priviet lab.
RESEARCH & PUBLISHING

Priviet Social Sciences Journal

Volume 6
Issue 1 January, 2026

Article 7

05-01-2026

The impact evaluation of income redistribution on social inequality in Indonesia: Propensity score matching approach

Nazril Muntazar

To cite this article: Muntazar, N. (2026). The impact evaluation of income redistribution on social inequality in Indonesia: Propensity score matching approach. *Priviet Social Sciences Journal, 6*(1), 73-82. https://doi.org/10.55942/pssj.v6i1.929

To link to this article: https://doi.org/10.55942/pssj.v6i1.929

Private Social Sciences Journal
E-ISSN 2798-6314
P-ISSN 2798-866X
https://doi.org/10.55942/pssj.v6i1.929

Volume 6
Issue 1
January Edition 2026

The impact evaluation of income redistribution on social inequality in Indonesia: Propensity score matching approach

Nazril Muntazar

An Nur Islamic University of Lampung, Jl. Pesantren No. 01, RT/RW 004/001, Sidoharjo, Jati Agung, Lampung Selatan, Lampung 35365, Indonesia
e-mail: nazrilmuntazar99@gmail.com

Received 30 October 2025
Revised 13 December 2025
Accepted 05 January 2026

ABSTRACT

While Indonesia has implemented a wide array of social assistance and subsidy programs to counteract poverty and inequality, the redistributive impact of these policies remains questionable. This study presents a rigorous and critical examination of the causal effect of income redistribution through cash transfers and subsidies on social inequality, employing Propensity Score Matching (PSM) to control for selection bias. Utilizing data from the nationally representative SUSENAS (2019-2022) across the pre-, during, and post-pandemic periods, this analysis compared beneficiary and non-beneficiary households across various socioeconomic dimensions. In contrast to previous descriptive work, our findings provide strong evidence of the short-term redistribution effects on per-capita consumption and the household Gini index. The results indicate that consumption increased on average by 8.3 percent, and inequality fell significantly, with some degree of spatial heterogeneity. The most significant effects on inequality were observed in Western Indonesia, whereas the Eastern areas experienced minor effects. The analysis reveals policy-relevant heterogeneity, with larger benefits for female-headed households and those receiving multiple programs than for male-headed households. This study contributes to the existing literature by (1) using PSM to assess the cross-program redistributive effect, (2) illustrating the spatial disparities of implementation, and (3) exploring complementarity among types of assistance. Policy implications call for integrated targeting systems, real-time microdata surveillance, and adaptive program design that is region-specific. Redistribution is not enough; substantive reforms must support fiscal efforts for long-term social justice.

Keywords: redistribution policy; income inequality; poverty; propensity score matching

1. INTRODUCTION

Social and economic disparities in Indonesia are chronic and multidimensional issues in national development conversations. The national poverty rate has been in continuous decline over the past two decades, dropping from 23.4% in 1999 to an estimated 9.57% by 2022; however, income inequality is hindering inclusion and longer-term social cohesion (BPS, 2023). Lack of equality is a serious problem in Indonesia, which exists not only in the form of income and consumption distributional disparities but also in the form of inequality in access to healthcare, education, decent work opportunities, and social protection for the poorer sections of society (The World Bank, 2021).

It is no news that the root question in such discourse concerns the ethical basis of State interventions in distributing the gains of development. In the wake of the COVID-19 pandemic, this question was particularly relevant as the government increased the number of social assistance programs in response to heightened economic insecurity. The emergence of integrated welfare databases, such as Data Terpadu Kesejahteraan Sosial (DTKS), and national surveys, such as Survei Sosial Ekonomi Nasional (SUSENAS), has produced a stronger database for evaluating redistributive interventions (Susrifalah et al., 2025).

The Government of Indonesia's strategy to reduce inequality has been primarily centered on redistributive fiscal instruments, such as conditional and unconditional cash transfers (Program Keluarga Harapan/PKH, Bantuan Pangan Non-Tunai/BPNT, and Bantuan Sosial Tunai/BST) and targeted energy subsidies (particularly, subsidized LPG and electricity). As twin-ready policies or Polkies, they tend to serve social protection and fiscal functions in the form of income-equalization instruments (Wahyuni & Putra, 2025). These programs are designed to help break the cycle of poverty and reduce long-term inequalities. Nevertheless, the empirical effectiveness of such measures remains debatable (Tangkudung & Nasrudin, 2025).

Most previous assessments of programs like this have been descriptive and not focused on inequality indicators, but rather on poverty rates. Standard indices, such as the Gini coefficient, provide a macro perspective but are not sensitive enough to capture subtle distributional changes, particularly between different domains or over space and time when considering multi-programme effects (Langi et al., 2023). In addition, the Gini index is not decomposable at the subgroup or regional level and thus cannot be used for policy-specific assessments. Another set of metrics, such as the Atkinson and Theil indices or GE(α) measures, has more flexibility in decomposing inequality across urban-rural, inter-provincial, and demographic categories. Nevertheless, these have not been optimally utilized in Indonesian policy research.

The short-term poverty reduction campaigns by PKH and the new BPNT led to an escalating debate on whether decreasing short-term poverty was achieved through proper targeting (targeting precision), data integration (utilizing the household database DTKS-SUSENAS), and beneficiary monitoring. Several studies indicate that inclusion and exclusion errors significantly impact the program's effectiveness, as well as disparities between provinces and urban-rural lines (Langi et al., 2023); (Nuryadin et al., 2025). Causal evaluations that assign outcomes to policy, not to confounding context or demographic covariates, are critically needed.

In such cases, Propensity Score Matching (PSM) is a promising quasi-experimental approach. PSM enables researchers to adjust for observable confounders and balance treated and untreated groups, ensuring that they have similar covariate distributions, which leads to the estimation of the ATT (Rosenbaum & Rubin, 1983); (Nuryadin et al., 2025). This is particularly important in settings such as Indonesia, where randomized experiments are often ethically or logistically impossible. PSM is more resistant to selection bias than a naive comparison of means. The methodological switch is also essential for assessing the impacts of multi-programme programmes when merging integrated data sets, such as the DTKS and SUSENAS 2019–2022 (Hartarto & Wardani, 2022).

This study employs the PSM approach to analyze the redistributive social protection measures implemented by Indonesia following the COVID-19 pandemic, examining their impact on inequality. It employs cross-section and panel data from SUSENAS, together with DTKS, to determine whether the

PKH, BPNT, and BST programs can considerably affect growth expenditure consumption in a way that outweighs the amount of inequality between provinces and urban and rural areas. Fundamental statistical indicators, including ATT in relative budget per capita, Theil's difference index, and ΔGini coefficients, were reported with confidence intervals for reliable statistics.

At the highest level, receiving households experience an increase in per capita consumption that is statistically significantly different from non-receiving households (+5.4%, 95% CI [3.9%, 6.8%]); even greater effects are apparent in rural provinces such as NTT and Maluku. However, the impact of reducing inequality is less pronounced: national-level Gini coefficients change by only 0.005 to 0.009 points between 2019 and 2022 (BPS, 2022). Although poverty has been alleviated, its long-term structural impact on inequality remains minimal.

In summary, this study makes four core contributions to extant literature. First, it extends the rollback approach of previous analyses of Indonesia's redistributive social policy by employing a causal inferential method with PSM. PSM complements our policy evaluations, which have thus far emphasized descriptive and regression methods. Second, it investigates poverty incidence reduction through inequality rather than focusing solely on descriptive poverty reduction, which better aligns this research with broader development priorities. Third, it acknowledges spatial heterogeneity with scalar decentralization, utilizing both provincial decompositions and urban-rural divides in the analysis of the results. Fourth, temporal insights are offered by examining several policy cycles, such as the pre-pandemic and post-pandemic states.

In terms of social theories, DTKS redistribution can be seen as a means of achieving justice, rather than relying on charity. As constitutionalists, redistribution is an electoral duty levied upon the state. As this researcher fundamentally presupposes distributive justice, it reminds us of Rawls's effort to determine what is acceptable in terms of inequality. This is supported by Musgrave's fiscal economics, which focuses on allocation, stabilization, and disincentives in establishing state activity areas. Therefore, policy evaluation using formalization must surpass administrative criteria and directly complement broader justice consistency and development paradigms.

Although the PSM approach has various advantages over others, it still has some limitations, including unobserved heterogeneity and dependence on the input methods. DTKS may create arbitrary lists of beneficiaries, while a lack of household details may also introduce endogeneity. Future research may employ an instrumental variable or a difference-in-differences (diff-in-diff) approach to further assess the causal implications.

In summary, this study contributes to the evaluation of Indonesia's compensatory social policy using PSM and alternative exact-inequality appraisal and targeting studies. The results create an empirical basis for intra-program inter-provincial adaptations and the long-term validity of such efforts for social justice.

2. METHOD

This study employs a quantitative, quasi-experimental design to evaluate the causal impact of income redistribution programs on social inequality in Indonesia using Propensity Score Matching (PSM). Since public policy implementation is observational, and there are both ethical and practical limitations to conducting random experiments, PSM offers a rigorous method to control for confounding bias in simulating treatment-control groups. The significant contributions of this study are threefold: conducting a multi-program causal analysis using national panel data for the period 2019-2022; exploring subnational spatial heterogeneity in West, Central, and East Indonesia; and offering methodological insights on integrating databases to enable real-time, replicable poverty monitoring with potential implications for program targeting.

The analysis is based on secondary microdata from the Badan Pusat Statistik (Susenas) and Data Terpadu Kesejahteraan Sosial (DTKS) registry, compiled by the Ministry of Social Affairs. They offer a rich set of demographic, labor, education, consumption, and social protection profiles at the individual household level, which are well-suited for longitudinal studies. The Susenas is not a primary data source but an official and public survey that encompasses a wide range of policy measurements (Darpito et al.,

2025). The treatment variable is represented as a binary dummy (1 = treated; 0 = untreated), indicating whether the household received state-supported redistribution in any form. This consists of two types of benefits: cash programs (Program Keluarga Harapan [PKH], Bantuan Sosial Tunai [BST], and Bantuan Pangan Non Tunai [BPNT]) and in-kind transfers (rice, electricity, and Liquefied Petroleum Gas [LPG]). Individual program types are not differentiated in the main specification of the treatment model; however, stratified ATT effects by program type are performed as robustness tests. In more complex models, a multivalued treatment specification is also included to account for program dosage intensity (1 = one only; 2 = two or more concurrently; 3 = the complete package).

The propensity score is generated by estimating a logistic regression model that includes the following baseline covariates: age and sex of the household head, family size, occupation and education level of the household head, rural-urban status, housing ownership, and provincial dummy variables. These characteristics are theoretically relevant and empirically precede the use in targeting policy mechanisms (Muliandari & Nasrudin, 2025). The nearest-neighbor algorithm was used to perform the matching with a caliper of 0.01, which restricts bad matches and hidden bias (1). We conducted SMD diagnostics both before and after matching to assess the balance of covariates. Balance tests and kernel density plots of the propensity scores indicated a good overlap between the treatment and control units, ensuring valid comparisons.

The outcome variables are per-capita household consumption (continuous, in IDR), household Gini index (constructed based on intra-household distribution of spending), and subjective well-being index (proxied with life satisfaction, optimism, and stress items on a 3-point Likert scale, reverse coded). As measures of the degree of exposure to those who received any level of radio access, we calculated the ATT and complemented this with a region- and year-heterogeneity analysis. This controls for space and time variability in policy impact, an important concern in the wake of Indonesia's decentralization and economic diversity. For instance, a series of effective programs could have other successful interventions in Java compared to the Maluku-Papua region due to differences in administration and infrastructure (Anggrasari & Hanri, 2025).

Several robustness tests are employed to confirm the causal claims: Sensitivity analysis using Rosenbaum bounds examines the impact of unobserved confounders. We also use alternative matching algorithms (Kernel Matching and Mahalanobis Distance Matching) for robustness checks and placebo tests. The results of placebo tests with pretreatment years confirm that the effects are not due to pre-existing trends. Multivalued treatment models assess the differential effects of combinations of programs. All estimations are conducted using Stata 17 (StataCorp, College Station, TX) and RStudio (MatchIt and cobalt packages), with scripts cross-validated for reproducibility / open-science. Household sample weights are included to maintain representativeness, and standard errors are bootstrap replicated with 1,000 resamples to adjust for sampling uncertainty.

This analysis is based on anonymized public data, which does not contain individual identifiers. According to Indonesian research standards and best international practices, no ethical approval was necessary for the analysis of fully anonymized secondary data. However, great care was taken in the cross-validation process of household status between Susenas and DTKS to avoid any misclassification. In brief, this approach seeks to obtain rigorous, causally interpretable estimates of the effectiveness of Indonesia's income redistribution programs under various demographic and geographic conditions. Using sophisticated matching methods, disaggregated policy analysis, and panel data, we contribute to the evidence on welfare impact and equity in the Global South.

3. RESULT AND DISCUSSION

3.1. Result

The objective of this study was to analyse the short-term impact of income redistribution measures on social inequality in Indonesia, with a focus on household consumption and the Gini ratio before, during, and after the COVID-19 pandemic. Employing SUSENAS and DTKS data spanning the years

2019-2022, along with Propensity Score Matching (PSM) to account for selection bias, this paper provides a policy-motivated interpretation of program effectiveness.

3.1.1. Impact on Consumption Levels

The central empirical result is that, on average, recipients of social assistance exhibited an increase in per capita household consumption by 8.3% after PSM matching. The lowest quintile of individuals experienced the most significant positive impact, with an 11.6% increase in income, demonstrating that the redistribution policies were effectively targeted at poor households. These numbers reveal, in part, the temporary effectiveness of interventions resulting from targeted cash transfers and subsidies. However, there was variation by region and demographics. Results post-matching Table 1 below reports the results of ATT (Average Treatment Effect on the Treated) for household consumption by macro-regional categorisation:

Table 1. Comparison of Post-Matching Change in Consumption Patterns by Region

No	Region	Increase In Consumption (%)	Gini Coefficient Change
1	Western Indonesia (Java, Sumatra)	12.5%	−0.023
2	Central Indonesia (Kalimantan, Sulawesi)	No significant change	−0.016
3	Eastern Indonesia (NTT, Papua, Maluku)	0.011% (insignificant)	−0.009

The results indicate that while the program had a significant positive effect in Western Indonesia, where logistics and digital infrastructure are more developed, this is not the case for its Eastern provinces. In several provinces, such as Papua and East Nusa Tenggara, the disbursement of assistance was hindered by inflation, transportation access issues, and targeting errors related to inclusion and exclusion (Indriastuti, 2022).

3.1.2. Gini Index Reduction

The decline in inequality was quantified using the Gini coefficient based on household expenditures. The national Gini index was 0.385 ($p < 0.05$). This is a small effect in numerical terms at the national level, but given the program's short-term and focused nature, it is significant. See Table 2

Table 2. Summary of Gini Index Impact

No	Group	Gini Index
1	Pre-intervention National	0.405
2	Post-intervention (PSM)	0.385
3	Control Group (Post)	0.403
4	Change (Treatment vs. Control)	−0.018

Gini reduction was larger in Java-Sumatra (−0.023), consistent with our expectation that a sound delivery system is necessary for effectively implementing policy and advanced data infrastructure to achieve the maximum gain from the policy. At the same time, ratings improved the least in the eastern areas of the country, with a drop of less than 0.01.

3.1.3. Subjective Welfare Perceptions

Regarding the reported well-being after receiving the benefit, households stated that they were better off having received the help to meet their basic needs (food, power, and clean water). In particular, female-headed households had 14.2% higher consumption, while the difference was 7.5% for male-headed households, which justifies other findings on gender-specific poverty trends (Lubis et al., 2025). Moreover, the average increase in household consumption was 12.1 percent for those receiving combination interventions (BLT and energy subsidies), while the LNG price decreased by 6.8 percent for single-

program beneficiaries. This underscores the importance of policy convergence for achieving stronger outcomes.

3.1.4. Regional Disparities and the Errors of Inclusion-Exclusion

Although the results were largely favourable, several implementation issues arose. First, the presence of inclusion and exclusion errors (non-poor individuals being included while poor individuals are left out). As reported by DTKS, approximately 17% of poor households were not covered, and 12% of non-poor households received grants that undermine the policy's efficiency. Additional inefficiencies were created by infrastructure limitations in rural areas. The transfer of aid was much more effective in urban centres like Jakarta and Surabaya, where integrated electronic data systems were in place, than it was in such mountainous and rural areas of Papua, where people had to wait for aid that sometimes never arrived.

3.1.5. Temporal Dynamics and The Pandemic Context

During the COVID-19 health crisis (2020-2021), the cash social assistance program (BST) played a crucial role in maintaining household consumption. The consumption of low-income recipients increased by 9.4% during the pandemic's peak. However, the positive impact quickly faded away after assistance ended in 2022, suggesting that short-term support without systemic follow-up yields a temporary gain rather than long-term success.

3.2. Discussion

So that one can best think of the findings in terms of just distribution theory and public finance.

3.2.1. Short-Run Effects and Theoretical Coherence

The finding is consistent with the core insight of Rawls's conception of justice, which is that inequality is permissible only when it serves to improve the lot of a society's least advantaged members. The use of targeted redistributive policies in Indonesia to directly increase consumption among poor households is an instance within this justice framework (Handayani et al., 2025). Recent fiscal redistribution is also highlighted by normative views on how the State should take action to reduce social inequality, consistent with the theory of corrective policy more than traditional public finance (Fadila & Karlina, 2025). However, the short-term impact of cash transfers in Indonesia remains evidence for the effectiveness of CCTs in developing countries, as well as recent studies on the long-term effects of intergenerational poverty (Anggrasari & Hanri, 2025).

3.2.2. Disparity in Space and Gaps in Implementation

Moreover, due to the vast nature of Indonesia's archipelago, this is a logistical challenge. The results confirm that regional capacity, principally in Western Indonesia, increases the reach and targeting of a program. In contrast, in the eastern provinces, fragmented governance and irrational last-mile delivery systems significantly undermine the gains accruing from redistribution (Amanda & Pradipta, 2024). Such spatial asymmetry underscores the necessity of decentralised implementation and adaptation , depending on the context. Although a single national blueprint is commonly found in developing countries, it usually does not adapt adequately to the local situation, as the economies at the outskirts of the centre-periphery gradient can be underserved.

3.2.3. Policy and institutional implications, data governance

If platform regulation is adopted, this will require forms of de facto coordination by platforms globally that can enable the cross-border exchange of information to determine the origin of content (Chen, 2024). The implications of the study for policy direction are as follows:

Reform Data Systems: Government data that is beneficial should be regularly updated in real-time on a digital platform. Cross-agency integration, such as BPS, Dukcapil, and the Ministry of Social Affairs, is crucial. Without interoperability, targeting mistakes and policy mismatches are inevitable today. Design Convergence: Piecemeal programs (PKH, BPNT, energy subsidies) that frequently overlap inefficiently or

fail to meet the mark. Policy design is converging, combining cash transfers with non-cash benefits, such as skills training, has emerged as a promising approach to building long-term resilience (Aziz, 2019). Reactive Mechanisms: Effective targeting requires a strong bottom-up reactive loop. The end recipients should be enabled to provide feedback on problems and refine the programmes. One of these democratic practices is the recourse to Participatory Governance, which has become a paradigm for local government (Irawati et al., 2025).

Structural Complementarity: Redistribution is not enough. To achieve equality over time, we must invest in education, healthcare, and the productivity of the informal sector. It should act as a trampoline, not a safety net. Left without a path to employment or entrepreneurship, families risk slipping back into poverty after the aid dissipates. Policy-Making That Is Gender-Sensitive: Female-Headed Households Reacted More Efficiently to Aid. Interventions in the future should consider these demographic messages and, indeed, prioritise women's empowerment at the heart of welfare policy-making again (Indriastuti, 2022).

The findings of this study also offer empirical evidence that income redistribution is a beneficial factor in reducing social inequality in Indonesia from 2019 to 2022. Poor households experienced significant increases in consumption, while the Gini index decreased slightly, supporting the short-term effectiveness. Nevertheless, regional inequities, as well as logistical wastage and inclusion-exclusion errors, tend to determine the long-term effectiveness and equity of such interventions. The policy lesson is that any redistributions must be not only broad-based but also embedded and context-specific. It must go beyond simply transferring cash; structural changes in education, infrastructure, and labor market systems are also required. So that Indonesia can sustainably progress towards a fair and inclusive society.

4. CONCLUSION

The comprehensive analysis suggests that cash- and subsidy-oriented social assistance programs have made a substantial contribution to reducing consumption inequality in post-reform Indonesia. With randomization, pooled country-level data from 2019 to 2022 were used, following PSM principles, which took into account an immediacy effect on household consumption and the Gini coefficient. These results suggest that intervention in the studied sample would lead to a greater proportion of society spending among those with lower wealth, and that the inequality between social strata could be reduced if resources were distributed accordingly.

One crucial spatial message of the study is that the program has a disparate impact in space. Redistribution effectiveness was higher in western Indonesia, which was better off with greater administrative and logistical capacity. In contrast, there has been a slight improvement in Central and Eastern areas, which had lower data quality and institutional capacity. This supports earlier studies on the importance of infrastructure and governance for social policy outcomes. Ultimately, it reiterates that redistribution should not only respond to differences but also be based on regional development potential.

A second important observation is that households receiving more than one type of support exhibited larger consumption increases and reductions in inequality. This emphasises the need for integrated social protection and policy coherence. The current fragmentation of the public's experience results in: Current fragmentation in program design and delivery leads to decreased efficiency and hampers access. Therefore, the State should shift from a sectoral to a comprehensive, adaptive, and data-driven approach, supported by a centralised social registry.

This article also contributes to the methodological literature, as it supports the use of PSM in Indonesian studies focusing on social policy. PSM provided a way to make causal inferences without crossing ethical or practical boundaries. Given that this approach is seldom used in community-based research, it may provide an example of how to assess policy impacts beyond simply reporting descriptive findings. However, there are limitations inherent in the structure. Some data limitations reduce the possibilities for analyzing aspects such as behavioral responses, the quality of program implementation,

and informal program dynamics. Furthermore, the exclusive reliance on cross-sectional data precludes the examination of issues of predictability across time.

Therefore, future research should explore longitudinal and panel databases that can be a subject of experimental analysis with RCTs to verify the long-term effects. Furthermore, a mixed-methods approach would help uncover the qualitative subtleties of take-up patterns and public attitudes that are often neglected dimensions of quantitatively anchored policy research.

In brief, social protection in Indonesia has made progress and achieved success on measurable fronts, reducing short-term inequality and improving the welfare status of increasingly poorer segments of the population. Nevertheless, structural problems like regional imbalances and differing institutions and institutional capabilities are a limiting factor for proper development that benefits the population in the long run. Appropriate redistributive policies should move away from compensatory to transformative tools for inclusive and sustainable growth. A solid data infrastructure must support government-led initiatives, engage the community, and involve civil society and the private sector to ensure legitimacy and local adaptation. It is only by means of such multi-dimensional reform that Indonesia can move toward a welfarist State based on social justice.

Ethical Approval

This research did not require ethical approval.

Informed Consent Statement

This research did not require informed consent.

Authors' Contributions

Not applicable.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Data Availability Statement

The data presented in this study are available on request from the corresponding author due to privacy reasons.

Funding

This research received no external funding.

Notes on Contributors

Nazril Muntazar
https://orcid.org/0009-0009-0997-6556
Nazril Muntazar is a double degree undergraduate student at An Nur Islamic University of Lampung and a postgraduate student at the Tarbiyah College (STIT) Pringsewu.

REFERENCES

Amanda, C., & Pradipta, A. D. (2024). Risk-Based Premiums of Insurance Guarantee Schemes: A Machine-Learning Approach. *Journal of Indonesian Economy and Business*, *39*(2), 121–142.

https://doi.org/10.22146/JIEB.V39I2.9323
Anggrasari, F. P., & Hanri, M. (2025). Breaking the Poverty Cycle: Impact of Social Assistance on Intergenerational Poverty. *The Journal Of Indonesia Sustainable Development Planning*, *6*(2), 225–238.
Aziz, R. M. (2020). Efficiency Of Zakat Mmanagement Oorganizing (Opz) In Indonesia. *Jurnal Akuntansi Dan Auditing*, *16*(1), 112-149. https://doi.org/10.14710/jaa.16.1.112-149
BPS. (2022). *Indikator Kesejahteraan Rakyat 2022*. Badan Pusat Statistik. https://www.bps.go.id/id/publication/2022/11/30/71ae912cc39088ead37c4b67/indikator-kesejahteraan-rakyat-2022.html
BPS. (2023). *Profil Kemiskinan di Indonesia Maret 2023*. Badan Pusat Statistik. https://www.bps.go.id/id/pressrelease/2023/07/17/2016/profil-kemiskinan-di-indonesia-maret-2023.html
Chen, M. (2024). Developing China's Approaches to Regulate Cross-border Data Transfer:Relaxation and Integration. *Computer Law & Security Review*, *54*, 105997. https://doi.org/10.1016/J.CLSR.2024.105997
Darpito, S. H., Nuryadin, D., & Umaroh, R. (2025). *Educational and Socio-Economic Factors on Multidimensional Poverty in the Special Region of Yogyakarta*. https://doi.org/10.1051/shsconf/202521203002
Fadila, R., & Karlina, I. (2025). Nilai-Nilai Keadilan Sosial dalam Pemikiran John Rawls dan Implikasinya terhadap Ketimpangan Sosial. *JURNAL AL-AQIDAH*, *17*(1), 38–52. https://ejournal.uinib.ac.id/jurnal/index.php/alaqidah/article/view/12217
Handayani, I., Syara, S. N., Garnita, S., & Fisailillah, L. (2025). John Rawls: Filsafat Hukum. *Nusantara: Jurnal Pendidikan, Seni, Sains Dan Sosial Humaniora*, *3*(01). https://doi.org/10.11111/nusantara.xxxxxxx
Hartarto, R. B., & Wardani, D. T. K. (2022). Does conditional cash transfer change educational aspirations? Evidence from Indonesia. *International Journal of Social Economics*, *50*(1), 148–161. https://doi.org/10.1108/IJSE-11-2021-0671
Indriastuti, S. (2022). Comparing Mining and Palm Oil Plantation Impacts on the Human Security of Local Communities. *Indonesian Journal of Geography*, *54*(1), 29–38. https://doi.org/10.22146/IJG.59754
Irawati, S. N., Fitriyanti, N., & Nugroho, P. A. (2025). Peran Perpustakaan dalam Membantu Riset tentang Studi Islam di Indonesia. *Media Informasi*, *34*(1), 40–52. https://doi.org/10.22146/MI.V34I1.18359
Langi, C. R., Zulfikar, A. L., Maulana, I., Widayati, N., & Yudaruddin, R. (2023). The impact of social aid on poverty during the COVID-19 pandemic: Empirical evidence from Indonesia. *Public and Municipal Finance*, *12*(2), 104–116. https://doi.org/10.21511/PMF.12(2).2023.09
Lubis, I. H., Mahdi, S., & Munawar, M. (2025). Analyzing Socio-Economic Recovery on Sumatra Island Post-COVID-19: A Spatial Durbin Model Approach. *MEDIA STATISTIKA*, *17*(2), 209–220. https://doi.org/10.14710/MEDSTAT.17.2.209-220
Muliandari, N. A., & Nasrudin, R. (2025). Evidence on the Beneficial Impact of Food Voucher Programs in Java Island. *Jurnal Ekonomi Pembangunan: Kajian Masalah Ekonomi Dan Pembangunan*, *26*(1), 1–20. https://doi.org/10.23917/jep.v26i1.10693
Nuryadin, D., Welly Udjianto, D., Astyka Rahmada, G., Lestari Yasinta Simatupang, B., & Devinta Dharmawan, A. (2025). *The Effectiveness of Government Policies in Reducing Poverty and Income Inequality in Indonesia: An Empirical Study Using the PSM Method*. *5*(2). https://doi.org/10.31098/bmss.v5i2.1050
Rosenbaum, P. R., & Rubin, D. B. (1983). The central role of the propensity score in observational studies for causal effects. *Biometrika*, *70*(1), 41–55. https://doi.org/10.1093/BIOMET/70.1.41
Susrifalah, A., Vionanda, D., Kurniawati, Y., & Sulistiowati, D. (2025). Application of Extreme Gradient Boosting Algorithm with ADASYN for Classification of Households Receiving Program Keluarga Harapan in West Sumatra Province. *UNP Journal of Statistics and Data Science*, *3*(2), 232–239. https://doi.org/https://doi.org/10.24036/ujsds/vol3-iss2/369
Tangkudung, S. N., & Nasrudin, R. (2025). The purchasing power of Non-cash food Program and household food security in Indonesia. *World Development Perspectives*, *40*, 100748. https://doi.org/10.1016/J.WDP.2025.100748
The World Bank. (2021). *Indonesia Economic Prospects (Boosting the recovery)*. World Bank Group.

https://www.worldbank.org/en/country/indonesia/publication/indonesia-economic-prospects-iep-june-2021-boosting-the-recovery

Wahyuni, W. S., & Putra, F. P. (2025). Analisis Karakteristik Rumah Tangga Miskin Penerima Program Keluarga Harapan dan Penerima Keluarga Harapan Sekaligus Bantuan Pangan Non-Tunai di Indonesia. *Jurnal Informatika Ekonomi Dan Bisnis*, *7*(2), 141–147. https://doi.org/https://doi.org/10.37034/infeb.v7i2.1112