



Chapter 8

Men and women in an aging society

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Problems in the Thai population



- ❏ Declining population of reproductive age and increasing elderly population – Why?
- ❏ Revisit the history of the population of Thailand in the period that affects the current situation
- ❏ In 1970, the population of Thailand was 34.4 million people.

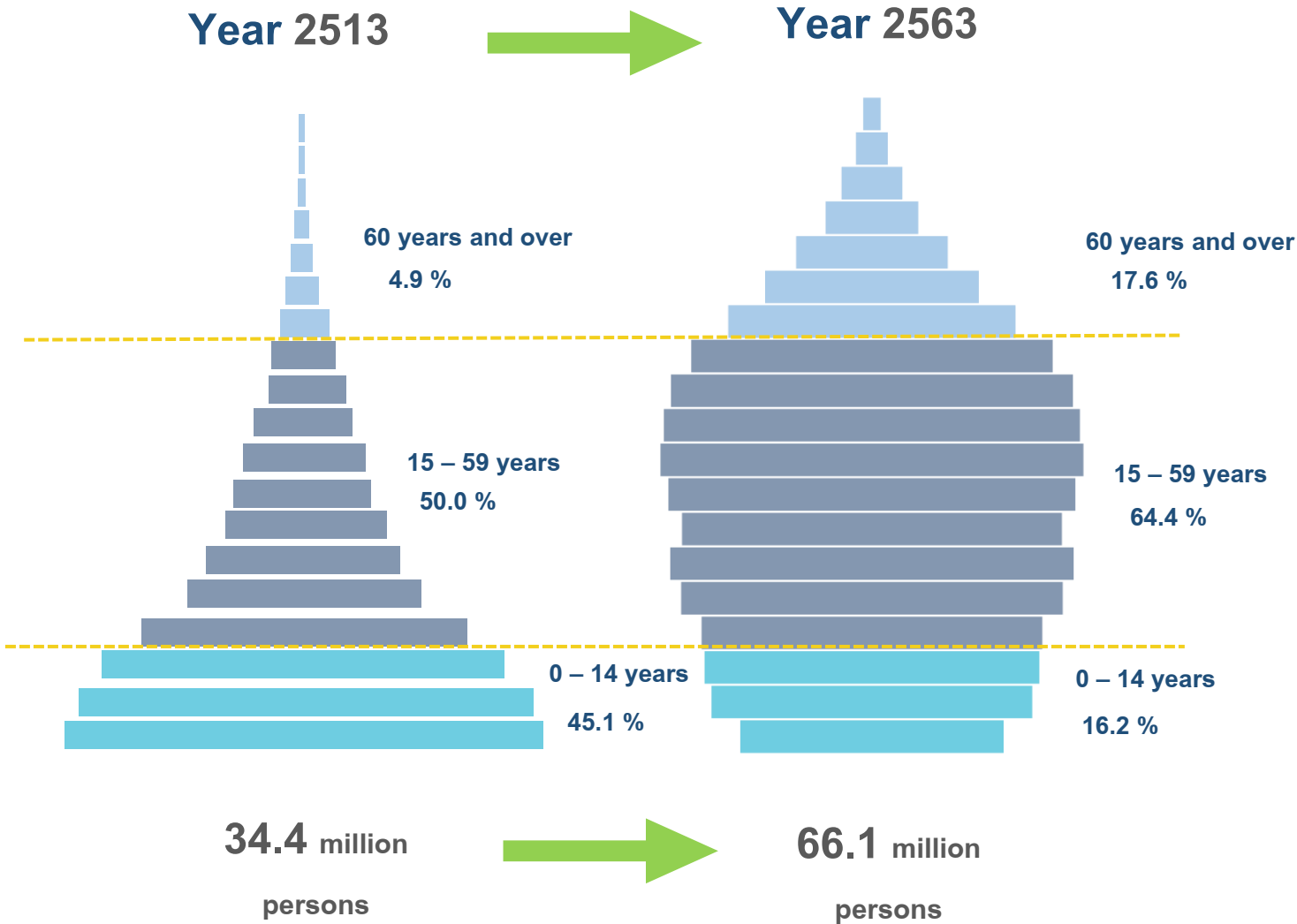
Problems in the Thai population



- In 1970 - The breakdown was as follows:
 - Children aged 0–14 years (45%), labor force aged 15–59 years (50%) and the elderly aged more than 60 years (5%)
- In 2020 - Thailand's population is 66.1 million people.
 - The proportion of the elderly has increased to 18%, the labor force has increased by 64%, but children have decreased by 16%.

Age structure of The Thai Population

Thailand's Population Forecast 2040



60 ปีขึ้นไป



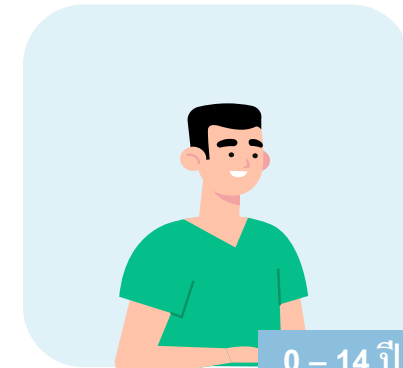
20.5 million persons (31.4%)



15 – 59 ปี



36.5 million persons (55.8%)



0 – 14 ปี



8.4 million persons (12.8%)

NESDB forecasts for the next 19 years

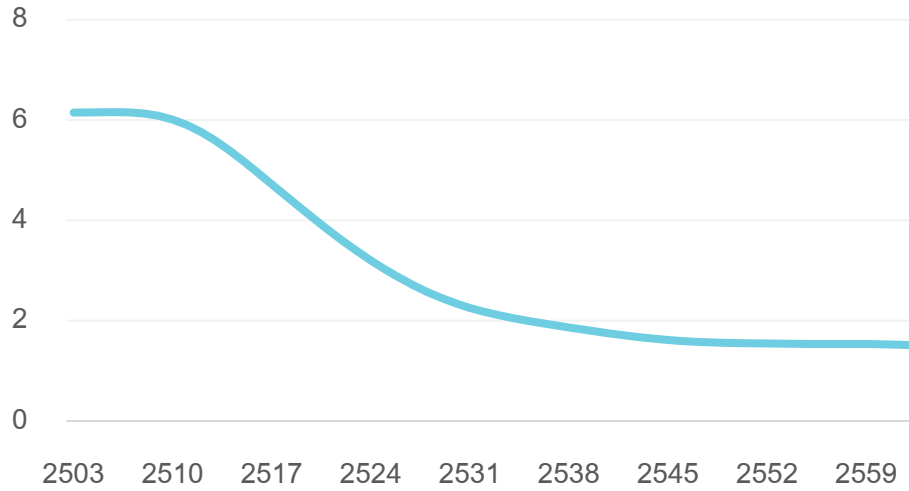
📊 The NESDB forecasts that in the next 19 years - By 2040, the elderly population will comprise 31% of the total population. The working age population (aged 15–59 years) will decrease from 36 million or 55%.

📊 How did Thailand reach this point?

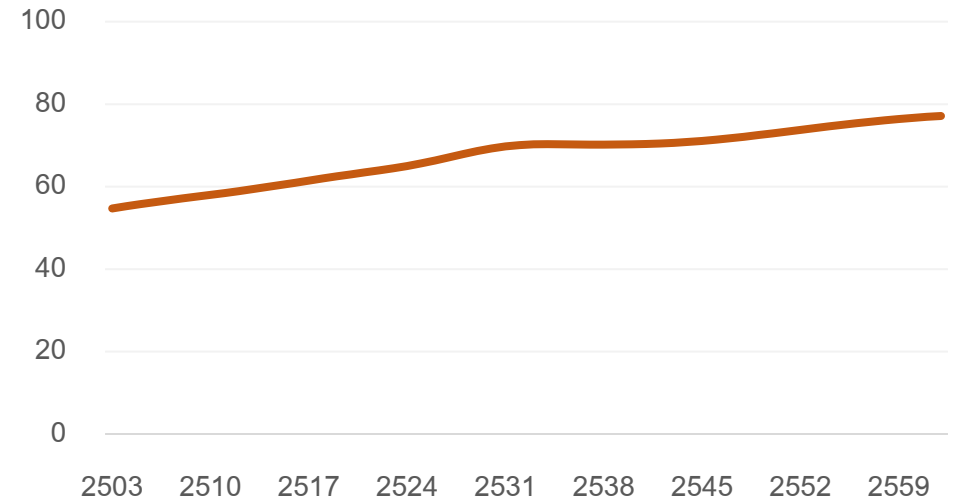
- In 1973, Thailand implemented a family planning policy that included contraception under the slogan that those having more children would be poor. Consequently, an already low birth rate continued to decline.
- 50 years ago, 1 Thai woman would have an average of 6 children. Nowadays, this is 1.5 children, which is below the world average of 2.4.

As a result of the Thai public health system, improving access to contraception and that adequate medical care can increase people's lifespans, Thailand now has a growing population of elderly people

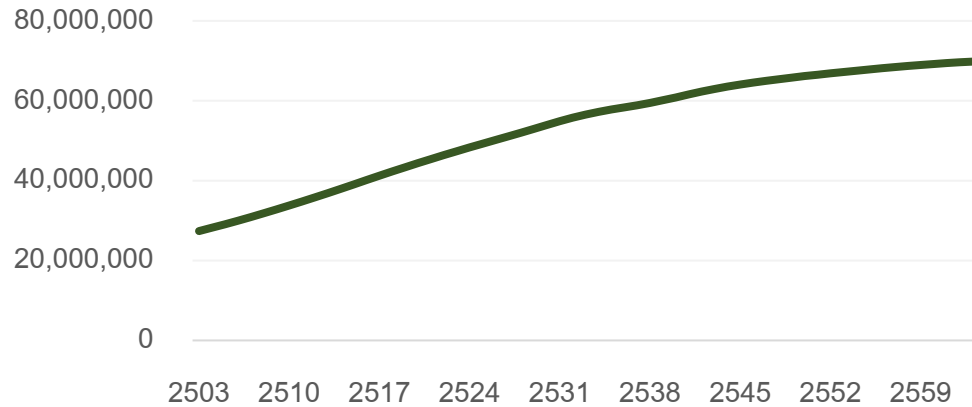
Fertility rates in Thailand



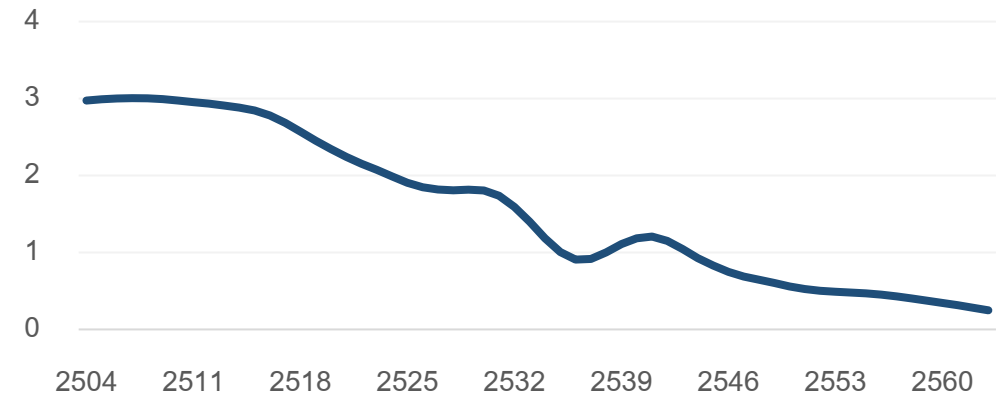
Life expectancy (years) in Thailand



Population in Thailand



Population growth rate in Thailand



Report on the situation of the elderly in Thailand B.E. 2563



- In 2020, Thailand has a population of 66.5 million, with the elderly being 12 million, accounting for 18 percent of the total population.
 - Thailand is becoming a society “completely aged” (aged society - >20%) by 2022
- In 2020, ASEAN countries have a total population of 664 million, of which 73 million are aged 60 and over, or 11%

Report on the situation of the **elderly in Thailand** B.E. 2563



- ❏ Six ASEAN member countries have become aging society (>10%), comprising Singapore 20.9%, Thailand 18.1%, Vietnam 12.3%, Malaysia 11%, Indonesia 10.1%, and Myanmar 10% elderly.
- ❏ While Laos and Cambodia Less than 7% of the population aged 60 years and over

United Nations estimates

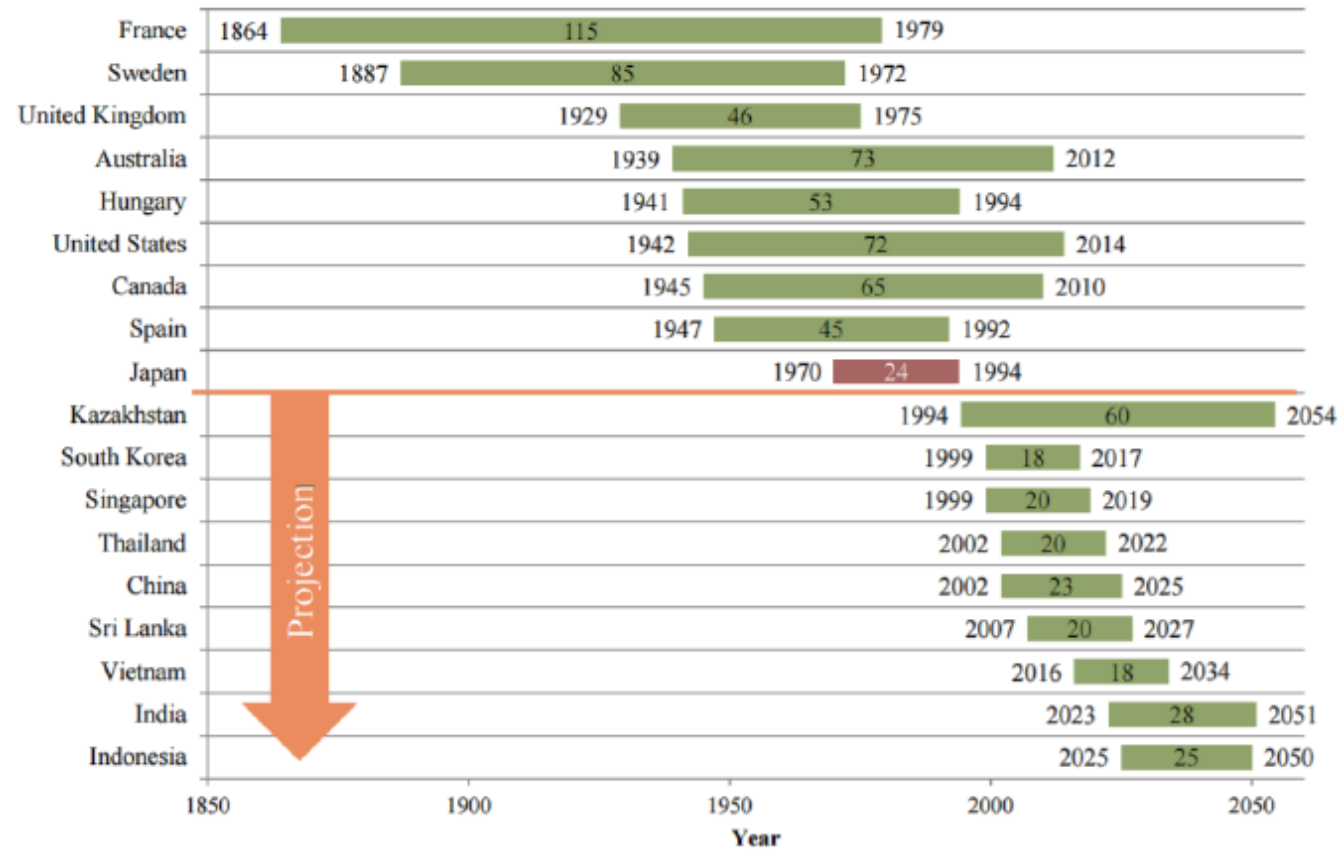
 By 2040, the United Nations estimates that the population of ASEAN will be 764 million people.

- ASEAN will have a population of 143 million people aged 60 years and over, or 18.7%.
- There are 19.6 million elderly people over 80 years old or 2.6 percent.
- All ASEAN countries will become "Aged Society"
- In the next 20 years there will be countries in ASEAN that are
 - "Aged society": Singapore, Thailand, Brunei and Vietnam
 - Singapore and Thailand will be a "super aged society" (>20%) or a society with more than 20% of the population aged 65 and over.

All countries in this society are already high-income countries, while Thailand is still stuck in the middle income trap


Aging Society and the Challenges of the Thai Labor Market (2017)

Transition Period from aging society to aged society




Note : The year to the left of the bar designates the year in which the percentage of the population aged 65 and above (aging rate) reached 7%; the number to the right of the bar designates the year when the aging rate attained 14%. The number on the bar designates the years required for that increase.
Source : Hungary by Kinsella and Wan He (2009); Kazakhstan, Vietnam, India, and Indonesia calculated using UN (2015) and others by IPSS (2016)

Aging society and the challenges of the Thai labor market (2017)

 Based on foreign experience, an aging society affects the economic growth rate.

 Demand side

- Decrease in household consumption because the population growth rate has decreased.
 - Spending by elderly people (health expenses) increased.
- Demand for goods and services changes according to the aging society, which affects the structure of the country's manufacturing sector.

 On the supply side, the proportion of labor to population has decreased.

- Declining labor productivity:
 - Maestas et al. (2016) stated that countries with an elderly population of 10% resulted in a 5.5% slowdown in GDP per capita.
- In an aging society, the average labor income decreases

Aging society and the challenges of the Thai labor market (2017)

The case of Thailand

- The labor market of the elderly - low-skill work, a low income, need skill development

The role of the elderly in the household: Caring for young children or household members

Women leave the labor market:

- They reduce their working hours or work outside the system to take care of the elderly at home. They need flexibility to work.

Fiscal sustainability:

- The government may have to bear the burden of welfare expenses for the elderly, especially healthcare expenses.

- The proportion of working-age people to the elderly will gradually decline from 5.4 working-age people to 1 elderly person in 2020 to a ratio of 2.4:1 by 2040.



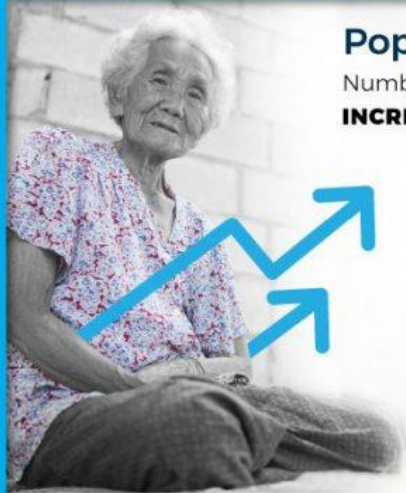
Problems in the labor market



World Bank Aging and the Labor Market in Thailand report (2021)

- The aging population situation affects the labor market, as most of the elderly population are low-income earners and will have to rely on state aid.
- Changes in population structure impact economic growth.
 - This led to approximately 14.4 million labor cuts by 2060
 - The GDP growth rate decrease by about 0.86%
- The proportion of the working-age population will decline from 71% in 2020 to 56% in 2060, equivalent to a nearly 30% decline in the working-age population.
 - This is the third largest decline in East Asia and the Asia-Pacific region after Japan and the Republic of Korea.

THESE CHALLENGES ARE COMPLICATED BY AN AGING POPULATION



Population aging in Thailand is occurring quickly

Number of years for the population 65 and over to

INCREASE FROM 7% TO 14% OF THE POPULATION



The demographic changes could have a negative effect on economic growth



DECREASE GDP GROWTH BY
0.86%

LEAD TO A REDUCTION OF
14.4 MILLION PEOPLE
in the labor force by 2060



Population aging is occurring while Thailand is at a relatively low income level

AT THE SAME ELDERLY DEPENDENCY RATIO

The EAP region's older countries had a GDP per capita more than twice the level of Thailand's current GDP per capita when their elderly dependency ratio* was at the same level as Thailand's today.



* The elderly dependency ratio is a demographic measure of the ratio of the number of people 65 and over to the number of people of working age.

Source -

<https://www.sdgmovement.com/2021/08/15/sdg-recommends-aging-and-the-labor-market-in-thailand/>

OLDER PEOPLE FACE CHALLENGES IN THE LABOR MARKET

Care responsibilities

NEARLY 30% OF GRANDPARENTS

report caring for grandchildren under the age of 10 with older women playing a more significant role



Health challenges



1/3

of people 60 and over have functional limitations, and these increase with age

Having a physical or intellectual disability reduces older people's likelihood of participating in the labor market by

>25%

Lower education levels



>80% OF OLDER PEOPLE IN 2019

had only some primary school education or less



IN 2019 NEARLY 30%

of 25 to 34 year old people had a university education

COMPARED WITH 2% of workers 65 and over



State financial welfare for Thai elderly



Pension for the elderly



Source: <https://thaitgri.org/?p=39911>

- 🏠 In 2020, 9.7 million elderly people are receiving a pension for the elderly, amounting to 76,280 million baht.
- 🏠 While the pension allowance for government officials was 803,293 people, the total budget was 267,012 million baht.
- 🏠 The Social Security Office has provided welfare benefits to the Social Security Fund.
 - In the case of old age, in Section 33 and Section 39, workers under the social security system can receive benefits from age 55 years and more.

Pension for the elderly



Source: <https://thaitgri.org/?p=39911>

- 🏠 **National Savings Fund:** In December 2020, there are 2,396,543 accumulated members, of which 81,243 are aged 60 years and more.
- 🏠 The National Savings Fund was established under the National Savings Fund Act B.E. 2011
- 🏠 Objectives were to create income collateral through saving for retirement for working-age people, which has no guarantees for income after retirement age.
 - A member will pay the accumulated money into the fund on a monthly basis with the government to jointly fund the accumulated money.
 - Once the member reaches the age of 60 years, they will receive a continuous monthly pension for life.

Pension for the elderly



Source: <https://thaitgri.org/?p=39911>

- Ministry of Social Development and Human Security
- Measures to pay support to assist vulnerable groups - children aged from birth to 6 years from poor households.
- Elderly and groups with disabilities affected by the COVID-19 epidemic received 1,000 baht per person for a period of 3 months from May–July 2020.

Pension for the elderly



Source: <https://thaitgri.org/?p=39911>

- Payment for 3,983,685 vulnerable people using budget from the Royal Decree, which borrowed 1 trillion baht.
- Elderly Fund –
Department of Elderly Affairs gave a debt moratorium to the elderly debtors of the fund. A moratorium on debts for one year, totaling 41,665 debtors from the Elderly Fund.

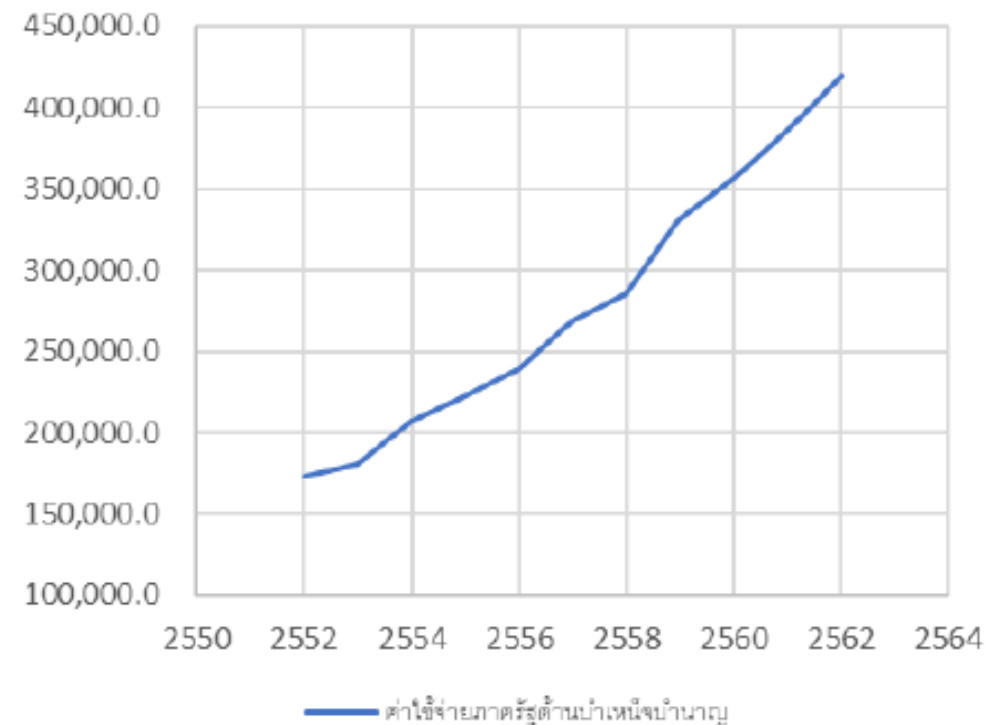
Problems in the Thai pension system

Sufficiency of the funds

- Coverage: 2020 data, 38.82% of the working age population
- Sustainability of the system: In 2018, the government had pension expenses of 385,900 million baht.
 - 62.5% government pension allowance
 - 17.2% Subsistence allowance

Government expenditures have continued to rise.

Government expenditure (pensions) over a period of 10 years



Source:

Reforming the Thai pension system for the aging society in the future
Worawet Suwanrada (2021)

The Impact of a Universal Allowance for Older Persons on Labor Force Participation: The Case of Thailand



Sasiwimon Warunsiri Paweenawat
Jessica Vechbanyongratana

Population Review, Vol. 54, No. 1, Pages: 53–68 (May 2015).

Impact of the pension for the elderly on the Thai labor market




-  This research studied the impact of the government's implementation of the retirement pension policy on the labor market.
-  Analyzed household socio-economic survey data.
 - elderly workers aged 61–75 years.
-  The results of the study revealed that the pension policy had little impact on the Thai elderly population
 - amount provided is a small compared to household income per capita.
 - policy applies to low-income seniors living outside Bangkok.

Table 1. Magnitude of the Monthly Allowance for Older Persons

Year	Benefit Level	Overall		Bottom 40% Per Capita Household Income	
		Mean Per Capita HH Income (baht)	Benefit as % of Mean PC HH Income	Mean Per Capita HH Income (baht)	Benefit as % of Mean PC HH Income
2007	500	6,164	8.1%	2,083	24.0%
2009	500	6,889	7.3%	2,408	20.8%
2011	600-1,000*	7,645	8.4%	2,677	24.1%

*Calculations use 2012 average payment of 645 baht (Suwanrada, 2012).

Source – Paweenawat and Vechbanyongratana (2021)

Impact of the pension for the elderly on the Thai labor market



- ✦ The results of this study reflect the importance of elderly pension for low-income seniors.
 - Therefore, the government sector needs to consider this in addition to increasing the amount of money
- ✦ Basic information including economic background also needs to be considered to ensure the elderly pension
 - Policy is an important tool to enhance the welfare of the elderly in Thailand



Work of the elderly

- 55.5% of the elderly aged 60–64 years are still active.
 - 41.4% of the elderly aged 65–69 years are still working.
- In total, 4.7 million elderly people hold state welfare cards.

Impact of COVID-19 on the elderly



Source: <https://thaitgri.org/?p=39818>

- 🏠 **COVID-19** has most affected elderly people with a low income.
 - The decreasing number of jobs has reduced the income of 63% of this age group
 - Rendering their allowance their main source of income.

Most health concerns regarding the epidemic are centered on the elderly.

- 🏠 In the first wave, 543 elderly people were infected with COVID-19, accounting for 7.9% of the total cumulative number of confirmed cases in 2020.

Impact of COVID-19 on the elderly



Source: <https://thaitgri.org/?p=39818>

- 29 elderly people died, 5.3% of the total number of elderly people infected with COVID-19.
- In the first wave, not many elderly people in Thailand were infected.
 - Despite that, most cannot avoid the impact of the pandemic overall.

Impact of COVID-19 on the elderly



Source: <https://thaitgri.org/?p=39818>

- 🏠 The College of Population Studies - Chulalongkorn University
 - The impact of the COVID-19 pandemic on Thailand's elderly population.
- 🏠 In July 2020, before the COVID-19 crisis, 47.2% of the elderly still worked to earn a living.
 - However, after the spread of COVID-19, 81% of the elderly who work face obstacles in their jobs.
- 🏠 The elderly in urban areas experienced more work-related problems than those living in rural areas.



International lessons on the impact of COVID-19 on the elderly



The United States: Older Americans are 1,000 times more likely to die than children.

- 95% of deaths from COVID-19 were among those aged 50 years and more
- 8 out of 10 deaths were among those aged 65 years and more.



International lessons on the impact of COVID-19 on the elderly

- 🏠 Italy: 29.8% of the population are aged 60 years and more, and 7.5% are aged in their late 80s.
 - The pandemic death rate among the elderly was high because of close relationships with their children, which resulted in frequent gatherings and travel between cities.
- 🏠 Japan: Japan has the highest elderly population rate worldwide.
 - However, the number of deaths among the elderly in the country was significantly lower than in Western countries.

Policy lessons for **preparing** to enter the aging society



Retirement age extension policy




- The retirement age in Singapore will increase from 65 to 67 years, from 55 to 60 years in South Korea, and from 62 to 65 years in Japan by 2025.





Policy to encourage companies to hire seniors and provide them with jobs

- Singapore provides funding to companies that hire seniors to help them keep working and improve their environment.
- Japan also provides financial support to companies employing elderly people.

Policy lessons for **preparing** to enter the aging society

-  Skill enhancement policy (up-skilling) and enhancing of new skills (re-skilling):
 - Singapore has established a Center for further skill development.
-  Japan created cooperation between organizations to encourage learning new skills and help to find suitable jobs.
-  Policies to encourage women to work more and incentivize workers include
 - extensive margin (employment in the labor market)
 - intensive margin (increased working hours).

Support for the work of the elderly from the **Ministry of Labor**

-  The Ministry of Labor promotes the employment of the elderly - Key projects
 - Hourly wage rates (part-time) for seniors, access to funding sources, hiring older people to work, registration service for elderly people
 - Job search services are provided by the Elderly Employment Service Center and the preparation of memoranda between the government and private sector.
-  Operations have been implemented to develop skills to increase the career opportunities of elderly through major projects.
 - Training in various occupational skills in-person and online:
 - Elderly workers are trained to improve their career opportunities and promote product marketing.

Labor Supply of Older Workers in Thailand: The Role of Co-residence, Health and Pension

Sasiwimon Warunsiri Paweenawat (Sasi)

Lusi Liao



- The composition of Thai population has changed dramatically during the last few decades
- Reduction of fertility and aging of the population
 - Average number of children per woman - 6.3 (1964) vs 1.6 (2014)
 - Fertility rate - 1.45 in 2020 (ranks 183 out of 199 countries)
 - Life expectancy - 59 years old (1964) vs 75 years old (2015)
 - The proportion of elderly (over 60 years old)
5.5% (1980) -> 12.9% (2010) -> Estimated to be 32% in 2040

- The aging of population - Higher probability that older people stay in the labor force and contribute more in the labor market
- Challenges for Thai aging society
 - The elderly is the poorest group of Thai society
 - 42% of aging population reports insufficient income
 - Major source of income for Thai elderly comes from their children's support and working
- Understanding the labor supply of older people has become more important for policy makers and future development

- To study the determinants of labor supply of older people using two main data sets

(1) Labor Force Survey (cross-sectional data)

→ To provide overview of the basic changes related to labor force participation rate (LFPR) of older workers in Thailand over 30 years

(2) Using Socio-Economic Survey (panel data)

→ To estimate the determinants of labor force participation rate (LFPR) by controlling factors that may associate with older people's preference for work

- Pension, Health status, Co-residence, and Income sources

- Population aging and decrease of fertility highlight the significance of understanding the determinants of labor supply of older people
- Developed countries – Several explanations of older people's labor supply
 - Financial status, health status, wage, social security income and pension, and related tax rate (Gruber and Wise 1999; Kostol and Mogstad 2014; Blau and Gilleskie 2006)
 - Strong evidence of the effect of social security, medical care and health factors on labor market behavior of older people (Krueger and Pischke 1992; Blau and Gilleskie 2001; Bound and Waidmann 2010)

- Developing countries – The explanations of older people's labor supply are quite difference due to different pension system and cultural norm
 - One main factor of staying in labor market for older people is poverty
 - Lack of accessibility to markets, public services (including healthcare, education) and social networks (Barrientos et al. 2003)
 - Due to lack of pension support and absence of mandatory retirement age, workers in informal sector expect to work until their late lives (Giles et al. 2011)
 - Co-residence reduce labor force participation of older workers (Connelly et al. 2014)
 - Caregiving in multigenerational family – Grandparenting & Household chores

- Thailand – Many studies addressed the concern of aging population, but there is lack of empirical analysis of labor supply and limited by cross-sectional design
 - Descriptive analysis & Interview studies
 - The recent rise in older people's labor force participation due to the improvement of their health condition (Fujiaka and Thangphet 2009)
 - Female elderly, those living with children, having poor health are more likely to withdrawal from the labor force (Adhikari et al. 2011)

The closest study is Keeratipongpaiboon (2012)

- The determinants of older people' employment decision with standard probit model considering the household types, health, and pension in Thailand
- The limitation from the cross-section data, their results suffer from estimation bias

Main contributions

- Providing overall picture of labor force participation of older people for over 30 years
- Using the panel data for correction for endogeneity causing the biased estimates
- Considering co-residence, health status, pension, and income sources

- Two datasets, both conducted by National Statistical Office (NSO), Thailand

(1) Labor Force Survey (LFS - 1985 to 2017) (55-75 years old)

→ Cross-sectional data set - Large number of observation and long-time span

(2) Socio-Economic Survey (SES - 2005, 2006, 2007, 2010, and 2012 waves)

→ Panel data set - Containing more information affecting the decision of labor supply of older people

→ Individual's health status, household type, pension, sources of their income (job compensation, money assistance from other people or from government)

Summary statistics of SES data

	Observation	Mean	Std.	Min	Max
Labor force participation	10,406	0.577	0.494	0	1
Pension	10,406	0.035	0.183	0	1
Health	10,406	2.744	0.777	1	5
Co-residence	10,406	0.605	0.489	0	1
Age	10,406	63.538	6.075	55	75
Gender	10,406	0.448	0.497	0	1
Married	10,406	0.725	0.447	0	1
Urban	10,406	0.355	0.479	0	1
Education levels:					
Primary level	10,406	0.781	0.413	0	1
Secondary level	10,406	0.091	0.287	0	1
University level	10,406	0.128	0.334	0	1

Summary statistics of SES data

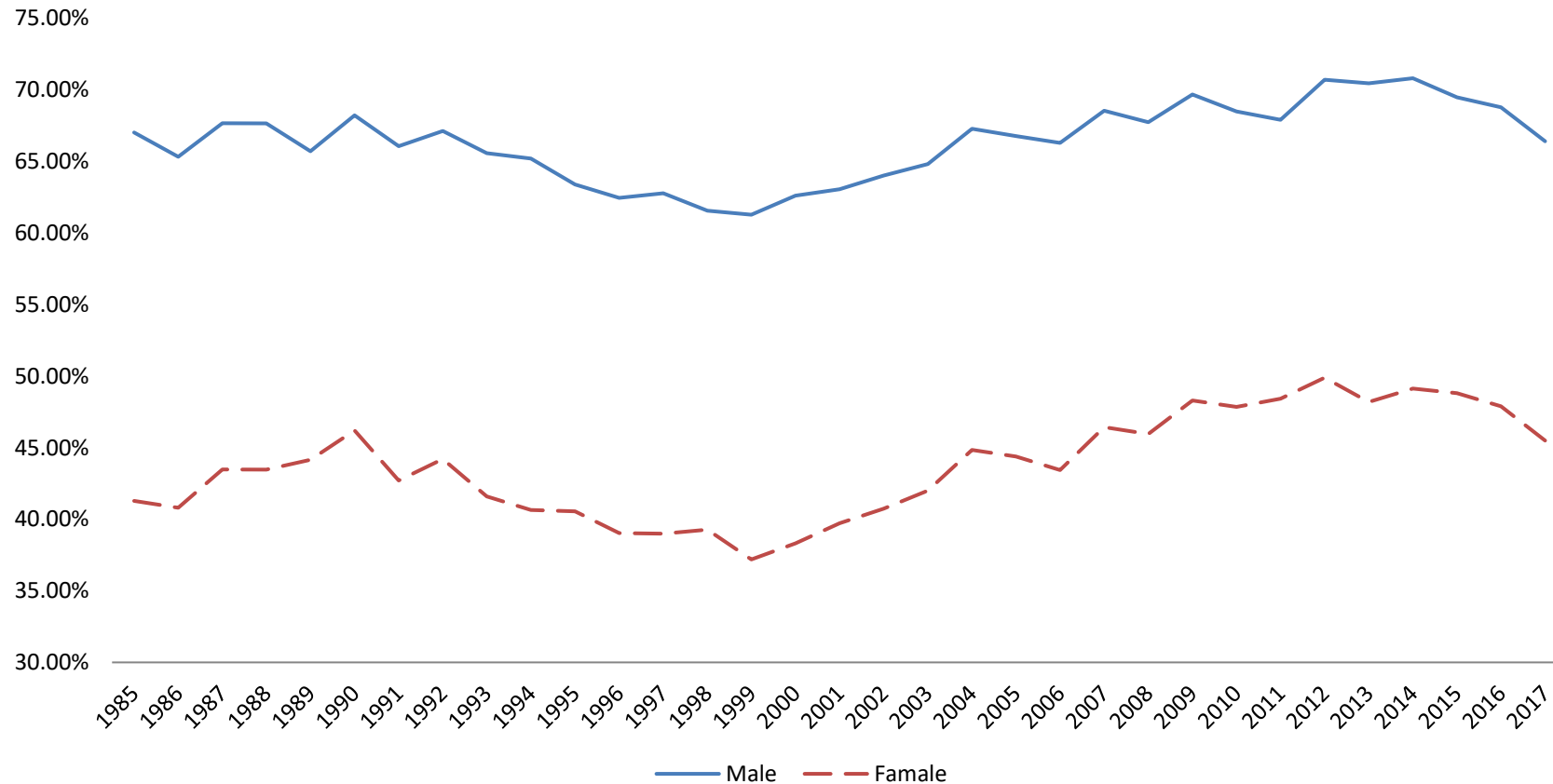
	Observation	Mean	Std.	Min	Max
Income source:					
Job compensation	10,406	0.002	0.050	0	1
Assistance from other people	10,406	0.348	0.476	0	1
Assistance from government	10,406	0.288	0.453	0	1
Income from house/land/asset lending	10,406	0.041	0.198	0	1
Income from interest/dividend/share/bond	10,406	0.090	0.287	0	1
Spouse information:					
Spouse pension	6,317	0.040	0.195	0	1
Spouse work	6,317	0.591	0.492	0	1

Overview of older workers in Thailand

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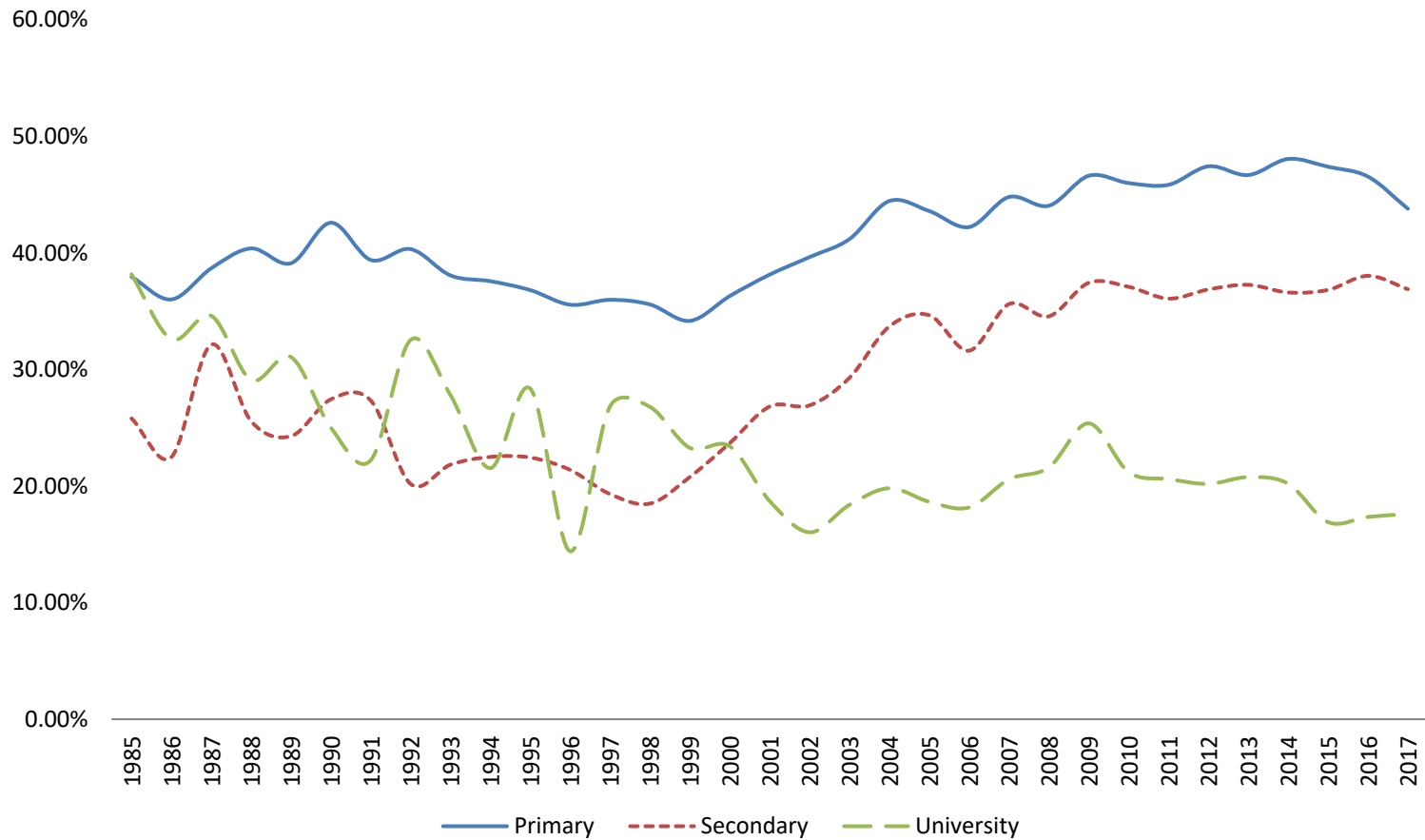
(LFS: 1985-2017)

LFPR of older people (by gender)



- Male has a much higher participation rate than female in older ages (over 20% each year)

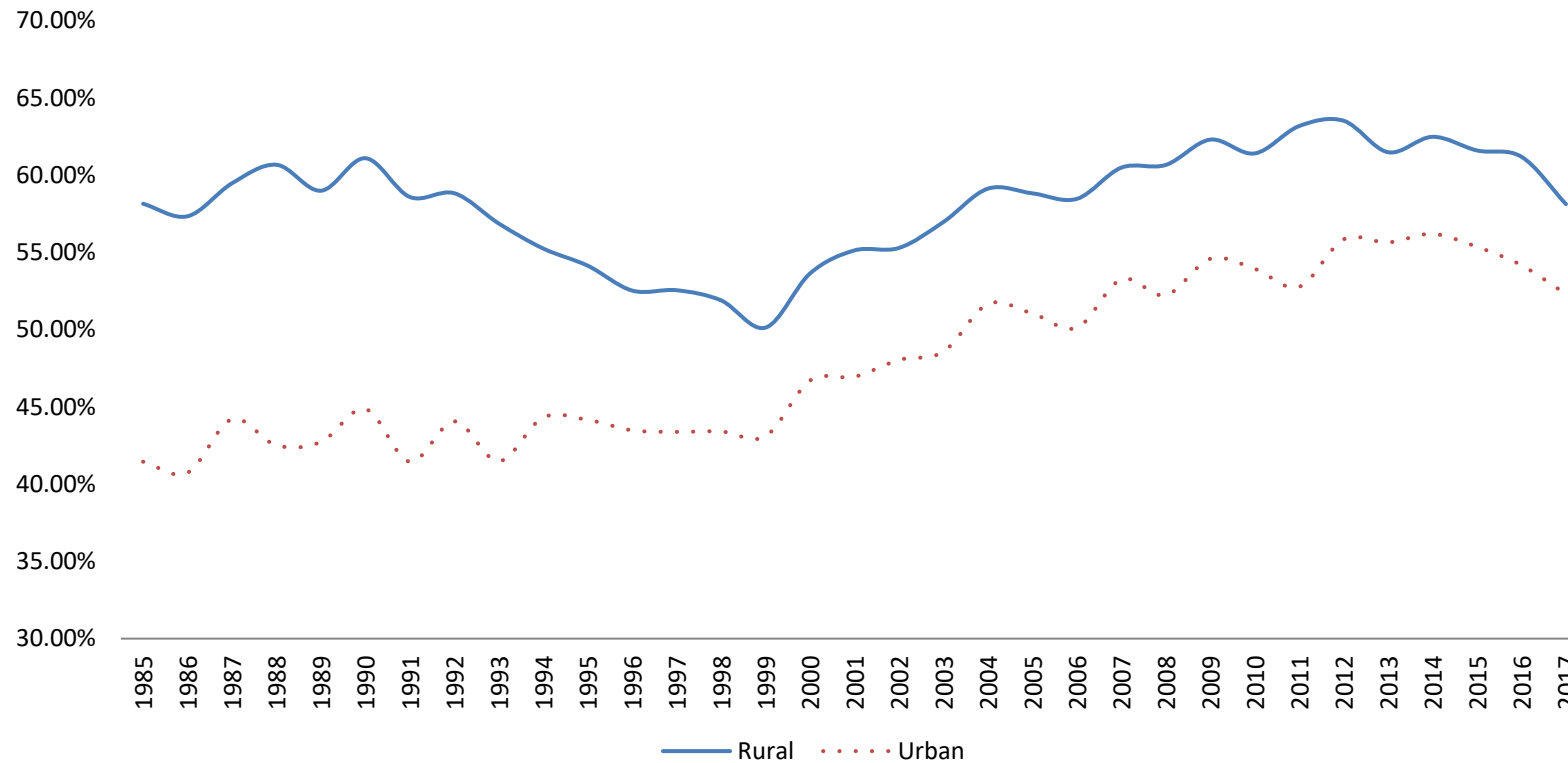
LFPR of older people (by education levels)



Three education levels:

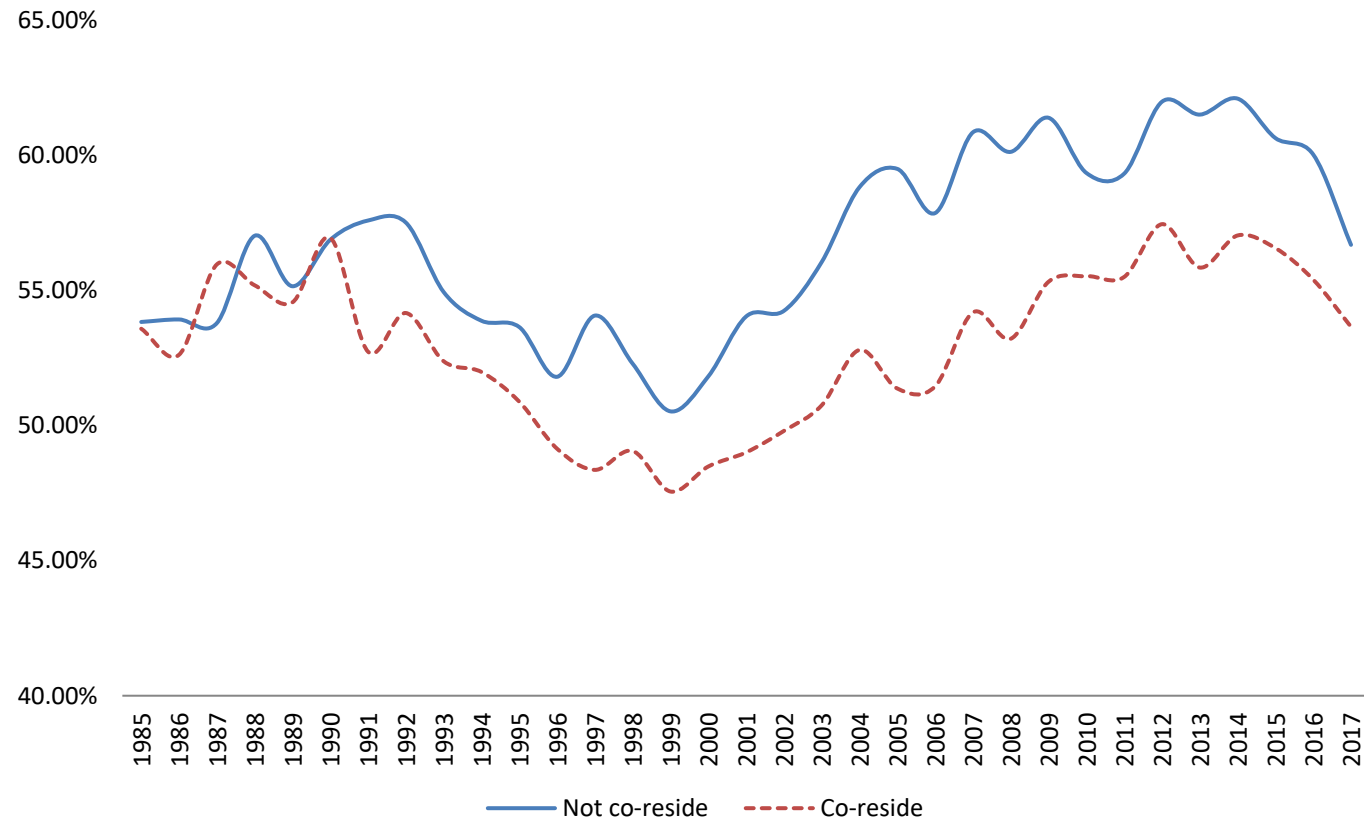
- Primary level has the highest LFPR
- After 2000, there is a clear gap of LFP between each education levels
- The lower educated workers tend to work longer in their life to support their living

LFPR of older people (by residence area)



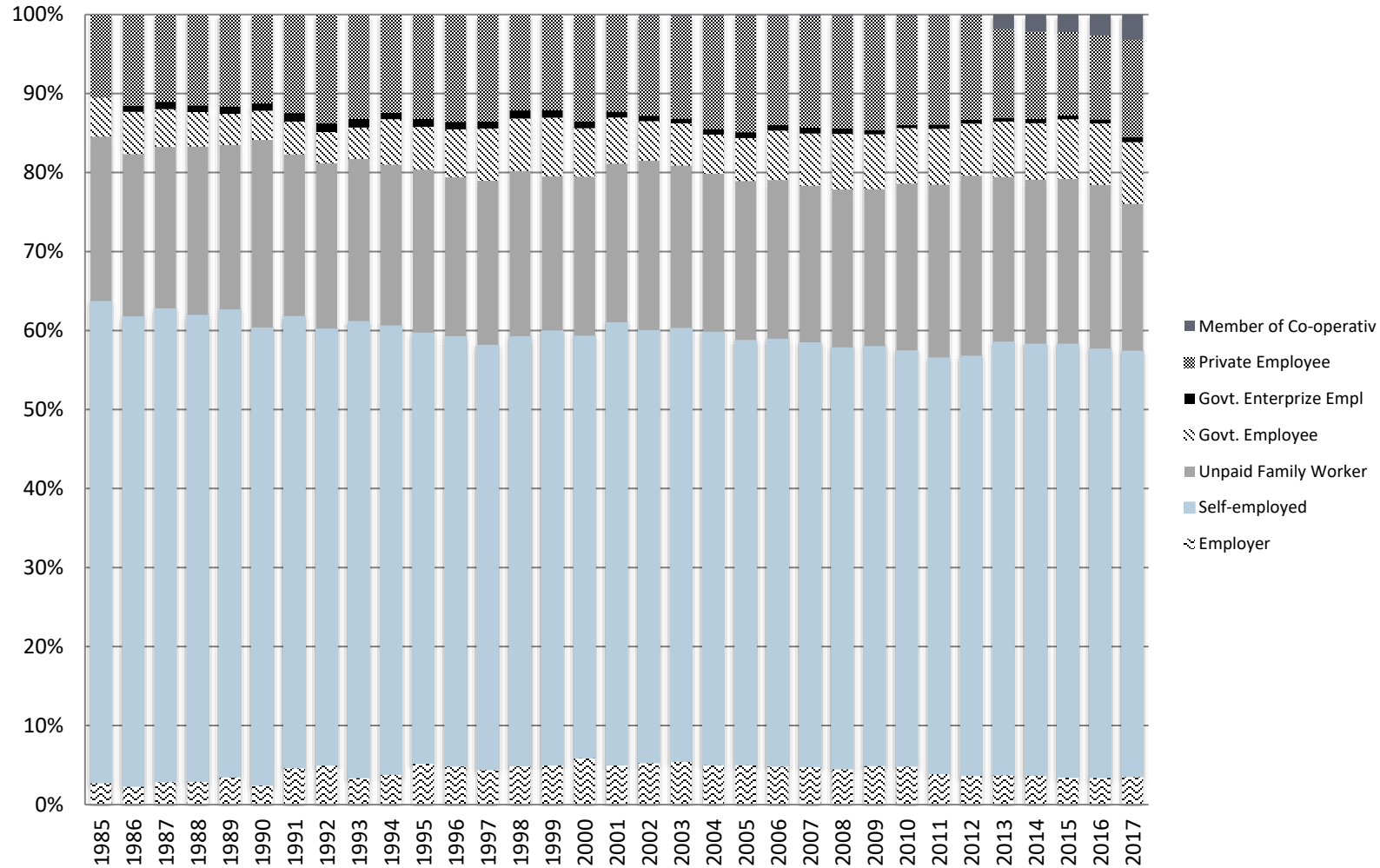
- Rural residents have a higher LFPR than urban → less social security in rural area force workers to stay longer in the labor market

LFPR of older people (by household type)




- Household type shows a relatively smaller difference of LFPR → Not co-residents have a higher LFPR than co-residents

The change of work status of older workers



- Over 50% of older worker is in self-employed status over the time
- The second largest portion is in unpaid family worker, approximately 20%
- Private employee takes the third place, with over 10% on average



Determinants of labor force participation

(SES: 2005-2012)

- **Methodology** – Standard logit model

$$\text{LFP}_{it} = \beta_0 + \beta_1 \text{Pension}_{it} + \beta_2 \text{Health}_{it} + \beta_3 \text{Co-residence}_{it} + \beta_4 \text{Agegroup}_{it} \\ + \beta_5 \text{Edu}_{it} + \beta_6 \text{Gender}_{it} + \beta_7 \text{Marital}_{it} + \beta_8 \text{Area}_{it} + \beta_9 \text{Income_source}_{it} + \varepsilon_{it}$$

1

where LFP_{it} is an indicator that equals 1 if individual i participate in labor force at period t and 0 otherwise

Determinants of labor force participation

- To correct for the unobserved heterogeneity – Fixed effect logit model (FE-logit)
- The probability that older people choose to get work is as follows

$$\Pr (LFP_{it} = 1 | x_{it}, \gamma, \alpha_i) = \Lambda(\alpha_i + x_{it}\gamma)$$

2

where x_{it} is a set of covariates, which is same as equation (1)

α_i is the individual specific effects, the unobserved heterogeneity in individual preferences for labor force participation, which is allowed to be correlated with the regressors x_{it} . $\Lambda(\theta) = \exp(\theta) / [1 + \exp(\theta)]$.

Determinants of labor force participation (Overall)

	Overall (Without spouse control)		With spouse control
	Logit	FE logit	FE logit
Pension	-0.410*** (0.027)	-0.364*** (0.099)	-0.170** (0.070)
Health status (Base group: very good)			
Good	-0.0775*** (0.020)	-0.129*** (0.039)	-0.0673** (0.029)
Fair	-0.124*** (0.020)	-0.160*** (0.037)	-0.0815*** (0.028)
Poor	-0.262*** (0.022)	-0.238*** (0.044)	-0.135*** (0.031)
Very poor	-0.358*** (0.052)	-0.267*** (0.069)	-0.124*** (0.044)
Co-residence with adult children	-0.124*** (0.009)	-0.0303 (0.027)	-0.0249 (0.020)

- Pension and worse health status play negative roles in the labor force participation
- Older people are 36.4% less likely to participate in the labor force if they receive pension
- Those with very poor health are 26.7% less likely to participate in the labor force than with very good health

Determinants of labor force participation by gender

	Men	Women
Pension	-0.215** (0.100)	-0.353** (0.143)
Health status (Base group: very good)		
Good	-0.0449 (0.037)	-0.156*** (0.050)
Fair	-0.0740** (0.037)	-0.177*** (0.048)
Poor	-0.125*** (0.044)	-0.244*** (0.046)
Very poor	-0.157*** (0.058)	-0.231*** (0.086)
Co-residence with adult children	-0.0106 (0.027)	-0.0425 (0.030)

- Men with pension are 21.5% less likely to participate in labor force than those who without; while women with pension are 35.3% less likely
- Tradition norm – Role of women is expected to take care of household chores and childcare

Determinants of labor force participation by area

	Rural	Urban
Pension	-0.257**	-0.368**
	(0.122)	(0.188)
Health status (Base group: very good)		
Good	-0.126**	-0.125**
	(0.049)	(0.054)
Fair	-0.166***	-0.149***
	(0.046)	(0.054)
Poor	-0.271***	-0.158***
	(0.049)	(0.057)
Very poor	-0.261***	-0.201**
	(0.081)	(0.091)
Co-residence with adult children	-0.0582*	-0.0211
	(0.033)	(0.037)

- Health status shows a greater impact on older people in rural area than urban area
- The significant negative impact of co-residence is shown in the rural, but not in urban area

Determinants of labor force participation of older workers over age 60 and lower education

	Over 60	Over 60 & Primary level
Pension	-0.223*	0.11
	(0.121)	(0.185)
Health status (Base group: very good)		
Good	-0.135***	-0.104*
	(0.051)	(0.056)
Fair	-0.157***	-0.153***
	(0.054)	(0.058)
Poor	-0.214***	-0.202***
	(0.069)	(0.069)
Very poor	-0.289***	-0.254**
	(0.111)	(0.105)
Co-residence with adult children	-0.0683*	-0.0702*
	(0.036)	(0.040)

- The impact of pension is negatively significant for over 60 but not for primary level

- This paper focused on labor supply of older people in Thailand and impact of pension, health and co-residence on labor force participation using LFS and SES data
- Older people with pension and worse health status are less likely to work
- Women's labor force participation (LFP) is affected by pension and health status more than men's LFP
- The pension has less impact on those living in rural area than urban area; while it is not significant for those with lower education

- Those older people's LFP is negatively affected by co-residence, which suggests that lack of public support and other social assistances, they tend to depend more on their children
- Older people in lower economic status, especially those in the informal sector, may suffer from inadequate support from government
- Providing subsidies for older worker in the informal sector and studying programs to improve their skills for sustainable development are suggested

Exercise

- 1) The current situation and problems in Thailand include a decrease in the population of reproductive age and increase in the elderly population. What factors in the past caused Thailand to face this population problem today? If this situation continues, Thailand will face population problems in the future. Discuss this statement and give an example.
- 2) The aging society poses a challenge to Thailand's labor market (2017) based on basic economics theories, supply and demand, goods and services, and the labor market. Analyze the impact on the economy and the country's economic growth rate when the elderly forms the largest group in the market. Also provide related studies as part of your response and discuss them.
- 3) What type of financial welfare does the Thai government provide to the elderly in the country? Regarding this welfare, is the amount of funding, coverage, and sustainability of the system adequate? Discuss this issue. Furthermore, if you were a government policymaker, what policies would you propose to improve the welfare of the elderly?

Exercise

4) A study on Labor Supply of Older Workers in Thailand: The Role of Co-residence, Health and Pension by Paweenawat and Liao (2021) presented the labor supply of the elderly in Thailand. What factors determine this labor supply? Are these results consistent with those of other local and international studies? Based on their findings, how can the level of participation in the labor market be increased? What policy should the government enact and why? Please discuss these issues.

5) The study of Alternative boomerang kids, intergenerational co-residence, and maternal labor supply by Paweenawat and Liao (2020) proposed the concept of the “Boomerang Kids” in Thailand, which differs from the situation in western countries. Explain the difference. What factors cause this difference? Coexistence with parents positively influences Thai women’s participation in the labor market. Explain why and give examples of studies alongside your explanation.