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# METROPOLITAN FAMILY DYNAMICS: OBJECTIVE WELFARE AND ACCESSIBILITY AMONG INFORMAL WORKER FAMILIES

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**Abstract**

Informal worker families in metropolitan areas face welfare vulnerabilities arising from income uncertainty, high living costs, and unequal access to urban resources. This study examines objective welfare and accessibility among informal worker families in East Jakarta. A quantitative survey was conducted with 473 families. Descriptive analysis covered socioeconomic characteristics, income, household expenditure, housing conditions, and access to local facilities and services. The findings show that 50.32% of families had incomes below the 2025 Jakarta provincial minimum wage, while 32.35% lived below the poverty line. Regarding expenditure, 39.54% spent more on cigarettes than on rice. In addition, 45.45% had less than 8 m² of housing space per capita. Overall accessibility was classified as highly accessible for 56.03% of families and accessible for 43.76%. Although access to healthcare, education, transport, and civil registration services was relatively good, access to employment opportunities, skills training, and government assistance remained limited. The findings indicate that welfare among metropolitan informal worker families is multidimensional, with a gap between access to local facilities and household economic capacity.

*Keywords: Accessibility, Family Welfare, Informal Workers, Metropolitan Areas*

## INTRODUCTION

The development of metropolitan areas has substantially changed social structures, economic activity, and family life (Siedentop, 2018). Urbanization, population growth, changes in labor market structures, and rising urban living costs create new demands on household resource management and family functioning (Kalmenov, 2024). Metropolitan areas offer economic opportunities through trade, services, transport, and industry, but also present challenges, including high living costs, competition for employment, unequal access to resources, and limited adequate housing (Sharma, 2026). These conditions place families in an important position as social and economic units that manage resources, develop livelihood strategies, and maintain welfare amid urban change.

A prominent feature of Indonesia's urban labor market is the large proportion of workers in informal employment (Surtiari et al., 2024). Statistics Indonesia (BPS) data presented in the Employment Outlook 2026 (Ministry of Manpower of the Republic of Indonesia, 2025) indicate that 57.80%, or approximately 84.70 million of the 146.54 million employed population, worked in informal activities. These activities include self-employment, trading, casual labor, temporary work, family work, and other economic activities outside fully formal employment relationships. The informal sector therefore contributes substantially to employment and economic livelihoods in Indonesia (BPS-Statistics Indonesia, 2011). However, informal workers frequently face income uncertainty, limited social security, fluctuating market demand, and inadequate employment protection (Mishra, 2022).

These characteristics make informal worker families an important focus of family welfare research. Formal workers generally have more structured employment relationships, wage systems, and employment protection, whereas informal workers often manage economic risks associated with market changes themselves. Irregular income can affect a family's ability to meet food, education, healthcare, housing, and other social needs (Katre & Raddatz, 2023). Families may respond through additional employment, income diversification, expenditure reductions, and the participation of other household members in productive activities (Delgado, 2023).

Khoiruddin et al. (2025) examined informal employment and multidimensional child poverty in Indonesia and found that informal employment was associated with a higher risk of multidimensional deprivation. Parental sociodemographic characteristics, educational attainment, number of children, and access to social protection also

helped explain family vulnerability. These findings indicate that employment status is closely connected to household welfare because employment characteristics shape the resources available to meet family members' needs. Economic welfare is a fundamental dimension of family life because it determines the household's capacity to meet basic needs and sustain its livelihood (Anaf et al., 2024). In urban settings, its measurement should consider living costs, expenditure patterns, household size, and income stability. A relatively high nominal income does not necessarily ensure adequate welfare when a family supports many members, faces high housing costs, and must meet rising education and healthcare expenses (Friedline et al., 2020).

Employment structure is important for understanding the economic dynamics of metropolitan families. Informal worker households do not necessarily depend on a single occupation or one income earner (Mol, 2026). Husbands and wives may hold primary and secondary jobs, while other household members contribute through home-based businesses, small-scale trading, service work, or other economic activities. These arrangements reflect the livelihood strategies families develop to sustain their household economies.

Livelihood diversification is a form of adaptation to economic uncertainty (Mengistu & Belda, 2024). Families seek to reduce dependence on a single income source and manage the risk of job loss or declining earnings. However, diversification also affects time allocation, workloads, caregiving responsibilities, and relationships within the family. Examining husbands' and wives' economic participation is therefore important for understanding single-earner and dual-earner families.

Housing conditions are another important component of family quality of life. A dwelling provides shelter and a setting for family interaction, childcare, domestic activities, rest, and social relationships (Madsen, 2025). In densely populated metropolitan areas, limited living space and poor residential environments can affect family members' comfort and health.

Housing floor area per capita is an objective indicator of spatial adequacy (Susanto et al., 2022). Limited space may increase crowding, reduce privacy, constrain children's activities, and affect the quality of family interaction (Santos et al., 2024). Nevertheless, housing adequacy cannot be assessed through floor area alone. Ventilation, sanitation, construction quality, neighborhood safety, clean water, and access to public facilities also form part of the residential environment.

Accessibility presents a further challenge for metropolitan families. It refers to the capacity of individuals and families to reach and use facilities, services, and opportunities in their residential environment (Balachandran et al., 2026). Accessibility is connected to social and economic mobility because access to education, healthcare, transport, employment, information, and public services can expand opportunities to meet household needs. Reviewing 45 studies of perceived accessibility, Negm et al. (2025) emphasize how individuals assess the ease of reaching opportunities and activities. Accessibility therefore requires attention to personal experience and perceptions, as well as geographical measures and distance.

This study examines objective welfare and accessibility among informal worker families in metropolitan East Jakarta. It is relevant to the Sustainable Development Goals (SDGs), particularly Goal 1 on poverty eradication, Goal 5 on gender equality, Goal 8 on decent work and economic growth, and Goal 11 on sustainable cities and communities.

## LITERATURE REVIEW

### Metropolitan Families

Metropolitan family life is characterized by high mobility, social heterogeneity, economic pressures, and unequal access to urban resources. As discussed above, more than half of Indonesia's employed population works in the informal sector. Income uncertainty and limited social protection can increase welfare vulnerability among informal worker families. Egger et al. (2024) show that informality is related to urban household welfare, although the relationship is not always linear. Khoiruddin et al. (2025) similarly associate informal employment with an increased risk of multidimensional child poverty in Indonesia.

Housing quality and the social environment also shape metropolitan family welfare. Von Seidlein et al. (2021) emphasize that crowding in informal settlements can increase health vulnerability and constrain basic service delivery. Badland et al. (2018) highlight the importance of social infrastructure, including healthcare, education, open spaces, and community services, for health and welfare. From a mobility perspective, Negm et al. (2025) identify perceived accessibility as an important dimension of the relationship between socioeconomic characteristics and travel experiences.

### Objective Family Welfare

Objective family welfare can be assessed using measurable economic indicators, particularly household income and expenditure. Income represents the economic resources available to a family, while expenditure reflects its capacity to meet actual consumption needs. Antunes et al. (2016) explain that household consumption aggregates can be used to analyze welfare, poverty, inequality, and economic vulnerability. Expenditure is also useful for examining consumption patterns and the fulfillment of family needs. Rasyid (2022) demonstrates the importance of food expenditure patterns in designing social assistance that responds to household needs. Boadi et al. (2024) find that women's social empowerment contributes to reducing monetary poverty. Yasin et al. (2026) associate non-food expenditure, particularly on education, healthcare, and housing, with poverty reduction and improved welfare. Objective family welfare should therefore be assessed through a combination of income, per capita expenditure, and the composition of food and non-food consumption. This approach provides a more comprehensive account of families' economic capacity to meet their needs and maintain their living standards.

### Accessibility and Family Welfare

Accessibility is an important determinant of family welfare because it affects family members' ability to reach the resources and services needed in everyday life. It encompasses transport, healthcare, education, employment opportunities, public spaces, and social services. Davern et al. (2018) find positive associations between the accessibility and diversity of social infrastructure and subjective well-being. Lättman et al. (2016) developed the Perceived Accessibility Scale, emphasizing individuals' perceptions of the ease of reaching activities and managing daily life. Pot et al. (2021) show that perceived accessibility may differ from spatially calculated measures, making users' experiences and characteristics important. Negm et al. (2025) identify connections with social inclusion and travel behavior, while noting the need for further development of measurement and impact assessment. Geurs and van Wee (2026) extend the concept to include digital infrastructure and social interaction. Accessibility should thus be understood as multidimensional, shaping families' opportunities to obtain services, participate socially, and improve welfare.

## METHOD

This study employed a quantitative descriptive survey to examine welfare and accessibility among informal worker families in the metropolitan area of East Jakarta Administrative City, DKI Jakarta Province. The quantitative approach supported the measurement of sociodemographic characteristics, economic conditions, basic needs fulfillment, and families' perceptions of access to local facilities and resources. The descriptive design identified the distribution of respondent characteristics and described objective and subjective family conditions using predefined indicators.

East Jakarta was selected because it has the largest population among Jakarta's administrative cities and forms part of the metropolitan area. The unit of analysis was the informal worker family, and the analysis covered 473 families. Respondent characteristics included husbands' and wives' ages and educational attainment, primary and secondary employment, household income and expenditure, housing conditions, and access to local facilities. Data were collected through face-to-face interviews using a structured questionnaire.

Objective welfare was assessed against two benchmarks: the BPS poverty line for DKI Jakarta and the 2025 DKI Jakarta provincial minimum wage (UMP). First, the poverty measure used a threshold of IDR 897,768 per capita per month. Families with average monthly per capita expenditure below this threshold were classified as poor; those at or above it were classified as non-poor. This classification follows the BPS basic needs approach, which covers food and non-food needs. Second, income was compared with the 2025 provincial minimum wage of IDR 5,396,761 per month and classified as below or at/above that benchmark.

Access to local facilities and resources was measured using a four-point Likert scale. A score of 1 indicated that facilities were unavailable or very poor, very expensive, and inaccessible. A score of 2 indicated that facilities were available and adequate but expensive and difficult to access. A score of 3 indicated that facilities were adequate, easy to reach, and relatively affordable, although fees applied. A score of 4 indicated that facilities were very good, very easy to access, highly affordable, or free of charge.

Data were processed using the Statistical Package for the Social Sciences (SPSS). Processing involved checking completeness, coding responses, entering data, checking consistency, and tabulation. Access to local facilities was analyzed through the distribution of responses to each indicator. Accessibility scores were subsequently grouped into three categories, inaccessible, accessible, and highly accessible, using the classification thresholds applied in the study's data processing. Frequencies and percentages were used to present the results.

Descriptive interpretation identified patterns in family characteristics, economic conditions, employment, housing, and access to local facilities.

## RESULTS AND DISCUSSION

### Family Characteristics

#### Age

The family characteristics examined were husbands' and wives' ages and educational attainment. Table 1 presents the age distribution for husbands and wives in the 473 families. The distribution was relatively diverse, with the largest concentrations in middle adulthood and the pre-elderly group. Among husbands, the largest group was aged 46–55 years, comprising 153 individuals (32.35%), followed by those aged 36–45 years, comprising 137 individuals (28.96%). Among wives, the largest group was aged 36–45 years, comprising 151 individuals (31.92%), followed by those aged 18–35 years, comprising 139 individuals (29.39%).

This age composition provides insight into the demographic structure of metropolitan informal worker families. The concentration in the 36–55-year age range indicates that many families are at a life stage involving simultaneous economic responsibilities, childcare, household needs, and preparation for later life. The effective use of family human resources is therefore important for maintaining welfare. The higher proportion of husbands than wives in the pre-elderly group also suggests a need to consider the continued productive capacity of primary earners, particularly in informal occupations with limited employment protection and income security. Age is associated with changes in work–family conflict and the balance between employment and family life (Kossek et al., 2026). Age characteristics should therefore be considered when examining families' capacity to manage economic and domestic demands.

Table 1. Distribution of Husbands and Wives by Age

| Age group | Husbands | | Wives | |
|---|---|---|---|---|
| | Frequency (n) | Percentage (%) | Frequency (n) | Percentage (%) |
| Early adulthood (18–35 years) | 85 | 17.97 | 139 | 29.39 |
| Middle adulthood (36–45 years) | 137 | 28.96 | 151 | 31.92 |
| Pre-elderly (46–55 years) | 153 | 32.35 | 125 | 26.43 |
| Older adults (56–65 years) | 61 | 12.90 | 46 | 9.73 |
| Older adults (>65 years) | 25 | 5.29 | 7 | 1.48 |
| Unknown | 12 | 2.54 | 5 | 1.06 |
| Total | 473 | 100.00 | 473 | 100.00 |

#### Education

As Table 2 shows, secondary school and diploma graduates predominated among husbands and wives in the 473 informal worker families in East Jakarta. Education is a component of human capital that shapes individuals' capacity to obtain employment, develop skills, improve productivity, and expand their families' economic opportunities. The predominance of senior secondary and diploma education indicates that most respondents had secondary or vocational qualifications, although fewer held university degrees. This pattern warrants attention because formal education can influence occupational mobility and livelihood quality. Amin and Islam (2022) found that firms managed by individuals with secondary or higher education had labor productivity 28–33% higher than firms whose managers had only primary education or no schooling. Conover et al. (2022) likewise show that education improves informal workers' prospects of moving into formal employment.

Table 2. Distribution of Husbands and Wives by Educational Attainment

| Educational attainment | Husbands | | Wives | |
|---|---|---|---|---|
| | Frequency (n) | Percentage (%) | Frequency (n) | Percentage (%) |
| No schooling | 13 | 2.75 | 4 | 0.85 |
| Primary school | 30 | 6.34 | 34 | 7.19 |
| Junior secondary school | 116 | 24.52 | 119 | 25.16 |
| Senior secondary school | 147 | 31.08 | 140 | 29.60 |
| Diploma (D1/D2/D3) | 145 | 30.66 | 146 | 30.87 |
| Applied bachelor's / bachelor's degree | 11 | 2.33 | 15 | 3.17 |
| Master's / doctoral degree | 11 | 2.33 | 13 | 2.75 |

| Educational attainment | Husbands | | Wives | |
|---|---|---|---|---|
| | Frequency (n) | Percentage (%) | Frequency (n) | Percentage (%) |
| Unknown | 0 | 0 | 2 | 0.42 |
| Total | 473 | 100.00 | 473 | 100.00 |

**Employment**

Husbands' primary occupations varied across the 473 families, reflecting the diversity of the metropolitan informal labor market. Traders formed the largest group, with 74 individuals (15.64%), followed by motorcycle taxi drivers, with 68 (14.38%). Other occupations included laborers, 38 (8.03%); drivers, 35 (7.40%); delivery couriers, 31 (6.55%); cleaners, 30 (6.34%); tailors, 29 (6.13%); electronics technicians, 27 (5.71%); workshop workers, 21 (4.44%); parking attendants, 21 (4.44%); bajaj drivers, 20 (4.23%); and private-sector employees, 18 (3.81%). The remaining categories included self-employed workers, 13 (2.75%); recyclable-material collectors, 8 (1.69%); security guards, 5 (1.06%); and entrepreneurs, 2 (0.42%). One individual (0.21%) was recorded in each of the following categories: ship crew member, domestic worker, debt collector, mosquito-larvae monitor, cook, retiree, and odd-job worker. In addition, 23 husbands (4.86%) were not working and one (0.21%) was deceased. These findings indicate that husbands' livelihoods were concentrated in trade, transport, services, and technical occupations.

Regarding secondary employment, 393 husbands (83.09%) had no additional job, while 80 (16.91%) did. Additional occupations included motorcycle taxi driving, 14 (2.96%); trading and parking attendance, 8 each (1.69%); freelance work and driving, 7 each (1.48%); electronics repair, 6 (1.27%); laboring, 5 (1.06%); workshop work and farming, 4 each (0.85%); and mosque caretaking, 3 (0.63%). Other activities included bajaj driving, content creation, cryptocurrency activities, distribution, rice sales, and other services or businesses. Among wives, 314 (66.38%) were homemakers, while 157 (33.19%) had a primary income-generating occupation. These included trading, 61 (12.90%); domestic work, 38 (8.03%); cleaning and private-sector employment, 12 each (2.54%); laboring, 9 (1.90%); and self-employment, 6 (1.27%), followed by other services and occupations. Twenty-three wives (4.86%) held a secondary job, while 450 (95.14%) did not. Selling goods was the most common additional activity, reported by 10 wives (2.11%).

From a livelihood diversification perspective, secondary employment was not the dominant strategy among the families surveyed. Only 80 husbands (16.91%) and 23 wives (4.86%) held additional jobs, compared with 393 husbands (83.09%) and 450 wives (95.14%) who did not. Occupational diversification was therefore more common among husbands. Regarding spouses' economic participation, 157 wives (33.19%) had a primary income-generating occupation, while 314 (66.38%) were recorded as homemakers. This pattern is relevant to gendered divisions of labor and domestic responsibilities that may constrain women's labor market participation. Lim (2017) shows that both fathers and mothers in urban families often undertake informal work alongside regular employment. Yusa et al. (2025) find that approximately 27% of Indonesian workers hold more than one job, particularly in the informal sector.

**Objective Welfare**

**Family Income**

Table 3 shows a relatively balanced distribution of the 473 respondents around the 2025 DKI Jakarta provincial minimum wage of IDR 5,396,761 per month. A total of 238 respondents (50.32%) had incomes below this benchmark, while 235 (49.68%) were at or above it. Thus, slightly more than half earned less than the provincial minimum wage, suggesting economic vulnerability among some informal worker families in East Jakarta. Sugiharti et al. (2023) find that casual workers are more vulnerable to poverty, while higher education and access to financial services are associated with lower poverty risks. Khoiruddin et al. (2025) associate informal employment in Indonesia with a greater risk of multidimensional poverty and identify a potential protective role for social protection.

Table 3. Income Relative to the 2025 Jakarta Provincial Minimum Wage (IDR 5,396,761 per Month)

| Category | Frequency (n) | Percentage (%) |
|---|---|---|
| Below the provincial minimum wage | 238 | 50.32 |
| At or above the provincial minimum wage | 235 | 49.68 |
| Total | 473 | 100.00 |

**Family Expenditure**

Table 4 shows that 153 families (32.35%) were classified as poor and 320 (67.65%) as non-poor, using the 2025 BPS poverty line for DKI Jakarta of IDR 897,768 per capita per month. Approximately one-third of the surveyed families therefore had per capita expenditure below the minimum basic-needs threshold used in the BPS poverty measure. Economic activity in urban areas does not automatically ensure that households can meet their basic needs. Pulungan et al. (2026) similarly show that multidimensional poverty in Indonesia can extend beyond monetary poverty.

Table 4. Poverty Status Based on the 2025 BPS Jakarta Poverty Line (IDR 897,768 per Capita per Month)

| Category | Frequency (n) | Percentage (%) |
|---|---|---|
| Poor | 153 | 32.35 |
| Non-poor | 320 | 67.65 |
| Total | 473 | 100.00 |

The study further compared household expenditure on rice and cigarettes. A total of 187 families (39.54%) spent more on cigarettes than on rice, whereas 92 (19.45%) spent more on rice than on cigarettes. Fourteen families (2.96%) reported equal expenditure on both items. Another 180 families (38.05%) reported no cigarette expenditure because they did not smoke. The proportion spending more on cigarettes than on rice was therefore almost twice the proportion spending more on rice. These findings describe household consumption priorities and highlight the relevance of household budgeting to meeting basic needs.

These findings are relevant to Swarnata et al. (2024), who found that smoking households in Indonesia allocated an average of 10.7% of monthly expenditure to tobacco products. Their study also found that tobacco expenditure reduced the budget shares available for food, education, healthcare, and other non-food needs. Al Asyary and Veruswati (2023) examine household smoking behavior and cigarette expenditure in Indonesia as issues connected to both health and family finances.

**Housing Space**

A total of 215 families (45.45%) had less than 8 m² of housing floor area per capita, while 258 (54.55%) had more than 8 m² per capita. Nearly half of the respondents therefore lived below the specified threshold, indicating limited living space among a substantial share of metropolitan informal worker families. Crowding may affect comfort, privacy, health, and the quality of family interaction. Floor area per capita is consequently an important indicator of the housing dimension of family welfare. Sunarti et al. (2022) emphasize the importance of the residential environment in understanding family stress and welfare. Residents of metropolitan areas continue to face crowding and limited housing space (Zahra et al., 2025; Basari et al., 2025).

**Accessibility**

Access to local facilities and services varied among informal worker families in East Jakarta. Very good access was reported for places of worship (86.47%), the use of Indonesian (81.40%), neighborhood support (72.52%), civil registration services (60.04%), neighborhood safety (60.25%), education (57.08%), marriage registration (56.24%), and public transport (50.74%). In contrast, 54.12% reported that natural resources were unavailable or difficult to access. Skills training (40.80%) and the use of foreign languages (50.11%) also fell within this category. Labor market access was limited, with 62.79% describing it as difficult or inaccessible. Similar difficulties were reported for credit (50.95%) and government assistance (41.86%). Basic social facilities were therefore relatively accessible, while access to economic opportunities and capacity development remained constrained. Nes et al. (2021) argue that actual accessibility depends not only on the availability of facilities but also on transport connectivity, spatial structure, and users' experiences of reaching services. These findings are consistent with earlier research suggesting that lower- and middle-income urban populations may experience accessibility barriers (Duarte et al., 2025).

## CONCLUSION

The survey of 473 informal worker families in East Jakarta shows that metropolitan family welfare is multidimensional, encompassing sociodemographic conditions, economic resources, employment, housing, and access to local facilities. Economically, 50.32% of respondents earned less than the 2025 DKI Jakarta provincial minimum wage, and 32.35% of families were classified as poor using the BPS poverty line. Regarding consumption, 39.54% spent more on cigarettes than on rice. In housing, 45.45% had less than 8 m² of floor area per capita.

Family economic activity remained predominantly undertaken by husbands, while 33.19% of wives held primary jobs and 16.91% of husbands had secondary employment. Overall accessibility was relatively good, with 56.03% of families classified in the highly accessible category. However, access to employment opportunities, skills training, credit, and government assistance remained limited. Overall, access to local facilities did not necessarily coincide with adequate household economic resources. Improving welfare among informal worker families requires stronger economic capacity, social protection, women's empowerment, and more equitable access to productive resources.

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## REFERENCES

Al Asyary, & Veruswati, M. (2023). Smoking behavior and cigarette expenditure in a household: Evidence for smoke-free houses initiation in Indonesia. International Journal of Preventive Medicine, 14, 7. https://doi.org/10.4103/ijpvm.ijpvm_113_21.

Amin, M., & Islam, A. M. (2022). Does manager education play a role in the productivity of informal firms in developing economies? Evidence from firm-level surveys. Review of Development Economics, 26(2), 962–984. https://doi.org/10.1111/rode.12864. Wiley Online Library

(Anaf et al., 2024) https://doi.org/10.1080/23311886.2024.2326693

Antunes, M., Brendolin, N. C. H., & Quintaes, V. C. (2016). Construction of a consumption aggregate based on information from POF 2008–2009 and its use in the measurement of welfare, poverty, inequality and vulnerability of families. Review of Income and Wealth. https://doi.org/10.1111/roiw.12234

Badland, H., Davern, M., Gunn, L., Whitzman, C., Higgs, C., Giles-Corti, B., Simons, K., Villanueva, K., Mavoa, S., & Roberts, R. (2018). Using spatial measures to test a conceptual model of social infrastructure that supports health and wellbeing. Cities & Health, 2(2), 194–209. https://doi.org/10.1080/23748834.2018.1443620

(Balachandran et al., 2026). https://doi.org/10.1080/26892618.2026.2650718

Boadi, I., Sogah, E., Boadi, E. K., Gborse, F. C., & Mawutor, J. K. M. (2024). Does monetary poverty reduction through gender empowerment work? Cogent Social Sciences, 10(1), Article 2307696. https://doi.org/10.1080/23311886.2024.2307696

(BPS-Statistics Indonesia, 2011). The Informal Sector and Informal Employment in Indonesia. Philippines: Asian Development Bank. https://www.adb.org/sites/default/files/publication/28438/informal-sector-indonesia.pdf

Conover, E., Khamis, M., & Pearlman, S. (2022). Job quality and labour market transitions: Evidence from Mexican informal and formal workers. The Journal of Development Studies, 58(7), 1332–1348. https://doi.org/10.1080/00220388.2022.2061851.

Davern, M., Gunn, L., Whitzman, C., Higgs, C., Giles-Corti, B., Simons, K., Villanueva, K., Mavoa, S., Roberts, R., & Badland, H. (2018). Using spatial measures to test a conceptual model of social infrastructure that supports health and wellbeing. Cities & Health, 1(2), 194–209. https://doi.org/10.1080/23748834.2018.1443620

(Delgado, 2023) https://doi.org/10.1080/13600818.2023.2195623

Duarte et al. (2025). https://doi.org/10.1080/23792949.2025.2473092

Egger, E.-M., Poggi, C., & Rufrancos, H. (2024). Does the depth of informality influence welfare in urban Sub-Saharan Africa? Oxford Economic Papers, 76(1), 187–206. https://doi.org/10.1093/oep/gpac052

Fadhila Basari, Syifa; Hasanah, Uswatun; Kabbaro, Hurriyyatun, "The Relationship Between Housing Density and Family Resilience In Urban Densely Populated Areas In Kampung Rawa Urban Village, Central Jakarta Administrative City," Journal of Geography Science and Education, vol. 6, no. 2, Feb. 2025.

(Friedline et al., 2020). 10.1007/s10834-020-09694-9

Geurs, K., & van Wee, B. (2026). A five-component conceptual model of calculated and perceived accessibility: Literature review and research directions. Journal of Transport Geography, 134, Article 104678. https://doi.org/10.1016/j.jtrangeo.2026.104678

(Kalmenov, 2024) https://doi.org/10.1080/19463138.2024.2362631

(Katre & Raddatz, 2023) 10.3390/nu15051271

Khoiruddin, M. A., Suman, A., Prasetyia, F., Susilo, & Yuniashri, E. (2025). Informality and multidimensional child poverty: Evidence from urban and rural Indonesia. Development Studies Research, 12(1), Article 2533852. https://doi.org/10.1080/21665095.2025.2533852

Kossek, E. E., Yu, A., Pichler, S., & Xu, J. (2026). Employee age and the work–family interface: A meta-analysis and framework integrating life span and life course perspectives. Human Resource Management, 65(1), 39–62. https://doi.org/10.1002/hrm.70007

Lim, K. (2017). Dynamics of urban informal labor supply in the United States. Social Science Quarterly, 98(1), 16–36. Wiley. https://doi.org/10.1111/ssqu.12284.

Lättman, K., Olsson, L. E., & Friman, M. (2016). Development and test of the Perceived Accessibility Scale (PAC) in public transport. Journal of Transport Geography, 54, 257–263. https://doi.org/10.1016/j.jtrangeo.2016.06.015

(Madsen, 2025). https://doi.org/10.1080/14036096.2025.2478840

(Mengistu & Belda, 2024) https://doi.org/10.1080/23311886.2024.2306033

Ministry of Manpower of the Republic of Indonesia. (2025). https://satudata.kemnaker.go.id/satudata-public/2026/04/files/publikasi/1778213365427_Outlook%2520Ketenagakerjaan%25202026%2520.pdf

(Mishra, 2022) https://doi.org/10.1080/00220388.2022.2061853

(Mol, 2026). https://doi.org/10.1080/1081602X.2026.2708309

Negm, H., de Vos, J., Pot, F., & El-Geneidy, A. (2025). Perceived accessibility: A literature review. Journal of Transport Geography, 125, Article 104212. https://doi.org/10.1016/j.jtrangeo.2025.104212

Pot, F. J., van Wee, B., & Tillema, T. (2021). Perceived accessibility: What it is and why it differs from calculated accessibility measures based on spatial data. Journal of Transport Geography, 94, Article 103090. https://doi.org/10.1016/j.jtrangeo.2021.103090

Pulungan, M. A., Wardana, W. W., Haryanto, T., Afiatno, B. E., Rachmaningtyas, L., Hidayati, N. A., & Kusumawardani, D. (2026). Beyond household characteristics: A multilevel analysis of multidimensional poverty in East Java, Indonesia. Global Transitions. Elsevier. https://doi.org/10.1016/j.glt.2026.09.001.

Rasyid, M. (2022). Can unconditional cash assistance improve household welfare? QUAIDS model for food commodities in Indonesia. Development Studies Research, 9(1), 1–11. https://doi.org/10.1080/21665095.2022.2027258

(Santos et al., 2024) https://doi.org/10.1080/14733285.2024.2310566

(Sharma, 2026) DOI: https://doi.org/10.26643/eduindex/jsmap/2026/1

(Siedentop, 2018) https://doi.org/10.1080/21681376.2017.1412270

Sugiharti et al. (2023). https://doi.org/10.1080/23322039.2023.2267927

Sunarti, E., Fatwa, N., Rahmawati, Z., Faramuli, W., & Ramadhany, D. (2022). Spatial environment of home, stress management, and welfare of family living in two-level marginal regions. Journal of Family Sciences, 6(1). https://doi.org/10.29244/jfs.v6i1.35795.

(Surtiari, et al., 2024) https://doi.org/10.1080/1943815X.2024.2375995

(Susanto, et al 2022) https://doi.org/10.1080/21650020.2022.2093790

Swarnata, A., Kamilah, F. Z., Wisana, I. D. G. K., Meilissa, Y., & Kusnadi, G. (2024). Crowding-out effect of tobacco consumption in Indonesia. Tobacco Control, 33(Suppl 2), S81–S87. https://doi.org/10.1136/tc-2022-057843.

von Seidlein, L., Alabaster, G., Deen, J., & Knudsen, J. (2021). Crowding has consequences: Prevention and management of COVID-19 in informal urban settlements. Building and Environment, 188, Article 107472. https://doi.org/10.1016/j.buildenv.2020.107472

Yasin, M., Santoso, D. B., Ananda, C. F., & Syafitri, W. (2026). Non-food consumption and regional poverty reduction: A pathway to inclusive regional welfare. Local Development & Society. https://doi.org/10.1080/26883597.2026.2667810

Yusa, I. G. P. D., Suprayitno, A. W., & Wafi, F. A. (2025). Multiple job-holding in Indonesia: Do years of schooling matter? The Journal of Indonesia Sustainable Development Planning, 6(1), 87–97. https://doi.org/10.46456/jisdep.v6i1.620.

Zahra et al. (2025). https://doi.org/10.15408/jko.v6i1.42429