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by

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# Assessing Expected Retirement Age and Working Hours of Pre-Retirees in Thailand

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## Abstract

In Thailand, the Mandatory Retirement Age (MRA) is governed by law; however, private corporations may implement their own specific retirement thresholds. The public sector enforces an MRA of 60, but private companies may set at 55, aligning with the Social Security Retirement Age. Understanding how these varying institutional constraints shape individual labor supply decisions is critical for effective policy planning in an aged society like Thailand. Therefore, this study investigates the factors influencing the Expected Retirement Age (ERA) and Expected Working Hours (EWH) among Thailand's pre-retirement formal-sector workforce aged 50–60. Using survey data from 1,573 employees across four regions, the analysis employs interval regression for the ERA model and Ordered Probit and Tobit models for the EWH model. The findings reveal that enforcement of an MRA is a primary determinant of retirement timing: employees subject to an MRA expect to retire significantly earlier and reduce their working hours more sharply as they approach the retirement threshold. Rather than an abrupt exit, the data show a clear pattern of expecting a gradual reduction in work intensity as workers age. Employees in elementary occupations expect to retire later and work longer hours, while those with access to stable pension benefits expect earlier retirement and fewer working hours. The study recommends reforming mandatory retirement regulations to permit voluntary employment extensions and promoting phased retirement schemes that allow a gradual reduction in working hours.

**Keywords** expected retirement age • expected working hours • mandatory retirement age • older workers • phased retirement • labor supply • aging workforce

**JEL Classification** J14 • J22 • J26 • J38

## 1 Introduction

As life expectancy increases and older adults remain healthier for longer, extending working lives has become an important policy response to population aging. In Thailand, concerns over the long-term sustainability of public pension funds have repeatedly prompted policy discussions on raising the statutory retirement age. However, despite these recurring debates, no reform has yet been implemented. This inaction is notable given Thailand's position as one of the most rapidly aging nations in ASEAN. While Singapore has progressively raised its retirement age to 63, with a further increase to 64 planned for 2026, the Philippines maintains a retirement age of 65, and Vietnam has been gradually increasing its retirement age since 2021, Thailand's statutory retirement age remains static at 60 (ASEAN Secretariat, 2023). This leaves Thailand lagging behind its regional peers, possessing the demographic profile of an aged society but retaining inflexible retirement regulations.

In Thailand, the Mandatory Retirement Age (MRA) refers to the statutory retirement age of 60 for the public sector, while private corporations can set their own retirement thresholds such as 55, aligning with the Social Security Retirement Age (the age at which individuals become eligible for full retirement benefits). These policies create a structural barrier, as older workers may be forced out of employment at the age of 55 or 60 despite their willingness to continue working. Previous research indicates that under this system, older workers face compounding challenges, including forced retirement, hiring bias, and a lack of flexible work arrangements (Aroonjit, 2020).

Without alternative late-career employment options within the formal sector, individuals are forced into a binary choice between full-time formal work and complete retirement. Consequently, some may shift from the formal sector to the informal sector without social security benefits. This transition from formal to informal work is evident in Thailand's social security data: the number of workers covered by the Social Security Scheme (SSS) drops by 58% between the ages of 50–59 and 60, with nearly one million individuals leaving the formal workforce (National Statistical Office, 2024). Similar evidence is seen in Malaysia, where 39% of respondents in the Malaysia Ageing and Retirement Survey (MARS) reported being forced into retirement (Social Wellbeing Research Centre, 2023).

Previous evidence shows that mandatory retirement policies shape both actual retirement behavior and retirement expectations, with workers tending to anchor their plans on the mandatory age (Barker & Clark, 1980; Coppola & Wilke, 2010; Knoll, 2011; Vermeer et al., 2019). Yet, retirement decisions are not driven by institutional constraints alone—they may result from a complex interplay of financial considerations, health conditions, family circumstances, and workplace factors. Understanding how these factors jointly shape retirement expectations is essential, as rigid policies may force capable workers out of the labor market prematurely. However, existing evidence on retirement expectations in Thailand using nationwide data remains limited.

Rather than focusing solely on whether the mandatory retirement age should be adjusted, this study seeks to understand the expectations of workers approaching MRA. Do they expect to retire earlier or later than the MRA? And what working duration would they expect as they approach their late

career? Therefore, this study pursues two objectives: (1) to identify the factors influencing the expected retirement age among the pre-retirement formal-sector population aged 50–60, and (2) to estimate the determinants of expected working hours at ages 55, 60, and 65. The study focuses exclusively on employees in the formal sector because mandatory retirement policies apply only to this group. The 50–60 age range is targeted because retirement expectations become more concrete and consequential as individuals approach institutional retirement thresholds (Coppola & Wilke, 2010; Post et al., 2013). Furthermore, while the expected retirement age model indicates when individuals plan to retire, it does not fully capture the labor supply decisions of older workers. Examining expected working hours allows for a more nuanced understanding of how older workers plan to gradually reduce their work intensity as they age.

This study makes three contributions to the literature. First, it is one of the first studies in Thailand to examine expected retirement decisions among pre-retired employees using nationwide data. It considers both the timing of labor force exit and the expected intensity of work at different age thresholds, providing a more comprehensive picture of older workers' labor supply expectations. To complement the quantitative findings, employer focus group discussions are incorporated as supplementary evidence to provide demand-side context and validate supply-side patterns. Second, this study contributes methodologically by employing interval regression designed to address focal-point heaping at institutional age thresholds for modeling expected retirement age. In addition, Ordered Probit and Tobit models are used to analyze expected working hours as a robustness check, ensuring reliable findings to inform policy recommendations that promote active labor participation and support a sustainable employment environment for older workers.

## **2 Literature review**

### **2.1 Factors affecting expected retirement age (ERA)**

The OECD (2006) categorizes the determinants of retirement into “push” and “pull” factors, with push factors contributing to earlier retirement decisions. These include declining health status, dissatisfaction with work, and experiences of age discrimination. Pull factors, which make retirement appealing, include financial security, increased leisure opportunities, and social engagements. Jaworski, Reed, and Vernon (2016) developed the 3D Model of Retirement Decision-Making, which evaluates whether individuals can afford to retire (financial considerations), need to retire (health-related factors), and want to retire (psychological factors). This model underscores the interplay between financial, health, and psychological aspects in shaping retirement decisions.

In this study, ERA is defined as the age at which an individual expects to retire under a hypothetical scenario without any institutional constraints, i.e. regulatory or company-imposed mandatory retirement ages. By factoring in the individual's health, finances, family, and social circumstances, this measure captures a realistic assessment rather than an unconstrained, ideal preference. To understand the drivers of these expectations, the following section reviews four primary

determinants of retirement timing: institutional constraints, health factors, workplace conditions, and personal circumstances.

Institutional constraints related to retirement regulations are often linked to age discrimination. This discrimination can include forced retirement, limited training opportunities, and employer bias, all of which restrict older workers' ability to remain employed (Snape & Redman, 2003; van der Horst, 2019). Several studies suggest that enforcing a statutory retirement age may lead to earlier-than-expected retirement. Barker and Clark (1980) examined the impact of such legislation on older workers, demonstrating that mandatory retirement provisions often led to involuntary labor force withdrawal. Neumark and Song (2012) found that stronger age discrimination protections at the state level were associated with higher employment and hiring rates for older workers. Similarly, Coppola and Wilke (2010) studied Germany's statutory retirement age reform, which raised the retirement age from 65 to 67. Their findings show that the reform shifted retirement expectations for younger cohorts by nearly two years, suggesting that adjusting or removing statutory retirement policies could help extend working lives.

In addition to these regulatory effects, the MRA influences retirement expectations through psychological and social mechanisms. Behavioral economics research shows that workers anchor their retirement plans on the mandatory age, perceiving continued employment beyond it as a loss rather than a gain (Knoll, 2011). The MRA also operates as a social norm, as workers follow the retirement behavior of their peers and family and treat the statutory age as "the right time" to retire (Vermeer et al., 2019).

Health factors are among the most important variables affecting retirement decisions. Both physical and mental health significantly influence retirement timing and expected work hours. Health can be measured objectively, such as through Activities of Daily Living (ADL), which assess basic physical functioning, or subjectively, through self-reported health assessments used in studies, such as the English Longitudinal Study of Aging (ELSA). Research consistently shows that poor health increases the likelihood of early retirement. Severe health conditions often lead to disability-related retirement, while less severe but chronic health issues may prompt individuals to retire earlier than planned (Christensen & Kallestrup-Lamb, 2012; Oude Hengel et al., 2021).

Regarding mental health, Olesen et al. (Olesen et al., 2012) used data from the Household Income and Labor Dynamics in Australia (HILDA) survey to assess mental health using the Mental Health Index (MHI-5). Their findings indicate that poor mental and physical health strongly predict workforce exit in mid-to-late adulthood, particularly early retirement. Similarly, previous studies reveal that poor health, physical inactivity, and limited job control contribute to early labor force exit across various European countries (Robroek et al., 2013; Scharn et al., 2018).

Workplace factors also play a crucial role. Prior research has examined key job-related characteristics such as job control, job stress, job security, and skill utilization (Olesen et al., 2012). Evidence suggests that low job control and high job stress reduce older workers' willingness to remain employed. Similarly, Robroek et al. (2013) identified physically demanding work, high time pressure, limited autonomy, and low rewards as significant predictors of early labor market

exit. Using the Job Content Questionnaire, their study emphasized the importance of job demands, job control, and workplace support in influencing retirement timing.

Improving workplace conditions has similarly been shown to encourage older workers to remain employed. Flexible work arrangements, including part-time options, phased retirement, and reduced working hours, allow older employees to balance job demands with health limitations (OECD, 2006). The study by Gustman et al. (2004) analyzed data from the Health and Retirement Study and found that allowing workers to reduce their hours instead of retiring completely would increase labor force participation among older individuals.

Personal characteristics and financial conditions, such as age, gender, education, financial status, and family obligations, also play an important role in shaping retirement decisions. Higher education levels are often associated with delayed retirement due to greater career satisfaction. Financial constraints, including debt levels and household income, also impact retirement timing. Additionally, measures of financial hardship, such as skipping meals or struggling to pay bills, indicate economic vulnerability and may drive individuals to postpone retirement (Coppola & Wilke, 2010; Nivalainen, 2024; Post et al., 2013; Reyes, 2023).

### **2.1.2 Factors affecting expected working hours**

According to standard labor supply theory, individuals allocate their time between work and leisure to maximize utility subject to time and budget constraints. Labor supply decisions are influenced by both the substitution effect, whereby higher wages increase the opportunity cost of leisure and encourage greater labor market participation, and the income effect, whereby higher income may increase the demand for leisure and reduce desired working hours. Consequently, expected working hours reflect not only economic incentives but also individual preferences and institutional constraints (Becker, 1965). Building on this framework, the empirical literature identifies three broad sets of factors influencing expected working hours: governmental and institutional policies, age and health conditions, and socioeconomic and individual characteristics.

Governmental and institutional policies play an important role in structuring working-hour outcomes. Stier and Lewin-Epstein (2003) find that preferred working hours are influenced not only by individual-level characteristics but also by national conditions such as inequality, inflation, and public assistance systems. They recommend expanding flexible work arrangements and strengthening economic security so that workers can achieve hours that better match their needs. Similarly, Causa (2010) shows that tax burdens, employment protection legislation, and strict working-time regulations significantly affect working-hour patterns. Evidence from China further illustrates the institutional dimension: mandatory retirement ages for urban women reduce their working hours in the formal sector, leading to policy recommendations such as extending the retirement age for women, improving pension adequacy, and narrowing gaps between urban and rural pension systems (Henry et al., 2018).

Age and health conditions consistently emerge as key determinants of working-hour expectations. In both China and Thailand, older individuals tend to work fewer hours, reflecting declining work

capacity and retirement norms. Health status further differentiates labor supply, with healthier individuals working longer hours and those in poorer health reducing their participation. Rural residence is also associated with longer working hours in China, particularly among individuals who remain in good health, suggesting that physical capacity and limited pension coverage jointly shape continued labor engagement (Henry et al., 2018; Tangtipongkul, 2026).

Socioeconomic and individual characteristics also exert a strong influence on working hours. Stier and Lewin-Epstein (2003) show that education, income, age, and employment status are closely associated with preferred working hours. Henry et al. (2018) further indicates that women tend to work fewer hours than men, while education affects working hours differently across formal and informal sectors. Individuals with significant financial obligations, such as dependents or family support responsibilities, tend to work longer (Adhikari et al., 2011; Tangtipongkul, 2026). Overall, the literature suggests that expected working hours are jointly determined by personal resources and constraints, health conditions, and the broader institutional environment.

### **3 Data and methodology**

#### **3.1 Sample**

The target population consisted of formal-sector employees aged 50–60 in Thailand, including private-sector workers, government officials, and state enterprise employees. Self-employed workers and freelancers are excluded from this study, as their labor supply decisions are not constrained by mandatory retirement policies. The age range of 50–60 was selected to capture workers in the immediate pre-retirement phase, when retirement expectations are most likely to influence labor supply decisions (Coppola & Wilke, 2010; Post et al., 2013).

To determine the required sample size, Cochran's formula (Cochran, 1977) was applied with a 95% confidence level, a 2.53% margin of error, and a 50% population proportion. The calculated sample was further increased by 5% to account for non-response, yielding a final dataset of 1,573 valid responses. A multi-stage sampling design was employed. First, respondents were allocated proportionally across four regions of Thailand based on the Labor Force Survey (LFS) Q4 2024 (National Statistical Office, 2024). In the second stage, one representative province was purposively selected from each region—Bangkok Metropolitan Region, Chiang Mai, Khon Kaen, and Songkhla (**Table 1**). Within each province, the sample was further distributed across private sector, government, and state enterprise employment to reflect differences in job characteristics, pension coverage, and retirement regulations, following proportions reported in the LFS. Data were collected through face-to-face interviews using a structured questionnaire. The questionnaire was pilot-tested with 30 respondents prior to fieldwork to assess clarity and internal consistency. The study protocol was reviewed and approved by the Institute for the Development of Human Research Protections (IHRP), with Certificate of Approval No. IHRP2025090, dated July 4, 2025.

## 3.2 Variables and measurement

There are two outcome variables in this study: Expected Retirement Age (ERA) and Expected Working Hours (EWH). The variables used in each model are described as follows:

### 3.2.1 Expected retirement age (ERA) model variables

#### *Dependent Variable*

The primary outcome for the ERA model is measured through the following question: “*Suppose your organization did not set a mandatory retirement age. Taking health, financial, family, and social factors into account, at what age would you expect to retire?*” (Please specify in years). This question asked respondents to estimate the age at which they anticipate permanently withdrawing from the formal workforce under a hypothetical scenario in which no mandatory retirement age is imposed. The scenario-based measure encourages respondents to integrate considerations of health, financial security, and family responsibilities into their retirement expectations.

#### *Independent Variables*

Institutional retirement constraints are captured by the presence of a Mandatory Retirement Age (MRA), measured as a binary indicator equal to 1 if the respondent’s organization enforces an MRA and 0 otherwise. This variable serves as the main explanatory variable to test the hypothesis that MRA enforcement is associated with lower expected retirement ages among pre-retirement workers.

Thailand’s formal labor market operates under a fragmented regulatory framework, with retirement mandates differing significantly between sectors. In this study, the Mandatory Retirement Age (MRA) for government and state enterprise employees is defined by the Statutory Retirement Age (SRA) of 60, as outlined in the Civil Service Act and similar provisions. Conversely, the private sector is governed by the Labor Protection Act, which does not impose a fixed national retirement age. Consequently, these mandates may align with the public standard of 60, be set at 55 to match the minimum eligible age for the retirement benefit from the Social Security Office, or not be formally established at all.

To account for these institutional variations and other individual differences, the model includes a set of control variables, as outlined in **Table 2**, covering workplace characteristics, health conditions, and personal and financial circumstances. Workplace factors include *Elementary Job*, indicating employment in elementary or basic labor positions, and *High Job Satisfaction*, measured as strong agreement with having high job satisfaction. In addition, *Civil Servant Pension* identifies respondents covered by the civil servant pension scheme or local government official welfare benefits, reflecting access to public retirement benefits that may influence retirement timing. The model also controls for health limitations, life satisfaction, current age, gender, education, financial support to extended family, and hometown retirement plans.

### 3.2.2 Expected Working Hours (EWH) model variables

### ***Dependent Variable***

To measure EWH, respondents were asked: “*Suppose your current workplace did not set a mandatory retirement age and offers options to adjust working hours (with pro-rated hourly pay). How many days and hours would you expect to work at age 55, 60 and 65 years?*” For each age milestone, the weekly EWH was calculated by multiplying the reported days per week by the hours per day. This measure captures the intensive margin of labor supply, allowing for the analysis of phased retirement or gradual labor market exit rather than an abrupt transition from full-time work to complete retirement.

### ***Independent Variables***

The main explanatory variable is MRA enforcement, as defined in the ERA model. To account for structural heterogeneity in pension incentives, the model also includes indicators for *Civil Servant Pension* and *State Enterprise* coverage, with private sector employees serving as the comparative reference group. These institutional factors are complemented by workplace characteristics, specifically *High Work Pressure*, which identifies respondents in high-stress roles, and *Current Working Hours*, included to control for baseline labor intensity and persistence in labor supply. The model also controls for health status, subjective well-being, financial circumstances—including household expenses, debt status, and family financial obligations—as well as gender, education, and age cohort (**Table 3**).

## **3.3 Econometric strategy**

### **3.3.1 Expected retirement age model**

The distribution of expected retirement age exhibits pronounced focal-point heaping at institutional thresholds. As shown **Figure 1**, responses concentrate heavily at ages 55, 60, and 65. Age 60 represents the modal response, accounting for approximately half of all observations. Only 23.58% of respondents report expecting to retire beyond age 60, while responses below age 50 or above age 70 are rare. This clustering pattern is consistent with bounded rationality in retirement planning, whereby individuals anchor expectations to salient policy benchmarks rather than forming precise, continuous estimates. As a result, interval regression is employed to address measurement uncertainty and focal point heaping. Interval regression is designed for settings in which the true value of the dependent variable is unobserved but known to lie within defined lower and upper bounds. The model assumes an underlying latent expected retirement age, denoted  $y_i^*$ , which follows the linear specification

$$y_i^* = x_i\beta + \varepsilon_i$$

where  $x_i$  is a vector of explanatory variables—including institutional constraints (Mandatory Retirement Age), workplace characteristics, health conditions, and personal and financial attributes—and the error term  $\varepsilon_i$  is assumed to be normally distributed with mean zero and variance  $\sigma^2$ .

The observed expected retirement age is represented as an interval  $(L_i, U_i)$ . For most responses, an interval of  $\pm 1$  year around the reported age is assigned to reflect general reporting uncertainty. For responses at institutional focal ages—specifically 55, 60, and 65—a wider interval of  $\pm 2$  years is applied. This approach accounts for rounding behavior, whereby respondents may report established policy-relevant ages as proxies for their underlying expectations. The model further incorporates censoring and logical consistency constraints to ensure stable estimation and coherence with respondents’ actual circumstances. Expected retirement ages of 50 years or below are treated as left-censored, while values of 75 years or above are treated as right-censored. Left- and right-censoring are applied to reduce the influence of outliers (see the example in **Table 4**)

In addition, expected retirement age is constrained to be no lower than the respondent’s current age; when an initially defined interval falls below the respondent’s current age, the lower bound is adjusted upward accordingly. After constructing these intervals, both the lower and upper bounds of the constructed intervals are log-transformed prior to estimation. This transformation is to correct for the right-skewness inherent in expected retirement age data, thereby ensuring that the error terms satisfy the normality assumption required by the interval regression model.

### 3.3.2 Expected Working Hour Model

The analysis of expected weekly working hours at ages 55, 60, and 65 requires a specialized econometric strategy due to distinct distributional features. As shown in **Figure 2**, the data exhibit focal-point heaping at institutional milestones (e.g., 40 hours) and a pronounced corner solution at zero as respondents age. While expectations at age 55 cluster heavily around full-time employment, the distribution shifts downward by age 60 and culminates in a substantial mass of zero hour responses by age 65. To rigorously address this censoring and heaping, this study employs both Ordered Probit and Tobit models to ensure robust estimation.

#### *Ordered Probit Model (Handling Focal-Point Heaping)*

To address the focal-point heaping around institutional norms, this study estimates three separate Ordered Probit models for expected working hours at ages 55, 60, and 65. To ensure we capture genuine forward-looking expectations of working hours, each model is restricted to respondents who have not yet reached the target age. For example, the age 55 model includes only respondents under age 55 (N=895), the age 60 model includes those under 60 (N=1,500), and the age 65 model includes those under 65 (N=1,573).

The dependent variable measures expected weekly working hours and is classified into four ordered categories: (1) not working (0 hours); (2) working fewer than full-time (1–34 hours); (3) working full-time (defined according to the National Statistical Office of Thailand’s standard of 35–48 hours); and (4) working full-time plus overtime (over 48 hours). The Ordered Probit model is based on an unobserved latent variable  $y_{it}^*$ , which represents an individual’s underlying propensity to work more hours at a given age. This latent variable is specified as:

$$y_{it}^* = x_{it}\gamma + u_{it}$$

where  $x_{it}$  is a vector of explanatory variables,  $\gamma$  is a vector of parameters to be estimated, and the error term ( $u_{it}$ ) is assumed to follow a standard normal distribution. The vector  $x_{it}$  includes institutional constraints, with the main explanatory variable being the enforcement of a mandatory retirement age. The model additionally controls workplace characteristics, health status, financial conditions, and individual demographic characteristics that may influence expected working hours at older ages. The observed outcome  $y_{it}$  is determined by whether the latent variable falls between a set of estimated cut points:

$$\Pr(y_{it} = i) = \Pr(\kappa_{i-1} < x_{it}\gamma + u_{it} \leq \kappa_i), i = 1, \dots, I,$$

where  $\kappa_0 = -\infty$  and  $\kappa_I = +\infty$ . The coefficient vector  $\gamma$  and the cutpoints  $\kappa_1, \dots, \kappa_{I-1}$  are jointly estimated using maximum likelihood.

By estimating separate models at ages 55, 60, and 65, this approach allows the effects of institutional constraints and individual characteristics on expected working hours to vary across key stages of the retirement transition, providing an understanding of labor supply behavior as workers approach and pass typical retirement thresholds.

### ***Tobit Model (Handling Corner Solutions and Censoring)***

The Tobit model is well suited for situations in which the dependent variable is continuous but censored at a known limit. In this study, expected weekly working hours are censored at zero, reflecting the fact that respondents cannot supply negative hours, and that a non-trivial share of individuals expect not to work at all at ages 55, 60, or 65.

Formally, the Tobit model assumes an underlying latent desired labor supply,  $y_{it}^*$ , specified as

$$y_{it}^* = x_{it}\beta + \varepsilon_{it}$$

where  $x_{it}$  is a vector of explanatory variables,  $\beta$  is a vector of parameters to be estimated, and the error term  $\varepsilon_{it} \sim N(0, \sigma^2)$ . The observed outcome  $y_{it}$  is defined as

$$y_{it} = \begin{cases} 0 & \text{if } y_{it}^* \leq 0, \\ y_{it}^* & \text{if } y_{it}^* > 0. \end{cases}$$

Thus, the Tobit model jointly accounts for (i) the probability of expecting zero working hours and (ii) the intensity of expected working hours among those who plan to continue working. The main explanatory variable is the enforcement of a mandatory retirement age, and the model additionally controls workplace characteristics, health status, financial conditions, and individual demographic characteristics. Diagnostic checks confirm that multicollinearity is not a concern, with mean VIF scores of 1.20 and 1.13 for the ERA and EWH models, respectively (**Tables 5 and 6**).

## **3.4 Employer perspective**

### **3.4.1 Study design and participants**

A Focus Group Discussion (FGD) was conducted to elicit demand-side perspectives on older worker employment, complementing the supply-side data gathered through the employee survey.

The sample comprised 30 employer representatives across organizational types: 37% from the private sector, 37% from state-owned enterprises, and 17% from public sector, including government agencies and policy-making bodies. The remaining 10% were researchers specializing in social welfare and aging policy. Participants were drawn from diverse ISIC-classified industries, including manufacturing, agriculture, transportation, and accommodation, to capture variation in organizational structures and regulatory environments shaping employer decisions regarding older workers.

### **3.4.2 Data Collection and Analysis**

A semi-structured focus group discussion was conducted to explore whether employers can accommodate the employment preferences expressed by older workers in the employee survey. The discussion unfolded through four interconnected themes. First, participants described current labor market conditions, including labor shortages and the proportion of older employees in their workforce. Second, the conversation explored how employing older workers influences competitiveness, productivity, and institutional knowledge retention. Third, employers assessed whether they could feasibly implement flexible schedules and extended retirement options. Finally, participants identified structural barriers—legal requirements, regulatory constraints, and cost considerations—that might prevent hiring or retaining older workers. The data were analyzed using content analysis to identify common concerns and insights across different industries. The analysis highlights employer attitudes toward hiring older workers, as well as the perceived challenges and benefits of employing them.

## **4 Results**

### **4.1 Expected retirement age model**

**Table 7** presents the interval regression estimates examining the determinants of expected retirement age (ERA) among pre-retirement employees. ERA is expressed in natural logarithmic form. Three model specifications are estimated sequentially to assess the robustness and stability of the estimated effects. Model 1 includes only the mandatory retirement age (MRA) variable as the baseline specification, Model 2 adds workplace factors, and Model 3 incorporates the full set of health factors, personal characteristics, and financial conditions. The results are detailed below across three distinct categories: institutional constraints; workplace factors; and health, personal, and financial characteristics.

The primary variable of interest is whether the respondent's organization enforces an MRA. This variable exhibits a consistently negative and statistically significant association with the ERA across all three specifications. In the full specification (Model 3), the coefficient indicates that the enforcement of an MRA is associated with an approximately 0.8% lower expected retirement age.

Beyond institutional rules, workplace factors emerge as vital determinants of retirement timing. Employment in elementary occupations is associated with an approximately 2.0% later expected retirement. This significant delay likely reflects the financial necessity of continuing to work

among lower-income laborers. Conversely, access to civil servant pension benefits is associated with a 1.0% earlier expected retirement, compared to private-sector employees, suggesting that having a stable retirement income allows workers to exit the labor force sooner.

With respect to health, workers experiencing health limitations report lower expected retirement ages compared to those without such constraints. Notably, subjective life satisfaction does not significantly predict retirement expectations. Among personal characteristics, current age exhibits a positive and highly significant gradient: each additional year of age is associated with a 0.5% later expected retirement. This implies that as workers get closer to the actual retirement age, they may reassess their financial, health or personal readiness and decide to delay their exit from the workforce.

Additionally, financially supporting extended family is associated with a slightly earlier expected retirement age, possibly reflecting greater financial capacity among these workers. Finally, planning to return to one's hometown lowers expected retirement by 0.7%. In line with push-pull theory (OECD, 2006), the desire to strengthen family ties acts as a strong "pull" factor, motivating an earlier retirement. To complement the regression findings, predictive margins are estimated to translate the logarithmic coefficients into concrete years, providing a more intuitive picture of how institutional constraints shape retirement expectations in practice.

#### ***Predictive Margins of Expected Retirement Age***

The presence of MRA enforcement corresponds to a clear downward shift in retirement expectations (**Table 8**). Employees subject to these mandatory rules expect to exit the workforce at 60.36 years (95% CI: 60.17, 60.55), whereas those without such constraints anticipate working until 60.87 years (95% CI: 60.43, 61.31). This represents a statistically significant difference of approximately six months. Retirement expectations also update systematically across the life course. As employees grow older, their expected retirement age steadily increases. For instance, respondents aged 50 expect to retire at approximately 59.3 years, while those aged 60 anticipate retiring at 62.1 years. All estimates are highly statistically significant.

#### **4.2 Expected working hours model**

This section examines expected working hours (EWH) at ages 55, 60, and 65. **Table 9** presents estimates from the Ordered Probit regression (Columns 1 - 3) and Tobit regression (Columns 4 - 6), with both models estimated jointly to allow for a robust assessment. The results show that the association between MRA enforcement and expected working hours becomes more pronounced as workers approach retirement age. At age 55, the coefficient is insignificant, indicating no meaningful association at this stage. By age 60, the association is significant at the 10% level, and by age 65 it is strongly significant.

**Figure 3** illustrates this pattern through predicted working hours at ages 55, 60, and 65 by MRA status. At age 55, both groups (with MRA and without MRA) report nearly identical expected working hours of around 38 to 39 hours per week. By age 60, both groups expect around 30 hours,

and the gap between them remains small. By age 65, the two groups diverge more noticeably — those without an MRA expect to work around 22 hours per week, while those subject to MRA expect around 17 hours, a difference of roughly 5 hours per week. The decline in expected working hours is steeper among employees covered by an MRA.

Workplace characteristics and health factors are also associated with expected working hours. Compared to private-sector employees, civil servants expect to supply fewer working hours at ages 60 and 65, with the magnitude increasing at older ages, consistent with stronger pension coverage. Current working hours are a strong and robust predictor across all ages and specifications: individuals who work longer hours at present consistently expect to work more hours in the future.

Health and subjective well-being become increasingly important at older ages. While health status is not statistically significant at age 55, excellent/very good health is strongly associated with higher expected working hours at ages 60 and 65 in both Ordered Probit and Tobit models. Similarly, life satisfaction has no effect at age 55 but shows a positive and significant association with expected working hours at later ages. These findings highlight that both physical and mental health are significant factors in supporting longer working hours among older workers.

Financial constraints and personal characteristics also relate to expected working hours. The presence of debt acts as a “push” factor for extending labor supply. While debt has no significant impact on expectations at age 55, it is a highly significant factor at age 65. Consistent with this finding, household expenditures, used here as a proxy for economic well-being, are associated with lower expected working hours, indicating that those with greater financial resources expect to work less. Employees currently aged 55 to 60 also expect to work significantly more hours at age 60 than younger cohorts, suggesting that those closer to older age revise their work expectations upward compared to those who are younger.

### **4.3 Results from employer focus group discussions**

To provide supplementary demand-side context for the survey findings above, this section summarizes key themes from the employer focus group discussions. The focus group discussions revealed several practical obstacles to employing older workers, with challenges varying between low-skill and high-skill occupations. For low-skill workers, health and safety concerns are a primary issue, particularly the potential risks of assigning older workers to physically demanding or hazardous jobs, resulting in mismatches between physical job requirements and the capabilities of aging workers. For high-skill workers, employers noted significant skill gaps, especially regarding the ability to adapt to digital technologies and AI-related tasks.

In terms of business competitiveness, employers note that mandatory requirements related to wages, benefits, and employment conditions elevate operating costs and limit workforce flexibility. While older workers with specialized skills remain valuable, regulations requiring them to be employed under the same benefit structures as younger workers, despite differences in productivity, may reduce cost efficiency. Regarding phased retirement, employers generally agree that gradual reductions in working hours are feasible under existing laws but rarely implemented

in practice. Alternative arrangements such as performance-based contracts, consultancy roles, and job redesign were also viewed as practical options.

To address these regulatory constraints, policy recommendations from employers include the introduction of specific legislation for older-worker employment to allow greater flexibility in working hours and benefits. Employers also recommend the promotion of bilateral agreements tailored to individual capacity, demand-side support such as reskilling vouchers aligned with market needs, and enhanced tax incentives for employers hiring older workers. They note that the government should more actively publicize existing tax benefits and simplify the application process. Overall, employers demonstrate a willingness to retain older workers who possess good health and relevant skills, emphasizing that such workers seek recognition of their experience and expertise rather than welfare support.

## **5. Conclusion**

This study examined the determinants of expected retirement age and expected working hours among Thailand's formal-sector workforce aged 50–60, drawing on survey data from 1,573 employees. The findings show that employees in organizations enforcing an MRA expect to retire significantly earlier and reduce their working hours more sharply as they approach the institutional retirement threshold. These findings indicate that retirement behavior is strongly shaped by formal organizational rules rather than purely individual preferences. However, rather than an abrupt exit, the data show a clear pattern of expecting a gradual reduction in work intensity across the workforce. While employees generally expect their working hours to decline as they age, the decline is steeper among those in MRA-enforcing organizations. Financial pressures, especially debt and low-skill employment, tend to prolong workforce participation, while stable pension benefits support earlier retirement.

Based on these findings, several policy implications emerge. First, mandatory retirement regulations should be reformed to allow voluntary employment extensions based on mutual agreement, rather than rigid age-based cutoffs, particularly for low-skilled and private-sector workers who wish to continue working. Second, a dedicated legal framework for older-worker employment could allow greater flexibility in working hours, benefit structures, and contract types, while providing reskilling support to address digital skill gaps. Third, phased retirement should be promoted by decoupling severance and pension calculations from final reduced wages. The age 60 limit for insured persons according to Article 33 of the Social Security Act coverage should be removed, and employers should be permitted to offer new fixed-term contracts beyond the agreed retirement age to reduce accumulated severance liability under the Social Protection Act. The personal income tax exemption amount for older workers transitioning to reduced hours should also be raised to make phased retirement financially viable. Finally, existing tax incentive schemes for hiring older workers should be expanded by increasing the salary ceiling for double tax deductions and simplified to encourage broader employer participation, with targeted incentives for retaining low-skilled older workers.

This analysis is not without limitations. The cross-sectional design does not allow for causal claims. Future research using longitudinal data or comparative studies across ASEAN countries with varying retirement regulations could strengthen these findings.

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## Tables and Figures

**Table 1 Sample Selected by Region and Work Status**

Region	Private	Government	State Enterprise	Total
Bangkok Metropolitan	757	156	32	945
Northern (Chiang Mai)	98	68	–	166
Northeastern (Khon Kaen)	156	101	8	265
Southern (Songkhla)	93	98	6	197
Total	1,104	423	46	1,573

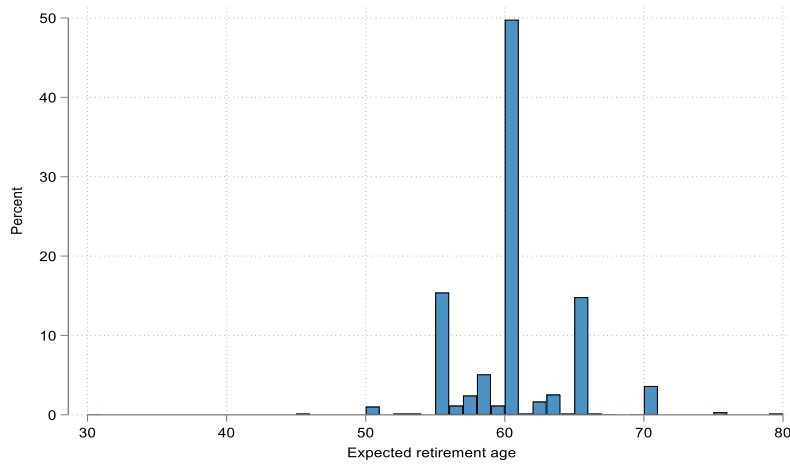
*Note.* Sample proportions estimated from the Labor Force Survey, Q4 2024, NSO.

**Table 2 Variable definitions and statistics for Expected Retirement Age Model**

Variable	Description	Min	Max	Mean	S.D.
ERA	Expected retirement age (years)	30	80	60.15	3.93
Organization Enforces MRA	Organization enforces an MRA (1 = Yes)	0	1	0.83	0.37
Elementary job	Job position: elementary/basic labor (1 = Yes)	0	1	0.23	0.42
High Job Satisfaction	High job satisfaction (strongly agree = 1)	0	1	0.37	0.48
Civil Servant Pension	Covered by the civil servant or local administration pension scheme (1 = Yes)	0	1	0.23	0.42
Health Problems	Poor health limiting ability to work (1 = Yes)	0	1	0.10	0.30
Life Satisfaction	Life satisfaction (0–10 scale)	1	10	8.31	1.47
Current Age	Current age (years)	50	60	54.06	3.05
Male	Male (1 = Yes)	0	1	0.36	0.48
Postgraduate Degree	Education higher than a bachelor’s degree (1 = Yes)	0	1	0.14	0.35
Financial Support to Extended Family	Respondent provides financial support to extended family members (1 = Yes)	0	1	0.62	0.49
Hometown Retirement Plan	Plans to return to hometown after retirement (1 = Yes)	0	1	0.43	0.50

**Table 3 Variable definitions and statistics for Expected Working Hours Model**

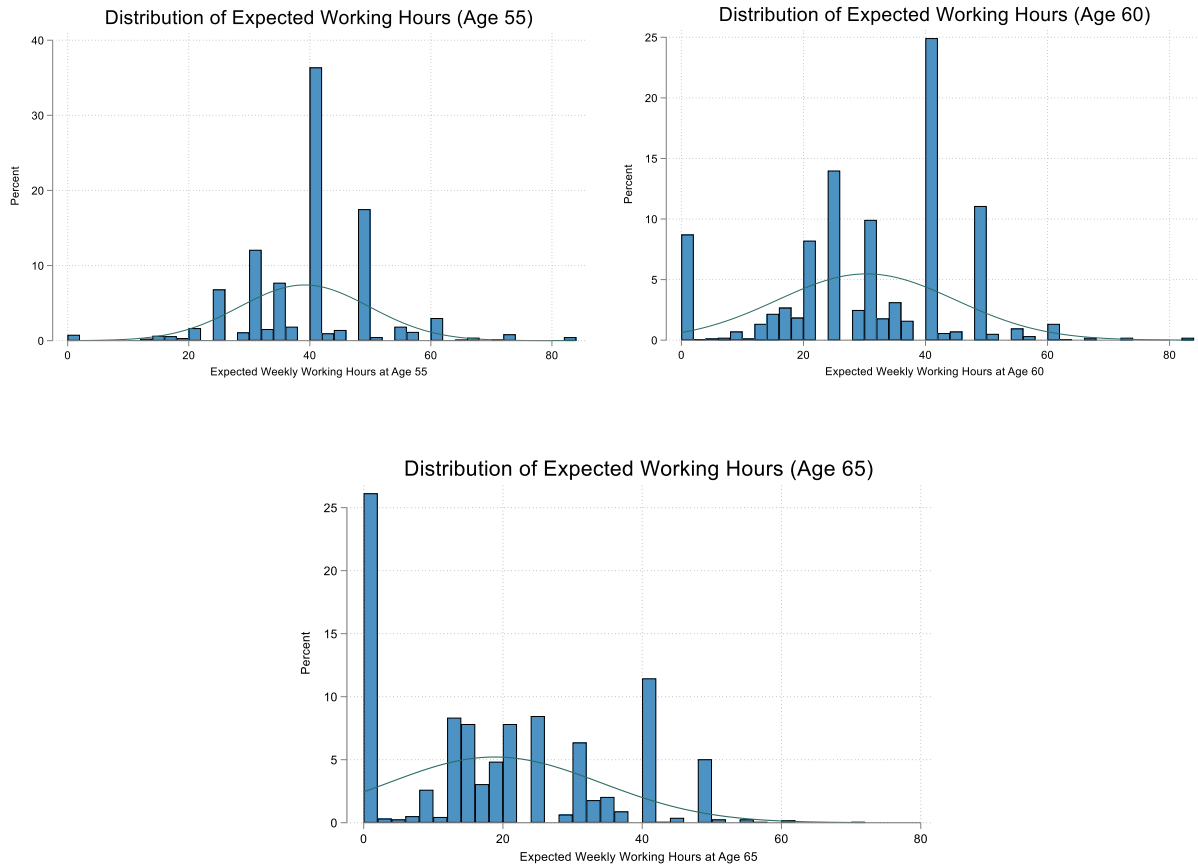
Variable	Description	Min	Max	Mean	S.D.
Organization Enforces MRA	Organization enforces an MRA (1 = Yes)	0	1	0.83	0.37
Civil Servant Pension	Covered by the civil servant or local administration pension scheme (1 = Yes)	0	1	0.27	0.44
State Enterprise	Covered by state enterprise benefits (1 = Yes)	0	1	0.03	0.17
High Work Pressure	Respondent reports high work pressure (1 = Yes)	0	1	0.12	0.33
Current Working Hours	Current working hours per week	7	96	45.98	8.40
High Self-Rated Health (Excellent/Very Good)	Self-assessed health rated as Excellent or Very Good (1 = Yes)	0	1	0.34	0.47
Life Satisfaction	Life satisfaction (0–10 scale)	1	10	8.31	1.47
Log Household Expenses	Log of monthly household expenses	6.21	12.9	9.78	0.69
Has Debt	Respondent currently carries personal debt (1 = Yes)	0	1	0.74	0.44
Financial Support to Extended Family	Respondent provides financial support to extended family members (1 = Yes)	0	1	0.62	0.49
Male	Respondent is male (1 = Yes)	0	1	0.36	0.48
Postgraduate Degree	Education higher than a bachelor’s degree (1 = Yes)	0	1	0.14	0.35
Age 55–60	Respondent is aged between 55 and 60 (reference group: Age 50–54)	0	1	0.43	0.50



**Figure 1 Frequency Distribution of Expected Retirement Age**

**Table 4 Examples of Interval Construction and Censoring for Expected Retirement Age**

Case	Reported ERA	Current Age	Lower Bound	Upper Bound	Interpretation
B	60	52	58	62	Focal age; $\pm 2$ -year interval
C	55	52	53	57	Focal age; $\pm 2$ -year interval
D	58	54	57	59	Non-focal age; $\pm 1$ -year interval
E	50	52	52	-	Below current age; left censored
F	80	50	75	-	High value; right censored at 75



**Figure 2 Distribution of Expected Weekly Working Hours at Ages 55, 60, and 65**

**Table 5 Correlation Matrix: Expected Retirement Age Model**

Variable	1	2	3	4	5	6	7	8	9	10	11
1. MRA	1										
2. Elementary job	-0.22***	1									
3. Job Satisfaction	0.08**	-0.21***	1								
4. Civil Servant Pension	0.21***	-0.30***	0.26***	1							
5. Health Problem	-0.05*	0.04	-0.07**	-0.03	1						
6. Life satisfaction	0.09***	-0.13***	0.21***	0.10***	-0.17***	1					
7. Current Age	-0.01	0.05	0.08**	0.15***	0.03	-0.03	1				
8. Male	-0.01	-0.09***	-0.04	-0.04	-0.03	0.02	-0.06*	1			
9. Postgraduate	0.14***	-0.22***	0.14***	0.27***	0.02	0.08**	0.07**	-0.12***	1		
10. Financial support	0.01	-0.16***	0.05*	0.11***	0.004	0.05*	-0.05	0.06*	0.08**	1	
11. Hometown Retirement	-0.01	0.10***	-0.01	0.04	0.01	-0.05	-0.02	0.03	-0.05*	0.04	1

Note: \* p<0.05, \*\* p<0.01, \*\*\* p<0.001

**Table 6 Correlation Matrix: Expected Working Hour Model**

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. MRA	1											
2. Health Benefit	0.25***	1										
3. Work Pressure	0.05	0.07**	1									
4. Working Hours	-0.16***	-0.20***	-0.03	1								
5. Good Health	-0.06*	0.07**	0.04	0.01	1							
6. Life Satisfaction	0.09***	0.07**	-0.03	-0.07**	0.14***	1						
7. Log H. Expenses	0.27***	0.26***	0.09***	-0.32***	-0.05*	0.08**	1					
8. Debt	0.01	0.01	0.03	-0.01	0.00	-0.02	0.12***	1				
9. Financial Support	0.01	0.06*	0.01	-0.10***	-0.08**	0.05*	0.16***	0.11***	1			
10. Male	-0.01	-0.03	-0.02	0.06*	-0.04	0.02	0.02	0.07**	0.06*	1		
11. Postgrad	0.14***	0.25***	0.15***	-0.17***	0.02	0.08**	0.30***	-0.05	0.08**	-0.12***	1	
12. Age55-60	-0.00	0.17***	-0.02	0.00	0.02	-0.04	-0.01	-0.10***	-0.04	-0.05	0.05	1

Note: \* p<0.05, \*\* p<0.01, \*\*\* p<0.001

**Table 7 Determinants of Expected Retirement Age (Interval Regression)**

	(1)	(2)	(3)
<i>Constraints from Retirement Regulations</i>			
Organization Enforces MRA	-0.014*** (0.004)	-0.008** (0.004)	-0.008** (0.004)
<i>Workplace factors</i>			
Elementary job		0.022*** (0.004)	0.020*** (0.004)
High Job Satisfaction		0.008** (0.003)	0.005 (0.003)
Civil Servant Pension		-0.004 (0.004)	-0.010*** (0.004)
<i>Health Factors</i>			
Health Problems			-0.009* (0.005)
Life Satisfaction			0.001 (0.001)
<i>Personal Characteristics and Financial Conditions</i>			
Current Age			0.005*** (0.000)
Male			0.003 (0.003)
Postgraduate Degree			0.007 (0.005)
Financial Support to Extended Family			-0.006* (0.003)
Hometown Retirement Plan			-0.007** (0.003)
Constant	4.113*** (0.004)	4.102*** (0.004)	3.851*** (0.025)
Observations	1573	1573	1573

Note: Robust standard errors in parentheses. \*p<0.10, \*\*p<0.05, \*\*\*p<0.01.

**Table 8 Predictive Margins of Expected Retirement Age**

<i>Panel A: By MRA Enforcement</i>			
<b>MRA Enforcement</b>	<b>Predicted ERA (Years)</b>	<b>Std. Err.</b>	<b>95% CI</b>
No	60.87	0.225	[60.43, 61.31]
Yes	60.36	0.097	[60.17, 60.55]

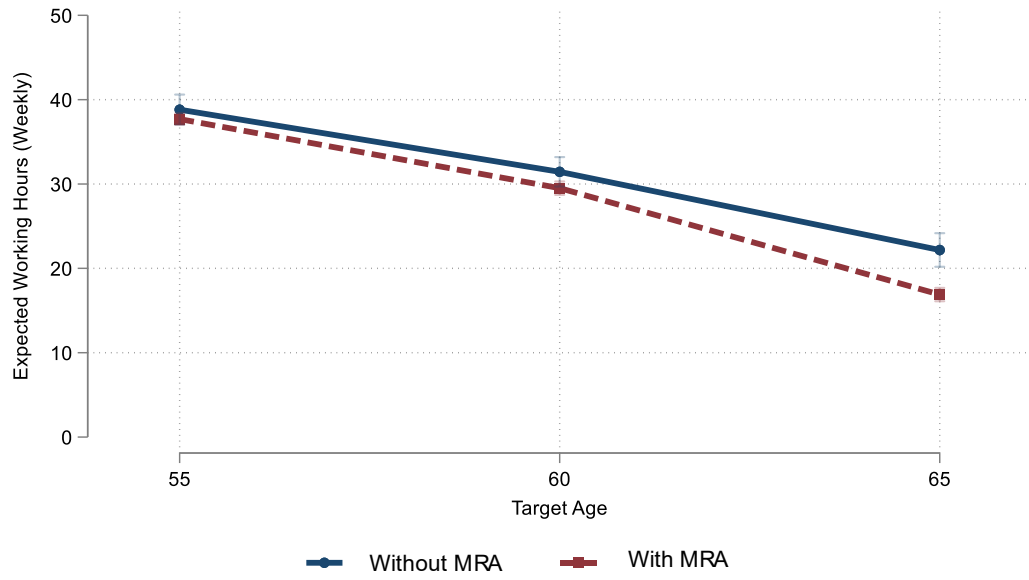
<i>Panel B: By Current Age</i>			
<b>Current Age</b>	<b>Predicted ERA (Years)</b>	<b>Std. Err.</b>	<b>95% CI</b>
50	59.30	0.143	[59.02, 59.58]
52	59.86	0.105	[59.65, 60.06]
54	60.42	0.087	[60.25, 60.59]
56	60.99	0.101	[60.80, 61.19]
58	61.57	0.138	[61.30, 61.84]
60	62.15	0.187	[61.78, 62.52]

*Note.* Predictive margins estimated from interval regression (Model 3) in Table 6. ERA is expressed in years. All estimates are statistically significant at  $p < 0.001$ .

**Table 9 Determinants of Expected Working Hours at Ages 55, 60, and 65**

	(1)	(2)	(3)	(4)	(5)	(6)
	Ordered Probit			Tobit		
	Age 55	Age 60	Age 65	Age 55	Age 60	Age 65
<i>Constraints from Retirement Regulations</i>						
Organization Enforces MRA	-0.089 (0.117)	-0.156* (0.081)	-0.417*** (0.086)	-1.119 (1.002)	-1.970* (1.006)	-6.239*** (1.286)
<i>Workplace factors</i>						
Civil Servant Pension	0.159 (0.110)	-0.129* (0.075)	-0.506*** (0.072)	0.846 (0.855)	-2.137** (0.997)	-8.335*** (1.233)
State Enterprise Employee	0.732** (0.343)	0.909*** (0.239)	0.620*** (0.188)	4.606** (2.101)	7.497*** (2.371)	8.530*** (2.392)
High Work Pressure	-0.093 (0.123)	-0.095 (0.090)	-0.033 (0.083)	-1.852 (1.128)	-2.458** (1.177)	-0.761 (1.363)
Current Working Hours	0.033*** (0.007)	0.034*** (0.005)	0.013*** (0.004)	0.414*** (0.078)	0.426*** (0.061)	0.197*** (0.068)
<i>Health Factors</i>						
High Self-Rated Health (Excellent/Very Good)	0.091 (0.088)	0.168*** (0.061)	0.196*** (0.060)	0.745 (0.681)	1.784** (0.769)	2.931*** (0.956)
Life Satisfaction	-0.023 (0.031)	0.079*** (0.021)	0.072*** (0.020)	-0.044 (0.251)	0.977*** (0.268)	0.900*** (0.329)
<i>Personal Characteristics and financial Conditions</i>						
Log Household Expenses	-0.174** (0.074)	-0.210*** (0.052)	-0.278*** (0.051)	-2.097*** (0.693)	-3.190*** (0.682)	-5.547*** (0.835)
Has Debt (1=Yes)	-0.088 (0.095)	0.155** (0.070)	0.253*** (0.069)	-0.134 (0.734)	1.791** (0.884)	4.435*** (1.104)
Financial support to extended family	-0.296*** (0.082)	-0.228*** (0.064)	-0.037 (0.063)	-2.154*** (0.621)	-2.658*** (0.801)	-1.531 (1.022)
Male	0.058 (0.084)	0.049 (0.061)	0.123** (0.061)	-0.574 (0.668)	0.719 (0.773)	1.651* (0.969)
Postgraduate Degree	-0.160 (0.138)	-0.012 (0.088)	0.032 (0.083)	-1.262 (1.102)	-0.670 (1.191)	-0.004 (1.431)
Age 55–60		0.260*** (0.061)	0.007 (0.060)		3.210*** (0.765)	0.410 (0.978)
Constant				42.266*** (9.337)	33.767*** (8.276)	56.910*** (9.406)
Observations	895	1500	1573	895	1500	1573
Pseudo R <sup>2</sup>	0.061	0.088	0.089	0.027	0.024	0.029

Note: Robust standard errors in parentheses. \*p<0.10, \*\*p<0.05, \*\*\*p<0.01. The sample for each model is restricted to respondents younger than the target age to ensure the analysis captures genuine future expectations



**Figure 3 Tobit Predictions of Working Hours by MRA Enforcement**