Mothers' Empowerment: How Employment Shapes Women's Roles and Enhances Family Welfare in Indonesia

Dien Amalina Nur Asrofi[1], Devanto Shasta Pratomo[2], Wildan Syafitri[3], Farah Wulandari Pangestuty[4]

[1,2,3,4] Department of Economics, Faculty of Economics and Business, Brawijaya University, Indonesia

dienamalinanur@student.ub.ac.id

Abstract. Women's participation in the labor market has been steadily increasing in recent years, particularly among mothers who enter the workforce to help support their family's economic needs. However, working mothers face various challenges, including balancing job responsibilities with domestic duties. Moreover, mothers often experience a higher risk of receiving low wages and face difficulties in entering the formal sector, especially those who are widows and serve as the sole breadwinners for their families. Using secondary data from the 2022 National Socioeconomic Survey (SUSENAS) and a logistic regression analysis method, the findings of this study indicate that both married and widowed working mothers have the potential to reduce the likelihood of their families falling into poverty. However, further analysis shows that only mothers employed in the formal sector can significantly reduce the probability of family poverty compared to those in the informal sector, regardless of their marital status. Additionally, the characteristics of the mother, husband, and household were also found to influence the outcomes in this study. This research highlights the need for policies that enhance access to formal employment, equal pay, and support systems for working mothers to improve both their economic stability and work-family balance.

Keywords: Mothers Empowerment, Mother Employment, Formal Sector, Family Welfare.

1 Introduction

In recent years, many households in Indonesia have experienced shifts in socioeconomic status, particularly amid global and domestic economic challenges [1]. Declining purchasing power, economic uncertainty, and rising living costs have forced some middle-class families to slip into lower economic tiers. These economic shifts have created a more precarious middle class, where even minor financial shocks can significantly impact a family's status. This situation also places additional pressure on

A. R. Cangara and S. Muhammad (eds.), *Proceedings of the Asia Pacific Sociological Association Conference (APSA 2024)*, Atlantis Highlights in Social Sciences, Education and Humanities 35,
https://doi.org/10.2991/978-94-6463-680-2_15

households to maintain a decent standard of living, compelling them to reassess and adapt their financial strategies. A clear impact of these conditions is the growing number of women, especially mothers, who feel compelled to enter the workforce to supplement family income and sustain household economic stability [2].

Changes in the structure of household economic classes in Indonesia reveal concerning dynamics in terms of welfare and economic stability. Over the past five years, the number of individuals classified as economically vulnerable has risen significantly, increasing by 12.72 million people. By 2024, this vulnerable population reached 67.69 million, accounting for approximately 24.23% of the total population (see Figure 1). Meanwhile, although the number of near-middle-class and economically vulnerable groups continues to grow, the middle-class population has notably declined. Between 2019 and 2024, the middle class shrank by 9.48 million, leaving only 47.85 million people, or 17.13% of the total population, down from 21.45% five years earlier. This phenomenon indicates a shift of households from the middle class to more vulnerable economic groups, whether into the near-middle class or even the economically vulnerable category. This shift can be attributed to various economic factors, such as rising inflation, labor market instability, and increasing living costs, all of which push lower-middle-income households toward the brink of poverty. This trend not only reflects weakened economic resilience among middle-class families but also highlights a widening disparity between economic classes in Indonesia (SUSENAS, 2023), [3].

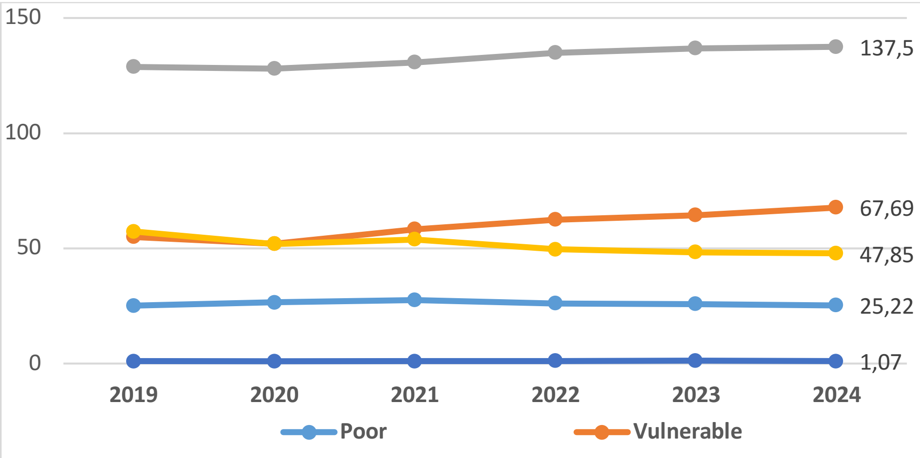

Fig. 1. Population by Socioeconomic Class (Million)

According to data from Statistics Indonesia (BPS) in 2022, approximately 70% of middle-class households in Indonesia are in a vulnerable state, meaning they can easily slip into a lower economic group with even a slight decrease in income. This phenomenon is closely linked to the rising participation of women in the workforce, as more mothers seek employment to support their family's financial needs. Reliance on a single income source, typically the husband's, is often insufficient for many

Indonesian families to meet daily living expenses, especially in urban areas with high living costs. This economic fragility has driven an increasing number of mothers to enter the labor market, both in formal and informal sectors, to alleviate the financial strain on their families. The dual roles these women take on not only highlight family adaptation to financial pressures but also reflect a social transformation where women are recognized as key contributors to household stability, balancing both domestic responsibilities and employment outside the home.

This trend is further reinforced by the steadily rising labor force participation of mothers, driven by increasingly challenging economic conditions. According to Statistics Indonesia (BPS), the female labor force participation rate reached 54.7% in 2023, with a significant portion of these women being mothers who also bear family responsibilities. The entry of mothers into the workforce contributes substantially to household income, bolstering families' resilience in navigating economic uncertainties. In many cases, a mother's income serves as a critical buffer, preventing the family from falling into poverty [4]. Thus underscoring the essential role of women's employment in maintaining household economic stability amidst fluctuating conditions.

Additionally, regional factors—particularly in urban areas where the cost of living is high, encompassing child education, healthcare, and other basic needs—serve as major drivers for mothers to seek employment [5]. This increase in labor force participation among mothers is not solely triggered by immediate economic needs but is also facilitated by expanded access to education and improved employment opportunities for women. Traditionally, women's roles in Indonesia have been centered around domestic responsibilities; however, social and economic shifts have led to a significant transformation in these roles. According to the 2022 National Socio-Economic Survey (Susenas), over 40% of Indonesian mothers are now engaged in the workforce, either on a full-time or part-time basis, to supplement household income. This trend underscores a broader social evolution where women are increasingly recognized as integral economic contributors within the household, balancing traditional roles with professional responsibilities in response to both economic demands and greater career opportunities.

However, while employment provides financial benefits for families, working mothers frequently encounter significant challenges in managing dual roles as both breadwinners and caregivers [6], [7]. Many face social pressures and emotional burdens as they attempt to balance work obligations with family responsibilities [8]. Data from the 2022 National Socio-Economic Survey (Susenas) reveals that 28.6% of working mothers report difficulties in dividing their time between work and household duties, a strain that can impact both their own well-being and that of their children. The added demands of these dual roles may lead to increased stress and fatigue, which in turn may affect productivity, health, and family dynamics. This underscores the need for supportive policies and workplace flexibility to enable mothers to fulfill both professional and familial roles effectively, promoting a healthier balance that benefits both the household and the wider economy.

The challenges faced by working mothers in balancing professional and caregiving responsibilities have led many to seek employment within the informal sector. Informal work is often viewed as more compatible with the demands of child-rearing, offering greater flexibility compared to formal employment. This flexibility encompasses not only work hours, which can be adjusted to align with family schedules, but also the possibility of combining work with direct child supervision. In the Indonesian context, informal employment options such as small-scale trading, home-based businesses, and freelance work within local communities are popular choices among mothers who wish to contribute financially while maintaining their role as primary caregivers. Studies, such as those by Kusumawardhani et al. (2023) [9], indicate that this balance of economic and caregiving roles is particularly critical in Indonesia, where limited formal childcare support and cultural expectations around motherhood often place additional pressures on women to remain available for their children while also supporting family income. The informal sector thus becomes a strategic solution, allowing mothers to manage dual responsibilities without compromising their role in the household.

On the other hand, the challenges are even more pronounced for single mothers, who must fulfill dual roles as the sole income earners without support from a partner. Many single mothers gravitate towards the informal sector due to its flexibility, which enables them to manage both their work and parenting responsibilities. Research indicates that single mothers in Indonesia are particularly vulnerable to economic instability, and informal work often serves as a viable means for them to support their families while continuing to provide necessary care for their children. Employment close to or within the home is particularly beneficial for single mothers, as it allows them to remain actively involved in their children's daily lives, providing both supervision and immediate support when needed [10].

Home-based work, such as sewing, crafting, or managing an online store, offers both single mothers and partnered mothers the opportunity to combine their roles as caregivers and income earners. Such work arrangements afford them greater control over their schedules, enabling a healthier balance between work and family responsibilities—an arrangement that is often difficult to achieve in formal jobs, which typically require fixed hours and commuting to a distant workplace (Pratiwi et al., 2021). This approach not only supports economic stability but also enhances the well-being of both mothers and their children, as it minimizes the potential for role conflict and contributes to a more cohesive family environment.

Unfortunately, the informal sector often lacks adequate social and financial protections, such as health insurance or retirement benefits, which can have long-term negative effects on the well-being of mothers and their families. This impact is particularly acute for single mothers, who are more vulnerable to economic and social instability in the absence of partner support (Arifin & Suhartini, 2018). While the flexibility of informal work can be advantageous, mothers in this sector frequently face heightened economic uncertainty, underscoring that their participation in informal employment is not solely a matter of personal preference but also a response to structural limitations within the formal sector. The lack of accessible, affordable childcare services, flexible family leave, and family-supportive workplace policies often forces women, especially mothers, to sacrifice financial stability for the sake of maintaining balance in family life (Utami & Widodo, 2022).

The decision of many mothers to work in the informal sector highlights a complex dilemma between economic necessity and family responsibilities. For single mothers, this challenge is even more pronounced, as they often face limited choices outside informal work to sustain their families' well-being. This reality reveals broader systemic gaps in social and labor policies that disadvantage mothers in the workforce, driving them into job arrangements that may meet immediate needs but leave them economically vulnerable in the long term. Addressing these challenges requires inclusive policy reforms that not only encourage female participation in the formal labor market but also offer tangible solutions for childcare support and enhanced protections for informal workers (Fitriani & Kurniawati, 2023).

This study aims to examine the extent to which maternal employment contributes to family welfare, particularly by assessing whether working mothers are more likely to achieve non-poor status for their households. Furthermore, it investigates the impact of formal-sector employment on mothers, focusing on single mothers, to determine if formal employment can positively affect their economic security. By exploring these dimensions, this research seeks to provide critical insights into the role of maternal employment in poverty alleviation, shedding light on the unique vulnerabilities faced by single mothers in Indonesia's evolving economic landscape. The findings may underscore the need for targeted support measures within both formal and informal sectors, ultimately promoting a more resilient and equitable workforce for all working mothers.

2 Research Method

This study utilizes secondary data from the 2022 National Socioeconomic Survey (SUSENAS) to examine factors influencing household welfare. The analysis employs binary logistic regression, with household welfare as the dependent variable, proxied by per capita household expenditure. This variable is transformed into a binary outcome: a value of 1 for poor households and 0 for non-poor households, in line with the poverty classification used by Statistics Indonesia (BPS). For this study, a household is considered poor if its expenditure falls below the national poverty line, set at Rp582,932 per capita per month as of March 2024. The study sample comprises approximately 113,000 households.

The primary independent variables focus on maternal employment, distinguishing between mothers working in general and those specifically employed in the formal sector. Control variables are included to account for factors related to maternal characteristics, spousal characteristics, and household attributes. These variables are included to refine the model's predictive capacity and to more accurately capture the socioeconomic dynamics impacting household welfare.

Several independent variables, as well as control variables, are included in this study to ensure optimal results. These are explained as follows:

- Mother's Employment: The primary independent variable is mother's employment status, categorized as employed mothers and non-employed mothers.
- Formal Sector Employment for Mothers: In the second model, the primary independent variable is mother's employment in the formal sector.
- Mother's Education Level: Defined by the mother's highest completed education level, categorized into three groups: medium (high school graduate), high (diploma, bachelor's, master's, or doctorate), and low (less than high school, serving as the reference category).

- Mother's Characteristics: Includes the mother's age and the square of the mother's age.
- Mother's Internet Access and Savings: Internet use is a binary variable indicating whether the mother uses the internet in her activities. Savings is also a binary variable indicating whether the mother has a savings account.
- Husband's Characteristics: Includes the husband's age and employment status (whether employed or not).
- Husband's Education Level: Defined by the husband's highest completed education level, categorized into three groups: medium (high school graduate), high (diploma, bachelor's, master's, or doctorate), and low (less than high school, serving as the reference category).
- Urban Area of Residence: A binary variable indicating whether the household is located in an urban or rural area (rural being the reference category).
- Household Asset Ownership
- Number of Household Members
- Region of Residence: Categorizes households by location in Java, Sumatra, Bali, or other islands (other islands serving as the reference category).

3 Hypothesis

The hypothesis of this study is that mothers' employment will have a negative and significant impact on the likelihood of households in Indonesia falling into poverty.

4 Result and Discussion

4.1 Summary Statistics

Based on the descriptive statistics in Table 1, the majority of households in the sample are classified as "non-poor," with 85.4% exhibiting a relatively high level of welfare. Among the sampled mothers, approximately 52.2% are employed, reflecting a balance between working and non-working mothers. However, only 24.1% of these employed mothers work in the formal sector, indicating that a significant portion of working mothers are engaged in the informal sector, which often lacks adequate social security and job stability.

In terms of educational attainment, 11.4% of mothers have a university education, while 23.1% have completed secondary education. This suggests that while some mothers have achieved higher education, the majority still possess a secondary level of education. Additionally, 48.5% of mothers report using the internet in daily activities, indicating that nearly half of them have access to digital technology—a factor that could influence their employment, children's education, and household management.

Nonetheless, a considerable proportion of mothers have yet to actively utilize the internet, reflecting potential disparities in digital access and usage within the sample.

In terms of savings, 42.1% of mothers have a savings account, suggesting that a portion of households are able to allocate income towards financial reserves, although the majority lack formal financial savings. Regarding employment sectors, 56.7% of mothers work in the industrial sector, followed by 50.4% in agriculture, highlighting the importance of these sectors for household livelihoods and income stability.

Several characteristics of husbands are also relevant in this context. The average age of husbands is 47.5 years, slightly older than that of the wives, and 58.3% of husbands are employed. However, only 11.3% of husbands have a university education, with 28.1% having completed secondary education. This suggests that, as primary earners in most households, husbands play a critical role in family economic management. However, the relatively lower educational levels among husbands may influence the quality and type of employment they are able to secure, potentially affecting household income stability and economic mobility.

In terms of asset ownership, the average household possesses approximately 2.97 types of assets, indicating a general capacity among families to acquire physical assets, although substantial variation exists across households. About 41.8% of households are located in urban areas, likely granting them enhanced access to economic opportunities, educational resources, and public services compared to rural counterparts. The average household size is 3.6 members, suggesting a trend toward smaller family units within the sample, though household sizes still vary significantly.

Additionally, 59% of households are situated on major islands such as Java, Sumatra, and Bali, regions that generally demonstrate more advanced economic and educational infrastructures relative to other parts of Indonesia. This regional distribution implies that households in these areas may have greater access to job markets, education, and healthcare, factors which could contribute to differences in overall household welfare and socioeconomic mobility compared to those in less developed regions.

Table 1. Summary Statistics

Variables	Definition	Mean	Std. Dev	Observations
Family Welfare (Income Groups)	1 = poor family, 1 = not poor family	0.854	0.352	339,584
Working Mothers	1 = working mothers, 0 = non-working mothers	0.522	0.500	317,722
Mother's Employment in Formal Sector	1 = formal sector, 0 = informal sector	0.241	0.428	200,375
Mother's Marital Status	1 = mother marriage, 0 = mother single parents	0.828	0.376	317,722
Mother's Ages	Age of mother in years (continuous)	46.113	13.683	317,722
Mother's Ages Kuadrat	Age of mother in years kuadrat (continuous)	2313.60	1363.85	317,722
Mother has University Education	1 = graduated from university, 0 = otherwise	0.114	0.317	317,722
Mother has Senior Secondary Education	1 = graduated from senior secondary sch, 0 = otherwise	0.231	0.422	317,722
Mother Using Internet	1 = mother uses internet for daily activities, 0 = otherwise	0.485	0.500	317,722

Mother has Savings	1 = mother has a savings account, 0 = otherwise	0.421	0.494	317,722
Mother's Employment in Agricultural Sector	1 = mother work in agricultural sector 0 = otherwise	0.504	0.219	339,584
Mother's Employment in Industry Sector	1 = mother work in industry sector 0 = otherwise	0.567	0.231	339,584
Mother's Employment in Other Sectors	1 = mother work in other sectors 0 = otherwise	0.424	0.202	339,584
Husband's Age	Age of husband in years (continuous)	47.461	12.686	288,218
Husband's Employment Status	1 = Husband working, 0 = husband not working	0.917	0.277	288,218
Husband has University Education	1 = graduated from university, 0 = otherwise	0.113	0.317	288,218

Husband has Senior Secondary Education	1 = graduated from senior secondary sch, 0 = otherwise	0.281	0.450	288,218
Urban	1 = if household lives in urban area, 0 = lives in village area	0.418	0.493	339,584
Asset Ownership	The number of household asset ownership	2.969	1.869	339,584
Household Size	Number of household	3.645	1.615	339,584
Java, Sumatra, Bali Island	1 = if household lives in Java, Sumatra, Bali island, 0 = otherwise	0.590	0.492	339,584

Table 2. Logit Regression Result

VARIABLES	Dependent Variables: Family Welfare 1 : Poor family, 0 : Not Poor family		
	Model 1 Marginal Effect	Model 2 Marginal Effect	
	All Mothers	Mothers Married	Single Parent Mother
Working Mother	-0.0091***	-	-
	(0.0008)		
Mother Formal Sector	-	-0.0059***	-0.0043*
		(0.0015)	(0.0025)
Mother_University	-0.0269***	-0.0127***	-0.0247***
	(0.0014)	(0.0024)	(0.0037)
Mother_Senior High School	-0.0192***	-0.0103***	-0.0187***
	(0.0009)	(0.0015)	(0.0026)
Mother's Age	-0.0032***	-0.0057***	-0.0030***
	(0.0002)	(0.0003)	(0.0005)
Mother's Age Quadrat	0.0001***	0.0001***	0.0001***
	(0.0000)	(0.0000)	(0.0000)
Mother_Internet	-0.0313***	-0.0269***	-0.0231***

	(0.0010)	(0.0015)	(0.0026)
Mother_Saving	-0.0097***	-0.0077***	-0.0131***
	(0.0008)	(0.0012)	(0.0021)
Mother's in Agricultural Sector	-0.0112***	-0.0114***	-0.0063***
	(0.0013)	(0.0017)	(0.0027)
Mother's in Industry Sector	-0.0238***	-0.0221***	-0.0184***
	(0.0013)	(0.0020)	(0.0029)
Mother's in Other Sectors	-0.0268***	-0.0255***	-0.0198***
	(0.0016)	(0.0024)	(0.0034)
Husband's Age	-	0.0007***	-
		(0.0001)	
Husband_Working	-	-0.0271***	-
		(0.0029)	
Husband_University	-	-0.0228***	-
		(0.0021)	
Husband_Senior High School	-	-0.0155***	-
		(0.0014)	

Urban	-0.0159***	-0.0133***	-0.0117***
	(0.0008)	(0.0013)	(0.0022)
Asset	-0.0327***	-0.0272***	-0.0238***
	(0.0003)	(0.0004)	(0.0008)
Household Size	0.0300***	0.0275***	0.0263***
	(0.0003)	(0.0004)	(0.0007)
Java, Sumatra, Bali	0.0132***	0.0138***	0.0078***
	(0.0007)	(0.0011)	(0.0019)
Observations	317,722	130,537	31,561
Standard errors in parentheses			
***** p<0.01, ** p<0.05, * p<0.1**			

4.2 Result

Based on the binary logistic regression results shown in the estimation table, the dependent variable used is family welfare, proxied by the family's poverty status (either poor or non-poor). Model 1 assesses the impact of maternal employment on family welfare, while Model 2 narrows the focus to mothers working in the formal sector, with a further breakdown between married and single mothers to provide a clearer view of the differing characteristics and challenges faced by each group.

In Model 1, results indicate that maternal employment significantly increases the likelihood of a family rising above the poverty threshold. The positive and significant coefficient for the Working Mother variable suggests a strong association between a mother's employment and improved family welfare (non-poverty status). This aligns with economic theories asserting that mothers' workforce participation boosts household income, thereby improving economic conditions. Other studies also support the beneficial effects of working mother [11], [12]. However, the sectoral placement of the mother's employment warrants closer examination, as the formal sector may yield different effects compared to the informal or agricultural sectors. Formal sector jobs typically offer higher wages, social security benefits, and stability, which could have a more pronounced effect on household welfare than jobs in other sectors.

Model 2 more detailed approach sheds light on the importance of both employment sector and marital status in influencing household welfare outcomes. By isolating mothers employed in the formal sector and differentiating between married and single mothers, Model 2 accounts for the distinct socioeconomic pressures each group may face. Married working mothers may have the dual benefit of additional household income and shared economic responsibility with a spouse, while single working mothers might face more substantial challenges balancing work and childcare demands. The findings suggest that employment in the formal sector may amplify welfare benefits for families, though the extent of this impact varies with the mother's marital status, indicating that family structure plays a crucial role in moderating economic outcomes linked to maternal employment.

These findings support policy implications aimed at expanding formal employment opportunities for mothers, particularly single mothers who might benefit from additional support mechanisms, such as childcare assistance or targeted subsidies, to mitigate the unique challenges they encounter. Furthermore, encouraging mothers' access to formal sector jobs could be instrumental in alleviating poverty on a broader scale, given the formal sector's potential for greater wage stability and benefits compared to informal work.

In Model 2, focusing on mothers employed in the formal sector reveals that formal sector employment has a comparatively stronger positive impact on family welfare than non-formal employment. The coefficient for the Mother Formal Sector variable in the married mothers model indicates that mothers working in the formal sector significantly contribute to their family's likelihood of escaping poverty. This suggests that employment in the formal sector, which typically provides job stability and higher earnings, plays a critical role in enhancing family welfare outcomes. These findings are consistent with the research by Purwaningsih (2020) [13] which asserts that mothers working in the informal sector have not yet been able to improve family welfare to the same extent as those employed in the formal sector.

Interestingly, the contrasting effects observed between married mothers and single mothers highlight the need for further analysis. For single mothers, the estimation results show that while formal sector employment remains significantly associated with a reduced likelihood of poverty, the coefficient is slightly smaller compared to that of married mothers. This difference may imply that, despite single mothers' participation in the formal sector, they may still encounter additional challenges that hinder their ability to elevate family welfare, such as the dual burden of child-rearing responsibilities alongside employment. This is in line with Appleton (1996) [17], who found that households headed by women—especially those led by single mothers or widows—have a higher likelihood of facing poverty.

These findings suggest that while formal sector employment is generally beneficial for both groups, single mothers may require additional support to fully realize the potential welfare benefits of formal sector employment [14]. Policies aimed at providing access to affordable childcare, flexible working arrangements, or financial assistance for single mothers in formal employment could help mitigate these unique challenges, thereby enabling more equitable welfare outcomes across family types.

Additionally, several control variables yielded significant results. For instance, the variables Mother University and Mother Senior High School indicate that mothers with higher levels of education are significantly associated with improved family welfare for both married mothers and single mothers. This finding aligns with existing literature suggesting that higher education levels provide better employment opportunities, enhancing mothers' capacity to support their families [15], [16]. Another variable, Mother's Savings, also exhibits a significant positive effect, implying that a mother's ability to save contributes further to the economic stability of the household.

Other maternal characteristics similarly show significant relationships. Mother's Age and Mother's Age Squared suggest a non-linear association. The positive coefficient for Mother's Age and the negative coefficient for Mother's Age Squared imply an optimal age range in which a mother's age positively impacts family welfare, after which the effect begins to diminish. This trend may be connected to increasing work productivity with greater experience and skill, which then gradually decreases beyond a certain age.

Maternal internet use also has a significant impact, with a negative coefficient indicating that mothers who use the internet are less likely to be in poverty. This effect may stem from the wider access to information and opportunities provided by the internet, which supports productive activities and enhances household income.Meanwhile, the regression results show that mothers working in the agricultural sector still contribute positively to family welfare, though with a smaller coefficient compared to mothers employed in the industrial and service sectors. This suggests that while maternal contributions in agriculture do improve family welfare, the impact is not as substantial as in other sectors.

Agriculture, especially in rural areas, is often dominated by lower-wage and informal employment [18]. Thus, although mothers working in this sector contribute to family income, the effect on overall welfare is not as significant as in the industrial or service sectors. In these latter sectors, mothers are more likely to receive higher wages or have access to stable employment, which ultimately yields a stronger impact on family economic welfare.

Furthermore, this disparity can also be attributed to the nature of work in each sector. Industrial and service jobs are generally more specialized, often requiring particular skills and offering higher compensation. In contrast, the agricultural sector relies heavily on natural conditions and tends to be less flexible in terms of income generation, especially for women who face barriers in accessing capital, technology, or broader markets. This explains why mothers' contributions in agriculture to family welfare tend to be comparatively modest. Therefore, although the impact is positive, mothers working in agriculture may benefit from additional support, such as access to training, technology, or economic empowerment programs, to enhance their contribution to family welfare more significantly.

Regarding husband characteristics, the variable of employed husbands indicates that when the husband is employed, the likelihood of the family escaping poverty increases, especially among families with married mothers. These results align with [19] who emphasized the essential contribution of husbands' employment to household economic stability, particularly noting the influence of specific job characteristics in strengthening financial security. Husband's age also has a positive impact on family welfare, although to a lesser extent compared to the mother's characteristics. Additionally, the variables Husband University and Husband High School education show a significant positive effect on family welfare, highlighting that, alongside the mother's contributions, the husband's role—particularly when educated and employed—provides a substantial boost to family welfare.

From a household perspective, residing in urban areas provides a significant advantage to family welfare, as indicated by a substantial negative coefficient. Asset ownership is also positively associated with family welfare, suggesting that households with greater asset accumulation tend to be more economically secure. These findings are consistent with prior research by Moser (2006) [20] indicating that the accumulation of asset ownership can reduce poverty levels. However, household size (number of family members) shows a negative association, indicating that larger households face a higher likelihood of poverty, likely due to increased financial burdens [21].

Additionally, living on the islands of Java, Sumatra, and Bali offers distinct advantages compared to other regions in Indonesia, as evidenced by a significant negative coefficient. This reflects regional disparities in poverty levels, where these islands generally have better access to infrastructure, employment opportunities, and public facilities than other areas.

Overall, the regression analysis demonstrates that maternal workforce participation, especially in the formal sector, plays a critical role in enhancing family welfare. However, differences in effects between married mothers and single mothers suggest additional dimensions, such as social support and household labor burdens, which may impact the ability of single mothers to fully leverage the potential benefits of formal employment.

5 Conclusion

The conclusions of this study reveal that working mothers, particularly those in formal employment, have a significant positive impact on family welfare, as indicated by an increased likelihood of moving families out of poverty. This effect is evident for both married and single mothers. Mothers employed in the industrial and service sectors tend to contribute more significantly to family welfare compared to those in agriculture, although the agricultural sector still demonstrates a positive, albeit smaller, effect. Key maternal characteristics, such as age, internet use, savings ownership, and education, also play a crucial role in enhancing family welfare. Additionally, household factors such as asset ownership, urban residence, family size, and spousal characteristics—particularly the husband's age and employment status—further strengthen family welfare outcomes.

The policy implications of these findings underscore the importance of creating more formal employment opportunities for women, especially in the industrial and service sectors, as well as improving access to education and job training for mothers. Targeted support for single mothers is also critical, as they continue to face greater challenges in elevating family welfare despite their workforce participation. Policies that expand access to technology, such as internet connectivity, and empower women in the agricultural sector could also contribute to overall family welfare. Furthermore, infrastructure development and social services in rural areas can help reduce the welfare gap between urban and rural regions, fostering greater economic resilience across all family types.

Acknowledgement

This research was partially supported by Direktorat Jenderal Pendidikan Tinggi, Riset, dan Teknology through the grant Pendidikan Magister Menuju Doktor Untuk Sarjana Unggul (006/E5/ PG.02.00/PL.PMDSU/2024).

References

1. Booth, A. (2021). The implications of economic change in Indonesia for social class formation. *Bijdragen tot de taal-, land-en volkenkunde/Journal of the Humanities and Social Sciences of Southeast Asia*, *177*(4), 461-490.
2. Nur Asrofi, D. A., Pratomo, D. S., & Pangestuty, F. W. (2023). The role of working mothers and mothers' education in children's education during the COVID-19 pandemic in Indonesia. *International Journal of Adolescence and Youth*, *28*(1), 2242464.
3. Rezki, J. F., Riefky, T., Maizar, F.A., et al. (2024). Indonesia Economic Outlook Q3-2024 (Indonesian Version. Depok: *LPEM FEB UI.* https://lpem.org/wp-content/uploads/2024/08/IEO-Q3-2024-ID.pdf
4. Buvinić, M., & Gupta, G. R. (1997). Female-headed households and female-maintained families: are they worth targeting to reduce poverty in developing countries?. *Economic development and cultural change*, *45*(2), 259-280.
5. Fortuijn, J. D., & Ostendorf, W. (2004). Gender and urban poverty: Single mothers in Amsterdam. *GeoJournal*, *61*, 239-246.
6. Sofeia, N. (2023). Balancing Work and Early Childhood Education: Exploring the Double Burden Faced by Working Mothers During the Covid-19 Pandemic in Malaysia. *Asian Journal of Research in Education and Social Sciences*, *5*(3), 11-22.
7. Gunton, A. (2012). *Professional Women Balancing Work and Motherhood: A Study of Coping Strategies Used in Balancing this Dual Role* (Doctoral dissertation, Rhodes university).
8. Aziz, M. (2023). Women's Double Burden in the Family Between Culture and Discrimination. *Potret Pemikiran*, *27*(2), 227-244.
9. Kusumawardhani, N., Pramana, R., Saputri, N. S., & Suryadarma, D. (2023). Heterogeneous impact of internet availability on female labor market outcomes in an emerging economy: Evidence from Indonesia. *World Development*, *164*, 106182.
10. Edin, K., & Lein, L. (1997). *Making ends meet: How single mothers survive welfare and low-wage work*. Russell Sage Foundation.
11. Jabeen, S., Haq, S., Jameel, A., Hussain, A., Asif, M., Hwang, J., & Jabeen, A. (2020). Impacts of rural women's traditional economic activities on household economy: Changing economic contributions through empowered women in rural Pakistan. *Sustainability*, *12*(7), 2731.
12. Agostinelli, F., & Sorrenti, G. (2021). Money vs. time: family income, maternal labor supply, and child development. *University of Zurich, Department of Economics, Working Paper*, (273).
13. Purwaningsih, V. T. (2020). Perempuan dan Kesejahteraan Rumah Tangga Sektor Informal di Indonesia. *Jurnal Ekonomi Indonesia*, *10*(1), 43-54. https://doi.org/10.52813/jei.v10i1.61
14. Harris, K. M. (1993). Work and welfare among single mothers in poverty. *American journal of sociology*, *99*(2), 317-352.
15. Härkönen, J. (2018). Single-mother poverty: How much do educational differences in single motherhood matter?. In *The triple bind of single-parent families* (pp. 31-50). Policy Press.
16. Damaske, S., Bratter, J. L., & Frech, A. (2017). Single mother families and employment, race, and poverty in changing economic times. *Social science research*, *62*, 120-133.
17. Appleton, S. (1996). Women-headed households and household welfare: An empirical deconstruction for Uganda. World Development, 24(12), 1811-1827. doi: https://doi.org/10.1016/S0305-750X(96)00089-7

18. Mellor, J. W., & Ranade, C. (2006). Why does agricultural growth dominate poverty reduction in low-and middle-income countries?. *The Pakistan Development Review*, 221-240.
19. McKelway, M. (2021). How Does Women's Employment Affect Household Decision-Making? Experimental Evidence from India. *Working Paper*.
20. Moser, C. (2006). Asset-based approaches to poverty reduction in a globalized context. *Global Economy and Development Working Paper*, (01).
21. Anyanwu, J. C. (2014). Marital status, household size and poverty in Nigeria: evidence from the 2009/2010 survey data. *African Development Review*, *26*(1), 118-137.