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Demographic Profile of the “Farmworker Population” in the United States

Carlos Siordia & Athena K Ramos²

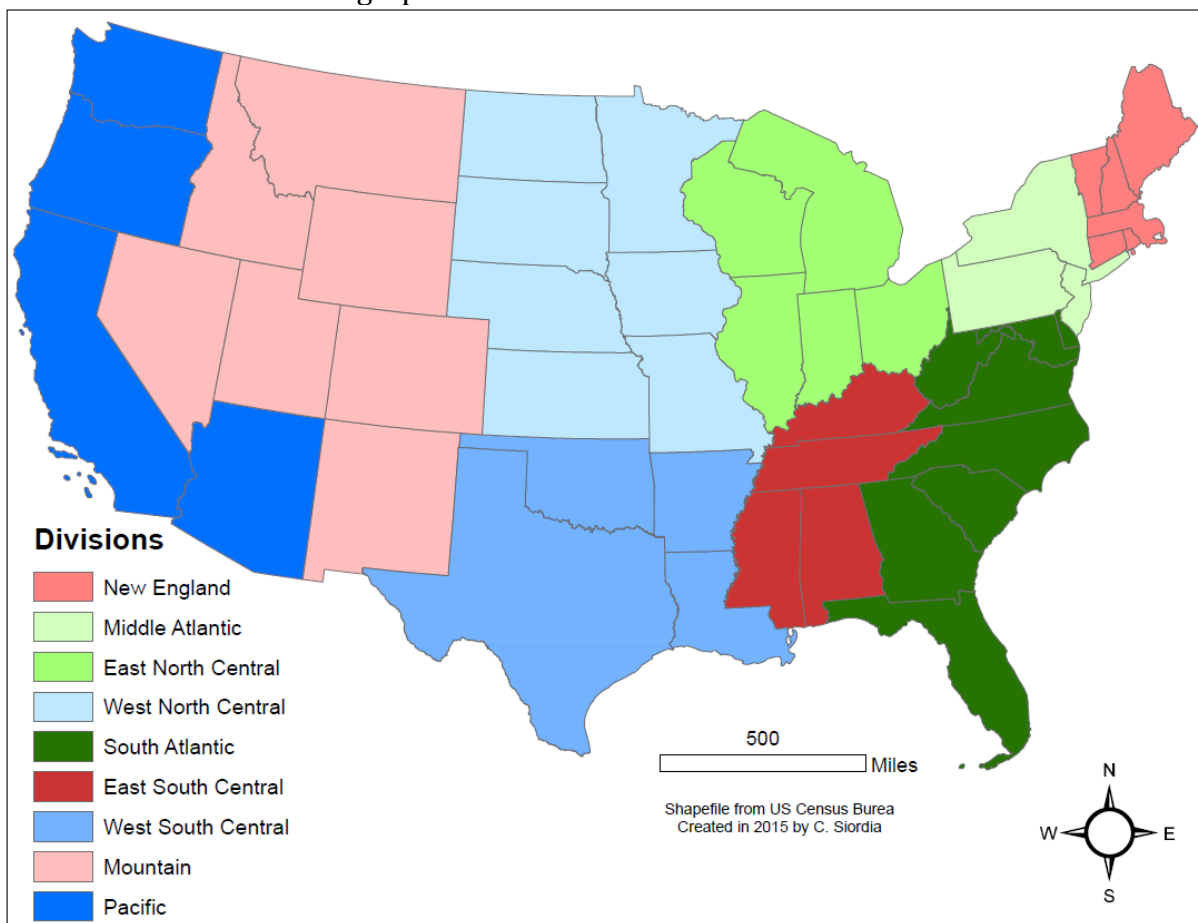
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INTRODUCTION

The health and economic well-being of farmworkers has been investigated by social scientists for many decades [1,2,3]. General research on occupational safety and farmworker justice has also been developed more recently [4]. Because Hispanics/Latinos are commonly associated with farmworker occupations, especially migrant farm work, research has paid special attention to their population [5]. For example, researchers have investigated the health of Latina farmworkers [6], injury in youth from Latino farmworker families [7], and learning ability amongst Latino farmworkers [8]. However, Latinos only make up about half of the “farmworker population” in the United States (US). The specific aim of this technical report was to estimate the farmworker population size by geographical division (shown in Figure 1) within the contiguous US and by basic demographic factors. The report helps others¹ by using large-scale national data to delineate the sociodemographic profile of the farmworker population in the US mainland.

Figure 1
Geographic divisions within the US mainland



¹ The USDA Economic Research Service has developed demographic reports about hired farmworkers using Current Population Survey data from the US Census Bureau. Such reports are accessible at: http://www.ers.usda.gov/media/205619/err60_1_pdf, (2008) and <http://www.ers.usda.gov/topics/farm-economy/farm-labor/background.aspx#demographic> (2014).

DATA, SAMPLE, & MEASURES

The analysis used information on individuals from the American Community Survey (ACS) Public Use Microdata Sample (PUMS) 2009-2013 (5-year) file. From the 15,450,262 observations in the microdata, a total of 60,923 individuals were selected for the analysis. The sample only includes those aged 16 and above, residing in the contiguous US, and who identify their occupation as “miscellaneous agricultural workers, including animal breeders”. Technical identification of farmworkers is shown in Appendix A. This Occupation Cross Classification (OCC) code is the most proximal to identifying farmworkers in PUMS files. Because we assume the vast majority of people under this OCC code are agricultural workers—we simply refer to the sample as “farmworkers”. There are other OCC codes for managers, sorters, scientists, and sales people within the field of agriculture. Our process aimed at selecting those who directly participated in agricultural activities. After we applied a population weight [9], the characteristics of the 60,923 farmworkers in our analysis can be generalized to **1,144,021** farmworkers in the mainland US population.

We determined the average age of farmworkers by geographic division and computed population estimates by sex, US citizenship status (US-born and naturalized versus non-citizen), poverty status (federal poverty rate <150), marital status, and educational attainment (below a high school education versus >HS). We used race and ethnicity labels in ACS data to group individuals into the following groups: non-Hispanic-white of single-race; non-Hispanic-black of single-race; non-Hispanic-other including multi-race; Hispanic of Mexican-origin; and Hispanic of non-Mexican-origin. These groups provide markers of social stratification—where non-Hispanic-whites are presumed to be the least socioeconomically marginalized group within the farmworker population. Please note some have argued the Hispanic population may be underreported in US Census Bureau data because of ethnicity-related question formats and data collection protocols [10]; however, data from the US Census Bureau remains the authority for estimating of the Hispanic population in the US [11].

We also measured prevalence of disability. The ACS ascertains disability with the following six functional tasks: self-care= Does this person have difficulty dressing or bathing?; independent-living= Because of a physical, mental, or emotional condition, does this person have difficulty doing errands alone such as visiting a doctor’s office or shopping?; ambulatory= Does this person have serious difficulty walking or climbing stairs?; hearing= Is this person deaf or does he/she have serious difficulty hearing?; vision= Is this person blind or does he/she have serious difficulty seeing even when wearing glasses?; cognitive= Because of a physical, mental, or emotional conditions, does this person have serious difficulty concentrating, remembering, or making decisions? Anyone who responded with a “yes” to anyone of these 6 questions is labeled in the ACS PUMS data as having a “disability”.

RESULTS

Table 1 presents the population weighted estimates of the farmworker population by geographic division. The largest concentration (35%) of farmworkers is found in the Pacific geographic division—this may be primarily driven by the high population density in California. The average age of farmworkers was between 33 and 39, only 24% of the farmworker population was female, 58% were US-citizens, 44% were married, 46% were in-poverty, and 55% had less than a high school diploma or GED. About 84% of farmworkers in West North Central division only speak English. The largest concentration (70%) of non-US-citizen farmworkers is in the Pacific division—where farmworkers are also characterized by the highest level of poverty concentration (56%) and largest proportion of people with less than a high school education (73%). The East South Central and West South Central both have the largest (14%) of farmworkers who are disabled.

Table 1

Estimate of farmworkers and demographic characteristics by geographic division

	Total	%	Age ¹	Eng ²	Female	Citizen	Dis ³	Married	In-Pov ⁴	No HS ⁵
New England	23,522	2%	33	78%	36%	87%	11%	27%	32%	34%
Middle Atlantic	60,767	5%	35	65%	28%	75%	7%	39%	37%	43%
East North Central	130,659	11%	34	77%	24%	84%	8%	35%	33%	39%
West North Central	124,038	11%	36	84%	17%	89%	9%	41%	27%	31%
South Atlantic	148,673	13%	38	47%	25%	55%	10%	41%	54%	56%
East South Central	48,374	4%	38	74%	16%	77%	14%	38%	48%	47%
West South Central	110,330	10%	39	55%	15%	72%	14%	48%	45%	51%
Mountain	92,632	8%	38	51%	20%	64%	9%	47%	44%	49%
Pacific	405,026	35%	37	14%	28%	30%	6%	51%	56%	73%
Total	1,144,021			47%	24%	58%	9%	44%	46%	55%

¹Average age; ²Only speaks English; ³Disabled; ⁴In-poverty; ⁵Have less than a high school diploma or GED

Table 2 shows the population weighted distribution of the farmworker population by race and ethnicity. Hispanics of Mexican-origin make up 48% of the farmworker population followed by Non-Hispanic-Whites at 41%. Hispanics of Mexican-origin farmworkers are most concentrated in the Pacific geographic division (83%) followed by the Mountain (45%) and West South Central (44%) divisions. In contrast, Non-Hispanic-Whites are most concentrated in the West North Central (82%) division followed by the New England and East North Central geographic divisions (76%). Hispanic farmworkers of non-Mexican-origin are most concentrated (12%) in the South Atlantic division, Non-Hispanic-Blacks in the East South Central division (16%), and Non-Hispanic-Others in New England division (5%). As evident from Table 2, the farmworker population is diverse in terms of race and ethnicity. The farmworker population in the East South Central geographic division makes up some of the most racial and ethnically diverse populations in the contiguous US.

Table 2

Distribution farmworker population by race, ethnicity, and geographic division

	Non-Hispanic			Hispanic	
	White	Black	Others	Mexican	Other
New England	76%	2%	5%	8%	10%
Middle Atlantic	66%	4%	2%	18%	10%
East North Central	76%	2%	2%	18%	3%
West North Central	82%	1%	3%	11%	2%
South Atlantic	33%	13%	1%	41%	12%
East South Central	57%	16%	1%	21%	4%
West South Central	43%	7%	3%	44%	3%
Mountain	44%	1%	4%	45%	5%
Pacific	11%	0%	2%	83%	3%
Total	41%	4%	2%	48%	5%

DISCUSSION

Delineating the demo- and geo-graphic characteristics of “farmworkers” is important for understanding this population in the US. Researchers should continue efforts to investigate all the members of the farmworker population. Although much of the previous research on farmworkers is related to Hispanic farmworkers, further research is also needed for Non-Hispanic farmworkers. Research must include the full spectrum of the heterogeneous farmworker population in order to produce knowledge on how the farmworker experience plays a role in economic, social, and physical well-being across different groups and geographic communities. Future work should explore health disparities [12] and consider alternate geographies like counties or Public Use Microdata Areas [13]. Research on occupational hazards [14], stress [15], and understudied areas like states in the mid-western part of the US [16,17] should continue as well. We hope our report contributes towards discourse on the demo- and geo-graphic heterogeneity of the farmworker population in the US.

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Appendix A

In SAS® 9.3 statistical syntax

```
/*~~~~~+
| Occupation recode for data collected in 2009 based on 2002 OCC codes |
| Occupation recode for data collected in 2010 and 2011 based on 2010 OCC codes |
| Occupation recode for data collected in 2012 or later based on 2010 OCC codes |
| 6050 = Miscellaneous agricultural workers, including animal breeders |
+~~~~~*/
IF (OccP02='6050') THEN fw09=1; ELSE fw09=0;
IF (OccP10='6050') THEN fw10=1; ELSE fw10=0;
IF (OccP12='6050') THEN fw12=1; ELSE fw12=0;
IF (fw09=1) or (fw10=1) or (fw12=1) THEN FarmWorker=1; ELSE FarmWorker=0;
```