Jurnal Economia, Vol. 19, No.1, April 2023, 127-140 P-ISSN: 1858-2648
Website: https://journal.uny.ac.id/index.php/economia E-ISSN: 2460-1152

Analysis of the Impact of the *Raskin* Program on Food Security for Poor Households in Indonesia

Mustofa[1*], Catur Sugiyanto[2], Akhmad Akbar Susamto[3]
[1]*Department of Economics, Faculty of Economics and Business, Universitas Negeri Yogyakarta, Indonesia,*
[2,3]*Department of Economics, Faculty of Economics and Business, Universitas Gadjah Mada, Indonesia*
[1]*mustofa@uny.ac.id,* [2]*catur@ugm.ac.id,* [3]*akhmad.susamto@ugm.ac.id*
**Corresponding author*

Abstract
This study aims to determine the impact of assistance from the rice program for people experiencing poverty on food security for poor households. The data in this paper are sourced from the fourth (2007) and fifth (2014) Indonesian Family Life Survey (IFLS). A total of 1346 household samples were used in this study. The sample consisted of 401 treatment groups and 945 control groups. The treatment group is poor households that receive Raskin assistance, and the control group is poor households that do not receive Raskin assistance. The analysis used is Propensity Score Matching (PSM) with Difference in Difference (DiD). The study's results prove that the Rice for the Poor program has no significant impact on the proportion of household food expenditure. The interaction between the variables year (after) and treatment (Raskin) has no significant effect on the proportion of household food. The provision of the Raskin program in a longitudinal period has no impact on household per capita food expenditure.

Keywords: Raskin, Poor Households, Food Security, PSM, DiD

Analisis Dampak Program Raskin Terhadap Ketahanan Pangan Rumah Tangga Miskin di Indonesia

Abstrak
Penelitian ini bertujuan untuk mengetahui dampak bantuan Program Raskin terhadap ketahanan pangan rumah tangga miskin. Data dalam makalah ini bersumber dari *Indonesian Family Life Survey* (IFLS) gelombang empat (2007) dan lima (2014). Sebanyak 1346 sampel rumah tangga yang digunakan pada penelitian ini. Sampel tersebut terdiri dari 401 kelompok *treatment* dan 945 kelompok kontrol. Kelompok treatment adalah rumah tangga miskin yang memperoleh bantuan raskin dan kelompok kontrol adalah rumah tangga miskin yang tidak mendapatkan bantuan raskin. Analisis yang digunakan adalah *Propensity Score Matching* (PSM) dengan Difference in Difference (DiD). Hasil penelitian membuktikan bahwa Program Raskin tidak berdampak signifikan terhadap proporsi pengeluaran pangan rumah tangga. Interaksi antara variabel tahun (*after*) dan *treatment* (raskin) tidak berpengaruh signifikan terhadap proporsi pangan rumah tangga. Pemberian program raskin dalam waktu yang longitudinal tidak berdampak pada pengeluaran pangan perkapita rumah tangga.

Kata kunci: Raskin, Rumah Tangga Miskin, Ketahanan Pangan, PSM, DiD

History: Received: 27 Februari 2023 Revised: 22 March 2023 Accepted: 17 April 2023

Citation (APA 6th): Mustofa., Sugiyanto, C., & Susamto, A,A., (2023). Analysis of the Impact of the Raskin Program on Food Security for Poor Households in Indonesia. *Jurnal Economia,* 19(1), 127-140. https://doi.org/10.21831/economia.v19i1.58937

INTRODUCTION

The increase in food resources does not align with the world population. Researchers have widely discussed this phenomenon (Gilland, 2002; Russell, 1949; Tripathi et al., 2019), and it concerns developing countries such as Indonesia. Indonesia is one of the supporters and

plays an important role in the food security program implemented by FAO (Food and Agricultural Organization). Indonesia is targeting to become a world food barn in 2045 (fao.org). Indonesia has committed to achieving national food security by becoming a member of the Islamic Organization for Food Security (IOFS), an independent body under the Organization of Islamic Countries (OIC) in food security.

However, the "State of Food Insecurity" report notes that Indonesia still faces food problems, especially malnutrition, stunting, wasting and obesity (UNICEF, 2018). This problem is caused by the fulfilment of food and nutrition needs that are not ideal. Data from the Food Security Agency stated that in 2006-2012 consumption continued to increase significantly, but an increase in food production did not offset this. Lestari and Sarana (2018) have stated that Indonesia has an insecure food conditions. Global Food Security Index (2022) data states that Indonesia's food security is still lower than the Asia Pacific average. Food security is an important dimension of household welfare. Many studies on food security take socio-political and economic contexts (Iram & Butt, 2004a; Arene & Anyaeji, 2010; Bashir et al., 2012; Warr, 2014). Few researchers focus on food security and government assistance; for example, Rasyid (2012) discusses the disincentive effect of the *Raskin* or "*Beras Miskin*" (Rice for poor households) program.

Food security is a common problem in almost all countries, especially developing and poor countries. Based on Law Number 18 of 2012, what is meant by food security is the condition of fulfilling food in the country for each individual. This can be reflected in the availability of sufficient food (both quantity and quality), safe, diverse, nutritious, equitable, affordable and accepted by religion, belief and culture so that people have health, sustainable activity and productivity. Four factors that affect food security are the adequacy of food availability, stability of food availability, food accessibility, and food quality/safety (FAO, 1996). According to Tegeje (2014), food security can be measured using five indicators, namely land ownership, types of plants planted and their allocation, post-harvest management, amount of food production and post-harvest, and food availability and market access.

There are four levels of food security, according to Warr (2014), namely global food security, national food security, household food security, and individual food security. Global food security is related to whether the macro supply meets global aggregate needs. National food security is based on an equal comparison between aggregate supply and demand. Household food security is food adequacy at the household level. Individual food security is about the distribution of food within the household.

Food security has been measured in many studies using two approaches. The first approach is to use the number of calories an individual consumes per capita daily. The food security indicator means that a person's calorie consumption is equal to or greater than 2100 kcal/day, while food insecurity indicates that a person's calorie consumption is less than 2100 kcal/day. The number of calories can be known from the food type and the amount consumed. The second approach is to use food spending in rupiah units. In this model, the food security indicator refers to the per capita food expenditure of more than 50% per capita

of all households. On the other hand, food insecurity means that per capita food expenditure is below 50% of the average total food expenditure in all households.

Raskin "*Beras Miskin*" is assistance from the Indonesian government as a poverty alleviation program and social protection in the form of subsidized rice for low-income households (poor and vulnerable households). The *Raskin* program aims to reduce the portion of targeted household expenditure to meet the basic need for rice. It plays an important role because most of the expenditure of 65% of poor and vulnerable households is to buy food. Rice is the main commodity in the daily consumption of poor and vulnerable households. Rising rice prices can affect people's purchasing power, especially people with low incomes. As a result, it can increase the number of poor people. For this reason, it is essential to ensure that poor and vulnerable households can meet their food needs, especially rice.

The *Raskin* program has been implemented since the monetary crisis hit Indonesia in 1998. Initially, it was named the *OPK* or *Operasi Pasar Khusus* (Special Market Operations) program, which was later changed to *Raskin* in 2002. The term *Raskin* was changed to *Rastra* or "*Beras untuk Keluarga Sejahtera*" (Rice for Prosperous Families) in 2017, but most people still knew it by *Raskin*. It has expanded its function to no longer be an emergency program (social safety net) but a part of the social protection program.

Poor households received 15 kg of subsidized rice monthly (in 2017). The redemption price for *Raskin* rice was set at Rp 1,600 per kg. The number of *Raskin* beneficiaries in 2015 was 15,530,897 households which also received KPS or *Kartu Perlindungan Sosial* (Social Protection Cards or KKS or *Kartu Keluarga Sejahtera* (Family Welfare Cards) to mark their membership or SKRTM or Surat *Keterangan Rumah Tangga Miskin* (Poor Household Certificates (SKRTM) for household replacements as a result of village office meetings. Based on national data, the number of *Raskin* beneficiaries in 2015 was around 25% of the population with the lowest welfare rating nationally, including poor and near-poor households. The determination of recipient households for the 2015 *Raskin* referred to the Integrated Social Protection Program Database managed by the Secretariat of the National Team for the Acceleration of Poverty Reduction (TNP2K or *Tim Nasional Percepatan Penanggulangan Kemiskinan*). The updating of the data has been carried out based on the 2014 urban village office report as outlined in the Substitute Recapitulation Form (FRP or *Formulir Rekapitulasi Pengganti*) and has been reported to the TNP2K Secretariat according to the deadline stipulated in the Letter of Coordination of the Coordination Team for the Provincial Ministry of People's Raskin Center No.: B-485/KMK/DEP. II/III/2014 dated 27 March 2014.

The main problem in this study consists of four points. First, the effectiveness or impact of the government's *Raskin* program is unknown. The government only reports on the recipients of the *Raskin* program and the distribution of other data in general. However, the evaluation of Raskin's impact has not been considered. Second, there is a research gap between previous empirical studies. Research by Iram and Butt (2004) has proven that homemakers' age and education affected food security. Meanwhile, Arene & Anyaeji (2010) proved that only the income and age of the head of the household had a significant effect

on food security, while other variables such as the number of family members, education of the head of the household, gender of the head of the household and availability of access to loans did not affect food security. Unlike the research by Bashir et al. (2012), which stated that income, education and age of the head of the household and the number of family members had a significant effect on food security. Kuwornu et al. (2013) showed that income, availability of access to loans, dependency ratios, and farming households significantly affected food security. Bozsik et al. (2022) have stated that inflation, exports, imports, and poverty determine food security. In addition, many other studies use calories per capita as an indicator of food security, such as Iram & Butt (2004), which is a weakness when faced with the Indonesian context. Third, empirical research on food security in the context of Indonesian society is still rarely carried out. Especially in this study using data sourced from the Indonesian Family Life Survey (IFLS).

This study aims to determine the impact of the *Raskin* program on the proportion of food in poor households. Using panel data can support household food's initial and final conditions, which in particular receive government assistance. This research is composed of 4 parts. The first part discusses the introduction, the second part explains the methods used in this research, and the third part explains the results and discussion. Finally, the fourth section explains the conclusions and suggestions related to the overall picture of this research.

METHOD

This study measured the impact of a program to determine the results of the existence of the program. The impact was defined as a comparison between the results obtained sometime after the program was implemented and the results obtained simultaneously if the program was not implemented (*counterfactual*). Counterfactual represented a situation that program participants experienced without the presence of the program, that was, if they did not participate in the program.

This study used the *Difference in Differences* (DiD) impact analysis method combined with *Propensity Score Matching* (PSM). Combining these two methods avoided any estimation bias, including the bias of unobserved characteristics, which was ignored because it was assumed to be constant over time. Getler et al. (2016) and Wagstaff et al. (2009) stated that *DiD* could be used when program implementation had been carried out, then participants who did not get the program had the same characteristics as participants who received the program. The next requirement was that the outcome data could be identified at the time before and after the program.

The step to using the DiD with PSM method began with matching the treatment and control groups, using the intervention status in the follow-up data (IFLS 5) with the control variable in the base year data (IFLS 4). Then after good matching results were obtained, the base year sample of the matching results was combined with the follow-up year sample to obtain balanced panel data and the analysis was continued by estimating the impact using the DiD method (Khandker et al., 2010).

PSM was an analytical tool with a matching system between the treatment and comparison groups using a propensity score which was the probability that an individual would participate in an intervention based on a set of observable X covariates. The system PSM used, in general, was to build an equal comparison group from the group that did not receive the intervention based on similar characteristics to the treatment group (Strobl, 2017).

Caliendo & Kopeinig (2005) described two assumptions that had to be met using the PSM method: the first conditional independence assumption (CIA). This assumption was met by applying a set of observable covariates (X). This covariate aimed to control for differences between the two groups. Sulistyaningrum (2017) stated that the variables used were only those that simultaneously influenced the decision to get intervention. The implication was that the two groups would have the same characteristics and differ only in their intervention status. Second, the assumption of Common Support. This assumption indicated an overlapping condition in the tendency scores of the two groups, which explained an equal possibility between the two groups to get the intervention.

Caliendo & Kopeinig (2005) also explained that the matching stages began with estimating the propensity score by selecting the model and variables to be used. Several discrete model options were selected, such as *logit* or *probit* models. Next, the matching algorithm was chosen. Several estimator matching options were used, such as Nearest Neighbor Matching (NN), Radius Matching, Stratification Matching, Kernel Matching, and Weighing. Then the checking Common Support was conducted to see if there was an overlap in the propensity scores of the two groups.

Turning to the DID Method, Getler et al. (2016) explained that the DiD method was an impact analysis method that compared changes in results over time in the treatment and control groups. In line with that, Sulistyaningrum (2017) explained that the impact estimation of DiD was used when a group (treatment group) was affected by certain variables, such as changes in programs or government policies, while others (comparison groups) were not. Because the actual counterfactual results were unavailable in the real world, DiD made a valid comparison group as a substitute counterfactual by using the change in results from other groups that did not receive intervention at the same observation time.

It was assumed that $Y(0)_T$ and $Y(1)_T$ were the results in the treatment group before and after the intervention. Also, $Y(0)_C$ and $Y(1)_C$ were the results in the control group before and after the intervention. The DiD method would estimate the impact of an intervention by calculating the difference between the change in outcome in the treatment group ($Y(1)_T$ - $Y(0)_T$) and the change in outcome in the control group ($Y(1)_C$ - $Y(0)_C$). Then the result of estimating the impact of an intervention was ($Y(1)_T$ - $Y(0)_T$) - ($Y(1)_C$ - $Y(0)_C$).

If the impact of DiD was estimated using the regression method, then the DiD model could be written as in equation 1 below.

$$Y_{it} = \alpha_0 + \alpha_1 Treatment_{it} + \alpha_2 After_{it} + \alpha_3 Treament_{it} * After_{it} + \mu_{it} \qquad (1)$$

Where Y_{it} was the probable result to be observed. $Treatment_{it}$ was the intervention status equal to 1 if getting the intervention. $After_{it}$ is the time status equal to 1 if the observation after the intervention is given (follow-up). $Treament_{it}*After_{it}$ equals 1 if getting the intervention after the intervention is given. Referring to Khandker et al. (2010), the magnitude of the impact of DiD is represented by the coefficient α_3, which is the magnitude of the impact of the intervention observed in the treatment group after the intervention is implemented. The model can be developed by including a group of covariates ($\beta_{(n)}$) as control variables. Then the next DiD model can be written as in equation 2 below.

$$Y_{it} = \alpha_0 + \alpha_1 Treatment_{it} + \alpha_2 After_{it} + \alpha_3 Treament_{it}*After_{it} + \alpha_n \beta_{(n)it} + \mu_{it} \quad (2)$$

DiD analysis can also be illustrated in a table. Using the notation (Y), namely the results in both groups and the coefficients of the DiD model in equation 1. Based on Table 1 below, the impact of the intervention is shown in the magnitude of the value in the lower rightmost column.

Table 1. *Model Difference in Differences (DiD)*

	***After* (A)**	***Before* (B)**	***Difference* (A – B)**
***Treatment*($_T$)**	$Y(1)_T$ ($\alpha_0+\alpha_1+\alpha_2+\alpha_3$)	$Y(0)_T$ ($\alpha_0+\alpha_1$)	($Y(1)_T$ - $Y(0)_T$) ($\alpha_2+\alpha_3$)
Control(c)	$Y(1)_C$ ($\alpha_0+\alpha_2$)	$Y(0)_C$ (α_0)	($Y(1)_C$ - $Y(0)_C$) (α_2)
***Difference*($_{T-C}$)**	($Y(1)_T$ - $Y(1)_C$) ($\alpha_1+\alpha_3$)	($Y(0)_T$ - $Y(0)_C$) (α_1)	**($Y(1)_T$ - $Y(0)_T$) - ($Y(1)_C$ - $Y(0)_C$) (α_3)**

With the DiD method, the bias of the unobserved characteristics of the two groups could be corrected because they were assumed to be constant from time to time, provided that the assumption of an Equal Trend could be met in both groups. So, it could be interpreted that a valid counterfactual had been obtained. The idea was that if the intervention were never applied, the results observed between the two groups would move together (*tandem*) over time. One way to test the Equal Trend assumption was to compare the trends in the treatment and control groups' results in several periods before the *Raskin* program was implemented (Getler et al., 2016).

Variable

The outcome variable was the proportion of household food to total household expenditure obtained from data on food expenditure and household income. Data on the proportion of household food in the dataset was the monthly household food expenditure. Then the total household expenditure was the monthly household expenditure measured in rupiah units. Food expenditure was divided by total expenditure to obtain the variable proportion of household food.

Table 2. *Criteria for Poor Households*

BPS Criteria	Ministry of Social Criteria
1. The floor area of a residential building is less than 8m^2 per person.	1. They do not have a source of livelihood and a source of livelihood but cannot meet basic needs.
2. The type of floor of the residence is made of dirt/bamboo/cheap wood.	2. Most expenses are used to meet basic food consumption very simply.
3. Types of walls are made of bamboo/ thatch/low-quality wood/ walls without plaster.	3. They cannot afford or have difficulty getting medical treatment, except for the *puskesmas* (Public health centres) or government-subsidized money.
4. They do not have defecation facilities/ shared with other households.	4. They cannot buy clothes once a year for each household member.
5. Household lighting sources do not use electricity.	5. They can only send their children to school up to junior high school levels.
6. Sources of drinking water come from unprotected wells/ springs/ rivers/ rainwater.	6. They have walls made of bamboo/ wood/ walls in poor condition/ low quality, including worn-out/mossy or plastered walls.
7. The fuel for daily cooking is firewood/ charcoal/ kerosene.	7. The condition of the floor made of soil or wood/ cement/ ceramic is not in good condition/low quality.
8. They only consume meat/ milk/ chicken once a week.	8. Their roofs are made of palm fibre/ thatch or tile/ zinc/ asbestos in bad condition/low quality.
9. They only buy one new set of clothes a year.	9. They have residential building lighting not from electricity or electricity without a meter.
10. They are only able to eat once or twice a day.	10. Their small house floor area is less than 8 m2/person.
11. They cannot pay medical expenses at the Public Health Centre/Polyclinic.	11. They have a source of drinking water from unprotected wells or springs/ river water/ rainwater/ others.
12. Sources of income for the head of the household are farmers with a land area of 500m2, farm labourers, fishermen, construction labourers, plantation labourers and other occupations with income below Rp. 600,000, - per month.	
13. The highest level of education of the head of household: no school/did not finish primary school/end primary school.	
14. They do not have savings/goods that are easy to sell with a minimum of Rp. 500,000, - such as credit/non-credit motorbikes, gold, livestock, motor boats, or other capital goods.	

The treatment variable in this study was the *Raskin* Program (*RASKIN*). This variable was used as a dummy, which means it had a value of 1 if the household had purchased *Raskin* rice in the last year. It was 0 if the household had not received assistance in the last year.

The control variables in this study were generally divided into two groups. The first group was a covariate that explained the conditions for obtaining subsidized health insurance. This covariate was a criterion defining people experiencing poverty and the poor. Two sources of poverty criteria would be used, namely based on 11 criteria in *Kepmensos* (Ministry of Social Affairs) number 146/HUK/2013 and 14 criteria in the 2005 Social Economic Data Collection (PSE05) of the Central Bureau of Statistics. These criteria can be seen in Table 2.

The second group was a variable that described other household characteristics in the form of a dummy variable which included: urban (living in urban areas), family (number of family members), status (status of the head of the family), *edu* (education of the head of the family), hh_inc (income of the head of the family)), jobs (source of income), non-government assistance (in the form of cash & goods), health insurance (*jamsostek, jamkesmas, jamkesda, jamkessos, jampersal, JKN*), assets (total assets owned).

Data and Unit Analysis

The data in this paper were sourced from the fourth (2007) and fifth (2014) Indonesian Family Life Survey (IFLS). IFLS provided information on socioeconomic data, characteristics, and health at the individual, household and community levels. IFLS4 was conducted from November 2007 to April 2008, and IFLS5 was conducted from October 2014 to August 2015, the most recent IFLS series. The sample in the IFLS data represented 83% of Indonesia's population, with more than 89,000 individual samples and more than 15,000 household samples (RAND Corporation, 2019).

The unit of analysis in this study were households in IFLS 4 (before) who did not have government assistance at all, and in IFLS 5 (after), only received government assistance (treatment) and did not receive government assistance (control). The sample limitation aimed to reduce the differences in the poverty characteristics of the two groups (treatment and control) based on household food security before receiving the program. New samples received government assistance after being confirmed in the IFLS5 survey. Overall, 1346 household samples would be used in this study consisting of 401 treatment groups and 945 control groups.

FINDING AND DISCUSSION

This study aimed to determine the impact of RASKIN assistance on the proportion of household food. Each variable was explained through descriptive statistics to see an overview of the overall data. Descriptive statistics are presented in Table 3. The number of observations used in this study was 1346 observations.

Table 3. *Descriptive Statistics*

Variable	Group	Obs	Mean	Std.Dev.	Min	Max
Food Consumption Per Capita	Total	1346	445000	383000	24080	4250000
	Control	945	493669	402792	39028.57	3161000
	Treatment	401	330232.1	302847.1	24080	4254000
The proportion of Total Food Expenditure	Total	1346	.226	.126	0	.877
	Control	945	.214	.119	.000	.762
	Treatment	401	.253	.134	.010	.876
Dummy Year (1=2014)		1346	2010.5	3.501	2007	2014
Raskin (1=*Raskin* Recipient)		1346	.298	.458	0	1
Residence (1=City)	Total	1346	.747	.435	0	1
	Control	945	.794	.404	0	1
	Treatment	401	.633	.482	0	1
Number of Family Members	Total	1346	4.068	1.596	1	10
	Control	945	3.905	1.541	1	10
	Treatment	401	4.448878	1.657	1	10
Status of Head of Family	Total	1346	2.837	.52	1	3
	Control	945	2.829	.524	1	3
	Treatment	401	2.852	.510	1	3
Age	Total	1346	42.928	10.592	18	79
	Control	945	42.446	10.319	18	76
	Treatment	401	44.062	11.140	19	79
Years of Education	Total	1346	10.139	4.166	0	18
	Control	945	10.913	4.006	0	18
	Treatment	401	8.314	3.966	0	18
Working Status (1=Working)	Total	1346	.154	.361	0	1
	Control	945	.125	.331	0	1
	Treatment	401	.219	.414	0	1
Total Assets	Total	1346	5.376	1.688	0	11
	Control	945	5.431	1.724	0	11
	Treatment	401	5.244	1.595	0	10
Jamsostek (1=*Jamsostek* Beneficiary)	Total	1346	.155	.362	0	1
	Control	945	.180	.385	0	1
	Treatment	401	.092	.289	0	1

Based on Table 3, it can be seen that there were 1346 household samples studied. Of these, 401 households became treatment samples, and 945 households became control samples. Then it can be analysed that the highest proportion of food was 87% in the treatment group that received *Raskin* assistance. Meanwhile, the highest proportion of food in the control group was 76%. It should be noted that the greater the proportion of food to

total household expenditure, the more vulnerable these households are, including food insecure households. Then, if we look at the data on the head of the household, the group that received *Raskin* had an older average age (44 years) compared to the group of households that had never received *Raskin* assistance (42 years). Heads of households who received *Raskin* had an average of 8 years of education or only completed junior high school, while heads of households who had never received *Raskin* had 10 years of education. The number of balanced family members from both groups was 4 people. The households that did not receive *Raskin* tended to live in cities, in contrast to those that received *Raskin*. Heads of households who received *Raskin* tended to have unstable livelihood sources, for example, agriculture. Household group assets in the two groups were balanced, namely having 10 types of assets.

After performing descriptive statistics, the next step was to perform propensity score matching in the base year, namely 2007. The results of the PSM test are as follows in Table 4.

Table 4. *Propensity Score Matching Results*

Variable	Sample	Treated	Controls	Difference	S.E.	T-stat
The proportion of Food Expenditure	*Unmatched*	.2728	.2359	.0368	.0087	4.23
	Average Treatment Effect on Treated (ATT)	.2728	.2494	.0233	.0152	1.53
	Average Treatment Effect for Untreated (ATU)	.2359	2497	.0137	.	.
	Average Treatment Effect (ATE)			.0162	.	.

PSM was conducted to determine the impact of treatment, namely *Raskin* assistance, on outcomes, namely the proportion of food to total expenditure. Based on Table 4, it can be concluded that if you use an unmatched initial sample, the resulting treated value is greater than that of the control. This means that under normal/reasonable conditions with exogenous influences, *Raskin* assistance can impact the proportion of food and household food expenditure. If the analysis uses a matched sample (Average Treatment of Treated) in which the other factor conditions are reduced and leave only the impact of *Raskin*, then the same result is found: the treated value is greater than the controls. This means *Raskin* positively impacts the proportion of food and total household expenditure. The results of this study were in line with the research of Syahril dan Kurniawan (2019), which stated that the *Raskin* program positively affected the proportion of household food and total household expenditure.

Then the next stage was to test the ATT estimation using four methods: nearest neighbour, kernel, stratification and radius matching. When viewed using nearest-

neighbour matching, there was a positive coefficient that the contribution from *Raskin* increased the proportion of food and total household expenditure by 1.7%. The resulting T statistic was 0.226.

After testing PSM, the next step was using Difference in Differences (DiD).

Table 5. *The Difference in Differences Results*

The proportion of food expenditure	Coef.	Std. Err.	z	P> |z|	[95% Conf.	Interval]
Treatment groups (IFLS4)	.0307	.0106	2.89	0.004	.0099	.0516
Treatment after groups (IFLS5)	-.0423	.0072	-5.84	0.000	-.0565	-.0281
*Interaction (treatment*after)*	.0105	.0137	0.76	0.444	-.0164	.0375
Constant	.2364	.0054	43.18	0.000	.2257	.2472

In Table 5, it can be seen that the year variable (after) and the treatment variable (*Raskin*) significantly affect household expenditure. This means that the year *Raskin* was given and the *Raskin* program itself significantly affected the proportion of household food. However, unfortunately, the interaction between the variables year (after) and treatment (Raskin) had no significant effect on the proportion of household food. This means that in a longitudinal period, the distribution of the *Raskin* program did not impact per capita household food expenditure. This study's results did not follow Supandi (2021), which states that the *Raskin* program reduces total household per capita expenditure.

In Supandi's research (2021), it is explained that the Raskin program is effective in reducing the expenditure burden of poor households so that the Raskin program can be optimized going forward. In line with Supandi's research, Prianti et al. (2017) state that there is a reduction in household expenditure burden after receiving the *Raskin* program. Changes in household food expenditures are higher than non-food expenditures, such as health needs, clothing, housing, and telecommunications. However, this study found that the *Raskin* program did not affect longitudinal time. The *Raskin* program that had no impact in the long term could also be caused by factors that occurred in the field. Aisyah et al. (2014) stated that there were still inaccuracies between the criteria and the target data collection for the *Raskin* program, and the number of program quotas was insufficient. Penelitian Romli (2017) also found wrong targets for *Raskin* recipients from families who were not registered, and the amount of rice received was not as it should have been, namely 15 kg.

The government also assists in cash, such as the Family Hope Program (PKH). PKH is the provision of conditional social assistance to predetermined families. One of the obligations of PKH beneficiaries is to ensure that their children go to secondary school using PKH funds. The nominal given varies according to the category of PKH beneficiaries. There have been many studies discussing the effectiveness of PKH. PKH is easier to distribute because it is in the form of cash, unlike *Raskin,* which is in the form of rice. However, there

are still the same obstacles as *Raskin*, namely, the wrong target for PKH beneficiaries because the data is still inaccurate. In addition, beneficiaries are also apathetic, which complicates the PKH distribution process (Sasmito & Nawangsari, 2019). Najidah & Lestari (2019) explained that the implementation of PKH has not been dissertation with clear planning to create self-sufficiency or reduce poverty. Therefore, PKH can be misused for purposes, not in line with the government's main goals.

It can be seen that social assistance from the government is still not fully effective, whether *Raskin*, PKH, or others. From upstream, the problem that arose was related to the validity of the data on social assistance recipients. Meanwhile, from downstream, several problems were found, including inaccuracy in the targeting of receiving aid, uneven distribution of aid, distribution processes that took a long time to reach beneficiaries, misappropriation of funds, illegal levies and reductions in nominal amounts and resources received. Inclusion and exclusion errors were caused by data collection that was not updated to politicization (Noerkaisar, 2021). Even though there were still many problems, social assistance was still following the objectives. This can be seen from the decrease in the poverty rate and *gini* ratio and the increase in the Human Development Index (Kominfo, 2018).

CONCLUSION

This study analysed the impact of the *Raskin* program on household food proportions. Based on the test, the impact of RASKIN on household food through PSM and DID can be seen from the difference in proportion and significance. Through PSM, it was concluded that Raskin's impact was insignificant. Through DID, it was concluded that the year variable and the treatment variable had a significant effect on household expenditure. However, the interaction between year and treatment did not significantly influence the proportion of household food. This proves that the *Raskin* program for poor households does not significantly impact the average proportion of food.

The absence of an impact on *Raskin* can be caused by constraints in distribution, such as inappropriate targets and insufficient aid quotas. Obstacles in distribution are not only for *Raskin* assistance but also for other social assistance. Suggestions for the government are the need to periodically evaluate the *Raskin* program from upstream to downstream to improve the coordination and distribution of social assistance. Future researchers must study the impact of the Family Hope Program policy, which also provides Non-Cash Food Assistance (BPNT).

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