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## **Do Employer Sponsored Programs Have Value Even If The Treatment Has No Benefit?**

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# Do Employer Sponsored Programs Have Value Even If The Treatment Has No Benefit?

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Farmworkers are becoming increasingly difficult to find and retain, and, in addition to raising wages, farms are modifying practices to retain workers and improve productivity. We explore impacts of the *Pasos* program, a health intervention administered to 743 berry workers in Ventura County, California, during 2015–2017. The purpose of the *Pasos* program was to motivate workers to adopt healthier choices resulting in improved health outcomes. Evidence failed to show that the program improved health outcomes for participating workers. Nonetheless, we find that participation in the program significantly altered economic outcomes for participating workers, including increasing subsequent tenure with the company and a shift towards more piece-rate earnings rather than hourly earnings.

## PASOS PROGRAM

Six treatments lasting 4–12 weeks  
Randomized at crew level, each treatment includes one treatment and one control group

Treatment groups received:

- Educational sessions on proper nutrition, hydration, and exercise
  - Exercise sessions including Zumba and hiking groups
- Participants were encouraged to involve their family members and the purpose of the study was to motivate workers to adopt healthier lifestyle choices resulting in improved health outcomes

Control groups received:

- Information sessions on empathy and conflict resolution
- Study did not result in statistically significant improvements in health outcomes

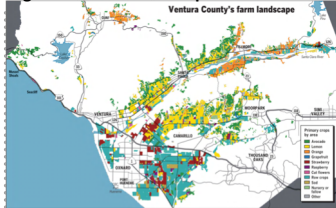
Did participation change work outcomes for the participating workers?

## OBJECTIVES

The objective of this study is to determine whether participation in the *Pasos* program had effects on economic outcomes of the participating workers such as increased earnings or longer tenure with the employer.. Farm labor retention and productivity have become more crucial to labor-intensive farm industries such as fruits and vegetables. Improving employment conditions for farm workers is also central to equity for a low-income immigrant population.

## VENTURA COUNTY AGRICULTURE

Figure 1: Farm Landscape in Ventura County



About 24% of California's berries are grown in Ventura County. Berries are a very labor-intensive crop and the harvest season coincides with wildfire season. Berry harvest is typically sensitive to timing, if not harvested on time berries do not keep in the field.

## DATA

- Sub-daily panel on 11,285 farm production workers from January 1, 2015 through December 31, 2019, for a sample of more than 2.8 million worker-days.
- 743 of the workers were enrolled in one of the *Pasos* treatments. 410 workers were enrolled in one of the six treatment groups. 340 workers were enrolled in one of the control groups.
- On average, each worker in the dataset is observed for 251 workdays
- Ventura County California on four crops: strawberries, raspberries, blackberries, and blueberries.
- Each workday includes payroll entries on all work tasks for each a worker received payment
- Variables include hours worked, wage rates, number of harvested pieces, and daily pay for each worker, by task.
- Three methods of compensation: piece-rate, hourly, a combination of piece-rate and hourly. Methods vary by task.
- We observe share of piece-rate pay or hourly pay in daily earnings for each worker, by task.
- Work tasks include activities related to production and harvest of berries: harvest and non-harvest tasks, and ranch maintenance

## METHODS

We follow established framework for randomized program evaluation. Our dataset contains information on three distinct groups of workers:

- Group 1: 410 workers enrolled in six treatment groups
- Group 2: 330 workers enrolled in six control groups
- Group 3: 11,000 workers not enrolled in either treatment or control groups

## METHODS - continued

- Conditional mean tests to compare outcomes of interest between treatment and control group before start of first treatment
- Difference-in-difference approach to compare economic outcomes between treatment and control groups
- Outcomes of interest: average daily pay, length of employment with the company, average hours worked per day, share of piece-rate harvest work in total pay
- Controls: month, year, crew, treatment, individual fixed effects
- Robustness checks
- Compare outcomes for workers enrolled in *Pasos* (Groups 1 and 2) with other workers (Group 3) using conditional mean tests
- Randomize workers in Group 3 to treatment and control groups that replicate start and end of treatments for *Pasos* workers
- Diff-in-diff to evaluate the impact of participating in the *Pasos* program vs. not participating at all
- Propensity score matching to create a matching sample of non-*Pasos* employee as a simulated control group.

Table 1: Effect of *Pasos* Treatment on Economic Outcomes for Treatment and Control Groups

| Independent Variable           | (1)<br>Log of Daily Earnings | (2)<br>Share of harvest tasks in daily pay (piece-rate) | (3)<br>Share of Available Days Worked |
|--------------------------------|------------------------------|---|---------------------------------------|
|                                | (s.e.)                       |   |                                       |
| Treatment Group                | -0.0147**<br>(0.00694)       | 0.0233<br>(0.0227)                                      | 0.018<br>(0.0168)                     |
| Post-Treatment                 | 0.00585<br>(0.00454)         | -0.00632<br>(0.0099)                                    | -0.0118<br>(0.0171)                   |
| Treatment Group Post-Treatment | -0.000965<br>(0.00561)       | 0.00481<br>(0.0122)                                     | -0.0145<br>(0.0241)                   |
| Constant                       | 4.419***<br>(0.0062)         | 0.782***<br>(0.0183)                                    | 0.727***<br>(0.0168)                  |
| N Worker-Days                  | 703,589                      | 703,589   | 1,962                                 |

Table 2: Effect of Participating in the *Pasos* Program in Any Capacity

| Independent Variable                | (1)<br>Log of Daily Earnings | (2)<br>Share of harvest tasks in daily pay (piece-rate) | (3)<br>Share of Available Days Worked |
|-------------------------------------|------------------------------|---|---------------------------------------|
|                                     | (s.e.)                       |   |                                       |
| <i>Pasos</i> Participant            | 0.0550***<br>(0.0078)        | -0.222***<br>(0.0230)                                   | 0.213***<br>(0.0149)                  |
| Post-Study Period                   | 0.00507<br>(0.0074)          | 0.0222<br>(0.0169)                                      | -0.0614***<br>(0.0151)                |
| <i>Pasos</i> Participant Post-Study | 0.000984<br>(0.0074)         | -0.0254<br>(0.0181)                                     | 0.0421**<br>(0.0198)                  |
| Constant                            | 4.419***<br>(0.0062)         | 0.984***<br>(0.0227)                                    | 0.239***<br>(0.0123)                  |
| N Observations                      | 803,354                      | 803,354   | 2,839                                 |

## DISCUSSION

Participating in the *Pasos* treatment group did not result in statistically significant changes in the outcomes for relative to the control group (Table 1).

*Pasos* participants had statistically significant differences in outcome variables than other workers prior to the study. *Pasos* participants had slightly higher daily earnings and lower share of pay from harvest tasks. In the post-study period, *Pasos* participants also worked slightly more days than non-participants. There was no statistically significant effect on other outcomes presented in Table 2.

These results suggest that participation in the employer-sponsored study attracted higher-earning employees and may have increased worker engagement with the company after the study was completed.

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