NCFH FARMWORKER ESTIMATION METHODOLOGY: THRESHOLD ESTIMATES

NCFH and JBS International, Inc. have obtained as much local level data as is possible on farmworkers. Since much of the publicly available local data is available at the county level, this estimation uses the county as the local geographic unit of analysis. Two sources of data from two federal agencies are used in this methodology (Table 1). These data sets contain information on farm employment and demographic characteristics of farmworkers.

Table 1: Data Sources and Data Sets

US Agency	Department/Office	Type of Data
Department of Agriculture	Census of Agriculture http://www.agcensus.usda.gov/Publications/2012/	• Census of Agriculture Table 3 - Farm production expenses • Census of Agriculture Table 7 - Hired Farm Labor -- Workers and Payroll: 2012
Department of Labor	Employment and Training Administration http://www.doleta.gov/agworker/naws.cfm	• National Agricultural Workers Survey: Public Access Data File

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:

Directly hired workers (C) + Estimation of contract workers (E) =
Estimated total agricultural workers

In order to analyze the crop production worker data further, coefficients are applied from data taken by the National Agricultural Workers Survey (NAWS) from 2015-2018. The NAWS is an employment-based, random survey of the demographic, employment, and health characteristics of the U.S. crop labor force. The information from the NAWS is obtained directly from farmworkers through face-to-face interviews. The NAWS collects weighted response data from farmworkers throughout the country and creates six regional coefficients based on the information provided by farmworkers in a specific region. The NAWS is currently the only national survey conducted that provides demographic information on the farmworker population. In estimating the farmworker population in a given county, NCFH used the six regional NAWS coefficients to determine the number of crop production workers who are migratory and seasonal, the number of crop production worker dependents, and the number of dependents that are children and adults.