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GENDER RETIREMENT SAVINGS GAP OF LOW-INCOME PROFESSIONALS

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Key findings

The "Traditional Working Mum" has the **largest gender retirement savings gap of**

44%

The gender retirement savings gap is **wider in Malaysia, Indonesia and Thailand** than in Hong Kong and Singapore

32% **The average retirement savings gap** between low-income working men and women in studied Asian markets

Main reasons for the gender retirement savings gap

Women have **shorter working periods** due to family-related career breaks and early retirements

Women working as para-professionals are **paid lower than men.** In some countries, the difference is

>25%

Women are more **risk-averse** and have **lower financial literacy** than men in general

Looking beyond the present

Risk of automation

Technology advancements such as automation are **posing risks of displacement** for low-skilled women workers

Main actions from different stakeholders

EMPLOYERS

Accelerate gender diversity efforts by building a structured diversity and inclusion strategy that is aligned to the business imperative

GOVERNMENT

Enhance support for informal caregivers and encourage shared caregiving among couples by recognising women's unpaid contribution to their families in the pension system

INDIVIDUALS

Bridge the financial literacy gap through education and practice and take charge of financial matters upon commencing employment

PREFACE

While the issue of gender wage inequality is gradually being recognised by business and society in general, the significant impact of the gender retirement savings gap, a long-term consequence of the pay difference and unequal sharing of care responsibilities and paid work within couples, is still relatively underestimated. Given that women live longer than men on average, there is an increasing risk that retired women may end up in poverty or financial insecurity at an older age. With Asia-Pacific (APAC) being the fastest-aging region in the world, now is the best time to understand this pressing issue and make efforts to narrow the gap.

The Tsao Foundation's International Longevity Centre (ILC) Singapore, a member of the ILC Global Alliance, along with Mercer and Marsh & McLennan Companies' (MMC) Asia Pacific Risk Center (APRC) are jointly publishing this report to analyse the challenges presented by the retirement savings gap between men and women in selected markets in Asia. This study focuses specifically on low-income working women, the group of people in this study most at risk, and seeks to answer the following questions:

1. What is the size of the gender retirement savings gap in different markets and for women of different working lives?
2. What are the key drivers for the gender retirement savings gap for low-income working women?
3. What can different stakeholders do to narrow the gender retirement savings gap?

To measure the size of the gender retirement savings gap, we created different archetypes based on typical profiles of low-income working women in the region. We then modelled the life time savings of these female archetypes, and compared that with life time savings of a typical male archetype to quantify the gender retirement savings gap across different markets and across women with different archetypes.

To better understand the drivers of the gender retirement savings gap as well as the current status of low-income women's financial conditions, we conducted two surveys to collect data and inputs from low-income women, and from HR professionals from various companies.

The Mercer HR survey on retirement savings for low-income women was conducted from December 2017 to January 2018. The survey spanned six industries and reflects responses from 35 HR professionals of 27 different multinational companies that have operations in some or all of the five identified markets, including Singapore, Hong Kong, Thailand, Indonesia and Malaysia.

The Tsao Foundation and MMC's Asia Pacific Risk Center's *Survey on the Retirement Savings Gap of Working Women in Asia* was conducted in January and February 2018. Through Tsao Foundation's networks, we surveyed 111 women from five markets and across different age groups and educational levels.

We hope this report will raise awareness about the importance of building and strengthening safety nets for women, and contributes to narrowing the gender retirement savings gap in the near future.

CONTENTS

INTRODUCTION

APAC societies are aging at an unprecedented pace, driven by rising life expectancy and declining birth rates. Compared to France and Sweden, who took around a hundred years for the proportion of elderly to double, Asian countries such as Japan, China, Thailand and Singapore will (or already have) experience(d) the same demographic changes within a quarter of that timeframe.[1] As the fastest aging region globally, APAC is expected to record an increase of 200 million elderly people between now and 2030.[2] Aging of society presents numerous challenges, one of which is the sustainability and adequacy of savings in retirement.[3]

Rising life expectancies are placing increasing pressure on pension systems and on the retirement savings of individuals. Given that women tend to have longer life expectancies and lower participation in the workforce than men, women's financial well-being is at greater risk after retirement, particularly for those in low-income jobs. While numerous factors are placing the financial well-being of low-income elderly women at risk, two key issues are particularly responsible: earnings and working period.

Firstly, it is observed that a persistent wage gap exists as female workers earn less than their male counterparts over their lifetimes. Secondly, women generally have a shorter working period; they take time off to care for their children, and sometimes retire early to take care of their older relatives or even due to lower retirement age for women in some countries. In addition, single mums worldwide, who head approximately 88 percent of single parent households, have to bear the added responsibility of raising a child alone, contributing to a huge financial burden which can potentially compromise her own financial security during retirement.[4]

Given the context, this report chose to use Hong Kong, Indonesia, Malaysia, Singapore and Thailand – five Asian markets characterised by different prevalent demographic and socio-economic conditions – to examine if low-income working women in the targeted markets have lower retirement savings than their male counterparts; hence being at higher risk of financial insecurity after retirement.

This will be done by modelling the retirement savings of low-income workers who are typically described as para-professionals and who are carrying out roles such as those of secretaries, receptionists, and clerks.[5] This exercise will provide useful insights, including the following:

- Quantify the gender retirement savings gap in selected markets
- Identify specific markets or female archetypes that have the largest gender retirement savings gap
- Evaluate the two key drivers of the gender retirement savings gap

Additionally, the report looks beyond the present situation and into the future – anticipating how technology advancements on the horizon such as automation might pose a significant risk to women in lower-income jobs and further deteriorate the already financially precarious position that these women find themselves in. Equipped with these insights, the report then proposes recommendations that can provide targeted and effective relief to women at risk.

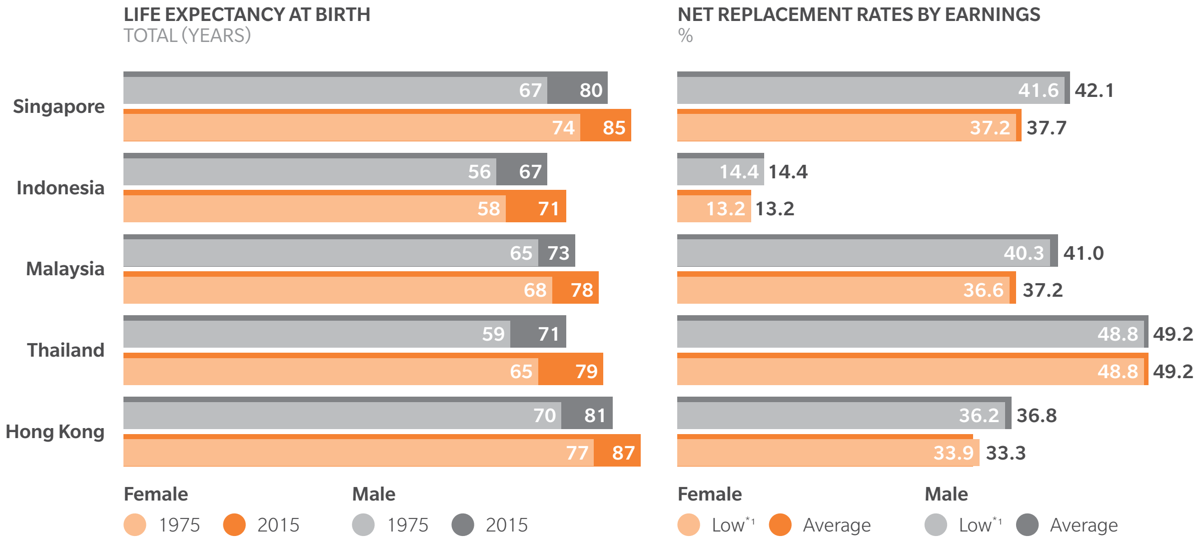
1 Asia Pacific Risk Center 2017. Societal Aging's Threat to Healthcare Insurance
2 Ibid
3 United Nations, 2013 World Population Prospects: The 2012 Revision, Highlights and Advance Tables
4 OECD Family Database
5 Mercer Universal Position Coding System Framework. Para-professionals Project assistants, Executive Secretaries, Secretaries (senior), Administrative Assistants, Administration Clerks, Committee Secretaries, File Clerks, Administrative Clerks, Messengers, Mailroom Clerks, Records Officers, Library Assistants, Data Entry Operators, Receptionists, Document Control/Records Clerks, Cooks, Food Service Workers, Tea Ladies, Facility Clerks and the like

INCREASING LONGEVITY AND RETIREMENT INCOME INADEQUACY

According to the World Bank, life expectancies at birth have increased by 7-14 years across the world during the past 40 years, equating to an average of one additional year of life expectancy for every four years that have passed.[6] The increasing longevity is placing strains on the ability of social pension systems to provide adequate financial support for their older citizens. A recent World Economic Forum study found that the gap between aggregate savings and expected retirement needs stood at US$70 trillion in 2015.[7] The gap is expected to increase at a compound annual growth rate (CAGR) of about 19 percent, reaching US$400 trillion by 2025.[8]

With the APAC region being the fastest-aging region in the world, this pension time bomb seems especially concerning. What makes this issue even more pressing is that more than half of the APAC countries listed in the Melbourne Mercer Global Pension Index 2017 (MMGPI) scored D as an overall grade, lower than the global average score of C.[9] The poor score is partly driven by the low retirement income adequacy in many Asian countries. According to the OECD data in 2013, about three quarters of countries in APAC have a net replacement rate[10] lower than 70 percent – a commonly used benchmark for adequate replacement rate.[11]

EXHIBIT 1: LIFE EXPECTANCY AT BIRTH AND NET REPLACEMENT RATES BY EARNINGS



*1 50% of average earners
Source APRC analysis on the World Bank dataset, APRC analysis on OECD dataset in 2013

6 The World Bank 2015. Life expectancy at birth, total (years)

7 The World Economic Forum study looked at eight countries with the largest established pension systems or population. The eight countries studied are Australia, Canada, China, India, Japan, Netherlands, UK, and the US

8 World Economic Forum 2017. We will live to 100 – How can we afford it?

9 Mercer & Australian Centre for Financial Studies 2017. Melbourne Mercer Global Pension Index 2017

10 The net replacement rate is a key indicator of pension systems, it shows the value of the pension for specific individuals as a percentage of their earnings when working

11 The World Bank 2015. Life expectancy at birth, total (years)

Furthermore, the level of coverage of mandatory pension schemes is still low in many markets in Asia. For example, the percentage of population covered by a mandatory pension scheme was less than 30 percent in Indonesia, Thailand and Malaysia, as compared to about 65 percent of the average coverage percentage within the OECD countries.[12,13] It raises concerns that public pension systems in the region may not be able to provide its older people with an adequate income security in retirement.

In Asia, family-based support have traditionally constituted a significant proportion of many older people's retirement income. For example, based on a National Survey of Senior Citizens conducted in Singapore in 2011, the majority of older adults aged 75 and above and elderly females cited income transfers from children as their top main income source.[14]

However, with the demographic pressure of aging (that is, increasing old-age dependency ratio and reduction in family unit size due to declining birth rate[15]), family-based support is weakening and will play a diminished role in the future as a source of retirement income.

With social pension systems in Asia playing only a minor role in supporting the aged and a declining proportion of retirement income coming from family-based financial support, Asia's older people are facing significant challenges in maintaining a reasonable standard of living after retirement. According to the Bank Negara Malaysia, 92 percent of Malaysians worry over their financial health at old age as well as being unprepared for retirement.[16]

Compared to men, women are at even higher risk of insufficient retirement savings with longer life expectancy at birth in almost every country in the last decade. In the APAC region, women on average have a life expectancy of 75 years in 2015, which is about five years longer than men.[17] Globally, however, older women are likely to spend more years in disability with higher reported rates of morbidity and lower mobility.[18,19,20] As a result, women also tend to have higher needs for Long-Term Care (LTC) services as compared to men, especially for those who have no children or relatives to care for them.[21] Without enough savings for retirement, old-age financial insecurity is a particularly serious threat for women.

12 ILO, 2017. World Social Protection Report 2017-19
13 OECD, 2017. Pensions at a Glance 2017: OECD and G20 Indicators
14 Singapore Ministry of Social and Family Development. National Survey of Senior Citizens 2011
15 Asia Pacific Risk Center 2017. Societal Aging's Threat to Healthcare Insurance
16 The New Straits Times 2016. 92 pct Malaysians worry over retirement funds
17 The World Bank 2015. Life expectancy at birth, total (years)
18 International Longevity Centre Singapore. Older women in Singapore: Changes and Challenges between 2005-2015
19 Freedman et al (2016). Disability-Free Life Expectancy Over 30 Years: A Growing Female Disadvantage in the US Population
20 Public Health England 2017. Chapter 1: Life expectancy and healthy life expectancy
21 AARP Public Policy Institute. Women & Long-Term Care

MODELLING METHODOLOGY

It is well accepted that women face greater challenges when accumulating retirement savings. Nevertheless, there is a dearth of research that quantifies and analyses the stark difference in retirement savings gap between men and women in Asia. To understand the issue better, we designed a model to estimate and compare lifetime savings of low-income working men and women in the five target markets: Hong Kong, Indonesia, Malaysia, Singapore, and Thailand.

Of these, Singapore and Hong Kong are already experiencing challenges emanating from an aging population, but they benefit from high gross domestic product (GDP) per capita. Malaysia and Indonesia, on the other hand, have the youngest demographic profile in selected markets in this study, but relatively lower GDP per capita, while Thailand has the highest proportion of older people out of all the emerging markets in Asia.[22] These five markets are characterised by different prevalent demographic and socio-economic conditions and studying them provides a more nuanced picture of the gender retirement savings gap across Asia.

A separate model is built for each market to adjust for market-specific factors. Conceptually, this model incorporates six market-specific parameters to estimate individuals' savings balance from the time they start working till the time of retirement. Analyses of this savings balance are then used to inform the insights in this report. The six parameters used can be seen below in Exhibit 2.

Within each market's model, different archetypes are then created to provide a more nuanced understanding of the different groups of women at risk. These archetypes are based on typical profiles of low-income working women in the region and are defined by different combinations of working periods and demographic profiles. They form the basis for adjusting the model's factors (that is, a divorced mother has to bear a higher share of expenses than a married mother) to derive an archetype-specific savings balance amount at the statutory retirement age in each market.

EXHIBIT 2: MODEL PARAMETERS

PARAMETER	CONSTITUENT PARAMETERS
Income	Starting annual income, income gap between men and women, income growth rate, part-time income
Working period	Age to start work, age to go part-time and return to full-time (if relevant), statutory retirement age
Expenses	Expenses for adult, expenses for child, expenses growth rate
Savings interest rate	Banks' savings account interest rate
National savings percentage requirement	State defined contribution rate for mandatory retirement savings (percentage of income)
National saving interest rate	State mandatory savings' account interest rate

Source APRC analysis

22 Mercer Universal Position Coding System Framework. Para-professionals Project assistants, Executive Secretaries, Secretaries (senior), Administrative Assistants, Administration Clerks, Committee Secretaries, File Clerks, Administrative Clerks, Messengers, Mailroom Clerks, Records Officers, Library Assistants, Data Entry Operators, Receptionists, Document Control/ Records Clerks, Cooks, Food Service Workers, Tea Ladies, Facility Clerks and the like

DIFFERENT ARCHETYPES

The archetypes created are not meant to be exhaustive but to represent different types of profiles that are commonly observed among low-income working women in Asia. We then compare the savings balance of female archetypes at the statutory retirement age with that of the male archetype – "Family Man" – as a benchmark, to evaluate the gender retirement savings gap among different profiles of women.

The four female archetypes and one male archetype created are listed below.

Traditional working mum

Demographic profile

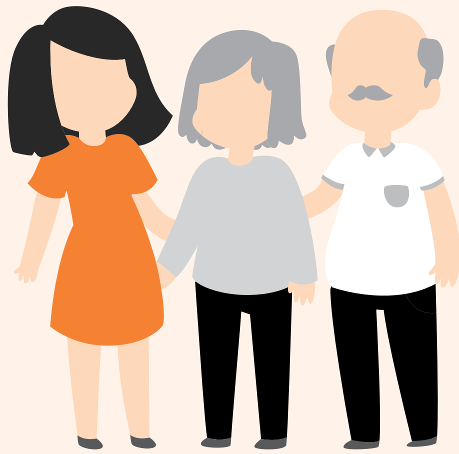
- Married with two children

Working history

- Starts with full time job
- Works part-time from when children are born till they both enter secondary school

Implications

- Shorter working period (switches to part-time work at the age of 30 when first child is born and returns to full-time work 15 years later)
- Income growth is inhibited during part-time work
- Expenses are shared with husband



Good daughter

Demographic profile

- Single with no children

Working history

- Works full-time but chooses to retire early to take care of her elderly parents who need full-time care

Implications

- Shorter working period with normal income growth (retires five years earlier than the statutory retirement age)
- Expenses are individually managed

Career woman

Demographic profile
- Single with no children

Working history
- Works full-time for her entire career

Implications
- Full working period with normal income growth
- Expenses are individually managed

Single mum

Demographic profile
- Divorced or never married with one child

Working history
- Works full-time for her entire life

Implications
- Full working period with normal income growth
- Expenses are individually managed

Family man

Demographic profile
- Married with two children

Working history
- Works full-time to support the family

Implications
- Full working period with normal income growth
- Expenses are shared equally with wife

Using this framework, data was collected and validated through a variety of sources including a Mercer survey on HR professionals, the Mercer Total Remuneration Survey results, and various secondary data sources, to populate the model and derive the results.[23]

23 The model is premised on various key assumptions – please see Appendix for more details

GENDER RETIREMENT SAVINGS GAP

BY MARKET

The results from our model strongly indicate that a gender retirement savings gap, defined as the difference between the total retirement savings of men and women at the age of retirement, exists among the lower-income segment in the target markets. Women, on average, have 32 percent less retirement savings than men at the age of retirement. The problem is most acute in Malaysia, Thailand and Indonesia, with Malaysia having the highest retirement savings gap of 46 percent. The larger savings gap in the three emerging markets can be attributed primarily to the larger gender wage gap among para-professionals there.

However, advances in closing the gender wage gap will not fully address the retirement savings gap: in Singapore and Hong Kong, the disparities in retirement savings continue to persist even though the gender wage gap is relatively small among para-professionals. The retirement savings gap persists because gender inequality in unpaid care work such as child-rearing or caring for the sick and elderly mean that women often have to take time off paid work, causing their retirement savings contribution to be greatly reduced. In the long run, these women are likely to have lower retirement savings compared to their male counterparts who tend to have longer working lives.

Malaysia

The retirement savings of Malaysian women are about 46 percent lower than men at the age of retirement. According to Mercer's 2015 Total Remuneration Survey (TRS), low-income women in Malaysia earn the least, despite having the highest expenses recorded, among the five selected markets. As such, one of the main challenges that women in Malaysia face is the low and decreasing savings ratio. The high cost of living is partly driven by the consistent increase in medical costs as well as relatively low insurance penetration rate in the market. Due to the increasing use of new technologies as well as the upward trend of medical tourism, medical costs in Malaysia are expected to grow by 12.5 percent in 2018, significantly higher than the estimated 10.4 percent increase on average for Asia.[24]

Furthermore, as expenses grow at a faster rate than income, an individual's savings ratio decreases on a year-on-year basis. According to officials of Malaysia's Employees Provident Fund (EPF) – the mandatory state-run pension fund – about four in five active contributors aged 54 do not have enough funds to support their retirement years.[25]

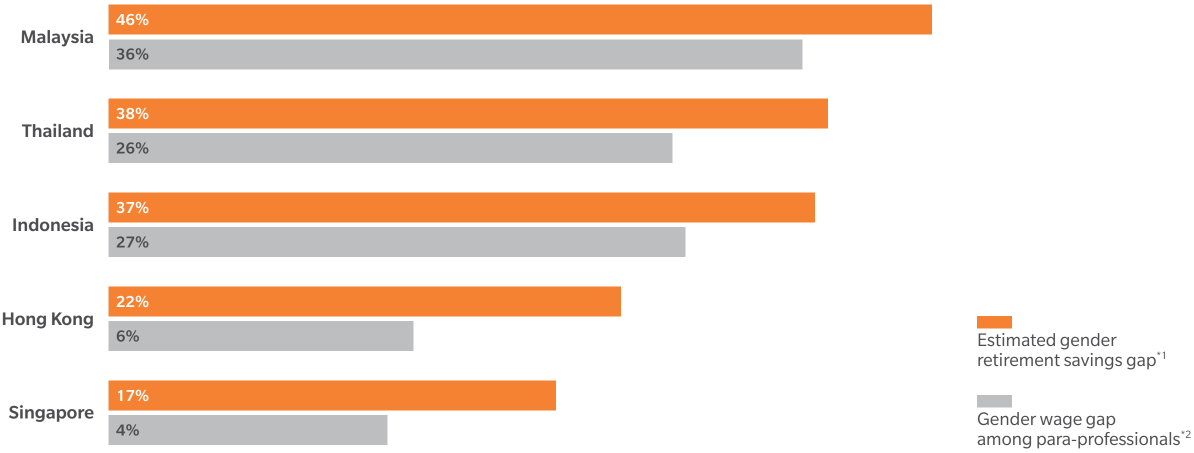
Thailand

In Thailand, the gender retirement savings gap is about 38 percent. The main source of retirement income for the older people in Thailand is still financial support from their children. However, the reduction of fertility rates and rising old-age-dependency ratio in the country is posing a serious challenge to this trend and putting more pressure on the state pension system. Over a span of two decades, the proportion of older people citing financial support from children as their main source of retirement income has significantly declined by more than half, from 85 percent in 1994 to about 37 percent in 2014.[26]

Meanwhile, as Thailand's pension system only covers civil servants and private-sector employees, people who make a living in the informal sector,

24 Mercer Marsh Benefits 2018. Medical Trends Around the World 2018
25 Today 2016. With scant savings, more Malaysians cannot afford to retire
26 Suwanrada W. (2017). Population Ageing and Policy Responses in Thailand

EXHIBIT 3: GENDER RETIREMENT SAVINGS GAP AND GENDER WAGE GAP BY MARKETS



*1 The gender retirement savings gap is defined as the difference between the total retirement savings of men and women as a percentage of men's retirement savings at the age of retirement

*2 The gender wage gap is defined as the difference between the average full-time earnings of men and women as a percentage of men's full-time earnings

Source APRC analysis

which make up of almost two-third of Thailand's working population, have limited ways to accumulate sufficient savings for their retirement.[27] This is especially so for Thai women, because about 32 percent of Thai women are still engaged in unpaid household work, which is double the share of men.[28] Data shows that only 47 percent of Thai workers have some pension-plan coverage through either mandatory or voluntary pension schemes.[29] Although the government established the National Saving Fund in 2015 to help workers from the informal sector build up retirement savings, the participation rate of the programme is still relatively low at about 2 percent of informal sector workers in 2017.[30]

Indonesia

In Indonesia, the average retirement savings of women are about 37 percent lower than their male counterparts.

A key factor that affects the savings of Indonesian women is the high rate of inflation – the highest among all five markets in this study. As a result, women's savings are consistently eroded as they lack the financial literacy to invest their savings at a rate that hedges against inflation.

The financial literacy of Indonesian women, especially housewives, can be considered poor – the National Survey on Financial Literacy and Inclusion found that financial literacy level of Indonesian women was just 26 percent while men scored higher at 33 percent.[31] Furthermore, the low mandatory contribution rate of just 8 percent of total income means that Indonesian women cannot depend solely on the national pension system to provide a better hedge against inflation than their normal savings accounts.

27 International Labour Organization 2013, Thailand – A labour market profile

28 International Labour Organization 2015, Thailand – A labour market profile

29 The Nation 2017. Saving for retirement: a challenge in our ageing society

30 Ibid

31 Indonesia Financial Services Authority 2016. National Survey on Financial Literacy and Inclusion 2016

In addition, the old-age benefit under the national social security mandatory programme is paid in a lump sum instead of a monthly lifetime annuity, and without the financial literacy to invest the benefits wisely, there is a high risk that women in Indonesia may fail to roll-over their old-age benefits into a long-term income stream to support their entire retirement.[32]

Hong Kong

Women in Hong Kong have about 22 percent lower retirement savings than men at the age of retirement. Low-income women in Hong Kong face the challenge of high living costs, notably Hong Kong's high accommodation costs, which account for about 36 percent of an average household spending and have been rising sharply in the past decade.[33] The relatively low default contribution rate to the mandatory retirement scheme in Hong Kong mean that women have to use other methods to ensure that they can accumulate enough savings for their retirement.

Additionally, Hong Kong has one of the lowest fertility rates in the world, which implies that the older people from Hong Kong are less able to rely on their children for financial and social support, as with a smaller household, there will be fewer adult children to share the financial responsibility towards elderly parents.

Singapore

In Singapore, the gender retirement savings gap is about 17 percent. Singaporean women hold the highest savings balance at retirement compared to women in the other four markets. Nevertheless, they still face challenges to secure an adequate retirement income. This is partly because of Singapore's higher life expectancy, but also largely due to its high cost of living, which is more than five times than that of the three other markets in this study.[34] This is especially the case for healthcare costs, which reached US$8,196 per year in 2015 and ranked the highest among all Asian markets.[35]

Additionally, although residents contribute more than 20 percent of their income into the state mandatory saving plan-Central Provident Fund (CPF), only a portion of the overall savings is for retirement purposes as the contributions can also be used to fund healthcare expenditure and housing needs. It has been estimated that only about half of the active CPF members who turned 55 in 2013 managed to meet the *Full Retirement Sum in cash and pledge*.[36] As CPF is pegged to paid work, when women leave the workforce to care for their families, they do not contribute to their CPF-based retirement funds unless family members help to top up their accounts.

BY ARCHETYPE

Across the selected markets and among the female archetypes, the "Traditional Working Mum" has the largest gender retirement savings gap. Her retirement savings are about 44 percent less than the Family Man archetype at the age of retirement. For the "Traditional Working Mum", taking time off not only means reduced income; hence much less or even no contribution to the retirement savings for the period. But just as importantly, it means that their income is not allowed to grow.

When these mothers return to full-time work, their salary is slightly less than what they were paid for their last period of full-time work.[37] Consequently, the salary at retirement for a "Traditional Working Mum" is about 79 percent of that for a woman who works full-time throughout her career. The fact that women suffer a loss in income for taking time off work for family responsibilities indicates that there is an economic cost to unpaid caregiving.

32 OECD 2017. Pension at a Glance 2017: Country Profiles – Indonesia

33 Hong Kong Legislative Council Secretariat. Financial challenges faced by households in Hong Kong

34 BMI Research. Spending per capita

35 Asia Pacific Risk Center 2017. Advancing into the Golden Years, Cost of Healthcare for Asia Pacific's Elderly

36 https://www.mom.gov.sg/newsroom/parliament-questions-and-replies/2018/0710-written-answer-by-mrs-josephine-teo-minister-for-manpower-to-parliamentary-question-on-cpf-withdrawals-at-age-55

37 Joan R et al. (2014). The Motherhood Penalty at Midlife: Long-Term Effects of Children on Women's Careers

Although married women in Singapore may boost their mandatory retirement accounts through receiving top-ups from their husbands, it should be noted that contributions are voluntary, such that the financial security of the "Traditional Mum" are still at high risk. The archetype that has the next most significant gender savings gap is the "Single Mum", with a savings gap of 38 percent compared to the male archetype. Various studies have shown that being a single parent costs more than being married, primarily because there is no partner to share living costs with.[38] Furthermore, the costs that tend to be defrayed the most through marriage are typically the larger ticket items such as housing in Singapore and Hong Kong; and food in the other three markets.

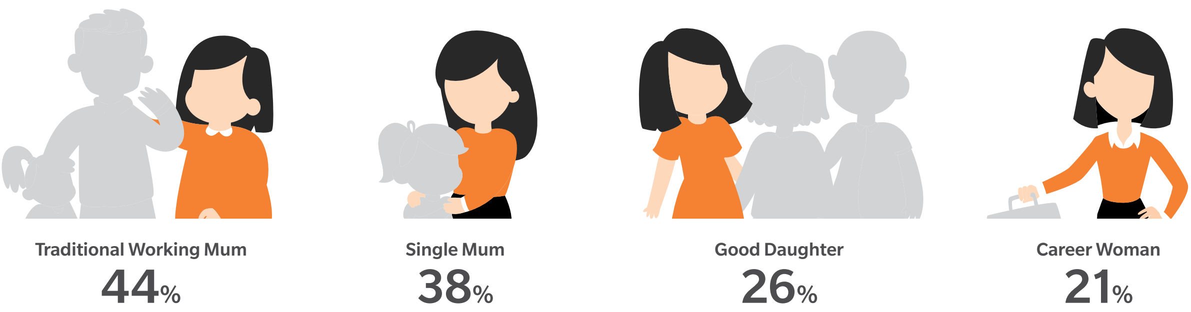
In addition to bearing an already higher individual cost, the "Single Mum" must also provide for her child(ren). The result is high monthly expenses with a consequently low income-to-savings ratio, and thus, a low savings balance at retirement. Nevertheless, the "Single Mum", who has a longer full-time working life, still has a higher savings balance than the "Traditional Working Mum", which proves that career interruptions have an adverse impact on the retirement savings of women.

The "Good Daughter" who is not married and retires early to take on the caregiving role for ageing parents, has a gender savings gap of about 26 percent. Although these women do not have any financial burden of raising a child, the early retirement which leads to shorter years of pension contribution still puts them at a disadvantaged position compared to the "Family Man".

Additionally, by withdrawing retirement savings earlier than pay-out eligibility age, the "Good Daughter" forgoes the opportunity to continually grow her savings at a more attractive interest rate relative to bank interest rate, and she may even have to incur additional costs such as tax charges for her early withdrawals in some markets such as Singapore.[39] Moreover, although the "Good Daughter" has higher savings at retirement than the "Traditional Working Mum" and the "Single Mum", she is still facing a high risk of retirement-income shortfalls. This is because retiring early means she will spend more years in retirement; hence, requiring much higher retirement savings to cover additional years of retirement income.

The "Career Woman" is slightly better off with a gender savings gap of about 21 percent. Women who fit into the "Career Woman" archetype have the highest savings balance among the four women archetypes because they do not face career disruptions and need not incur additional expenses associated with raising a child. However, the impact of the gender wage gap and the fact that they must undertake all expenses individually still results in the "Career Woman" having a lower savings balance than the "Family Man".

EXHIBIT 4: GENDER RETIREMENT SAVINGS GAP BY ARCHETYPE



Source APRC analysis

38 MoneySmart 2017. Why being single could cost more than being married. https://blog.moneysmart.sg/budgeting/why-being-single-could-cost-more-than-being-married/

39 Inland Revenue Authority of Singapore. Tax on SRS Withdrawal

DRIVERS OF THE GENDER RETIREMENT SAVINGS GAP

Based on the results from the model, there are two main factors causing the gender retirement savings gap among para-professionals: gender wage gap and difference in work lives between men and women. The confluence of these two factors pose a significant risk of old-age poverty to low-income women in studied markets.

GENDER WAGE GAP

The gender savings gap is partly driven by the wage inequality between men and women. According to the data from Mercer, the gender pay gap is prevalent in para-professionals. Among the five markets that we collected the data from, Malaysia, Indonesia, and Thailand have the largest gender pay gaps. The base pay of men in these three markets is more than 25 percent higher than what women received.

On the other end of the scale are Singapore and Hong Kong, where men on average earn 4 percent and 6 percent higher than women respectively. Para-professionals are paid less in general and are typically dominated by women, but what is interesting is that even in these roles, as the wage gap in these countries shows, men still tend to be paid significantly higher than women.

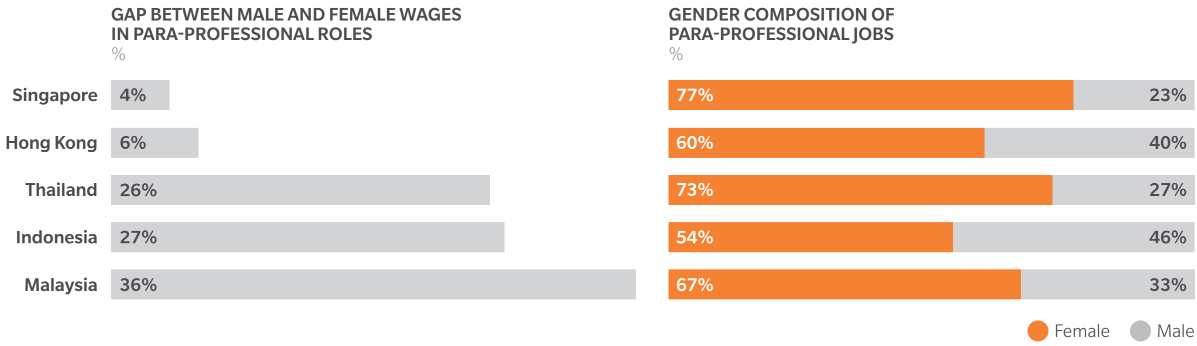
DIFFERENCE IN WORKING LIVES

A shorter working lifespan for women also contributes to the gender retirement savings gap. Compared to men, women are more likely to take career breaks or engage in part-time employment to fulfil their domestic responsibilities. In addition, women on average also tend to leave the labour market earlier than men and therefore work for a shorter duration than men in general.

Family-related career breaks

A study conducted by Pew Research Center focusing on working parents in the US found that women are more likely to experience significant career interruptions than men in order to attend to their families' needs.[40] The study found that about 39 percent of working mothers said they had taken a significant amount of time off at some point to care for family members, compared to 24 percent of men.

EXHIBIT 5: GENDER WAGE GAP AND GENDER COMPOSITION OF PARA-PROFESSIONAL JOBS



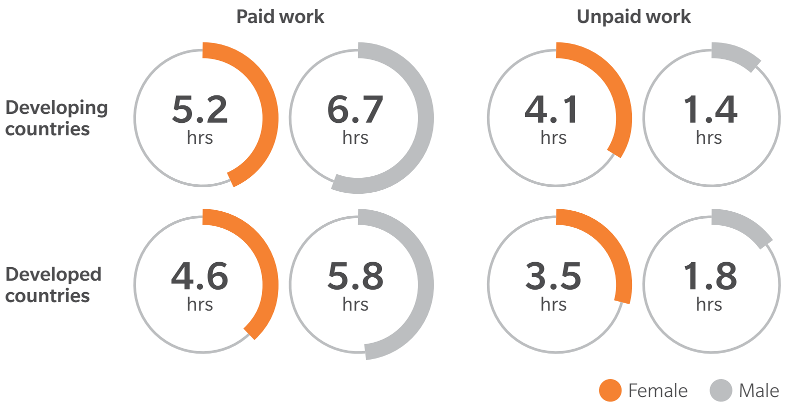
Source APRC analysis and Mercer Total Remuneration Survey

40 Pew Research Center, 2015. Women more than men adjust their careers for family life. http://www.pewresearch.org/fact-tank/2015/10/01/women-more-than-men-adjust-their-careers-for-family-life/

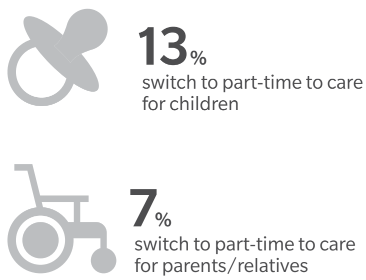
EXHIBIT 6: BALANCING FAMILY RESPONSIBILITIES WITH CAREER

TIME SPENT ON PAID AND UNPAID WORK BY PEOPLE EMPLOYED, BY SEX

2005-2013



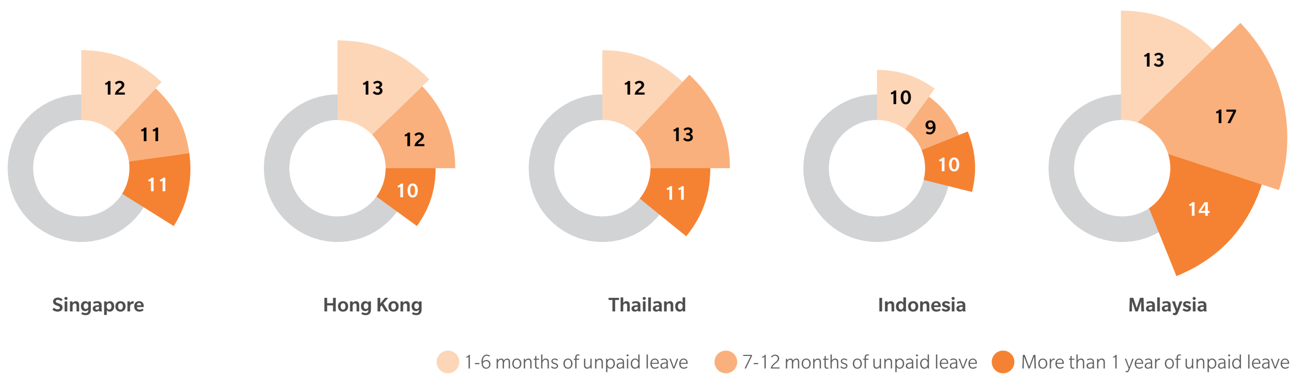
AMONG WOMEN IN PARA-PROFESSIONAL ROLES...



Source Calculated by the United Nations Statistics Division based on country-level data from UNECE (2014) and national statistics offices (as at August 2015), The Mercer HR survey on the retirement savings gap for low-income working women

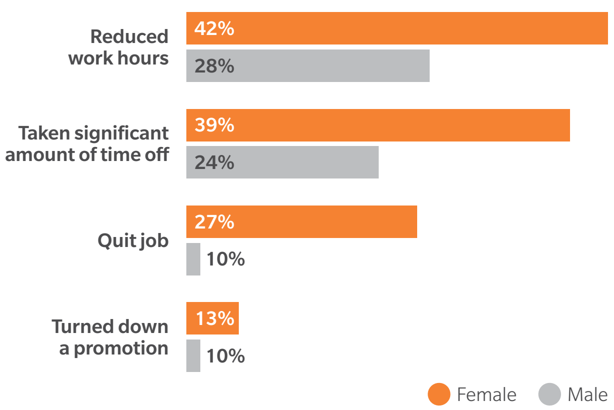
WOMEN IN PARA-PROFESSIONAL ROLES TAKING ADDITIONAL UNPAID MATERNITY LEAVE

%



Source The Mercer HR Survey on Retirement Savings for Low-Income Women

FATHERS AND MOTHERS WHO HAVE EXPERIENCED CAREER INTERRUPTIONS TO CARE FOR A CHILD OR FAMILY MEMBER

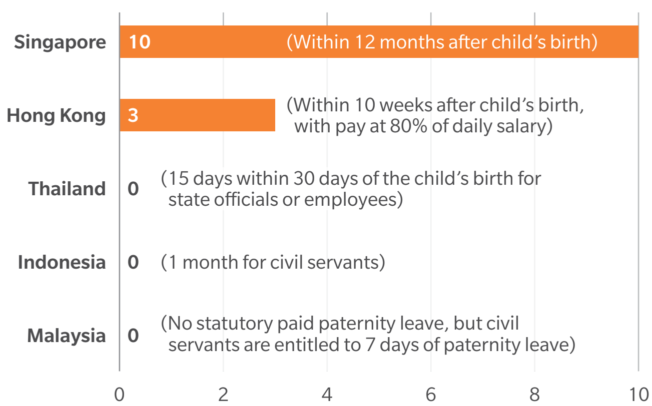


Note Based on those who have ever worked. "Fathers" and "mothers" include those with children of any age, including adult children. Pew Research Center survey, October 7-27, 2013

Source PEW Research Center

AVAILABILITY OF STATUTORY PATERNITY LEAVE AND ITS DURATION

WORKING DAYS



Source Singapore Ministry of Manpower, Hong Kong Labor and Welfare Bureau, Thailand Ministry of Labor, The Jakarta Post, Malaysian Labor Law

Moreover, the number of working mothers who had quit their jobs for family reasons is almost three times more than fathers who did the same.[41]

The high tendency of women taking career breaks is partly because women usually bear disproportionate responsibility for domestic work and unpaid caregiving work. Compared to men, women in APAC spend on average 4.1 times the amount of time to perform unpaid care work.[42]

To better balance work and domestic responsibilities, many women choose to stop working temporarily, engage in part-time employment or accept jobs that allow flexible working hours. This is evident when we look at the gender split for different types of employments. In Singapore, about 64 percent of part-time workforce is made up of women, almost double the share of men. On the other hand, the percentage of men engaged in full time jobs is higher than women.[43]

In addition, organisations show higher female representation in using company leave programmes. A report on EU-27 countries stated that, on average, more than 40 percent of mothers stopped working to care for their children for at least a month in addition to maternity leave, while only two percent of fathers said they did so in addition to their paternity leave.[44] In Asia, according to Mercer's survey, HR professionals estimate that on average, about two in five women in para-professional roles have taken additional unpaid maternity leave for at least one month, and about 11 percent of women have done so for more than one year. We do not have data about the percentage of fathers in para-professional roles taking paid or unpaid paternity leaves.

Nevertheless, it is found that fathers are more likely to take paternity leave where the leave has both an individual entitlement element and is relatively well paid.[45] However, among the five markets we studied, only Singapore and Hong Kong have statutory paternity leave for eligible fathers from both public and private sectors.

Additionally, even in Singapore where full salary is provided for the entire paternity leave period, less than 50 percent of eligible fathers took the paid paternity leave in both 2014 and 2015.[46] Comparing the level of career interruption between men and women, it is evident that women are affected more significantly for childbearing. By leaving the workforce for about one year or more, they miss not only the potential salary increase for the current year, but also certain important career developments in the future.

Leaving the workforce early for caregiving

Women have shorter working lives also because they tend to leave the workforce earlier than men. Based on data from the OECD, the average age for women to leave the labour-market in OECD countries is 62.3, which is about one to two years earlier than men.[47]

The difference is also observed in APAC. According to a report from the World Bank, it shows that the male-female workforce participation gap rises after the age of 50 in nearly all countries in the APAC region, indicating that women on average leave the workforce earlier than men.[48,49] For example, in Singapore, the male-female participation gap is about 25 percent on average for the people aged 50 to 69, which is about 10 percent higher than that of the people aged 30 to 49.[50]

41 Pew Research Center Survey 2013

42 International Labour Organisation 2018. Care work and care jobs for the future of decent work: key findings in Asia and the Pacific

43 Minister of Manpower Singapore 2017. Labour Force in Singapore 2016

44 European Commission 2014. Parents at work: Men and Women participating in the labour force

45 Rand Corporation 2016. Paternity and parental leave policies across the European Union

46 Today 2016. More take paternity leave, but dads, employers could do better: Chuan-Jin

47 OECD 2016. Aging and employment policies – Statistics on average effective age of retirement

48 World Bank 2012. Toward Gender Equality in East Asia and the Pacific: A Companion to the World Development Report

49 For information of labor force participation rates by gender and age group of Malaysia, Thailand, Hong Kong and Indonesia – please see Appendix for more details

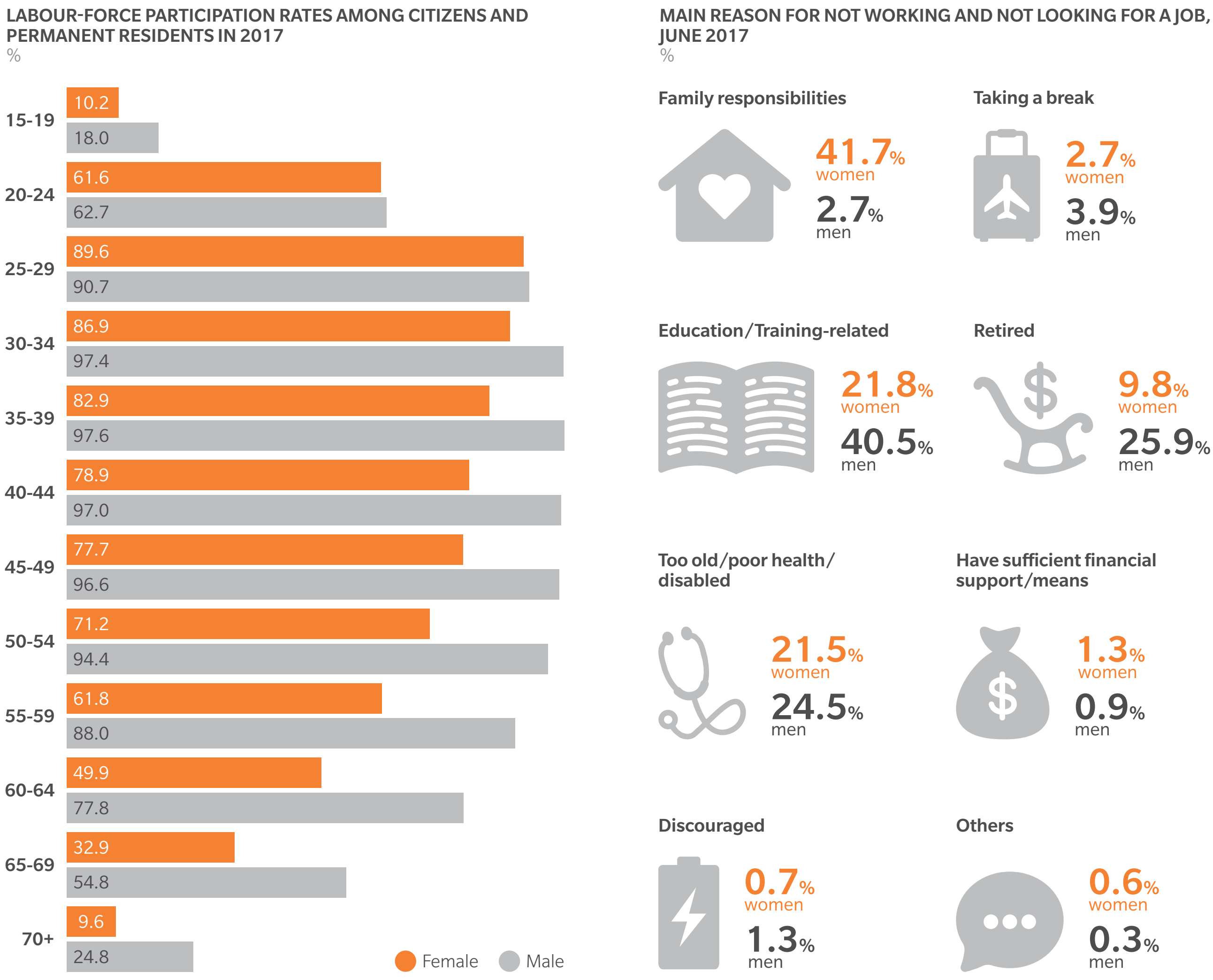
50 Minister of Manpower. Labour Force in Singapore, 2017

In addition, unlike men who tend to stay outside the workforce due to education or training-related reasons, women mostly cite family responsibilities such as housework and caregiving as the main reason for not participating in the labour force.[51] In fact, a report from National University of Singapore finds that women constituted about 74 percent of family caregiver for the elderly, and majority of these caregivers were aged between 40 to 59 years.[52]

Moreover, data from the Ministry of Manpower in Singapore also suggest the proportion of men who cite retirement as the reason to be outside the workforce is more than double that of women, indicating the latter are more likely to have left the labour market at a younger age.[53]

With fewer years of full-time work, a woman's savings from employment will typically be smaller.

EXHIBIT 7: LABOUR-FORCE PARTICIPATION RATES AND REASONS FOR NOT WORKING IN SINGAPORE



Source Comprehensive Labour Force Survey, Manpower Research & Statistics Department, Singapore Ministry of Manpower

51 Ibid

52 National University of Singapore 2006. Family Caregiving in Singapore

53 Ministry of Manpower. Labour Force in Singapore, 2017

STRATEGIES TO CLOSE THE RETIREMENT SAVINGS GAP FOR WOMEN

The gender retirement savings gap suggests that women are facing greater risks of insufficient retirement income to maintain a reasonable standard of living at an older age, as compared to men.

However, closing the gender retirement savings gap is not something that is relevant only for women. Evidence suggests that improved financial security and independence can have knock-on effects on women's physical and psychological well-being, hence reducing women's reliance on the public health system.[54]

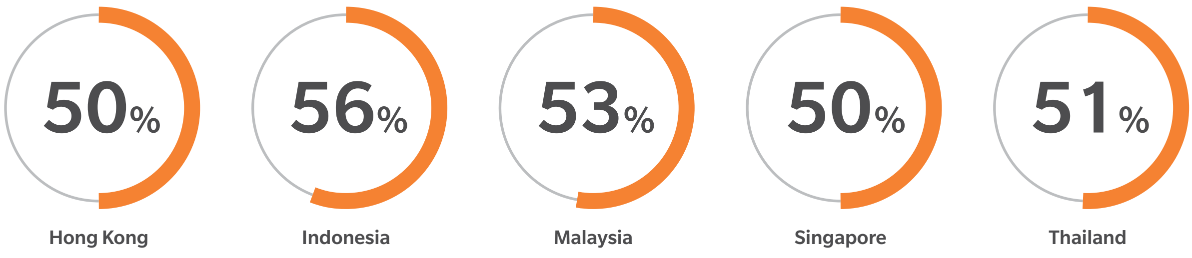
In addition, full and productive employment for women could also result in productivity gains and help offset the impact of a shrinking workforce. East Asia and the Pacific reportedly loses about US$45 billion annually because women have limited access to employment opportunities.[55]

It is evident that enhancing the financial security of women will benefit society as a whole, therefore it should be a multi-stakeholder undertaking.

EMPLOYERS: CREATE A HOLISTIC BUSINESS STRATEGY TO ADVANCE WOMEN IN THE WORKPLACE

Given that the availability and amount of pension is usually dependent on employment, employers have a significant role to play in reducing the gender retirement savings gap. Additionally, according to a 2018 study conducted by Mercer, about 79 percent of respondents state that they trust employers to give sound, independent advice on planning, saving and investing, which suggests that employers can play a pivotal role in helping employees improve their financial literacy and retirement preparedness.[56]

EXHIBIT 8: PERCENTAGE OF ORGANISATIONS THAT HAVE PROGRAMMES TO SUPPORT AND ENABLE FEMALE REPRESENTATION AND PAY EQUALITY



Source The Mercer HR survey on the retirement savings gap for low-income working women

54 Australian Government Workplace Gender Equality Agency 2015. Women's economic security in retirement perspective paper
55 The World Economic Forum. The case for gender parity
56 Mercer 2018. Healthy, Wealthy and Work-wise – The New Imperatives for Financial Security

From Mercer's survey, we find that in our five selected markets, about half of the companies have at least one programme to support female representation and equality in the workplace. Among the organisations with a programme, most of them provide maternity leave extension or allowance to female employees, and only two organisations have a structured gender diversity strategy supported by statistical analysis. While there is an increasing recognition of women's unique needs at different life stages, what can companies do further to provide more effective and structured support for women?

In the *When Women Thrive, Businesses Thrive* study, Mercer looks at how to build a robust diversity and inclusion strategy that is also aligned with business imperative.[57]

The study proposes a systematic framework that will help companies to link gender equality to economic opportunities. Companies may use the three steps framework below as a guide to create an environment that suits the unique and divergent needs of both men and women (See Exhibit 9).

EXHIBIT 9: MERCER'S FRAMEWORK FOR ADVANCING WOMEN IN THE ORGANISATION

Align on business imperative

STEP 1

Diagnose

Identify what is helping and hurting women in the organisation based on data and proof

- Conduct root-cause analyses to understand what is driving hiring, promotion or turnover challenges and uncover which processes are helping the organisation achieve gender and equity diversity and which are holding it back

STEP 2

Engage stakeholders

Create passionate leaders and drive personal commitment

- Provide training to help leaders and managers understand the differences among employee segments
- Identify and articulate perceived career accelerators and derailers within the organisation, including formal and unspoken rules such as unconscious bias in rewards and promotion decisions that might be triggered by periods of leave

STEP 3

Take actions

Rethink and disrupt traditional processes and practices to advance gender diversity

- Assuming the results from the diagnosis stage highlights the problem of a company's benefit strategy:
  - Ensure managers are equipped to actively manage the careers of employees (especially female) during and after their leaves so as to support their development and advancement at key life stages
  - Align companies' health and finanical wellness programmes to the unique needs of women
  - Pursue innovative practices to conduct education and training that target different employee segments, hence helping employees to better use the companies' benefit plans

Source "When Women Thrive, Businesses Thrive", Mercer, 2017

57 Mercer 2017. When Women Thrive, Businesses Thrive

ENHANCING EMPLOYEES' ENGAGEMENT IN FINANCIAL WELLNESS PLANS WITH DIGITAL INNOVATION

Organisational challenges

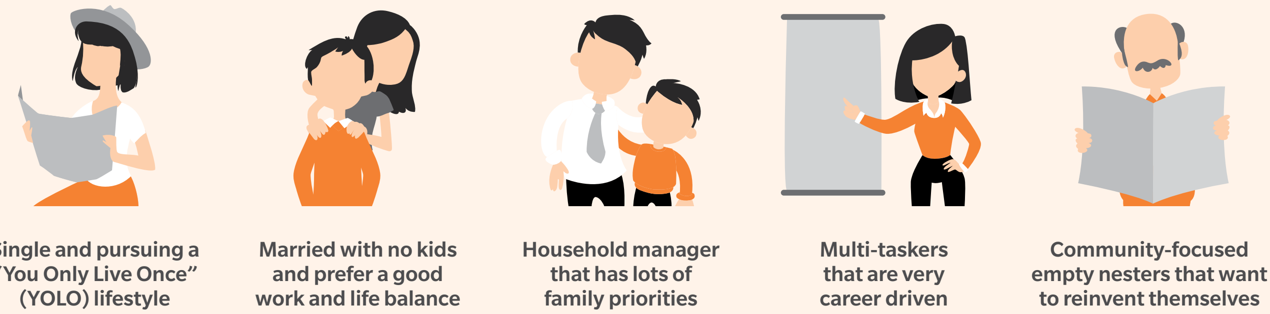
A technology company has a broad set of benefits and tools to help employees better manage their financial wellness. However, they found some of the key programmes were under utilised, and employees tended to ignore generic communication due to information overload. For example, the client had struggled to encourage employees to contribute more to their pension plans using conventional communication channels. Additionally, the client realised that women in particular were not utilising the financial wellness plans to their full benefits.

Mercer solution

Studies show that women are more receptive to messages and more likely to take positive actions when targeted and personalised communication methods are used. Therefore, as a part of the communication strategy, Mercer has created a financial wellness website to increase awareness of three financial wellness programmes provided by the client. The website is designed to target different employee segments through creating five different "personas". Different personas have different images, tones and recommended financial wellness programmes that suit their life stages. Employees can self-select persona to explore the website and take actions based on key "to-do's" of different personas.

By creating a user-friendly platform, Mercer allows employees to obtain the most relevant information based on their individual circumstances and saving plans. Feedback from female employees highlights that they find this method especially helpful. In their view, the design of different personas assists them in identifying and articulating their needs easily, and clear instructions under each persona also helps them to take actions regarding their retirement or savings plans. This initiative helps the company improve the level of engagement with respect to its financial wellness plan. As a result, there has already been a 15 percent improvement in the overall financial wellness of participants.

EXHIBIT 10: FIVE "PERSONAS" TO GUIDE EMPLOYEES FIND THE MOST SUITABLE FINANCIAL WELLNESS PROGRAMME



Source The Future of Jobs report, World Economic Forum 2016

GOVERNMENTS: ENHANCE SUPPORT FOR INFORMAL CAREGIVERS

It is evident that many women choose to leave the workforce because of their care-giving responsibilities for family members. Therefore, one critical role that government can play to reinforce employers' efforts is to enhance support for informal caregivers. For example, to encourage caregivers to continue their careers, affordable child care services as well as elderly care services need to be further developed, because high costs of child care or elderly care pose a barrier to women's employment.[58]

On this front, many Asian countries such as Singapore have demonstrated efforts to improve the quality, accessibility and affordability of child care services, especially in pre-school services. On top of providing parents with child care subsidies, since 2012, Singapore has increased the number of child care places by more than 40 percent to about 140,000 places island-wide.[59]

The gender retirement savings gap is also a long-term consequence of an uneven distribution of unpaid work between men and women. Therefore, to address this issue, men need to be encouraged more to share the responsibility of caregiving, while women should be compensated for the social responsibilities they assume. For example, as suggested by a French member of the EU Parliament, women's career breaks as a result of their devotion to care for family members should be credited and included in their pension calculation.[60]

In fact, this idea has been adopted by many EU member states in the form of the "care credits" policy.[61] The policy helps to compensate both men and women who experience career interruptions caused by the need for informal care among family members.

By compensating caregiving and treating this period the same as work period for pension calculation, "care crediting" not only ensures that women's contributions can be properly acknowledged by the pension system, it also encourages men to take up more caregiving responsibility.

Other recommendations along the same lines include extending paternity leave to all eligible fathers, encouraging family members to top-up the pension account of caregivers through a matched savings scheme or tax relief scheme (such as the CPF Cash Top-up Relief introduced in Singapore) and allowing women to receive a part of the pension benefits that their spouses are entitled to, even after divorce.

With more women choosing to work part time, pension systems also need to be opened up to all types of working relationships including project-based work or hourly work. In addition, on top of developing tax and benefit policies to encourage women's re-entry into the labour market, providing women with relevant skills training and job-matching services can also be impactful to help them access new opportunities and bargain for better working conditions or wages.[62]

INDIVIDUALS AND SOCIETY: BRIDGE THE FINANICAL LITERACY GAP

The ability of women to be economically independent at an older age also largely depends on their autonomous management of their finances. Therefore, women need to bolster their position by taking charge of their financial matters at an early stage and bridging the financial literacy gap through education and practice.

58 International Labour Organization. Women at Work trends 2016
59 Tan Chuan-Jin, (2017). Speech by Mr Tan Chuan-Jin on the Motion on Aspirations of Singapore Women
60 European Union. Advisory Committee on Equal Opportunities for Women and Men
61 Ibid
62 Asian Development Bank 2015. Women In The Workforce an unmet potential in Asia and the Pacific

To achieve this goal, women should first change the mindset of solely depending on their partners to sort out their finances, as unforeseen events such as divorces can have a stark impact on retirement plans.[63] Women should be prepared and be more financially independent, and to do that, they can start by putting aside a certain amount of money for emergency and retirement savings irrespective of how much they are earning. Additionally, this contribution should not be suspended even if women decide to leave the labour market or work part-time to care for their families. Instead, they need to communicate properly with their partners or siblings and seek retirement savings contribution from the family income.

Once this step is achieved, women should also consider investing some of their income via different financial instruments, which can range from universal life insurance, health plans or government bonds. Given that women are usually more risk averse than men, enrolling into a financial literacy programme to deliberately study financial planning or consulting a licensed professional to understand their current situation is a good first step.

Meanwhile, society can also play an important role in raising awareness of the importance of retirement savings for women. To improve women's confidence in their financial capabilities, relevant financial literacy training should be initiated to equip them with the relevant knowledge and techniques.

This is especially important for low-income or older women who usually possess little financial knowledge and have fewer channels to learn. After building savings awareness, it is also important for financial services providers to design and promote savings-habits-enabling products that tailor to women's special needs and savings capabilities. For example, daily or weekly savings products can be especially practical and useful for women who have part-time jobs where cash flow is volatile.

Additionally, with increasing ownership of smartphones, digital technology such as mobile wallets and budgeting applications should be increasingly leveraged to facilitate the process of savings and financial planning, so as to help bridge the financial inclusion gap.[64] In fact, Mercer found that 93 percent of individual aged under 35 are interested in trying online financial tools as long as they are credible.[65]

63 CNBC, (13th October 2014). Women need to think single when it comes to money. https://www.cnbc.com/2014/10/13/women-need-to-think-single-when-it-comes-to-money.html

64 Oliver Wyman, Asian Development Bank 2017. Accelerating Financial Inclusion in South-East Asia with Digital Finance

65 Mercer 2018. Healthy, Wealthy and Work-wise – The New Imperatives for Financial Security

FINANCIAL LITERACY GENDER GAP

The lack of adequate financial literacy is increasingly contributing to a lower wealth level of low-income women near retirement. Studies show that women, on average, have lower financial literacy rate than men.[66] Even in a developed country like Singapore, only 52 percent of women are considered financially literate, about 15 percent lower than the share of men who are considered financially literate.[67]

This finding coincides with Mercer's ***Inside Employees' Minds*** financial wellness survey results, which reveal that men are more confident in their ability to engage in financial transactions and hence, have more "financial courage" and a more favourable self-rating of their financial knowledge than women.[68] What is worse, when women feel they don't have a grasp of investing, majority of them are not seeking the help of financial professionals.[69] As a result, women are more likely to avoid financial discussions and fail to take even simple actions to improve their financial wellness. According to a study by the Tsao Foundation, older cohorts of women remain most likely to lack the financial capability to manage other developments related to long-term financial security.[70]

In addition, women are more risk-averse when it comes to investment. They prefer to retain cash or to put their money into fixed-income investment opportunities. It is found that women are 62 percent more likely than men to invest in a defensive fund with a lower expected level of growth.[71] In the survey conducted by the Tsao Foundation and MMC's Asia Pacific Risk Center, only 33 percent of respondents invest their savings via several different financial instruments such as bonds, unit trusts or equities rather than putting all their money into saving accounts or fixed deposit accounts. Worryingly, about 8 percent of respondents mentioned that they have no savings at all. Nevertheless, when being asked about the importance of having their own savings, about 90 percent of respondents stated it is "very important" or "important".

Given that recent reforms of pension systems are putting more decision-making responsibility upon individuals, lower financial literacy and confidence in making financial decisions are putting women in a more vulnerable position than before.

66 Grohmann 2016. The gender gap in financial literacy

67 MoneyDigest 2016. Women in Singapore Struggle with Personal Finance, According to S&P's Financial Literacy Survey 2014

68 Mercer 2017. Inside Employees' Minds financial wellness

69 Prudential Group 2014. Financial Experience & Behaviors Among Women

70 International Longevity Centre Singapore. Older women in Singapore: Changes and Challenges between 2005-2015

71 Mercer 2017. The gender pension gap from awareness to action

ENHANCE WOMEN'S FINANCIAL SECURITY WITH COMPLEMENTARY FINANCIAL LITERACY PROGRAMMES

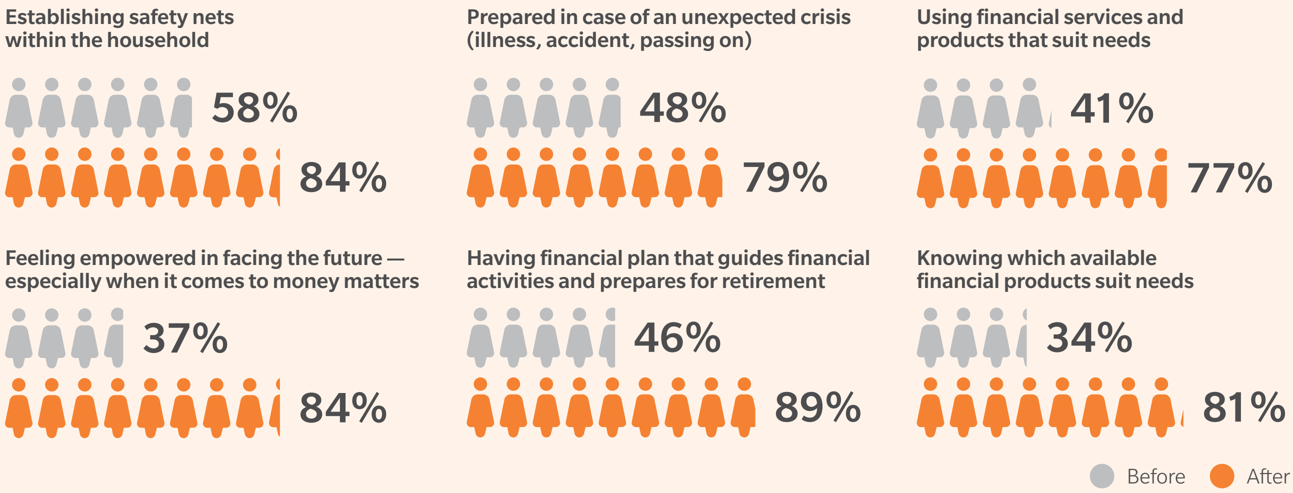
The Citi-Tsao Foundation Financial Education Programme for Mature Women was developed by the Tsao Foundation together with Citi Singapore and Citi Foundation. The programme was launched in 2007 and aims to provide practical suggestions for women to understand how money works and how they can better manage their finances.

This programme targets mature women aged between 40 and 60 years, with relatively low household incomes. So far, it has managed to reach out to more than 6,000 women in Singapore. By taking 20 weekly sessions with curriculum focusing on personal finance and social empowerment, participants can not only gain knowledge on topics such as savings, debts, investments, and insurance, but also gradually build up their capability to engage in financial transactions and negotiate for support from family members.

According to an impact assessment study conducted by the National University of Singapore, more than 80 percent of the financial-literacy programme participants started to have a clear financial plan after attending it, in contrast to only 37 percent who did before the programme.[72] Additionally, with better knowledge of financial products, many of the participants who were very dependent on their families for their finances believed that their assertions and empowerment in terms of managing money largely improved. The study showed about 44 percent of the participants who did not use any relevant financial products and services before the financial literacy programme did so after completing it.[73]

EXHIBIT 11: IMPACT EVALUATION OF CITI-TSAO FOUNDATION FINANCIAL EDUCATION PROGRAMME FOR MATURE WOMEN

BEFORE AND AFTER COMPARISON OF PARTICIPANTS' FINANCIAL LITERACY CAPABILITIES
% OF TOTAL PARTICIPANTS



Source Citi-Tsao Foundation Financial Education Programme for Mature Women Impact Evaluation and APRC analysis

72 Wu Treena. Citi-Tsao Foundation Financial Education Programme for Mature Women

73 Ibid

LOOKING BEYOND THE PRESENT: RISK OF AUTOMATION

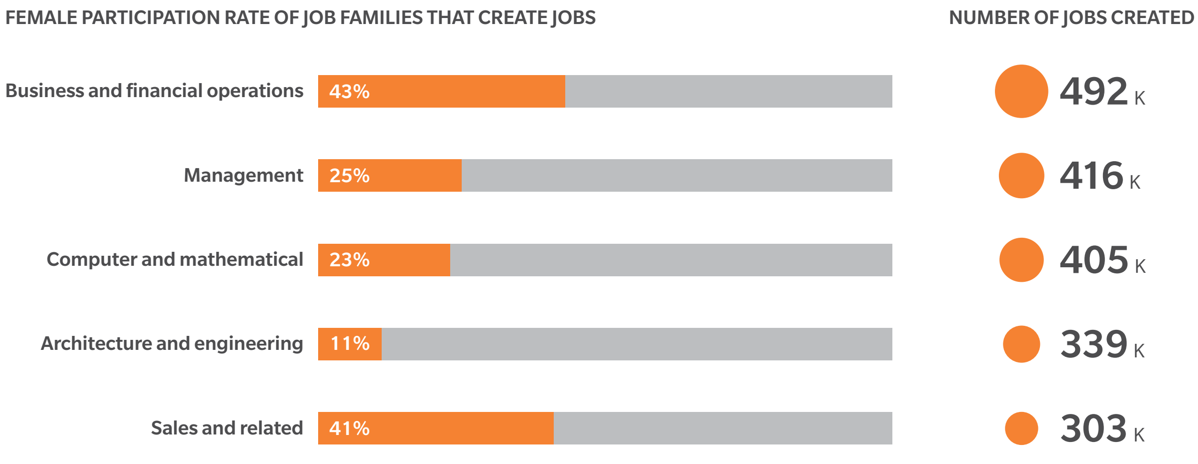
Closing the gender retirement savings gap is not an issue that can be solved overnight, but the time bomb is ticking. If we do not take any actions now, the gap will only get wider when it is compounded with other pressing issues such as risk of automation.

According to the World Economic Forum's *Future of Jobs Report 2016*, more than a third of the core job skills will change by 2020 as a result of technological advances.[74] Although disruptive changes such as automation are creating new jobs while leading to traditional job losses, the threat of displacement is disproportionately greater in certain job types, and many of them have high female participation rates. For example, data provided by Mercer shows that the average automation risk for para-professionals is as high as 82 percent.

Given the high level of female participation in this job family in many APAC countries, automation is posing high risks of displacement for women, especially for those with low-skills, and this may further widen the gender retirement savings gap.

On the other hand, job fields that will create more job opportunities due to automation currently have lower female representation. The World Economic Forum's report states that among the top five high-growth job fields, three have a female participation rate of less than 30 percent today.[75] Additionally, with a lack of qualified incoming female talents in Science, Technology, Engineering and Mathematics (STEM) education across the world[76], automation seems unlikely to provide much opportunity for women in the near future.

EXHIBIT 12: JOB FAMILIES PROJECTED TO HAVE THE LARGEST JOB GROWTH BY 2020 AND CURRENT FEMALE PARTICIPATION RATES IN THOSE JOB FAMILIES



Source The Future of Jobs report, World Economic Forum 2016

74 World Economic Forum 2016. The Future of Jobs Report
75 Ibid
76 WEF, 2016. Global Gender Gap 2016

CONCLUSION

Longevity in Asia steadily increased in the 20th century, resulting in an aging population as well as a widening retirement savings adequacy gap. With the low coverage of mandatory pension schemes and the weakening family-based support for retirement income, Asia's older people are facing serious challenges of maintaining a reasonable standard of living after retirement. Compared to men, women in many Asian countries are at even greater risk of retiring into financial insecurity, because they tend to have longer life expectancies, shorter working lives, and lower average wages.

The evidence presented in this study indicates that low-income working women in Asia have about 32 percent less in their personal and national mandatory savings accounts than men at the age of retirement, and the gap is higher in Indonesia, Malaysia and Thailand compared with Singapore and Hong Kong. In addition, the "Traditional Working Mum" who switches to part-time work to care for family members has the lowest amount of savings at retirement.

A failure to address the gender retirement savings gap timely could cause long-term problems for businesses and society. Therefore, closing the gender retirement savings gap for women must be a multi-stakeholder undertaking.

EMPLOYERS

Employers should play an active role in ensuring female employees' financial security. It is not only key to improve a company's talent attraction and retention, but also crucial to protect a company's productivity, especially with an increasingly aging and shrinking workforce. To achieve this goal, a robust diversity and inclusion strategy needs to be created.

Organisations should firstly understand their current state by analysing hiring, promotion, and exit data. Meanwhile, organisations also need to enhance the passion and personal commitment of their leaders in advancing diversity before taking actions to design and communicate processes and practices that address the specific needs of female employees.

POLICYMAKERS

One critical role that government can play is to enhance support for informal caregivers who sacrifice their careers or personal life to care for loved ones. On top of developing more affordable child care and elderly care services, policy makers should also introduce more tax and social policies to incentivise and facilitate women to re-enter or stay in the labour market. Additionally, the gender retirement savings gap is also a long-term consequence of unequal sharing of care responsibilities and paid work among couples. Therefore, policies need to be initiated to compensate for time spent in socially relevant activities and to encourage more equal sharing of caregiving work among couples.

INDIVIDUALS

Reducing the gender retirement savings gap is also the responsibility of women themselves. With lower salaries, shorter working periods and longer life expectancies, women need to put aside considerably more in savings than men to ensure a financially secure retirement. To achieve this goal, women should start relying less on their partners for financial security. Instead, they need to understand the benefits of financial planning as early as possible and take actions to save and invest their incomes upon commencing employment.

APPENDIX

KEY MODEL ASSUMPTIONS

The retirement savings gap between men and women is sensitive to a wide range of variables. In identifying the woman archetypes in our study, we ensured that we included women in major categories that contain different traits.

Nevertheless, we acknowledge that the analysis does not include all types of female profiles among low-income people. For instance, the "Single Mum" type we identify in the analysis is a mother working full-time and raising one child alone, but variations can be made by changing the number of children, nature of employment and working duration in the same category, which we did not cover in the analysis.

This analysis is not meant to identify the specific woman profile that is most at risk, but to raise potential concern over certain female groups that are vulnerable by nature. Additionally, in the model, we use a list of key assumptions to calculate the retirement savings balance.

Career length

The model assumes both male and female archetypes enter the labour market at age 22, except for the male archetype in Singapore, who enters the workforce at age 24 due to National Service responsibility. The model uses the latest labour policy found in each market to account for the differing statutory retirement age across markets but assumes that the statutory retirement age is the same for both males and females belonging to the same market.

Among all archetypes, the "Single Mum", the "Career Woman" and the "Family Man" work full-time for their entire career until they retire at the statutory retirement age. The "Traditional Working Mum" switches to part-time job at age 30 for 15 years, and goes back to work full-time from age 45 until the statutory retirement age. The "Good Daughter" works full time for her entire career but retires 5 years earlier than the statutory retirement age to take care of her elderly parents.

Earnings

The starting salaries for all archetypes are estimated based on the average entry-level salaries for para-professionals in five selected markets. The data is obtained primarily from Mercer's 2015 Total Remuneration Survey (TRS), which includes extensive employee-level data for companies across multiple countries.

Based on the data from TRS, the model assumes there is an income gap between men and women at the start of their careers. Nevertheless, the salaries of men and women from the same market is assumed to increase at the same annual rate during their working lives except for the "Traditional Working Mum", whose salary growth is relatively stunted during her part-time period.

The salary growth rate is estimated based on the CAGR of average gross income per capita in identified countries. The data were retrieved from the Business Monitor International Research database in November 2017. The model also assumes that for all archetypes, the only source of income is through paid work. Therefore, once an archetype stops working (such as retiring early), she will stop contributing to her individual pension account.

Expenditures

The average expenses and annual expense growth rate for both male and female archetypes are estimated based on the average spending per capita of the poorest 20 percent of the population in the identified markets. We chose this particular segment of the population because the average income of this segment matches with the average income of para-professional in different markets. The data were retrieved from the Business Monitor International Research database in November 2017. The model assumes that married archetypes share family expenditures equally with their partners. Therefore, if an archetype has a child, she needs to bear half of the child's expenditure.

The model assumes female archetypes who live alone ("Single Mum", "Career Woman" and "Good Daughter") have to bear additional expenses since they have no one to share their expenses with. In addition, it is assumed that when the "Traditional Working Mum" is doing part-time work which pays less than full-time work, her expenses falls proportionately with the decrease in income.

The model assumes archetypes with a child(ren) need to bear the expenditures of raising up a child(ren) until their child(ren) enters the labour market. Additionally, the model also assumes all archetypes provide a specific proportion of their earnings to their parents as financial support.

Retirement savings

The model assumes that all archetypes and their employers contribute to their individual pension account at the rate required by the state defined-contribution plan, and the model assumes that the future mandatory contribution rate in each market remains unchanged from today's rate.

If an archetype's earning after pension contribution is higher than her expenses, the model assumes she will put aside the remaining amount in bank savings account for future use. Hence, during the period when the archetype's expenses are higher than her earnings, the model assumes she uses her accumulated bank savings to cover the deficit.

If the archetype still has a positive amount in her bank savings account when she retires, the model assumes it becomes a part of her retirement savings. An archetype's total retirement savings include the amount of wealth accumulated in her individual mandatory pension account and her bank savings account at the age of statutory retirement age in each market. The model assumes that the archetypes do not receive other source of income, such as allowance from children or investment returns, to support their retirement.

KEY LIMITATIONS

Female archetypes

The retirement savings gap between men and women is sensitive to a wide range of variables. In identifying the female archetypes in our study, we ensured that we included women in major categories that contain different traits. Nevertheless, we acknowledge that the analysis does not include all types of female profiles among low-income people.

For instance, the "Single Mum" type we identify in the analysis is a mother working full-time and raising one child alone, but variations can be made by changing the number of children, nature of employment and working duration in the same category, which we did not cover in the analysis. This analysis is not meant to identify the specific woman profile that is most at risk, but to raise potential concern over certain female groups that are vulnerable by nature.

Earnings

We acknowledge that people may have more than one source of income, other types of income may include rental income or investment return. Nevertheless, in this study, we assume the only source of income is through paid employment. The model assumes the salaries of men and women from the same country increase at the same annual rate during their working lives, because the focus of this study is low-income workers. Nevertheless, in reality the average salary growth rate varies at different career stages for men and women, especially at the senior levels.

EXHIBIT 13: LABOUR FORCE PARTICIPATION BY MARKET, GENDER AND AGE GROUP

SINGAPORE*1, 2017		
AGE	MALE (%)	FEMALE (%)
15-19	18.0	10.2
20-24	62.7	61.6
25-29	90.7	89.6
30-34	97.4	86.9
35-39	97.6	82.9
40-44	97.0	78.9
45-49	96.6	77.7
50-54	94.4	71.2
55-59	88.0	61.8
60-64	77.8	49.9
65-69	54.8	32.9
70 and over	24.8	9.6

HONG KONG*2, 2017		
AGE	MALE (%)	FEMALE (%)
15-19	10	12
20-24	61	63
25-29	94	87
30-34	97	81
35-39	97	77
40-44	96	76
45-49	95	73
50-54	92	67
55-59	84	52
60-64	60	32
65 and over	16	6

THAILAND*3, 2016		
AGE	MALE (%)	FEMALE (%)
15-19	26	13
20-24	74	56
25-29	94	80
30-34	95	82
35-39	97	84
40-49	96	83
50-59	91	73
60 and over	48	28

INDONESIA*4, 2013		
AGE	MALE (%)	FEMALE (%)
15-19	35	22
20-29	90	49
30-39	99	59
40-49	99	63
50-59	91	61
60-69	78	41
70 and over	50	21

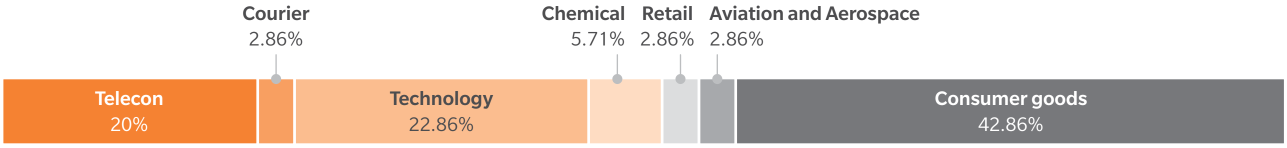
MALAYSIA*5, 2016		
AGE	MALE (%)	FEMALE (%)
15-24	50	35
25-34	96	73
35-44	98	67
45-54	95	57
55-64	67	32

***1** Comprehensive Labour Force Survey, Manpower Research & Statistics Department, Singapore Ministry of Manpower
***2** Census and Statistics Department, the Government of the Hong Kong Special Administrative Region
***3** The labor force survey 2016
***4** Indonesia National Socio-Economic Survey
***5** Department of Statistics Malaysia
Source APRC analysis

ABOUT THE SURVEY

The Mercer HR Survey on Retirement Savings for Low-Income Women sampled 35 Human Resources professionals from 27 organisations and 7 different industries to understand the employment patterns of female employees in para-professionals roles in the 5 identified regions. This survey was conducted between December 2017 and January 2018. The sample reflected views across the 5 identified markets in APAC, with Hong Kong, Malaysia and Singapore representing 20% of inputs, and Indonesia and Thailand accounting for 21% and 19% respectively.

EXHIBIT 14: INDUSTRY COMPOSITION OF SURVEY RESPONDENTS

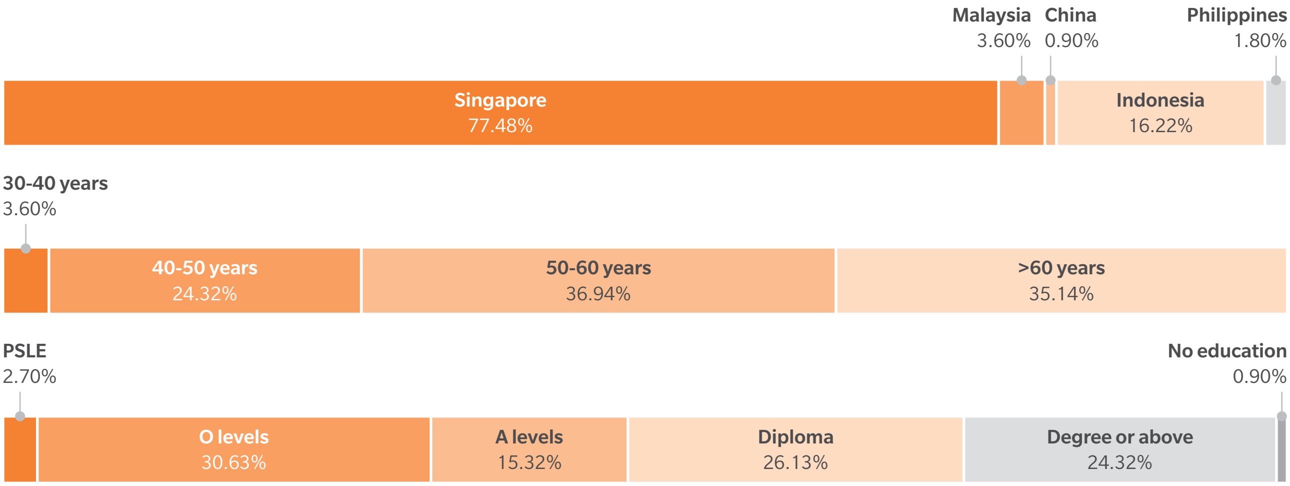


Source The Mercer HR Survey on Retirement Savings for Low-Income Women

RETIREMENT SAVINGS GAP OF WORKING WOMEN IN ASIA SURVEY

The Tsao Foundation and MMC's Asia Pacific Risk Center's *Survey on the Retirement Savings Gap of Working Women in Asia* surveyed 111 women across the APAC region, including Singapore, Malaysia, Philippines, Indonesia and China. The survey was conducted between January and February 2018 to verify some of the model inputs we used to estimate the archetype-specific savings balance amount.

EXHIBIT 15: REGIONAL, AGE AND EDUCATIONAL LEVEL COMPOSITION OF SURVEY RESPONDENTS



Source Survey on the Retirement Savings Gap of Working Women in Asia

To read the digital version of Gender retirement savings gap of low-income professionals,
please visit **www.mmc.com/asia-pacific-risk-center.html**

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The design work for this report was led by Doreen Tan, assisted by Vladica Stanojevic.

About Tsao Foundation

The Tsao Foundation's vision is of an inclusive society for all ages that optimises opportunities in longevity. Established in Singapore in 1993, the goals of the non-profit family foundation are aligned to the MIPAA and WHO healthy ageing frameworks. Through four major initiatives – the Hua Mei Centre for Successful Ageing, Hua Mei Training Academy, International Longevity Centre Singapore and Community for Successful Ageing (ComSA) – the Tsao Foundation pioneers and provides community-based, person-centred primary healthcare for adults aged 40 and above; builds capacity in professional and informal age care and self-care; fosters elder empowerment and community development; and initiates policy-relevant research and cross-sector partnerships in its advocacy for mindset and systemic change to actualise health, wellness and participation over the life course.

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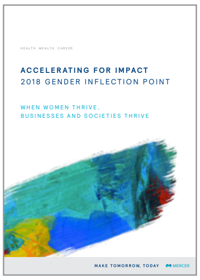
This report highlights the increase in prevalence of non-communicable diseases due to societal aging and estimates the increase in insurance premiums as a result.



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This report examines the key drivers of elderly healthcare and the financial impact across Asia Pacific and discusses areas within the healthcare ecosystem that warrant urgent intervention, such as funding sources, infrastructure financing, and workforce development.

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