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# **The 2023 Farmer Employment Survey Report Summary of Preliminary Survey Findings for California Farmers**

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## **The 2023 Farmer Employment Survey Report Summary of Preliminary Survey Findings for California Farmers**

The 2023 Farmer Employment Survey was conducted to collect information on the adaptation strategies of agricultural employers in the face of growing labor scarcity, particularly in the context of recent shifts in labor market dynamics and the COVID-19 pandemic. This pandemic has potentially reinforced the urgency for farmers to modify their production practices, labor management methods, and embrace labor-saving technologies. This report presents the survey's methodology, demographic insights, and preliminary findings of how California's agricultural sector is responding to 2022 labor market conditions.

### **Survey Sample and Responses**

The 2023 Farmer Employment Survey was conducted by the California Farm Bureau (CFB), the California Farm Labor Contractors Association (CFLCA), and researchers from the University of California, Davis and Michigan State University.

The generalizability of responses to the population of farmers and FLCs in California depends on (a) how representative these survey respondents are of that population, and (b) whether those who chose to complete the survey are similar statistically to those who did not.

A total of 258 individuals responded to the survey. Of the 258, 172 farmers consented to the survey and 45 farm labor contractors consented to the survey. This report focuses on the 172 farmers.

## **California Farmer Respondents**

### **Section 1: Respondent Farm Profile**

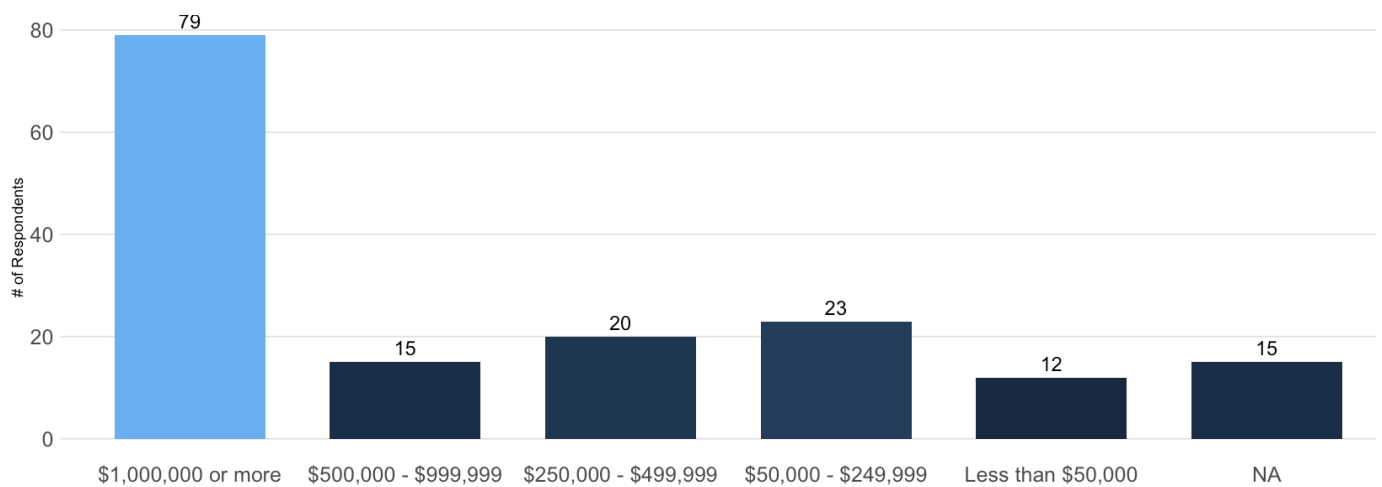
Survey respondents were asked to describe their farm profile based on their 2022 revenue, farm acreage, and share of agricultural production, including specific inquiries into dairy and

livestock farming.

## Revenue

Survey respondents were asked about their 2022 revenue generated from the production of agricultural commodities in 2022. Of the 164 responses, 79 respondents (48% of responses) estimated generating \$1M+ in revenue, 15 (9%) respondents estimated generating between \$500K - \$999K, 20 (12%) respondents estimated generating between \$250K - \$499K, 23 (14%) respondents estimated generating between \$50K - \$249K and 12 (7%) respondents estimated generating less than \$50K.

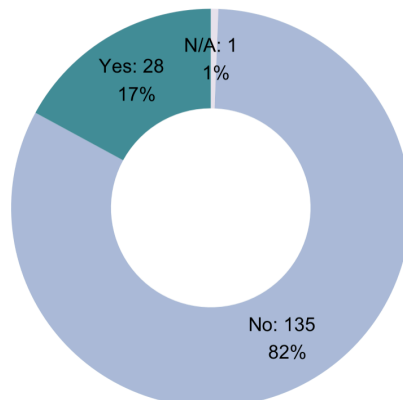
Q: During 2022, approximately how much revenue did you generate from production of agricultural commodities?



## Farm Production

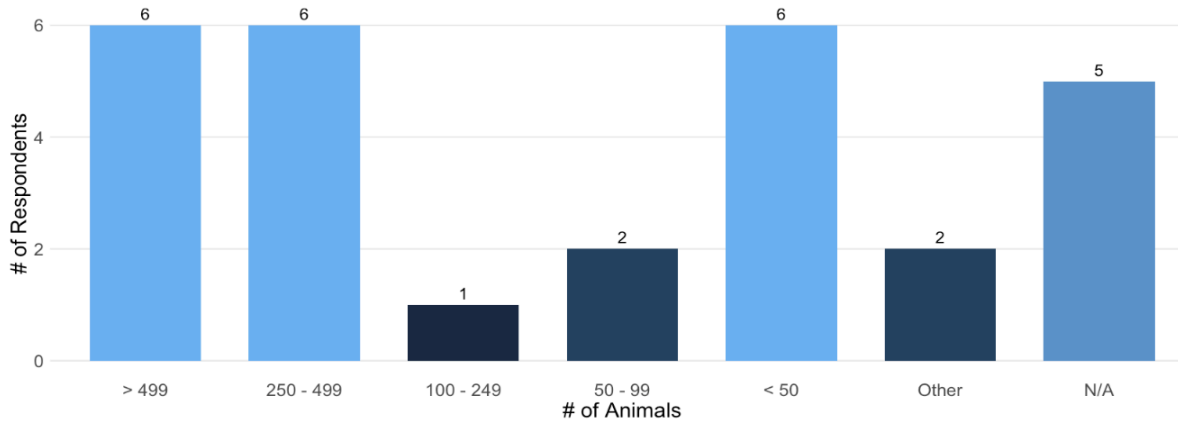
Survey respondents were asked to describe their farm production and share of dairy or livestock farming. There were 164 respondents who answered, and 135 respondents (82% of responses) of them did not engage in any dairy or livestock farming, while 28 respondents did.

Q: Was dairy or livestock farming all or part of your production in 2022?



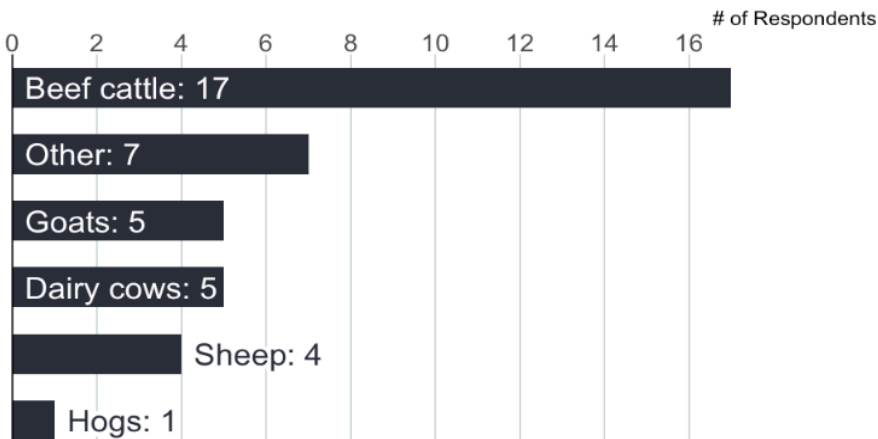
Of the 28 respondents that engaged in dairy or livestock farming, 12 respondents (43% of responses) estimated caring for more than 250 animals, 3 (11%) respondents estimated caring for 50 to 249 animals, 6 (21%) respondents estimated caring for 49 or fewer animals and 7 (25%) respondents selected “Other” or did not answer. Respondents who selected “Other” were asked to specify their response, and both respondents stated caring for a number of honeybees.

Q: Approximately how many animals did you raise/care for in 2022?



The respondents were asked to select all the types of animals they cared for, and of the 28 respondents, 17 respondents (60% of responses) classified their livestock production as beef cattle, 7 (25%) respondents cared for animals not listed in the survey, 5 (18%) respondents cared for goats, 5 (18%) respondents care for dairy cows, 4 (14%) respondents cared for sheep and 1 (4%) respondent cared for hogs. Totals add up to more than 100% because respondents were allowed to select more than one answer.

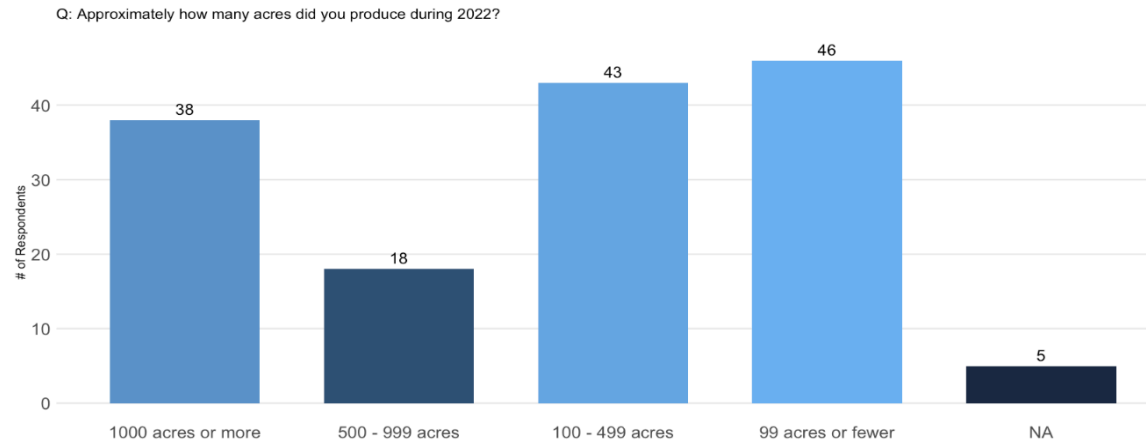
Q: What animals did you raise/care for?



Of those who selected “Other”, 4 respondents specified caring for bees and 1 respondent specified caring for chickens.

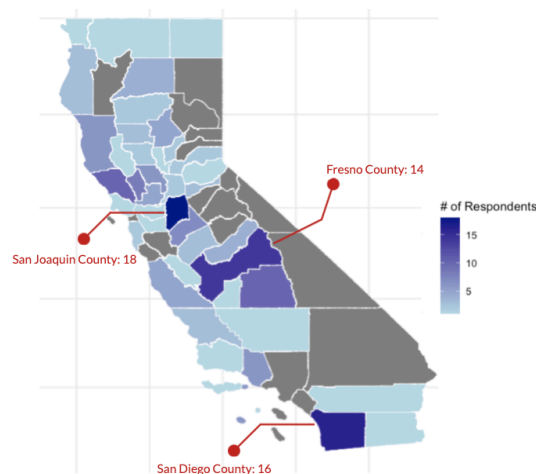
## Acreage

Survey respondents were asked to quantify their farm's acreage produced in 2022, of the 150 submitted responses, 38 respondents (25% of responses) categorized themselves as having produced at least 1000 acres, 18 (12%) respondents categorized themselves as having produced between 500 - 999 acres, 43 (29%) respondents categorized themselves as having produced between 100 - 499 acres, 46 (31%) respondents categorized themselves as having produced 99 or less acres, and 5 (3%) did not respond.



## Section 2: Counties And Commodities Generating the Highest Share of Total Sales

Survey respondents were asked in which California counties they produced the highest percentage of their total sales in 2022. Of the 166 respondents, the top three counties where survey respondents reported growing the largest share of their total sales are San Joaquin County (18 respondents, 11% of responses), San Diego County (16, 10%) and Fresno County (14, 9%)



Respondents were asked to identify the commodities that produced the largest percentage of

their 2022 total sales.

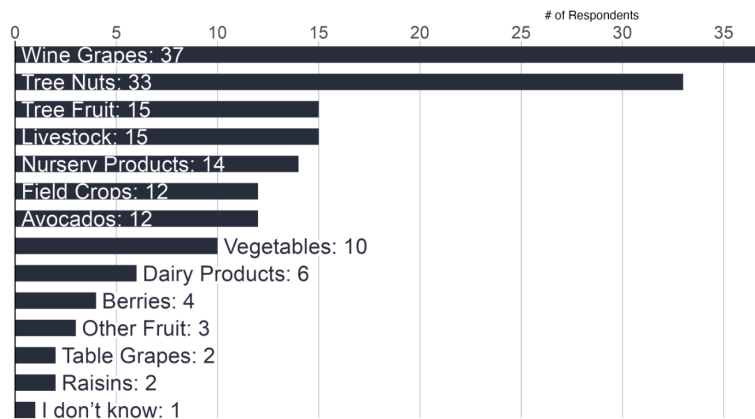
**Fruits and nuts:** 37 respondents (22% of responses) produced wine grapes as their primary product, 33 (20%) produced tree nuts, 15 (9%) produced tree fruit, 12 (7%) produced avocados, 4 (2%) produced berries, 3 (2%) produced other fruits, 2 (1%) produced raisins, and 2 (1%) produced table grapes

**Vegetables:** 10 (6%) produced vegetables

**Horticultural:** 14 (8%) produced nursery products.

**Non-specialty crops:** 15 (9%) produced livestock as their primary commodity, 12 (7%) produced field crops, 6 (4%) produced dairy and 1 (1%) wasn't sure.

Which commodity or commodities produced during 2022 generated the highest percentage of your total sales? (Please select at least one commodity, with "Commodity 1" being the one that generated the highest percentage of your total sales.



### Section 3: Labor Costs, Shortages and Changes

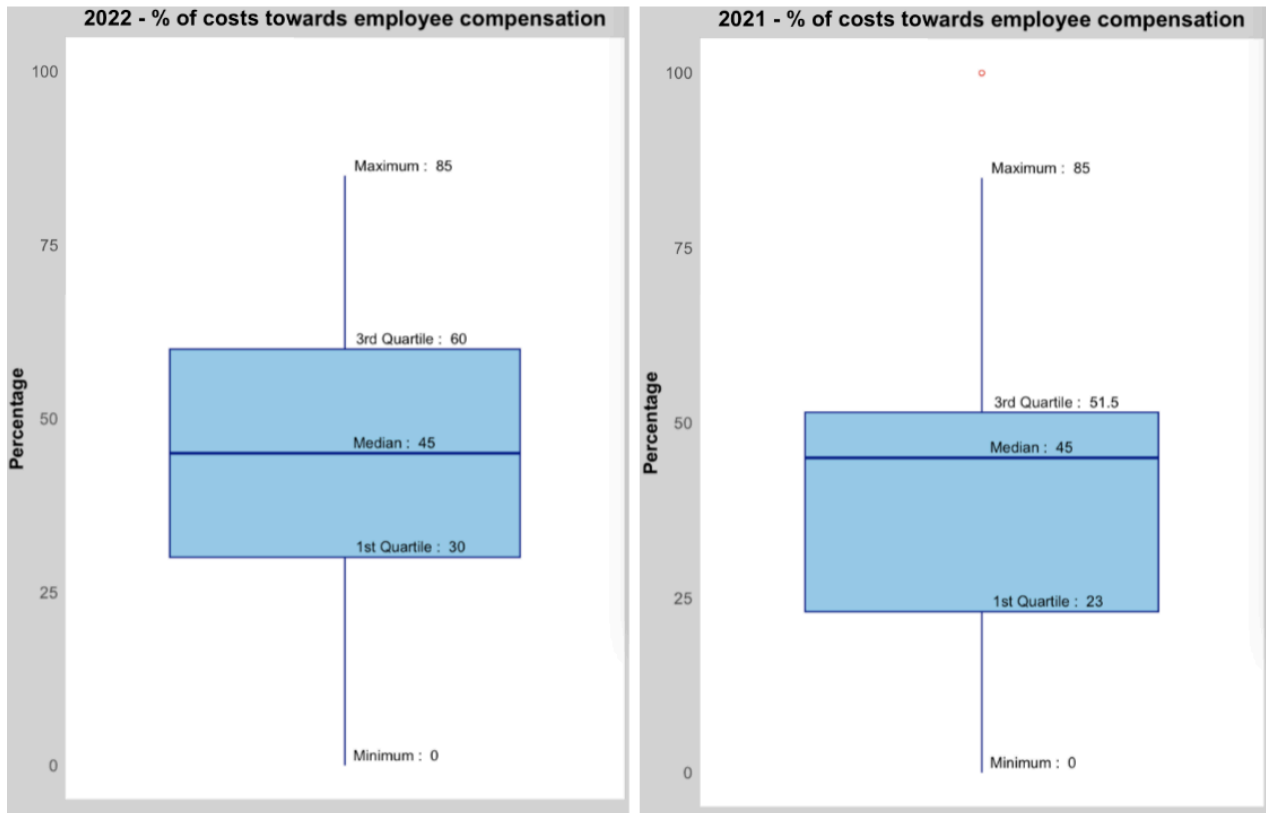
Respondents were asked to describe the impact of labor costs and challenges on agricultural production in 2022. Respondents were queried about the proportion of their production costs attributed to labor in 2021 and 2022, their labor situation, the challenges faced in hiring, and the measures taken to address labor shortages and costs.

#### Labor / Production Costs

Survey respondents were asked to estimate their 2022 share of production costs comprised of employee compensation. Ninety-nine (68%) of the 146 responses estimated about 45% of their production costs were driven by wages, benefits and other forms of employee compensation in 2022.

Similarly in 2021, 87 (60%) respondents estimated 45% of their production costs were driven by wages, benefits and other forms of employee compensation.

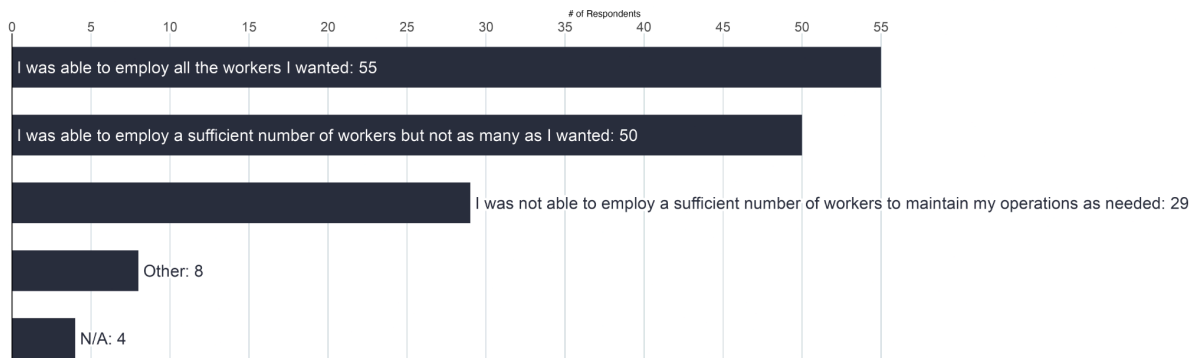




## Labor Conditions

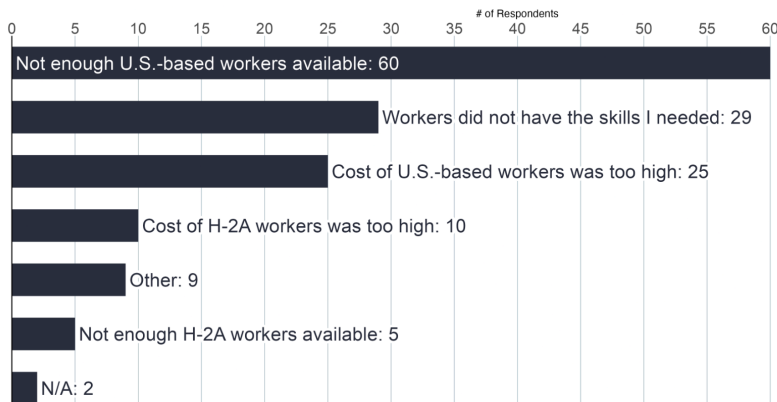
Respondents were asked to describe their labor situation in terms of their ability to hire workers. Of the 146 respondents, 55 respondents (38% of responses) were able to employ all the workers they needed, 50 (34%) were able to hire a sufficient number of workers, but not the amount that they needed, and 29 (20%) were not able to employ a sufficient number of workers to maintain their operations. Implying that 79 (54%) of the 146 respondents were unable to employ the number of workers they wanted or needed to maintain their operations.

Q: For 2022, what best describes your labor situation?



Among the 79 respondents that were unable to employ the number of workers they wanted or needed, they were asked to describe why they were unable to meet their required demands. Respondents were allowed to provide multiple answers. The 79 respondents provided 140 responses. Among those responses, the primary obstacle farmers faced was a lack of availability of U.S workers (60 respondents, 43% of responses). Followed up by a lack of skills in available workers (29, 21%), high costs for U.S based workers (25, 18%), high costs for H-2A workers (10, 7%) and a lack of available H-2A workers (5, 4%). Additionally, 9 respondents (6%) pointed to issues not listed in the survey options and 2 (1%) did not specify a barrier.

Q: In 2022, why were you unable to employ all the employees you wanted or needed? (Check all that apply.)

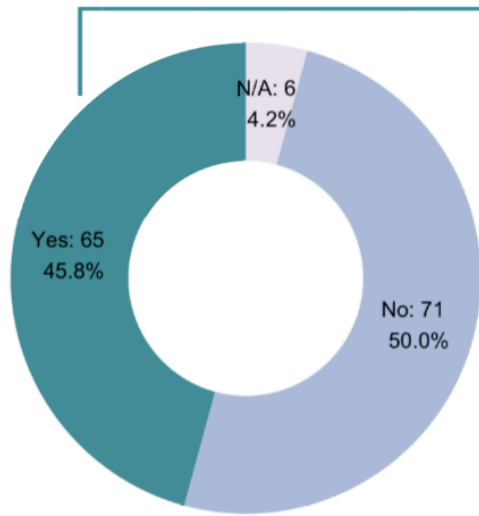


### Adaptation Strategies

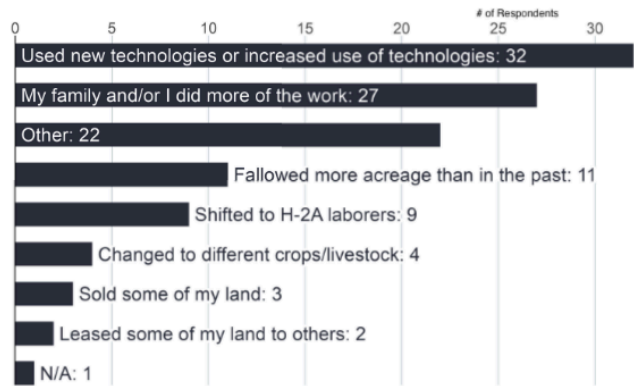
Respondents were asked if they made any changes to their production activities as a result of the 2022 labor market. Sixty-five of the 142 respondents (45% of all respondents) made changes to their production activities. Of the 65 respondents that made changes to their production activities, respondents were asked to describe what kind of changes they implemented. Respondents were allowed to provide multiple answers.

The 65 respondents provided 111 responses, 32 responses (29% of responses) cited using new technologies or increasing their current technology usage, 27 (24%) responses cited their family or themselves engaging in more of the work, 22 (20%) selected an answer that was listed (“Other”) and 11 (10%) responses followed more acreage than in the past.

Q: In 2022, did you make any changes to your production activities as a result of labor shortages, labor costs, or to reduce the number of employees you needed?



In 2022, what actions did you take or changes did you make as a result of labor shortages, labor costs, or to reduce the number of employees needed? (Check all that apply.)

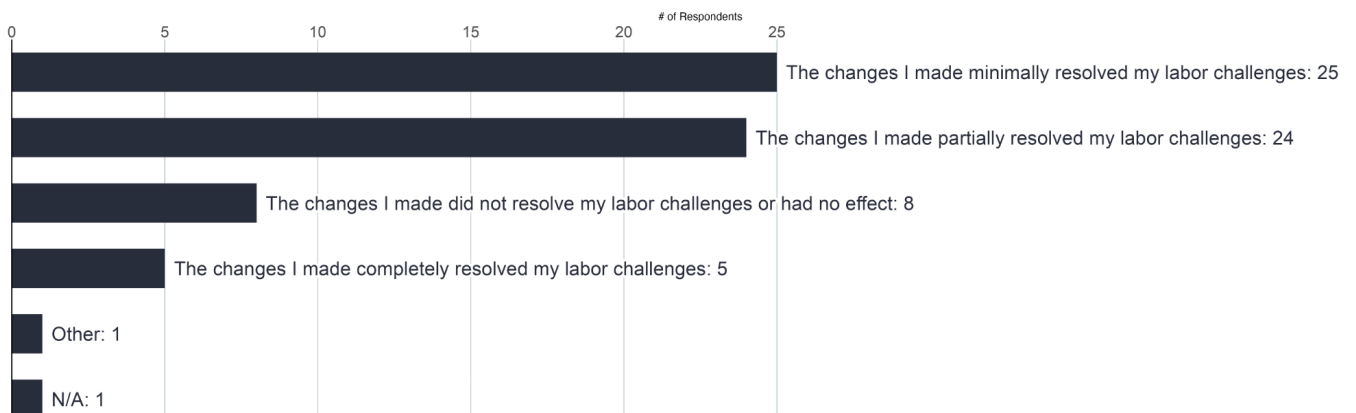


\* Of the 65 respondents that made changes to production activities as a result of the labor market, 64 of them responded to the follow-up questions. Percentages and totals for these specifics are based on the 64 individuals.

Of the 22 responses that cited “Other” reasons, they specified their changes to employment practices ranged from reducing worker hours to reducing production for necessary work.

Respondents were asked if the changes they made to deal with changing labor market conditions resolved their labor related challenges. Forty-nine of the 64 respondents (77% of respondents) said the changes partially or minimally resolved their labor challenges.

Q: For 2022, how much did these changes resolve the labor challenges you were facing?

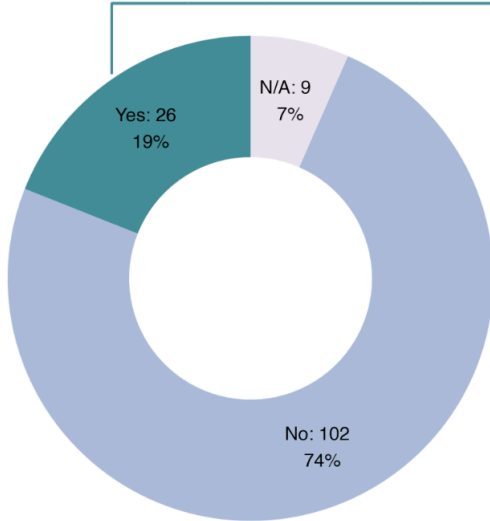


## Section 4: H-2A Worker Productivity and Costs

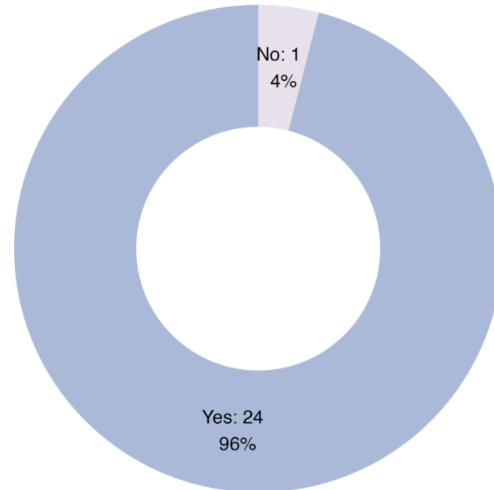
Survey respondents were asked about their employment of H-2A and non-H-2A workers,

comparing the costs and productivity of these two groups. Of the 137 responses, 26 respondents had employed H-2A workers previously, and 24 respondents had employed both H-2A and non H-2A workers previously.

Q: Do you currently (or have you previously) employ(ed) H-2A workers?



Q: Do you currently (or have you previously) employ(ed) workers who are not H-2A workers?



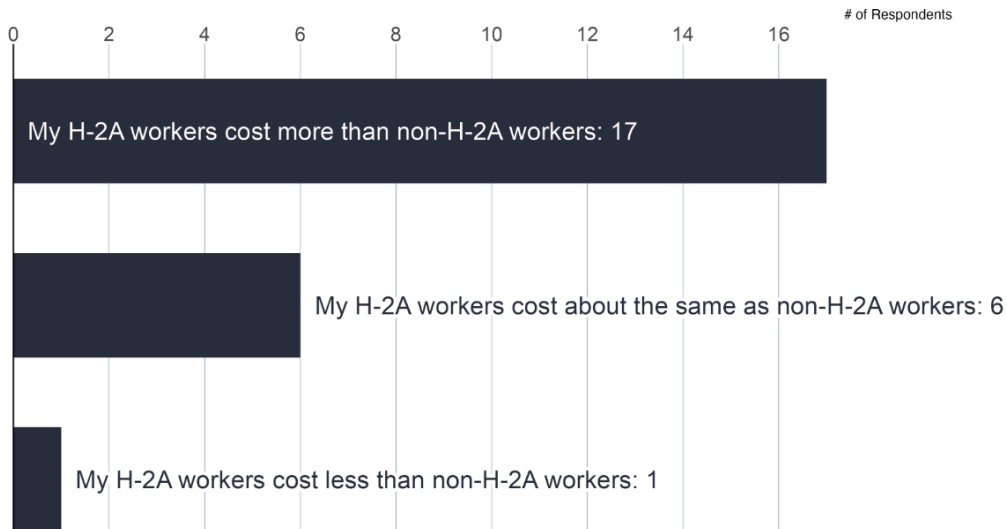
\* Note: of the 26 surveyors who employ(ed) H2-A workers, 25 responded to the following question "Do you currently (or have previously) employ(ed) workers who are not H-2A workers?"

Those individuals provided comparative estimates on H-2A cost differences, overall productivity levels, and specific areas where one group was more productive than the other.

### H-2A Impacts on Cost

Out of the 26 respondents who previously employed H-2A workers, 24 employed both H-2A and non-H-2A workers. Those respondents were asked if their farm's H-2A workers cost more, less or about the same as non-H-2A workers; 17 (71%) of respondents reported that their H-2A workers were more costly, while 6 (25%) respondents reported that their H-2A workers cost the same as their non-H-2A workers and 1 (4%) respondent reported that their H-2A workers cost less than non-H-2A workers.

Q: Considering approximate total costs, including housing, transportation, meals, etc., but not considering efficiency, did your H-2A workers cost more, cost less, or cost about the same as your non-H-2A workers? (An estimate is fine.)

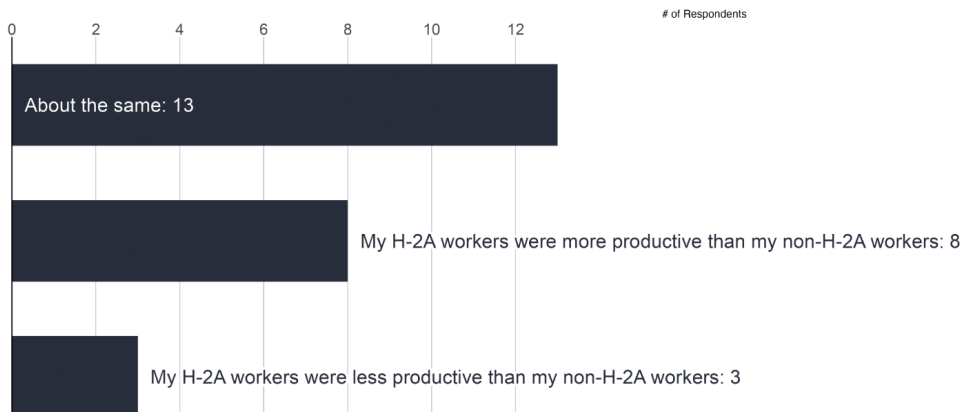


Among the 17 respondents who reported that H-2A workers cost more, 13 respondents (76% of respondents) estimated that, on average, the costs associated with H-2A workers were 20% higher compared to non-H-2A workers.

### H-2A Impacts on Productivity

Of those 24 respondents who employed both H-2A and non-H-2A workers, 13 respondents (54% of respondents) indicated that H-2A productivity was about the same as non-H-2A workers, 8 (33%) respondents reported that H-2A workers were more productive than non-H-2A workers and 3 (13%) reported their H-2A workers were less productive than their non-H-2A workers.

Q: On average and using approximate estimates, were your H-2A workers more productive, less productive, or about the same as your non-H-2A workers?



Among the 8 respondents who viewed H-2A workers as more productive, 6 respondents (75% of respondents) of them indicated that, on average, H-2A worker productivity was 30% higher compared to non-H-2A workers.

These 8 respondents were asked to specify why they saw more productivity from H-2A workers, and 3 respondents cited that H-2A workers worked faster than non-H-2A workers.

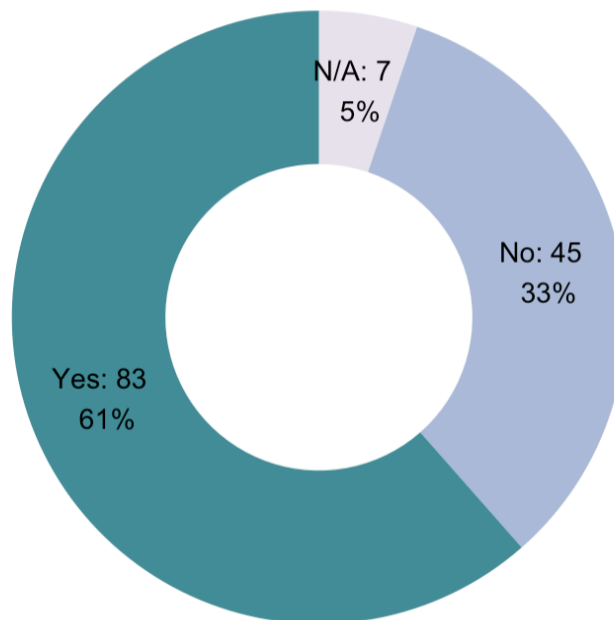
## Section 5: Labor Skill Development and Adaptation

Survey respondents were asked about their anticipation for new skill requirements in agricultural employees and any recent changes in employment practices since 2018, including factors influencing these changes and their impact on employee hiring and retention.

### Anticipated Skill Development

Survey respondents were asked if they anticipate the development of new skills for agricultural production to meet their business needs. Of the 135 respondents, 83 respondents (62% of respondents) expected a need for new skill development, 45 (33%) respondents did not anticipate a need and 7 (5%) respondents were unsure.

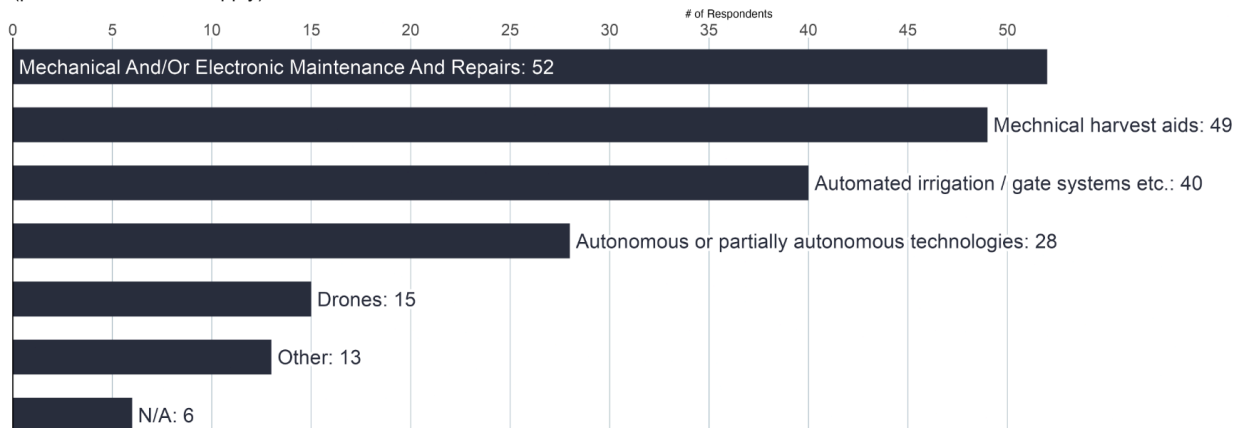
Q: Do you anticipate a need for the development of new skills (including hard skills such as technical training or soft skills such as language proficiency) for agricultural production employees to meet your business needs in the future?



Of those 83 respondents anticipating the need for new skills, respondents were asked which hard and soft skills workers would need to meet business needs and were able to select more than one answer.

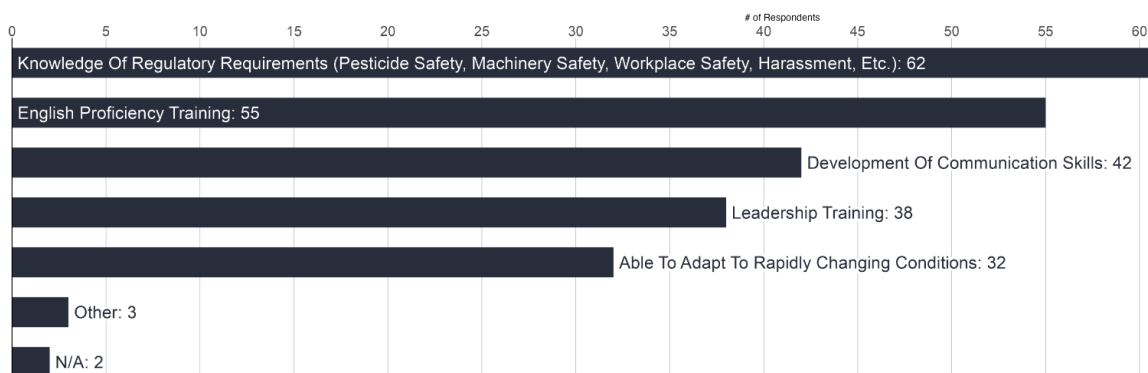
For hard skills, the top answers where survey respondents expected skill development were mechanical and/or electronic maintenance and repairs (52 responses, 63% of responses), working with mechanical harvest aids (49, 59%), automated irrigation systems, automated gate systems and other similar technologies (40, 48%), working with autonomous or partially autonomous technologies (28, 33%) and utilizing drones (15, 18%).

Q: Which hard skills (such as working with new technologies) do you anticipate being needed to meet your business needs in the future? (please check all that apply)



For soft skills, the top four answers where survey respondents expected skill development were knowledge of regulatory requirements (62 responses, 75% of responses), English proficiency (55, 66%), communication skills (42, 51%), leadership training (38, 46%), and the ability to adapt to changing conditions (32, 39%)

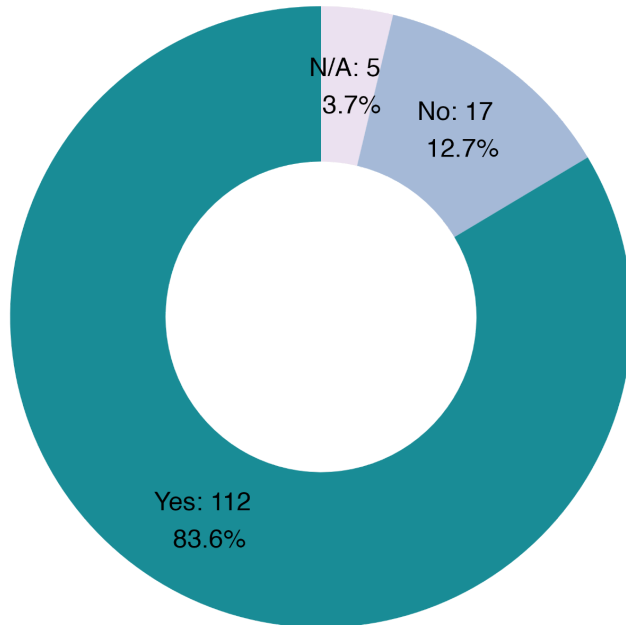
Q: Which soft skills (such as communication skills) do you anticipate being needed to meet your business needs in the future? (please check all that apply)



### Changes in Employment Practices

Survey respondents were asked if they had made any changes to their employment terms or practices in the last five years (2018 - 2022). Of the 134 respondents, 112 respondents (83% of respondents) said they did make changes.

Q: Have you made any changes to your employment terms or practices, such as increasing wages above required levels, offering fewer overtime hours, asking employees to shift their schedules, using time-tracking apps, etc., any time in the last five years (since 2018)?



Out of the 134 respondents, the 112 respondents who made changes to their employment practices were asked what kind of changes they implemented in the past five years. Respondents were allowed to provide multiple answers.

The 112 respondents provided 276 responses, with the top five answers reflecting increasing wages above mandated levels (102 responses, 37% of responses), reduction in overtime hours offered (57, 21%), usage of time-tracking apps / software (31, 30%), asking workers to work night shifts (28, 10%) and using new technologies (28, 10%).



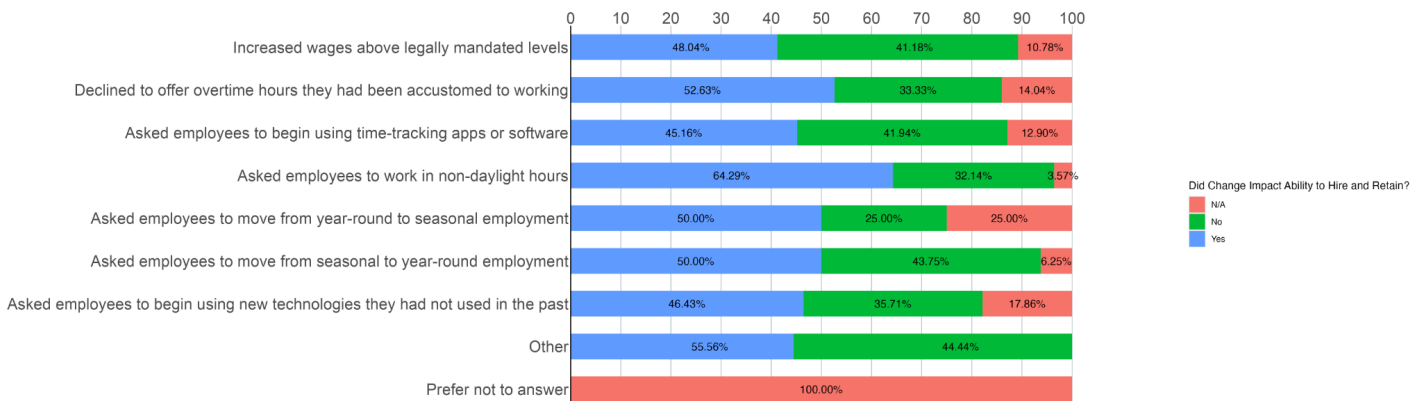
Q: What changes to employment terms or practices did you make in the last five years (2018 or later)? (Check all that apply.)



Of those that made changes to their employment terms, respondents were asked if the changes affected their ability to hire or retain employees.

#### Labor Term Changes Made in Previous 5 Years

Q: What changes to employment terms or practices did you make in the last five years (2018 or later)? (Check all that apply.)



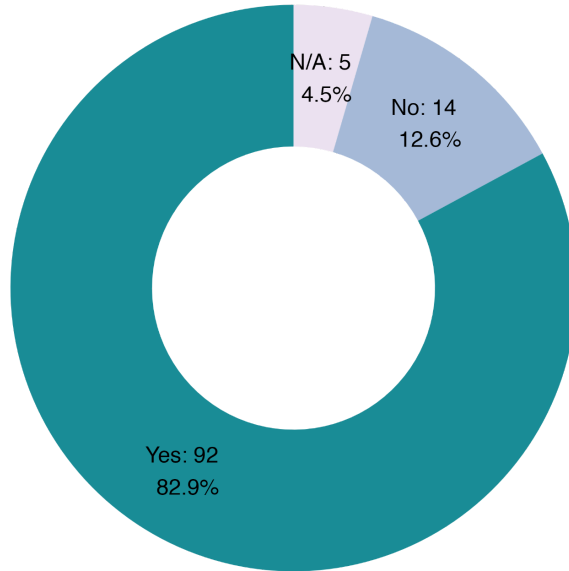
Of those 45 respondents that had experienced a difference in their ability to hire or retain were asked to provide commentary on how they were impacted. Thirty-two respondents provided a response. Twelve of those 32 respondents (38% of respondents) identified a lack of ability to offer overtime hours as a primary factor that impacted their ability to hire or retain employees.

#### Influencing Factors

Survey respondents were asked if their changes in employment terms were driven by any factors, such as regulations, costs or environmental conditions. Ninety-two (82%) of 111 respondents answered that these factors played a part in their decision to change employment

terms.

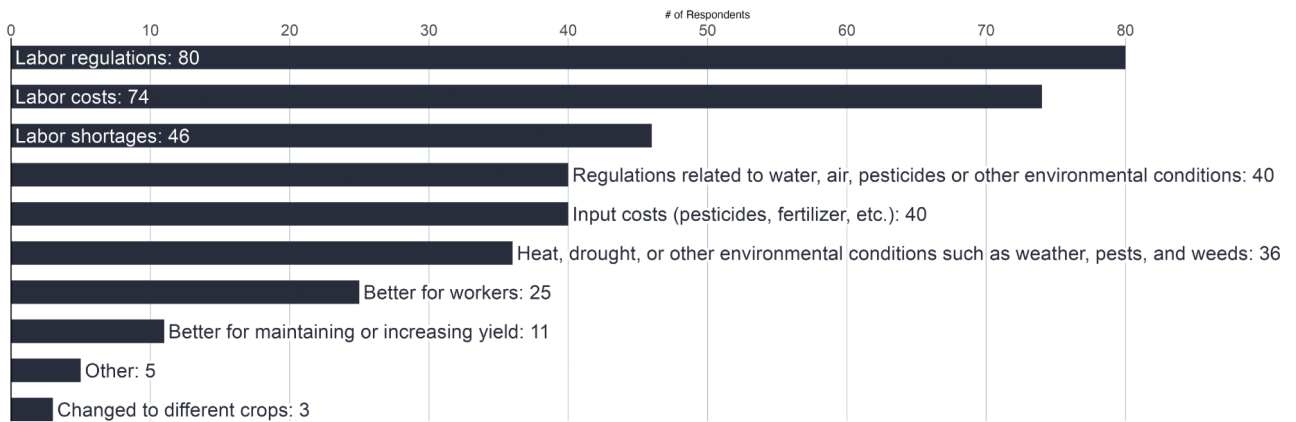
Q: Did any factors such as regulations, costs, or environmental conditions influence your decision to make these changes to employment terms or practices?



Of the 92 respondents, respondents were asked to identify the factors that influenced their decisions. Respondents were allowed to provide multiple answers.

The 92 respondents provided 280 responses. The top five answers were labor regulations (80 responses, 29% of responses), labor costs (74, 26%), labor shortages (46, 16%), input costs (40, 14%) and environmental regulations (40, 14%).

Q: Which factors influenced your decision to make these changes to employment terms or practices? (Check all that apply.)



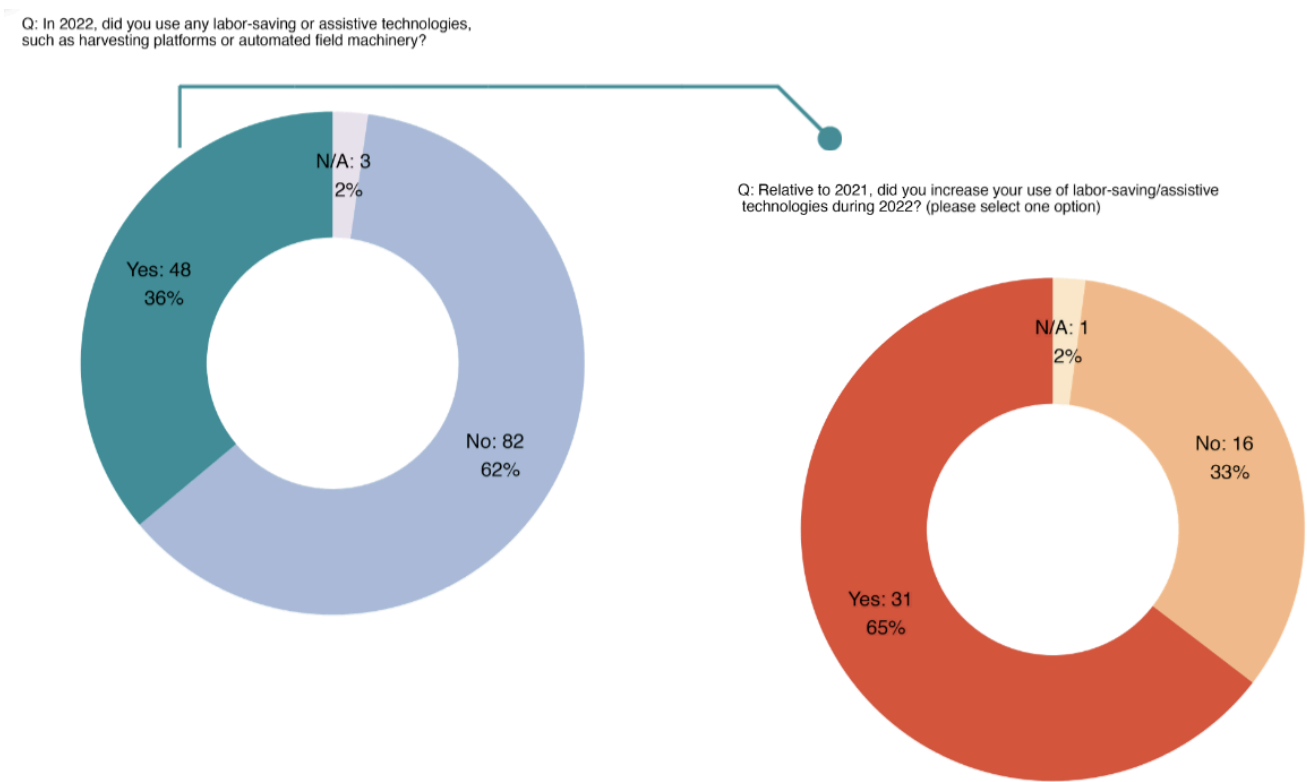
## Section 6: Labor-Saving Technology Adoption

Survey respondents were asked about their use and increase of labor-saving or assistive technologies in 2022, its impact on labor costs compared to 2021, and the factors and challenges influencing these technological adoptions.

### Technology Adoption

Of the 133 respondents, 48 respondents (36% of respondents) did use labor-saving or assistive technologies (e.g. harvesting platforms, automated field machinery, etc.) in 2022.

Thirty-one (66%) of the 48 respondents reported increasing their usage of labor-saving technologies since 2021 and 16 (33%) reported not changing their usage of labor saving technologies compared to 2021.



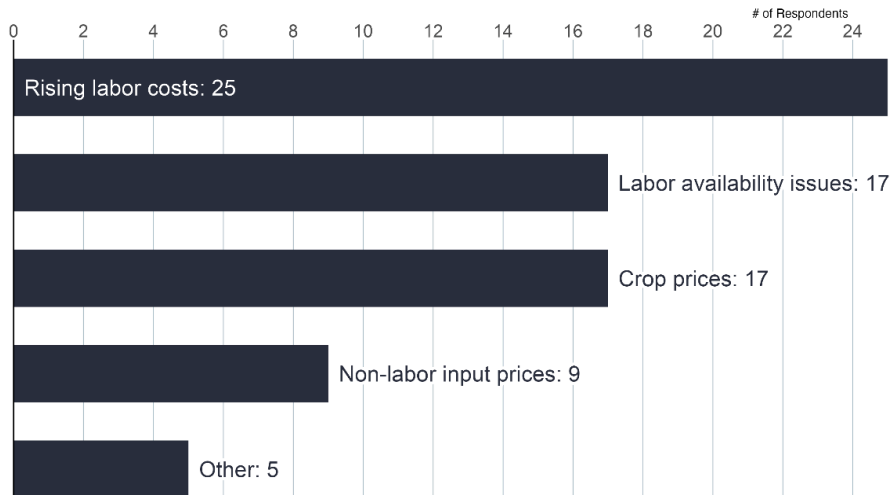
### Influencing Factors for Technology Adoption

Among the 133 respondents, the 31 respondents who increased their labor-saving or assistive technologies usage in 2022 were asked which factors led them to increase their use. Respondents were allowed to provide multiple answers.

Of the 73 responses provided by the 31 respondents, the top four answers were rising labor costs (25 responses, 34% of total responses), crop prices (17, 23%), labor availability issues (17,

23%) and non-labor input prices (9, 12%).

Q: What factors led you to increase your use of labor-saving/assistive technologies in 2022? (please select all that apply)



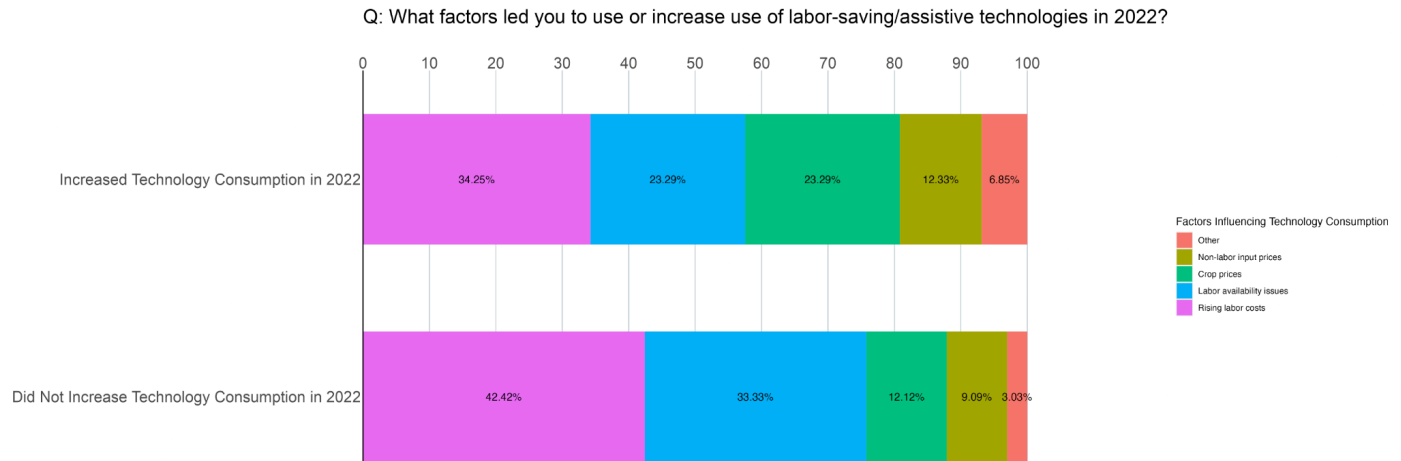
Among the 133 respondents, 16 respondents did use labor saving technologies in 2022 but did not increase their usage since 2021. Those 16 respondents were asked about factors that drove them to use assistive technology in 2022 if they did not end up increasing usage. Respondents were allowed to provide multiple answers.

Of the 33 responses the 16 respondents provided, the top four answers were rising labor costs (14 responses, 42% of responses), labor availability issues (11, 33%), crop prices (4, 12%) and non-labor input prices (3, 9%).

Q: Why did you or your clients use labor-saving/assistive technologies in 2022? (please select all that apply)

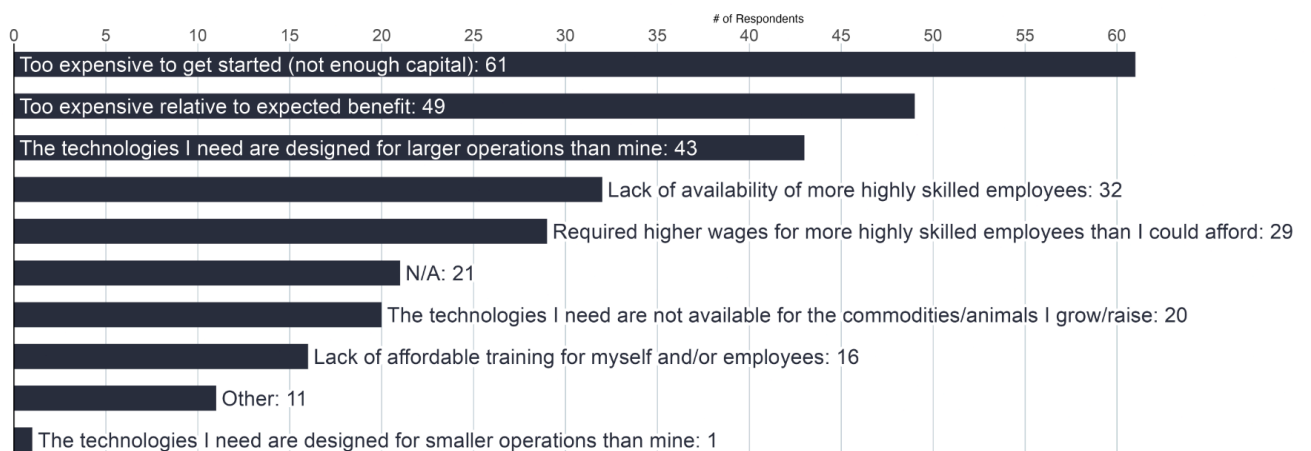


These results show that both groups who did and did not increase their 2022 labor-saving technologies shared similar labor availability and cost challenges.



The 133 respondents were asked to identify the barriers they experienced to using labor-saving technologies in 2022. Respondents could provide multiple answers. Of the 283 responses from the 133 respondents, the top five answers were not enough capital (61 responses, 22% of responses), too expensive relative to expected benefit / low expected ROI (49, 17%), not a large enough operation (43, 15%), lack of availability of skilled workers (32, 11%) and wages for more skilled workers were too expensive (29, 10%). The primary barriers farmers faced is highlighted by the top two responses, centered on cost issues.

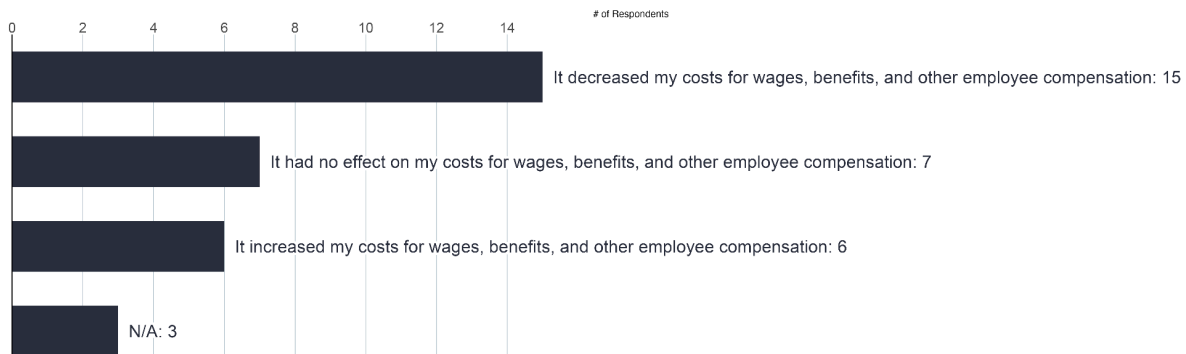
Q: What factors were challenges or obstacles to your use or increase of labor-saving/assistive technologies in 2022? (Check all that apply.)



## Technology Impacts on Cost

Of the 133 respondents, the 31 respondents that increased their labor-saving technology were asked if their increased usage had any impacts on their employee compensation costs. Fifteen (48%) respondents answered that the increased usage decreased their costs for wages, benefits, and other employee compensation.

Q: Relative to 2021, did your increase in the use of labor-saving/assistive technologies decrease or increase your total costs for wages, benefits, and other employee compensation during 2022?



Seven (46%) of the 15 respondents who changed their employee compensation due to changes in labor-saving technology consumption, estimated their total costs to have reduced by 10% on average.

## Conclusion

The 2023 Farm Labor Survey, encompassing a comprehensive range of California's agricultural sector to reflect preliminary findings on labor challenges. A substantial portion of surveyed growers faced notable labor shortages, with 54% of farmers indicating they had a shortage. These statistics are similar to previous surveys we conducted in 2019 and 2022.

To counteract labor scarcity, a notable percentage of growers have turned to labor-saving technologies, investing substantial amounts that, for only a proportion of farmers, led to a reduction in labor costs as a percentage of total operating expenses.

In summary, the survey highlights the ongoing struggle within the agricultural sector to adapt to labor shortages, with growers actively seeking solutions through technology, visa programs, and operational changes.

# Archive

## Demographic Snapshot

Survey respondents were asked about their level of education, race, gender and age. Of the 172 consenting farmers, 96 respondents provided demographic information.

