Chapter 2 Latinx Farmworkers and Farm Work in the Eastern United States: The Context for Health, Safety, and Justice



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2.1 Introduction

Understanding the health and safety of farmworkers in the eastern United States (US) and addressing justice for farmworkers require familiarity with the context in which farmworkers labor and live. This context has geographic, agricultural, demographic, housing, cultural, and political dimensions. Each of these dimensions has undergone considerable change in the past 50 years, and each continues to change.

The information needed to document the context for health, safety, and justice for farmworkers is often unavailable. The limited information makes it difficult to understand who farmworkers are, the number of farmworkers in the eastern US, their personal characteristics, their exposures and health status, and how best to work toward justice for these workers and their families. For this chapter, and for this volume, information from multiple sources was culled and integrated to document farmworker health, safety, and justice in the eastern US. Sometimes the information gathered about farmworkers appears contradictory. The reasons for apparent contradictions are several. Farmworkers in various sections of the eastern US are diverse, and those recording information about farmworkers use different methods. Regulations defining "farmworker" differ among agencies and among states, and the types and quality of information vary among states and among agencies. Clearly assessing what is known is an essential first step in promoting farmworker justice.

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2.2 Farmworkers Defined

We focus on seasonal and migrant farmworkers in this volume. The definition of who is a farmworker varies among analysts and for different programs and regulations. Factors included in defining farmworkers include the agricultural commodities (crops, dairy, poultry, livestock) and sectors (material processing, fisheries, forestry) in which an individual might work, migration statuses (e.g., family moved to seek farm work, change residence from one school district to another, establish temporary abode), their ages, and programmatic income requirements (e.g., none, income less than poverty while engaged in farm work) and eligibility periods (e.g., employed in farm work in the last 24 months, the last 36 months, 12 of the last 24 months).

In this volume, farmworkers include individuals who are involved in agricultural production, with agricultural production including planting, cultivating, harvesting, and processing crops for sale and caring for animals. Nonfood commodities, such as tobacco, Christmas trees, sod, flowers, and ornamental plants, are included as agricultural crops. Agricultural work excludes manufacturing activities, such as preserving fruits and vegetables, working in grain storage, slaughtering or butchering livestock and poultry, or making cheese and cooking food. *Seasonal farmworkers* are individuals whose principal employment is in agriculture on a seasonal basis. They do not change residence in order to work in agriculture. *Migrant farmworkers* are individuals whose principal employment is in agriculture on a seasonal basis and who, for purposes of employment, establish a temporary home. The migration may be within a state, interstate, or international.

The National Agricultural Workers Survey (NAWS) differentiates six types of farmworkers (Carroll et al. 2005; Hernandez et al. 2016a, b). The nonmigrant worker is equivalent to what we refer here to as a seasonal farmworker. The NAWS includes only crop workers and excludes livestock or poultry workers. It estimates nationally that the percentage of farmworkers who are nonmigrant has increased from 58% in 2002 to 84% for 2013-2014 and 81% in 2015-16. Migrants can be migrant newcomers (a foreign-born farmworker who has traveled to the US for the first time), international shuttle farmworkers (travel from permanent homes in a foreign country to the US for employment but work only within a 75 mile radius of that location), domestic shuttle farmworkers (have permanent residences in the US but travel 75 miles or more to do farm work in a single location and work only within a 75 mile radius of that location), international follow-the-crop farmworkers (travel to multiple US farm locations for work from permanent homes in a foreign country), and domestic follow-the-crop farmworkers (travel to multiple US farm locations for work from permanent homes in the US). The follow-the-crop farmworker most closely resembles the classic image of a migrant farmworker who moves in one of the "migrant streams" from south to north as crops ripen for harvest. In 2013-2014, national estimates based on the NAWS indicate that 11% of migrant farmworkers (1.8% of all farmworkers) were migrant newcomers, 37% were international shuttle migrants (5.9% of all farmworkers), 26% were domestic shuttle migrants (4.2% of all farmworkers), 3% were international follow-the-crop farmworkers (0.5% of all farmworkers), and 23% were domestic follow-the-crop migrants (3.7% of all farmworkers).

The decline in migrant versus seasonal farmworkers has several potential causes. Current political and legal pressure on undocumented farmworkers and on their employers has limited some movement. The larger number of Latinx farmworkers who have been born in the US (Hernandez et al. 2016a) are citizens and can obtain alternative local employment when agricultural work is not available. Anecdotal information indicates that changes to year-round agricultural production in Florida (and possibly other states) have made farm employment available year-round.

We include the spouses, children, and other family members of farmworkers in our discussions for this volume. Family members who live with farmworkers are often exposed to the same health risks as are the farmworkers. Often, they are employed in farm work (see Chaps. 6 and 7). They live in the same housing (Arcury et al. 2015e, 2017a), are exposed to agricultural and residential pesticides (see Chap. 3), encounter similar levels of health care (Arcury and Quandt 2007), and are confronted by similar stressors and hardships (see Chap. 4).

The NAWS does not include farmworkers with H-2A visas in its estimates. An H-2A visa allows an individual to enter the US to work in agriculture for a specified period for a particular employer. The employer is obligated to provide an average of 35 h of work per week, a specific hourly wage, and inspected housing and to meet all safety requirements, including Worker Protection Standard training (Fults 2017). Almost all farmworkers with H-2A visas are international shuttle migrants. A few are international follow-the-crop migrants; for example, some farmworkers with H-2A visas spend much of the agricultural season (May through September) in eastern North Carolina cultivating and harvesting tobacco but then travel several hundred miles to western North Carolina to harvest Christmas trees in October and November.

A large number of farmworkers with H-2A visas work in the eastern US (Table 2.1), and this number has greatly increased over the past decade. For example, while 8730 farmworkers with H-2A visas worked in North Carolina in 2007, the number of certified positions for farmworkers with H-2A visas increased to 19,786 in 2016 and 21,794 in 2018 (US Department of Labor (USDOL) 2019). Florida had 22,828 certified H-2A positions in 2016 and 30,462 in 2018, while Georgia had 17,392 in 2016 and 32,364 in 2018. Other eastern states with large numbers of workers with H-2A visas for 2018 include Louisiana (10,079), New York (7634), and Kentucky (7604).

Although farmworkers with H-2A visas have legal documents to work in the US and the program offers them some protections, they, like other Latinx farmworkers, face hardships. Research comparing the situations of those with H-2A visas in the eastern US with other migrant farmworkers indicates that those with H-2A visas have better living and working conditions (Arcury et al. 2012a, 2015d). In North Carolina, some farmworkers with H-2A visas have the additional protection of a union contract through the Farm Labor Organizing Committee. However, many farmers employing farmworkers with H-2A visas do not adhere to all the required

Table 2.1 H-2A positions certified in the eastern US 2016, by state

State	Total positions certified 2016
Alabama	972
Connecticut	2058
Delaware	392
Florida	22,828
Georgia	17,392
Kentucky	6779
Louisiana	8301
Maine	700
Maryland	804
Massachusetts	437
Mississippi	3580
New Hampshire	169
New Jersey	1016
New York	5522
North Carolina	19,786
Ohio	1297
Pennsylvania	892
Rhode Island	4
South Carolina	3896
Tennessee	3224
Vermont	520
Virginia	3432
West Virginia	116

https://foreignlaborcert.doleta.gov/

safety and housing standards. Further, advocates argue that the control and intimidation exerted over these workers by their employers limit workers' ability to voice concerns over safety and living conditions (Bauer 2013; Newman 2011).

2.3 Geographic Context

The eastern US for this volume includes 23 states (Fig. 2.1). They include the south-eastern states bordering the Gulf of Mexico and Atlantic Ocean (Florida, Georgia, Alabama, Mississippi, Louisiana, South Carolina, North Carolina, and Virginia), the mid-Atlantic states (Maryland, Pennsylvania, Delaware, New Jersey, and New York), interior states (Tennessee, Kentucky, West Virginia, and Ohio), and New England (Massachusetts, Connecticut, Rhode Island, New Hampshire, Vermont, and Maine). This region is considered the "Eastern Migrant Stream." However, the 2002–2004 NAWS found that only 13% of farmworkers in the eastern US were follow-the-crop migrants (Carroll et al. 2005), and the proportion dropped to only 4% in the 2013–2014 NAWS national data (Hernandez et al. 2016a).

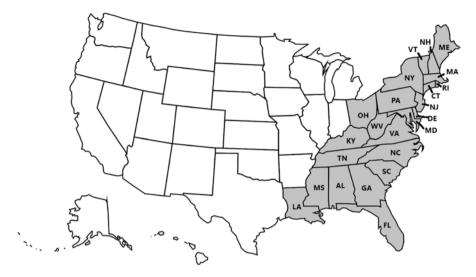


Fig. 2.1 Map of the USA, with shading indicating the 23 states considered part of the eastern US for this volume

Therefore, the idea of a stream of migrant farmworkers flowing from Florida and Texas, through the South, into the mid-Atlantic and on into New England as crops ripen is probably no longer accurate.

Little information actually documents the movement of farmworkers during an agricultural season. Quandt et al. (2002) used information from several studies in North Carolina to document the movement of farmworkers during an agricultural season. The farmworkers included in these studies were migrant farmworkers living in camps during the summer. Approximately one third of the workers moved during the course of the summer, with work availability and work-related illness being the major causes of their moving from a camp. Workers who migrated often returned to a camp that they left when more work became available.

2.4 Agricultural Context

Agriculture in the eastern US is diverse and changing. The agriculture that involves farmworkers is concentrated in those commodities that require hand labor: animal care or planting, cultivating, and harvesting crops. Some crops that historically required hand labor, such as cotton, are now mechanized. Mechanization remains limited for other crops, such as tobacco and most fruits and vegetables. However, efforts to increase mechanization in the production of all agricultural commodities are underway (Seabrook 2019; Charlton et al. 2019).

2.4.1 From Family Farm to Commercial Agriculture

Historically, family farms characterized most of the agriculture in the US. A family farm is an operation for which family members provide most of the management, labor, and capital. Such farms produce a variety of crops, livestock, and poultry to meet the family's needs. Although most farms in the eastern US remain family operations, commercial farms now provide much of the agricultural production (Arcury 2017; Kelsey 1994; Mooney 1988; Vogeler 1981). The total number of farms in the US has declined from more than 5.3 million in 1950 to two million in 2017. Among family-owned farms, the average age of the principal operator continues to increase, from 51.7 years in 1974 to 57.5 in 2017, while the number of family members living and working on farms continues to decline.

The decline in the number of family-owned farms and the number of family members working on farms has resulted in greater levels of commercial agriculture and a greater need for hired farm labor (Schewe and White 2017). This demand for hired farm labor affects family-owned farms as well as large, commercial farms. It affects all forms of agriculture: animal and dairy production as well as crop production. However, although agriculture is becoming more commercial and less family-based, the laws regulating agricultural labor still reflect the model of the family farm. Referred to as "agricultural exceptionalism" (Guild and Figueroa 2018; see Chap. 9), these labor regulations limit the requirements of safety regulations, workers' compensation, health insurance, and overtime pay for farmworkers, while allowing hired workers as young as 10 years of age to work in the fields (see Chap. 7).

2.4.2 The Risk and Safety Culture of US Farmers

US farmers have a distinct culture, a set of generally shared beliefs and values, that affects the health, safety, and justice for farmworkers. An analysis of in-depth interviews conducted with small crop and livestock farmers in the Northeast helps to describe the farm community's view of occupational hazards (Sorensen et al. 2008). Farmers do not view "risk" as undesirable. They have observed past generations accepting risk as inherent to their way of life. Many risk their entire fortune with each spring's planting. Thus, as a group they have a remarkably high tolerance for risk, believing that most things will work out in the end. While farmers readily acknowledge the dangers inherent in farming, they often adopt an optimistic bias with regard to hazard (Weinstein 1988). Their experience with risk leads them to believe that their own knowledge, experience, and skills exempt them from agriculture's dangers. Near misses only serve to reinforce this view. Most farmers place considerably greater priority on the efficient production of food and fiber than upon safety. As businesspersons, they see most safety measures as contributing little to their efficiency and productivity. This most certainly applies to their personal safety

but, unfortunately, tends to carry over to safety in general. At the same time, these farmers express considerable concern regarding the safety of spouses, children, and employees. This attitude is reflected in decisions to personally undertake the riskiest tasks and results in elevated rates of injuries to farmers on small family farms when compared to employees (Pratt et al. 1992).

In studies among California farmworkers and farm owners, Grieshop et al. (1996) explored concepts related to the "locus of control" over safety and workplace injury. Farmworkers had a powerful and pervasive belief that the control of injury and illness for both the worker and farm owner was under external control. In contrast, farmers viewed injury prevention as under internal control rather than in the hands of luck or fate. These workers valued prevention efforts but believed equally in accepting the inherent dangers of the job and trusting in their ability to react or cope with hazards that arise.

The safety culture of farmers is reflected in their views toward risk for their own children. Current regulations (US Department of Labor, Wage and Hour Division 2016a) place no restriction on the ages at which a farmer's child can work on the farm or the hazardous tasks the child performs (see Chap. 7). Children working on parents' farms experience high rates of injury, illness, and death (Goldcamp et al. 2004; Hard and Myers 2006; Zaloshnja et al. 2012), and these children report engaging in hazardous work tasks and receiving very little safety training. Nevertheless, their parents are adamant that they know what is best for their children and oppose any policy that will limit their oversight of their children (Darragh et al. 1998; Neufeld et al. 2002; Summers et al. 2018; Westaby and Lee 2003).

The farmer's high tolerance of risk, denial of susceptibility, and skepticism regarding safety measures may contribute significantly to the problems encountered by some farmworkers. In some cases, exposure of farmworkers to heat, chemical, ergonomic, and other hazards may be deliberate and malicious (Salazar et al. 2005), while in others it may simply reflect an extension of the farmer's personal approach to risk and prevention. Unfortunately, the considerable power imbalance inherent in the farmer-farmworker relationship can amplify the risk encountered by these workers. This problem may be further exacerbated by farmworkers' priorities and beliefs. Farmworkers' perception of being in the hands of fate and their recognition of the extreme power imbalance both significantly reduce the likelihood of their objecting to observed hazards in the workplace. Many of these workers face an economic imperative to maximize work hours and weekly income. For many workers, physical work is inextricably linked to physical pain and musculoskeletal strain; Arcury et al. (2015b) provide an analysis of this perspective among Latinx poultry processing workers. The farmworkers' view that musculoskeletal injury is "just part of the job" contrasts notably with health professionals' view that "work shouldn't make you sick." The effects of these farmer values on health and safety for farmworkers are particularly seen in the discussion of farmworker injury and illness and exposure to pesticides (see Chap. 3).

2.4.3 Regional Crops in the Eastern US with Farmworker Involvement

Production of many agricultural commodities in the eastern US requires the hand labor of farmworkers for planting, cultivating, and harvesting. These commodities include fruits, such as apples, berries, citrus, melons, and peaches; vegetables, including cucumbers, mushrooms, onions, sweet potatoes, and tomatoes; and nonfood commodities like Christmas trees, ferns, and tobacco. Table 2.2 provides information on some agricultural commodities that particularly involve farmworkers in the eastern US. Review of the farms and acreage devoted to these different commodities documents the variability in the work performed by farmworkers in the eastern US. For example, while cucumbers are produced in all the states, a large number of farms and acres are devoted to the production of cucumbers in the southeastern states. Within the states producing cucumbers, Florida stands out for the large proportion of acres (15,530 of 26,222 acres, 59%) harvested for processing (e.g., making pickles). Pennsylvania has by far the greatest need for workers to pick mushrooms. Maine leads the region in acres devoted to berries. North Carolina and Kentucky have the greatest acreage in tobacco.

The process of planting, cultivating, and harvesting different agricultural commodities places farmworkers at risk for different injuries and illnesses (see Chaps. 3 and 5). For example, pesticides, including fungicides, herbicides, and insecticides, are applied to all of these commodities; however, the toxicity of pesticides used for each commodity differs. Picking some fruits and vegetables, such as strawberries, cucumbers, and sweet potatoes, requires bending and lifting. Harvesting orchard fruits includes risks for falls and eye injuries. Tobacco harvesting exposes workers to nicotine and nicotine poisoning (green tobacco sickness) (Arcury et al. 2001, 2016a). Harvesting mushrooms requires work in humid environments with high levels of molds.

2.4.4 Livestock and Poultry

The number of Latinx immigrants working in livestock and poultry production, as well as in seafood processing, such as crab picking, is increasing. For example, in the Northeast, Latinx immigrants are being hired to work on dairy farms (Earle-Richardson and May 2002; Stack et al. 2006; Sexsmith 2016a, b; Schewe and White 2017), and in the mid-Atlantic, they are working on thoroughbred horse farms (Bush et al. 2018; Swanberg et al. 2013) (see Chap. 5). Individuals working in livestock and poultry production are often full-time, long-term employees and do not fit the definition of migrant and seasonal farmworker.

The number of concentrated animal feeding operations (CAFOs) for poultry and hogs has grown substantially since 1990, particularly in the Southeast (Table 2.3). The potential health effects of CAFOs for workers and on the surrounding commu-

Table 2.2 Number of farms and acres for selected crops produced in the eastern US, 2017

	Cucumbers	bers	Mushrooms	oms	Peaches		Berries		Tobacco	0	Christmas trees	as trees
State	Farms	Acres	Farms	Sq. ft. under protection	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Trees cut
Alabama	296	5376	10	7034	293	1818	725	1098	0	0	48	17,038
Connecticut	286	201	23	21,050	167	365	404	744	46	2204	358	98,500
Delaware	39	1016	2	1	11	269	52	94	0	0	21	5401
Florida	285	26,222	46	1	337	1025	1367	17,054	19	1135	55	13,968
Georgia	488	6140	31	293,876	289	11,877	1281	19,427	106	12,905	106	32,161
Kentucky	633	198	26	44,720	364	370	296	006	2618	80,544	61	5869
Louisiana	203	86	8	14,190	54	164	361	725	-	ı	32	11,545
Maine	403	154	34	19,875	118	44	1054	39,930	0	0	244	128,601
Maryland	225	1495	27	I	134	831	328	593	40	315	113	52,677
Massachusetts	355	248	32	33,759	216	461	626	14,994	15	461	264	82,524
Mississippi	293	225	2	I	173	250	543	2131	0	0	51	12,889
New Hampshire	181	104	7	0069	114	83	371	754	0	0	181	106,703
New Jersey	385	2894	15	298,525	281	3362	209	13,649	0	0	639	85,781
New York	945	1359	117	101,919	431	1391	1659	4240	0	0	754	295,260
North Carolina	882	8956	178	143,959	323	930	1430	10,589	1294	167,781	653	4,031,864
Ohio	899	1950	44	32,915	547	1167	1309	1584	82	1046	449	155,572
Pennsylvania	791	619	113	17,314,135	849	4249	1802	2334	812	7476	962	1,050,159
Rhode Island	47	24	111	I	12	0	74	228	0	0	43	17,121
South Carolina	431	984	23	136,229	248	17,566	643	1589	117	12,176	81	27,578
Tennessee	547	253	48	I	406	638	1015	1164	298	20,751	74	54,005
Vermont	179	69	54	0966	40	13	478	662	0	0	163	110,459
Virginia	456	386	41	36,868	337	1032	903	1357	306	23,039	343	474,902
West Virginia	341	88	22	10,129	277	1088	1201	23,172	2	I	152	42,830
Total	9359	59,671	914	18,526,043	6021	48,993	19,547	159,012	9509	329,833	5847	6,913,407

USDA (2019) 2017 Census of Agriculture, Vol. 1, Chap. 2: US state level data https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/ Volume_1,_Chapter_2_US_State_Level/

	Number of farms		
State	Hogs and pigs	Milk cows	Any poultry
Alabama	1704	366	5954
Connecticut	214	198	1371
Delaware	55	50	782
Florida	1810	600	7029
Georgia	1091	572	7047
Kentucky	1805	1577	8965
Louisiana	874	132	3498
Maine	429	450	2059
Maryland	562	511	2724
Massachusetts	337	220	1845
Mississippi	784	108	4300
New Hampshire	281	216	1231
New Jersey	347	109	2156
New York	1739	4648	6172
North Carolina	2426	546	7875
Ohio	3484	3346	11,350
Pennsylvania	2777	6914	10,818
Rhode Island	60	16	257
South Carolina	1005	215	4332
Tennessee	1898	986	9662
Vermont	353	841	1596
Virginia	1461	1048	6789
West Virginia	892	458	4884

Table 2.3 Number of farms producing selected livestock and poultry in the eastern US, 2017

USDA (2019) 2017 Census of Agriculture, Vol. 1, Chap. 2: US state level data https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Volume_1,_Chapter_2_US_State_Level/

nities continue to be documented (Kirkhorn and Schenker 2002; Mirabelli et al. 2006; Tajik et al. 2008; Hofmann et al. 2018; Kilburn 2012). Little research has considered the ethnicity or immigration status of workers in these operations (see Chap 5). However, observations of workers in North Carolina indicate that many are Latinx immigrants. In the poultry industry, many of those who collect eggs are Latinx, and many of those "catching" chickens in poultry houses for shipment to processing plants are Latinx (Quandt et al. 2013a).

2.5 Demographic Context

Agricultural workers in the eastern US once included large numbers of local youth doing farm work as a summer job or working on family-owned operations. Migrant and seasonal agricultural workers, until recently, included substantial numbers of African Americans, Afro-Caribbeans, Native Americans, and Appalachian whites,

as well as Latinx (Leone and Johnston 1954). Now, although each of these groups still remains involved in seasonal farm work, most farmworkers working in the eastern US are Latinx immigrants, with most of Mexican heritage (Hernandez et al. 2016a). The Latinx community is becoming the largest minority population in the US (Colby and Ortman 2015). In several eastern states, the growth of the Latinx population has been extraordinary. For example, the Latinx population of Georgia is estimated to have grown from 425,305 persons in 2000 to 950,471 persons in 2015, a 123% change; the estimated growth for North Carolina is from 367,390 persons in 2000 to 912,609 persons in 2015, a 148% change; and the estimated growth for South Carolina is from 90,263 persons in 2000 to 261,580 persons in 2017, a 188% change (Pew Research Center 2017). Although most farmworkers are Latinx, it is important to recognize that the proportion of farmworkers born in the US has increased; almost three-in-ten farmworkers interviewed for the 2013–2014 NAWS were US-born (Hernandez et al. 2016a).

2.5.1 Number of Farmworkers

Estimates of the number of farmworkers in the eastern US and nationally vary widely. A number frequently used to characterize the national farmworker population is 2.5–3 million; this number is probably an overestimate. The earliest national estimates were produced in 1990, but these estimates did not include all states (USDHHS 1990). Additional estimates for a few states were calculated in 2000 (Larson 2000). The 2002 Census of Agriculture provided three different indicators of the number of farmworkers in each state (USDA 2004). Data on "farms with hired migrant farm labor" and "farms reporting only contract migrant farm labor" were not reported in earlier censuses, and changes in the number of farms cannot be evaluated. The 2017 Census of Agriculture provided more detailed indicators of the size of the farmworker population (USDA 2019). Information provided included the number of farms with employees working fewer than 150 days as well as the number of workers employed fewer than 150 days. It also includes the number of farms with migrant workers and the number of migrant workers, and divides the number of farms with migrant labor into those with hired labor and those with only contract labor.

The number of farmworkers in each of the eastern states varies substantially. Comparing the 1990 migrant and seasonal farmworker estimates with the 2002 and 2017 Census of Agriculture data show some interesting patterns (Table 2.4). Some states with few farmworkers (e.g., Alabama, Tennessee) or for which the number of farmworkers was not estimated in 1990 (Kentucky, Louisiana, Mississippi) had large numbers of workers working less than 150 days and farms with migrant workers in 2002. These numbers then decrease precipitously by 2017. Other states with extremely large numbers of farmworkers in 1990 (e.g., Florida, North Carolina) experienced major declines in workers working less than 150 days and farms with migrant workers in 2002 and further declines through 2017. By 2017, only one

Table 2.4 Indicators of the number of farmworkers in the eastern US, by state

		2002 Census of Agriculture ^b	of Agriculture	q	2017 Cen	2017 Census of Agriculture ^c	culture					
		Workers		Farms with					Migrant farm labor	m labor	Migrant farm labor	labor
	1990 Total	working less	Farms with		Workers working	vorking	Total migrant	igrant	on farms with hired	ith hired	on farms reporting	orting
	number of	than	migrant	contract	less than 150 days	150 days	workers		labor		only contract labor	labor
State	MSFWa	150 days	workers	workers	Farms	Workers	Farms	Workers	Farms	Workers	Farms	Workers
Alabama	6483	25,994	303	57	7653	16,402	175	1864	151	1573	24	291
Connecticut	9421	7559	135	7	1056	6209	95	889	91	629	4	6
Delaware	5397	2151	70	3	529	1900	45	648	45	648	ı	ı
Florida	435,373	68,971	1303	453	9208	45,849	913	34,177	707	30,932	206	3245
Georgia	93,604	42,307	858	141	8382	30,737	623	19,331	537	17,689	98	1642
Kentucky	ı	99,003	3311	289	13,467	35,977	1418	10,605	1104	8452	314	2153
Louisiana	ı	683	363	46	5051	12,626	719	4528	681	4357	38	171
Maine	0998	13,551	137	14	1827	9314	108	2191	81	1786	27	405
Maryland	4267	10,551	212	11	2272	7472	138	1341	127	1318	11	23
Massachusetts	7813	8265	243	29	1817	7683	123	837	120	D	3	D
Mississippi	ı	23,915	157	113	6803	16,331	229	3530	2056	2236	24	1294
New	726	2789	41	113	761	3200	31	209	31	209	ı	ı
Hampshire												
New Jersey	13,522	13,676	523	43	1815	15,298	303	10,675	294	10,621	6	54
New York	30,811	43,347	946	50	6457	29,742	929	11,821	880	11,512	49	309
North Carolina	344,944	97,138	3097	364	8850	39,618	1684	28,063	1467	25,333	217	2730
Ohio	11,621	54,180	518	108	12,649	37,086	259	3999	252	3626	7	40
Pennsylvania	24,711	41,606	745	59	9514	33,730	401	4731	375	4564	26	167

Rhode Island	459	229	26	5	24	981	7	14	9	D	1	D
South Carolina		18,650	469	57	3809	12,438	160	4693	136	4569	24	124
Tennessee	6571	43,366	1338	288	6597	14,954	113	493	1111	D	2	D
Vermont	_	4239	129	1	1494	4552	128	786	127	D	1	D
Virginia		34,367	1016	159	8261	23,977	492	5153	439	4766	53	387
West Virginia	_	8441	66	17	2520	6441	40	475	38	D	2	D

D data withheld to avoid disclosing data for individual farms $^{\rm a}{\rm USDHHS}\,(1990)$

^bUSDA (2004) 2002 Census of agriculture, Vol. 1, Chap. 2: US state level data. http://usda.mannlib.comell.edu/usda/AgCensusImages/2002/01/51/1709/ Fable-07.pdf (accessed April 16, 2019)

*United States Department of Agriculture (USDA), National Agricultural Statistics Service (2019) 2017 Census of agriculture, Vol. 1, Chap. 2: US state level data. https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Volume_1,_Chapter_2_US_State_Level/st99_2_007_007.pdf (accessed April state, Florida, had over 40,000 workers working fewer than 150 days, while several states had over 35,000 such workers (Kentucky, North Carolina, Ohio), and others had over 25,000 such workers (Georgia, New York, Pennsylvania). Florida also had the greatest number (34,177) of migrant farmworkers in 2017, with North Carolina having 28,063. Georgia, Kentucky, New Jersey, and New York had between 10,000 and 12,000 migrant workers.

Some states have other sources of information that estimate the number of farmworkers. For example, the North Carolina Division of Employment Security estimates the number of agricultural workers at "peak season" by county each year. Division of Employment Security staff have made public statements that their estimates are very conservative and probably underestimate the number of farmworkers. Their estimates for 2017 were 28,075 migrant farmworkers (down from 37,610 in 2007), 19,685 seasonal farmworkers (down from 25,407 in 2007), and 21,443 farmworkers with H-2A visas (up from 8730 in 2007). The number of migrant farmworkers they estimate is comparable to the number reported by the 2017 Census of Agriculture (28,075 versus 28,063). Assuming that those with H-2A visas are contract workers, the number reported by the Employment Security Commission is far greater than the number reported by the 2017 Census of Agriculture (21,443 versus 2730). Finally, the combined number of seasonal farmworkers, migrant farmworkers, and farmworkers with H-2A visas (69,203) is far greater than the number of workers working less than 150 days (39,618).

2.5.2 Farmworker Personal Characteristics

The 2014 and 2015–2016 NAWS (Hernandez et al. 2016a; Hernandez and Gabbard 2018) provide current information on the personal characteristics of farmworkers across the eastern US and the context for a comparison of farmworkers in the eastern US with national farmworker information (Table 2.5). Data from the 2002–2004 NAWS provides comparative data to estimate changes during the 2000s.

Eastern US farmworkers in 2014 had an average age of 36 years compared with an average of 34 years in 2002–2004. Although most farmworkers remained men (60%), the percent of farmworkers who were women increased from 19% to 40% in the eastern US. In 2014, Spanish remained the primary language of the majority (70%) of farmworkers in the eastern US, with the percent who stated that they could speak English well increasing from 37% to 43% since 2002–2004. Most remained foreign-born (58%), with 46% born in Mexico. The national farmworker population interviewed for the 2015–2016 NAWS was more Spanish speaking (77% versus 70%), foreign-born (76% versus 58%), and Mexico-born (69% versus 46%) than was the eastern US farmworker population in 2014. It is important to note that more than one third (39%) of the eastern US farmworkers interviewed by the 2014 NAWS indicated that they were not Hispanic or Latino.

Most (84%) farmworkers in the eastern US participating in the 2014 NAWS were not migrants; this is similar to the 2015–2016 national NAWS data (81%) and a

Table 2.5 Selected eastern US farmworker demographic characteristics in 2002–2004 and 2014, and national US farmworker demographic characteristics (2014–2015 and 2015–2016) from the National Agricultural Workers Survey

5	Eastern US	Eastern US	National US
Demographic characteristic	2002-2004a	2014 ^b	2015–2016°
Mean age (years)	33.6	36	38
Female (%)	19	40	32
Language			
Spanish is primary language (%)	60	70	77
Able to speak English well (%)	37	43	29
Able to speak English at all or a little (%)	31	33	32
Ethnicity			
Foreign-born (%)	63	58	76
Born in Mexico of those foreign-born? (%)	55	46	69
Indigenous (2002) (%)		6	3
Stating not Hispanic or Latino (%)	31	39	16
Migration status			
Nonmigrant (%)	57	84	81
Migrant (%)	36	16	19
Newcomer (%)	13	2	18
Follow the crops (%)	13	4	27
Shuttle (%)	17	9	21
Weeks employed	32.8	33	35
Average range personal income (\$)	14,168	15,000–17,499	17,500-19,999
Average range family income (\$)	18,580	20,000–24,999	20,000-24,999
Percent with families below poverty (%)	26	35	33

^aCarroll et al. 2005

substantial increase from the 57% of eastern US nonmigrant farmworkers who participated in the 2002–2004 NAWS. The percent of newcomer migrants (2%), follow-the-crop migrants (4%), and shuttle migrants (9%) is smaller in the eastern US than nationally, and these percentages have decreased substantially in the eastern US since 2002–2004. Personal and family income for farmworkers in the eastern US in 2014 increased slightly from 2002 to 2004 and is about on par with national farmworker income ranges. The percent of farmworker families in the eastern US below poverty increased from 26% in 2002–2004 to 35% in 2014, about the same as the national farmworker rate of 33%.

Indigenous or native heritage is an important characteristic of many farmworkers recognized by service providers and researchers. Individuals of indigenous heritage often have a primary language such as Mixteco, Quiché, or Zapoteco, rather than Spanish. If these indigenous farmworkers speak Spanish at all, it is as a second language. Typically, 20–25% of North Carolina study participants are indigenous. A

^bCalculated from the publically available NAWS data

cHernandez and Gabbard 2018; Hernandez et al. 2016b

project conducted in Oregon has focused on the growing indigenous farmworker community (Farquhar et al. 2008). Being indigenous and speaking an indigenous language further limits farmworkers' access to health and other services, knowing their rights, and reporting situations in which occupational safety and health regulations are not followed.

2.6 Housing Context

An individual's house, the place in which they eat, sleep, and relax, is important to mental and physical health. This importance is reflected in Article 25 of the Universal Declaration of Human Rights (United Nations 1948), which proclaims adequate housing is a basic human right. However, the available research demonstrates that inadequate housing is the most egregious of all of the unjust and inequitable conditions endured by farmworkers in the eastern US (Arcury et al. 2012a, 2015e).

The provision of housing to farmworkers varies by whether they are migrant or seasonal workers and the region in which farmworkers live. Seasonal farmworkers are generally responsible for their own housing as are some migrant farmworkers. This housing is regulated by local and state housing codes. Many migrant farmworkers in the eastern US are provided housing by their employers. Employer-provided migrant farmworker housing is often referred to as a "farmworker camp." Employer-provided housing is regulated by the Migrant and Seasonal Agricultural Worker Protection Act (MSPA) (USDOL 2016b). A few states have adopted regulations that are stronger than the federal guidelines. Employers of farmworkers with H-2A visas are required to provide housing.

The quality and condition of housing available to farmworkers, whether employer-provided or obtained in the general housing market, are a continuing concern. Papers produced for a conference on farmworker housing quality and health (Arcury et al. 2015a; Arcury and Summers 2015) provide a review of current knowledge on the association of farmworker housing and health (Quandt et al. 2015), on the role of social factors in farmworker housing and health (Marsh et al. 2015), and on current federal farmworker regulations and their enforcement (Moss Joyner et al. 2015).

2.6.1 Employer-Provided Housing

Most employer-provided farmworker housing is in poor condition (Vallejos et al. 2011), none of it meets current regulations (Arcury et al. 2012a), and little of it provides farmworkers with a sense of safety or privacy (Arcury et al. 2012b). Employer-provided housing is associated with the risk of pesticide exposure (Arcury

et al. 2014a; Levesque et al. 2012; Raymer et al. 2014) as well as the risk of heat stress (Quandt et al. 2013b). The water in one third of this housing does not meet basic public health standards (Bischoff et al. 2012), and those residing in this housing are at increased risk of infectious disease and parasites (Feldman et al. 1974; Russell et al. 2010) and skin diseases (Gustafson et al. 2014). This housing increases the risks for mental health problems and violence (Benson 2008; Kraemer Diaz et al. 2016; Mora et al. 2016; see Chap. 4).

Farmworker camps are often located so that they cannot be seen by the general public (Summers et al. 2015), with the newest camps (those that include barracks built especially for farmworkers) often being more hidden. When faced with the poor condition in which they are forced to live, migrant farmworkers adapt to it by developing an attitude of *aguantamos*, of putting up with the situation so that they can accomplish their responsibility to provide income for their families (Heine et al. 2017).

2.6.2 Non-Employer-Provided Farmworker Housing

The majority of Latinx farmworkers, including almost all seasonal farmworkers and many migrant farmworkers, do not reside in employer-provided housing. However, little research has addressed the housing quality or needs of these farmworkers. The residents of non-employer-provided farmworker housing acknowledge the poor housing conditions in which they live, describing their exposure to pesticides, safety concerns, pests, poor water and air quality, and lack of temperature control (Keim-Malpass et al. 2015). Much is rental housing (Arcury et al. 2017a). Many of the houses in which these farmworkers live (which include old trailers and farmhouses) are small, in disrepair, and crowded (Early et al. 2006; Gentry et al. 2007; Arcury et al. 2017b). These houses are often adjacent to agricultural fields. The poor housing conditions and crowding are associated with elevated stress and conflict (Arcury et al. 2015e). Few farmworker houses have enclosed play spaces for children, and traffic makes it difficult to walk on the street.

A single study focused on pesticide safety and behavior in farmworker houses found that workers try to follow recommended procedures for occupational pesticide safety (e.g., leaving pesticide containers at work, separate storage and laundry of work clothes), but following these behaviors is more difficult when a large number of persons reside in the house (Rao et al. 2006). At the same time, workers do not generally know and follow recommendations for general residential pesticide safety (Rao et al. 2006). As a result, most (95%) farmworker houses have residential or agricultural pesticides present, and these pesticides are present on children's hands and toys as well as floors (Quandt et al. 2004). Pesticide detection in farmworker houses is associated with the degree to which they were judged difficult to clean, an indicator of housing conditions (Quandt et al. 2004).

2.7 Cultural Context

Although the substantial majority of farmworkers in the eastern US are Latinx, the ethnic and cultural backgrounds of farmworkers in the eastern US vary. Over one third (39%) of farmworkers from the eastern US who participated in the 2014 NAWS reported that they were not Latinx (Table 1.5). Recent studies conducted in the Northeast include substantial numbers of Native Americans and Afro-Caribbeans (May et al. 2008; Rabinowitz et al. 2005); recent studies in the Southeast include substantial numbers of African Americans (Gadon et al. 2001).

Most Latinx farmworkers in the eastern US are of Mexican heritage. More than half (58%) of farmworkers from the eastern US who participated in the 2014 NAWS reported that they were foreign-born, with 46% of those foreign-born reporting being born in Mexico (Table 2.5). Most Latinx farmworkers who were born in the US are the children of immigrants from Mexico (Arcury et al. 2014b, 2015c, 2019a). Other Latinx farmworkers are natives of other Central American counties, such as Guatemala and Honduras, and others are from Caribbean locations, such as Puerto Rico and the Dominican Republic. Many of the Latinx farmworkers from Mexico and Central American nations are indigenous people (6% reported in the 2014 NAWS) who speak an indigenous language in addition to or instead of Spanish.

Although the ethnic and cultural variations among farmworkers are difficult to document, most attention to the culture, values, and beliefs of farmworkers has been focused on those who are Latinx and who are from Mexico. That all communities have culture, and that the shared beliefs that constitute culture affect behavior, should be remembered when discussing the culture of farmworkers and considering how the context of culture affects health, safety, and justice.

2.7.1 General Beliefs and Values of Latinx Farmworkers

Several aspects of the cultural context of Latinx farmworkers have important implications for health, safety, and justice. The most important of these are *familismo*, *personalismo*, and *respeto*. Latinx farmworkers have strong ties to their families, whether family members are with them in the US, remain in a home community elsewhere in the US, or are in a foreign country (e.g., Mexico). The persons and degrees of relation included as family among Latinx farmworkers often exceed those included by other North Americans. The sense of responsibility to family is also very strong among Latinx farmworkers. Many farmworkers laboring in the US are doing so to support families in their communities of origin. A key indicator of this sense of responsibility is the number of farmworkers—migrant and seasonal—who send remittances to family members in their home communities. The size and number of remittances are important for the survival of family members and have an important economic development effect in these communities (Grey and Woodrick 2002; Suro et al. 2002; Pew Research Center 2013). For example, Cortina and De la

Garza (2004) found that Mexican and El Salvadoran immigrants intended their remittances for food and basic consumption (67%), health care (9%), home building or improvement (5%), and education (3%). With the importance that Latinx farmworkers place on sending remittances to their families, they are inclined to continue working in difficult and dangerous situations and not engage in behaviors (e.g., refusing to work in unsafe conditions or reporting employers to regulatory agencies) that might result in job loss.

Latinx farmworkers expect to develop warm, friendly, and personal relationships and seek this *personalismo* with their employers as well as co-workers (Molina et al. 1994). They also expect to be treated with respect and dignity (*respeto y dignidad*) based on their age, gender, and social position and show this respect and dignity to others (Molina et al. 1994; Lecca et al. 1998). On the basis of these values, Latinx farmworkers expect their employer will protect them, but they are hesitant to disagree with their employer about occupational safety.

Machismo is an often-cited belief among Latinx men that refers to a strong sense of masculine pride. The degree to which *machismo* actually exists, as well as the degree to which it represents a set of risk behaviors and a chauvinistic attitude toward women, is a matter of debate. However, research with male farmworkers in the US and farmers in Mexico indicates that they are willing to forego occupational safety because they feel that, as strong men, they are immune to injury and that they should ignore risk (Hunt et al. 1999; Quandt et al. 1998). This attitude appears very similar to that described for US farmers (see Sect. 2.4.2).

2.7.2 Health Values, Beliefs, Behaviors

2.7.2.1 General Health Beliefs

Several general health beliefs have been identified among Latinx farmworkers that may affect their health and safety. One is that the locus of health or illness is outside the control of the individual, whether due to supernatural causes or due to God's will (Grieshop et al. 1996). Humoral medicine is a health belief system that is widely held among people native to Mexico and other Latin American countries (Rubel 1960; Weller 1983; Barker et al. 2017). Within this system of beliefs, substances and materials have different humors that make them "hot" or "cold." Depending on the beliefs of individuals, hot and cold may be concrete, referring to actual temperature, or metaphysical, referring to the nature of the substance regardless of its concrete temperature. For example, water is by nature cool (metaphysical), no matter what its temperature (concrete). Mixing substances or conditions that are hot with those that are cold will result in illness. Humoral medicine concepts are part of the health belief systems of many societies; for example, in the US, it is widely believed that an individual who goes outside into cold weather with wet hair will get sick.

These general health beliefs may reduce the occupational health and safety of Latinx farmworkers by limiting their use of appropriate conventional health services. They also limit workers' demands that employers adhere to occupational safety regulations (Grieshop et al. 1996). These beliefs also affect the adherence of Latinx farmworkers to occupational safety practices. For example, on the basis of humoral medicine beliefs, workers limit washing hands at work and showering immediately after work because they do not want to get ill from placing their hot body in water, which is considered metaphysically cold (Quandt et al. 1998; Flocks et al. 2007). This may lead to increased pesticide dose as pesticides remain on the skin for a longer time.

2.7.2.2 Lay-Defined Illness

Lay-defined illnesses not recognized by biomedicine have been documented in Latin American countries and among Latinx persons living in the US, including Latinx farmworkers (Baer and Bustillo 1993, 1998; Baer and Penzell 1993). These include the illnesses *susto*, *nervios*, *empacho*, and *mal de ojo* (O'Connor et al. 2015; Weller and Baer 2001; Weller et al. 1993, 2002, 2008). Latinx farmworkers also bring culturally based lay definitions to biomedically recognized illnesses, including green tobacco sickness (Rao et al. 2002), tuberculosis (Poss 1998), and diabetes (Heuer and Lauch 2006).

Latinx farmworkers are similar to all other people in applying lay definitions to illnesses. For Latinx farmworkers, applying lay definitions to illnesses that result from farm work may lead them to not seek needed health care and suffer more grave health effects of occupational injuries. For example, Baer and Penzell (1993) document that farmworkers exposed to pesticides in Florida interpreted the resulting symptoms within the framework of lay-defined *susto* and, therefore, did not seek needed medical care.

2.7.2.3 Self-Treatment Versus Medical Care

Although Latinx farmworkers acknowledge the efficacy of conventional medical care, they often limit their use of this care because of the costs (e.g., payment for care, lost time from work), the barriers to obtaining medical care in the US (e.g., hours of operation, transportation, language), and the desire to avoid interactions with authorities (Arcury and Quandt 2007). Latinx farmworkers utilize traditional healers and self-treatment when they lack access to conventional medical care (Arcury et al. 2016b, 2019b). Commonly utilized traditional healers include curanderos, sobadores (massage therapists), hueseros (bonesetters), and yerberos (herbalists).

Farmworkers will often ignore or self-treat injuries and illnesses rather than use medical care. In the case of green tobacco sickness, farmworkers report working sick for the entire season because they do not want to risk losing their jobs and do not know how to treat the illness effectively (Rao et al. 2002). Latinx farmworkers report using various traditional and home remedies to treat and prevent illnesses, including herbs, chlorine bleach, milk, and medicine purchased at *tiendas* (small local stores that serve Latinx communities in the US) (Poss et al. 2005; Arcury et al. 2006; Mainous III et al. 2005, 2008). Much of the self-treatment that farmworkers use is effective; however, it can have serious consequences (Cathcart et al. 2008).

The willingness of Latinx farmworkers to self-treat occupational injuries and illness rather than obtain formal medical care increases their risk for continued illness, complications, and long-term health effects. This approach also limits knowledge of the extent of occupational injuries and illnesses experienced by farmworkers (Feldman et al. 2009). Increasing health outreach to farmworkers that provides culturally appropriate treatment recommendations and health education is needed.

2.8 Political Context

The political context for farmworkers in the eastern US is shaped by major political processes, such as changes to immigration law and international trade agreements. In addition, political context is shaped by immigration laws, international trade agreements, occupational safety regulations, and wage and housing policies, which are affected by national and local political and advocacy organizations.

2.8.1 Political Processes

The loudest political process affecting farmworkers is the rhetoric surrounding immigration reform. Most farmworkers are immigrants, and many are undocumented workers. Many conservative political leaders and organizations describe the presence of the large number of Latinx immigrants in the US as destroying the character of the nation as well as a source of crime and infectious disease. Immigrant farmworkers are no exception to this characterization. Anti-immigrant sentiment has a long and virulent history in the US, and some anti-immigrant leaders today can only be described as xenophobic and vitriolic in their statements. Other leaders and organizations, including politicians, associations representing agricultural producers, and farmworker advocates, understand the need for Latinx immigrant farm labor. They recognize that the survival of an important industry and the economy of many rural communities are dependent on the labor of farmworkers, whether or not they have the needed documents to work in the US.

Several policies have been proposed to address the need for Latinx immigrant farmworkers. These include the new Agricultural Worker Program Act of 2019 and changes in the existing H-2A visa program. The Agricultural Worker Program Act of 2019 (S. 175/H.R. 641), also known as the "Blue Card Act," would allow certain farmworkers who meet agricultural work and national security clearance require-

ments to work legally in agriculture for 3–5 years and allow them the opportunity to earn immigration status with a path to citizenship (Farmworker Justice 2017). This program would not make any changes to the existing H-2A agricultural guest worker program. The H-2A program has expanded as indicated in Sect. 2.2. Recent efforts have included a proposed H-2C visa program to replace the H-2A program. This proposed H-2C visa program is more far-reaching than the H-2A program. For example, the proposed H-2C program would allow employers to keep workers for up to 3 years without their ability to return to their home communities; allow employment in year-round industries including aquaculture, dairy, meat and poultry processing, and forestry; tie wages to the federal minimum wage; require binding arbitration or mediation of grievances rather than litigation; require that 10% of workers' wages be placed into a trust fund that could only be accessed at a US embassy or consulate; not allow spouses and children to accompany workers; and make workers ineligible for any federal benefits, including Affordable Care Act subsidies, but require them to pay for health insurance.

The second major political process forming the political context for farmworkers is the globalization of agriculture. International treaties, in particular the North American Free Trade Agreement (NAFTA) and its replacement, the United States-Mexico-Canada Agreement (USMCA), have facilitated the movement of agricultural commodities across national borders. While such legislation continues to be criticized in the US for allowing low-skill manufacturing jobs to be exported to Mexico, its major effect has been to allow low-cost US agricultural products to be exported to Mexico. As a result, small Mexican farmers cannot compete, forcing many to look elsewhere for work. Many Mexicans are coming to do farm work in the US because they cannot make a living as farmers in Mexico.

2.8.2 Political Organizations

Political organizations representing the agricultural industry and labor work together to make changes in the political context of Latinx farmworkers. However, these organizations often work at cross-purposes. Both industry and labor argue that their goals are to improve the agricultural economy, while protecting the health and safety of agricultural workers.

Political organizations representing industry are numerous and well-funded. They include large, international agricultural processors such as ConAgra Foods and Archer Daniels Midland; trade associations for agricultural equipment and chemical industries, such as CropLife America, the major pesticide industry trade organization, and its state affiliates; national and state agricultural commodity groups, such as the International Tobacco Growers Association, North American Strawberry Growers Association, National Christmas Tree Association, and the National Dairy Council; and farmer advocacy groups, such as American Farm Bureau, state Farm Bureau Federations, and Cooperative Extension. State Farm Bureau Federations, as well as the American Farm Bureau, have their own lobbyists

and political action committees for the purpose of effecting agricultural legislation. For example, the New York Farm Bureau Federation has a button for an "e-lobby center" at the top of its Web site. The Virginia Farm Bureau Federation founded the Virginia AgPAC in 1999.

Political organizations representing the agricultural industry generally argue that existing occupational safety regulations are sufficient to protect the health of farmworkers and that many regulations are unnecessary because threats to occupational exposures are overstated or because agricultural employers are conscious of the safety of their workers. They further argue that making policies and regulations more stringent, such as greater pesticide safety training, paying farmworkers overtime wages, or improving housing quality requirements, would be detrimental to the "family farm" (see Sect. 2.4.1). Organizations representing the agricultural industry often work to remove these policies and regulations unless they believe that policies and regulations that protect farmworkers and their families also have an economic benefit for their members. For example, in 2012, the Obama administration proposed new rules restricting the ages at which children could be hired to do farm labor and the hazardous tasks they could perform. These rules were withdrawn before the comment period had expired under a vicious attack from agribusiness interests that distorted the proposed regulations by claiming they would affect work performed by the children of farmers and thus destroy the "family farm" and rural way of life (CropLife News 2012; Leven 2012). Similarly, after a 10-year struggle, the US Environmental Protection Agency (US EPA) released the new Agricultural Worker Protection Standard (US EPA 2016) addressing pesticide safety in 2016. However, a US EPA official stated in a presentation to the 2016 North Carolina Farmworker Institute that the new regulations did not reflect what the science showed was needed; they reflected what the agency felt it could get through the approval process due to industry objections.

Political organizations representing farmworkers are neither numerous nor wellfunded. Some of these organizations are discussed in Chap. 9. Nationally and regionally, they include unions, such as the United Farm Workers of America and the Farm Labor Organizing Committee, which are active in the eastern US; they also include advocacy groups, such as Farmworker Justice, Inc. and the Southern Poverty Law Center. Many political organizations representing labor are specific to states, such as El Comité de Apoyo a los Trabajadores Agrícolas (CATA)/The Farmworker Support Committee in New Jersey and Pennsylvania, Farmworker Advocacy Network in North Carolina, and Coalition of Immokalee Workers and The Farmworker Association of Florida, Inc. in Florida. These organizations actively support new state and national legislation that promotes health, safety, and justice for farmworkers and their families. For example, Coalition of Immokalee Workers is a major partner in the Fair Food Program; the North Carolina Farmworker Advocacy Network was a major force in the passage of farmworker housing legislation in 2007. These political organizations also work to amend existing "agricultural exceptionalism" laws that affect farmworker health, safety, and justice (e.g., Harris 2005).

2.9 Summary and Recommendations to Address Health, Safety, and Justice

The context for farmworker health, safety, and justice in the eastern US is complex and changing. This chapter has presented our definition of who we consider to be farmworkers and provided an overview of the geographic, agricultural, demographic, housing, cultural, and political dimensions of the context in which these farmworkers labor and live. Information on farmworkers and their context is inconsistent for the states in the eastern US. Little information is available for several of the dimensions, and different sources are, at times, contradictory in the information they provide. The lack of clarity in data describing farmworkers hampers our ability to address justice; health problems that are not defined or documented cannot be addressed. The descriptions of farmworkers and their contexts presented in this chapter may be different from the experience of some readers. This argues for a greater effort to document the work and health of all farmworkers. Knowing the actual variability and the actual needs of farmworkers in the eastern US will support an approach to justice for all farmworkers.

Farmworkers are involved in agricultural production, with agricultural production including planting, cultivating, harvesting, and processing crops for sale and caring for animals. The majority of farmworkers in the eastern US are Latinx, either immigrants from Mexico or Central America and their children. This population has beliefs, values, and behaviors that differ from many of those who provide services to this population, although this is changing with more Latinx people obtaining the education and training to provide these services. The ethnic composition of this population has resulted in growing anti-immigrant political and social rhetoric directed toward farmworkers. A continuing trend in farm work is the ongoing decline in the number of "family farms" and growth of large-scale commercialization in agriculture. This has created opportunities for farmworkers to obtain jobs in sectors of agriculture, such as dairy and poultry production, in which they had not worked previously. These changes also argue for changes in special regulatory protections that have been permitted for agriculture, such as no extra pay for overtime and lower ages for workers, to protect the "family farm." This agricultural exceptionalism limits the health, safety, and justice for farmworkers.

This review of the context for farmworkers in the eastern US supports two major recommendations. The first recommendation is that state agencies across the region work together to improve the consistency and quality of the information they collect and report about farmworkers. Further, more of the information that agencies have collected about farmworkers in their states needs to be made available. Making the collection of this regulatory information consistent and making existing data available will provide a more complete picture of the commonalities and variation among farmworkers. This information will provide a foundation for understanding the health and safety of farmworkers and help direct efforts needed to provide justice for farmworkers.

The second recommendation is that researchers investigating farmworkers in the eastern US better document the populations they study, their procedures for locating and recruiting participants, and their methods for collecting data. This documentation will provide a way to compare the different communities in which research is conducted. Therefore, rather than having results that are inconsistent across studies, a mechanism to appreciate the diversity of farmworkers and differences in their health and safety will be available.

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