Kartu Prakerja Impact Evaluation: Preliminary Findings

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Preliminary Results as of October 4, 2021

In a joint collaboration between the Program Management Office of Kartu Prakerja (PMO), TNP2K, and J-PAL SEA, under LPEM FEB UI, an international team of researchers is conducting an impact evaluation of Kartu Prakerja, which aims first and foremost to understand the impacts of Kartu Prakerja as a job training program and as an emergency cash transfer program. Kartu Prakerja's enrollment lottery allows us to compare eligible applicants who are randomly selected via lottery to receive the program (i.e., treatment) to eligible applicants who are randomly not selected (i.e., control). This randomization allows us to experimentally estimate the impact of receiving the Kartu Prakerja program.

The evaluation leverages anonymized PMO Administrative Data on eligible applicants to Kartu Prakerja as well as three sources of outcomes data: 1) a special Endline Survey administered online by the research team and PMO in 2021, 2) the National Socioeconomic Survey (SUSENAS), and 3) the National Labor Force Survey (SAKERNAS). To date, the September 2020 SUSENAS provides consumption outcomes for applicants who first applied in batches 2-5 of the enrollment lottery, the August 2020 SAKERNAS provides labor outcomes for applicants who first applied in batches 2-3, and the Endline Survey provides a variety of outcomes for applicants who first applied in batches 7-17. Analysis using SAKERNAS and SUSENAS data only reflects the impact of Kartu Prakerja on the early batches. Therefore, analysis using SUSENAS and SAKERNAS data acts to complement but is not directly comparable with the Endline Survey analysis.

The Endline Survey was conducted online using the Qualtrics platform, with survey links distributed via WhatsApp and SMS messages. Reminders were conducted via WhatsApp, SMS and phone calls. The survey was piloted from June 29th to August 13th, with a full launch on August 16th. Data collection is completed as of October 21st. The survey covers a sample of eligible applicants who applied to Kartu Prakerja for the first time in batch 7 or later. Target respondents were sampled from each of batches 7-17, stratified by province, priority weight of applicant, and treatment vs. control. In the pilot, the survey was distributed to 5,400 respondents and received 1,404 responses, representing a response rate of 26.1%. During the full launch, the survey was distributed to ~154,000 respondents and received 47,750 responses, representing a response rate of 31%.

Among the control group (i.e., those not selected for Kartu Prakerja in the batch sampled), the response rate to the Endline Survey was 27.9%, compared to 32.9% for the treatment group (i.e., those selected for Kartu Prakerja in the batch sampled). Accounting for this "differential attrition" using Lee Bounds and associated methods (Lee, 2009) decreases the precision of estimates obtained from the survey outcomes. Additional baseline data and statistical analysis will improve the precision and reliability of estimates, but the **results presented here are preliminary and subject to change**.

We estimate the effects of receiving the Kartu Prakerja program using instrumental variable (IV) regression models that account for the batched design of the enrollment lottery and control for basic baseline characteristics. The results presented here reflect findings from the Endline Survey, pooling both 2020 and 2021 lottery batches, unless otherwise noted.

Employment: Eligible applicants who receive Kartu Prakerja are 4.7 percentage points (8%) more likely to have a job or own a business than non-recipients (63% vs. 59% employment).[2] The program increases self-employment by 2.8 percentage points (pp) or 12%,[3] and increases business ownership by 0.9 pp (30%).[2] Kartu Prakerja recipients are also 5.1 pp (18%) more likely to have started a new job since the announcement of the first lottery batch.[2] While we do not see a similar impact on new jobs in the SUSENAS and SAKERNAS data available to date, we plan to explore this further with a larger sample size using SUSENAS March 2021. Recipients are 5.0 pp (8%) more likely to earn any positive income, which helps drive a Rp. 122,500 (10%) increase in monthly income for program recipients.[2]

Training and competency: Kartu Prakerja recipients are 11.7 pp (172%) more likely to use a training certificate when applying for a job (19% vs. 6.8%).[4] They are 44.3 pp (119%) more likely to have taken any training course in recent months, including both Kartu Prakerja and non-Kartu Prakerja courses.[4] Program recipients are also 4.0 pp (10%) more likely to use the internet for their job (44% vs. 40%).[2]

Consumption and Financial Security: Kartu Prakerja recipients are 2.9 percentage points more likely to report being food secure, representing a 6% increase in food security. 54% of program recipients reported never eating less than they used to in the last 3 months due to financial hardship, compared to 51% of non-recipients.[4] They are also 2.6 pp (8%) less likely to have taken a loan in the past 3 months to overcome financial difficulties (31% vs. 34%)[4] and are 1.6 pp (21%) more likely to have bought an asset in recent months (9.3% vs. 7.7%). [4]

We also see in the Endline Survey that Kartu Prakerja recipients report spending on average Rp 42,100 (2%) less in the last month on food and Rp 47,400 (4%) less on non-food items, compared to non-recipients who spend on average Rp 2,044,000 and 1,314,000 on food and non-food consumption expenses, respectively.[2] This effect is driven by the 2021 enrollment lottery cohorts, with no effect observed in 2020 cohorts.[2] One potential explanation to this observation is that beneficiaries might be allocating their Kartu Prakerja incentives for purchases of durable assets or as funds for business capital, instead of on food and non-food items. March 2021 SUSENAS data which has a much more detailed consumption module, larger sample size, and no differential attrition issues will help clarify these impacts.

Financial Services: Receipt of Kartu Prakerja increases e-wallet ownership by 27.8 percentage points (53%). 80% of Kartu Prakerja recipients own an e-wallet account, compared to 52% of non-recipients at the endline.[4] Furthermore, recipients are 10.5 pp (40%) more likely to have made an online purchase with an e-wallet in the last month (37% vs. 26%), and Endline Survey results demonstrate substantial increases in other types of e-wallet usage, as well. [4]

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[2] This effect is not statistically significant at the 10% level when pooling analogous outcomes in SUSENAS and SAKERNAS. The number of Kartu Prakerja applicants in the SUSENAS and SAKERNAS samples are smaller and cover only earlier batches.

[3] The direction of this finding is the same when pooling analogous outcomes in SUSENAS and SAKERNAS, and the finding is statistically significant.

[4] Analogous outcomes are not available in either SUSENAS or SAKERNAS.

Bounds of estimates: Differential attrition creates challenges in estimation. While the Endline Survey shows some positive preliminary findings on the effects of Kartu Prakerja, the differential attrition in survey response rates in our sample reduces the certainty of our estimates, and bounds vary by model. For example, using a traditional ordinary least squares (OLS) regression model, we obtain a 95% confidence interval that the effect of Kartu Prakerja on the likelihood of having a job or owning a business is between 2.7-4.5 pp. However, a tightened Lee Bounds model using available baseline covariates yields bounds between 0.6-9.4 pp—much wider. Using untightened bounds yields an interval of -1.4 -11.8 pp and does not rule out a null or negative effect of the program. Similarly, the bounds for a number of the outcome variables above may include zero once differential attrition is taken into account. We are working to explore using cutting-edge econometrics (e.g., "Better Lee Bounds," by UC Berkeley Professor Vira Semenova, 2021) and using additional baseline and administrative covariates, which can lead to tighter bounds and more precise estimates. Further analysis and baseline data is needed to increase precision, and the preliminary findings reported here are subject to change. Analysis using the March 2021 SUSENAS, which should not be subject to these differential attrition concerns, will also help complement this analysis.
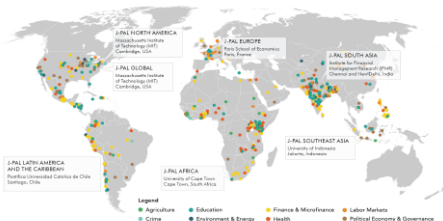
Research Partners

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For questions, please contact Nadia Rayhanna at nrayhanna@povertyactionlab.org.

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