from 431,344 to 461,841 by 2030. In order to cater for the needs of so many more students, to help lower the student/teacher ratios and to replace retiring teachers, a large group of new teachers will have to be trained and hired in the coming years.

To guarantee high quality education, it is important that teachers will be well educated and pedagogically trained. The thematic skill sets of teachers was not measured in the census. Further research should look into how knowledge and skills of teachers can be further improved in order to guarantee educational quality envisaged in the NESP. In this respect, attention should be paid to the regional disparity in skills, and determine where gaps in quality of tuition are most apparent.

The census showed that some quantitative disparity exists in the regional distribution of teachers between urban and rural areas and between the different municipalities. Therefore, young teachers should be encouraged to take up positions in more remote areas, perhaps through the provision of interesting incentives. The current report, together with the Education Management Information System (EMIS), can be used to reassess future teacher distribution (and the construction or expansion of existing school facilities).

The education projections demonstrated that the full implementation of the NESP would drastically change the volume and composition of the student population. In addition, to these changes, another problem may arise. Currently, many students are not passing through the system according to the appropriate age, either because of a late start or because they repeat classes. A solution for these overaged students needs to be found in the short term to free up places for students within the correct age range for each level. If not dealt with properly, the number of students at certain levels will rise dramatically, because overaged students will enter the education system together with a growing number of students who start their education at the appropriate age. It will be very important to monitor these trends through more intensive use of the EMIS and dedicated surveys.

Whilst this report outlines the great challenges that Timor-Leste still faces in the education system, it is also a representation of hope and impressive progress. Bringing education reform is a long and slow process and requires ongoing commitment, but this young country has proven to be able to make rapid progress by enshrining education in its development policies and plans.

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Statistical Annex

Table A. 1: Total number of students by level of study, sex and location – Timor-Leste 2015

	Pre-Primary			Primary			Pre-Secondary			Secondary		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
	Total	10,818	10,433	21,251	112,233	101,353	213,586	38,915	39,067	77,982	31,652	29,487
Urban	3,023	2,871	5,894	26,904	24,341	51,245	12,996	13,264	26,260	16,472	15,809	32,281
Rural	7,795	7,562	15,357	85,329	77,012	162,341	25,919	25,803	51,722	15,180	13,678	28,858
Aileu	519	521	1,040	5,101	4,562	9,663	1,833	1,823	3,656	1,300	1,274	2,574
Ainaro	665	566	1,231	6,477	5,785	12,262	2,292	2,277	4,569	1,377	1,297	2,674
Baucau	1,139	1,191	2,330	12,134	10,979	23,113	4,092	4,254	8,346	3,110	3,023	6,133
Bobonaro	1,051	1,029	2,080	9,697	8,926	18,623	2,656	2,879	5,535	1,566	1,505	3,071
Covalima	495	531	1,026	6,424	5,753	12,177	2,432	2,460	4,892	1,458	1,426	2,884
Dili	2,263	2,097	4,360	20,297	18,525	38,822	9,389	9,191	18,580	12,933	11,969	24,902
Ermera	931	915	1,846	12,120	11,000	23,120	4,037	3,917	7,954	2,320	2,016	4,336
Lautem	746	664	1,410	7,633	6,847	14,480	2,342	2,529	4,871	1,507	1,538	3,045
Liquiça	536	530	1,066	6,633	5,884	12,517	2,003	1,932	3,935	1,435	1,382	2,817
Manatuto	711	639	1,350	5,014	4,551	9,565	1,443	1,279	2,722	655	594	1,249
Manufahi	552	516	1,068	5,528	4,961	10,489	2,054	2,183	4,237	1,292	1,156	2,448
Oecussi	435	430	865	7,102	6,735	13,837	1,647	1,664	3,311	1,228	987	2,215
Viqueque	775	804	1,579	8,073	6,845	14,918	2,695	2,679	5,374	1,471	1,320	2,791

Table A.1: Total number of students by level of study, sex and location – Timor-Leste 2015 (continued)

	Polytechnic / Diploma		University		Non formal		Undetermined			
	Male	Female	Male	Female	Male	Female	Male	Female		
Total	998	762	20,037	16,598	36,635	1,011	1,236	2,247	2,150	4,690
Urban	421	384	14,069	12,406	26,475	270	292	562	502	1,051
Rural	577	378	5,968	4,192	10,160	741	944	1,685	1,648	3,639
Aileu	34	31	510	411	921	53	53	106	80	149
Ainaro	42	35	353	268	621	94	114	208	186	342
Baucau	139	128	1,289	1,065	2,354	78	114	192	423	740
Bobonaro	62	39	523	424	947	83	72	155	255	486
Covalima	27	19	494	369	863	77	93	170	125	215
Dili	362	314	13,261	11,660	24,921	215	269	484	364	693
Ermera	88	54	1,001	577	1,578	83	103	186	302	564
Lautem	52	34	448	379	827	41	51	92	86	164
Liquiça	32	18	587	364	951	56	78	134	106	198
Manatuto	28	24	202	153	355	97	90	187	265	479
Manufahi	24	13	366	256	622	57	67	124	89	178
Oecussi	49	29	498	293	791	21	37	58	83	147
Viqueque	59	24	505	379	884	56	95	151	176	335

Table A. 2. Total number of students by level of study, sex and administrative post – Timor-Leste 2015

	Pre-Primary		Primary		Pre-Secondary		Secondary		Polytechnic / Diploma		University		Non formal		Undetermined		Total										
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Total								
Total	10,818	10,433	21,251	112,233	101,353	213,586	38,915	39,067	77,982	31,662	29,487	61,139	1,760	20,037	16,598	36,635	1,011	1,236	2,247	2,540	2,150	4,690	218,204	201,086	419,290		
Alieu Vila	255	255	510	2,516	2,128	4,644	945	845	1,790	783	814	1,597	14	30	262	493	31	26	57	38	39	77	4,844	4,354	9,198		
Laulara	68	49	117	725	659	1,384	296	301	597	177	155	332	10	9	74	59	133	9	7	16	7	16	1,368	1,246	2,614		
Lequidoe	66	81	147	706	643	1,349	259	279	538	227	190	417	6	3	110	75	185	2	6	8	3	4	7	1,379	1,281	2,660	
Remexo	130	136	266	1,154	1,132	2,286	333	398	731	113	115	228	4	3	64	46	110	11	14	25	30	19	49	1,839	1,863	3,702	
Ainaro	152	132	284	1,704	1,509	3,213	782	768	1,550	603	613	1,216	13	12	25	152	233	23	24	47	31	17	48	3,460	3,206	6,666	
Hato-Udo	98	69	167	1,097	905	2,002	386	372	758	352	282	634	7	5	58	33	91	19	16	35	14	7	21	2,031	1,689	3,720	
Hato-Builico	138	129	267	1,381	1,311	2,692	412	412	824	120	81	201	3	5	8	43	27	70	8	21	49	34	83	2,159	2,007	4,166	
Maubisse	277	236	513	2,295	2,060	4,355	712	725	1,437	302	321	623	19	13	100	77	177	39	66	105	92	98	190	3,836	3,596	7,432	
Baguia	124	128	252	1,349	1,150	2,499	497	534	1,031	414	359	773	21	15	36	352	249	4	12	16	21	17	38	2,782	2,464	5,246	
Baucau	423	474	897	4,455	3,932	8,387	1,674	1,719	3,393	1,536	1,632	3,168	49	64	113	449	601	4	12	16	21	17	38	2,782	2,464	5,246	
Laga	178	172	350	1,645	1,607	3,252	596	533	1,129	349	332	681	18	20	38	165	129	294	8	17	25	142	105	247	3,101	2,915	6,016
Quelicai	130	148	278	1,880	1,663	3,543	523	576	1,099	346	271	617	35	17	52	188	152	340	8	21	29	50	37	87	3,160	2,885	6,045
Vemasse	121	106	227	1,027	953	1,980	271	321	592	145	143	288	6	2	8	60	59	119	11	7	18	33	22	55	1,674	1,613	3,287
Venilale	163	163	326	1,778	1,674	3,452	531	571	1,102	320	286	606	10	10	20	75	61	136	23	20	43	26	69	2,943	2,811	5,754	
Atabae	148	125	273	1,444	1,274	2,718	261	288	549	63	53	116	8	4	12	45	39	84	8	7	15	25	20	45	2,002	1,810	3,812
Baibo	142	165	307	1,522	1,451	2,973	312	385	697	99	82	181	3	-	3	33	29	62	2	8	10	3	14	17	2,116	2,134	4,250
Callaco	274	275	549	2,395	2,250	4,645	632	629	1,261	361	351	712	24	11	35	111	72	183	27	27	54	79	88	167	3,903	3,703	7,606
Bobonaro	120	129	249	1,024	909	1,933	246	241	487	111	90	201	8	16	73	51	124	8	6	14	22	18	40	1,612	1,452	3,064	
Lolotoe	91	74	165	733	679	1,412	187	192	379	41	27	68	5	1	6	27	24	51	10	6	16	24	16	40	1,118	1,019	2,137
Mellana	276	261	537	2,579	2,363	4,942	1,018	1,144	2,162	891	902	1,793	14	15	29	234	209	443	28	18	46	102	75	177	5,142	4,987	10,129
Fatulic	14	24	38	258	198	456	80	85	165	9	5	14	-	1	1	5	7	12	1	2	3	3	5	8	370	327	697
Fatumean	30	23	53	376	334	710	143	135	278	43	31	74	1	1	2	17	9	26	4	6	10	2	4	6	616	543	1,159
Fohorem	17	34	51	395	368	763	132	139	271	67	71	138	-	-	-	10	15	25	2	2	6	1	7	629	628	1,257	
Mauccatar	71	74	145	950	824	1,774	309	310	619	190	235	425	10	5	15	106	73	179	11	14	25	15	11	26	1,662	1,546	3,208
Suai	194	207	401	2,420	2,237	4,657	1,069	1,126	2,195	789	789	1,578	6	3	9	222	195	417	32	35	67	30	31	61	4,762	4,623	9,385
Tilomar	72	78	150	861	737	1,598	288	283	571	136	104	240	2	1	3	47	27	74	3	6	9	35	24	59	1,444	1,260	2,704
Zumalai	97	91	188	1,164	1,055	2,219	411	382	793	224	191	415	8	8	16	87	43	130	24	30	54	34	48	2,049	1,814	3,863	

Table A.2. Total number of students by level of study, sex and administrative post – Timor-Leste 2015 (continued)

	Pre-Primary		Primary		Pre-Secondary		Secondary		Polytechnic / Diploma		University		Non formal		Undetermined		Total								
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female							
	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total							
Dili	149	121	270	1,872	287	266	553	264	583	9	7	16	89	30	119	5	17	22	18	9	27	1,885	1,577	3,462	
	443	437	880	9,274	2,288	4,573	5,813	2,715	8,528	80	54	134	2,823	2,495	5,318	49	52	101	95	88	183	13,731	12,545	26,276	
	1,034	970	2,004	17,273	4,248	8,471	11,846	5,756	16,597	174	168	342	7,322	6,354	13,676	111	130	241	140	128	268	28,136	25,985	54,121	
	41	62	103	866	195	213	408	146	299	2	-	2	67	52	119	4	8	12	13	11	24	942	881	1,823	
	239	224	463	4,440	1,170	1,040	2,210	1,379	2,789	36	23	59	1,445	1,352	2,797	15	27	42	25	27	52	6,658	6,194	12,852	
	357	283	640	5,107	1,201	1,164	2,365	1,863	3,572	61	62	123	1,515	1,377	2,892	31	35	66	73	66	139	7,732	7,172	14,904	
Ermera	94	116	210	3,334	480	439	919	165	128	7	8	15	77	45	122	13	12	25	26	20	46	2,562	2,402	4,964	
	345	334	679	3,628	1,375	1,369	2,744	1,026	917	30	18	48	243	243	664	31	38	69	111	107	218	6,967	6,433	13,400	
	217	231	448	3,582	1,005	940	1,945	394	341	19	12	31	254	106	360	19	26	45	54	57	111	5,544	4,857	10,401	
	176	143	319	2,156	1,838	1,770	3,994	770	789	25	9	34	164	87	251	7	11	18	59	45	104	3,785	3,297	7,082	
	99	91	190	1,054	407	380	787	307	255	7	7	14	85	96	181	13	16	29	52	33	85	2,024	1,855	3,879	
Lautem	124	107	231	967	954	1,921	203	278	481	63	4	1	5	24	41	2	5	7	8	4	12	1,395	1,426	2,821	
	131	128	259	3,475	523	522	1,045	261	288	16	12	28	135	93	228	14	22	36	17	19	36	2,945	2,691	5,636	
	403	367	770	6,714	1,223	1,347	2,570	1,044	1,099	17	9	26	199	204	403	17	14	31	40	37	77	6,516	6,218	12,734	
	57	46	103	1,582	250	249	499	100	67	167	10	9	19	66	43	109	6	7	13	13	15	28	1,352	1,168	2,520
	31	16	47	395	393	788	143	33	44	83	5	3	8	24	22	46	2	3	5	8	3	11	647	617	1,264
	268	275	543	5,071	881	862	1,743	618	639	3	3	6	263	171	434	18	14	32	39	36	75	4,755	4,406	9,161	
Liquica	146	147	293	3,670	553	579	1,132	433	455	9	4	13	167	107	274	14	39	53	33	27	60	3,317	3,066	6,383	
	122	108	230	3,776	569	491	1,060	384	288	20	11	31	157	86	243	24	25	49	34	29	63	3,316	2,808	6,124	
	65	66	131	1,126	134	104	238	76	30	106	5	5	21	19	40	16	15	31	27	16	43	949	771	1,720	
	71	59	130	870	828	1,698	189	143	332	62	3	9	22	12	34	15	10	25	32	19	51	1,267	1,114	2,381	
	148	144	292	2,393	342	326	668	146	139	285	4	1	5	43	26	69	48	46	94	60	52	112	2,057	1,861	3,918
	68	50	118	377	328	705	88	83	171	43	46	89	2	5	7	14	8	22	1	2	28	37	65	621	558
	334	289	623	2,963	519	454	973	263	284	547	10	15	83	78	161	7	16	23	116	88	204	2,882	2,637	5,519	
	25	31	56	334	680	171	169	340	65	120	1	1	19	10	29	10	2	12	2	2	4	639	603	1,242	
	118	101	219	1,687	263	302	565	101	70	171	1	2	32	26	58	5	6	11	9	13	22	1,433	1,303	2,736	
	77	76	153	1,471	341	293	634	235	198	433	4	1	45	25	70	8	4	12	3	3	6	1,508	1,276	2,784	
	309	272	581	5,727	1,094	1,242	2,326	697	637	1,334	16	9	190	146	336	27	37	64	66	63	129	5,354	5,168	10,522	
	48	67	115	1,604	366	346	712	259	251	510	3	1	99	59	158	17	20	37	11	10	21	1,667	1,494	3,161	
	91	66	157	1,483	1,419	1,474	358	54	50	104	7	-	21	15	36	6	12	18	16	15	31	1,862	1,751	3,613	
	57	70	127	2,449	240	285	525	90	81	171	2	2	54	35	89	3	5	8	9	6	15	1,666	1,722	3,388	
	246	244	490	6,744	1,114	1,100	2,214	1,044	824	1,868	34	26	397	232	629	9	15	24	43	27	70	6,421	5,678	12,099	
Macassar	41	50	91	874	688	1,742	109	105	214	40	32	72	26	11	37	3	5	8	15	16	31	1,114	1,088	2,202	
	79	84	163	1,228	243	245	488	108	68	176	3	2	68	28	96	8	15	23	14	5	19	1,205	993	2,198	
	133	151	284	3,468	686	642	1,328	372	358	730	8	4	117	90	207	7	20	27	21	20	41	3,185	2,912	6,097	
	212	213	425	3,923	670	692	1,362	345	336	681	22	5	27	86	85	171	9	17	26	80	79	159	3,599	3,175	6,774
	50	71	121	1,597	234	289	523	108	113	221	6	2	8	38	37	75	8	10	18	9	10	1,284	1,298	2,582	
	301	285	586	4,702	862	811	1,673	538	445	983	20	11	196	139	335	24	33	57	52	45	97	4,537	3,927	8,464	

Table A. 3. Number of teachers / educators by municipality and sex, Timor-Leste 2015

	Male		Female		Total
Total	10,030	60.4	6,588	39.6	16,618
Urban	3,182	52.8	2,841	47.2	6,023
Rural	6,848	64.6	3,747	35.4	10,595
Aileu	460	64.2	256	35.8	716
Ainaro	491	52.0	453	48.0	944
Baucau	1,114	62.4	672	37.6	1,786
Bobonaro	907	66	461	34	1,368
Covalima	700	62.4	421	37.6	1,121
Dili	2,058	52.0	1,898	48.0	3,956
Ermera	764	58.4	545	41.6	1,309
Lautem	735	72	289	28	1,024
Liquiça	509	63.4	294	36.6	803
Manatuto	374	59.7	252	40.3	626
Manufahi	554	57.9	403	42.1	957
Oecussi	534	62	326	38	860
Viqueque	830	72.3	318	27.7	1,148

Table A. 4. Net attendance ratios (NAR) and GPI for primary, pre-secondary, secondary school and university by administrative post and sex, Timor-Leste 2015

	Primary				Pre-Secondary				Secondary				University			
	Male	Female	Total	Gender Parity Index	Male	Female	Total	Gender Parity Index	Male	Female	Total	Gender Parity Index	Male	Female	Total	Gender Parity Index
Aileu	85.2	84.2	84.7	0.99	35.7	47.3	41.0	1.33	26.0	41.4	33.4	1.59	6.4	7.6	6.9	1.19
	83.7	84.3	84.0	1.01	42.9	49.0	45.9	1.14	18.6	24.1	21.3	1.29	6.5	7.3	6.9	1.13
	87.8	88.1	87.9	1.00	36.0	48.9	42.7	1.36	28.6	28.8	28.7	1.01	11.8	10.3	11.1	0.87
Ainaro	82.0	82.5	82.3	1.01	28.9	43.1	36.1	1.49	12.5	16.0	14.2	1.29	3.8	5.2	4.5	1.40
	84.0	84.0	84.0	1.00	64.5	71.0	67.8	1.10	48.5	59.1	53.8	1.22	10.7	12.6	11.6	1.17
	82.2	83.9	83.0	1.02	49.4	62.6	55.6	1.27	42.3	47.5	44.7	1.12	6.8	5.9	6.4	0.87
Baucau	75.6	77.2	76.4	1.02	34.3	42.6	38.4	1.24	12.1	10.7	11.5	0.88	4.7	3.9	4.3	0.83
	70.4	69.3	69.9	0.98	25.0	30.5	27.8	1.22	10.7	14.3	12.5	1.34	3.5	3.5	3.5	0.98
	86.9	86.7	86.8	1.00	37.6	51.5	44.5	1.37	23.6	27.9	25.6	1.18	22.0	20.5	21.3	0.93
Bobonaro	82.1	81.9	82.0	1.00	48.6	59.9	54.1	1.23	41.1	51.2	46.2	1.25	9.2	10.6	9.9	1.15
	73.9	78.3	76.0	1.06	29.1	36.3	32.7	1.25	14.5	20.9	17.6	1.45	8.9	7.5	8.1	0.84
	84.5	82.8	83.7	0.98	27.8	40.0	33.7	1.44	19.3	18.9	19.1	0.98	9.8	10.6	10.2	1.08
Covallima	85.8	85.4	85.6	1.00	34.5	47.6	40.9	1.38	18.3	24.8	21.4	1.35	6.5	7.0	6.8	1.07
	80.8	82.6	81.7	1.02	33.8	46.6	40.1	1.38	25.2	31.9	28.4	1.26	4.3	5.6	4.9	1.29
	85.8	87.3	86.5	1.02	23.2	32.2	27.6	1.39	6.6	8.6	7.5	1.31	4.8	5.9	5.4	1.24
Dili	75.2	79.5	77.3	1.06	22.3	36.8	29.4	1.65	10.8	11.9	11.3	1.09	2.0	3.1	2.5	1.58
	76.3	76.8	76.5	1.01	33.1	36.1	34.6	1.09	20.2	24.1	22.2	1.19	4.2	4.6	4.4	1.09
	77.3	78.9	78.1	1.02	25.0	37.4	30.6	1.49	11.7	11.9	11.8	1.02	8.1	6.3	7.1	0.78
Lautem	87.6	88.6	88.1	1.01	36.1	45.2	40.4	1.25	3.5	2.8	3.2	0.79	7.3	4.8	5.9	0.65
	82.0	83.2	82.6	1.01	46.3	56.0	51.2	1.21	39.7	46.7	43.2	1.18	6.0	7.4	6.7	1.24
	89.2	80.0	84.9	0.90	34.6	44.4	39.4	1.28	8.1	2.2	5.9	0.27	7.5	6.0	6.6	0.79
Maliana	83.9	83.0	83.5	0.99	49.3	50.0	49.6	1.02	11.2	11.3	11.2	1.00	3.4	6.3	5.0	1.85
	80.6	81.1	80.8	1.01	41.0	43.9	42.5	1.07	27.1	32.3	29.7	1.19	5.0	6.4	5.7	1.28
	87.0	92.3	89.5	1.06	36.9	49.7	42.8	1.34	23.1	35.4	29.1	1.53	12.3	11.4	11.9	0.92
Suai	84.2	86.5	85.3	1.03	47.8	63.1	55.4	1.32	36.8	47.4	42.0	1.29	8.3	9.6	8.9	1.16
	86.4	86.1	86.2	1.00	33.3	47.6	40.2	1.43	19.0	23.9	21.1	1.26	5.1	5.2	5.1	1.02
	75.3	71.0	73.2	0.94	39.1	46.4	42.5	1.18	21.8	28.3	24.8	1.30	5.9	5.3	5.6	0.89

Table A.4. Net attendance ratios (NAR) and GPI for primary, pre-secondary, secondary school and university by administrative post and sex, Timor-Leste 2015 (continued)

	Primary				Pre-Secondary			Secondary			University					
	Male	Female	Total	Gender Parity Index	Male	Female	Total	Gender Parity Index	Male	Female	Total	Gender Parity Index	Male	Female	Total	Gender Parity Index
Dili	90.4	91.2	90.8	1.01	40.2	43.9	42.0	1.09	45.6	42.5	44.1	0.93	7.5	3.2	5.2	0.43
	82.4	82.8	82.6	1.00	58.4	67.4	62.9	1.16	50.0	56.0	53.0	1.12	28.3	31.8	30.0	1.12
	84.1	84.7	84.4	1.01	65.7	70.5	68.1	1.07	55.6	61.7	58.7	1.11	34.9	37.1	36.0	1.06
	70.6	71.2	70.9	1.01	36.8	50.3	43.4	1.37	20.5	31.7	26.7	1.55	7.7	9.3	8.5	1.20
	87.2	87.0	87.1	1.00	65.6	73.7	69.5	1.12	49.2	64.9	56.4	1.32	30.5	33.7	32.1	1.10
	83.9	85.4	84.7	1.02	52.6	57.0	54.8	1.08	42.5	49.9	46.3	1.17	25.8	29.2	27.5	1.13
Ermera	69.8	69.6	69.7	1.00	22.7	29.2	26.0	1.29	9.9	8.8	9.4	0.89	5.2	2.4	3.7	0.46
	78.2	77.0	77.6	0.98	37.7	43.4	40.5	1.15	28.1	29.7	28.9	1.06	10.7	7.1	8.9	0.67
	67.1	65.6	66.4	0.98	23.3	25.5	24.3	1.10	10.0	10.5	10.2	1.05	7.2	3.1	5.0	0.42
	73.4	69.6	71.5	0.95	32.6	37.1	34.7	1.14	16.6	16.5	16.5	0.99	5.7	3.6	4.6	0.63
	78.0	82.0	79.9	1.05	37.8	44.3	41.0	1.17	22.9	29.1	25.8	1.27	4.4	6.6	5.5	1.49
Lautem	89.0	89.0	89.0	1.00	30.0	44.3	37.3	1.48	11.1	13.0	12.1	1.17	6.1	5.9	6.0	0.96
	84.4	83.2	83.8	0.99	34.9	43.2	38.8	1.24	19.0	23.9	21.4	1.26	12.2	9.1	10.6	0.74
	87.8	87.0	87.4	0.99	44.0	58.5	51.0	1.33	36.1	46.5	41.1	1.29	7.1	8.8	7.9	1.24
	80.5	79.4	80.0	0.99	27.8	33.2	30.5	1.19	11.2	11.2	11.2	1.00	7.8	8.8	8.3	1.12
	90.8	93.1	92.0	1.03	47.5	56.9	51.9	1.20	16.2	18.1	17.0	1.12	11.1	13.3	12.2	1.19
Liquica	80.6	81.2	80.9	1.01	33.1	42.3	37.6	1.28	21.4	29.2	25.1	1.37	6.4	6.0	6.2	0.93
	76.5	73.9	75.2	0.97	28.4	37.5	32.8	1.32	21.0	29.2	25.3	1.39	7.2	4.7	5.8	0.66
	73.2	74.2	73.7	1.01	24.1	29.6	26.7	1.23	14.4	14.7	14.6	1.02	4.6	4.2	4.4	0.90
Manatuto	83.5	86.6	84.9	1.04	20.7	21.0	20.8	1.01	16.6	8.1	13.7	0.49	2.2	6.6	4.5	2.95
	80.1	79.0	79.6	0.99	24.4	24.3	24.3	1.00	4.7	5.5	5.0	1.16	3.8	2.0	2.8	0.54
	76.6	74.7	75.7	0.97	23.4	24.9	24.1	1.07	11.7	16.1	13.8	1.38	5.0	3.6	4.3	0.73
	83.2	82.9	83.0	1.00	18.1	16.9	17.6	0.94	5.7	8.8	7.4	1.54	1.3	1.8	1.5	1.38
	82.5	85.2	83.8	1.03	27.4	31.8	29.6	1.16	16.9	23.6	20.1	1.39	4.9	6.0	5.4	1.21
Manufahi	85.4	85.8	85.6	1.00	50.3	62.6	56.0	1.24	17.0	22.3	19.6	1.31	7.7	4.7	6.3	0.61
	85.6	88.6	87.0	1.04	43.9	53.9	48.9	1.23	16.2	17.2	16.7	1.06	4.2	3.9	4.1	0.94
	89.5	91.8	90.6	1.03	54.4	63.5	58.3	1.17	39.9	48.9	44.2	1.23	6.6	4.8	5.7	0.74
	80.5	83.6	82.0	1.04	39.6	51.3	45.6	1.29	27.6	34.9	31.3	1.26	5.5	5.9	5.6	1.07
	86.8	87.5	87.1	1.01	42.4	55.0	48.3	1.30	27.2	34.7	30.6	1.28	10.6	9.3	9.9	0.88
Oecussi	79.8	80.0	79.9	1.00	10.2	14.4	12.4	1.41	2.2	5.5	3.8	2.53	1.3	1.6	1.5	1.22
	76.6	81.7	79.2	1.07	20.1	27.1	23.6	1.35	7.3	8.0	7.7	1.10	6.4	4.0	5.1	0.63
	76.6	77.5	77.0	1.01	33.4	42.1	37.6	1.26	27.6	30.2	28.9	1.10	7.9	6.6	7.2	0.83
Pante Macassar	71.8	75.0	73.4	1.04	15.5	14.9	15.2	0.96	5.6	9.7	7.7	1.74	4.0	2.4	3.0	0.60
Passabe	83.3	80.3	82.0	0.96	37.3	44.6	41.1	1.19	16.1	18.2	17.1	1.13	7.8	5.1	6.6	0.66
Viqueque	82.8	85.2	83.9	1.03	47.1	53.7	50.2	1.14	27.0	32.0	29.4	1.19	8.9	8.3	8.6	0.93
	84.6	83.7	84.2	0.99	37.5	48.0	42.5	1.28	23.2	26.1	24.6	1.12	6.3	6.4	6.4	1.02
	85.2	83.9	84.6	0.98	35.9	46.9	41.7	1.31	17.4	24.5	21.0	1.40	5.1	5.2	5.2	1.03
	76.3	77.9	77.1	1.02	42.1	46.6	44.2	1.11	30.8	32.4	31.6	1.05	7.5	6.1	6.7	0.82
Total	80.6	81.0	80.8	1.00	40.1	48.4	44.2	1.21	29.9	35.9	32.8	1.20	15.7	15.9	15.8	1.01

Table A.5. Gross attendance ratios (GAR) and GPI for primary, pre-secondary, secondary school and university, by municipality and sex, Timor-Leste 2015

	Primary				Pre-Secondary				Secondary				University			
	Male	Female	Total	Gender Parity Index	Male	Female	Total	Gender Parity Index	Male	Female	Total	Gender Parity Index	Male	Female	Total	Gender Parity Index
Aileu	126.0	117.9	122.1	0.94	89.2	94.3	91.5	1.06	77.6	87.7	82.4	1.13	17.9	16.8	17.4	0.94
	118.1	114.6	116.4	0.97	102.4	104.5	103.5	1.02	67.3	61.3	64.3	0.91	17.7	14.9	16.4	0.84
	130.5	127.6	129.1	0.98	107.0	105.7	106.3	0.99	73.0	73.1	73.0	1.00	25.1	18.0	21.6	0.72
	121.7	115.6	118.6	0.95	73.0	84.5	78.9	1.16	32.8	34.1	33.4	1.04	14.1	9.6	11.8	0.68
Ainaro	105.6	106.6	106.0	1.01	110.9	108.2	109.5	0.98	83.9	87.0	85.4	1.04	25.1	22.0	23.5	0.88
	106.7	105.4	106.1	0.99	94.4	101.6	97.8	1.08	88.7	86.5	87.7	0.98	14.1	8.2	11.2	0.58
	106.8	104.8	105.8	0.98	91.2	91.4	91.3	1.00	26.4	22.8	24.8	0.96	10.6	6.2	8.3	0.58
	102.5	103.2	102.8	1.01	83.5	82.0	82.7	0.98	37.9	38.5	38.2	1.02	9.2	7.0	8.1	0.76
Baucau	126.5	120.8	123.8	0.95	99.4	107.4	103.4	1.08	81.3	78.7	80.1	0.97	45.7	34.3	40.1	0.75
	110.1	106.2	108.2	0.97	92.4	98.3	95.3	1.06	86.6	91.4	89.0	1.05	19.6	16.7	18.1	0.85
	108.0	110.1	109.0	1.02	79.7	73.9	76.9	0.93	52.6	54.3	53.5	1.03	19.0	14.0	16.4	0.74
	124.8	117.4	121.2	0.94	75.8	90.4	82.8	1.19	64.7	52.9	58.9	0.82	30.1	21.7	25.7	0.72
Bobonaro	117.2	115.7	116.5	0.99	72.5	89.9	81.0	1.24	52.2	58.1	55.0	1.11	15.6	13.3	14.4	0.85
	112.4	109.3	110.9	0.97	78.8	88.1	83.4	1.12	63.6	64.3	63.9	1.01	10.7	8.5	9.6	0.79
	125.0	120.0	122.6	0.96	59.3	67.3	63.2	1.13	21.9	22.8	22.3	1.04	12.6	9.6	11.0	0.76
	105.7	105.9	105.8	1.00	55.3	72.2	63.5	1.31	23.9	21.6	22.8	0.91	5.4	4.5	4.9	0.83
CovaLima	107.3	105.9	106.6	0.99	69.0	71.6	70.3	1.04	56.2	52.8	54.5	0.94	13.0	6.9	9.6	0.53
	114.9	108.5	111.8	0.94	57.5	67.7	62.1	1.18	33.2	33.6	33.4	1.01	17.4	10.4	13.6	0.59
	121.6	121.0	121.3	1.00	69.5	79.7	74.3	1.15	29.1	25.2	27.4	0.87	15.3	10.4	12.5	0.68
	111.1	110.6	110.9	1.00	88.9	97.0	93.0	1.09	85.3	86.2	85.7	1.01	16.8	14.9	15.9	0.89
Dili	139.5	120.0	130.3	0.86	76.9	85.9	81.3	1.12	12.2	11.1	11.8	0.91	9.4	8.3	8.8	0.88
	116.4	113.6	115.1	0.98	106.7	107.1	106.9	1.00	40.2	43.7	41.6	1.09	19.1	8.0	12.9	0.42
	116.2	113.9	115.1	0.98	79.5	80.3	79.9	1.01	47.9	53.4	50.5	1.12	6.2	9.6	7.9	1.54
	128.4	126.6	127.5	0.99	85.8	100.6	92.7	1.17	59.2	75.6	67.2	1.28	21.5	14.6	18.0	0.68
Suai	115.6	111.7	113.7	0.97	100.0	106.2	103.1	1.06	79.0	83.8	81.3	1.06	17.0	15.5	16.3	0.91
	123.7	115.5	119.8	0.93	87.3	91.6	89.4	1.05	50.6	49.8	50.2	0.98	13.3	8.2	10.8	0.62
Zumalai	102.9	96.7	99.9	0.94	77.0	84.0	80.2	1.09	51.5	52.5	51.9	1.02	15.2	6.9	10.8	0.45

Table A.5. Gross attendance ratios (GAR) and GPI for primary, pre-secondary, secondary school and university, by municipality and sex, Timor-Leste 2015 (continued)

	Primary				Pre-Secondary				Secondary				University				
	Male	Female	Total	Gender Parity Index	Male	Female	Total	Gender Parity Index	Male	Female	Total	Gender Parity Index	Male	Female	Total	Gender Parity Index	
Dili	Atauro	129.2	128.0	128.7	0.99	73.0	73.9	73.4	1.01	111.9	96.0	104.1	0.86	22.9	6.8	14.4	0.30
	Cristo Rei	108.0	106.8	107.4	0.99	110.0	108.9	109.5	0.99	134.5	120.9	127.8	0.90	55.3	51.0	53.2	0.92
	Dom Aleixo	109.1	107.7	108.4	0.99	116.3	113.9	115.1	0.98	142.2	132.0	137.0	0.93	67.5	58.2	62.8	0.86
	Meitaro	98.7	99.0	98.8	1.00	97.0	109.2	103.0	1.13	82.7	63.5	72.0	0.77	18.5	15.6	17.1	0.84
Ermera	Nain Feto	113.8	108.7	111.3	0.95	117.0	111.1	114.2	0.95	112.7	128.0	119.8	1.14	56.0	52.1	54.0	0.93
	Vera Cruz	113.6	112.0	112.8	0.99	109.7	110.4	110.1	1.01	162.8	140.9	151.5	0.87	52.2	47.7	49.9	0.91
	Atsabe	107.9	102.3	105.1	0.95	66.1	60.8	63.5	0.92	24.7	22.6	23.7	0.91	11.5	5.7	8.4	0.49
	Ermera	115.4	108.2	111.8	0.94	91.7	92.9	92.3	1.01	69.5	60.3	64.8	0.87	23.1	13.0	17.9	0.56
Lautem	Hatulia	108.0	100.0	104.1	0.93	67.0	67.0	67.0	1.00	30.4	27.7	29.1	0.91	16.9	6.1	11.1	0.36
	Letefoho	112.6	104.2	108.6	0.92	81.2	94.7	87.5	1.17	49.6	41.8	45.6	0.84	16.1	7.7	11.7	0.47
	Railaco	117.8	116.4	117.1	0.99	91.5	86.8	89.1	0.95	66.5	65.7	66.1	0.99	12.6	14.7	13.6	1.17
	Ilomar	124.1	117.5	120.7	0.95	68.4	90.6	79.6	1.32	43.8	33.9	38.3	0.77	16.3	9.0	12.2	0.55
Liquica	Lautem	120.5	114.8	117.8	0.95	76.4	86.1	80.9	1.13	57.0	60.5	58.7	1.06	22.7	14.4	18.3	0.63
	Lospalos	119.9	112.2	116.2	0.94	87.5	102.8	94.9	1.17	77.8	87.6	82.6	1.13	14.7	14.5	14.6	0.99
	Luro	119.4	111.6	115.6	0.93	80.9	83.6	82.2	1.03	40.0	31.2	35.9	0.78	27.0	17.9	22.5	0.66
	Tutuana	129.5	128.4	129.0	0.99	90.5	97.1	93.6	1.07	39.4	53.0	45.6	1.35	22.2	19.5	20.8	0.88
Manatuto	Bazarrete	116.6	114.3	115.5	0.98	85.8	88.6	87.2	1.03	60.1	68.3	64.0	1.14	17.3	10.6	13.9	0.62
	Liquica	115.5	107.6	111.7	0.93	69.3	76.4	72.8	1.10	59.1	55.1	57.0	0.93	15.5	8.5	11.7	0.54
	Maubara	109.2	103.4	106.4	0.95	72.3	70.2	71.3	0.97	52.7	45.6	49.4	0.87	14.9	7.6	11.1	0.51
	Barique	138.8	137.1	138.0	0.99	57.8	50.7	54.5	0.88	39.4	30.3	36.3	0.77	11.8	10.5	11.1	0.89
Manufahi	Laclo	117.9	119.0	118.4	1.01	68.7	49.0	58.6	0.71	26.6	21.9	24.5	0.82	7.5	3.5	5.3	0.46
	Laclubar	115.2	112.4	113.8	0.98	74.0	72.6	73.3	0.98	34.8	36.7	35.7	1.06	9.8	5.3	7.4	0.54
	Laleia	129.6	119.3	124.6	0.92	55.0	70.3	61.5	1.28	48.9	40.4	44.1	0.83	9.0	4.7	6.8	0.52
	Manatuto	118.2	122.4	120.2	1.04	95.6	81.9	88.7	0.86	54.2	62.6	58.3	1.15	12.3	12.2	12.3	0.99
Oecussi	Soibada	117.3	108.1	112.6	0.92	119.6	137.4	127.8	1.15	65.0	58.5	61.9	0.90	13.4	7.9	10.8	0.59
	Alas	115.3	115.7	115.5	1.00	79.7	91.0	85.3	1.14	51.3	42.9	47.5	0.84	10.3	7.9	9.1	0.76
	Fatuberilo	126.2	120.1	123.3	0.95	96.6	110.2	102.4	1.14	75.6	69.7	72.8	0.92	14.1	8.1	11.1	0.57
	Same	113.1	114.1	113.6	1.01	86.8	96.0	91.5	1.11	64.0	57.7	60.8	0.90	12.8	10.4	11.6	0.82
Viqueque	Turiscari	129.5	118.6	124.2	0.92	120.4	128.6	124.3	1.07	69.8	81.5	75.1	1.17	22.7	13.8	18.3	0.61
	Nitibe	120.9	122.8	121.8	1.02	42.6	37.4	39.9	0.88	19.4	18.2	18.8	0.94	6.9	4.0	5.3	0.58
	Oesilo	116.4	119.0	117.7	1.02	53.6	63.3	58.5	1.18	31.1	27.1	29.1	0.87	17.4	8.8	12.6	0.51
	Pante Macassar	108.5	106.9	107.7	0.98	79.7	83.5	81.5	1.05	86.7	71.2	79.1	0.82	23.1	13.1	18.0	0.57
Viqueque	Passabe	108.6	112.6	110.5	1.04	36.0	33.2	34.6	0.92	28.0	20.8	24.2	0.74	14.7	4.3	8.6	0.30
	Lacluta	114.8	118.4	116.4	1.03	100.8	94.2	97.4	0.93	48.2	34.3	41.7	0.71	21.1	10.3	16.2	0.49
	Ossu	115.6	110.7	113.2	0.96	97.6	101.9	99.6	1.04	65.1	66.3	65.7	1.02	19.3	13.8	16.5	0.72
	Uato-Lari	117.6	113.7	115.9	0.97	83.8	94.4	88.8	1.13	54.8	47.2	56.0	1.05	14.2	11.4	12.6	0.80
Total	Uatucarbau	125.3	115.0	120.2	0.92	82.4	92.9	87.9	1.13	46.0	47.7	46.8	1.04	17.6	14.9	16.2	0.85
	Viqueque	105.0	106.5	105.7	1.01	75.9	79.4	77.6	1.05	65.8	55.1	60.5	0.84	21.9	12.5	16.7	0.57
		113.7	110.5	112.2	0.97	87.4	91.3	89.3	1.04	77.9	75.9	76.9	0.98	32.7	26.1	29.3	0.80

Table A. 5. Youth literacy by municipality and sex, Timor-Leste 2015

	Literate			Illiterate			Youth literacy rate		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Total	101,345	100,171	201,516	18,328	18,980	37,308	84.7	84.1	84.4
Urban	41,785	42,264	84,049	2,619	2,456	5,075	94.1	94.5	94.3
Rural	59,560	57,907	117,467	15,709	16,524	32,233	79.1	77.8	78.5
Aileu	4,645	4,458	9,103	822	742	1,564	85.0	85.7	85.3
Ainaro	4,311	4,221	8,532	1,426	1,369	2,795	75.1	75.5	75.3
Baucau	10,211	10,078	20,289	1,697	1,651	3,348	85.7	85.9	85.8
Bobonaro	6,008	6,256	12,264	1,883	1,826	3,709	76.1	77.4	76.8
Covalima	5,534	5,440	10,974	849	673	1,522	86.7	89.0	87.8
Dili	33,904	33,637	67,541	1,894	1,911	3,805	94.7	94.6	94.7
Ermera	9,062	8,493	17,555	3,318	4,198	7,516	73.2	66.9	70.0
Lautem	5,095	4,994	10,089	781	734	1,515	86.7	87.2	86.9
Liquiça	5,492	5,524	11,016	1,540	1,760	3,300	78.1	75.8	76.9
Manatuto	3,429	3,255	6,684	705	692	1,397	82.9	82.5	82.7
Manufahi	4,642	4,500	9,142	744	602	1,346	86.2	88.2	87.2
Oecussi	3,813	3,898	7,711	1,588	1,750	3,338	70.6	69.0	69.8
Viqueque	5,199	5,417	10,616	1,081	1,072	2,153	82.8	83.5	83.1

Table A. 6. Youth literacy by administrative post and sex, Timor-Leste 2015

	Literate			Illiterate			Youth literacy rate		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
	101345	100171	201516	18328	18980	37308	84.7	84.1	84.4
Total									
Aileu	2,425	2,307	4,732	438	372	810	84.7	86.1	85.4
Laulara	700	647	1,347	85	101	186	89.2	86.5	87.9
Lequidoe	772	693	1,465	85	74	159	90.1	90.4	90.2
Remexio	748	811	1,559	214	195	409	77.8	80.6	79.2
Ainaro	1,410	1,412	2,822	166	145	311	89.5	90.7	90.1
Hato-Udo	827	742	1,569	115	108	223	87.8	87.3	87.6
Hato-Builico	686	620	1,306	331	308	639	67.5	66.8	67.1
Maubisse	1,388	1,447	2,835	814	808	1,622	63.0	64.2	63.6
Baguia	1,304	1,219	2,523	166	139	305	88.7	89.8	89.2
Baucau	4,506	4,443	8,949	488	454	942	90.2	90.7	90.5
Laga	1,387	1,370	2,757	426	444	870	76.5	75.5	76.0
Quelicai	1,167	1,142	2,309	255	293	548	82.1	79.6	80.8
Vemasse	679	724	1,403	108	99	207	86.3	88.0	87.1
Venilale	1,168	1,180	2,348	254	222	476	82.1	84.2	83.1
Bobonaro	545	574	1,119	213	181	394	71.9	76.0	74.0
Balibo	798	855	1,653	418	354	772	65.6	70.7	68.2
Bobonaro	1,302	1,429	2,731	491	565	1,056	72.6	71.7	72.1
Cailaco	540	534	1,074	356	346	702	60.3	60.7	60.5
Lolotoe	330	348	678	54	44	98	85.9	88.8	87.4
Maliana	2,493	2,516	5,009	351	336	687	87.7	88.2	87.9
Fatulic	143	154	297	15	17	32	90.5	90.1	90.3
Fatumean	199	194	393	37	32	69	84.3	85.8	85.1
Fohorem	311	326	637	67	54	121	82.3	85.8	84.0
Maucatar	815	821	1,636	123	113	236	86.9	87.9	87.4
Suai	2,499	2,441	4,940	254	170	424	90.8	93.5	92.1
Tilomar	645	588	1,233	67	43	110	90.6	93.2	91.8
Zumalai	922	916	1,838	286	244	530	76.3	79.0	77.6

Table A.7. Youth literacy by administrative post and sex, Timor-Leste 2015 (continued)

	Literate			Illiterate			Youth literacy rate		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Dili	751	763	1,514	48	80	128	94.0	90.5	92.2
	7,591	7,344	14,935	583	553	1,136	92.9	93.0	92.9
	16,550	16,676	33,226	722	732	1,454	95.8	95.8	95.8
	488	487	975	141	141	282	77.6	77.5	77.6
	4,119	3,903	8,022	180	188	368	95.8	95.4	95.6
	4,405	4,464	8,869	220	217	437	95.2	95.4	95.3
Ermera	1,024	908	1,932	578	721	1,299	63.9	55.7	59.8
	3,118	3,005	6,123	711	941	1,652	81.4	76.2	78.8
	2,198	2,030	4,228	1,115	1,440	2,555	66.3	58.5	62.3
	1,568	1,488	3,056	683	848	1,531	69.7	63.7	66.6
	1,154	1,062	2,216	231	248	479	83.3	81.1	82.2
	305	370	675	81	87	168	79.0	81.0	80.1
Lautem	1,111	1,088	2,199	187	211	398	85.6	83.8	84.7
	2,971	2,897	5,868	347	266	613	89.5	91.6	90.5
	478	419	897	139	147	286	77.5	74.0	75.8
	230	220	450	27	23	50	89.5	90.5	90.0
Liquica	2,410	2,419	4,829	466	475	941	83.8	83.6	83.7
	1,564	1,711	3,275	533	677	1,210	74.6	71.6	73.0
	1,518	1,394	2,912	541	608	1,149	73.7	69.6	71.7
Manatuto	493	359	852	46	40	86	91.5	90.0	90.8
	465	469	934	171	166	337	73.1	73.9	73.5
	757	714	1,471	272	325	597	73.6	68.7	71.1
	264	281	545	32	34	66	89.2	89.2	89.2
	1,167	1,168	2,335	163	114	277	87.7	91.1	89.4
	283	264	547	21	13	34	93.1	95.3	94.1
Manufahi	537	532	1,069	114	88	202	82.5	85.8	84.1
	704	647	1,351	61	30	91	92.0	95.6	93.7
	2,570	2,549	5,119	470	427	897	84.5	85.7	85.1
	831	772	1,603	99	57	156	89.4	93.1	91.1
Oecussi	432	468	900	311	343	654	58.1	57.7	57.9
	471	556	1,027	280	288	568	62.7	65.9	64.4
	2,678	2,616	5,294	790	841	1,631	77.2	75.7	76.4
	232	258	490	207	278	485	52.8	48.1	50.3
Viqueque	510	425	935	146	139	285	77.7	75.4	76.6
	1,224	1,222	2,446	203	184	387	85.8	86.9	86.3
	1,317	1,436	2,753	202	166	368	86.7	89.6	88.2
	473	564	1,037	65	53	118	87.9	91.4	89.8
	1,675	1,770	3,445	465	530	995	78.3	77.0	77.6

Table A. 7. Adult literacy (15 years and older) by municipality and sex, Timor-Leste 2015

	Literate			Illiterate			Adult literacy rate		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Total	244,746	213,880	458,626	111,519	141,494	253,013	68.7	60.2	64.4
Urban	102,574	93,868	196,442	11,811	15,485	27,296	89.7	85.8	87.8
Rural	142,172	120,012	262,184	99,708	126,009	225,717	58.8	48.8	53.7
Aileu	10,131	8,527	18,658	5,045	5,726	10,771	66.8	59.8	63.4
Ainaro	9,744	8,470	18,214	7,712	9,085	16,797	55.8	48.2	52.0
Baucau	23,493	21,224	44,717	13,020	16,316	29,336	64.3	56.5	60.4
Bobonaro	15,713	13,581	29,294	12,036	15,527	27,563	56.6	46.7	51.5
Covalima	13,479	11,760	25,239	6,337	8,249	14,586	68.0	58.8	63.4
Dili	84,432	75,804	160,236	8,878	11,335	20,213	90.5	87.0	88.8
Ermera	19,074	15,317	34,391	16,565	20,788	37,353	53.5	42.4	47.9
Lautem	12,104	10,963	23,067	5,250	8,392	13,642	69.7	56.6	62.8
Liquiça	13,289	11,083	24,372	8,279	10,512	18,791	61.6	51.3	56.5
Manatuto	8,893	7,664	16,557	4,928	6,066	10,994	64.3	55.8	60.1
Manufahi	11,219	9,415	20,634	5,396	6,234	11,630	67.5	60.2	64.0
Oecussi	9,919	8,350	18,269	9,662	11,894	21,556	50.7	41.2	45.9
Viqueque	13,256	11,722	24,978	8,411	11,370	19,781	61.2	50.8	55.8

Table A. 8. Adult literacy (15 years and older) by administrative post and sex, Timor-Leste 2015

	Literate			Illiterate			Adult literacy rate		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
	244,746	213,880	458,626	111,519	141,494	253,013	68.7	60.2	64.4
Total									
Aileu									
Aileu Vila	5,205	4,405	9,610	2,473	2,734	5,207	67.8	61.7	64.9
Laulara	1,493	1,229	2,722	664	805	1,469	69.2	60.4	64.9
Lequidoe	1,547	1,236	2,783	670	761	1,431	69.8	61.9	66.0
Remexio	1,886	1,657	3,543	1,238	1,426	2,664	60.4	53.7	57.1
Ainaro	3,177	2,947	6,124	1,320	1,648	2,968	70.6	64.1	67.4
Hato-Udo	1,890	1,537	3,427	1,174	1,492	2,666	61.7	50.7	56.2
Hato-Builico	1,617	1,282	2,899	1,769	2,107	3,876	47.8	37.8	42.8
Maubisse	3,060	2,704	5,764	3,449	3,838	7,287	47.0	41.3	44.2
Baguia	2,729	2,293	5,022	1,340	1,759	3,099	67.1	56.6	61.8
Baucau	10,543	9,815	20,358	3,748	4,570	8,318	73.8	68.2	71.0
Laga	2,970	2,704	5,674	2,495	3,011	5,506	54.3	47.3	50.8
Quelicai	2,632	2,256	4,888	2,411	3,258	5,669	52.2	40.9	46.3
Vemasse	1,808	1,621	3,429	1,000	1,228	2,228	64.4	56.9	60.6
Venilale	2,811	2,535	5,346	2,026	2,490	4,516	58.1	50.4	54.2
Atabae	1,592	1,340	2,932	1,441	1,732	3,173	52.5	43.6	48.0
Balibo	2,410	2,104	4,514	2,224	2,626	4,850	52.0	44.5	48.2
Bobonaro	3,085	2,657	5,742	3,582	4,770	8,352	46.3	35.8	40.7
Cailaco	1,392	1,062	2,454	1,639	2,066	3,705	45.9	34.0	39.8
Lolotoe	1,348	1,181	2,529	594	901	1,495	69.4	56.7	62.8
Maliana	5,886	5,237	11,123	2,556	3,432	5,988	69.7	60.4	65.0
Fatulic	440	421	861	130	202	332	77.2	67.6	72.2
Fatumean	483	421	904	459	551	1,010	51.3	43.3	47.2
Fohorem	710	647	1,357	569	691	1,260	55.5	48.4	51.9
Maucatar	1,874	1,602	3,476	867	1,221	2,088	68.4	56.7	62.5
Suai	6,111	5,380	11,491	1,936	2,583	4,519	75.9	67.6	71.8
Tilomar	1,665	1,419	3,084	698	896	1,594	70.5	61.3	65.9
Zumalai	2,196	1,870	4,066	1,678	2,105	3,783	56.7	47.0	51.8

Table A.9. Adult literacy (15 years and older) by administrative post and sex, Timor-Leste 2015 (continued)

	Literate			Illiterate			Adult literacy rate		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Dili	2,105	1,770	3,875	670	1,155	1,825	75.9	60.5	68.0
	17,732	15,741	33,473	2,930	3,433	6,363	85.8	82.1	84.0
	41,357	37,112	78,469	2,837	3,650	6,487	93.6	91.0	92.4
	1,092	947	2,039	652	731	1,383	62.6	56.4	59.6
	10,615	9,573	20,188	905	1,154	2,059	92.1	89.2	90.7
	11,531	10,661	22,192	884	1,212	2,096	92.9	89.8	91.4
Ermera	2,158	1,655	3,813	3,058	3,806	6,864	41.4	30.3	35.7
	6,473	5,464	11,937	3,724	4,957	8,681	63.5	52.4	57.9
	4,755	3,592	8,347	5,247	6,645	11,892	47.5	35.1	41.2
	3,210	2,542	5,752	3,336	4,019	7,355	49.0	38.7	43.9
	2,478	2,064	4,542	1,200	1,361	2,561	67.4	60.3	63.9
Lautem	960	844	1,804	832	1,310	2,142	53.6	39.2	45.7
	2,985	2,542	5,527	1,297	2,193	3,490	69.7	53.7	61.3
	6,453	6,153	12,606	1,902	3,232	5,134	77.2	65.6	71.1
	985	751	1,736	995	1,252	2,247	49.7	37.5	43.6
	721	673	1,394	224	405	629	76.3	62.4	68.9
Liquica	5,674	4,873	10,547	2,646	3,409	6,055	68.2	58.8	63.5
	3,935	3,470	7,405	2,620	3,317	5,937	60.0	51.1	55.5
	3,680	2,740	6,420	3,013	3,786	6,799	55.0	42.0	48.6
Manatuto	1,270	931	2,201	541	686	1,227	70.1	57.6	64.2
	1,248	1,058	2,306	978	1,068	2,046	56.1	49.8	53.0
	1,613	1,336	2,949	1,717	2,224	3,941	48.4	37.5	42.8
	820	748	1,568	345	425	770	70.4	63.8	67.1
	3,225	2,946	6,171	1,112	1,380	2,492	74.4	68.1	71.2
	717	645	1,362	235	283	518	75.3	69.5	72.4
Manufahi	1,485	1,263	2,748	838	956	1,794	63.9	56.9	60.5
	1,653	1,397	3,050	676	771	1,447	71.0	64.4	67.8
	6,444	5,354	11,798	3,043	3,696	6,739	67.9	59.2	63.6
	1,637	1,401	3,038	839	811	1,650	66.1	63.3	64.8
Oecussi	1,228	959	2,187	2,035	2,548	4,583	37.6	27.3	32.3
	1,289	1,133	2,422	1,882	2,303	4,185	40.6	33.0	36.7
	6,786	5,773	12,559	4,275	5,195	9,470	61.4	52.6	57.0
	616	485	1,101	1,470	1,848	3,318	29.5	20.8	24.9
Viqueque	1,217	854	2,071	953	1,169	2,122	56.1	42.2	49.4
	2,813	2,510	5,323	2,054	2,871	4,925	57.8	46.6	51.9
	3,331	2,994	6,325	1,954	2,796	4,750	63.0	51.7	57.1
	1,265	1,281	2,546	755	981	1,736	62.6	56.6	59.5
	4,630	4,083	8,713	2,695	3,553	6,248	63.2	53.5	58.2

Table A. 9. Adults (aged 15 and above) who finished primary school (absolute numbers and percentages), by municipality and sex, Timor-Leste 2015

	Completed primary school			All persons 15+ years			% finished priary education		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Total	149,337	139,069	288,406	356,265	355,374	711,639	41.9	39.1	40.5
Urban	70,557	66,228	136,785	114,385	109,353	223,738	61.7	60.6	61.1
Rural	78,780	72,841	151,621	241,880	246,021	487,901	32.6	29.6	31.1
Aileu	6,021	5,596	11,617	15,176	14,253	29,429	39.7	39.3	39.5
Ainaro	5,697	5,307	11,004	17,456	17,555	35,011	32.6	30.2	31.4
Baucau	13,442	13,131	26,573	36,513	37,540	74,053	36.8	35.0	35.9
Bobonaro	8,159	7,806	15,965	27,749	29,108	56,857	29.4	26.8	28.1
Covalima	8,108	7,556	15,664	19,816	20,009	39,825	40.9	37.8	39.3
Dili	57,874	53,159	111,033	93,310	87,139	180,449	62.0	61.0	61.5
Ermera	11,072	9,847	20,919	35,639	36,105	71,744	31.1	27.3	29.2
Lautem	6,840	6,694	13,534	17,354	19,355	36,709	39.4	34.6	36.9
Liquiça	7,390	6,851	14,241	21,568	21,595	43,163	34.3	31.7	33.0
Manatuto	4,959	4,534	9,493	13,821	13,730	27,551	35.9	33.0	34.5
Manufahi	6,912	6,312	13,224	16,615	15,649	32,264	41.6	40.3	41.0
Oecussi	5,333	5,173	10,506	19,581	20,244	39,825	27.2	25.6	26.4
Viqueque	7,530	7,103	14,633	21,667	23,092	44,759	34.8	30.8	32.7



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