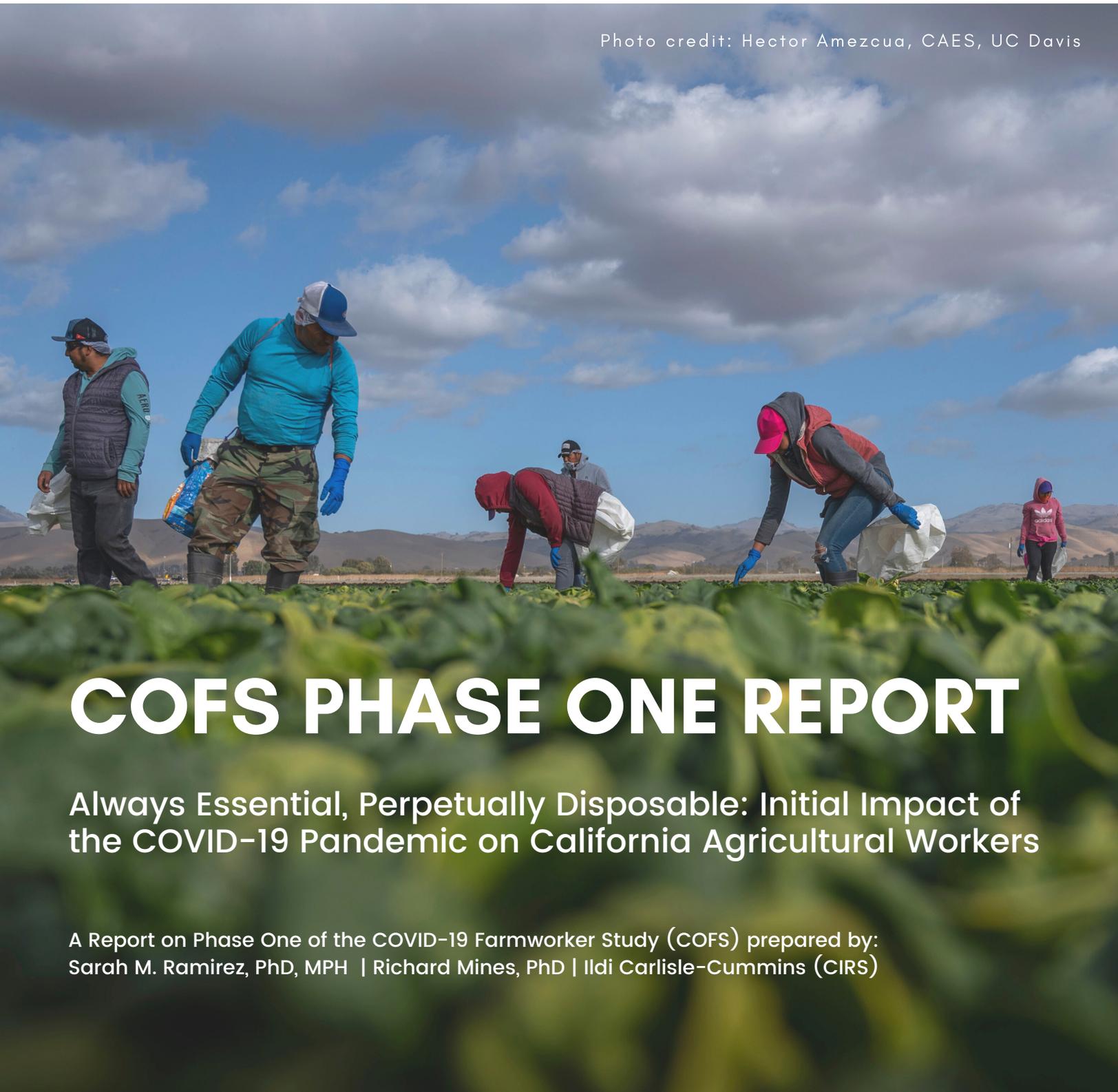




FARMWORKER STUDY

Photo credit: Hector Amezcua, CAES, UC Davis



COFS PHASE ONE REPORT

Always Essential, Perpetually Disposable: Initial Impact of the COVID-19 Pandemic on California Agricultural Workers

A Report on Phase One of the COVID-19 Farmworker Study (COFS) prepared by:
Sarah M. Ramirez, PhD, MPH | Richard Mines, PhD | Ildi Carlisle-Cummins (CIRS)

Covid-19 Farmworker Study

The COVID-19 Farmworker Study (COFS) provides critical missing information on farmworkers' abilities to protect themselves and their families during the COVID-19 pandemic. The study brings together a collective of community-based organizations, researchers and advocates to reveal information that can only be gathered directly from farmworkers who have been working during the COVID-19 pandemic.

We are using two research tools, a phone-based quantitative survey and an in-depth interview, to bring the voices of farmworkers into the public conversation about how to respond to the pandemic. COFS is also a tool for funneling resources (in the form of study funds) to community-based organizations and to workers themselves.

COFS is a collaborative research project facilitated by the [California Institute for Rural Studies](https://www.californiainstitute.org/) with participation from a wide group of community-based organizations, researchers and policy advocates. Visit www.covid19farmworkerstudy.org for a full list of project partners and supporters. The study is supported by the UC Davis Western Center for Agricultural Health and Safety, The California Endowment, The California Wellness Foundation, The 11th Hour Project of the Schmidt Family Foundation, and the San Joaquin Valley Health Fund and The Center at Sierra Health Foundation.



This project is being developed by a broad coalition of researchers and community-based organizers from across California, Oregon and Washington.

California Partners



AND A WIDE RANGE OF RESEARCHERS AND PARTNERS:

Dvera Saxton, PhD	Don Villarejo, PhD	Eric DeLeon, M.S	Sara Blanco	Lupe Martinez
Bonnie Bade, PhD	Rick Mines, PhD	Joel Diringer, JD, MPH	Mily Treviño Saucedo, M.S	Michelle Colato-Ochoa
Heather E. Riden, MA	Gail Wadsworth	Susana Matias, PhD, NST	Noe Paramo, JD	Sarah Ramirez, PhD, MPH

Oregon Partners



AND A WIDE RANGE OF RESEARCHERS AND PARTNERS:

Ronald L. Mize, PhD.	Gabriela Pérez Báez, PhD.	Don Villarejo, PhD.	Timothy M Herrera
Lynn Stephen, PhD.	Jennifer Martinez, PhD.	Carlos J. Crespo, PhD.	Eddie Kasner, PhD.

Washington Partners



AND A WIDE RANGE OF RESEARCHERS AND PARTNERS:





FARMWORKER STUDY

ALWAYS ESSENTIAL, PERPETUALLY DISPOSABLE: INITIAL IMPACT OF THE COVID-19 PANDEMIC ON CALIFORNIA AGRICULTURAL WORKERS

A Report on Phase One of the COVID-19 Farmworker Study (COFS) prepared by:
Sarah M. Ramirez, PhD, MPH | Richard Mines, PhD | Ildi Carlisle-Cummins (CIRS)



With Deep Gratitude to 51 Interviewers from the following Community Partner Organizations:



About this COFS Phase One Report: In July 2020 the COFS team released a Phase One preliminary report, based on 745 surveyed, The team offered initial recommendations for ensuring safer conditions and safety net resources for agricultural workers. Since that time, there have been some notable policy updates that we briefly summarize. The implications of some of the policies were explored in a series of in-depth interviews as part of Phase Two COFS study. Despite the policy changes and progress made in the protecting agricultural workers in agricultural worksites, this COVID-19 Farmworker Study (#COFS) report documents working and living conditions that intensified levels of risk for COVID-19 infections or severe complications from May-July 2020.

Additionally this report also highlights specific disparities and vulnerabilities experienced by Indigenous-speaking agricultural workers as well as by farmworker women.



CONTENTS

1	INTRODUCTION METHODS AND DEMOGRAPHICS
6	FROM THE FIELDS INTO THE WORKSITES <hr/> <ul style="list-style-type: none">Sanitation and HygienePrevention and Safety TrainingProvision of Masks and Mask-WearingMaintaining Safe Physical DistanceCommuting to Work
20	HOME AND HEALTHCARE IMPACTS OF COVID-19 <ul style="list-style-type: none">Loss of Work and IncomePaying for Basic NecessitiesChildcareHealthcare AccessMental Health
45	BRIEF CONCLUSIONS AND POLICY RECOMMENDATIONS

Se me hace injusto que hay personas que califican para el estímulo, y mas paga mientras [n]osotros arriesgando nuestras vidas para la comida.--

It seems unjust that there are people who qualify for the stimulus and more pay while we risk our lives for food.

-- Monica, 52, Central Coast Region

Los patrones están más preocupados por el dinero que se va perder y no por la salud de nosotros los trabajadores.

Our employers are more worried about the money that they will lose and not for our health as workers.

--Tomas 22, San Joaquin Valley Region

INTRODUCTION

On March 4, 2020, the State of California issued an emergency order intended to curtail the anticipated spread of COVID-19. By March 19, 2020 Governor Gavin Newsom issued the nation's first statewide shelter-in-place Executive Order. All businesses and services deemed non-essential were closed. Subsequently, the California Public Health Officer issued a list of "Essential Critical Infrastructure Workers," which allowed certain workers to report to job sites outside their homes. Food and agriculture were among those essential industries. This meant that agricultural workers, food processing and packing house workers would continue to labor amidst a global pandemic. Agricultural workers, who already work in one of the most dangerous industries in the country, were subject to a new policy protecting national infrastructure, and had "a special responsibility to maintain[its] normal work schedule."¹ As essential workers, agricultural workers were required to participate in this critical food-producing national infrastructure, and were exempt from preventive practices of sheltering in place or working from home recommended for the general population.

Being deemed essential did not insulate agricultural workers from the brunt of the pandemic. Instead workers confronted changing guidelines, mixed messages, poor workplace protections, exposures, agriculture-related outbreaks, as well as long-documented employer resistance to record, report and respond to workplace injuries and injuries perceived as costly

¹ Krebs CC, Memorandum on identification of essential critical infrastructure workers during COVID-19 response. 2020 Available at : <https://www.cisa.gov/sites/default/files/publications/CISA-Guidance-on-Essential-Critical-Infrastructure-Workers-1-20-508c.pdf> Accessed November 5, 2020

and time consuming.^{2,3,4,5,6,7} With disproportionate rates of COVID-19 infection and death rates impacting certain communities-- low wage workers, racial minorities, immigrant communities, and in particular agricultural workers--the data make visible “structural violence” that impact access to social, economic, and health resources for these communities.^{8,9,10,11,12,13,14,15,16} In particular, clusters of COVID-19 infection among food industry workers, expose long standing precarious conditions for agricultural workers.¹⁷ Even if agricultural workers had been able to shelter in place or work from home, COVID-19 safety precautions were inadequate to address the structural conditions that place agricultural workers at increased health risk even under “normal” non-pandemic conditions.

Most of the estimated 800,000 California agricultural workers rarely hold full-time year-round work-- and earn an average annual income of less than \$18,000.^{18,19} Only 37% of California’s crop agricultural workers are estimated to have health insurance.²⁰ Agricultural workers are exposed to crowded housing, shared transportation, and work in close proximity to others, and lack access to adequate water or sanitation supplies. As a result of these risks and exposures, many fear that workers can spread disease from work to home and from home to

² Leigh JP, Stephen A. McCurdy, Marc B. Schenker. Costs of Occupational Injuries in Agriculture. Public Health Reports. 2001;116. <https://journals.sagepub.com/doi/pdf/10.1093/phr/116.3.235>

³ Harrison J. ‘Accidents’ and invisibilities: Scaled discourse and the naturalization of regulatory neglect in California’s pesticide drift conflict. Political Geography. 2006;25(5):506-529.

⁴ Holmes S. Farmworkers are dying, COVID-19 cases are spiking, and the food system is in peril. In: Salon.com; 2020. Accessed June 2, 2020

⁵ Wozniacka G. As Hundreds of Farmworkers Test Positive for COVID-19, Many Remain Unprotected. In:2020. Accessed May 14, 2020

⁶ Lurie J. “Everyone Is Tired of Always Staying Silent”: Inside a Worker Rebellion in the Central Valley. In:2020.

⁷ Ho V. ‘The well’s been poisoned’: how mixed messaging on Covid battered California’s Central Valley. The Guardian. August 19, 2020.

⁸ Quesada J, Hart LK, Bourgois P. Structural vulnerability and health: Latino migrant laborers in the United States. Med Anthropol. 2011;30(4):339-362.

⁹ Chen JT, Krieger N. Revealing the Unequal Burden of COVID-19 by Income, Race/Ethnicity, and Household Crowding: US County Versus Zip Code Analyses. J Public Health Manag Pract. 2021;27 Suppl 1, COVID-19 and Public Health: Looking Back, Moving Forward:S43-S56.

¹⁰ Hayward SE, Deal A, Cheng C, et al. Clinical outcomes and risk factors for COVID-19 among migrant populations in high-income countries: a systematic review. In. medRxiv2020.

¹¹ Gulcan Onel SS, Jeanne-Marie Stacciarini, and Antonio Tovar-Aguilar. COVID-19 Risk Factors Vary by Legal Status among Florida Crop Workers. Choices Magazine. 2020;35(3).

¹² Pan D, Sze S, Minhas JS, et al. The impact of ethnicity on clinical outcomes in COVID-19: A systematic review. EClinicalMedicine. 2020;23:100404.

¹³ Bassett M, Chen J, Krieger N. The Unequal Toll of COVID-19 Mortality by Age in the United States: Quantifying Racial/ Ethnic Disparities. Cambridge, MA: Harvard Center for Population and Development Studies; 2020. HCPDS Working Article Volume 19, Number 3.

¹⁴ Haley E, Caxaj S, George G, Hennebry J, Martell E, McLaughlin J. Migrant Farmworkers Face Heightened Vulnerabilities During COVID-19. Journal of Agriculture, Food Systems, and Community Development. 2020:1-5.

¹⁵ Laurencin CT, McClinton A. The COVID-19 Pandemic: a Call to Action to Identify and Address Racial and Ethnic Disparities. J Racial Ethn Health Disparities. 2020;7(3):398-402.

¹⁶ Baker MG. Nonrelocatable Occupations at Increased Risk During Pandemics: United States, 2018. Am J Public Health. 2020;110(8):1126-1132.

¹⁷ Ridley W, Devadoss S. The Effects of COVID-19 on Fruit and Vegetable Production. Appl Econ Perspect Policy. 2020.

¹⁸ Martin PL, Hooker B, Akhtar M, Stockton M. How many workers are employed in California agriculture? Calif Agric. 2017;71(1):30–34. doi:10.3733/ca.2016a0011

¹⁹ Martin P, Hooker B, Stockton M. Employment and earnings of California farmworkers in 2015. Calif Agric. 2017;72(2):107–113. <http://calag.ucanr.edu/Archive/?article=ca.2017a0043>.

²⁰ Carroll D California crop worker characteristics: preliminary 2015–2016 findings from the National Agricultural Workers Survey; 2017.

work.^{21,22,23} In addition to these barriers, many agricultural workers lack access to a critical, albeit fragmented, social safety net made up of state and federal protections, health care and social services. Even the CARES Act overlooked the needs of undocumented and mixed-status agricultural workers at higher risk and vulnerability.^{24,25}

Along with perpetually low wages, underemployment, abuse in the food and farm workplace, and high levels of chronic poverty and food insecurity, agricultural workers are caught within immigration debates. An estimated 90% of California agricultural workers are foreign born, 85% from Mexico and 5% from Central America. Approximately 57% are unauthorized to work in the United States.²⁶ Data on agricultural workers who identify as indigenous and who speak indigenous languages from Mexico are lacking, but a large population of these indigenous workers live in California.²⁷ In recent years, many agricultural workers who are already excluded from numerous social and labor protections, have experienced stricter anti-immigrant policies, increased immigration enforcement, rollback of DACA, and the implementation of the February 24, 2020 “Public Charge” policy. This Public Charge policy has had a deep impact in immigrant communities that increase their vulnerabilities as immigrants, unauthorized immigrants, or members of mixed status families.^{28,29,30,31,32} The impact has been severe as immigrants withdrew from social services and forfeited pandemic-specific relief for fear that participation would undermine the possibility of legal status in the future.^{33,34} In fact, since the onset of the pandemic, these anti-immigrant

²¹Mines, Richard, et al. Farmworker Housing in Salinas Pajaro Laborshed: CIRS Publication, 2018.

²² Marsh B, Milofsky C, Kissam E, Arcury TA. Understanding the Role of Social Factors in Farmworker Housing and Health. *New Solut.* 2015;25(3):313-333.

²³ Quandt SA, Brooke C, Fagan K, Howe A, Thornburg TK, McCurdy SA. Farmworker Housing in the United States and Its Impact on Health. *New Solut.* 2015;25(3):263-286.

²⁴ Wilson, F.A. and Stimpson, J.P., 2020. US Policies Increase Vulnerability of Immigrant Communities to the COVID-19 Pandemic. *Annals of Global Health*, 86(1), p.57. DOI: <http://doi.org/10.5334/aogh.2897>

²⁵ Garcini LM, Domenech Rodriguez MM, Mercado A, Paris M. A tale of two crises: The compounded effect of COVID-19 and anti-immigration policy in the United States. *Psychol Trauma.* 2020;12(S1):S230-S232.

²⁶Calculations from the public use tape 2014 to 2016 California NAWS, done by Richard Mines using weight=pwtycrd.

²⁷ According to the Indigenous Farmworker Study of 2008, a conservative estimate of 16% of California farmworkers were found to be indigenous-speaking Mexicans. More information on this population will be presented below.

²⁸ Hamutal Bernstein JG, Dulce Gonzalez, and Jahnavi Jagannath. Immigrant-Serving Organizations’ Perspectives on the COVID-19 Crisis. In: Urban Institute; 2020.

²⁹ Makhoul MD, Sandhu J. Immigrants and Interdependence: How the COVID-19 Pandemic Exposes the Folly of the New Public Charge Rule. In. 115 Northwestern University Law Review Online __ (2020), 2020.

³⁰ Pino LJ. Immigration policy and perception impacts on SNAP access and eligibility: a view from the field. *Renewable Agriculture and Food Systems.* 2020;35(4):416-419.

³¹ Kathleen R. Page MD, Maya Venkataramani, M.D., Chris Beyrer, M.D., M.P.H., and Sarah Polk, M.D., M.H.S. . Undocumented U.S. Immigrants and Covid-19. *The New England Journal of Medicine.* 2020;382(21):e62.

³² Hamutal Bernstein DG, Michael Karpman, and Stephen Zuckerman. Amid Confusion over the Public Charge Rule, Immigrant Families Continued Avoiding Public Benefits in 2019. In: Urban Institute; 2020. Available at: https://www.urban.org/sites/default/files/publication/102221/amid-confusion-over-the-public-charge-rule-immigrant-families-continued-avoiding-public-benefits-in-2019_3.pdf Accessed November 5, 2020

³³ In March 2020, the federal administration announced that COVID-19 related testing, treatment, and prevention would not be considered in the public charge test, but the damage may have already been done.

³⁴ Page KR, Venkataramani M, Beyrer C, Polk S. Undocumented U.S. Immigrants and Covid-19. *New England Journal of Medicine.* 2020;382(21).

policies have continued and intensified and contribute to worsening vulnerabilities and exposures for immigrant populations.^{35,36}

Survey Methods

COFS has been conducted in two phases: Phase One (survey) documented immediate impacts of COVID-19 in agricultural workers and Phase Two (in-depth follow-up interviews) with agricultural workers tracked social, economic and mental health impacts of the pandemic. CIRS received IRB approval from both Phases from IntegReview. COFS Phase One took place between May 19 and July 20, 2020 and conducted 915 surveys with a team of 51 surveyors managed by meaningful collaboration with six community-based organizations. The COFS California Survey sample is not statistically representative of the agricultural worker population. Instead, COFS employed a network-based snowball selection method in partnership with community-based organizations. However, a comparison of COFS survey participant demographics with the National Agricultural Workers Survey (considered the gold standard for agricultural worker demographic characteristics) reveals that the COFS survey sample mirrors the characteristics of the agricultural worker population overall, with a few important deviations. Places where COFS deviates from NAWS data include: percentage of workers with children in the household, percentage of married workers, and the distribution of state of origin of workers. A discussion of the methodology and important variations from NAWS are available in Report Brief #2 COFS Survey Methods and Demographics available on the COFS website.³⁷

Participant Characteristics

The COFS sample of 915 participants included 465 men (52%) and 435 women (48%).³⁸ The median age for both men and women was 38 years. Among COFS agricultural workers, 71% are married and 61% of have children in their care, under 12 years old and living in their household. **Other demographic characteristics are summarized in Table 1.**³⁹ Please note --all agricultural workers quoted in this report have been de-identified; to protect their identities we have used pseudonyms.

³⁵ Garcini LM, Domenech Rodriguez MM, Mercado A, Paris M. A tale of two crises: The compounded effect of COVID-19 and anti-immigration policy in the United States. *Psychol Trauma*. 2020;12(S1):S230-S232.

³⁶ Cholera R, Falusi OO, Linton JM. Sheltering in Place in a Xenophobic Climate: COVID-19 and Children in Immigrant Families. *Pediatrics*. 2020;146(1).

³⁷http://covid19farmworkerstudy.org/survey/wp-content/uploads/2020/10/COFS-Demographics-Brief_FINAL.pdf

³⁸ We could not identify the gender in 15 cases.

³⁹ The California COFS survey did not ask interviewees to self-identify by indigenous group, however, this total represents the respondents who preferred to complete the survey in an indigenous language.

TABLE 1: CHARACTERISTICS OF 915 CALIFORNIA AGRICULTURAL WORKERS BASED ON COFS SURVEY MAY - JULY 2020

		N (%)
Gender		
	Male	465 (51.7)
	Female	435 (48.3)
Indigenous*		
	Indigenous	150 (16.4)
	Non-indigenous	765 (83.6)
Age Group		
	18-25	92 (10.2)
	26-39	406 (45.2)
	40-45	251 (27.9)
	50+	149 (16.6)
National Origin		
	United States	38 (4.3)
	Mexico	834 (93.3)
	Central America	22 (2.5)
Time in the US		
	0 - 5	81 (9.4)
	6 - 10	102 (11.8)
	11 - 14	137 (15.8)
	15 - 25	398 (45.9)
	26 or more	148 (17.1)
Region		
	Northern California	26 (2.8)
	San Joaquin Valley Region	535 (58.6)
	Imperial Valley/Inland	73 (14.2)
	Southern California/San Diego	166 (18.2)
	Central Coast	113 (12.4)
Employer Type		
	Farm Labor Contractor	492 (57.5)
	Grower/Farmer	286 (33.4)
	Packing House	78 (9.1)

FROM THE FIELDS TO THE WORKSITES

When Governor Newsom announced COVID-19 stay-at-home orders, some farm operations closed their facilities in an attempt to curtail the spread of COVID-19. By the time they resumed operations some employers had implemented precautions such as, installing handwashing facilities, adding toilets, increasing cleaning frequency, and were offering other safety and prevention resources at worksites. This report details the conditions present at worksites May - July 2020.

Sanitation & Hygiene

In general, sanitary conditions and access to sanitation facilities are necessary to reduce the risk of illness and transmission of infection among workers at all times, but sanitation, and in particular handwashing and disinfecting surfaces, were indispensable. While previous research has found high rates of compliance for sanitation facilities at agricultural worksites, overall cleanliness and conditions of those facilities as well as the lack of washing supplies have remained a concern.^{40,41,42,43} **Yet, among COFS respondents, nearly half (42%) reported that no changes had taken place with regards to the number of bathrooms or the conditions of the bathrooms.** Respondents who reported no changes in hygiene or sanitation even shared that many conditions remained the same to pre-pandemic conditions.

Los lavan cada tercer día como antes de la pandemia.

They wash them every third day same as before the pandemic

--Luz Maria 54, San Joaquin Valley Region

[No he visto] cambios en las condiciones, no lavan los baños hasta cada 8 días o tardan días en limpiarlos.

I haven't seen any changes in conditions, they don't clean the bathrooms once a week or they delay days in cleaning them.

--Gonzalo 63, San Joaquin Valley Region

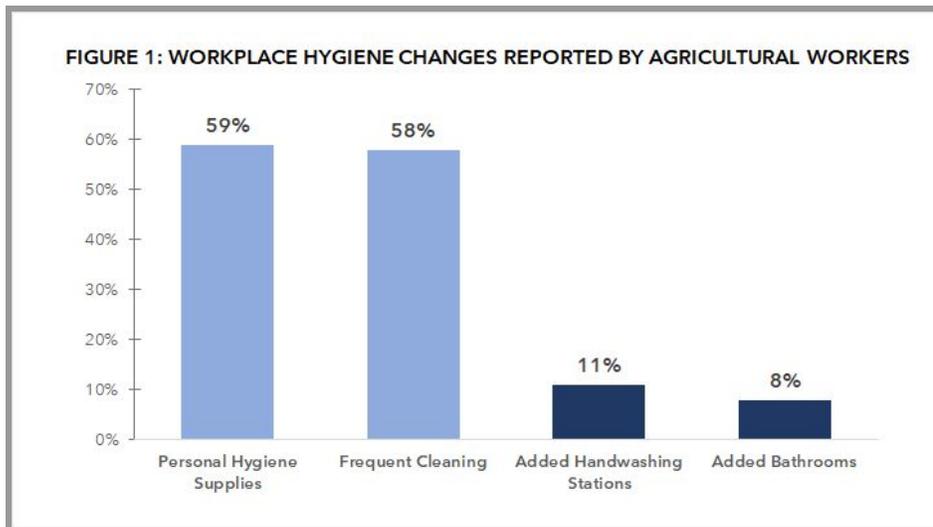
⁴⁰ Whalley LE, Grzywacz JG, Quandt SA, et al. Migrant farmworker field and camp safety and sanitation in eastern North Carolina. *J Agromedicine*. 2009;14(4):421-436.

⁴¹ Walton AL, LePrevost C, Wong B, Linnan L, Sanchez-Birkhead A, Mooney K. Observed and self-reported pesticide protective behaviors of Latino migrant and seasonal farmworkers. *Environ Res*. 2016;147:275-283.

⁴² Vela-Acosta MS, Bigelow P, Buchan R. Assessment of occupational health and safety risks of farmworkers in Colorado. *Am J Ind Med*. 2002;Suppl 2:19-27.

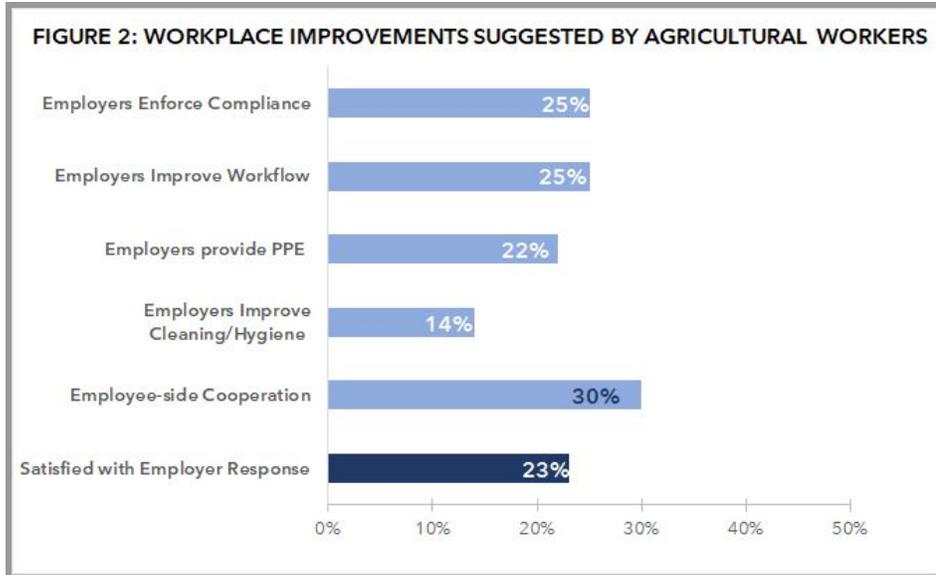
⁴³ Pena AA, Teather-Posadas ER. Field Sanitation in U.S. Agriculture: Evidence from NAWS and Future Data Needs. *J Agromedicine*. 2018;23(2):123-133.

Among those who reported hygiene improvements, more than half of the responses were due to improved cleaning practices and provision of supplies (such as towels, soap, disinfectant). **However, only 11% of these worksite hygiene changes were due to additional handwashing stations or additional bathrooms (8%) (Figure 1).**



Overall, only 23% of COFS respondents were satisfied with employer responses to adapting worksite conditions for the pandemic (Figure 2). Instead, agricultural workers suggested many ways that employers could improve workplace conditions for COVID-19 prevention, including enforcing compliance of COVID-19 guidelines (25%), improving the workflow to maximize physical distancing at work (25%), and providing PPE and COVID-19 information (22%).⁴⁴ While the large majority of these farmworker suggestions focused on employer-driven changes, agricultural workers also acknowledged the role they themselves play in workplace safety. Thirty percent of respondents noted that their co-workers could improve their adherence to COVID-19 precautions (employee-side cooperation) to improve the conditions at the worksite.

⁴⁴ Several open-ended questions asked workers about COVID-19 precautions for the worksite. These questions included: “What changes can take place at work to ensure physical distancing?” “What safety measures can be made at your worksite?” “What other comments would you like to share about your worksite.” The data from these three questions were combined and coded to generate categories of worksite recommendations.



Some agricultural workers noted they wanted to see improvements made during the pandemic as a permanent feature of the worksite:

[Los baños] están más limpios, les ponen desinfectante y jabón. [Quisiera] que siempre fuera así con precaución y que siempre laven los baños mas seguido

The bathrooms are cleaner, they have disinfectant and soap. I wish it were always like this with precautions and that bathrooms were always cleaned more frequently.

--Juan Manuel 40, San Joaquin Valley Region

Que siempre tengan agua, con cloro, y antibacteriales. Y yo lo meteria siempre. Antes no nos tenía eso

They should always be water, bleach and disinfectant. And I would always include it. Previously those were not available.

--Javier, no age, San Joaquin Valley Region

Despite employer improvements to cleaning and provisions of supplies, 14% of respondents suggested better cleaning and hygiene practices and offered some of the following comments:

Que pongan más jabón y agua porque a veces no hay agua y no nos dejan usar el baño por lo mismo

They should place more soap and water because sometimes there isn't any water and they don't let us use the bathroom for that very reason.

--Marta, 36, San Joaquin Valley Region

Nos habían dicho que iban a limpiar todos los días los baños pero no lo han hecho. Los limpian como cada tercer día

We had been told they were going to clean the bathrooms daily, but it hasn't been done. They clean them every three days.

--Gerardo, 41, San Joaquin Valley Region, Mixtec Speaker

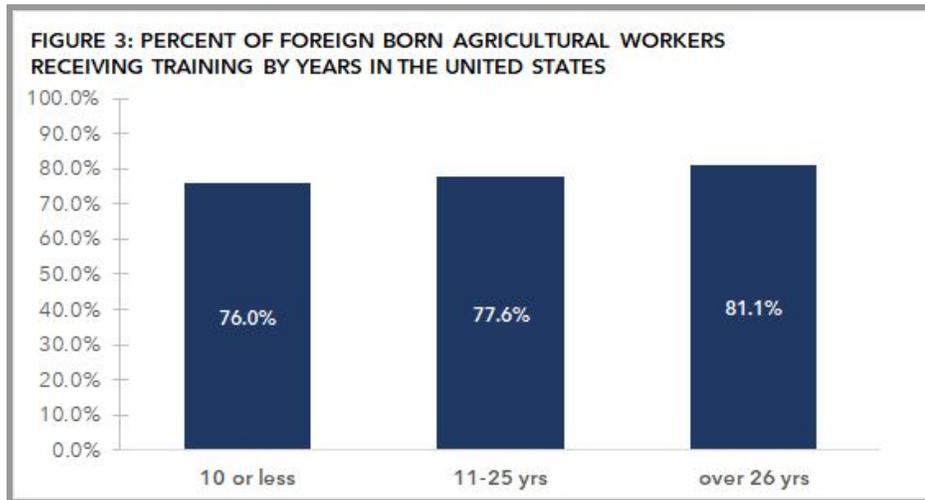
They should keep the bathroom clean and have anti-bacterial soap. They need to have more restrooms and places to wash our hands. Since we work with fruits they should have hand sanitizers for us because what happens if, through contact, we spread the virus to the fruits

--Lupe 43, Southern California Region

Prevention and Safety Training

Training is considered a protective factor in promoting health and injury prevention. In March, California's Division of Occupational Safety and Health (Cal/OSHA) required employers to update and identify the responsible parties charged with training employees about coronavirus, but the sudden arrival of the pandemic left many unprepared to respond. On average most COFFS agricultural workers (85%) received some type of training, but employees who worked for Farm Labor Contractors (FLC's) were less likely (84.3%) to have received training than employees of Packing Houses (89.7%), and those hired directly by growers (86.7%). Agricultural workers who received training were also more likely to have noted improved hygiene at their worksites (52.6%) than those who did not see improved hygiene (32.5%). Gender and age did not reveal large differences in training. **However, among the foreign born agricultural workers, training increased slightly among the agricultural workers with longer time in the US (81%) as compared with newcomers (76% to 77.8%) (Figure 3).** While more experienced immigrants have longer tenure at their jobs and that tenure may account for their greater access to training, COFS responses seem consistent with other

research that finds lower training rates among recently arrived or undocumented agricultural workers.^{45,46,47}



Language and literacy barriers have long been acknowledged as one of the major risk factors for illness and injury, particularly for a diverse agricultural workforce with limited English skills. Yet, traditional training methods (presentations and handouts are often used) even though they have been less effective with non-English-speaking or low-literacy workers.⁴⁸ Simply translating safety information from English into another language or using handouts and flyers or worksheets have not been adequate.⁴⁹ As a result, researchers have argued that safety training should incorporate methods such as pictograms, illustrations, and hands-on exercises that overcome literacy, language, or cultural differences.⁵⁰ Indeed, past research has shown that training effectiveness varies, but some training has been positively associated with health-promoting behaviors-- including the use of PPE or handwashing, as long as supplies were provided by employers.^{51,52}

While the COFS survey did not collect details on training received with regards to language, understanding, or effectiveness, **a large number of COFS agricultural workers**

⁴⁵ Villarejo D, McCurdy SA, Bade B, Samuels S, Lighthall D, Williams D, 3rd. The health of California's immigrant hired farmworkers. *Am J Ind Med.* 2010;53(4):387-397.

⁴⁶ Baron S, Chen X, Steege A. Occupational health of hired farmworkers in the United States; National Agricultural Workers Survey occupational health supplement, 1999. 2009.

⁴⁷ Whalley LE, et al. (2009)

⁴⁸ Whalley LE, Grzywacz JG, Quandt SA, et al. Migrant farmworker field and camp safety and sanitation in eastern North Carolina. *J Agromedicine.* 2009;14(4):421-436.

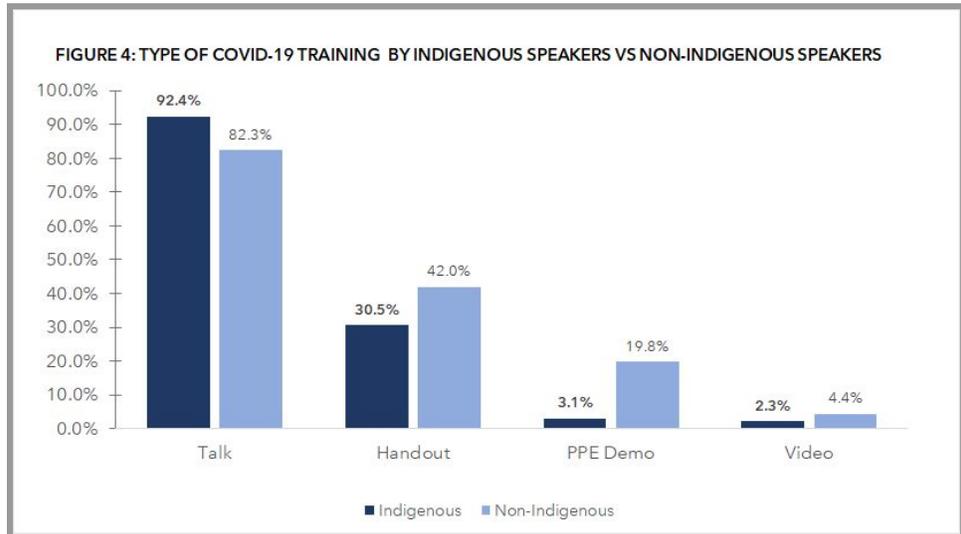
⁴⁹ Arcury TA, Estrada JM, Quandt SA. Overcoming language and literacy barriers in safety and health training of agricultural workers. *J Agromedicine.* 2010;15(3):236-248.

⁵⁰ Caffaro F, Bagagiolo G, Micheletti Cremasco M, Vigoroso L, Cavallo E. Tailoring Safety Training Material to Migrant Farmworkers: An Ergonomic User-Centred Approach. *Int J Environ Res Public Health.* 2020;17(6).

⁵¹ Levesque DL, Arif AA, Shen J. Effectiveness of pesticide safety training and knowledge about pesticide exposure among Hispanic farmworkers. *Journal of occupational and environmental medicine.* 2012;54(12):1550-1556.

⁵² Walton AL, LePrevost C, Wong B, Linnan L, Sanchez-Birkhead A, Mooney K. Observed and self-reported pesticide protective behaviors of Latino migrant and seasonal farmworkers. *Environ Res.* 2016;147:275-283.

who received COVID-19 related training received a talk (82.8%), less than half received an informational sheet (39.9%). Far fewer (16.7%) COFS agricultural workers received any training using visual approaches such as a video or demonstration on personal protective equipment (PPE). PPE training was low for all employers, but FLC's were far less likely (16%) to offer PPE training than Packing House Employers (25%) and Growers (23%). Indigenous-speaking agricultural workers may also have experienced a less effective training program than Spanish-speaking agricultural workers since these presentations were likely to have been in Spanish, their second language. **Best practices may suggest a visual demonstration for this audience, yet only 3% of the COFS Indigenous-speaking agricultural workers reported that they received PPE training compared to 19.8% of Non-Indigenous Speakers (Figure 4).** Indeed COFS agricultural workers spoke to the language barriers and literacy levels when they requested that information be available in appropriate languages as well as in non-written formats.



“Que den entrenamientos en español y que sea en forma de charla (porque no todos leemos). “

They should provide training in Spanish and in an oral chat because not all of us read.

--Pedro, 64, Southern California Region

“Los patrones tienen que dar más información sobre COVID-19 para que la gente sepa que es algo en serio. La gente tiene que ser más consciente de esta epidemia. “

Employers should give more information about COVID-19 so that people recognize this is serious. People need to be conscientious of this epidemic.

--Rosario, 50, San Joaquin Valley Region, Zapotec Speaker

Not only did COFS agricultural workers request additional training, they also requested transparent communication from employers about illnesses and outbreaks at the worksite.

Some workers noted that the lack of information left them with worries, having to fend for themselves, and seek information from elsewhere.

["No creo] que el empaque esté cuidando mucho a los trabajadores ya que en otros de los departamentos del empaque se escuchaba que estaban algunos enfermos. Eso causaba miedo..."

I don't believe that this packing house is doing much to take care of workers since in other departments within the packing house we're hearing that there were some infected workers. That's scary

--Antonio, 43, San Joaquin Valley Region

Que nos digan cuando alguno de nuestros compañeros sale positivo COVID-19. Porque no nos dicen solamente nos damos cuenta porque ya no viene a trabajar y no mandan hacerle la prueba a las personas que estuvieron en contacto. No quieren que digamos nada

They should tell us when one of our co-workers is positive for COVID-19. Because they don't tell us anything and we only find out because they don't show up for work. They don't send to get tested, those of us who were in contact. They don't want us to say anything.

--Francisca 23, San Joaquin Valley Region

Los trabajadores debemos de tener cuidado y mantener la distancia ya que el jefe ya nos dio entrenamiento e información.

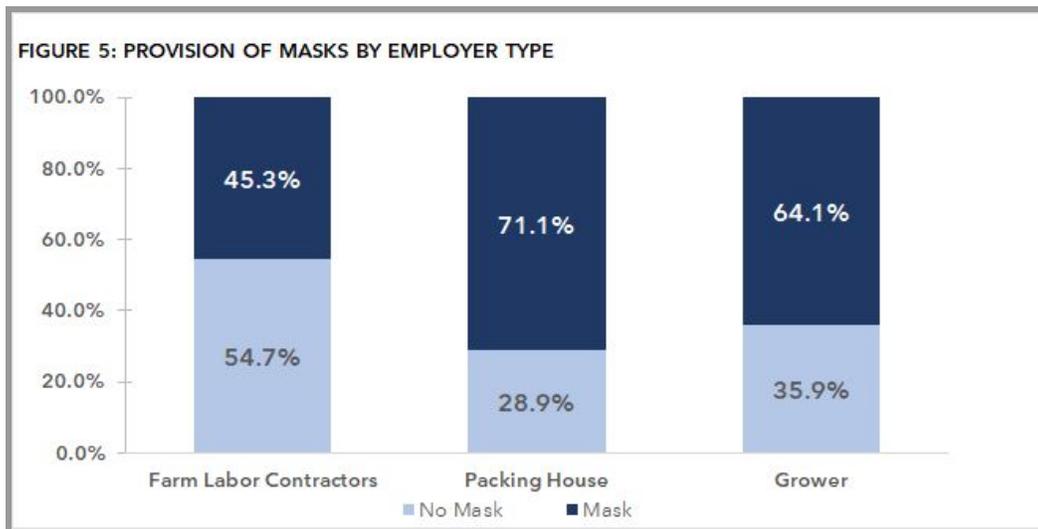
We as workers should take precautions and maintain physical distance since our employer has not given us any training or information.

-- Martin, 50, San Joaquin Valley Region

Provision of Masks & Mask Wearing

While some agricultural employers are making efforts to protect workers, agricultural workers reported that only slightly more than half (54%) of worksites provided face-coverings. A significant number (43%) of worksites did not provide face-coverings at all and a smaller number (4%) of worksites provided face coverings on a short term basis or the masks provided did not meet the needs of the entire workforce. For example, numerous workers reported receiving masks one time over the course of several weeks or only once at the beginning of the pandemic, but additional masks had not been provided. **Mask provision varied by employer type; packing houses, where workers are more likely to work closer together, provided more masks (71.1%) than did growers (64.1%) or farm**

labor contractors (45.3%) (Figure 5). The variability of mask provision may suggest a need to tailor employer education by employer type.



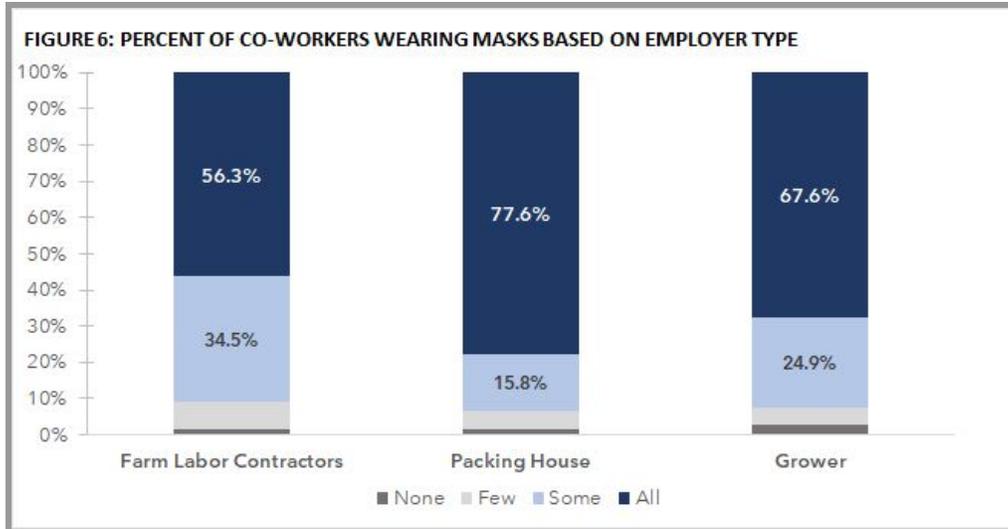
Mask-wearing, which has been another consistent preventive behavior throughout the pandemic, meant that agricultural workers whose employers did not provide masks, carried the burden of acquiring their own. Among workers who did not receive masks provided by their employers, 94% provided their own. Agricultural workers felt as if they had little options because without a mask they could not work:

No, donde yo trabajo no dan mascarilla. Nos dicen que cada quien tiene que llevar el suyo. Nos dicen que si nosotros queremos trabajar tenemos que llevarlo si no no hay trabajo. por necesidad de trabajo nosotros compramos. A veces no son tan baratos es dificil conseguirlos.

No, where I work masks are not given. They tell us that everyone has to bring their own. They tell us if we want to work, we have to bring one and if not, there is no work. Out of necessity for work, we buy them. Sometimes they aren't cheap and it's difficult to acquire them.

--Gerardo 36, Southern California Region, Mixtec Speaker

Not only did mask provision vary by employer type, mask wearing behaviors also varied by employer. Nearly all (96%) of all workers say reported they wear masks, with 85% saying they wear them all the time. **Packing house workers were also more likely to report their co-workers wearing masks all the time (77.6%) compared to FLC (56.3%) or direct growers (67.6%) (Figure 6).**



These farmworker behaviors may reflect the provision of masks but they may also reflect workplace attitudes, perceived severity, enforcement by employers, or pressure by peers.⁵³ Understanding beliefs and behaviors among agricultural workers and the three types of employers is necessary for effective education and outreach purposes.

Maintaining Safe Physical Distance

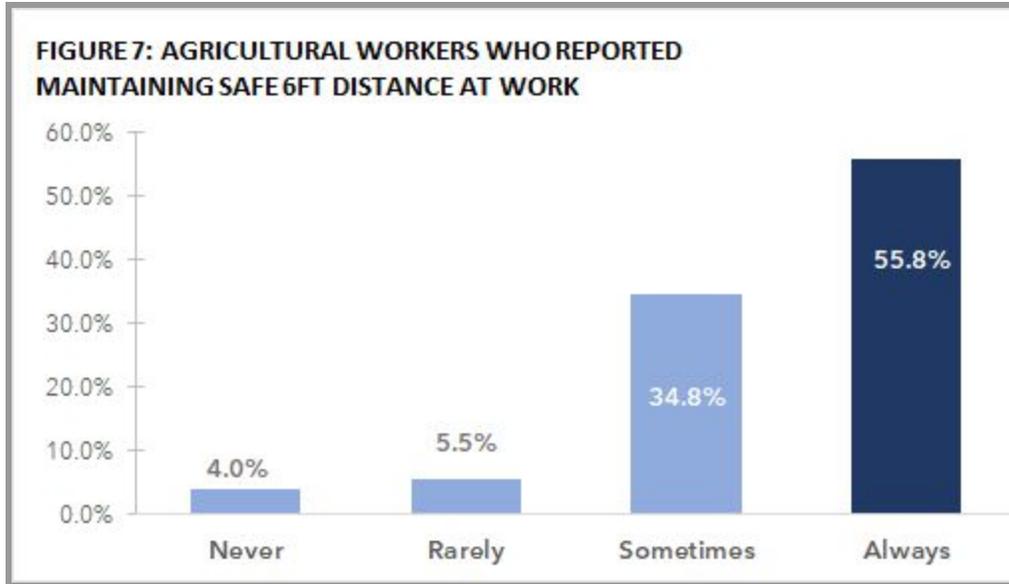
Physical distancing has also been an important measure undertaken to control the spread of COVID-19. The difficulty of distancing is one important factor that made agricultural worksites and food-processing facilities COVID-19 hotspots. Agricultural workers often work in close proximity or stand side-by-side during long shifts on production lines, along conveyor belts, and sometimes even during field work. Implementing distancing practices, offering training, and providing protective supplies (disinfectants, masks, etc) are sometimes thought to increase operational costs and reduce efficiency in labor intensive jobs.⁵⁴ Additional strategies such as spreading crews out along a conveyor belt or reducing crew sizes can reduce the spread of the virus, but also lower productivity.⁵⁵ However given the number of outbreaks in food and farm production areas, new approaches within agricultural worksites will be needed to overcome the current COVID-19 pandemic and prepare for future crises.

Slightly more than half of the COFS agricultural workers (55.8%) reported that they are always able to stay 6 feet apart from one another (Figure 7).

⁵³ Quandt SA, LaMonto NJ, Mora DC, Talton JW, Laurienti PJ, Arcury TA. COVID-19 Pandemic among Latinx Farmworker and Nonfarmworker Families in North Carolina: Knowledge, Risk Perceptions, and Preventive Behaviors. *Int J Environ Res Public Health*. 2020;17(16).

⁵⁴ Farnsworth D. U.S. COVID-19 Policy Affecting Agricultural Labor. *Choices Magazine*. 2020;35(3).

⁵⁵ Martin P. COVID-19 and California farm labor. *California Agriculture*. 2020;74(2):67-68.



A recent UC Berkeley study found similar rates of insufficient physical distancing.⁵⁶ COFS agricultural workers who were able to maintain safe distances reported several best practices, including: tree spacing, alternating assignments for rows in a field, assigning only two people per row, tape-marked distances and reducing personnel.

One packing house worker commented on the favorable safety measures taking place at his worksite:

[Nos estamos] sacrificando en el trabajo. Hay pendiente ...han puesto vitrinas de acrílico para que los trabajadores guarden distancia entre ellos, pero aunque quisieran poder siempre estar lejos a veces si no pueden guardar la distancia. En [mi] trabajo también tienen una enfermera que está viendo si tienen temperatura (fiebre) antes de entrar. Han dado mascarillas y aumentado los baños y lavamanos.

We are sacrificing ourselves on the job. There's worry....they've placed acrylic barriers so that workers are able to maintain distance between them. At my job they've also had a nurse who is checking temperatures for fever before entering. They've given masks and increased bathrooms and hand washing stations.

--Manuel, 45, San Joaquin Valley Region

⁵⁶ Eskenazi B, Mora AM, Lewnard J, Cuevas M, Nkowcha O. Prevalence And Predictors Of Sars-Cov-2 Infection Among Farmworkers In Monterey County, Ca. Uc Berkeley School Of Public Health Clinica De Salud Del Valle De Salinas;2020.

Unfortunately, maintaining safe physical distance was not possible for everyone throughout the entire workday. Agricultural workers also recognized that distancing was more challenging when harvesting row crops, completing packing house work, or attending meetings. As a result, a significant minority (9.5%) said they “rarely” or “never” maintain 6 feet distance from their co-workers. Not surprisingly, vegetable workers were more likely to be required to work in close proximity to their coworkers more than workers in other crops. The remaining (34.8%) of COFS agricultural workers reported keeping the 6 ft distance from co-workers only “sometimes.”

Commuting to Work

Even if worksite safety precautions had been present for all, some workers thought their efforts would be ineffective in the face of car-sharing and transportation systems (raiteros), which place them at high risk for exposure. One frustrated worker shared that taking personal precautions was futile, given the lack of other safe practices at the worksite and on their commute to and from work:

“En [mi] trabajo no están haciendo mucho por cuidar a los trabajadores. Al comienzo de la pandemia había hasta 6 cuadrillas y casi no limpiaban los baños. No [nos]dieron mascarillas. A las personas les piden que guarden distancia pero [mi] mayordomo solo trae una casita de sobra para todos y es imposible guardar 6 pies de distancia ...cuando necesitan la sombra para comer o en hora de descansos ya que hace mucho calor... No hay antibacterial. Y aunque [nos] recuerdan todas las mañanas que mantengan distancia y tengan cuidado no limpian los baños seguidos o les dan lo necesario para cuidarse.... de que les sirve cuidarse en el trabajo si hay personas que por necesidad van como 8 personas en un van para el trabajo y no tienen mucho espacio entre ellos....

At my work there isn't much that is being done to take care of workers. At the beginning of the pandemic there were up to 6 crews in the fields and they weren't cleaning the bathrooms. They didn't give us any masks. All people are asked to keep distance but my field manager only brings one small house (canopy) for everyone and it's impossible to keep 6 feet of distance when we need the shade when we eat or take a break since it's so hot. There isn't any antibacterial disinfectant. And even though they remind us every morning to maintain distance and be safe, they don't clean the bathrooms often and they don't offer what we need to be safe....what's the point of being safe at work when there are people who, out of necessity, travel 8 people in a van to work and there isn't any distance in between them.

--Antonia, 44, San Joaquin Valley Region

Concerns with transportation-related exposures led many COFS agricultural workers to intentionally avoid larger ride-sharing vehicles during the pandemic.⁵⁷ COFS agricultural workers traveled a great deal more in cars, both belonging to themselves and to others (91%), than in larger vehicles. Only 6% go to work in vans and 2% in buses. Overall, 65% of COFS agricultural workers reported commuting in their own vehicle, 26% with raiteros, 6% with friends/relatives/coworkers, 3% with employers, and 1% with farm labor contractors. COFS agricultural workers shared some of the ways in which the pandemic forced them to make changes in their commutes:

Antes tenia [mi] carro lleno de raiteros (4 raiteros). Pero por el virus, ahora nada mas llev[o] a una amiga de familia .

Previously I used to have my car full of riders (4 riders). But because of the virus, now I only take one family friend.

-- Alejandrina, 50, San Joaquin Valley Region, Mixtec Speaker

En otro años he visto más vanes con raiteros pero ese año no. Casi toda la gente lleva sus propios carros.

In past years I've seen more vans with riders, but this year, no. Almost all the people take their own cars.

--Carmen, 49, San Joaquin Valley Region

Porque estoy embarazada, yo no tengo raiteros. Ahorita estoy tomando mucho cuidado y no deajo que cualquiera se suba a mi carro para proteger a mi niño.

Because I'm pregnant, I don't have any riders. Right now I'm being very careful. I don't let just anyone get into my car out of concern for my child.

-- Veronica 20, Central Coast Region, Otomi Speaker

Despite relying on shared driving situations, some agricultural workers attempted to take precautions, even if others in the vehicle did not.

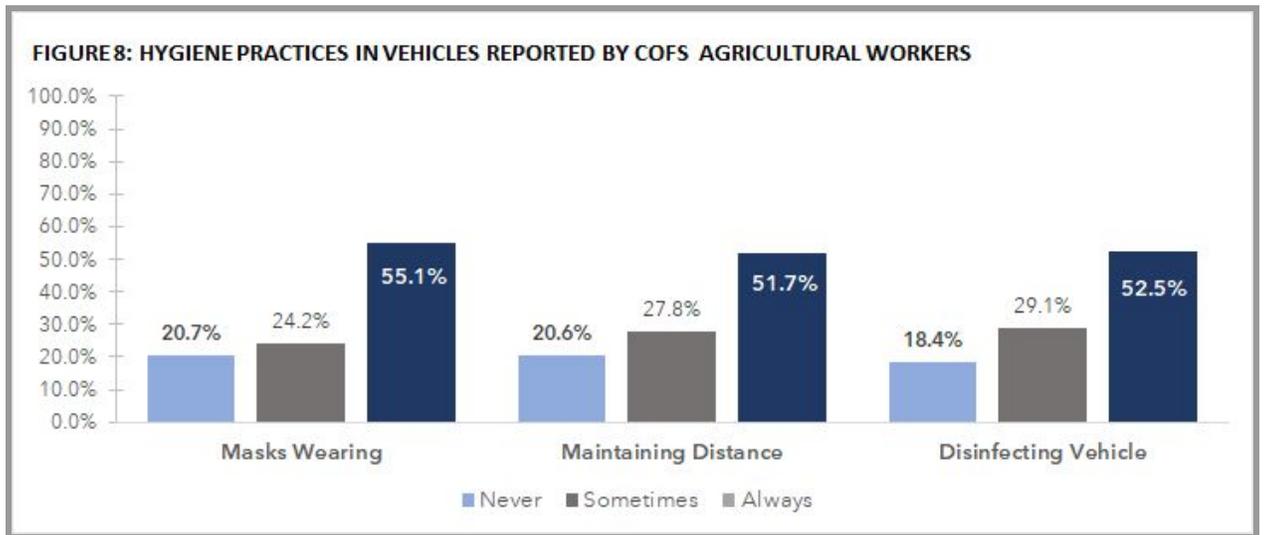
Yo me cubro completamente antes de subirme a la van con mi pasamontas, mascarilla y lentes. Unos no usan mascarillas y el raitero no les obliga

⁵⁷ Cars are defined as 1 to 5 passengers, vans 6 to 15, buses 16 and more.

I cover myself completely before entering the van with the other passengers, mask and glasses. Some people don't wear a mask and the driver forces them to do it.

-- Javier, 53, San Joaquin Valley Region

Unfortunately, the owners of the vehicles-- be they *raiteros* or workers-- did not consistently use good hygiene practices in their vehicles. COFS agricultural workers had challenges practicing safe hygiene behaviors while commuting. **Slightly more than half of COFS agricultural workers described mask wearing (55.1%), maintaining distance (51.7%), or disinfecting in commuting vehicles (52.5%) (Figure 8).**



Some agricultural workers also recognized the lack of compliance increased their risk of exposure, but they also noted that questioning hygiene practices of their drivers meant they might lose their source of transportation:

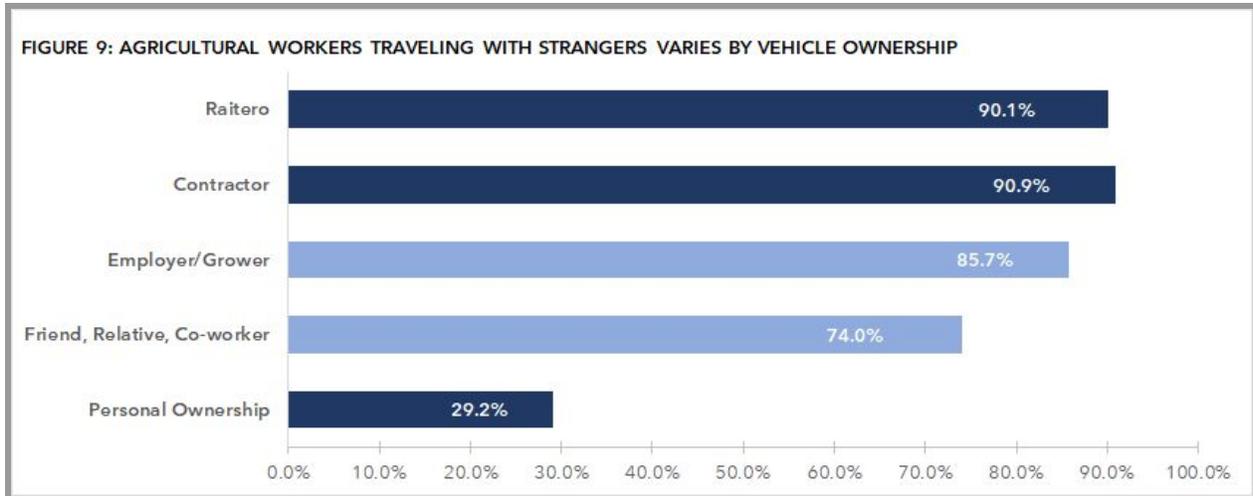
Tengo miedo que me diga mi raitero que no me dara raite si le pregunto que desinfecte el carro.

I'm afraid that the driver might say something to me or might not give me a ride if I ask them to disinfect their car.

-- Maricela, 47, Southern California Region

Traveling in a closed vehicle with non-household members (strangers) is another important risk factor exposure during this pandemic. The COFS survey asked a series of questions that allowed us to distinguish between those who travel only with their own household members and those who travel with strangers. Equal proportions of COFS agricultural workers travel with strangers compared to those who do not. **Not surprisingly, most agricultural**

workers who travel with a *raitero* or labor contractor travel with strangers (90%) whereas only 29% of those who travel in their own vehicle travel with strangers (Figure 9).⁵⁸



However, 74% of those who commute with friends, relatives or coworkers are also exposed to non-household strangers. Women (55%) than men (47%) and more recent immigrants (74%) were more likely to come into close contact with strangers while commuting.

Indigenous-speakers were more likely (54%) than Non-Indigenous speakers to travel to work with a stranger (49%). This latter finding is aligned with previous research that finds immigration and legal status prevents vehicle ownership or driver’s license acquisition forcing individuals to rely on public transportation or shared ride situations.^{59,60,61} Such factors further increase the risks and exposures to COVID-19 among agricultural workers, but as documented by COFS, the risks may be particularly worse for Indigenous speaking agricultural workers.

⁵⁸ Similar to the recent UC Berkeley study see: Eskenazi B, Mora AM, Lewnard J, Cuevas M, Nkowcha O. Prevalence And Predictors Of Sars-Cov-2 Infection Among Farmworkers In Monterey County, Ca. Uc Berkeley School Of Public Health Clinica De Salud Del Valle De Salinas;2020.

⁵⁹ Lovejoy K, Handy S. A case for measuring individuals’ access to private-vehicle travel as a matter of degrees: lessons from focus groups with Mexican immigrants in California. *Transportation*. 2008;35(5):601-612.

⁶⁰ Lovejoy K, Handy S. Social networks as a source of private-vehicle transportation: The practice of getting rides and borrowing vehicles among Mexican immigrants in California. *Transportation Research Part A: Policy and Practice*. 2011;45(4):248-257.

⁶¹ Tal G, Handy S. Travel behavior of immigrants: An analysis of the 2001 National Household Transportation Survey. *Transport Policy*. 2010;17(2):85-93.

HOME AND HEALTHCARE IMPACTS OF COVID-19

Across the United States, the geography of the COVID-19 pandemic shifted during 2020. From mid-March to June, Democratic and urban leaning regions experienced higher excess death rates. By mid-July, the pattern reversed and burdened Republican and more rural leaning regions.⁶² Despite these shifts, COVID-19 infection and death rates continued to plague low wage workers, racial minorities, immigrant communities and other marginalized populations.

Over this same time period, leaders engaged in a long-standing public health tradition during moments of crises-- "victim-blaming."^{63,64,65,66,67,68,69} This was never more evident than when Health and Human Services (HHS) Secretary Alex Azar pointed to the living conditions and social habits conditions of workers as the cause for outbreaks among meat packers, rather than the conditions of the facilities themselves. This idea was parroted by many other officials.^{70,71} Such discourse overlooked the fact that COVID-19 had reached the level of community spread, so infection was possible even when people were doing everything "right." As always, this focus on social habits has elevated blame-the-victim approaches and policies.

Yet, COFS shows that farmworkers were vigilant about COVID-19 prevention practices outside of the workplace. **Nearly all workers (90%) reported that they modified their behaviors during the pandemic to protect their families when they arrived home from work.** Some of these behaviors such as showering, removing clothes, or removing shoes before entering the home are established safety practices to reduce pesticide residue exposures at home even prior to the COVID-19 pandemic.^{72,73,74,,75, 76} However, in the context of COVID-19, agricultural workers also employed them as a way to avoid bringing COVID-19 home. Among

⁶² Krieger N, Chen JT, Testa C, Hanage WP. The changing political geographies of COVID-19 in the US. Boston, MA: The Harvard Center for Population and Development Studies;2020.

⁶³ Crawford R. You Are Dangerous To Your Health: The Ideology And Politics Of Victim Blaming. *International Journal of Health Services*. 1977;7(4):663-680.

⁶⁴ Minkler M. Personal Responsibility for Health? A Review of the Arguments and the Evidence at Century's End. *Health Educ Behav*. 1999;26(1):121-140.

⁶⁵ Puhl RM, Heuer CA. Obesity Stigma: Important Considerations for Public Health. *AJPH*. 2010;100(6).

⁶⁶ Kraut AM. *Silent travelers : germs, genes, and the "immigrant menace"*. Johns Hopkins paperbacks ed. Baltimore: Johns Hopkins University Press; 1995.

⁶⁷ Shah N. *Contagious divides : epidemics and race in San Francisco's Chinatown*. Berkeley: University of California Press; 2001.

⁶⁸ Fairchild AL. *Science at the borders : immigrant medical inspection and the shaping of the modern industrial labor force*. Baltimore: Johns Hopkins University Press; 2003.

⁶⁹ Molina N. *Fit to be citizens? : public health and race in Los Angeles, 1879-1939*. Berkeley: University of California Press; 2006.

⁷⁰ Cancryn A, Barrón-López L. Azar faulted workers' 'home and social' conditions for meatpacking outbreaks. In. *Político*2020.

⁷¹ Philpott T. Republicans Keep Blaming Workers for Coronavirus Outbreaks at Meat Plants. In. *Mother Jones*2020

⁷² Arcury TA, Quandt SA, Cravey AJ, Elmore RC, Russell GB. Farmworker Reports of Pesticide Safety and Sanitation in the Work Environment. *American Journal of Industrial Medicine*. 2001;39:487-498.

⁷³ Levesque DL, Arif AA, Shen J. Effectiveness of pesticide safety training and knowledge about pesticide exposure among Hispanic farmworkers. *Journal of occupational and environmental medicine*. 2012;54(12):1550-1556.

⁷⁴ Rao P, Gentry AL, Quandt SA, Davis SW, Snively BM, Arcury TA. Pesticide safety behaviors in Latino farmworker family households. *Am J Ind Med*. 2006;49(4):271-280.

⁷⁵ Strong LL, Starks HE, Meischke H, Thompson B. Perspectives of mothers in farmworker households on reducing the take-home pathway of pesticide exposure. *Health Educ Behav*. 2009;36(5):915-929.

⁷⁶ Strong LL, Thompson B, Koepsell TD, Meischke H, Coronado GD. Reducing the take-home pathway of pesticide exposure: behavioral outcomes from the Para Niños Saludables study. *J Occup Environ Med*. 2009;51(8):922-933.

COFS agricultural workers, 49% of workers washed/sanitized hands upon arrival at home, 25% of workers used masks or practiced distancing at home .

On numerous occasions, COFS Agricultural workers noted taking extra precautions to protect their families. In fact, agricultural workers with children reported higher rates of modified hygiene behaviors than those without children. Those with children under 12 were more likely to change their clothes before entering the house (69% vs. 64%), more likely to take a shower (44% vs. 36%), and more likely to mask and engage in distancing practices at home (29% vs. 17%). Parents shared their experiences putting some of these safety precautions into practice at home in many ways:

Llego del trabajo y me baño. Separo mi ropa de trabajo para que no se junte con la de mi esposa o hijos, se lava separado.

I arrive from work and I shower. I separate my work clothes so it doesn't mix with my wife or my children's clothes, it's washed separately.

--Antonio, 42, San Joaquin Valley Region

Cuando salgo del trabajo me lavo las manos. Llegó a levantar a mi hijo y me lavo las manos y la de mi hijo antes de subirnos al carro, ya cuando llego a casa mi niño y yo nos quitamos las camisas, zapatos y calcetines afuera lo pongo dentro de una bolsa de plástico y lo lavo aparte. Después nos bañamos.

When I get out of work, I wash my hands. I go pick up my son and I wash my hands and his hands before we get into the car. Once we arrive at home, my son and I remove our shirts, shoes, and socks outside. I put them inside a plastic bag and I wash them separately. Then we take a shower.

-- Maribel, 30, San Joaquin Valley Region

Cuando llegó ya no puedo abrazar ni acercarme a mis hijos. Dejó los zapatos afuera y me lavo las manos. Me quito la ropa y me pongo a hacer de comer pero no me les juntó mucho a mis hijos. Tengo hambre y como luego me meto a bañar. todo es diferente

When I arrive, I can't hug nor go near my children. I leave shoes outside and I wash my hands. I take off my clothes and I start making something to eat, but I don't go near my kids. I'm hungry and once I shower, everything is different

-- Juana, 36, San Joaquin Valley Region

Unfortunately, some of these precautions were also taking a toll on the families:

Mis hijos están asustados y ellos tienen temor y tienen miedo cuando yo voy a la tienda. Antes corían abrazarlo afuera al padre al llegar a trabajar y se van al cuarto hasta que él se bañe. Nosotros les dijimos de ese cambio para protegerlos, siempre hay mucho polvo y siempre se quita los zapatos antes de entrar.

My children are scared and they are afraid. They are afraid when I go to the store. They used to run and hug their father outside when he arrived from work. Now they go to their room and wait until he showers. We tell them this change is to protect them.

--Soledad, 34, San Joaquin Valley Region

Although some of these home hygiene behaviours may not be completely new, families felt they were being safe with the behaviors under their control. There were, however, many impacts of COVID-19 on agricultural workers' lives that were outside of their control. These challenges-- loss of income, lack of childcare, and poor healthcare access-- will be explored in greater detail in the following sections of this report and in the report on Phase Two of COFS (in-depth interviews).

Loss of work and income

While the impacts of the pandemic and the economic fallout have been widespread, Black, Latino, Indigenous, and immigrant households have been disproportionately impacted. These disproportionate impacts reflect longstanding inequities —often stemming from structural racism —in health, housing, and environmental factors that have been exacerbated by the COVID-19 pandemic.⁷⁷

Under normal conditions, farmworker incomes are low and seasonal, and for many financial hardships during COVID-19 forced them to continue working.⁷⁸ Agricultural workers were vocal about their always precarious financial situations and the added financial uncertainty that COVID-19 created.

Yo trabajo en el campo y mi trabajo no es permanente. Ahora nos está cortando las horas de trabajo por COVID-19. Trabajamos menos horas y yo no puedo trabajar todos los días porque no tengo cuidado de niño.

⁷⁷ Rodriguez-Diaz CE, Guilamo-Ramos V, Mena L, Hall E, Honermann B, Crowley JS, Baral S, Prado GJ, Marzan-Rodriguez M, Beyrer C, Sullivan PS, Millett GA, Risk for COVID-19 infection and death among Latinos in the United States: Examining heterogeneity in transmission dynamics, *Annals of Epidemiology* (2020), doi: <https://doi.org/10.1016/j.annepidem.2020.07.007>

⁷⁸ Baker MG. Nonrelocatable Occupations at Increased Risk During Pandemics: United States, 2018. *Am J Public Health*. 2020;110(8):1126-1132.

I work in the fields and my work isn't permanent. Now our employer is cutting our work hours because COVID-19. We work fewer hours and I can't work everyday because I don't have childcare.

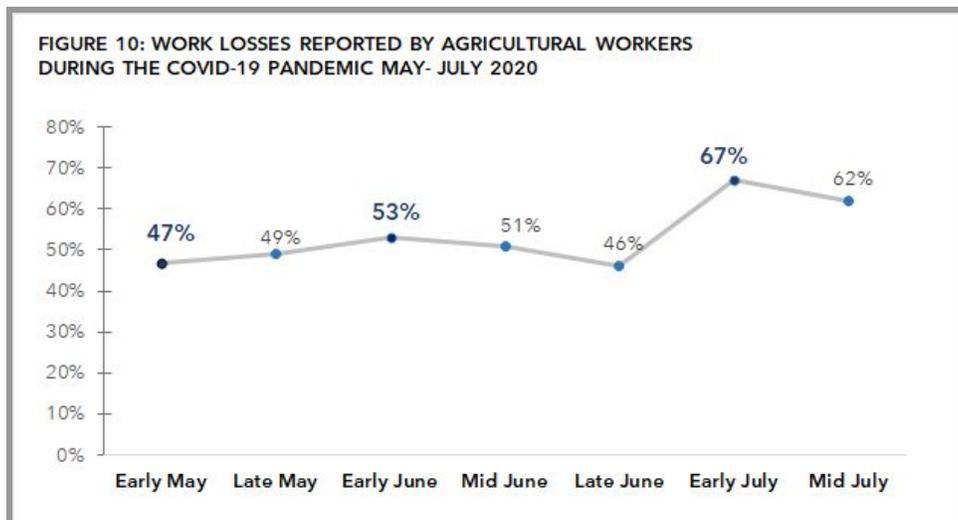
--Patricia, 29, San Joaquin Valley Region, Zapotec Speaker

Me di cuenta de que tengo que cambiar mi forma de vivir. Todo lo que ganaba lo usaba para pagar gastos. Y en esta situación no tengo ahorros para poder solventar mis gastos. Que como ya no trabajo igual pues ya no tengo dinero. U emocionalmente me da miedo. Ya no [es] igual que antes pero. Si me preocupa mucho que me tengo que exponer para trabajar. Si tuviera dinero no trabajaría.

I've realized that I need to change my way of living. Everything I've earned I used to pay my expenses. And in this situation, I have no savings to cover my expenses. Since I don't work the same as before, I don't have money. And emotionally, I'm scared. It's not as it was before. Yes, I worry a lot that I expose myself just to work. If I had the money, I wouldn't work.

-- Eva, 36, San Joaquin Valley Region

Even though they were dubbed “essential” workers, COVID-19 led to unprecedented job losses for agricultural workers. **On average, nearly half of the COFS survey respondents (52%) reported decreased farm work time resulting in income losses during the pandemic. The three month survey period (May- July 2020) displayed an increasing trend of lost work time and income (Figure 10).** Women (51%) with children were more likely to report work losses than men (41%) with children. Of those who experienced work losses and reported a known reason for these losses, 58% identified decline in product demand, 17% identified closures due to workplace precautions and safety measures, 10% (mostly women) reported lack of childcare and another 5% of COFS agricultural workers reported that sickness with COVID prevented them from returning to the worksite.



Shelter-in-place orders and COVID-19 safety precautions created additional income losses for agricultural workers. Workers also lost supplemental sources of income such as ride-sharing fees, childcare services, housekeeping, or other informal economic activities. One farmworker said:

también algo muy importante [lo] que pasó es que unos raiteros perdieron mucho dinero porque parte de el sueldo salía de darle raite a los trabajadores.... y con la pérdida de raiteros...salen perdiendo.

Also something else that is very important, something else that also happened was that ride-sharing drivers lost a lot of income because part of their income came from giving rides to workers.....and with the loss as a driver...they lose.

-- Leticia, 41, Central Coast Region, Mixtec Speaker

Even those workers who worked through the initial shelter-in-place order or who went back to work quickly after initial pandemic closures experienced inconsistencies or reductions in work time and income.

Nos ha bajado mucho el trabajo, son menos horas y menos sueldo que no alcanza.

Our work has decreased a lot, there are fewer hours and less income that it's not enough.

-- Guillermo, 52, San Joaquin Valley Region

Paying for Basic Necessities

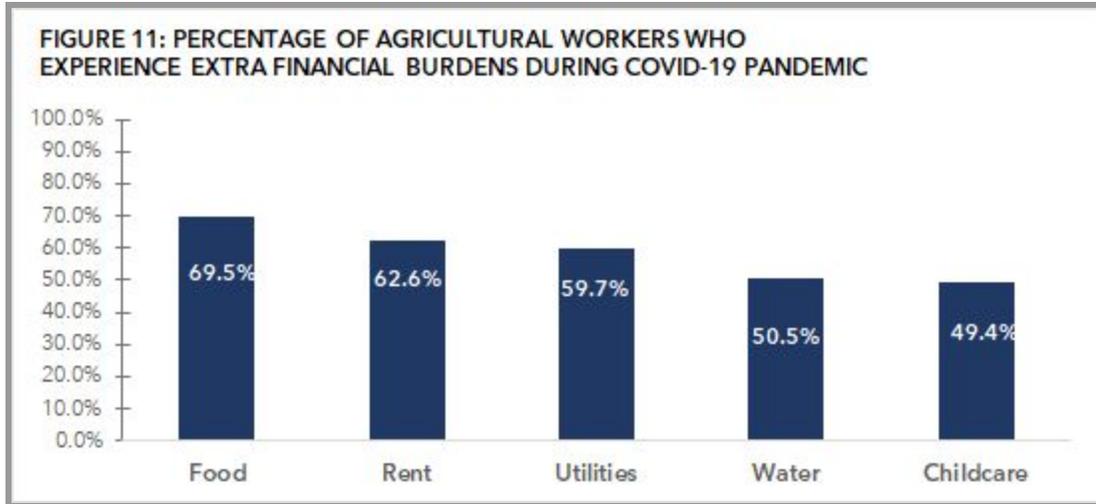
Throughout the United States, widespread losses of income have made it difficult for millions of Americans to afford basic necessities like rent, food and utilities. Data from several sources show a dramatic increase in the number of households struggling to meet basic needs particularly among Black and Latino adults and households with children.^{79,80,81,82} COFS respondents reported these same difficulties, regardless of age, years in the country or gender. **More than half of all COFS agricultural workers reported *increased* difficulties paying for basic needs such as food, rent, utilities, water, and childcare (Figure 11).**

⁷⁹ Tracking the COVID-19 Recession's Effects on Food, Housing, and Employment Hardships. Center on Budget and Policy Priorities;2020.

⁸⁰ Gupta P, Gonzalez D, Waxman E. Forty Percent of Black and Hispanic Parents of School-Age Children Are Food Insecure. 2020.

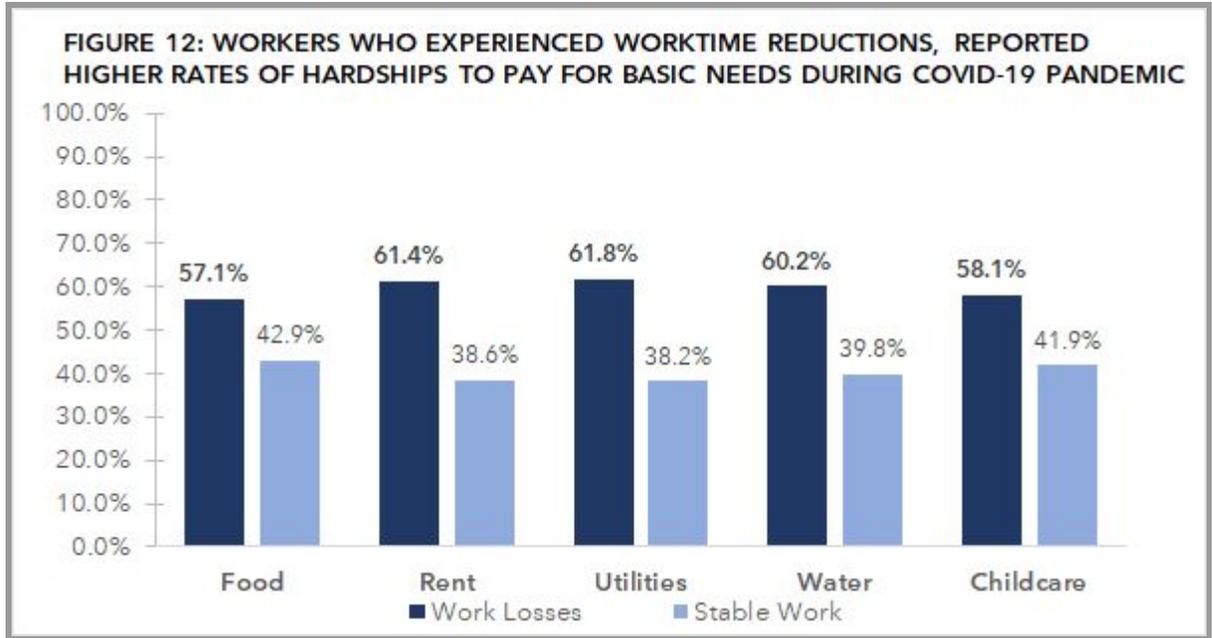
⁸¹ Chang, Jonaki Mehta Ailsa. "For Hungry Americans across the Country, Food Insecurity Crisis Deepens." In All Things Considered: National Public Radio, 2020

⁸²Schanzenbach D, Pitts A. Estimates of food insecurity during the COVID-19 crisis: Results from the COVID Impact Survey, Week 1(April20–26, 2020. Institute for Policy Research, Northwestern May 13, 2020.

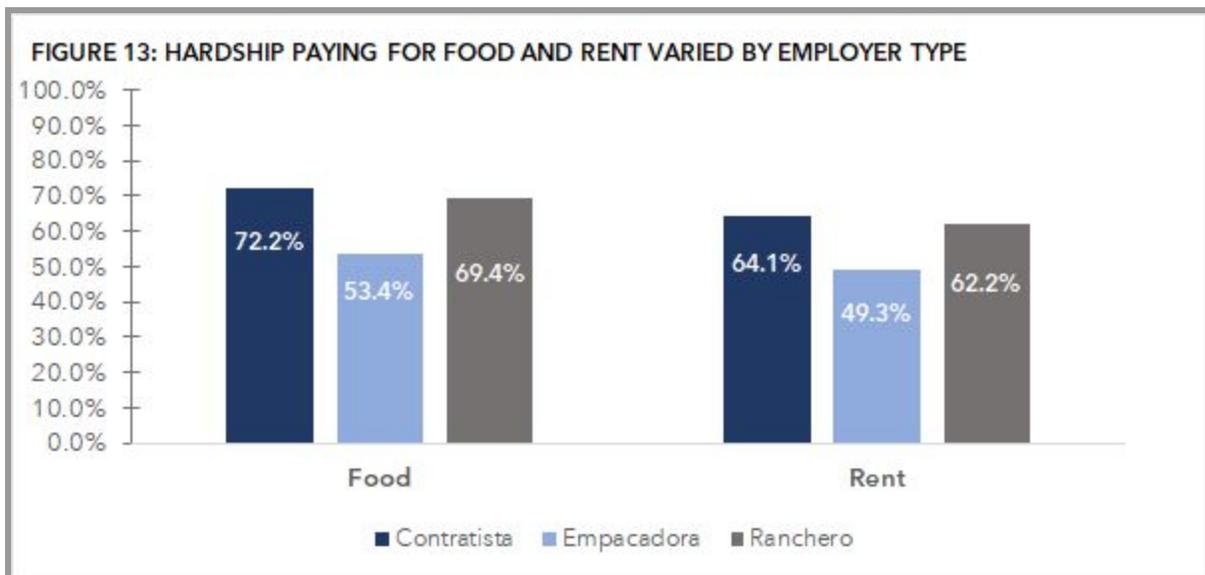


As a result of the widespread hardships, agricultural workers sought out trusted Community Based Organizations (CBOs) for information on food and other resources. In reviewing the data, CBOs, who were inundated with calls, felt a sense of urgency and pressure knowing that community members they served were facing desperate conditions. Many CBOs shared that they pivoted their programs to meet the most immediate needs of agricultural workers--food, direct financial assistance, or support in navigating cumbersome virtual classrooms or internet challenges. These new activities, well beyond the scope of many CBO missions, were often uncompensated activities. CBO staff understood that providing information was a lifeline for agricultural workers. Based on the discussion with CBOs it became evident that additional details were needed to understand the impact as well as how agricultural workers were coping with these challenges. The COFS team used the opportunity to design follow-up on these topics as part of Phase Two COFS.

Though all COFS agricultural workers reported difficulties paying their bills, there were some notable differences. **COFS agricultural workers who experienced worktime losses also reported higher levels of financial burdens compared to those who had stable work or did not lose work (Figure 12).**



Agricultural workers reported striking differences in financial difficulties depending on their employer type. **Approximately half of packing house workers, who experienced relatively more constant employment, reported increased economic hardship for food and rent (Figure 13).** For employees of farm labor contractors the situation was much worse: 72% of these agricultural workers reported trouble paying for food, as compared to 53% of packing house workers.



COFS agricultural workers noted that programs such as the Supplemental Nutrition Assistance Program (food stamps) and Pandemic Electronic Benefits Transfer (P-EBT) were important resources, but agricultural workers shared that these benefits were not always enough to offset the financial obligations of other bills:

Estoy preocupada por pagar la renta, estoy trabajando muy pocas horas y me preocupa mucho los biles. Lo que nos está ayudando es las estampillas de emergencia que les dieron a los niños de la escuela (P-EBT)”

I am worried how I'm going to pay the rent. I'm working only a few hours and I'm worried about the bills. What is helping is receiving the emergency food stamps that children received from school (P-EBT) Margarita, 34, Monterey County

Estamos agarrando estampillas por eso nos ha hecho un poco más fácil... Y aun asi, no tengo suficiente para cubrir mis gastos.

We're receiving food stamps and that's why it's been a little easier for us....Even still I don't have enough to cover my expenses.

--Gustavo, 26, San Joaquin Valley Region

Although most families across the country received some governmental financial support during the pandemic, this financial relief was hard to come by for undocumented and mixed-status families who were excluded from the Coronavirus Aid, Relief and Economic Security (CARES) Act.⁸³ To address this gap, Governor Newsom authorized a group of community-based and non-profit organizations to administer \$125 million in stimulus funds specifically for undocumented immigrants through the California COVID-19 Disaster Relief Assistance for Immigrants program. Individuals who were able to successfully find a participating non-profit organization and go through the application process were eligible to receive a one-time payment for \$500 per adult or \$1000 per household. This fund combined state resources with philanthropic donations and aimed to support 150,000 households. Many families attempted, with mixed results, to apply for state support. During the COFS survey some agricultural workers shared their frustrations and anxieties about the lack of support and information.

No recibimos ayuda en ningún programa. Las personas que no tienen papeles no calificamos y la ayuda del estado de California no todos calificamos. Me preocupo mucho. Si la enfermedad no para, ¿como voy hacer[le] con mis gastos? No tengo documentos. No calific[ó] para ayuda. Tengo a mi familia que necesitan ayuda eso me preocupa.

⁸³ Page KR, Venkataramani M, Beyrer C, Polk S. Undocumented U.S. Immigrants and Covid-19. New England Journal of Medicine. 2020;382(21).

We don't receive any help from any program. Undocumented people, we don't qualify and not all of us qualify for the help that the state of California offered. I worry a lot. If this illness doesn't end, how am I going to manage my expenses? I'm undocumented. I don't qualify for any help. I have a family who needs help, it worries me.

--Gerardo, 36, Southern California Region

We need more assistance because we are only working for a few hours. We need medical insurance, finding diapers for our kids, more financial assistance. We have been trying to call the foundation that is working with the government to provide 500\$ to families and that number is not working. It has been hard for us to make small payments because our work is limited.

-- Alicia, 29, Central Coast Region, Mixtec Speaker

Cómo ya mencioné el trabajo disminuyó significativamente y esperaba la ayuda que habían dicho dar como apoyo a los inmigrantes. Pero me siento decepcionada marco muchas veces y no entran las llamadas. Y no se que va a pasar con mi familia. tuvimos que pedir préstamos para pagar nuestros gastos me a afectado emocionalmente le epidemia.-

Like I mentioned, work slowed down significantly and I was waiting for the help that they had said would be given to immigrants. But I feel deceived. I dial lots of times and my call doesn't go through. And I don't know what will happen with my family. We had to ask for a loan to pay our expenses. This pandemic is affecting me emotionally.

-- Beatriz, 28, San Joaquin Valley Region

Without direct cash assistance, agricultural workers pursued support from an array of other outlets, such as churches, schools, community based-organizations, or even securing personal loans to make ends meet. COFS agricultural workers shared some of the challenges in their living situation.

Empezamos a trabajar y no mas hacemos 15 a 18 botes. y pues ganamos como menos de 100 dólares. hemos pedido prestado para pagar la renta plan de pagos para la luz

We started working and we only fill[ed] 15-18 containers. We earn less than 100 dollars. We've requested loans to pay the rent and make a payment plan for the electricity.

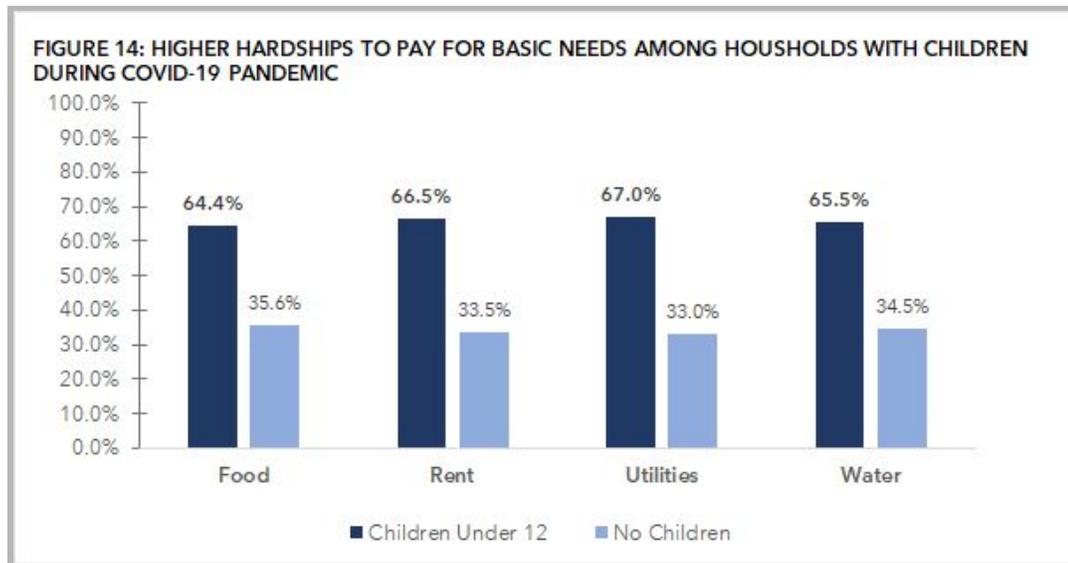
--Josefina, 31, San Joaquin Valley Region

Estoy preocupada porque el trabajo disminuyo y tenemos que conseguir dinero prestado para pagar la renta y no nos desalojen de nuestra vivienda.”

I'm worried because work has decreased and we need to get loan money so that we won't be evicted from our housing.

-- Beatriz, 28, San Joaquin Valley Region

During the pandemic, families with young children have encountered greater economic hardship.^{84,85,86,87} Similarly, COFS agricultural workers with children experienced increased economic difficulties during the pandemic than those without children. **COFS families, with children under the age of 12, were twice as likely than families without children to experience difficulties paying basic expenses (Figure 14). Reported difficulties paying for food were also slightly higher for Indigenous-speaking agricultural workers than the Non Indigenous speaking workers (71.6% vs 69.1%) which may suggest lower incomes and greater income instability for Indigenous-speaking workers.**



For COFS agricultural workers, unemployment combined with school closures exacerbated the financial hardships at home. Families abruptly lost a crucial pre-pandemic safety net-- education, meals, socialization, and childcare provided by schools. Having children

⁸⁴ Waxman E, Gupta P, Gonzalez D. Six Months into the Pandemic, 40 Percent of Parents with Young Children Have Experienced Economic Fallout. 2020.

⁸⁵ Schanzenbach D, Pitts A. Estimates of food insecurity during the COVID-19 crisis: Results from the COVID Impact Survey, Week 1(April20–26, 2020. Institute for Policy Research, Northwestern May 13, 2020.

⁸⁶ Tracking the COVID-19 Recession's Effects on Food, Housing, and Employment Hardships. Center on Budget and Policy Priorities; January 8, 2021

⁸⁷ Zippel C. Hardship Growing as Pandemic Enters 11th Month, New Census Figures Show. In. Off the Charts: Policy Insight Beyond the Numbers2021.

at home meant that family members had to sacrifice income to become primary caregivers, but it also meant added expenses at home. Families shared the domino-effect to their pocketbooks:

We've had difficulty paying for car insurance, phone bills, internet, and everything else. There is little help for us. Right now everything is expensive, the rent, the internet for our kids and a lot of these are emergencies.

-- Rosa, 27, Central Coast Region, Mixtec Speaker

Tengo a mis hijos más tiempo en casa y eso ha hecho que tenga más gastos en la comida. Y asu vez pues no puedo seguir el ritmo que tenia de hacer mis pagos. a tiempo me a retrasado mucho

I have my children for more time at home and that's made me have more food expenses. At the same time, I can't keep up with the rhythm I had in making my payments. There are times I fall behind.

-- Santos, 37, San Joaquin Valley Region

The work time losses documented by the COFS survey placed households at risk of housing insecurity and evictions. Housing and neighborhood characteristics have long been understood by public health researchers as an important determinant for health.^{88,89,90,91} Agricultural workers frequently live in overcrowded and substandard housing.^{92,93} In California, housing affordability is an added challenge: renters and low-income residents are more likely to say housing costs are a financial strain. More than half of the state's renters—and four in ten mortgaged homeowners—spend 30% or more of their household income on housing.^{94,95}

While the COFS survey did not explore in detail the conditions of farmworker housing, agricultural workers shared some of their concerns regarding housing. Many agricultural workers live with multiple families in single-family dwellings and in order to afford high housing costs. In a 2018 Salinas/Pajaro Housing Study conducted by CIRS 67% of farmworker households experienced severe overcrowding.⁹⁶ Although this study was conducted on

⁸⁸ Kawachi I, Berkman L. Neighborhoods and health. Oxford University Press, USA; 2003

⁸⁹ Fullilove MT, Fullilove RE. What's housing got to do with it? American Journal of Public Health. 2000;90:183-184.

⁹⁰ Ramirez SM, Villarejo D. Poverty, housing, and the rural slum: policies and the production of inequities, past and present. Am J Public Health. 2012;102(9):1664-1675.

⁹¹ Krieger J, Higgins DL. Housing and health: time again for public health action. American Journal of Public Health. 2002;92(5):758-768.

⁹² Quandt SA, Brooke C, Fagan K, Howe A, Thornburg TK, McCurdy SA. Farmworker Housing in the United States and Its Impact on Health. New Solut. 2015;25(3):263-286.

⁹³ Arcury TA, Jacobs IJ, Ruiz V. Farmworker Housing Quality and Health. New Solut. 2015;25(3):256-262.

⁹⁴ Mark Baldassare DB, Alyssa Dykman, Rachel Lawler, Marisol Cuellar Mejia, Vicki Hsieh. Californians and the Housing Crisis. In. Vol 2020: Public Policy Institute of California; 2019.

⁹⁵ Hans Johnson JL, Marisol Cuellar Mejia Housing. Public Policy Institute of California;2020.

⁹⁶ Mines, Richard, et al. Farmworker Housing in Salinas Pajaro Laborshed: CIRS Publication, 2018.

California's Central Coast, conditions are likely similar for workers across the state. In the context of Covid-19, crowded housing makes social distancing difficult, if not impossible.

Some COFS respondents noted that combining households or increasing household members was a way to help out one another with unaffordable housing situations. **This strategy was particularly true for Indigenous-speaking workers, who were twice as likely to have increased the number of people in their (already overcrowded) households (11% vs. 5%) since the onset of the COVID crisis.** In the event of an infection among household members, safe distancing or isolation would be a great challenge. As a result, 12% of COFS agricultural workers stated that had no plan or no way of isolating safely from infected family members.

Ha sido más difícil pagar las cosas. Estamos haciendo cambios para ahorrar dinero. [Mi] hija ha perdido trabajo y horas de otro trabajo. y viven juntos para ayudarse.

It's been more difficult to pay for things. We're making changes to save money. My daughter lost her job and lost hours at another job. And now they live with us to help themselves out.

-- Alfredo, 58, Southern California Region

En mi vida siento mucha presión , ansiedad y mucha preocupación por no poder pagar los gastos sobre todo la renta de ya 2 meses .

I feel a lot of pressure in my life, anxiety and a lot of worry because I'm not able to pay the bills, especially the 2month overdue rent.

--Yolanda, 36,Northern California Region

Que nos dieran ayuda para pagar renta. He tenido que dejar mi casa porque no pude pagar y tuve que ir a vivir con mi hermano y su familia.

They should give us some help to pay rent. I've had to leave my house because I couldn't pay. And I had to leave and go live with my brother and his family.

--Marta, 36, San Joaquin Valley Region

Although households were protected from eviction under the federal CARES Act between March 27 to July 24, 2020, as the COFS Phase One survey was ending these short-term protections were about to sunset. Their expiration would have left impacted households vulnerable to housing instability, particularly if they were already rent burdened before the pandemic. In anticipation of the CARES Act expiration, California's Governor

Newsom took steps to avert housing instability and homelessness. By August 31, 2020 he signed AB 3088. This bill prohibited landlords from using missed rent payments accrued between March and August as a legal basis to evict tenants due to financial hardship from COVID-19. In September, the CDC followed with a similar temporary halt of residential evictions.⁹⁷ Despite the patchwork of housing protections in place, these often failed to protect agricultural workers. Due to their immigration statuses (real or perceived), low incomes, and other forms of discrimination, agricultural workers can be easy targets for intimidation and eviction. As a result, during the survey months (May - July 2020) agricultural workers remained vulnerable and expressed their worries and anger about evictions and pending evictions:

Yo estoy muy preocupada porque en Julio 2020 me voy a quedar sin hogar. El dueño de la casa me notificó que tengo que desalojar la casa porque va remodelarla. Ahora estoy buscando renta pero no encuentro. Solo tengo este mes de junio a buscar un lugar donde quedarme con mis dos hijos y mi mama.

I am very worried because in July 2020, I will be without a home. The owner of the house let me know that I have to vacate the house because he is going to remodel. Now I'm looking for a place to rent, but I can't find one. I only have this month of June to find somewhere where I can stay with my two children and my mom.

--Sofia, 24, San Joaquin Valley Region, Zapotec Speaker

Perdimos la vivienda, yo pienso que nosotros del fil somos las mas afectadas y el gobierno mandó cheque pero a nosotros no. Muchas personas han perdido su hogar y desalojadas. Somos los que necesitamos más ayuda..una amiga me contó que la desalojaron de 2 trailas.....la renta es de \$500 dolares y aparte la luz.

We lost our housing. I think that those of us from the fields are the most impacted. The government sent out checks, but not to us. Many people have lost their homes and been evicted. We're the ones that need the most help....one friend told me they evicted 2 mobile trailers....the rent is \$500 dollars plus utilities.

-- Paloma, 30, San Joaquin Valley Region

In addition to housing instability, families still had to contend with other pre-pandemic concerns regarding immigration and their undocumented status. Although Immigration and Customs Enforcement (ICE) temporarily adjusted its enforcement due to the pandemic, it retained the ability to implement mandatory detention based on criminal grounds. In more ways than one,

⁹⁷ Department of Health and Human Services. Temporary Halt in Residential Evictions to Prevent the Further Spread of COVID-19. Federal Register Notice. 2020;85(173).

“sheltering in place.” may be an unattainable privilege for agricultural workers and particularly those who are undocumented.⁹⁸ Although COFS did not deal with this subject directly, discussions with COFS CBO partners signaled a need to further explore how agricultural workers fared during sheltering in place.

Childcare

When COVID- 19 forced most schools to transition from in-person to remote learning in the late spring of 2020, life changed for parents and kids overnight. Parents faced grim and costly choices about what to do with children as schools and childcare centers closed. Across the country, COVID-19 disruption had a disastrous impact on all parents, but working women have been especially hard hit. According to one report, the pandemic appears to have induced a unique and immediate juggling act for working mothers of school age children.⁹⁹ Working mothers were already surviving on low wages while also carrying the burden of unpaid women’s work.¹⁰⁰ If childcare is available, many can’t afford it or worry about exposure to the virus. As a result, mothers have had to choose between cutting hours or quitting jobs even as they juggle between childcare and homeschooling obligations.

These conditions have been particularly bad for women of color, and in particular agricultural working women, who disproportionately work in low-wage jobs that offer little support.¹⁰¹ The pandemic has illuminated the critical role that “quality, affordable, accessible childcare plays in the lives of workers and families.”¹⁰² Among COFS agricultural workers, the loss of childcare impacted men differently than women. The burden of taking care of children, paying for child care and economically supporting young children under 12 were a greater hardship for agricultural workers. As noted earlier, 50% of all COFS agricultural workers reported extra burdens paying for childcare. Approximately, 10% of COFS agricultural workers (almost all women) experienced work time losses due to lack of childcare.

[Pare] un tiempo de trabajar al comienzo de la pandemia por [mis] hijas ya que no tenía quien las cuidara ya que ellas no tenían clases. Mejor decidí quedar[me] en la casa hasta que las cosas se calmaran un poco. [Me] dio miedo salir a trabajar y por miedo a enfermar a mis niñas. Por necesidad regreso a trabajar.

I stopped working at the beginning of the pandemic for my daughters since I

⁹⁸ Cholera R, Falusi OO, Linton JM. Sheltering in Place in a Xenophobic Climate: COVID-19 and Children in Immigrant Families. *Pediatrics*. 2020;146(1).

⁹⁹ Heggeness ML. Why Is Mommy So Stressed? Estimating the Immediate Impact of the COVID-19 Shock on Parental Attachment to the Labor Market and the Double Bind of Mothers. US Census Bureau; October 26, 2020.

¹⁰⁰ Bateman, Nicole and Ross, Martha. Why has COVID-19 been especially harmful for working women? : Brookings Institute; October 2020.

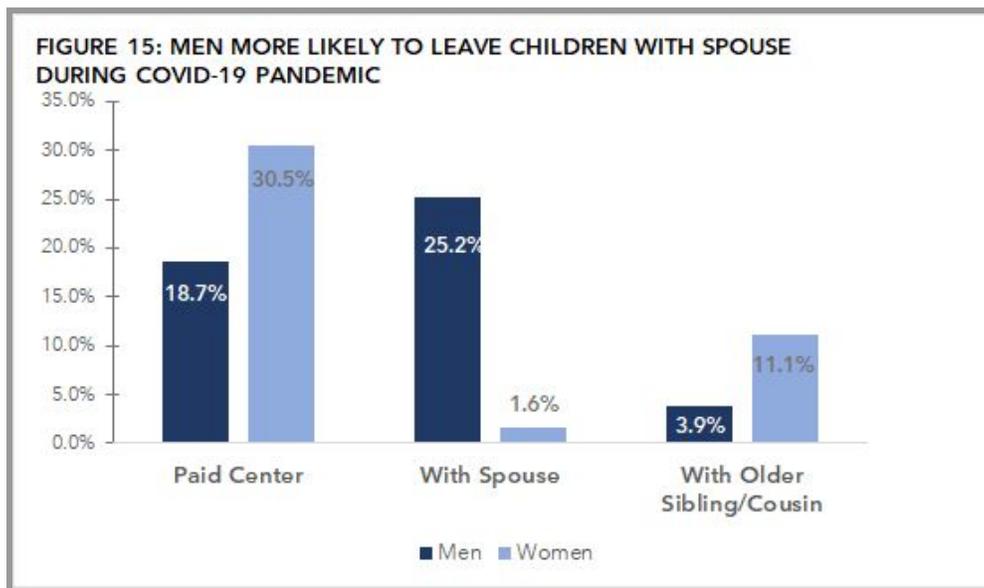
¹⁰¹ Frye J. On the Frontlines at Work and at Home: The Disproportionate Economic Effects of the Coronavirus Pandemic on Women of Color”. Washington DC: Center for American Progress; April 2020 .

¹⁰² Salzwedel M, Liebman A, Kruse K, Lee B. The COVID-19 Impact on Childcare in Agricultural Populations. *J Agromedicine*. 2020:1-5.

didn't have anyone to take care of them and they didn't have school. Instead I decided to stay at home until things calmed down. I was scared to go to work for fear that my daughters could become ill. Out of necessity that I return to work.

-- Adela, 35, San Joaquin Valley Region

Although both men and women left their children with friends at similar rates, women were more likely to pay for childcare than men (30.5% vs 18.7%), and men were far more likely to leave the children with their spouse (wife or partner) than women (25.2% vs. 1.6%) (Figure 15).



Fathers frequently shared experiences like this one:

mi esposa dejó de trabajar en marzo por covid -19 pero ya no pudo regresar a trabajar porque los niños ya no los podía cuidar por lo de la enfermedad y como estaba embarazada ya no quise que regresara y se pusiera en riesgo se quedó con los niños

My wife left her job in March because of COVID-19, but she wasn't able to return to work because no one was able to take care of the children due to illness. And since she was pregnant, I didn't want her to return and put herself at risk. She stayed [at home] with the children.

-- Marco, 33, Central Coast Region, Mixtec Speaker

Women were more likely than men to be put in a position to pay for childcare (30.5% vs. 18.7%) or to leave their children in the care of a minor sibling (11.1% vs. 3.9%). In some cases women, heads of households, felt they had no choice.

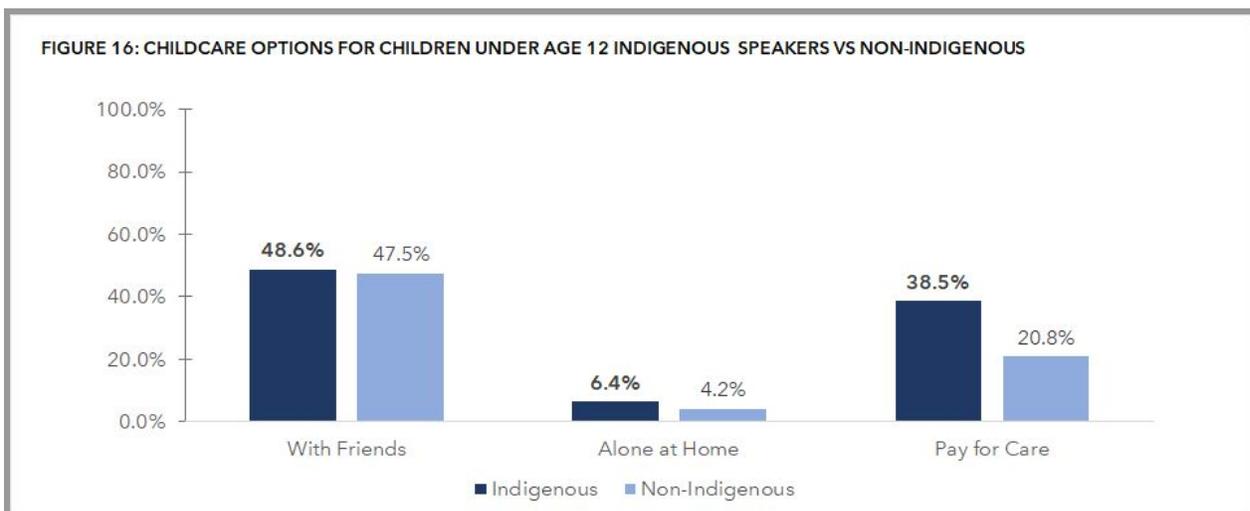
Yo tengo que trabajar a pesar de todo los temores que tengo de la enfermedad,tengo 6 hijos que mantener y no puedo dejar de trabajar porque mi esposo murió...yo tengo que hacerme cargo de todo... pagar por 5 niños es mucho dinero,ahora los dejo con una gran preocupación porque mi hija de 14 años se queda a cuidar de ellos porque no conseguí quien los cuide.

I have to work regardless of the fears I have about the virus. I have 6 children to support and I can't leave my job. My husband died... I'm in charge of everything... paying childcare for 5 children is a lot of money. Now I leave them, but with great worry, with my 14year old daughter who takes care of them because I wasn't able to find someone to take care of them.

-- Elisa, 41, Southern California Region, Mixtec Speaker

As a result of these excess burdens and childcare challenges, women with children reported greater difficulties paying for childcare during the pandemic than men with children (57% vs. 38%). Balancing work and family obligations has long been the reality for women, but COVID-19 and the resulting distance learning and school closures for school-aged children has further increased women's responsibilities.

Here too, Indigenous-speaking agricultural workers with children under the age of 12 were also at a greater disadvantage than Non-Indigenous speakers. **Almost twice as many Indigenous-speaking agricultural workers paid for childcare than Spanish-speaking agricultural workers (38.5% vs 20.8%) (Figure 16)**. This higher likelihood to pay for childcare was also supported in the discussion of excess burdens. Among COFS Indigenous-speaking agricultural workers, 42.5% had also reported having a harder time paying for childcare compared to Non-Indigenous speaking agricultural workers (39.1%). This difference between Indigenous and Non-indigenous groups may reflect migration patterns; Indigenous agricultural workers and more recent arrivals may be less settled and lack local social networks and support systems when it comes to childcare. Another possible explanation is predominantly financial. Especially in periods of income losses and financial instability, both parents in a household



where income is already low, may have to continue working even if it means paying for childcare.

Problems associated with the lack of internet connectivity for rural, low-income, and farmworker communities have also been amplified during the pandemic. Distance learning has created inequities in access to education at home and has elevated the digital divide as a civil rights issue.¹⁰³ COFS agricultural workers reported extra burdens that distance-learning posed for families with language barriers and who often lacked computers or internet access. This was particularly challenging for Indigenous-speakers who shared the following experiences:

“La escuela de mi niña se cerró y nosotros no tenemos internet o computadora. Entonces nada más hacía tarea en papel. Y de vez en cuando le hablaba la maestra.. mi nina esta triste porque ella le gusta la escuela”

My daughter’s school closed and we don’t have the internet or a computer. So she would just work on paper homework. And from time to time, the teacher would call....my daughter is sad because she likes school.

--Gabriela, 30, San Joaquin Valley Region, Mixtec Speaker

“A los niños les afectó el cierre de las escuelas porque los niños están chiquitos y no pueden usar la computadora muy bien y cuando tienen clases, batallan mucho para conectarse y entrar, y todo.”

The children have been affected by school closures because the children are little and they can’t use the computer very well. And when they have class, they struggle to connect themselves, enter, and everything.

-- Jaime, 32, Central Coast Region, Mixtec Speaker

Estoy preocupada por mis niños porque ellos no están aprendiendo bien. Les dan trabajo por computadora pero 3 de mis niños nacieron en Oaxaca y no saben bien el inglés. Solo uno entiende el inglés pero los demás no. y les dijimos a la escuela pero la escuela nos dijeron que lo traducamos en español pero ni se como entrar en la computadora.

I am worried about my children because they aren’t learning well. They receive work by computer, but 3 of my children were born in Oaxaca and they don’t know English very well. Only one of them understands English, but the rest don’t. And we told the school. They tell us to translate it in Spanish, but I don’t know how to

¹⁰³ Rodriguez D. Why did it take a pandemic for Monterey County to remedy inequities in education? The Californian.Com. November 16, 2020, 2020.

enter the computer.

-- David, 29, Central Coast Region, Triqui Speaker

Additional household-level challenges, changes to women's employment, and distance-learning challenges will be further explored in COFFS Phase 2 report.

Healthcare Access

The specific healthcare access challenges faced by Latinos and immigrants in general as well as agricultural workers specifically, long predate the pandemic. Lack of healthcare and health insurance is one factor that contributes to poor health outcomes.¹⁰⁴ However, it is also known that social determinants, such as work, housing, income to meet basic needs contribute greatly to health outcomes. For agricultural workers being uninsured or underinsured is exacerbated due to "the nature of their work, their extreme poverty and mobility, and living and working arrangements that impede access to health coverage and care."¹⁰⁵ Given the conditions that agricultural workers, immigrants and Latinos in general face, it is a sad reality that the Latino community has been disproportionately affected by COVID-19. According to CDC data on December 28, 2020, the U.S. COVID-19-associated hospitalization rate for Latinos is three times worse than among Whites; hospitalization rates for Latinos is nearly four times the rate of Whites.¹⁰⁶

Agricultural workers are unlikely to have employer-sponsored insurance, but lack of insurance isn't the only barrier to receiving medical care. While some research has found that workers do not want to lose worktime, the fear of unaffordable medical bills have long prevented many from seeking care unless it is a dire emergency. **More than half (59%) of COFS respondents reported costs and lack of insurance as significant barriers that would prevent them from accessing healthcare, even if they were ill during the pandemic.**

Agricultural workers frequently told surveyors that they didn't have health insurance, had only emergency medical, or purchased the cheapest insurance to comply with the law.

Pues yo y mi esposo no calificamos para la Medi-cal. Y pues como saben uno

¹⁰⁴ While the Affordable Care Act (ACA) improved healthcare access for Latinos, gaps continue; one-fourth (25.1%) of Latino adults remain uninsured. For more information on immigrant, undocumented or farmworker health insurance access, **SEE:** Baumgartner J, Collins S, Radley D, Hayes S. How the Affordable Care Act (ACA) Has Narrowed Racial and Ethnic Disparities in Insurance Coverage and Access to Health Care, 2013-18. Health Services Research. 2020;55:56-57; Krogstad JM, Passel JS, Cohn DV. 5 facts about illegal immigration in the U.S. In: Pew Research Center; 2019. Available at:

<https://www.pewresearch.org/fact-tank/2019/06/12/5-facts-about-illegal-immigration-in-the-u-s/>; rtiga S, Diaz M. Health Coverage and Care of Undocumented Immigrants. San Francisco: Kaiser Family Foundation; July 2019; Lucia, Laurel. Towards Universal Health Coverage: Expanding Medi-Cal to Low-Income Undocumented Adults. Center for Labor Research and Education, University of California, Berkeley. February 2019. <http://laborcenter.berkeley.edu/medi-cal-undocumented-adults>

¹⁰⁵ Rosenbaum SJ, Shin P. Migrant and seasonal farmworkers: health insurance coverage and access to care. The Henry J Kaiser Family Foundation; April 2005. Available at: <https://www.kff.org/wp-content/uploads/2013/01/migrant-and-seasonal-farmworkers-health-insurance-coverage-and-access-to-care-report.pdf>

¹⁰⁶ For updated interactive data and charts on the COVID-19 and Latinos, visit: https://www.cdc.gov/nchs/nvss/vsrr/covid19/health_disparities.htm

agarra la aseguranza menos costosa para que no nos multen al tiempo de hacer nuestros income tax. Y yo cada que voy al doctor, ya sea yo o mi esposo, siempre tenemos que pagar.

Well my husband and I don't qualify for Medi-Cal. So as you know, we take the least expensive insurance so that we won't get fined when we file our income tax. And everytime I go to the doctor, either for myself or my husband, we have to pay.

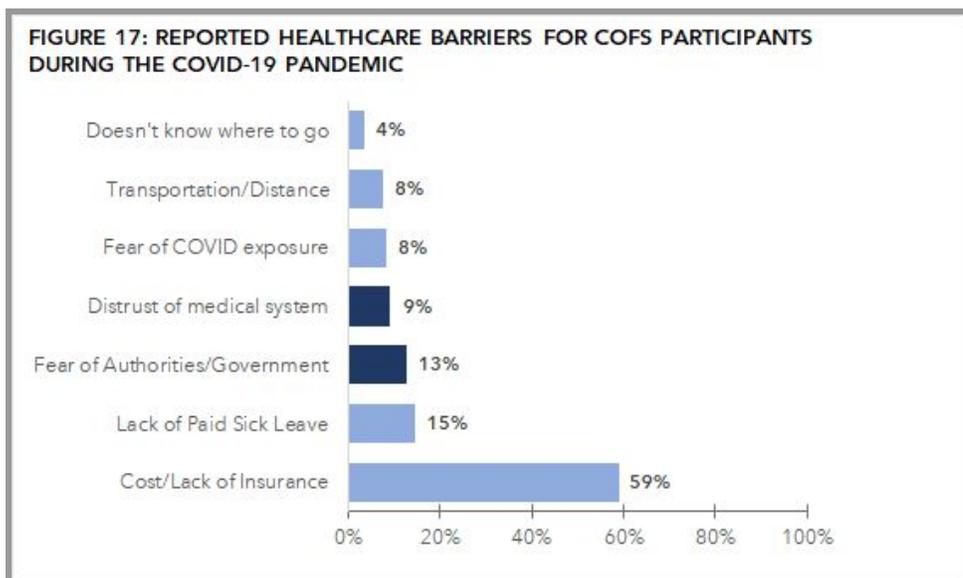
-- Amparo, 60, San Joaquin Valley Region

Me gustaria poder tener cobertura medica para toda mi familia gratuita, y no tener que preocuparme, cuando no tengo cómo pagar, como en este caso del Coronavirus,

I would like to have medical coverage for all of my family and for free. That way I don't have to worry about how I'm going to pay, like in this case with Coronavirus.

-- Agustin, 42, Southern California Region

Due to unfamiliarity with U.S. systems, language barriers, documentation status, less contact with formal institutions. Healthcare barriers may also be heightened for undocumented agricultural workers who may be more reluctant to seek health care for fear of being discovered, deported, or experience discrimination in health care settings. **Among COFS agricultural workers, 13% of respondents identified fear of government agencies and 9% reported a mistrust of the healthcare system as an impediment to seeking care, fears which preceded and have been exacerbated by the pandemic (Figure 17).**



Respondents shared how these long-standing, structural barriers prevented them from achieving equitable access to healthcare.

No tengo aseguranza y es muy caro curarse y hospitalizarse , no tengo grandes ingresos y en caso de muerte por Coronavirus serían más grandes , esta situación si da miedo

I don't have insurance and it's very expensive to get treatment or be hospitalized. I don't have a large amount of income and in case of death by coronavirus the costs would be larger. This is a scary situation.

--Mario, 45, Desert Region

Miedo de ir a un hospital con mis hijas y que digan que fue negligencia por no llevarla pronto. Y después que nos no la quiten y a nosotros nos deporten.

I would be afraid to go to the hospital with my daughters because I could be blamed for neglect if I didn't take them soon enough. Then, they would separate us and deport us.

--Jose, 38, San Joaquin Valley Region

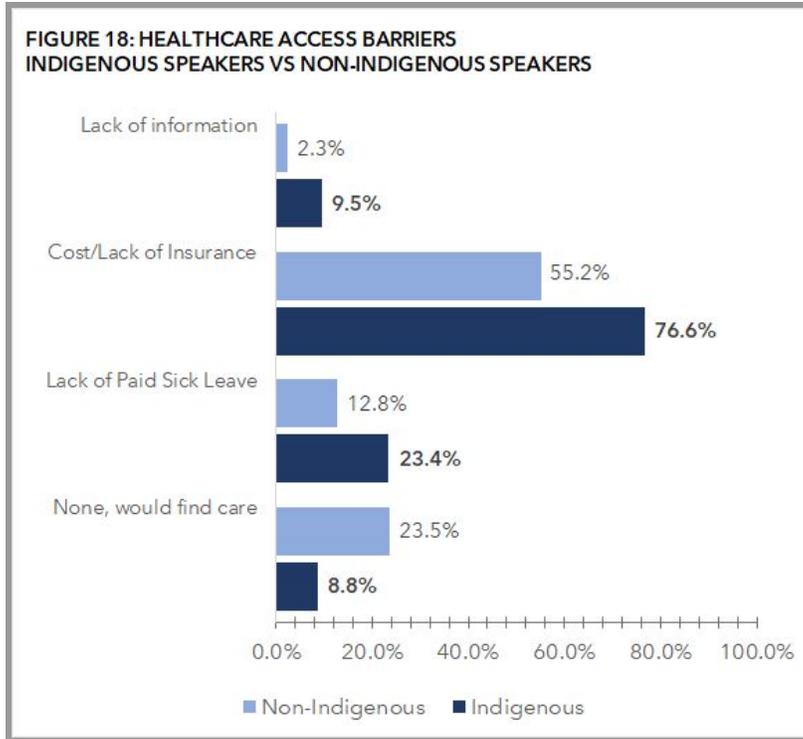
Fear of government authorities also intersected with another healthcare barrier-- lack of transportation. While transportation was named as a barrier for 8% of COFS agricultural workers, agricultural workers also expressed fear about travelling while undocumented.

Transportación [es] una barrera para obtener cuidado médico si nos enfermamos porque para ir a la clínica hay que usar transporte público y hay mucho miedo de topar[se] con autoridades.

Transportation is a barrier to obtain medical care if we get sick because to go to the clinic, we have to use public transportation and there's a lot of fear to bump into authorities.

--Eduardo, 37, Southern California Region

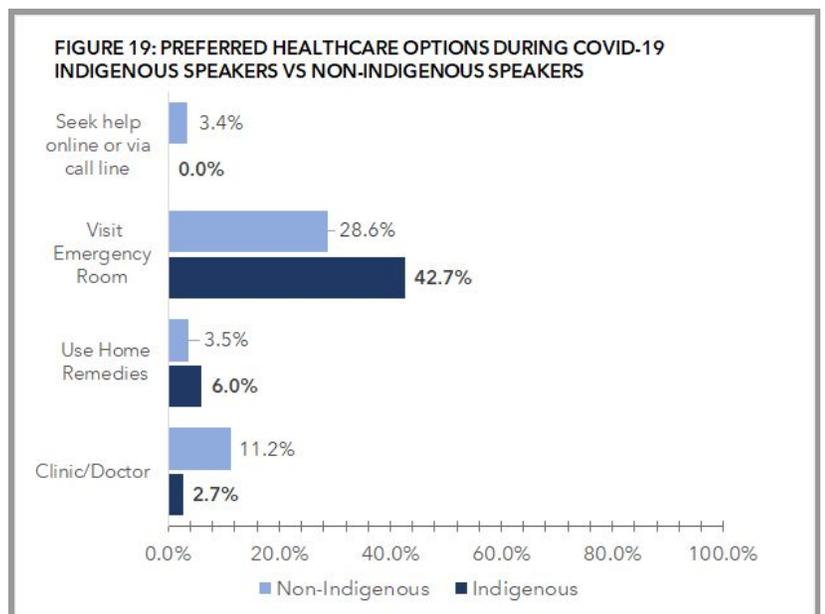
Overall, significantly more Indigenous-speaking agricultural workers than Non-Indigenous speakers noted that the cost of medical care or the lack of insurance is a barrier to getting care during the COVID crisis (76.6% vs. 55.2%) (Figure 18).



Indigenous-speakers are nearly twice as likely to report they lack sick leave than non-indigenous agricultural workers. (23.4% vs. 12.8%). Non-Indigenous speaking agricultural workers were also much more likely to say they would find a way to get care (23.4% vs. 12.8%) and, not surprisingly, far fewer Non-Indigenous speakers see a lack of information as a barrier (2.3% vs. 9.5%) .

Despite many healthcare barriers, few COFS agricultural workers would avoid care if they became ill. Approximately half (54%) of COFS agricultural workers would visit a clinic or doctor, nearly half (41%) would visit a hospital.

Non-Indigenous speakers were four times more likely than Indigenous-speakers to seek out access to a private doctor or clinic if they were to become ill (11.2% vs. 2.7%). Indigenous-speaking agricultural workers are also more likely to visit emergency rooms (42.7% vs. 28.6%) and more likely to report using home remedies (6% vs. 3.5%) than Non-Indigenous speaking agricultural workers in COFS (Figure 19).



These inequitable patterns may reflect the fact that Indigenous-speaking workers are more likely to be more recent arrivals in the US (0-5 years) than Non-Indigenous-speaking agricultural workers (12.2% vs 9.4%) and are therefore less familiar with the U.S. healthcare system. High emergency room use for both Indigenous and Non-Indigenous speakers may be due to lack of a regular “medical home.” As some agricultural workers reported, they only had “aseguranza de emergencia” or emergency Medi-Cal, which relegates them to emergency care only.¹⁰⁷ These additional barriers may help explain why Indigenous-speaking agricultural workers were more likely to say they did not know where to go for health care (9.5% vs 2.3%) (Figure 18). Both Indigenous-speaking and non-indigenous agricultural workers reported low rates of seeking healthcare help online or calling an information line (0%, 3.4% respectively.)

Mental Health

The strain and challenges of meeting basic needs during the pandemic have had a profound and stressful effect on children and adults. Among the general U.S population, many are experiencing considerable stress related to the coronavirus, but stress levels for parents have been higher than non-parent stress levels.¹⁰⁸ Another report also reported higher racial disparities in mental health and economic challenges for Latinos and Black Americans due to COVID-19.¹⁰⁹ Latinos were more likely to use up all or most their savings, borrow money or take out a loan, or suffer an economic hardship. Similarly, a CDC report documented higher prevalence of mental health, stress, and behavioral health challenges impacting Latinos and essential workers during the pandemic.¹¹⁰

It has long been recognized that the physical health of agricultural workers is at risk, but so is their mental health. Prolonged stress, economic burdens, precarious employment, workplace exposures, align with discrimination and living in an anti-immigrant climate leave many Latinos, immigrants, and agricultural workers vulnerable to depression, anxiety and other

¹⁰⁷ Full scope Medi-Cal includes most health care services such as doctor visits, laboratory and x-ray services, prescriptions and medications, inpatient and outpatient hospital care, emergency room visits, and mental health services. In contrast, Restricted Medi-Cal provides only limited health care coverage, such as emergency services and pregnancy-related services. An immigrant who meets all eligibility requirements, but is not in a satisfactory immigration status for full scope Medi-Cal is entitled to emergency and pregnancy-related services.

¹⁰⁸ For parents across the country, meeting basic needs, such as food and housing, was a more significant source of stress (70%) than those without children (44%). Nearly three-fourths (71%) of parents reported that managing distance/online learning for their children, fears of becoming ill (74%) and access to health care services (66%) were also sources of stress American Psychological Association. Stress in the Time of COVID-19 Vol 1-3. 2020. Available at <https://www.apa.org/news/press/releases/stress/2020/report>

¹⁰⁹ Getachew Y, Zephyrin L, Abrams MK, Shah A, Lewis C, Doty MM. Beyond the Case Count: The Wide-Ranging Disparities of COVID-19 in the United States The Commonwealth Fund; September 2020 2020. <https://www.commonwealthfund.org/press-release/2020/new-survey-black-and-latino-americans-face-greater-mental-health-economic>

¹¹⁰ zeisler MÉ, Lane RI, Petrosky E, et al. Mental Health, Substance Use, and Suicidal Ideation During the COVID-19 Pandemic - United States, June 24-30, 2020. MMWR Morbidity and mortality weekly report. 2020;69(32):1049-1057.

mental health conditions.^{111, 112, 113, 114 115} Yet, farmworker mental health services are inadequate to meet the needs of agricultural workers or their families.^{116, 117}

COFS Phase One survey did not ask about mental health conditions among COFS agricultural workers. However some open-ended responses about family, childcare, or income elevated their stressful experiences. Mental health issues and anxieties were a significant focus of the COFS Phase Two in-depth interviews--and that portion of the study used strict interview protocols to delve into these sensitive topics. The survey responses COFS Phase One agricultural workers provided over the summer of 2020 began to illustrate the serious impacts of COVID-19:

COVID-19 me esta afectando emocionalmente y economicamente por que estoy preocupada en como pagar mis facturas. Me está causando mucho estrés y ansiedad. Al igual yo trabajo en el campo y mi trabajo no es permanente. Ahora nos está cortando las horas de trabajo por COVID-19. Trabajamos menos horas y yo no puedo trabajar todos los días porque no tengo cuidado de niño.

COVID-19 is affecting me emotionally, economically because I'm worried about how I'm going to pay my bills. It's causing me a lot of stress and anxiety. Even still, I work in the fields and my job isn't permanent. Now they're cutting our hours at work for COVID-19. We work less hours and I can't work everyday because I have to take care of my son.

-- Patricia, 29, San Joaquin Valley Region

Es algo muy difícil de manejar porque vivimos con miedo a contagiarnos, lidiando con el estrés personal y de mi hija por el hecho de no ir a la escuela y no salir, fue un cambio total en nuestras vidas que aún no sé cómo manejar, en el trabajo por el hecho de menos personal para el distanciamiento ocasiona que trabajemos más ya que lo que hacían 8 personas ahora lo hacemos 6, es muy difícil y quisiera que todo esto pase y que todos tengamos un poco de paz emocional.

¹¹¹ Grzywacz JG, Quandt SA, Chen H, et al. Depressive symptoms among Latino farmworkers across the agricultural season: Structural and situational influences. *Cultural Diversity and Ethnic Minority Psychology*. 2010;16(3):335.

¹¹² Tribble AG, Summers P, Chen H, Quandt SA, Arcury TA. Musculoskeletal pain, depression, and stress among Latino manual laborers in North Carolina. *Arch Environ Occup Health*. 2016;71(6):309-316.

¹¹³ Hiott AE, Grzywacz JG, Davis SW, Quandt SA, Arcury TA. Migrant farmworker stress: mental health implications. *The Journal of Rural Health*. 2008;24(1):32-39.

¹¹⁴ Hovey JD, Seligman LD. The mental health of agricultural workers. In: *Agricultural medicine*. Springer; 2006:282-299.

¹¹⁵ Hovey JD, Magaña C. Acculturative stress, anxiety, and depression among Mexican immigrant farmworkers in the Midwest United States. *Journal of immigrant health*. 2000;2(3):119-131.

¹¹⁶ Arcury TA, Quandt SA. Delivery of health services to migrant and seasonal farmworkers. *Annu Rev Public Health*. 2007;28:345-363.

¹¹⁷ Ingram M, Schachter KA, Guernsey de Zapien J, Herman PM, Carvajal SC. Using participatory methods to enhance patient-centred mental health care in a federally qualified community health center serving a Mexican American farmworker community. *Health Expectations*. 2015;18(6):3007-3018.

It's something really difficult to manage because we live with the fear of contagion. We're managing with personal stress. And my daughter, due to the fact that she's not going to school, doesn't go out. It was a complete change in our lives that we're still not sure how to manage it. At work due to the fact that we have to have fewer people, to comply with distancing, it requires us to work more. Even the work 8 people used to do is being done by six. It's very difficult and I wish all of this would pass and that all of us can have a little bit of emotional peace.

-- Carla, 33, Central Coast Region

Yo tengo problemas de ansiedad y ahora con la epidemia me dan más ataques de ansiedad. Soy madre soltera y me da miedo contagiarme porque soy la única que mantiene a mis dos hijas. Yo no tengo acceso a ningún beneficio del gobierno ni siquiera Medi-Cal.

I have problems with anxiety and now with the pandemic I get anxiety attacks more often. I'm a single mom and I'm afraid of becoming infected because I'm the only one who supports my two daughters. I don't have access to any government benefit, not even Medi-Cal

-- Elena, 32, San Joaquin Valley Region, Zapotec Speaker

Parents worried about their children's mental health and well-being:

Ahorita todos los niños están adentro aburridos... tristes porque cerraron los parques y juegos aquí del departamento. Entiendo que es por la seguridad pero mis niños ya no saben qué hacer.

Now all of the children are indoors bored....sad because parks are close and they play here inside the apartment. I understand this is being done for safety, but my children don't know what to do.

-- Alejandrina, 50, San Joaquin Valley Region, Mixtec Speaker

Es triste porque toda la familia sale afectada. Mis hijas lloraban porque decían que me iba morir, y me quería abrazar. Si no fuera por la ayuda de los vecinos y unos familiares no tendría modo de obtener comida.

It's sad because all of the family is affected. My daughters have cried because they say I'm going to die and they want to hug me. If it weren't for the help of neighbors and some family members, I would have no way to get food.

--Estela, 52, San Joaquin Valley Region

Mis hijas son las más afectadas , por no poder salir están mucho tiempo encerradas , estoy muy preocupada por ellas .

My daughters are the ones most affected. Since they aren't able to go out, they are cooped up. I'm worried about them.

-- Clara, 36, Northern California Region

BRIEF CONCLUSION AND POLICY RECOMMENDATIONS

“No queda de otra mas que echarle ganas porque aquí si no trabajas no comes y no tienes donde vivir.”

There’s no other option than to give it all you’ve got because if you don’t work, you don’t eat and you don’t have anywhere to live.

--Pablo, 30, San Joaquin Valley Region

Overall, COFS data reveals that agricultural workers are experiencing significant negative impacts from COVID-19 and that these impacts exacerbate long-standing vulnerabilities of this essential workforce. CBO partners were not surprised by the COFS findings given the demand and need for services they experienced during the first few months of the pandemic. However, their feedback, discussion and experiences informed both policy recommendations and Phase Two of COFS.

Based on the findings from the COFS data of 915 agricultural workers, agricultural workers lacked sufficient resources and financial assistance support as they weathered the challenges of the COVID-19 pandemic, including reduced employment hours, job loss, excess costs of providing their own protective equipment, and the hardship of caring for family members who are ill or out of school. These resources and support needed should include direct payments, unemployment insurance, food assistance, housing support for COVID-19 isolation, counseling and other social services. Additionally, because agricultural workers and CBOs have critical and informed insights about how to improve pandemic response, the COFS project illustrates the importance of engaging meaningfully with community-based organizations in farmworker-oriented research. In the COFS project, farmworker-serving CBOs have contributed to study design, outreach, data collection, interpretation, and dissemination of findings, which is especially important for rapid response and disaster relief activities such as this pandemic.

As a result of the findings and direct-experiences, COFS proposes the following policy recommendations, which form an advocacy framework that is filled in by COFS Phase Two data:

1. Since agricultural workers practiced vigilance with regards to COVID-19 prevention practices at home. **Expand and simplify access to income and safety net resources and services that move beyond education and overcome barriers for agricultural workers, regardless of documentation status.**
2. Due to the experiences and challenges with language and literacy or the inability to read or understand important safety and other resource communications, **Address language barriers by including visual education along with Mexican Indigenous, Asian and non-academic Spanish languages in culturally appropriate literacy levels.**

3. Agricultural workers lack healthcare access and experience fear using medical services. **Expand healthcare access and coverage regardless of documentation status.**
4. Agricultural workers experienced dramatic loss of work and income, and are also systematically excluded from important safety-net programs. **Expand and simplify access to disaster income and safety net relief for agricultural workers, regardless of documentation.**
5. Agricultural workers experienced a lack of communication and transparency at worksites. **Engage agricultural workers and farmworker-serving CBOs to design and implement direct services, workplace safety, education, and outreach that will meet local COVID-19 needs.**
6. Agricultural workers feared repercussions for speaking on healthy and safety topics. **Ease the barriers for agricultural workers to report COVID-19 related complaints, protect against retaliations, and bolster health and safety enforcement and compliance agencies.**

Next Steps for COFS in California

COFS Phase One (results reported here) was followed by a Phase Two study which explored social, emotional, and economic challenges faced by California agricultural workers through a set of 63 in-depth follow-up interviews with workers. The Preliminary Report from CA Phase Two is available on the COFS website. Additional reports from COFS will also be available on the website in 2021. In 2021, the COFS team will begin Phase Three-- a systems analysis of responses to the COVID-19 pandemic by state and local agencies as well as farmworker-serving community organizations.

Contact: Ildi Carlisle-Cummins, Executive Director, California Institute for Rural Studies (icarlisle-cummins@cirinc.org) **Website:** <http://covid19farmworkerstudy.org>