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Intergenerational Occupational Mobility in Rural Thailand 1997-2017

by

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Abstract

Inequality has been growing in Thailand, but the consequence of inequality, intergenerational social mobility has not been studied. This research aims to provide contemporary study of intergenerational occupational mobility in Thailand during 1997-2017, and provide the first time three generations mobility by employing Townsend Thai panel data. This research employs EGP class schema for classification, and cross tabulates the results in standard mobility table and outflow mobility table, to calculate the total upward/downward mobility rates. Additionally, to solve the constraint of changing occupational structure overtime, I calculate the odd ratios to measure relative chances of individuals in attaining a certain class. The results are 29.5% of individuals experience upward absolute mobility than their parents. Individuals from higher backgrounds have higher chances to reach the higher backgrounds. The petite bourgeoise class is the second highest class enjoys upward mobility to the top, besides the owner class. Surprisingly, women have higher mobility rate than men, and women move to higher class than men, while men rather stay in lower classes.

Keywords: Intergenerational Mobility, Social Mobility, Occupational Mobility, Thailand

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1 Introduction

"Hard-working" is one of the most desirable characteristics in meritocratic societies. In many regions of the world, parents and families always tell children to be hardworking in order to ascend the social ladder, secure financial independence, and bring fame to their families. Children are brought into intensive competitions at a very young age, and these competitions are repeated over the life course of the children. In fact, only a few children from low origins have made it to the top. In contrast, children from higher origins have drastically higher chances to remain at the top (Clarke et al., 2022; Carneiro, 2020; Blanden, 2013; Corak, 2013).

Intergenerational social mobility is defined as the movement of individuals upward or downward in their family social strata. Absolute mobility compares individuals with their own parents only in terms of the chance they have to experience a higher status than their parents. Relative mobility compares individuals with other individuals in the society of their respective generations. For example, if an individual was born in a farmer family, what chance does that individual have to become a doctor? (Van der Weide, 2021, p. 6-7).

Social mobility extends beyond moral concerns; it also holds implications for a nation's economic efficiency and social prosperity. Research has shown that in 27 EU countries, an average of 3.4% of GDP is lost annually due to reduced aggregate output, increased unemployment, higher healthcare costs, and elevated crime victimization (Clarke et al., 2022). One of the primary hindrances to upward mobility is the insufficient development of human capital (Woolard & Klasen, 2005). When children lack opportunities to acquire new and modern skills, it translates to the wastage of the country's young talents. It is imperative to recognize that investing in education and fostering equal opportunities not only benefits individuals but also contributes to the overall growth and prosperity of the nation.

Thailand ranks among the nations with the highest levels of income and wealth disparity globally. In 2021, the wealthiest 10% held 48.8% of the nation's income, while the bottom 50% held a mere 13.9%. The wealth disparity is even starker, with the top 10% possessing 74.2% of the country's wealth and the bottom half owning just 1.5%. This degree of inequality surpasses that of China and Turkey when measured using the same methodology (World Inequality Lab, 2022). The possession of land, which is important in developing countries where the agricultural sector is still large, is drastically unequal, as the bottom 50% of Thais own 2.27% of the land in the whole country. This makes the Gini coefficient of land 0.886 (Laovakul, 2013, p. 17).

Inequality and social mobility usually have the same trend. High-inequality countries experience lower social mobility. In contrast, low-inequality countries experience high social mobility. This phenomenon is called the 'Great Gatsby' curve (Corak, 2013). Moreover, high social mobility countries have comprehensive welfare systems and greater gender equality (Esping-Andersen, 2015). Therefore, drawing from the empirical evidence available from other countries, it can be inferred that social mobility in Thailand is likely to be low.

As inequality has widened (Laovakul, 2013), the consequence of inequality, intergenerational social mobility, is not widely studied. Studies about occupational mobility conducted in Thailand provide limited views of occupational mobility, as the dataset's period is small, the studies were conducted 30-40 years ago, and these studies focus on occupational mobility in a short period, not on intergenerational mobility. Moreover, the previous studies did not employ a comparative and contemporary methodology of social mobility studies. This made it difficult to compare Thailand's social mobility rate to other studies conducted in different countries. Additionally, the previous studies employed data from the National Statistics Office and self-collected surveys (Wongbuddha, 1988; Sonsaneeyarat, 1998; Chawanote, 2013). This research employs another source of panel data that cover a longer period, providing a new perspective. This study aims to fill the gap by providing a contemporary intergenerational occupational mobility study in Thailand. Ultimately, this study provides the first social mobility study of three generations.

I choose to measure intergenerational occupational mobility due to various reasons. Occupation can capture non-monetary aspects where income cannot. It is a summary indicator of a person's wealth, human capital, risks, and societal influence (Blanden, 2013, p.41). Ultimately, occupation is easier to measure in developing countries where income data is lacking. In developing countries where the poverty rate is high, measuring occupation can distinguish a person's status (Heath & Zhao, 2021).

Although occupation can provide a powerful summary indicator, classifying individual's occupation origin and destination is complicated. This study employs the EGP class schema to measure the class of occupations, one of the most popular methods to study social mobility. The schema is ranked by a hierarchy of skills of occupations. The schema is also able to distinguish additional characteristics of individuals in different classes of occupation, which is important for measuring social mobility. It can be adapted to match the local context of developing countries as the drivers of social mobility are different in developing countries and developed countries (Piraino, 2021, p.2).

For methodologies, I measure absolute mobility by employing a standard mobility table, classified by the EGP schema. I employ an outflow mobility table to measure relative mobility. Furthermore, I adopt the 'odds ratios' method to analyze the comparative chances of individuals from different classes.

I employ the Townsend Thai Project in this study. The project collects micro-level household data and individuals in households in rural Thailand from 1997-2017. I use only individuals who are between the ages of 30-60 or individuals who are in 'occupation maturity' age. After removing families that cannot be measured, there are 697 parents and 993 children usable, totaling 1632 observations. For three generations, there are 352 grandfathers, and 873 grandchildren, totaling 1230.

The result is that 29.5% of people in rural Thailand reach a higher class of occupation than their parents. The threefold simpler version of the EGP schema shows that 21.4% of individuals move to non-manual jobs, and 19.8% escape from farm jobs to manual jobs. However, individuals of higher class origin have significantly higher relative chances than individuals of lower class origin to remain in a higher class. Surprisingly, women have higher mobility rates than men. This is because women moved to higher classes, while men tend to stay in lower classes.

1.1 Research Questions

Main question

- What is the intergenerational occupation mobility rate in rural Thailand?

Sub-questions

- What are the relative chances of individuals from lower occupational classes to attain the professional class?
- What are the differences between men in women in occupational mobility?

To answer the questions, I classify individual occupations into different occupational classes using the EGP class schema. I tabulate the results in a standard mobility table to measure upward, downward, horizontal mobility rates, and also immobility rate. Moreover, I tabulate the results in an outflow mobility table to measure the origins and destinations of each class. Finally, I calculate the odds ratios to assess the likelihood of individuals from two different classes attaining a certain class.

1.2 Outline of the thesis

In the literature review, I firstly explore the literature on how socioeconomic status can be transmitted from parents to children, perpetuating the vicious cycle of inequality. Then, I explain the advantages of measuring occupational mobility and how to measure it. Next, I explore the difference in social mobility between developed countries and developing countries. Finally, I review the studies relevant to Thailand.

2 Theory and previous research

2.1 Theoretical Approach

2.1.1 Social Mobility and Social Transmission

Intergenerational social mobility is defined as the probability of an individual moving up or down the social strata. It is roughly divided into absolute mobility and relative mobility. Absolute mobility refers to an individual's capacity to achieve a higher status than their family origin. For example, if a daughter attains a university education while her mother's highest education level is primary school, she is considered to have achieved absolute mobility. Relative mobility compares an individual's mobility with others in society to measure the relative chance of moving up or down. For instance, it assesses the chances of a daughter from a primary school background compared to the chances of a daughter from a high school background. It is typically measured in three aspects: (1) Education, (2) Occupations, and (3) Income (Van der Weide, 2021, p. 6-7).

Numerous empirical studies highlight the significant challenges faced by children from lower socio-economic backgrounds in their quest to climb the social ladder, particularly when compared to their counterparts from higher socio-economic statuses. In OECD countries, children from the highest socio-economic status tend to earn approximately 20% higher in adulthood than those from disadvantaged backgrounds. Shockingly, it takes five generations for children from low socio-economic statuses to reach the average income bracket within their home country—a disheartening trend prevalent in OECD countries (Clarke et al., 2022). Inequality within the area where an individual lives also affects social mobility. In areas with the highest social mobility, disadvantaged individuals around the age of 28 earn around twice as much as their counterparts in the lowest-mobility areas. Worse still, in areas with low social mobility, pay gaps between deprived and affluent sons are 2.5 times higher. This latter gap is even wider than the former. Moreover, in areas of high social mobility, educational achievement accounts for the most significant earnings difference between individuals from deprived and affluent families, with only 33% being driven by non-educational factors. Therefore, in areas of low social mobility, it is far more challenging for someone from a deprived background to escape poverty (Carneiro, 2020). These trends in high-inequality countries lead to lower social mobility, as depicted by the concept of the "Great Gatsby curve" (Blanden, 2013; Corak, 2013). The "Great Gatsby curve" illustrates the link between income inequality and intergenerational mobility, showing that higher levels of inequality are associated with lower chances of upward social mobility for individuals.

This disparity is often attributed to the transmission of socio-economic status from parents to their offspring. Parents can directly transmit their socio-economic status to their children, for example, through education (Hertz et al., 2007), mother's height and health (Bhalotra &

Rawlings, 2011 & 2013), and socio-economic status (Case et al., 2005). Parents shape children's behavior and living conditions, which later affect outcomes, through multiple channels: (1) direct engagement that stimulates child learning, personality, and behaviors; (2) neighborhood effects, as parents can choose neighborhoods that create a good living environment for children through the quality of peers and schools in that neighborhood; and (3) guidance when making lifelong decisions (Heckman & Landersø, 2021, p.2). In OECD countries, children from lower socio-economic status backgrounds earn approximately 20% less than their counterparts from higher socio-economic backgrounds. Shockingly, it takes an average of five generations for children from low socio-economic status backgrounds to ascend to the average income bracket in OECD countries (Clarke et al., 2022). Intergenerational transmission is the main reason why intergenerational social persistence occurs, causing social immobility. A large study on intergenerational social mobility points to the same conclusion in developing countries as well: the income of the parent generation and the children's generation are positively correlated (Piraino, 2021, p.35).

The standard theory of social transmission, initiated in 1979 by Becker & Tomes (1979), assumes a two-period model. The theory illustrates an intergenerational economic transfer where parental investment impacts the future earning capacity of the child. This model presents a two-period utility framework for a family composed of one parent and one child. During the first period, the parent must balance their disposable income between personal consumption and investing in the child's human capital, such as education or health. In the second period, the child's income is determined by the human capital acquired from the parent's investment and any other heritable endowments. The slope of the equation represents intergenerational income elasticity (IGE), one of the most popular methods to measure income mobility. From the equation, we can explain the social transmission channels from parent to children through two mechanisms. The first mechanism is that higher income parents have more resources to invest in children's human capital, which in turn increases income in the next generation. The second mechanism is that high-income parents have greater income-enhancing endowments. Children born in poorer families experience lower investments in human capital, which is the first mechanism of the model (Case et al., 2005). These factors are transmitted to the next generation through cultural influences and genetics (Piraino, 2021, p.38).

The strength of the first channel on upward mobility not only depends on parental investment in human capital but also on the returns on human capital in the labor market. This is where developed and developing countries differ. Developing countries tend to have lower returns on human capital due to a large proportion of the informal economy. Moreover, parents in developing countries tend not to acknowledge the benefits of investing in children's education. Investing in health and fundamental education could yield higher returns in developing countries, which often lack infrastructure and institutional capacity. Meanwhile, investing in higher education could generate a higher return on human capital in developed countries, where fundamental education is already high, and high-skill industries exist.

The second channel can also alter the returns of human capital investment. Certain traits are transmitted through genetics and family culture, which have a multiplying effect on upward mobility. For example, parental networks increase the number of prospective jobs the child is offered for a given education level (Piraino, 2022, p.39). Children absorb the way their parents do things; if parents like to read, children tend to imitate the behavior. Children who love to read often come from families that love to read, compared to families that do not.

Moreover, in less developed areas or developing countries, the long-term effects are even more pronounced due to frequent shocks, disparities in early life, a higher prevalence of disease and malnutrition, and limited government compensation measures (Currie & Vogl, 2013). For example, individuals born during the Dutch potato famine experienced a loss of 4 and 2.5 years after age 50, with lower social classes being particularly affected (Lindeboom et al., 2010). Blanden (2013) found a strong link between inequality in early age and education and earning persistence, while inequality in adulthood is closely related to earning persistence. Additionally, Almond (2006) discovered that individuals born during the 1918 influenza pandemic experienced long-term negative impacts on cognition and socio-economic outcomes, including lower educational attainment, lower wages, and higher poverty rates.

In conclusion, various studies point out that parents can transmit their statuses to children. This is the main reason why children from disadvantaged backgrounds have much higher chances of climbing the social ladder.

2.1.2 Measuring Occupational Mobility

Among measuring intergenerational mobility with income or education, there are several advantages to measuring occupational mobility rather than income or education. First, occupations can encapsulate non-monetary aspects of social status that are not exclusively defined by income or education. Certain occupations carry a different degree of prestige or societal influence, which can have a significant impact on an individual's life. For example, a university professor and a successful entrepreneur may have similar levels of educational attainment and income, but the prestige, societal influence, and daily tasks associated with these occupations are distinct. Therefore, studying occupational mobility can shed light on these nuances that might otherwise be overlooked. Measuring occupations can also provide a measure of job quality which income cannot. Job quality reflects important elements such as work safety, autonomy in the workplace, stress levels, and job security. Manual workers in scarce fields could face these problems while earning as much as white-collar workers. Moreover, occupational mobility accounts for the variety in income levels within the same educational stratum. Individuals with similar educational backgrounds can have vastly different incomes based on the occupation they choose. This is especially true in developing countries where the same job titles can have different working conditions and types of employment. For example, there are various types of farmers, ranging from unpaid family workers, hired farmers, self-employed individuals, to farm business owners. Additionally, occupations tend to be more stable than income. After individuals choose their career paths, their occupational paths tend to remain stable over time. While income can fluctuate from period to period due to various factors, such as changing economic conditions and shocks, which can occur without changing jobs, occupations are less affected by such fluctuations. Finally, measuring occupational mobility requires less data and has a longer history of studies compared to measuring income mobility, which became popular after 1990 (Blanden, 2013, p.41).

This is particularly important in developing countries, where a high number of individuals work in non-standard conditions, such as working unpaid for their families or being self-employed. These working conditions are informal, unlike in developed countries, and are common in developing countries. Obtaining precise wage data for these groups is difficult, and comparing the occupations and employment status of parents and children can be challenging. Furthermore, in areas where everyone is poor, measuring income mobility might not be able to distinguish much among the samples, whereas measuring occupational mobility can provide insights into other non-monetary aspects.

Although there are some advantages, there are also several disadvantages to measuring occupational mobility. One problem is the difficulty in distinguishing between individuals with the same occupation title, creating an 'Equivalence of Meaning' problem both within the same country and across different countries. Moreover, individuals in occupations regarded as high-ranking in one social class might not necessarily have high income, making it challenging to code occupations of different countries into classes with the same meaning. Changes in occupational structure over time add additional dimensions to consider (Blanden, 2013, p.52). Another drawback is that since occupation is not always correlated with income and wealth, measuring occupation also ignores secondary occupations and part-time jobs. Individuals who emphasize hard work and working overtime might earn more than those in more prestigious occupations. Additionally, it cannot handle contemporary problems of higher inequality within

occupations, increased labor market volatility, and growing "dual-career" households (Sakamoto & Wang, 2020, p.8). This is particularly important in developing countries where people often have more than one job. Moreover, among the three aspects—income, education, and occupation—is that occupation is the most prone to nepotism, patronage, and social connections. Changing occupations due to these factors does not reflect individual skills or hard work and is more prominent in developing countries than in developed countries. Furthermore, occupations are usually coded and classified using specific approaches, making it difficult to compare with other studies, unlike income which is stored in a continuous metric (Long, 2013, p.7). Finally, occupation mobility studies often fail to include the wealthiest and the poorest individuals in the study, focusing only on jobs. There is increasing available historical data about wealth that is subjected to long-term economic analysis. Using this data could provide clearer results of social mobility trends in the long run.

Several studies use education as a main factor to study the relationship between education and intergenerational mobility. However, education accumulation starts at age 6 or grade 1 in mandatory education, missing the critical period of age 0-5 (Heckman & Masterov, 2007). In this case, using education cannot measure the effect of long-run outcomes stemming from the critical period. Using education as a proxy ignores the development of human capital in early childhood, which is perceived to have the highest return on investment. The worst disadvantage of using education is that having a higher education level does not necessarily mean that an individual will have a higher income or a higher occupational class. Although education is the main predictor of income in developed countries, it is preferable to use income or occupation to measure the obvious changes in social mobility. This is prominent in this case; education has lower predictive power in income in developing countries due to the poor quality of education, making it more difficult to signal skills to employers, and personal/family networks are more important in getting a job.

In summary, measuring occupational mobility provides a powerful summary indicator of an individual's position in the stratification system, capturing dimensions that income and education cannot. This is particularly crucial for developing countries where data is scarce, income volatility is higher, the return on education is lower, and secondary occupations play a significant role.

2.1.3 Classification of occupations

Before measuring occupational mobility, occupations need to be classified into classes or groups since occupational details are not stored in a quantitative manner like income and education. Standardization is necessary to enable consistent and comparable analysis of data from diverse sources and allows researchers to compare mobility trends over time by accommodating changes in occupational structures. In this study, three main classification types have been reviewed.

First, one standard classification for comparative research is the International Standard Classification of Occupations (ISCO) maintained by the International Labour Organization (ILO). It categorizes occupations into various 'unit groups' based on the similarity of skill level and skill specialization for jobs. The ISCO classification is not strictly ordered, which can create problems when measuring occupational mobility, as researchers might not accurately realize

upward or downward mobility (Heath & Zhao, 2021, p.178). This classification only focuses on occupational skills, ignoring other components within one class. When used for comparative purposes, it might miss important components in a society, such as institutional arrangements, history, social class, norms, and culture that are embedded in individuals and shape how individuals in a society think and behave. For example, a self-employed farmer possesses the same level of skills as wage farmers but works independently on their own land, not subjected to employment relations.

Second, hierarchical order scales are one-dimensional scales where each classification system assigns a score to each class of occupation. These scores are derived from various specific criteria such as education, reputation, socio-economic status, standing in the community, social relationships, etc., ranging from the lowest-ranked occupations at the bottom, such as manual labor, to the highest-ranked, such as business managers and doctors. Since the scale runs in one direction, it is amenable to statistical analysis such as OLS.

One important and popular distinction is the inclusion of individuals who are employers, as being an employer implies additional socioeconomic resources, privileges in the community (which also imply social capital), and managerial functions associated with higher-level occupations. Examples include Duncan's socioeconomic index (SEI), which is created based on the average education and income of individuals in occupation classes, and Stewart, Prandy, and Blackburn's Cambridge scale, derived from the closeness of social relationships such as friendship and intermarriage patterns, indicating social distance between occupations (Heath & Zhao, 2021, p.178).

A popular hierarchical scale is W.A. Armstrong's classification system, where individuals are assigned to one of the five ranked social classes: I = Professional, II = Intermediate, III = Skilled, IV = Semiskilled, and V = Unskilled. Armstrong's system is primarily based on occupation, but it also incorporates the component of 'social class.' Individuals with at least 25 employees are classified into Class I, and individuals in Class III or IV who hire at least one person other than a family member are classified into Class II. By adding this, individuals who possess enough capital can move to a higher class, as they possess higher privileges than others with the same skills. Armstrong analyzed his classification and found that it is positively correlated with the employment of servants and negatively correlated with shared accommodation (Long, 2013, p.8). Long (2013, p.10) employed Armstrong's system to measure occupational mobility in the Victorian era of the UK.

Third, categorical social class schema developed by Erikson, Goldthorpe & Porcatero (1979) has become one of the most popular methods to measure occupational mobility. Unlike the hierarchical scale, the EGP schema divides occupations into different categories, not purely by the hierarchy of social status but partially ordered. When determining the rank of each class, an individual's socio-economic status is employed as the main factor, but the categorical social class also includes important non-hierarchical aspects that reflect the employment status of individuals and the sector they are in. By incorporating types of employment into each class of occupations, each class reflects consumption opportunities, social environment structures, and culture that shape behavior and decision-making (Blanden, 2013, p.42).

As *Table 1* has shown, the schema originally consists of 11 classes. Classes I and II are usually referred to as the 'salariat'. Class III includes service workers but requires significantly lower skills to perform the job and offers less favorable employment conditions, although there are

some white-collar workers. Class IV primarily consists of self-employed small proprietors who are not employees. Class V includes blue-collar manual foremen and technicians who still possess some skills. Classes VI and VII consist of semi-skilled and unskilled blue-collar workers. The schema is often adapted by various researchers to match the local context by combining adjacent classes, especially in developing countries where the number of observations in the dataset is small.

This class schema has some dimensions of hierarchy but is not as robust as the previous type of classification, and there are some distinguishable structures. The hierarchy reflects differences in income, prospects, and employment conditions. Additionally, unlike the previous approach, the sub-classes reflect non-hierarchical elements such as employment status and entry requirements of the job. Even within the same occupation, such as farming, workers can have different employment statuses, such as farm owners or farm workers. The class schema provides the basis to distinguish the 'Petty Bourgeoisie' in Class IV, as well as farm and non-farm distinctions in Class IV and Class VII. People also treat workers in Class IV and Class VII differently, even if they have the same skills. In developing countries, they are treated as separate major classes, despite having the same occupation title.

Table 1 Erikson, Goldthorpe, Porcatero (EGP) Class Schema comparison

Class	Original	Sevenfold	Fivefold	Threefold
I	Higher-grade professionals, administrators and officials; managers in large industrial establishments; large proprietors	I + II 'service class'	I + II + III 'white-collar'	I + II + III + IVa + IVb 'nonmanual'
II	Lower-grade professionals, administrators and officials; higher-grade technicians; managers in small business and industrial establishment; supervisors of non-manual employees			
III	Routine non-manual employees in administration and commerce; sales personnel; other rank-and-file service workers	III 'routine non-manual class'		
IVa	Small proprietors; artisans, with employees	IVa + b 'petty bourgeoise'	IVa+ Ivb 'petty bourgeoise'	
IVb	Small proprietors; artisans, without employees			
IVc	Farmers and smallholders; self-employed	IVc	IVc + VIIb ' farm'	IVc + VIIb 'farm'
V/VI	Lower-grade technicians; supervisors of manual workers; skilled manual workers	V/VI	V/VI	V/VI + VIIa 'manual'
VIIa	Semi-skilled and unskilled manual workers	VIIa	VIIa	
VIIb	Agricultural workers	VIIb		

Source: Author's reconstructed from Erikson, R., Goldthorpe, J. H., & Portocarero, L. (2010, p.189)

When EGP developed this class schema, they pointed out three mechanisms that need to be considered, which generate or inhibit movement between classes: direct inheritance, sectoral barriers, and occupational affinity. First, inheritance generates additional capital for individuals, leading them to have higher social and socio-economic status compared to those with the same occupation. Second, sectoral barriers prevent individuals from easily moving up in the hierarchy and are often related to the geographical concentration of occupations, particularly primary production jobs like agriculture, fishing, and extractive industries, which are located in deprived areas with limited job opportunities. Third, affinity contributes to the movement of workers between jobs by leveraging favorable social networks. Social networks and subcultures

influence how individuals from different classes think and behave. The presence of affinity becomes apparent in the differentiation between white-collar and blue-collar workers. Various processes, influenced by subcultures and social networks, facilitate smoother transitions between classes that share similar characteristics rather than crossing the boundary between manual and non-manual occupations.

The additional characteristics of the EGP schema provide a useful model for measuring social mobility in developing countries. Social mobility is influenced by various factors, not only human capital assigned hierarchically but also social classes and inherited assets of workers. Nevertheless, the schema still needs to be adapted to the specific local context of each developing country. Firstly, assigning occupations to each class should be adjusted, not following the EGP schema directly. Secondly, researchers should add further distinctions that do not exist in the EGP schema in the class table. Examples of this include farmers working for subsistence or selling their products in the market, and workers with the same occupations but different employment conditions: formal and informal sectors. The second point is particularly important in developing countries where the agricultural and informal sectors are still large, unlike developed countries where the informal sector is small (Heath & Zhao, 2021, p.182).

In summary, an occupation classification system suitable for measuring social mobility must undergo statistical analysis, be comparable with other studies, and provide historical and institutional contexts from various dimensions. The International Standard Classification of Occupations (ISCO) is commonly used for comparative research, but it only considers individual skills and lacks a specific ranked order. Therefore, it may not fully capture essential social and cultural components within societies and is not suitable for statistical analysis. Alternative approaches include hierarchical order scales and categorical class schemas. The former involves one-dimensional scales with scores based on various criteria. Armstrong's scales rank skills and socio-economic status and add important dimensions such as employment relations. The latter, exemplified by the EGP schema, categorizes occupations into different categories not purely based on the hierarchy of social status but also adds significant dimensions such as inheritance, sectoral barriers, and affinity. This approach allows for a more nuanced understanding of social mobility in different local contexts. However, any classification scheme requires adaptation to suit specific local contexts, especially in developing countries with distinct occupational structures.

2.1.4 Difference in measuring social mobility in developed and developing countries

Empirical studies of intergenerational mobility in developing economies tend to reveal higher levels of economic status persistence across generations compared with those in developed economies (Piraino, 2021, p. 35-36). Although educational attainment is the primary predictor of an individual's earnings in contemporary societies, and the earnings returns to schooling are greater in developing countries than in wealthy nations, we cannot be certain that the factors contributing to upward mobility in developed countries operate in the same way in developing nations.

The drivers of social mobility in developing countries might differ from those in developed countries, especially traditional drivers. Industrialization, which shifted workers from the agricultural sector to the manufacturing sector in the West and Japan, directly contributed to absolute mobility, resulting in workers having higher incomes and occupying higher occupational classes than their parent generations. However, the trend in developing countries is that workers are currently transitioning from the agricultural sector to the service sector, including casual jobs in trades, hotels, and restaurants. The formal and unionized sectors have not been growing as fast as the informal sector in developing countries, where the informal service sector is expanding. For instance, 4% of the Philippines' labor force is in the informal sector, while approximately 50% of Thailand's labor force is in the informal sector (National Statistics Office, 2021). Furthermore, the increasing demand for automation in industrial facilities and the business sector is reducing the demand for labor (Iversen, 2021, p. 20). Thus, industrialization might not contribute to social mobility in developing countries as it did in the West. Moreover, although industrialization contributes to absolute mobility, relative mobility is a different story. Industrialization leads to a change in the total occupational structure, usually expanding the manufacturing sector and contracting the agricultural sector. However, if we line up 100 individuals in a linear arrangement, it is plausible that their standing positions in a society of these individuals remain static and unchanged. The chance of an individual moving to a higher class might remain the same.

As mentioned earlier, the standard model of intergenerational income mobility by Becker & Tomes (1979), which serves as the basis for various empirical analyses, predicts two results: 1. Higher-earning parents invest more in their child's human capital, resulting in an increase in income in the child's generation. 2. Higher-earning parents have greater income-enhancing endowments, which are transmitted to the next generation through cultural influences and genetics (p. 36-39). Thus, the key drivers in the standard theory are parental investment in human capital and inherited family attributes. These two factors can aid in the interpretation of empirical evidence from low- and middle-income countries.

However, there are also other important drivers that only exist in developing countries, which include some of these: (1) labor market segmentation, (2) credit and risk/insurance market failures, and (3) information frictions, particularly in reducing information barriers in job search and in expectations about returns to education.

A segmented labor market is one of the key characteristics of labor markets in developing countries. The main differences lie between formal and informal sectors and between rural and urban areas. The standard model of social mobility assumes a uniform labor market in which

the skills of each individual are equally rewarded across sectors. In reality, individuals working in the informal sector might have lower earnings and occupational prestige, even if they possess the same skills as those working in the formal sector. Moreover, mobility across segments in developing countries is hindered by various factors, such as labor market institutions and regulations, as well as geographic hurdles. The capacity to access different segments of the market is transmitted across generations. High-skill individuals could find themselves working in low-productivity jobs due to a lack of parental networks. Connections inherited through family can lead children to prospective opportunities to work in the same sector and related jobs as their parents (Piraino, 2021, p. 40-41).

Risk and uncertainty have a more significant impact on social mobility in developing countries than in developed countries. It plays a crucial role in shaping the budgets and spending choices of households. For developing countries, the heightened levels of uncertainty and income volatility can be attributed in part to the larger agricultural sectors prevalent in these nations, exposing farmers to risks associated with seasonal variations and weather-related shocks. Additionally, developing countries have larger informal sectors and fewer labor market regulations, further contributing to an environment of elevated risk. Given these circumstances, individuals face challenges such as low wages, unpredictable income, and a lack of well-established insurance mechanisms. Consequently, they are compelled to exercise caution in managing their resources, potentially leading to suboptimal risk-taking behaviors. Uncertainty in current and future earnings affects parents' decisions to invest in human capital, as predicted by the standard two-period model. A reduction in parental investment affects the upward social mobility of children in the future. Specifically, the level of investment in children may not be optimal if parents perceive a possibility of uncertainty in future income, even if there is no current income constraint in the present (Piraino, 2021, p. 44-45).

Labor market information frictions are also prevalent in developing countries since individuals searching for jobs often lack formal educational degrees and the limited work experience required for skills signaling. Even with a formal education degree, the quality of degrees varies, making them less credible for signaling higher productivity. Developing countries also lack relevant labor market information due to spatial frictions and lower usage of information technologies. Information frictions prevent the matching of the right employers and employees, disadvantaging individuals from entering higher-paid jobs than their parent generations. Individuals seeking jobs do not know the proper wage level a certain job should pay, especially regarding wage discrimination against women, while employers tend to suppress wages to be as low as possible. From an employer's perspective, there is an incentive to hire only known networks to reduce moral hazard problems. This perpetuates individuals with good networks from their families continuing to secure high-paid jobs. Another type of information friction is related to returns to education. Parents often underestimate the returns of education for their children, resulting in underinvestment in their children, which affects them over the course of their lives. Segmentation and segregation imply that individuals from different socioeconomic statuses perceive different expectations about returns on education. This interaction influences how a child's human capital responds to inherited disadvantages via this additional channel of influence. In sum, information frictions reduce the chances of upward mobility (Piraino, 2021, p. 46-48).

After considering the differences between developed and developing countries, combined with the literature review above, we can summarize the problems of measuring social mobility in

developing countries: (1) Adoption of classification systems, (2) Equivalence of meaning, (3) Changes in the position of an occupation over time, (4) Distances between hierarchical levels of occupations, and (5) Secondary occupations and self-employment.

Classification systems for occupations are usually developed for use in the Global North, which consists of industrial economies with occupational structures differing from those in developing economies. In the West, most workers are employees in the formal sector, while in developing countries, a significant portion of workers is still in the informal agricultural sector. Although there is a trend of shrinking agricultural sectors in developing countries, these workers have not transitioned to formal employment but have moved to other informal sectors such as casual laborers, employees in supermarkets, and gig workers. Without adapting the classification systems used to measure these changes, local contexts of individual countries, such as institutional arrangements, history, and culture, might be ignored (Heath & Zhao, 2021, p. 174).

Equivalence of meaning becomes a challenge when comparing occupational mobility across different countries (Heath & Zhao, 2021, p. 176). Workers with the same occupation title can have different earnings and working conditions, varying between developed and developing countries. Survey questions, although identical, can elicit different responses due to cultural and local contextual differences. For instance, farmers in developed countries increasingly use mechanization and modern agricultural processes, leading to higher profit margins and reduced dependence on labor. Similarly, the occupation of a shoe-maker in a developed country involves access to advanced technologies and regular formal employment, providing greater income security. These disparities in earnings and working conditions influence the social mobility of the descendants of these workers.

The position of an occupation in society can change over time as a society develops, resulting in shifts within the occupational hierarchy. For example, in 19th century United Kingdom, a postman was considered highly educated due to the ability to read, which was rare at that time (Heath & Zhao, 2021, p. 179). However, as education and literacy levels developed, the occupation of a postman lost its high-class status. Nowadays, a postman might be classified as a lower-class occupation.

Another problem arises from labor market segmentation, where the distances between different occupational hierarchies vary between countries. The order of occupations in developing countries is generally similar to that in developed countries, with professionals at the top and unskilled, manual, and agricultural workers at the bottom. However, the intervals between these occupational hierarchies are wider. Social distances between hierarchies of occupations are higher in countries with high inequality and lower in countries with low inequality. In developing countries, the distance of transitioning from an agricultural worker to a carpenter is wider. To address this issue, creating a more frequent scale can accommodate these wider distances.

The final problem involves secondary occupations or self-employment. These secondary occupations play crucial roles in occupational classifications. While the hierarchy of occupations is typically ranked from professionals at the top to unskilled workers at the bottom, this ranking may not be accurate because secondary occupations and self-employment act as additional resources for social mobility. Secondary occupations, often informal, are especially important in developing countries with large informal sectors. These jobs can utilize human capital or extra assets, providing opportunities for increased income. For example, a rice farmer

might also work as a hairdresser, and manual workers could engage in small enterprises after their primary work hours. The combined income from primary and secondary occupations could exceed the income of workers in higher social classes who do not have secondary occupations. This ability to leverage additional resources for social mobility is less common in developed countries where most individuals have only primary jobs and institutional contexts are more homogenous.

In summary, there are significant differences in the drivers of social mobility when measuring occupational mobility in developing and developed countries. These differences must be considered when studying occupational mobility in developing countries. Problems such as equivalence of meaning, variations in privileges among occupations in different countries, and the prevalence of secondary occupations providing additional resources can result in incorrect classifications of occupations and fundamentally alter the outcomes of a study (Heath & Zhao, 2021).

2.2 Previous Research and Empirical Evidence

2.2.1 Thailand

As previously stated in the introduction, it is important to acknowledge that comprehensive research on social mobility in Thailand is lacking. This section aims to provide an overview and summary of existing studies on social mobility in Thailand, especially with a focus on occupational mobility.

Being of agricultural origin influences the chances of children staying in agriculture. Rayasawath (2018) collected surveys from 400 households and analyzed the data using logistic regression. The results indicated that five factors influenced the succession of youths in farming households in agricultural occupations: children's experience in agricultural work, attitude towards agriculture as an occupation, the number of agricultural laborers within a household, problems with agricultural resources in the past, and marital status (Rayasawath, 2018). The first four factors can be transmitted from parents. The first, third, and fourth factors can only be experienced if children live in an agricultural household. Therefore, being born into an agricultural origin increases the chance of staying in agricultural jobs.

The trends of urbanization rate and occupational mobility from 1970-1980 changed in the same direction in middle to highly urbanized areas. In contrast, rural areas experienced an opposite trend: higher urbanization rates led to lower mobility of existing high socioeconomic status individuals. The main reason is that when rural areas were being urbanized and industrialized, the occupation structure gradually changed from agriculture to industry. The beneficiaries of this change were non-local people who invested in the industrial transformation of land uses, often capitalists from outside the areas. This resulted in former landlords in rural areas facing a decrease in income from land rent. Their status changed from "landowners" to "wage earners," working in agriculture and the industrial sector (Wongbuddha, 1988, p.v). Conversely, in rapidly urbanizing areas where agricultural land utilization decreased, individuals with lower socioeconomic status who lived in those areas enjoyed greater opportunities to transition from being wage-earning farmers to wage-earning industrial workers. Another reason is that these people obtained higher income from their children who migrated to work in new growing cities and transferred money back home. Thus, there is a correlation between an individual's social status and their place of residence. There is evidence that countries undergoing rapid industrialization, such as Japan, South Korea, and Hungary, have lower sectoral barriers between farm and non-farm occupations, compared to Western industrialized countries. This process also creates a large reserve of "semi-proletarians," or part-time farmers who work in industry but still maintain ties to their lands (Zhou, 2019, p.10). Individuals with high socioeconomic status live in highly urbanized communities, which are municipalities, while those with middle social status live in sanitary areas (later becoming lower municipalities), and those with low social status live in rural areas (Wongbuddha, 1988, p.iv). Moreover, the author also found that education and migration are positive factors for a person's social status and negative factors for the fertility rate.

Sonsaneeyarat (1998) found that occupational mobility is lower among professionals and skilled workers than among semi-skilled and unskilled classes. During the peak agricultural

season, agricultural workers who work in their own farms are hired to work in others' farms. In the off-season, many of them migrate to work as wage earners in urban areas, especially Bangkok. They overwhelmingly work as factory workers, with the remaining working in the commerce and service sectors. They then return to their hometowns during the peak seasons again. The migration rate is higher in the Northeast area, which is often characterized as the poorest region. While the South and the North do not show much variation. The percentage of upward mobility from unskilled to semi-skilled classes is 17.9% during the off-seasons and 22.5% during the peak seasons. The interesting finding is that education is not an important determinant of upward mobility, unlike in other research in the West and in developing countries like South Africa (Woolard & Klasen, 2005). The reason is that 80% of the workers are semi-skilled and unskilled workers, and occupational mobility mostly occurs between these two major classes. Moreover, the mobility comes from the agricultural sector, which is seasonal and temporary in this study. Education might be an important driver of upward mobility to the professional class but might not be a primary driver of the lower occupation classes. Bangkok and its vicinity have been found to consider education more important than other regions. Thus, education is not significantly important in the social mobility of the lower classes (p.vii).

Another aspect of Economic growth is a transition from an agricultural-dependent economy to a non-farm rural economy (Chawanote & Barnett, 2014). They found significant occupational transitions over just five years, mainly involving moves into farm self-employment and non-farm employee positions rather than into farm laborer, non-farm self-employment, or farm or non-farm employer positions. Among seven different occupational groups, there is a clear hierarchy in terms of earnings distribution. The earnings of farm workers are consistently lower than those of self-employed farmers, and the earnings of self-employed farmers are, in turn, lower than those of farm employers each year. There is no robust dominance hierarchy existing between farm employers and non-farm self-employed individuals. However, the earnings distributions of non-farm employers and employees stochastically dominate those of non-farm self-employed individuals without employees, as well as all the earnings distributions within the farm sector. It therefore seems important to differentiate between non-farm self-employment without hired workers and those household enterprises that hire non-family members, which we term entrepreneurs. Since different employment relations possess different levels of income and other characteristics, although they possess the same skills.

Furthermore, individuals who engage in high-productivity non-farm activities enjoy the most upward earnings mobility. However, individuals with higher initial wealth and human capital are more likely to engage in high-earning non-farm activities and benefit most from them. Only a small number of individuals become non-farm employers, which is the most remunerative occupation group, reflecting the difficulty of establishing and maintaining a business with employees. Less than one percent of these household enterprises employ ten or more family members (Chawanote, 2013), indicating limited employment generation potential through household-based non-farm enterprises in rural Thailand (Chawanote, 2014). During the period of 2005-2010, less than one percent of household-owned enterprises in rural Thailand employed more than ten employees. Only a minority of these enterprises demonstrated significant employment growth over the period (Chawanote, 2013, p. 11). Additionally, the Thailand establishment enterprise survey in 2007, which covered only the manufacturing sector, showed that only 5.7% of firms employed more than 15 workers. In rural areas, at most one-third of non-farm employees worked for private businesses that hired fewer than 10 employees. People in developing countries face structural constraints between 'the distribution of income and

wealth' and 'the dynamics of occupational choice'. People do not have free choice to choose their occupations. Thus, the poor end up as wage-earners and the rich become entrepreneurs (Banerjee & Newman, 1993). From this, we can imply that the transition from farm employment to non-farm employment was rare in Thailand during 2005-2010.

Moreover, they found that most newly self-employed individuals and entrepreneurs transitioned from wage employment rather than from unemployment. However, they found extremely low transitions from self-employment to entrepreneurship, and vice versa (Chawanote, 2013). Thus, we can confirm that self-employment is a lower class than real entrepreneurship.

Regarding the Thai data employed in social mobility studies, Wongbuddha used the Population and Housing Censuses from 1970-1980, encompassing a total of 503 communities, and for personal level data, Wongbuddha conducted her own survey by interviewing individuals over the period of 1970, 1980, and 1985, totaling 720 households and 1,294 individuals aged 35 years and older. Sonsaneeyarat (1998) employed the 1993 Labor Force Survey, collected by the National Statistics Office. Chawanote & Barrett (2014) used national Thai SES panel data from 2005-2007 and 2010. The authors matched the Thai SES panel with the village-level National Rural Development (NRD) dataset.

To summarize, economic development always involves structural transformation of occupations. During this transformation, farmers enjoy greater opportunities to become wage-earning workers in higher hierarchies. However, only a very small number of people were able to move on to become entrepreneurs, typically those who initially possessed higher wealth and human capital. Those who succeeded also faced challenges in maintaining their enterprises and often failed. Moreover, most occupational changes occurred in unskilled and semi-skilled classes, rarely in the professional class, primarily due to rural non-farm investment by outside capitalists. This resulted in former landlords becoming wage-earners due to decreasing returns from their lands (Wongbuddha, 1988). Meanwhile, Chawanote & Barnett (2014) found that people moved into farm self-employment and non-farm employee positions rather than agricultural laborer, non-farm self-employment, or employers in any sector. Some people moved from non-farm employment back into agricultural self-employment, as not all non-farm employment was lucrative. In this process, therefore, education was not the main determinant of social mobility.

3 Data

3.1 Data Source

I employed the Townsend Thai Project (Townsend, 2009 & 2018), a household panel data covering the period of 1997-2017. The baseline survey began in 1997 and was followed by a resurvey every year. The project was pioneered by a professor from the University of Chicago in collaboration with Thai official authorities (Townsend, 2009). It is arguably the longest-running panel anywhere in the developing world (Townsend, 2016). The number of observations from the initial survey in 1997 was 2,870 households. The main purposes of the project were to obtain reliable information on informal and formal mechanisms and institutions, to assess and track the impact of development on households and businesses, and to provide a micro-level evaluation of family networks, markets, and institutions. The survey covered at least one county in the mentioned provinces that had been surveyed by national SES data every year, serving as a benchmark and comparative information. The project intended to select two separate regions, one from the relatively more developed Central part and another from the poorer semi-arid Northeast. Two provinces from the central region were Chachoengsao and Lopburi, and the other two provinces from the Northeast were Buriram and Srisaket. The relevant sections for the studies included household composition, occupation, children living outside the house, parent's characteristics, inheritance, and household business.

There was attrition bias due to some households dropping out of the survey, and the project experienced a decrease in budget. In 1997, there were 2,870 households, and this number decreased to 1,201 households in 2017. After removing unusable observations, such as missing relevant data and families that could not be linked, the households that could be used to measure intergenerational mobility from the parent generation to the children generation amounted to 1,632 observations of the parent generation, 933 observations of the children generation, and 352 observations of grandfathers. The statistics are summarized in Table 2.

From the data, information about the respondents' primary occupation, secondary occupation, and employment status was collected. Additionally, parental characteristics from the baseline survey in 1997 enabled us to distinguish the class origin of individuals from their fathers. An important element of this data was the collection of information about children who lived outside the household, providing insights into social mobility in developing countries where children often move outside the household to work in urban areas where higher-paying positions are available. Household income from work and business was also collected, albeit sparingly. I calculated the ratios of female to male employment by dividing the number of employed females by the number of employed males. This ratio was 0.91 in 1997 and 1.05 in

2017. In comparison, in 2010, the ratios of female to male employment were 0.63 in Chile, 0.82 in China, 0.31 in Egypt, and 0.35 in India (Heath & Zhao, 2021).

Table 2 Summary of Statistics

	Total	Grandfather	Father	Mother	Son	Daughter
Parent 1997 combined with children 2017, age 30-60	2955		518	584	896	955
After remove family that cannot be measured[1]	1632		324	373	444	489
Three generations	1230	352			413	460

Source: Townsend (2009 & 2018)

3.2   Data Discussion and Data Management

To measure occupational mobility, I limited the age of the samples to individuals aged 30-60 years old. This age range provides a precise measure of parent occupation. Age 30 serves as the lower bound, as individuals typically reach 'occupational maturity' around this age, and occupations tend to remain stable after that point. The upper bound, 60, represents the legal retirement age. While some individuals might retire earlier than 60, and others might continue working after 60, this often involves informal occupations such as farming or local trading. Formal and monthly-wage occupations mostly cease after 60. Individuals older than 60 accounted for 1,379 observations out of the total 18,746 observations in the 1997 dataset, constituting only 7% of the total.

Previous studies that limited age included Zhou (2019, p.18), who restricted samples to those aged between 31-64 when studying social mobility in the People's Republic of China after the revolution. Wongbuddha (1988, p. iii) focused on individuals aged 35 years and older. Chawanote (2014) included everyone between the ages of 15-70, categorizing individuals employing non-family members in non-farm activities as employers and self-employed individuals without employees as self-employed. Erikson, Goldthorpe & Porcatero (2010) limited their samples to men aged 35 and over. I chose to narrow the age range to 30-60 due to the limited number of linkable observations between 1997-2017; further narrowing the age range would reduce the number of linkable observations.

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[1] Relevant data is missing, no employment history for both parent, only data of parent or children exist

Many individuals had primary occupations that could not be used, either due to missing data or because individuals answered that they had no prior occupation. In such cases, I moved up the secondary occupation to the primary occupation, following the approach of Heath & Zhao (2021). This was feasible because the data defined the primary occupation as the one generating the highest income for an individual in the last 12 months, while the secondary occupation was any other occupation held during the same period. Although some individuals spent more time in their secondary occupation, the primary one generated higher earnings. Additionally, primary occupations might be missing due to the survey taking place during an off-agricultural season when individuals, especially agriculturalists, often worked in alternative occupations while waiting for their agricultural products. However, some individuals had both primary and secondary occupation data labeled as 'missing,' 'not applicable,' or 'no prior occupation,' even though data in other sections besides occupation was available. These individuals likely chose not to disclose their occupations to the interviewers, making it necessary to exclude this group from the analysis. The list of coded occupations is provided in *Table A2*.

To address the problem of equivalence of meaning, distinguishing 'factory workers' proved challenging because factories encompass various positions with differing skill and education requirements. For simplicity, all 'factory workers' were classified in class VII due to the common perception of manual labor involving machines with low pay and poor working conditions. Higher-class occupations such as engineers are not common in rural areas (Wongbuddha, 1988), so if a person worked as an engineer or technician, they would likely have indicated a different occupation, not 'factory worker.' Similarly, 'government workers' encompass various roles, such as data entry clerks, secretaries, local administrators, and document delivery workers, with skills that could place them in Class II, Class III, or Class VII. I chose to classify all 'government workers' as Class II, acknowledging that class determination is not solely based on skills; other factors, like family networks, also influence these individuals' movement into government jobs, which are seen as privileges in rural areas. Additionally, these individuals might have chosen different occupation codes if they worked in lower-class positions.

4   Methods

The aim of this study is to provide a contemporary analysis of intergenerational occupational mobility in Thailand. I employed the EGP class schema as a system for classifying occupations, adding relevant characteristics to adapt the schema to match the local context of developing countries. This adaptation allows for comparisons with other studies. The study measures absolute mobility rates using standard mobility tables and assesses relative mobility through outflow mobility tables and odds ratios.

4.1   The Methodological Approach

The additional characteristics integrated into the EGP schema offer a valuable model for measuring social mobility in developing countries. Social mobility is influenced not only by human capital and skills, which are hierarchically assigned, but also by social classes and inherited assets, aspects not prevalent in other occupation classifications. However, adapting the schema to the specific context of each developing country is crucial. Occupation assignments to each class need adjustment, not strictly following the EGP schema. Further distinctions must be added to the class table. For example, workers with the same occupations but different employment conditions, such as formal and informal sectors, need differentiation. This distinction is vital in developing countries where the agricultural and informal sectors are substantial, unlike in developed countries where the informal sector is small (Heath & Zhao, 2021, p.182).

To adjust the schema, Class V foremen and Class VI skilled manual workers, indistinguishable in the dataset, were combined. Classes I and II were also merged due to the scarcity of individuals in these professional classes. Additionally, Class IVa and IVb were combined to form a single class of petty bourgeoisie, considering the small number of employers. Consequently, the adapted version comprises seven classes, as demonstrated in *Table 1*. A brief overview of the threefold version will be presented in the results section.

To measure absolute mobility, I utilized standard mobility tables as the primary methodology. The table consists of different cells, each representing the frequency or number of observations in each class. By comparing these distributions, we can identify classes that have a greater presence in one distribution compared to the other, indicating whether certain classes are growing or declining. In the table, the diagonal line represents individuals who are immobile, while the upper right corner signifies individuals experiencing downward mobility and the bottom left corner represents those experiencing upward mobility. The remaining unshaded cells indicate horizontal mobility rates, representing individuals moving to other classes without moving hierarchically upwards, such as between Class VII and Class VIIb, and Class IV, IVa, and V (Hout, 1983, p.8).

For relative mobility, this research employs 'outflow mobility tables,' illustrating the share of individuals from the originating class moving to the destination class and vice versa. This approach allows us to discern the varying opportunities for each class to transition to specific classes. Additionally, I utilized the 'odds ratios' method, commonly employed in research by Heath & Zhao (2021), Breen (2004, p.18), and Fachelli et al. (2021). Odds ratios assess the likelihood of individuals from two distinct social classes attaining a specific class status and avoiding a different one. Notably, this method is unaffected by fluctuations in occupational structure over time, as it does not rely on the overall distributions of parents and children across classes (Heath, 2021, p.187). In essence, it calculates the comparative probabilities of individuals from various social classes ascending in the professional hierarchy.

$$Odd\ ratio = \frac{\left(\dfrac{Number\ in\ Class\ A\ who\ originated\ in\ Class\ C}{Number\ in\ Class\ B\ who\ originated\ in\ Class\ C}\right)}{\left(\dfrac{Number\ in\ Class\ A\ who\ originated\ in\ Class\ D}{Number\ in\ Class\ B\ who\ originated\ in\ Class\ D}\right)}$$

The dataset is unable to distinguish between Class IVa and IVb. The types of workers in the dataset can only be differentiated as owners of businesses, employees, or unpaid family workers. It cannot even distinguish the crucial class in developing countries: the self-employed. To address this limitation, I combined both professional classes, Class I and II. In modern economies, combined Classes I and II tend to be significant, accounting for up to 50% of the labor force, but these classes are small in our data. Additionally, these classes are not widespread in rural areas (Wongbuddha, 1988).

Next, I merged Class IV by combining the original Class IVa and IVb. All individuals who own non-agricultural businesses are categorized as Class IV, as these entrepreneurs are prominent in Thailand's rural areas, acting as substitutes for government services, such as entrepreneurs dealing in electric appliances, motor vehicles, etc.

The remaining business owner class is IVc, representing self-employed farmers. Since the dataset cannot distinguish between self-employed agriculturalists and business owners, individuals who are self-employed in agriculture would respond in the survey that they are business owners. Hence, I coded them into Class IVc. However, this introduces a new issue: agricultural-related businesses can sometimes be substantial, like rice mill businesses, often managed by local influential figures. This study completely ignores medium to large agricultural businesses since we cannot differentiate agricultural businesses from self-employed individuals. This is noteworthy because in 2010, farm employers constituted 1.8%, while self-employed farmers accounted for 24.8% (Chawanote & Barnett, 2014).

A concise proxy is also necessary to identify an individual's origin class. Most studies I reviewed used the father's class to represent the origin class (Long 2013; Fachelli, 2021; Heath & Zhao 2021). Traditionally, fathers have been the family breadwinners, while mothers have lower market participation, especially in developing countries. An important question arises: which parent's class – the higher or lower – has a stronger influence on their children? Another consideration is the gender of the parent. Many studies have used fathers, but what if the status of the mother has a stronger impact on the children than that of the father? For instance, Xie et al. (2022, p.3) compared occupational mobility in China and the U.S. and found that the mother-child link is stronger in China than the father-child link. This is because Chinese women historically have had high rates of labor market participation. In contrast, the father-child link

is stronger in the U.S. Despite these considerations, I will continue using fathers as a proxy due to the limited scope of this work, and the results can be compared with other studies.

4.2   Limitations

As described in section 2.1.4, secondary occupations play an essential role in developing countries. Individuals who engage in more than one job have a chance to earn more than those who have only one job but belong to a higher occupational class. However, the income data in the occupation section is available only for those who work as monthly-wage employees or daily-wage employees. Income data from businesses are not provided. Consequently, it is impossible to measure the total wage of an individual accurately and assign the precise occupational class, or calculate earnings within the same class. Additionally, I can only select the primary occupation to represent the individual, which is a limitation of this dataset.

Another significant issue is that individuals' occupations can shift upward and downward over the life course. Young people start their careers at entry levels and progress along their paths. However, when tracking trends across cohorts from repeated surveys, I can only assume that an individual's occupation remains the same as at the time the survey was collected. During periods of rapid industrialization, individuals tend to experience higher mobility due to a growing economy and changes in occupational structures. Using a snapshot as a methodology could introduce some bias. However, by limiting the age range to 30-59, with the lower bound being 30 years old (considered 'occupational maturity' when occupation paths are set and tend to remain stable), this bias is minimized.

Furthermore, the study's areas of interest are all located in rural areas where the occupation structure is limited. Most people work in manual labor and agriculture, while professional and non-manual occupations are rare. Wongbuddha (1988, p.iv) determined that there is a correlation between an individual's social status and their place of residence. Those with higher social status tend to reside in highly urbanized areas, while individuals with a middle social status are often found living in sanitary areas. Conversely, those with a lower social status predominantly inhabit rural regions.

5   Empirical Analysis

5.1   Results & Discussions

Starting with absolute mobility, the definition of absolute mobility pertains to the percentage of the population that has experienced movement from the positions of their family where they grew up. The tables illustrate the percentage of respondents in 2017, cross-tabulating the respondent's class by the origin's class using the adapted EGP schema version. I formatted the table as a percentage to assess the mobility within different occupational classes. Percentages were used to calculate the total mobility and immobility rate.

Table 3 represents a standard mobility table for total respondents. It was derived by classifying individuals into each Class based on their origin and dividing each cell by the total observations (898) to demonstrate the percentages. Some cells indicate 0% due to a relatively small number of observations. To interpret the table, for example, 18.6% of respondents originated from Class VII and remained in the same class. Another 2.4% of respondents came from Class VIIb and experienced upward mobility to Class I+II. The main diagonal line running straight through the table from the top-left to bottom-right, the darkest shade, represents respondents who are intergenerationally immobile. In other words, these individuals did not experience upward or downward intergenerational mobility but remained in the same origin class. Summing these cells provides the total immobility rate of the table, which is 26.5%. In contrast, the intergenerational mobility rate can be calculated as 73.5%. However, this rate encompasses both upward and downward mobility. Total upward mobility can be calculated by summing the light grey cells in the bottom-left of the table, amounting to 29.5%. Conversely, the downward mobility rate can be computed from the dark grey cells in the top-right of the table, totaling 25.5%. The remaining cells (unshaded cells) represent individuals who moved into adjacent Classes but not perceived to be of higher hierarchy. Classes VII and VIIb are in the same hierarchy, as are Classes IV, IVc, and V, which are higher than Classes VII and VIIb. This is called horizontal mobility. From the table, the horizontal mobility rate is 18.5%. Lastly, the bottom row demonstrates the total percentage of a certain Class in the whole society.

In theory, absolute mobility rates might appear better, but individuals from advantaged backgrounds may still remain at the forefront of upward mobility. In other words, relative mobility could have stayed the same. Individuals might have only experienced class structural transformations, not upward mobility. Relative positions within a society could remain unchanged as the economy progresses. One country might exhibit a surplus in the total absolute mobility rate, but the degree of social fluidity could be low. When we compare the absolute mobility rate to the total class structure in *Figure 1 & Figure 2*, the surplus of upward mobility results from the changing total class structure. For instance, 2% of parents were in Class I+II, but this expanded almost sixfold to 11.4% for children. Both Class III and Class V expanded approximately threefold. Moreover, the agricultural workers class contracted from 28.1% to

15.1%. The increase in opportunities at the top and the decrease at the bottom contribute to upward absolute mobility.

Table 3 Standard mobility table of total sample (male+female), N = 898

Father's Class	Children's Class							
	I+II	III	IV	IVc	V	VII	VIIb	Total
I+II	1.9%	0.3%	0.0%	0.1%	0.0%	0.6%	0.0%	2.9%
III	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.2%
IV	1.9%	0.1%	0.8%	1.1%	0.6%	4.3%	1.0%	9.8%
IVc	2.3%	0.7%	3.2%	3.2%	1.0%	11.7%	5.9%	28.1%
V	0.0%	0.0%	0.1%	0.1%	0.0%	1.0%	0.3%	1.6%
VII	2.8%	1.8%	5.5%	4.9%	1.3%	18.6%	5.9%	40.8%
VIIb	2.4%	1.2%	1.2%	2.7%	0.7%	6.5%	2.0%	16.7%
Total	11.4%	4.1%	10.8%	12.1%	3.7%	42.8%	15.1%	100.0%

Source: Author's calculations

Figure 1 Structural change of Class of occupations in three generations

	Grandparent	Parent	Children
■ I+II	2.3%	2.0%	11.4%
■ III	0.6%	1.3%	4.1%
■ IV	0.6%	11.7%	10.8%
■ IVc	8.6%	20.2%	12.1%
■ V	0.6%	1.2%	3.7%
■ VII	4.0%	35.5%	42.8%
■ VIIb	83.4%	28.1%	15.1%

VIIb ■ VII ■ V ■ IVc ■ IV ■ III ■ I+II
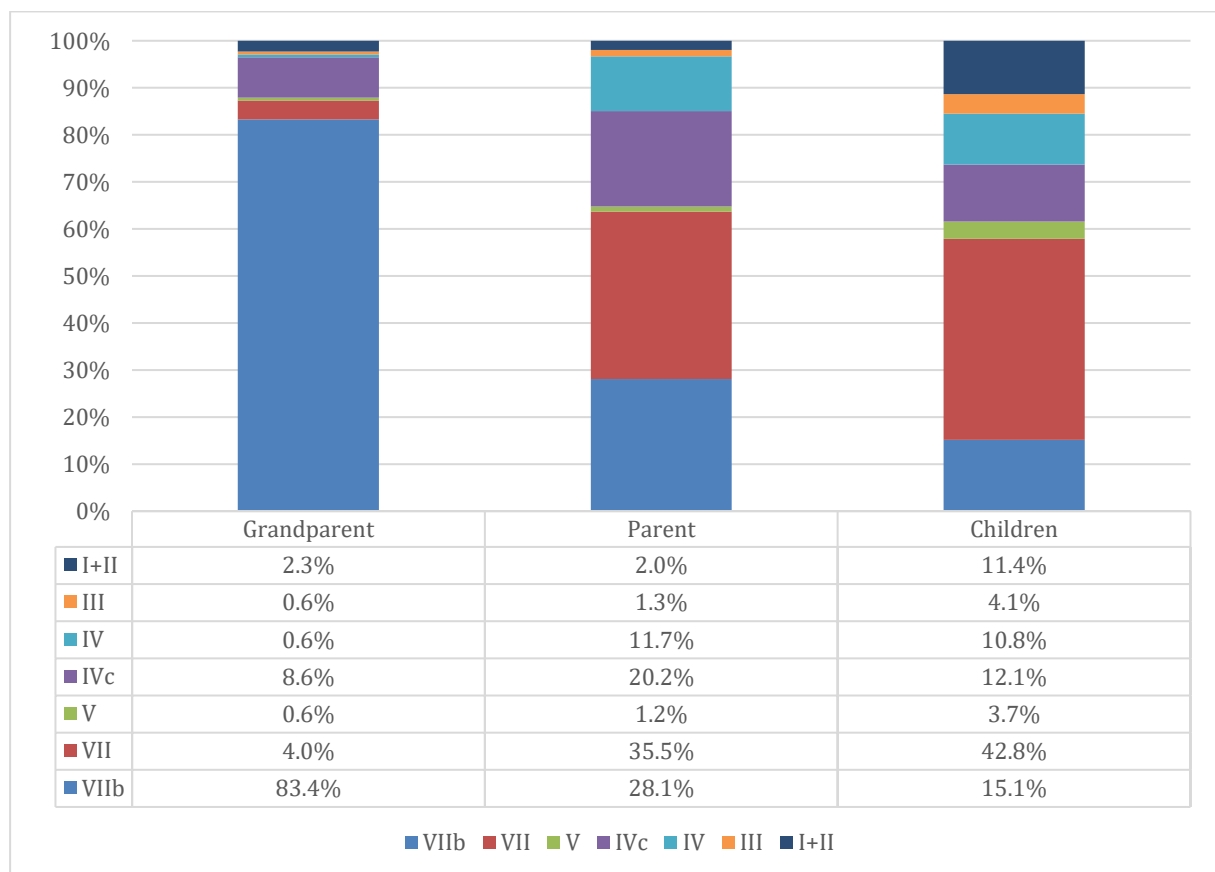
Source: Author's calculations

Figure 2 Structural change between parents and children, 1997 & 2017
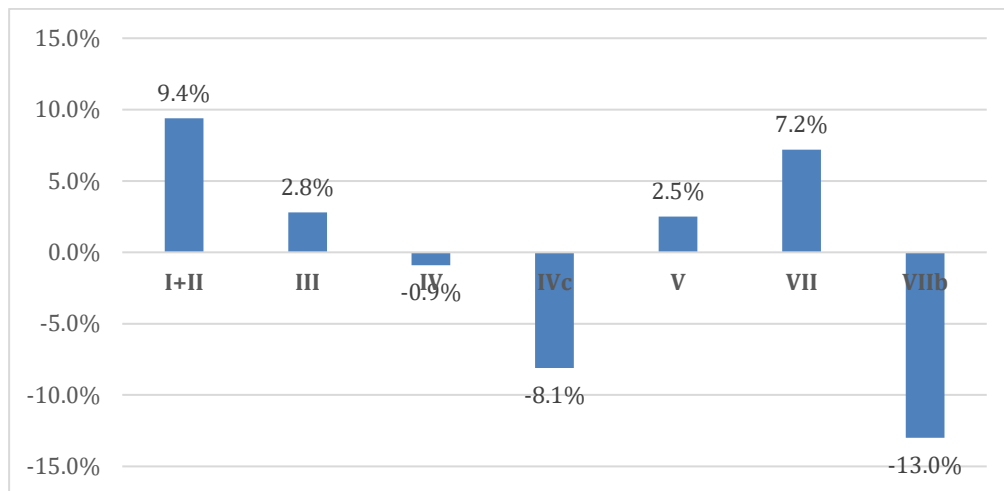
Source: Author's calculations

The trends of movement in developing countries, particularly the shift from agriculture to the informal service sector, contrast with the patterns observed in developed countries at the beginning of the industrialization processes, where the movement was towards the manufacturing sector (Iversen, 2021, p.20; Heath & Zhao, 2021, p.174). However, from the figures, it is evident that the agricultural class has indeed contracted, including self-employed farmers, while Class VII, mainly related to the manufacturing sector, has expanded. The professional Class I+II has also seen an expansion. Class III, the service class, has slightly grown. This expansion can be attributed to workers transitioning to casual service jobs in hotels & restaurants or gig work. These trends in Thailand somewhat contrast with those observed in other developing countries.

Some classes have also become smaller. Class IV has slightly reduced in size, but with the economy continuing to grow, this employer class should ideally expand in correspondence with economic growth. According to theory, this reduction might be because the small employer class (Class IV) has moved upward due to their possession of assets and human capital facilitating upward mobility towards the salariat class. However, only a small number of individuals have transitioned to becoming non-farm employers, and they face challenges in maintaining their enterprises during the period from 2005-2010. Moreover, it is extremely rare for self-employed individuals to transition into entrepreneurs (Chawanote & Barnett, 2014).

Despite the decrease in the agricultural class (IVc & VIIb), the unskilled Class VII has become larger. This stands in contrast to European countries, where lower-grade occupations are declining (Fachelli, 2021, p.215). Individuals in Thailand might have lost their lands due to changes in the relative returns from lands resulting from industrial expansion, which was generated by industrial investments (Wongbuddha, 1988). Consequently, they have moved to Class VII. While this could explain why Class VII has grown larger, these individuals have not moved upward from this class. Hence, the sectoral barrier to the intermediate class remains strong.

Changes in occupational structure are invariably linked to economic growth. This correlation aligns with findings from other studies in post-war developed countries, where the structure of occupations evolves as society develops (Heath & Zhao, 2021, p.185). The movements of each

class into different classes will be further detailed in the Outflow Mobility Table in the following paragraphs.

Table 4 Standard mobility table of male sample, N = 427

Father's Class	Son's Class							
	I+II	III	IV	IVc	V	VII	VIIb	Total
I+II	1.6%	0.2%	0.0%	0.0%	0.0%	0.5%	0.0%	2.3%
III	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%	0.0%	0.5%
IV	0.7%	0.2%	0.9%	1.4%	0.2%	4.9%	0.9%	9.4%
IVc	1.9%	0.9%	1.6%	4.4%	0.7%	10.3%	7.7%	27.6%
V	0.0%	0.0%	0.0%	0.2%	0.0%	2.1%	0.5%	2.8%
VII	2.8%	0.9%	4.0%	6.1%	0.9%	20.1%	5.6%	40.5%
VIIb	3.0%	1.2%	1.4%	3.0%	0.7%	6.1%	1.4%	16.9%
Total	10.1%	3.5%	8.0%	15.2%	2.8%	44.3%	16.2%	100.0%

Source: Author's calculations

Table 5 Standard mobility table of female sample, N = 471

Father's Class	Daughter's Class							
	I+II	III	IV	IVc	V	VII	VIIb	Total
I+II	2.1%	0.4%	0.0%	0.2%	0.0%	0.6%	0.0%	3.4%
III	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
IV	3.0%	0.0%	0.6%	0.8%	0.8%	3.8%	1.1%	10.2%
IVc	2.8%	0.4%	4.7%	2.1%	1.3%	13.0%	4.2%	28.5%
V	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.2%	0.4%
VII	2.8%	2.5%	6.8%	3.8%	1.7%	17.2%	6.2%	41.0%
VIIb	1.9%	1.3%	1.1%	2.3%	0.6%	6.8%	2.5%	16.6%
Total	12.5%	4.7%	13.4%	9.3%	4.5%	41.4%	14.2%	100.0%

Source: Author's calculations

Table 6 Summary statistics of absolute rates of mobility

	Immobility	Upward Mobility	Downward Mobility	Horizontal Mobility	Observations
All	26.5%	29.5%	25.5%	18.5%	898
Male	28.6%	27.9%	27.6%	15.9%	427
Female	24.6%	31.0%	23.6%	20.8%	471
Three generations	15.3%	39.9%	8.0%	36.8%	873

Source: Author's calculations

Table 4 & Table 5 present the standard mobility table of male and female samples, and Table 6 provides a summary of mobility rates calculated from each table. When examining the results by gender, it is surprising to find that women experience higher rates of upward mobility. This contrasts with the findings in other developing countries like China, Chile, and India, where men tend to enjoy higher upward mobility. Additionally, this result is different from developed countries where men and women usually have equal rates of upward mobility (Heath & Zhao, 2021, p.185).

Further analysis reveals that women have moved into the salariat and intermediate class. The combined mobility rate to Class I - IV is 22.5% for women, whereas it is 17.1% for men. Movements to Class I - IV account for over one-third of the upward mobility. Moreover, the percentage of women in Class I – IV is higher than that of men, with 30.6% for women and 21.5% for men. In contrast, the agricultural class (Class IVc and VIIb) is significantly larger for men, constituting 31.4% compared to 23.6% for women. This suggests that women find it easier to move to higher classes, while men tend to stay in agriculture and unskilled jobs. Another noteworthy point is the size of Class V, the skilled technicians, which is larger for women (4.5%) than for men (2.8%). Traditionally, people have believed that skilled technician positions are occupied by men.

Using a standard mobility table possess a challenge. Structural shifts between generations naturally push some families away from the diagonal line, leading to an increase in absolute mobility. Therefore, having a measure of relative mobility that is not influenced by changes in class structures across generations is crucial (Blanden, 2013, p.42). Hence, focusing on relative mobility, *Table 7* displays the outflow mobility table calculated from the standard mobility table. This table shows where individuals from a certain class have ended up. For instance, 65.4% of individuals originating in Class I+II remain in that class, whereas only 14.7% of individuals from Class VIIb can attain Class I+II. Conversely, no individuals from Class I+II end up in VIIb, but 12% of Class VIIb individuals remain in the same class. Odd ratios, calculated from the outflow mobility tables, provide the relative chances of individuals from two classes reaching a specific class. The odds of individuals from Class I+II and Class VIIb attaining Class I+II are 4.4 times higher (65% and 14.7%). Similarly, the odds of individuals from Class I+II and Class VIIb attaining Class VIIb are 12 times higher (0% and 12%). These odd ratios are summarized in Table 8.

The class with the highest mobility to Class I+II, besides the owner class, is Class IV. This finding supports my assumption and the results of Chawanote & Barnett (2014) that Class IV is the most promising class for upward mobility due to their assets and human capital. Additionally, factors like affinity and information friction contribute to Class IV's affinity to the higher class in the EGP schema. This influences the first channel of social transmission theory proposed by Becker & Tomes (1979). Furthermore, the transmission of entrepreneurial traits might explain this trend. However, these theories only partially explain why Class VIIb has higher mobility to Class I+II than the adjacent Class VII, even though Class VII and VIIb are at the same level in the hierarchy. Their affinity should be relatively similar. Additionally, Table 7 shows that only 12% of Class VIIb individuals remain in their origin, a rate lower than that of other classes moving down to Class VIIb. This contrasts with Xie's (2022) results in China, where occupational inheritance is particularly strong for agricultural workers, with most children from agricultural worker families likely to become agricultural workers themselves. It also differs from Rayasawath's (2018) findings, where the succession rate of children in agricultural jobs is heavily influenced by their experience of living in agricultural households. The possible reason for this contrast is the minimal differences between the two classes, agriculturalists and unskilled manual laborers. These workers work in factories during the off-agricultural season and in agriculture during the peak agricultural season. Another point to consider is that Class VII is the most popular class that individuals from other classes move into and is the largest class, even larger than the combined Class IVc and VIIb. This suggests that newly created industrial jobs offer high remuneration.

I would like to present the outflow mobility table for each gender. *Table 9 & Table 10* demonstrate the outflow mobility of men and women. These tables offer additional insights that the standard mobility table cannot provide. While we know from the standard mobility table that women have higher rates of upward mobility than men, these tables provide details about where women and men have moved and from which positions. Three-quarters of the individuals from Class IV who moved into Class I+II are women. For men in Class VII, 49.7% remain in the same class, and 15% move to Class IVc. In contrast, only 42% of women from Class VII remain immobile, and 9.3% move to Class IVc. Women also have a higher rate of Class IVc individuals moving to Class I+II. Apart from Class I+II, women only lag behind men in the transition from Class VIIb to Class I+II (11.5% vs. 18.1%).

According to *Table 8*, the odds ratio between Class IVc and VIIb is exactly 1, indicating perfect fluidity. This suggests that self-employed farmers and agriculturalists have equal chances of reaching one position and avoiding the other. The characteristics of these two classes might be almost the same. Moreover, the odds ratio for men between Class IVc and VII is 1.4. This indicates that industrial expansion creates temporary wage-earner jobs (Class VII), which farmers move to work in factories while still maintaining ties to their lands. They could return to agriculture during the peak season and work outside their lands during the low season. This explanation is consistent with Heath & Zhao's (2021, p.187) findings, where fluidity between the unskilled wage-earner class and agricultural class is high (odds ratios are low) in Chile, China, and Egypt, reflecting the simplicity of movement between the classes. However, the reason why this phenomenon exists only for men and not for women remains unknown. Heath & Zhao's results also suggest that women have lower fluidity in transitioning from the unskilled class to the agricultural class, potentially due to men having more authority over women in controlling the lands.

Table 7 Outflow Mobility Table of the total samples, N = 898

Father's Class	Children's Class							
	I+II	III	IV	IVc	V	VII	VIIb	Total
I+II	65.4%	11.5%	0.0%	3.8%	0.0%	19.2%	0.0%	26
III	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%	2
IV	19.3%	1.1%	8.0%	11.4%	5.7%	44.3%	10.2%	88
IVc	8.3%	2.4%	11.5%	11.5%	3.6%	41.7%	21.0%	252
V	0.0%	0.0%	7.1%	7.1%	0.0%	64.3%	21.4%	14
VII	6.8%	4.4%	13.4%	12.0%	3.3%	45.6%	14.5%	366
VIIb	14.7%	7.3%	7.3%	16.0%	4.0%	38.7%	12.0%	150
Total	11.4%	4.1%	10.8%	12.1%	3.7%	42.8%	15.1%	898

Source: Author's calculations

Table 8 Relative Mobility: Odd ratios

	I+II/VII	I+II/VIIb	IVc/VII	IVc/VIIb	VII/VIIb
All	22.66	79.8	13.9	1.0	10.1
Son	25	31.1	1.4	3.9	12.9
Daughter	20.75	83.0	29.5	2.2	7.6

Source: Author's calculations

Table 9 Outflow Mobility Table of sons, N = 427

Father's Class	Son's Class							
	I+II	III	IV	IVc	V	VII	VIIb	Total
I+II	70.0%	10.0%	0.0%	0.0%	0.0%	20.0%	0.0%	10
III	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%	2
IV	7.5%	2.5%	10.0%	15.0%	2.5%	52.5%	10.0%	40
IVc	6.8%	3.4%	5.9%	16.1%	2.5%	37.3%	28.0%	118
V	0.0%	0.0%	0.0%	8.3%	0.0%	75.0%	16.7%	12
VII	6.9%	2.3%	9.8%	15.0%	2.3%	49.7%	13.9%	173
VIIb	18.1%	6.9%	8.3%	18.1%	4.2%	36.1%	8.3%	72
Total	10.1%	3.5%	8.0%	15.2%	2.8%	44.3%	16.2%	427

Source: Author's calculations

Table 10 Outflow Mobility Table of daughters, N = 471

Father's Class	Daughter's Class							
	I+II	III	IV	IVc	V	VII	VIIb	Total
I+II	62.5%	12.5%	0.0%	6.3%	0.0%	18.8%	0.0%	16
III	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
IV	29.2%	0.0%	6.3%	8.3%	8.3%	37.5%	10.4%	48
IVc	9.7%	1.5%	16.4%	7.5%	4.5%	45.5%	14.9%	134
V	0.0%	0.0%	50.0%	0.0%	0.0%	0.0%	50.0%	2
VII	6.7%	6.2%	16.6%	9.3%	4.1%	42.0%	15.0%	193
VIIb	11.5%	7.7%	6.4%	14.1%	3.8%	41.0%	15.4%	78
Total	12.5%	4.7%	13.4%	9.3%	4.5%	41.4%	14.2%	471

Source: Author's calculations

On the contrary, the odds ratio of Class I+II/Class VIIB is 79.8 times. This high value reflects the low degree of fluidity of the agriculturalist class to the professional class, emphasizing the high degree of inequality of opportunities.

Next, we turn to the three generations occupational mobility. *Table 11* represents a standard mobility table for three generations. From *Table 6*, the total upward mobility in the table is 39.9%, compared to the upward mobility from father to son at 29.5%. This implies that absolute mobility from the grandfather's generation to the father's generation is quite low. The downward mobility over three generations is 8%. However, the rate of horizontal mobility, where individuals remain in the original hierarchy, is remarkably high at 36.8%. Most of this is accounted for by Class VIIb individuals moving to Class VII but being unable to progress further. Surprisingly, the percentages of individuals from Class I+II moving to Class VII & VIIb are extraordinarily high. One possible explanation is that these people had already moved to lower classes in the father's generation and repeated the downward move again in their own generation.

Table 11 Standard mobility table for three generations, N = 873

Grandfather's Class	Grandchildren's Class							
	I+II	III	IV	IVc	V	VII	VIIB	Total
I+II	0.7%	0.1%	0.1%	0.1%	0.0%	0.9%	0.7%	2.6%
III	0.0%	0.0%	0.0%	0.1%	0.0%	0.2%	0.3%	0.7%
IV	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%
IVc	0.8%	0.1%	0.6%	0.6%	0.2%	3.6%	1.4%	7.2%
V	0.0%	0.0%	0.1%	0.1%	0.0%	0.2%	0.2%	0.7%
VII	0.1%	0.1%	0.2%	0.2%	0.1%	1.7%	0.5%	3.0%
VIIB	8.9%	3.9%	9.9%	11.7%	3.4%	35.3%	12.4%	85.5%
Total	10.9%	4.2%	10.9%	12.8%	3.8%	41.9%	15.5%	100.0%

Source: Author's calculations

Table 12 Outflow Mobility Table of three generations, N = 873

Grandfather's Class	Grandchildren's Class							
	I+II	III	IV	IVc	V	VII	VIIB	Total
I+II	26.1%	4.3%	4.3%	4.3%	0.0%	34.8%	26.1%	23
III	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6
IV	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3
IVc	11.1%	1.6%	7.9%	7.9%	3.2%	49.2%	19.0%	63
V	0.0%	0.0%	16.7%	16.7%	0.0%	33.3%	33.3%	6
VII	3.8%	3.8%	7.7%	7.7%	3.8%	57.7%	15.4%	26
VIIB	10.5%	4.6%	11.5%	13.7%	4.0%	41.3%	14.5%	746
Total	10.9%	4.2%	10.9%	12.8%	3.8%	41.9%	15.5%	873

Source: Author's calculations

Lastly, I turn to the threefold version of the EGP class schema to measure simple absolute mobility. The threefold version consists of Non-manual (Class I+II+III+IV), Manual (Class V+VII), and farm occupations (Class IVc+VIIb). *Table 13* represents a standard mobility table for the threefold version, and *Table 14* illustrates an outflow mobility table. According to Table 14, 26.1% work in non-manual jobs, 46.5% in manual jobs, and 27.4% are still in farm jobs. The upward mobility rate is 39.6%, and there is no horizontal mobility in this schema since the three classes are in different hierarchical levels. Immobility is 39.6%, and downward mobility is 19.2%. *Table 14* shows us again that farm occupations have a higher rate of moving into non-manual occupations than manual occupations.

Table 13 Standard Mobility Table threefold version, N = 894

Father's Class	Children's Class		
	Non-Manual	Manual	Farm
Non-Manual (I+II+III+IV)	4.7%	5.7%	2.2%
Manual (V+VII)	10.2%	21.0%	11.3%
Farm (IVc+VIIb)	11.2%	19.8%	13.9%
Total	26.1%	46.5%	27.4%

Source: Author's calculations

Table 14 Outflow Mobility Table threefold version, N = 894

	Children's Class		
Father's Class	**Non-Manual**	**Manual**	**Farm**
Non-Manual (I+II+III+IV)	37.2%	45.1%	17.7%
Manual (V+VII)	23.9%	49.5%	26.6%
Farm (IVc+VIIb)	24.9%	44.1%	30.9%
Total	26.1%	46.5%	27.4%

Source: Author's calculations

5.2 Sensitivity Check

I must check whether Class IVc, Class VII, and Class VIIb are the same class or not, especially Class IVc and Class VIIb where their characteristics and skills are very identical; even some researchers combined the two classes into a single agricultural class. And, Class VIIb has a higher upward mobility rate to Class I+II than Class VII. This is not supposed to be true since, according to theory, Class VII should have a higher upward mobility to the higher classes because they possess higher human capital and money to invest in their children's capital, as the standard theory of social mobility suggests. As Long (2013) used wage data to see the earnings in each Class of occupations, my dataset is not elaborate enough to implement that. I can only demonstrate the average wage of each class, though with a very small number of observations having wage data. From *Table 15*, Class I+II has the highest wage, as it is supposed to be. However, Class VIIb, the agricultural workers, has a higher wage than Class IVc, the self-employed farmers. The possible reason is that Class VII and Class VIIb are so close that they are not different in terms of human capital at all, and individuals in Class IVc probably choose to be free from unfavorable employment relations than taking a higher wage. Otherwise, there are barriers to move back to Class VIIb. Moreover, Class IV, the small business owners, and Class VII, the unskilled workers have almost identical wages. Possibly, because most of the individuals in Class IV are not rural non-farm enterprises (RNFE), which are productive and highly remunerated as Chawanote & Barnett (2013) suggest, but they are small subsistence businesses, for example, shopkeepers, plant sellers. They do not have higher human capital than Class VII, but some capital, and some inheritance effects, to invest in their low-productivity business. This denies the higher investment in human capital. The possible reason left is Class IV parents transmit entrepreneurial traits to their children, which is relevant to upward mobility. Although the samples of the table are too small to confirm the average wage. This also reflects the suitability of choosing to measure occupational mobility in developing countries. Measuring income would not differentiate much information, where everyone is poor. Moreover, the result demonstrates the segmented labor market in developing countries, where individuals with the same skills work in different classes and earn differently.

Table 15 Average wages of each Class of occupations

Class	Wage(THB)	Observations
I+II	32,642	7
III	-	0
IV	9,533	23
IVc	5,706	23
V	300	1
VII	9,465	21
VIIb	8,479	9
Total	10,340	76

Source: Author's calculations from the dataset

Another way to check whether self-employed farmers and agriculturalists, Class IVc and Class VIIb, are the same or not can be done through the odd ratios of these two classes, which is exactly 1. The difference between the two classes, while having the same skills, is that self-employed farmers possess lands, which the EGP schema describes as an inheritance effect. It can provide additional resources and facilitate upward mobility. Another dimension, affinity, is roughly the same; self-employed farmers and agriculturalists are very close to each other than the other classes. The final aspect of EGP, the barrier to entry, is exactly the same, as the odd ratio indicates. There is a study that combined these two classes together since they are the same in China (Long, 2013, p.19). *Table 16* shows a standard mobility table of the combined agricultural class version. *Table 17* shows an outflow mobility table. According to *Table 17*, Class IVc+VIIb still has a higher mobility of moving into Class I+II than Class VII (10.7% & 6.8%). The combined agricultural class also has the highest rate of moving into Class VII. As the odd ratio of moving between Class VII and Class IVc+VIIb is very high at 2.2, according to *Table 18*, a summary of odd ratios of the combined agricultural class version. In sum, the results demonstrate the same hierarchy of Class VII and Class IVc+VIIb, in terms of skills, and affinity. The barrier between the two classes is low. However, it is unclear why Class IVc+VIIb have slightly higher chances of moving into Class I+II. Further theory needs to be reviewed to explain this phenomenon.

Table 16 Standard mobility table combined Class IVc & VIIb, N = 894

Father's Class	Children's Class						
	I+II	III	IV	V	VII	IVc+VIIb	Total
I+II	1.57%	0.34%	0.00%	0.00%	0.56%	0.11%	2.57%
III	0.00%	0.00%	0.00%	0.11%	0.11%	0.00%	0.22%
IV	1.90%	0.11%	0.78%	0.56%	4.36%	2.13%	9.84%
V	0.00%	0.00%	0.11%	0.00%	1.01%	0.45%	1.57%
VII	2.80%	1.79%	5.48%	1.34%	18.68%	10.85%	40.94%
IVc+VIIb	4.81%	1.90%	4.47%	1.68%	18.12%	13.87%	44.85%
Total	11.07%	4.14%	10.85%	3.69%	42.84%	27.40%	100.00%

Source: Author's calculations

Table 17 Outflow mobility table combined Class IVc & VIIb, N = 894

Father's Class	Children's Class						
	I+II	III	IV	V	VII	IVc+VIIb	Total
I+II	60.9%	13.0%	0.0%	0.0%	21.7%	4.3%	23
III	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%	2
IV	19.3%	1.1%	8.0%	5.7%	44.3%	21.6%	88
V	0.0%	0.0%	7.1%	0.0%	64.3%	28.6%	14
VII	6.8%	4.4%	13.4%	3.3%	45.6%	26.5%	366
IVc+VIIb	10.7%	4.2%	10.0%	3.7%	40.4%	30.9%	401
Total	11.07%	4.14%	10.85%	3.69%	42.84%	27.40%	894

Source: Author's calculations

Table 18 Odd ratios of combined agricultural class (IVc+VIIb)

	I+II/VII	I+II/IVc+VIIb	VII/IVc+VIIb
All	11.2	40.3	2.2

Source: Author's calculations

6   Conclusions

Intergenerational social mobility has not been contemporarily studied in Thailand. As inequality has been increasing, it could aggravate the capability of poor children to climb the social ladder (Blanden, 2013; Corak, 2013). Therefore, the main aim of this study is to provide a contemporary measurement of intergenerational mobility in Thailand. I choose to measure occupational mobility as it provides a strong indicator for measuring intergenerational mobility in developing countries, especially non-monetary aspects. There is one research question: *"What is the intergenerational occupational mobility rate in rural Thailand?"* There are also two sub-questions: *"What are the relative chances of individuals from lower occupational classes to attain the professional class?"* and *"What are the differences between men and women in occupational mobility?"*

To answer these questions, I adapted the EGP class schema to a sevenfold version. The reasons are that Class I and Class II in developing countries are relatively smaller than in developed countries, and the number of observations in these classes is small in the dataset. I also combined Class IVa and IVb into Class IV and combined Class V and VI into Class V. The reason is the same for the two new classes: the distinctions between them are not relevant in developing countries. The remaining class is Class IVc, or self-employed farmers. I intend to separate this class from the agriculturalist class, Class VIIb, because self-employed farmers possess land, which implies inheritance effects that facilitate upward mobility.

The results reveal that the absolute upward mobility rate across the total sample stands at 29.5%. Furthermore, the threefold version encompassing non-manual, manual, and farm occupations indicates that 39.6% of the samples experience upward mobility, with 21.4% has made the transition to non-manual jobs, while 19.8% move from farm jobs to manual jobs. This rate surpasses the rate in the sevenfold version, as the threefold version entirely disregards horizontal mobility. In the context of three-generation mobility, it is observed that 39.9% of grandchildren have experienced upward mobility, while horizontal mobility remains significantly high at 36.8%. Nevertheless, surplus in mobility might be attributed to changes in the occupational class structure within society. Moreover, the results of the mobility pattern in Thailand contrast with other developing countries, where workers tend to move from agriculture to informal casual service jobs, and differ from developed countries in the early stages of industrialization, where workers move from agriculture to the manufacturing sector (Iversen, 2021, p.20; Heath & Zhao, 2021, p.174). The results show that the agricultural sector has contracted, but the service sector has expanded slightly at 2.8%, while the manufacturing sector has expanded by 7.2%.

The results from both types of mobility and odds ratios suggest that opportunities for children to attain a higher class are conditioned by the origins of their parents, as demonstrated in the outflow mobility tables. These findings align with other social mobility studies, which indicate

that if an individual is born into higher classes, they have higher chances of remaining in the same class (Clarke et al., 2022; Carneiro, 2020; Blanden, 2013; Corak, 2013).

Women exhibit a surprisingly higher mobility rate than men, given that men typically have higher mobility rates than women in other developing countries, whereas men and women tend to have nearly equal mobility rates in developed countries (Heath & Zhao, 2021, p.185). Furthermore, women demonstrate higher rates of transitioning to Class I - IV when compared to men. Another intriguing finding is the migration of women into traditionally male-dominated domains, such as the technician class.

Class IV is the most prospective class to move to the top from their human capital, and financial capital to invest in their offspring. This is true in the calculations. But when I presented the average wages of each class, the result shows that the wage of Class IV is not different from Class VII. The possible reason is most of the Class IV is very small subsistence employer (micro employer), and their businesses are not in non-farm sector which pay the highest return (Chawanote, 2013). This leaves the possible reason to the transmission of entrepreneurial traits, and Class IV affinity with the higher class influences Class IV to invest in human capital.

The odd ratios between self-employed farmers and agriculturalists are exactly 1. I perform sensitivity check, by combining them together. The result is that the combined agricultural class still has a higher rate of moving to the top than Class VII. Moreover, I present the average wages of each class and found that Class VIIb even has a higher wage than Class IVc. This could be attributed to the similarity in human capital between Class VII and Class VIIb, rendering them indistinguishable in this aspect. Moreover, individuals in Class IVc might prioritize escaping unfavorable employment conditions over pursuing higher wages. Furthermore, Class VIIb has a higher chance of moving into Class I+II than Class VII. Although the two classes are in the same hierarchy level in terms of skills, the average wage of Class VIIb is obviously lower. Further literature review is needed to answer the puzzle.

In the future, more theoretical approaches should be reviewed and studied, in order to analyze the unexplainable phenomenon in this study. Moreover, this study only studies the frequency of moving into each class. Measuring the distances between social classes is tempting to study in the future, such as using the RCII model (Fachelli, 2021, p. 213). Finally, this study uses the father's occupation as a proxy for individual's origin. Future studies could apply mother's occupation as a proxy instead, to distinguish the effects of social transmission from different parent gender.

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8 Appendix

Table A1 Author's list of occupations in each EGP class

Class	Sevenfold	Occupations
I		Administrative or managerial job, doctor, researcher, academician, nurse, teacher, policeman, government official, accountant, state-enterprise officer, owner/co-owner of business, car-renting, interviewer/reporter
II	I + II 'service class'	
III	III	salesperson, give service of livestock healthcare/reproduction, healthcare service, organizer/performer for traditional rituals/temporary events, soldier, monk, receptionist, waiter/waitress, clerical worker
IVa		shop keeper, gather plants and sell (do not grow vegetables)/ make products from these materials, make and sell charcoal, intermediary, home-made food/intermediate food and sell to intermediary, own a grocery store, antiquary
IVb	IVa + b 'petty bourgeoise'	
IVc	IVc	self-employed farmers, sell home-grown vegetable/backyard vegetable
V/VI	V/VI	mechanic, electrician, tailor/dressmaker/weaving/textile, basketry, hairdresser/barber/make-up artist, carpenter, goldsmith/lapidary, dentist assistant, shoemaker
VIIa	VIIa	construction work, rice miller, factory worker, cleaner/janitor, general non-agricultural labor, babysitter, driver/deliveryman, cook, security guard, temporary job/unspecified job with government, building/ wall painter, miscellaneous worker, gardener, driver assistant/bus fare collector, construction work abroad, housework
VIIb	VIIb	farmer, raise livestock, general agricultural labor jobs that vary over the year, rubber plantation,

Source: Author's classification from dataset