

# NCFH FARMWORKER ESTIMATION

## METHODOLOGY: THRESHOLD ESTIMATES FOR 2017

NCFH and JBS International, Inc. have produced estimates on the number of directly hired workers and the number of workers hired as contract labor for U.S. counties and the territory of Puerto Rico using the public data file for the 2017 Census of Agriculture (see Table 1).<sup>1</sup> Note that due to Hurricane Maria, data collection for Puerto Rico occurred in 2018, and that the impact of the hurricane lowered agricultural production for this census period.<sup>2</sup>

Due to a delay in receiving requested data stratified by crop and animal production, these estimates have utilized the public data file from the 2017 Census of Agriculture, which combines crop and animal production workers. Because NCFH was not able to create separate estimates of crop and animal production workers, the estimated number of dependents for crop production workers has not been calculated for these estimates. All estimated numbers of workers represent estimates for crop and animal production combined.

NCFH plans to make both the estimated numbers of crop and animal production workers and the estimated number of dependents of crop production workers available as soon as the requested data from the U.S. Department of Agriculture is received.

Table 1: Data Source

| US Agency   | Department/Office  | Type of Data  |
|---|--|---|
| Department of Agriculture, National Agricultural Statistics Service | Census of Agriculture<br><a href="https://www.nass.usda.gov/Publications/AgCensus/2017/index.php">https://www.nass.usda.gov/Publications/AgCensus/2017/index.php</a> | <ul style="list-style-type: none"> <li>• Census of Agriculture Table 3 - Farm production expenses</li> <li>• Census of Agriculture Table 7 - Hired Farm Labor -- Workers and Payroll: 2012</li> <li>• Census of Agriculture Table 7 (Puerto Rico) - Hired farm workers, agregados, and sharecroppers</li> <li>• Census of Agriculture Table 11 (Puerto Rico) – Farm production expenses: 2018 and 2012</li> </ul> |

### THE BASIC FORMULA

Data on hired and contract workers from the 2017 Census of Agriculture is combined to estimate the number of workers in each county. While the Census of Agriculture publishes the number of workers hired directly, it does not collect data on the numbers of contracted workers. To calculate an estimate for the number of contract workers, the following Census of Agriculture data is used:

- A = Expenditures on payments to contract workers
- B = Expenditures on payments to directly hired workers
- C = Number of directly hired workers
- D = Average cost per worker for directly hired workers (B/C). Variable D assumes that directly hired workers are paid approximately the same as contract workers.

E = Estimated number of contract workers (A/D)

Finally, the estimated number of agricultural workers is calculated using the following formula:

$$\text{Directly hired workers (C) + Estimation of contract workers (E) = Estimated total agricultural workers}$$

NCFH considers the numbers generated from the initial Census of Agriculture calculations to only be threshold numbers. Supplemental information from various sources, including community experts, is then collected and used to corroborate, and/or adjust the threshold number. NCFH researches and finds experts in the local community who are familiar with the farmworker population. These experts are asked to provide information that address factors such as underemployment, seasonal climate events affecting the work force (floods, freezes, droughts, etc.), workers residing in the service area but working in other counties, and aged and disabled farmworkers.

#### REFERENCES

1. List of Reports and Publications | 2017 Census of Agriculture | USDA/NASS. Accessed June 12, 2020. <https://www.nass.usda.gov/Publications/AgCensus/2017/index.php>
2. USDA Releases 2018 Puerto Rico Census of Agriculture. Published June 9, 2020. Accessed June 12, 2020. <https://www.nass.usda.gov/Newsroom/2020/06-09-2020.php>