

What Colorado Employers Think: 2020 Survey Findings

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2022 Colorado Farm Show, Produce Day
January 25, 2022



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Overview and Presentation Objectives

Objective 1: Overview of the 2020 Colorado Agricultural Labor Survey for Employers

- Survey purpose
- Research team
- Survey design and sample

Objective 2: Labor Supply and Demand

- Trends in labor demand
- Reports of labor shortages
- Potential factors influencing labor shortages

Objective 3: Looking Forward

- Assessing impacts from worker shortages
- Employer-reported responses to labor concerns



What is the 2020 Colorado Agricultural Labor Survey for Employers?

Purpose:

- Regional analysis of perceptions of farm labor supply and demand from an employer perspective
- Characterize perceived challenges and opportunities for maintaining a viable farm workforce
- Identify resource gaps according to employers

Gaps in Available Data:

- National data sources offer some information, but at an aggregate level
- A comprehensive survey of Colorado agricultural employers related to labor

Gaps in Available Data not Addressed in this Study:

- A comprehensive survey of Colorado agricultural workers
- Worker voice



Who Conducted the 2020 Colorado Agricultural Labor Survey for Employers?



Alexandra Hill

Assistant Professor,
Colorado State
University



Adrian Card

Extension Agent,
Colorado State
University Extension

Partners: Colorado Department of Labor and Employment, Colorado Farm Bureau, Colorado Fruit and Vegetable Growers Association, Colorado Livestock Association, Colorado Nursery and Greenhouse Association, National Young Farmers Coalition, and Rocky Mountain Farmers Union.

Funding: This work is supported by the Western Center for Risk Management Education



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Survey Design and Scope



Are you a ... ?

Farm/ranch business owner	<input type="radio"/>
Farm/ranch business manager or operator	<input type="radio"/>
Greenhouse/nursery business owner	<input type="radio"/>
Greenhouse/nursery manager or operator	<input type="radio"/>
Other (please describe in text box below):	<input type="radio"/>
<input type="text"/>	

Administered online through Qualtrics

Targeted farm, ranch, and green industry *employers*

Promoted via email and social media platforms with the aid of partner organizations

Open for responses from November 20th, 2020 through January 31st, 2021



Survey Design and Scope

Survey Responses: 354

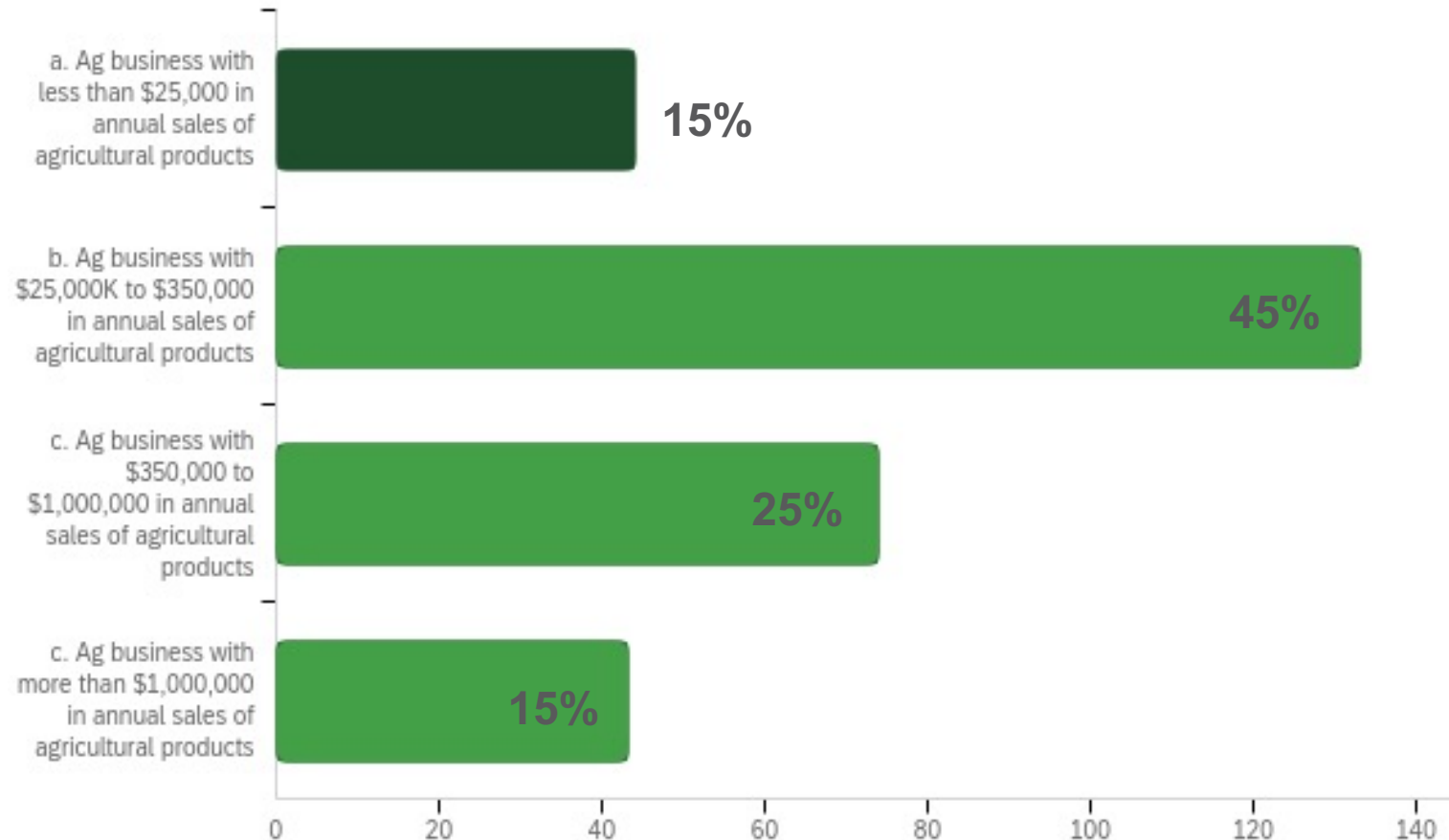
Population Comparison: (2017 US Census of Agriculture)

- **4,060** Colorado farms with labor expenses of $\geq \$25,000$
- **2,797** Colorado farms with labor expenses of $\geq \$50,000$
- **1,882** Colorado farms with labor expenses of $\geq \$100,000$



Survey Design and Scope

Q5 - We would like to understand the economic class of your operation, are you an ... ?



Population Comparison:
(2017 US Census of Agriculture)

28,322 CO farms with sales of <\$25,000

7,365 with sales of \$25,000 - \$250,000

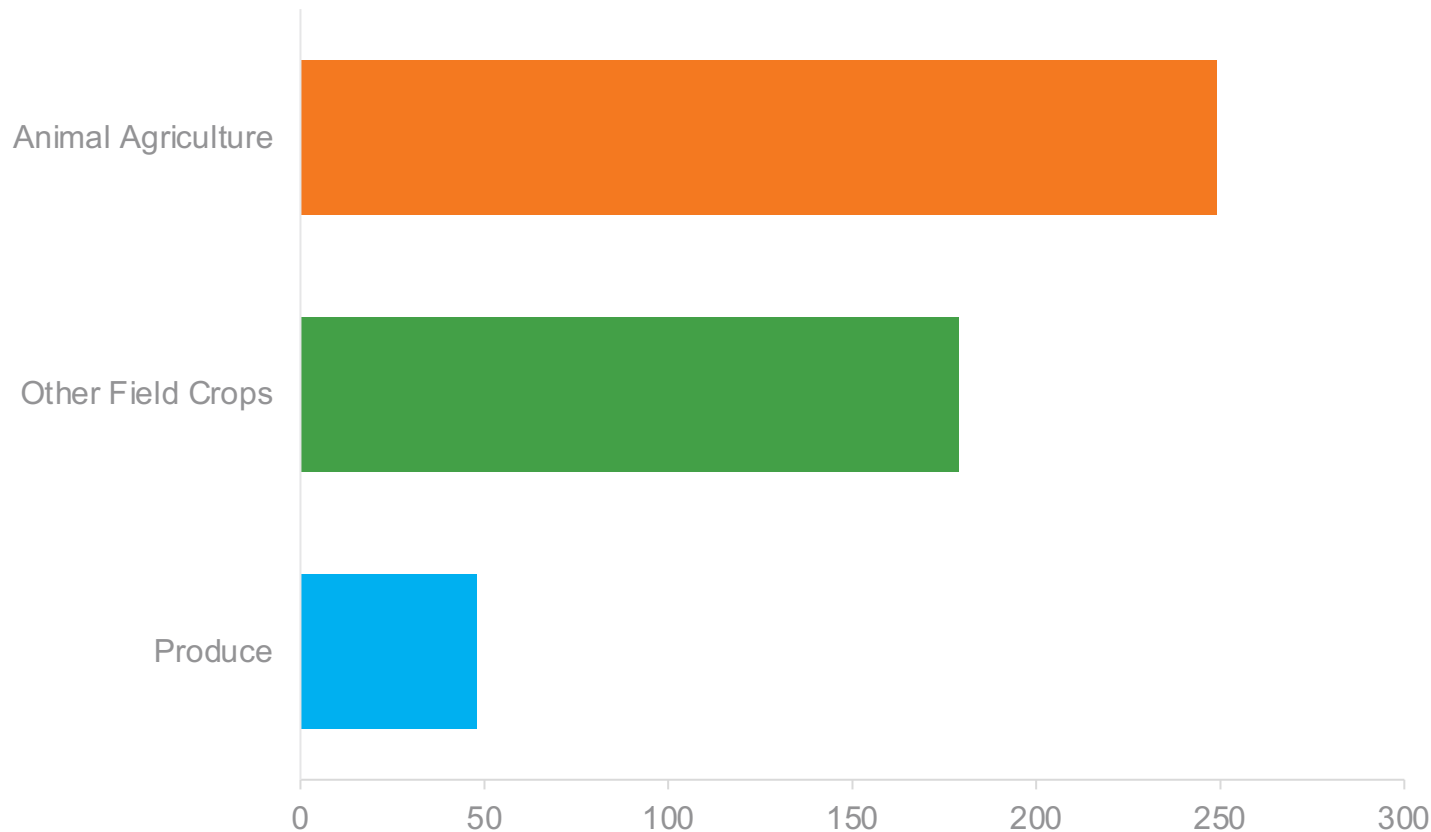
2,324 with sales of \$250,000 - \$1,000,000

882 with sales of \geq \$1,000,000



Survey Design and Scope

Q2 - What type of agricultural products do you produce? (select all that apply)



Animal Agriculture: dairy, beef, lamb, sheep, goat, pork, poultry, eggs, bees/honey

Other Field Crops: corn, wheat, barley, sugar beets, hemp, dry beans, alfalfa, grass hay, sunflowers

Produce: fruits, wine grapes, vegetables, cut flowers, herbs, mushrooms, plant starts, potatoes





Findings:

Labor Demand and Worker Shortages

Potential Determinants of Worker Shortages:
Pay, Housing, and Employer Perceptions

Reported Impacts of Worker Shortages:
Business Risk and Other Impacts
Supplementing using Technology and H-2A

But First... A Word from the Audience!

Labor Demand and Worker Shortages

- Do you think producers of produce, other field crops, or animal agricultural products are most likely to experience worker shortages?
- Do you think larger or smaller operations are most likely to experience worker shortages?

Potential Determinants of Worker Shortages

- What do you think is the largest predictor of an employer experiencing worker shortages?

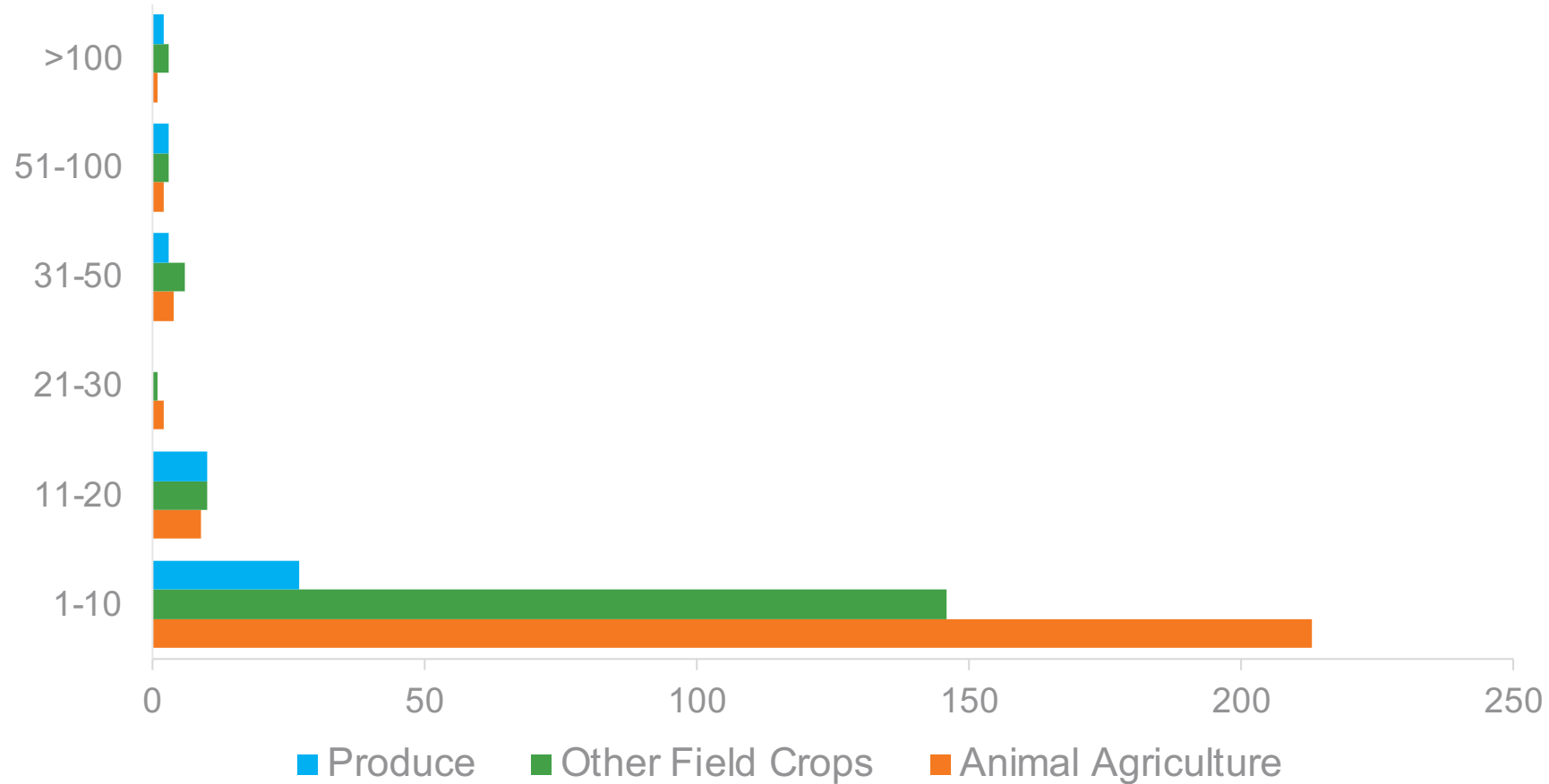
Impacts of Worker Shortages and Responses

- What do you think are some of the best potential solutions for employers experiencing worker shortages?



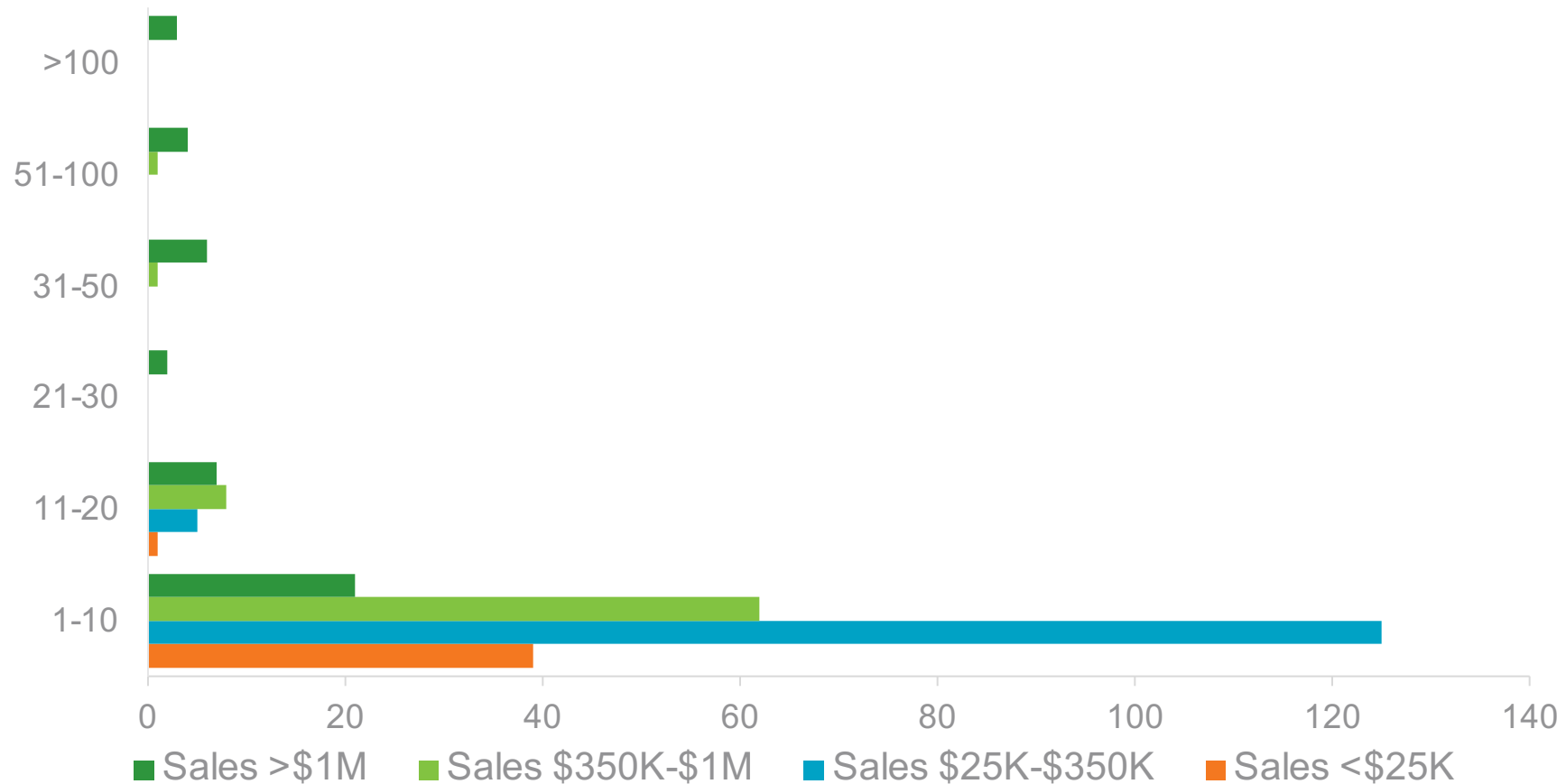
Labor Demand by Production Type

In the past five years, during your peak season (when your labor needs were highest), how many workers did you need, on average?



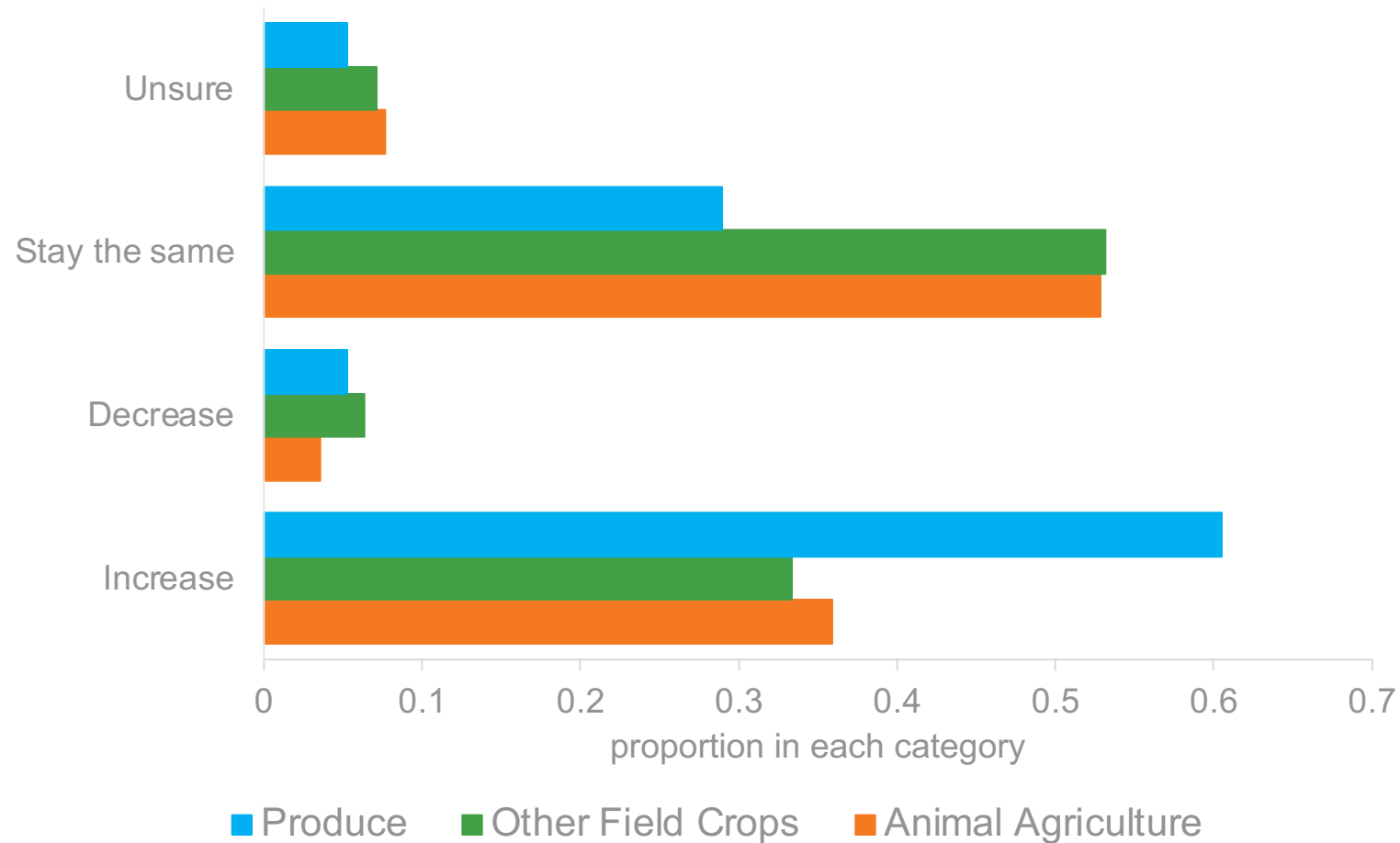
Labor Demand by Operation Size

In the past five years, during your peak season (when your labor needs were highest), how many workers did you need, on average?



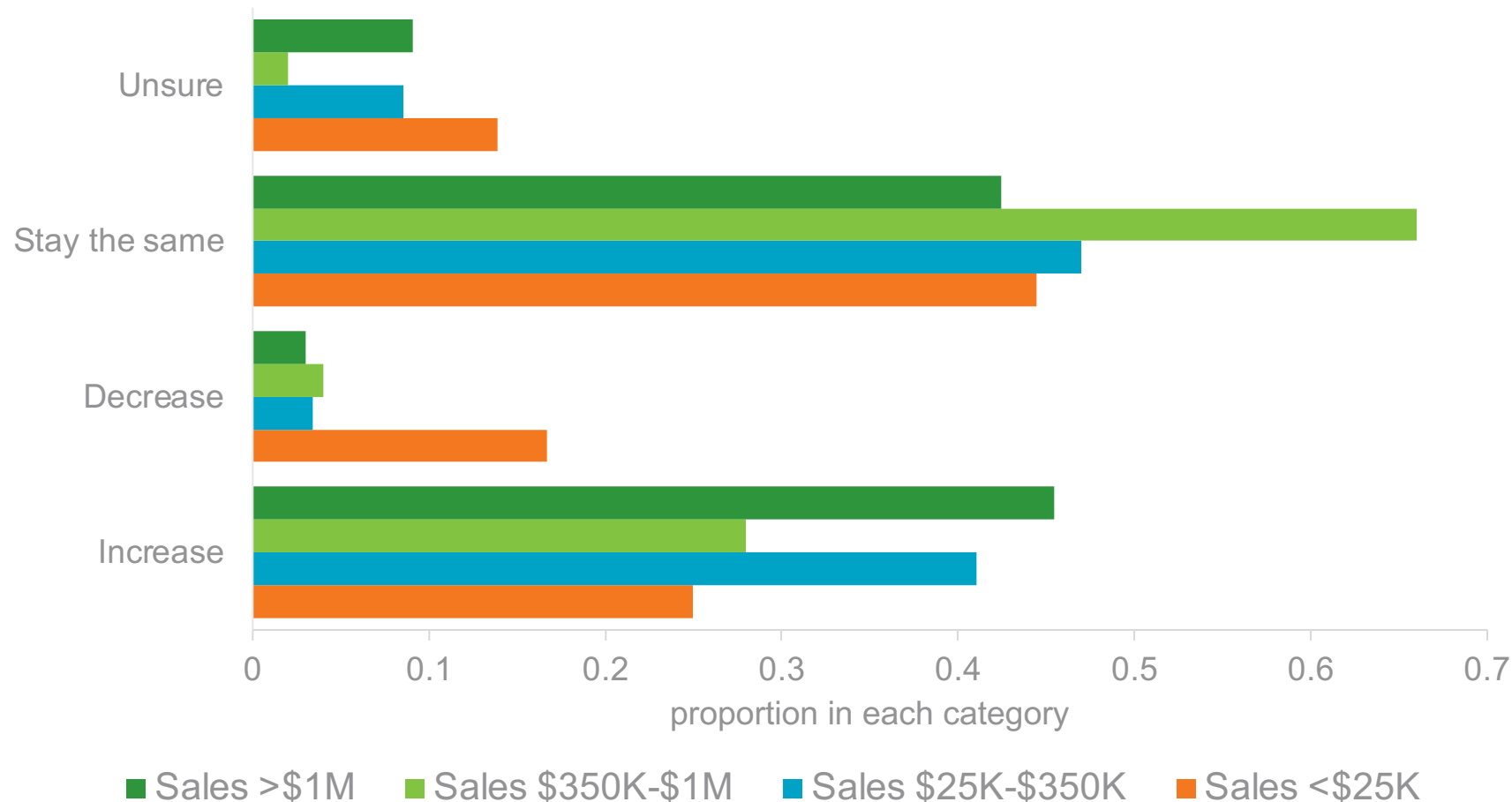
Labor Needs Expected to Increase for Most Produce Growers

Over the next five years do you expect employment needs on your farm to increase or decrease?



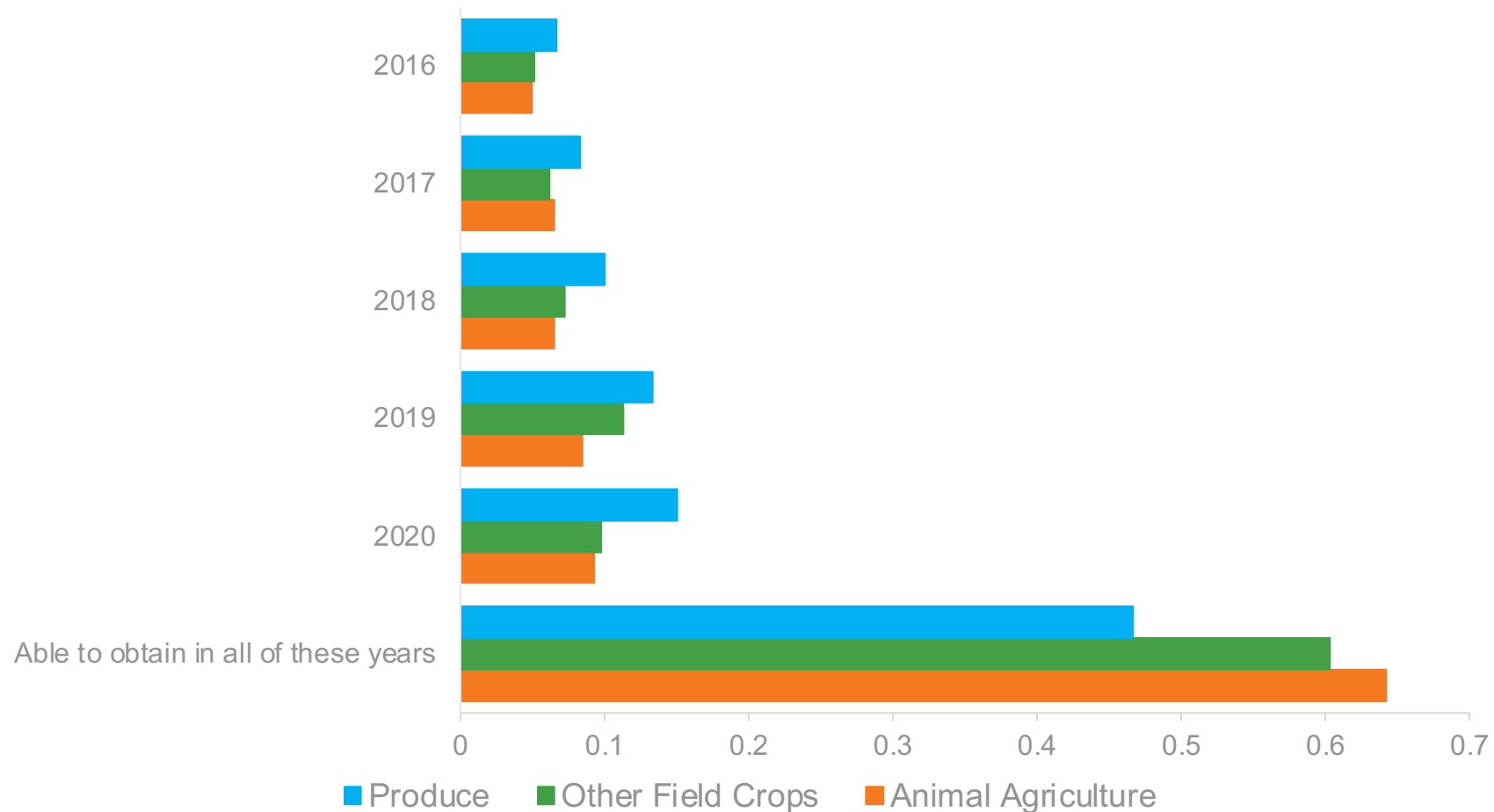
Findings: Future Labor Demand by Operation Size

Over the next five years do you expect employment needs on your farm to increase or decrease?



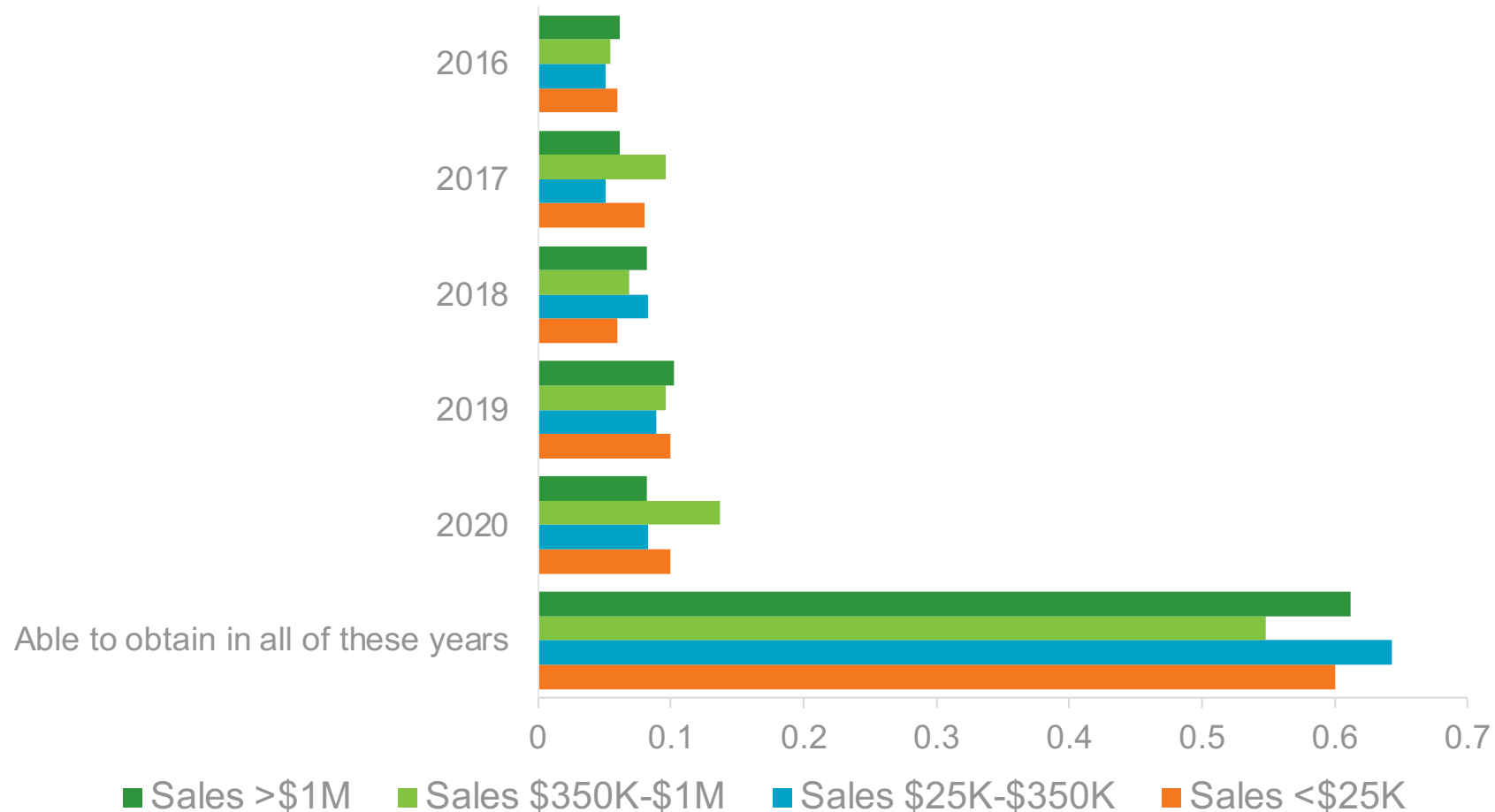
Labor Shortages Most Prevalent for Produce Growers

During which of the years listed below were you unable to obtain all the workers you needed? (select all that apply)



Labor Shortages Equally Prevalent Across Operation Sizes

During which of the years listed below were you unable to obtain all the workers you needed? (select all that apply)





Findings:

Labor Demand and Worker Shortages

Potential Determinants of Worker Shortages: Compensation, Housing, and Employer Perceptions

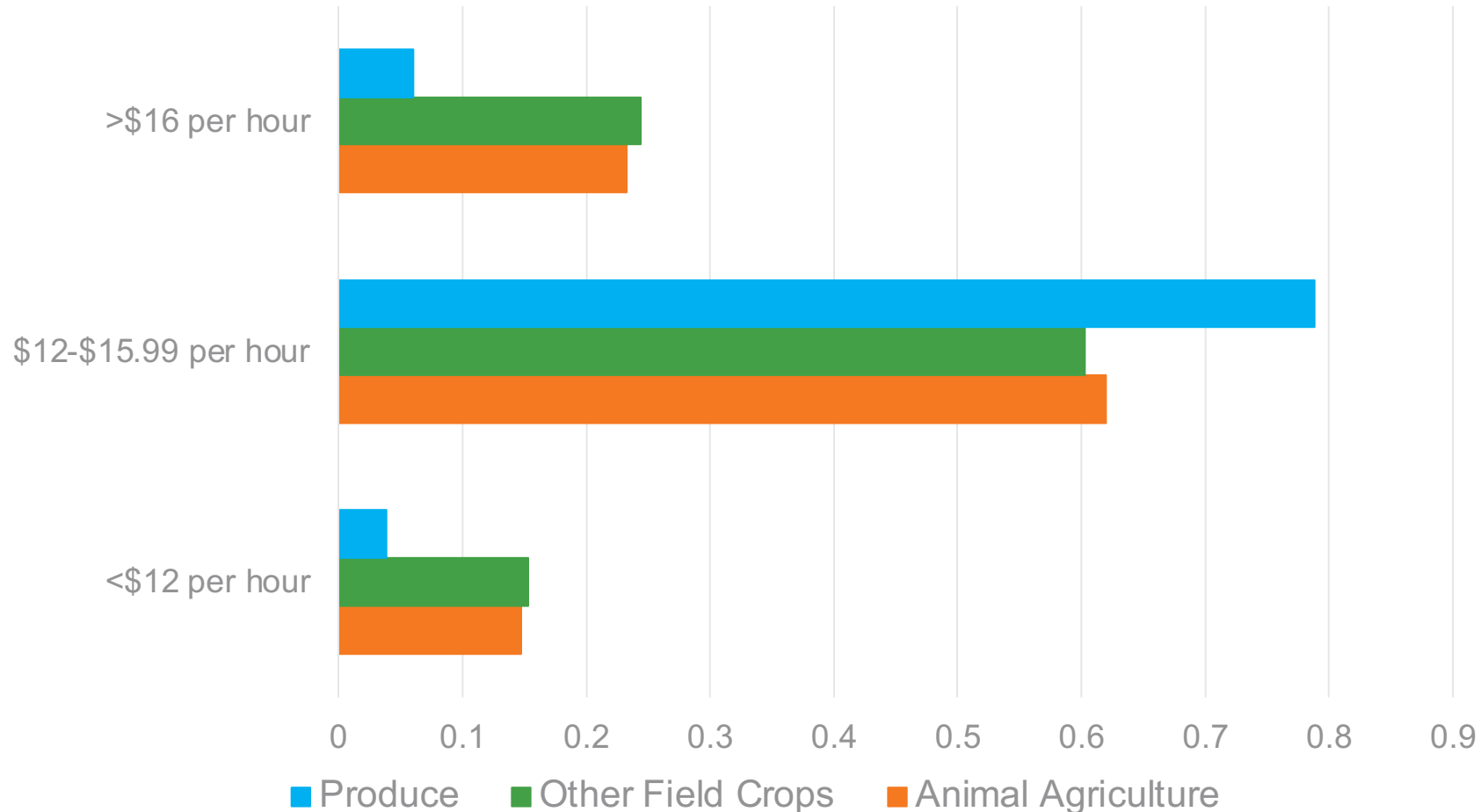
Reported Impacts of Worker Shortages:

Business Risk and Other Impacts

Supplementing using Technology and H-2A

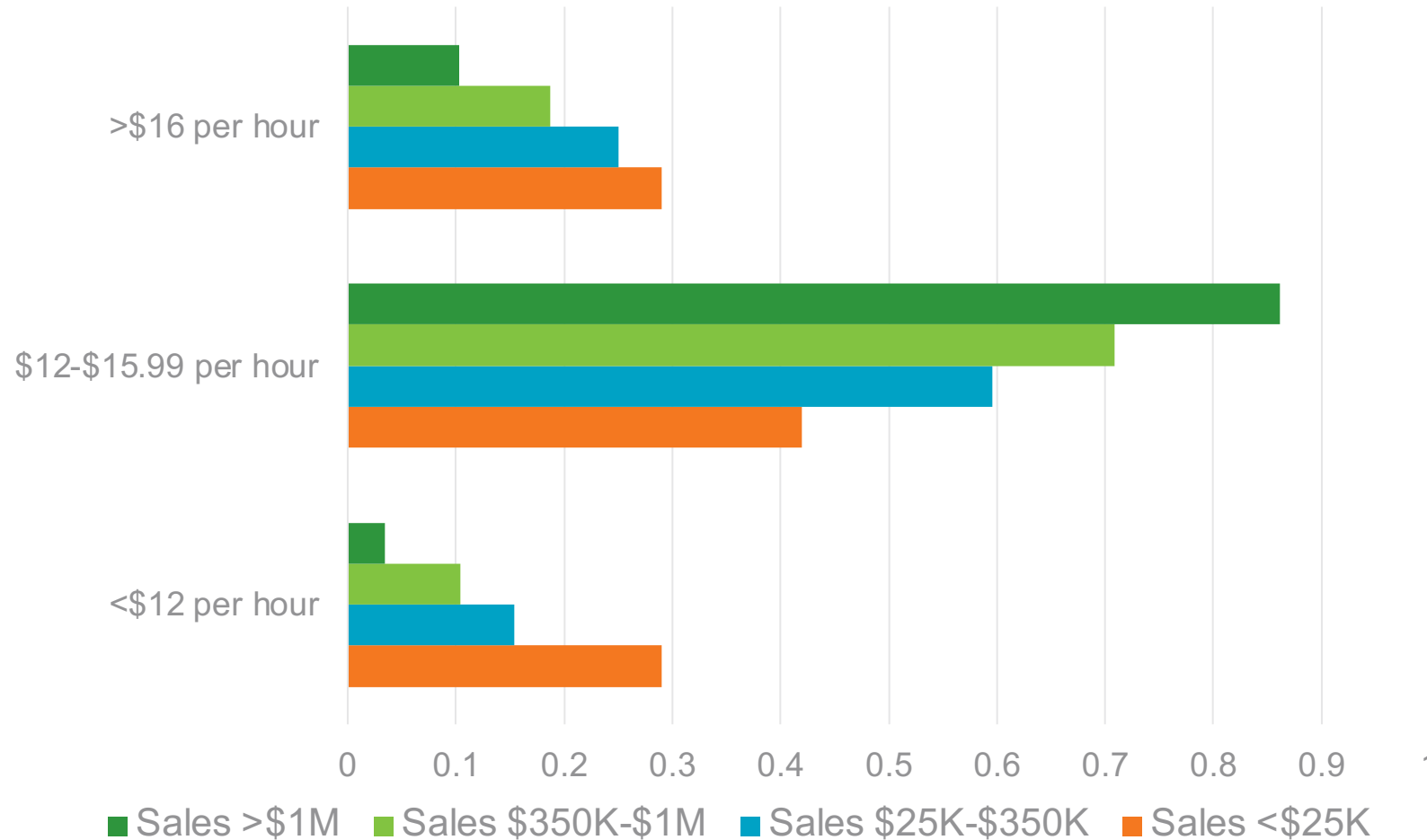
Most Employers Paid Above the State Minimum Wage

What is the hourly wage range of a non H-2A entry level worker at your agricultural business? Use an average equivalent if you pay by a piece rate.

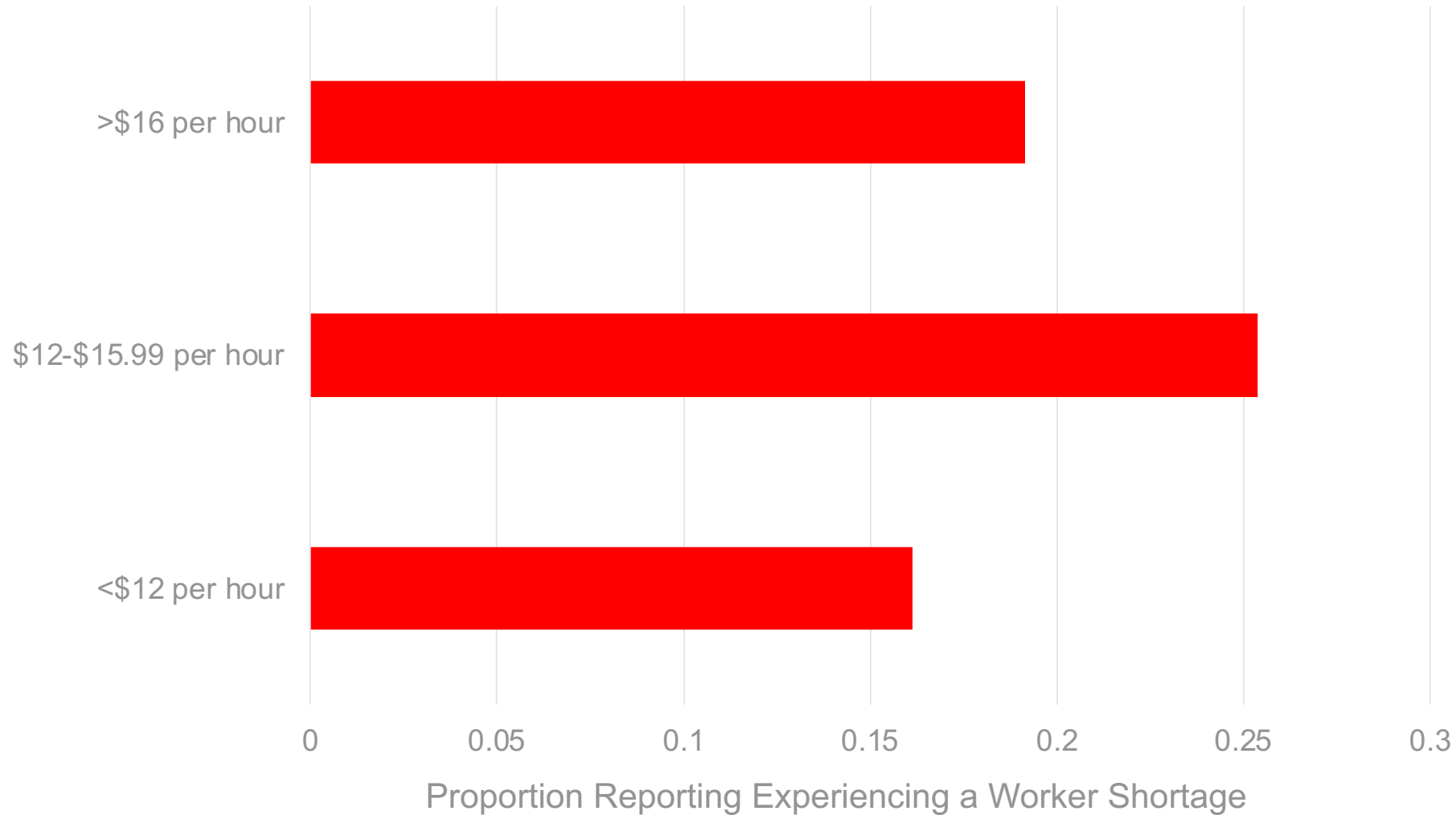


Most Employers Paid Above the State Minimum Wage

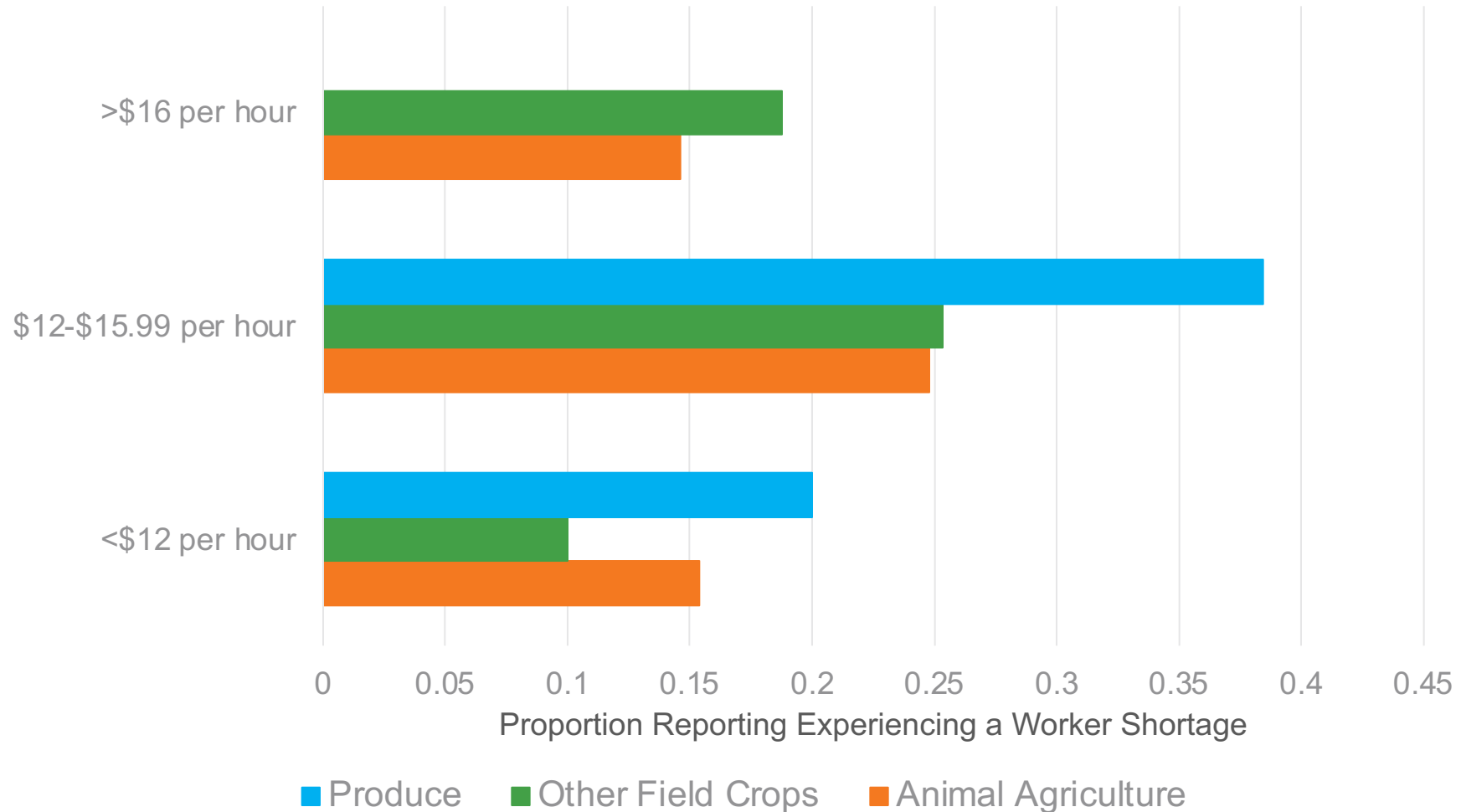
What is the hourly wage range of a non H-2A entry level worker at your agricultural business? Use an average equivalent if you pay by a piece rate.



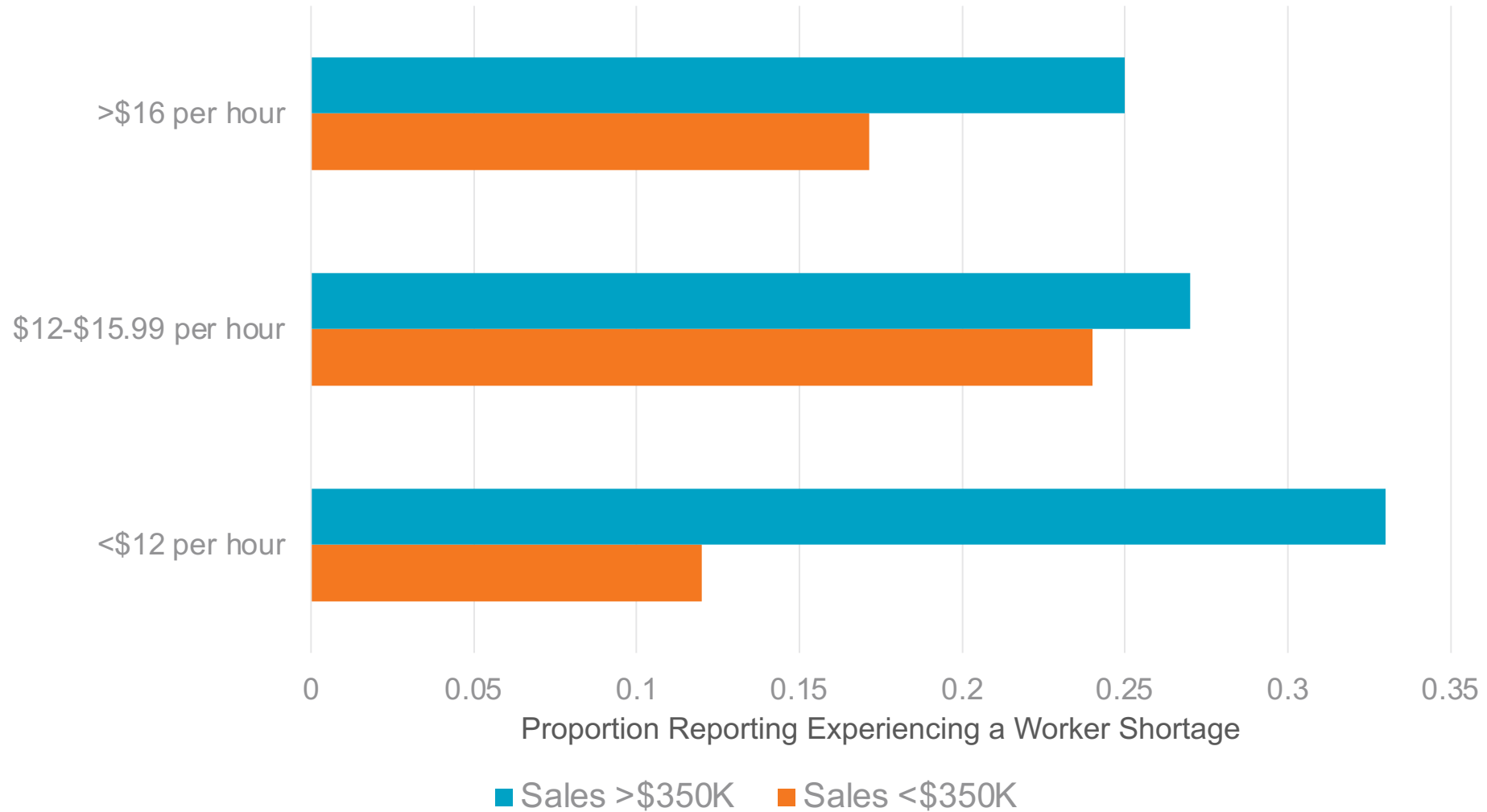
Employers Paying the Least Were Least Likely to Experience Worker Shortages



Regardless of Pay, Produce Growers are Most Likely to Report Worker Shortages

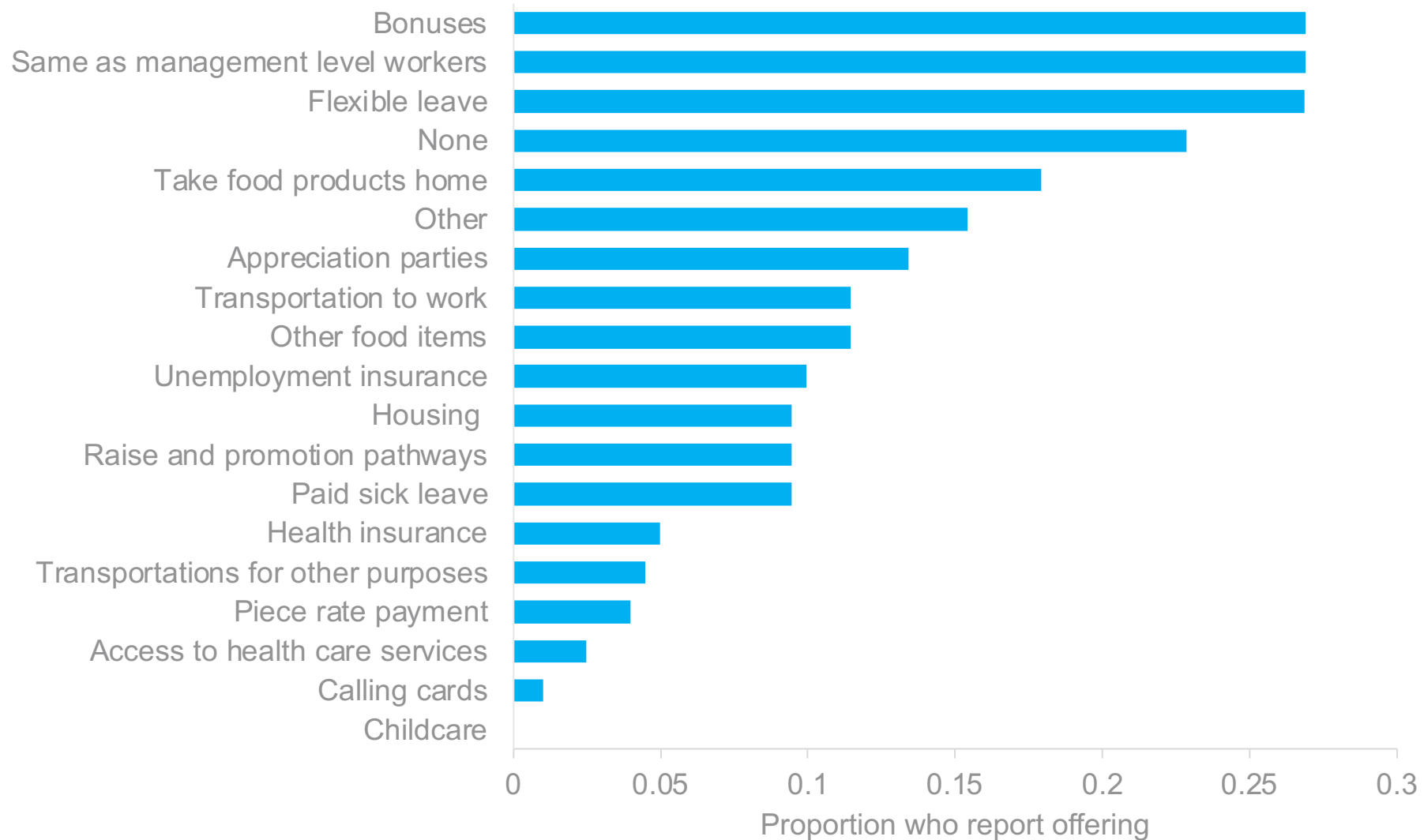


Regardless of Pay, Larger Operations are More Likely to Report Worker Shortages

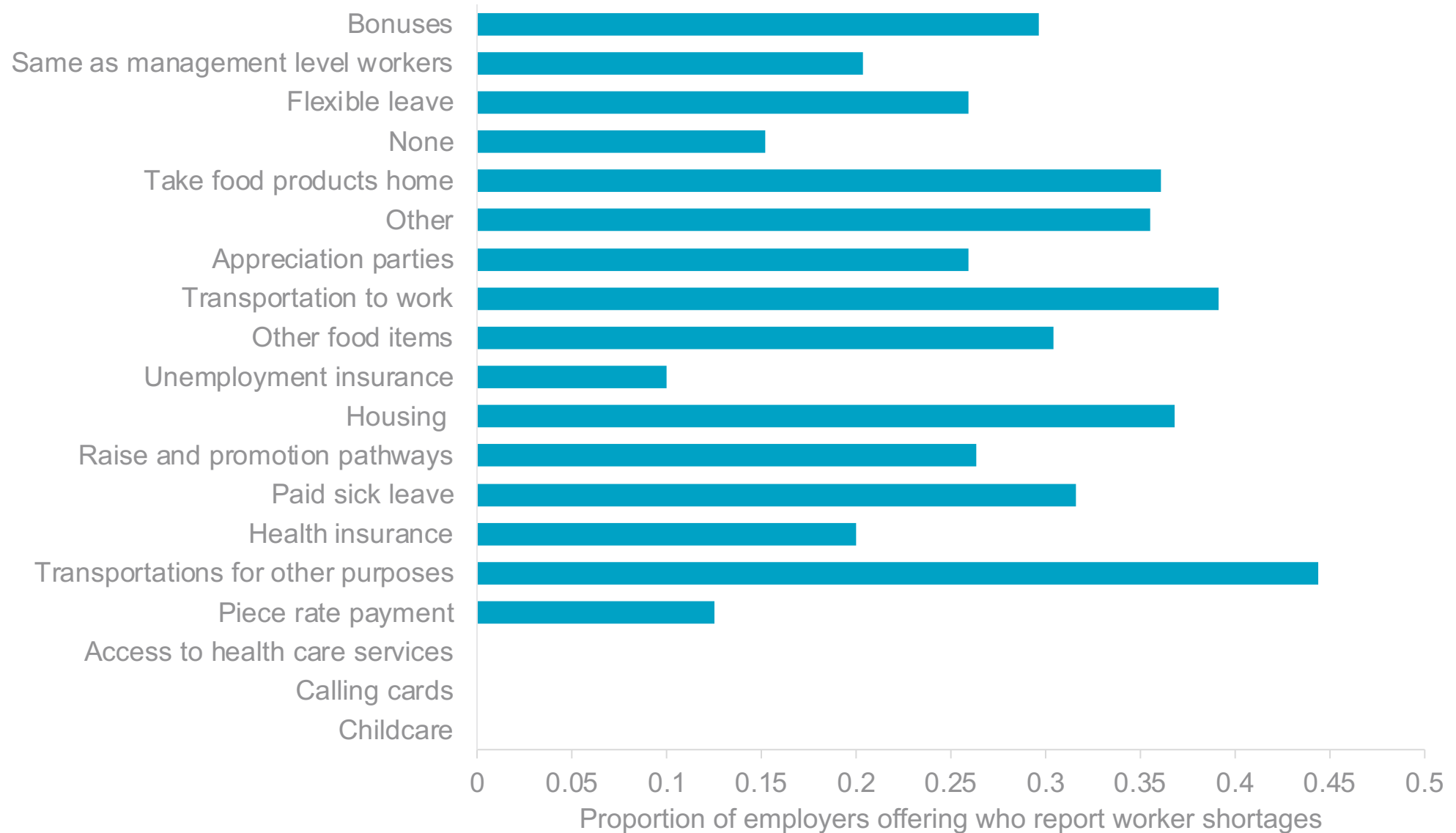


Other Incentives

What incentives do you offer your (non-H2A) **entry level** workers?

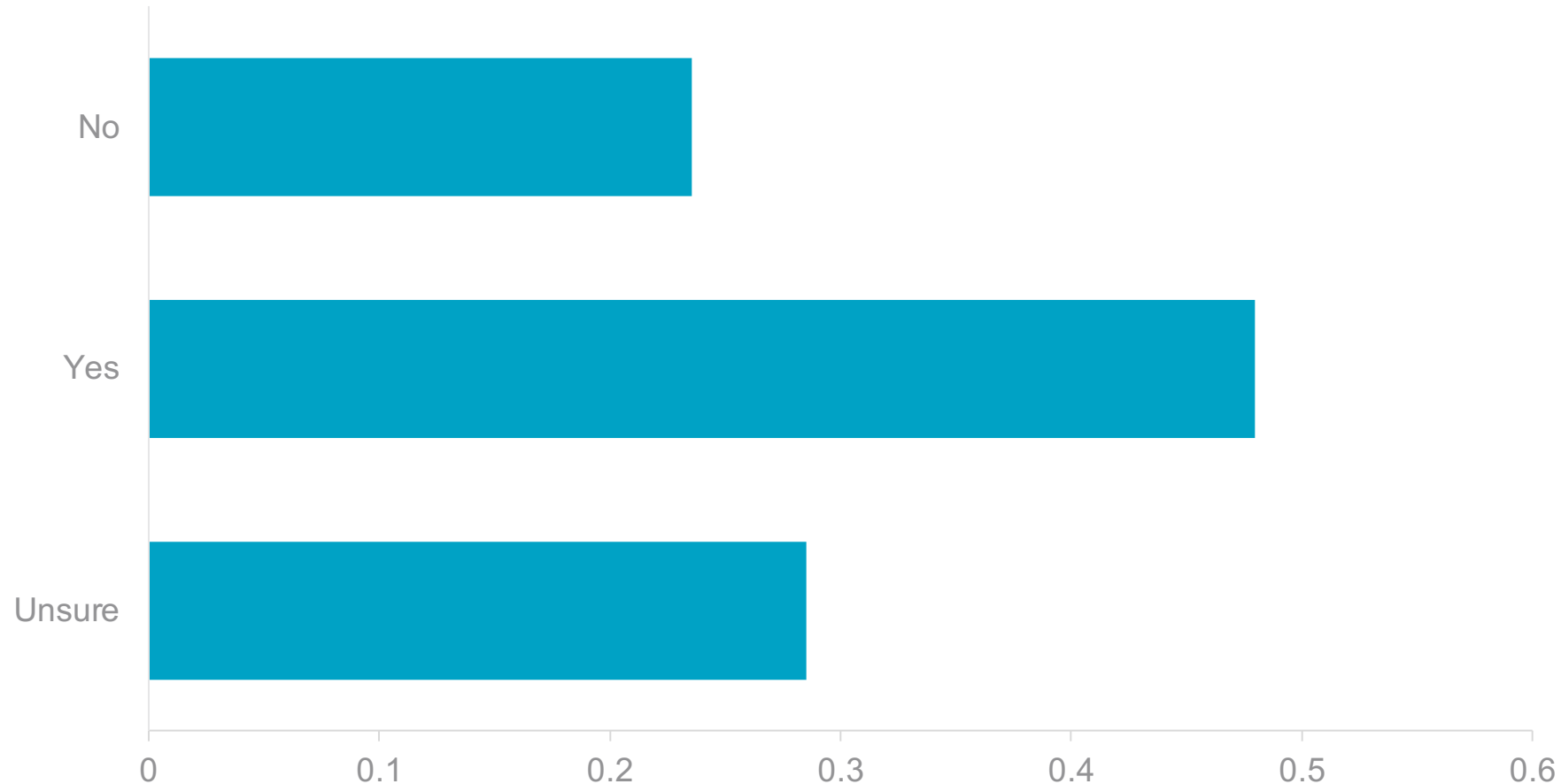


Other Incentives and Worker Shortages

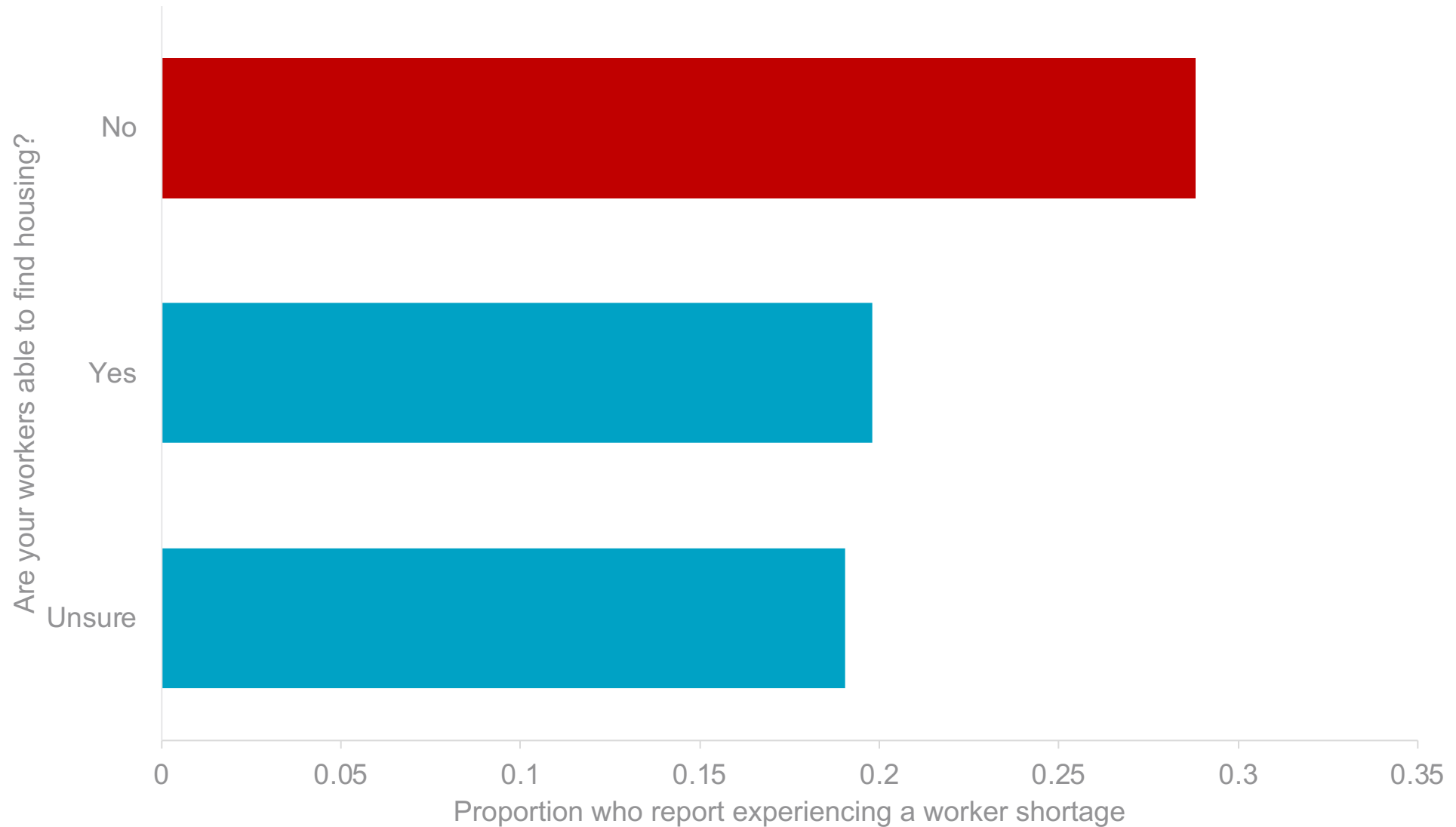


Worker Housing

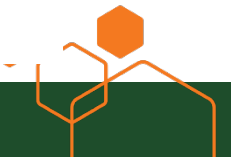
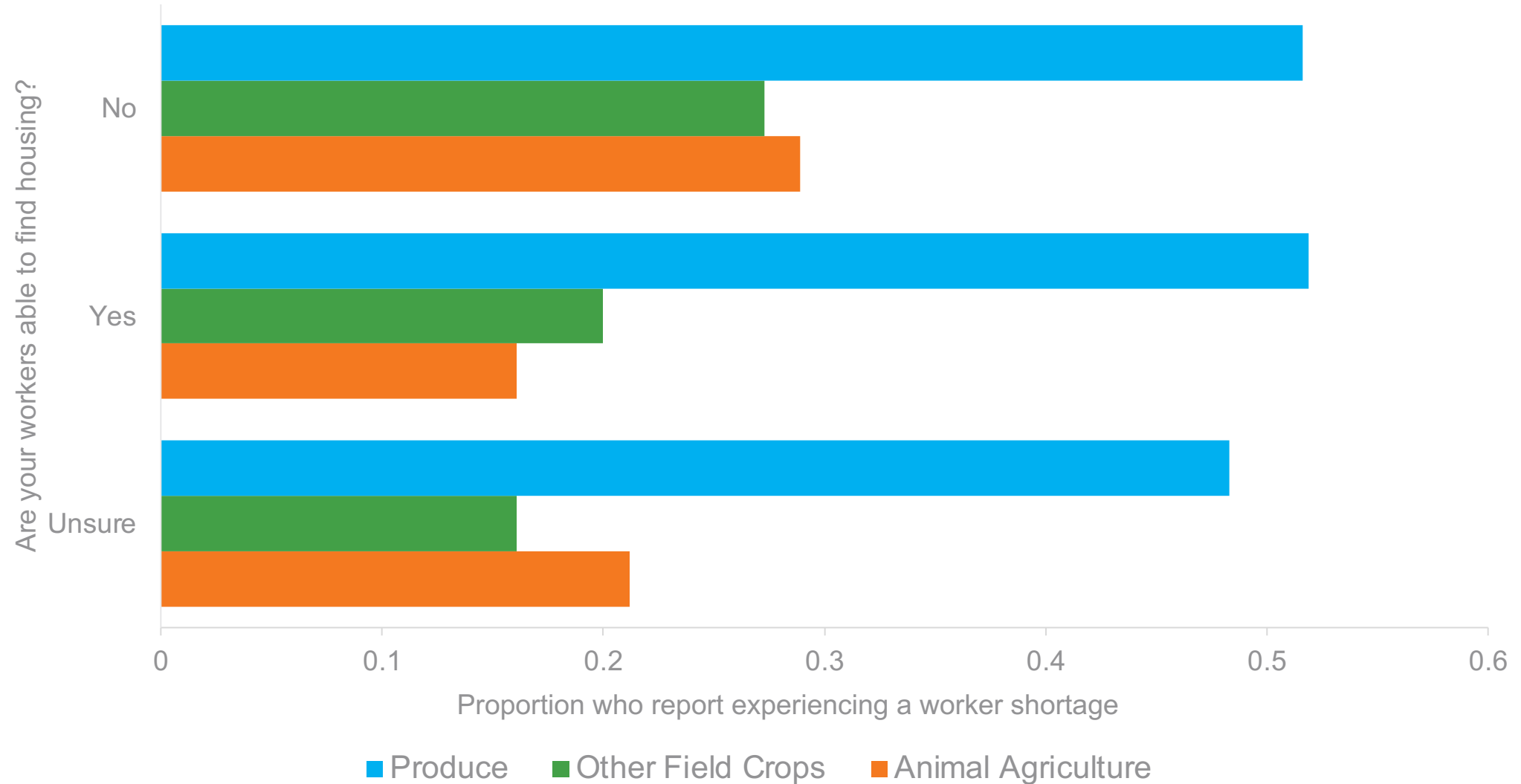
Are the majority of your domestic workers able to find affordable housing appropriate for their needs?



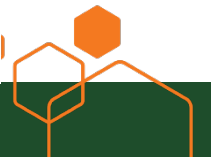
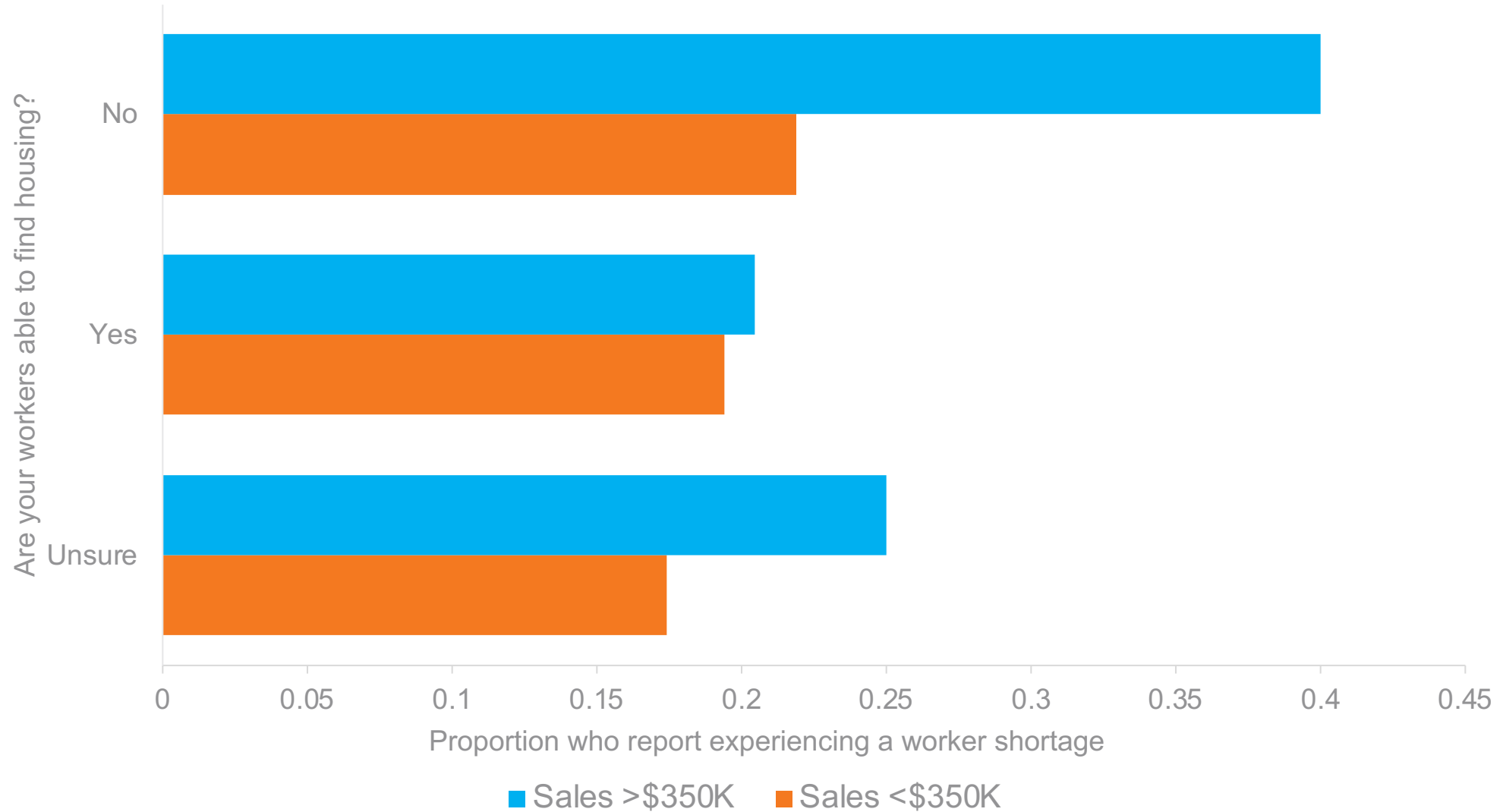
Worker Housing and Worker Shortages



Regardless of Worker Housing, Produce Growers More Likely to Report Worker Shortages



Regardless of Worker Housing, Larger Operations More Likely to Report Worker Shortages





Findings:

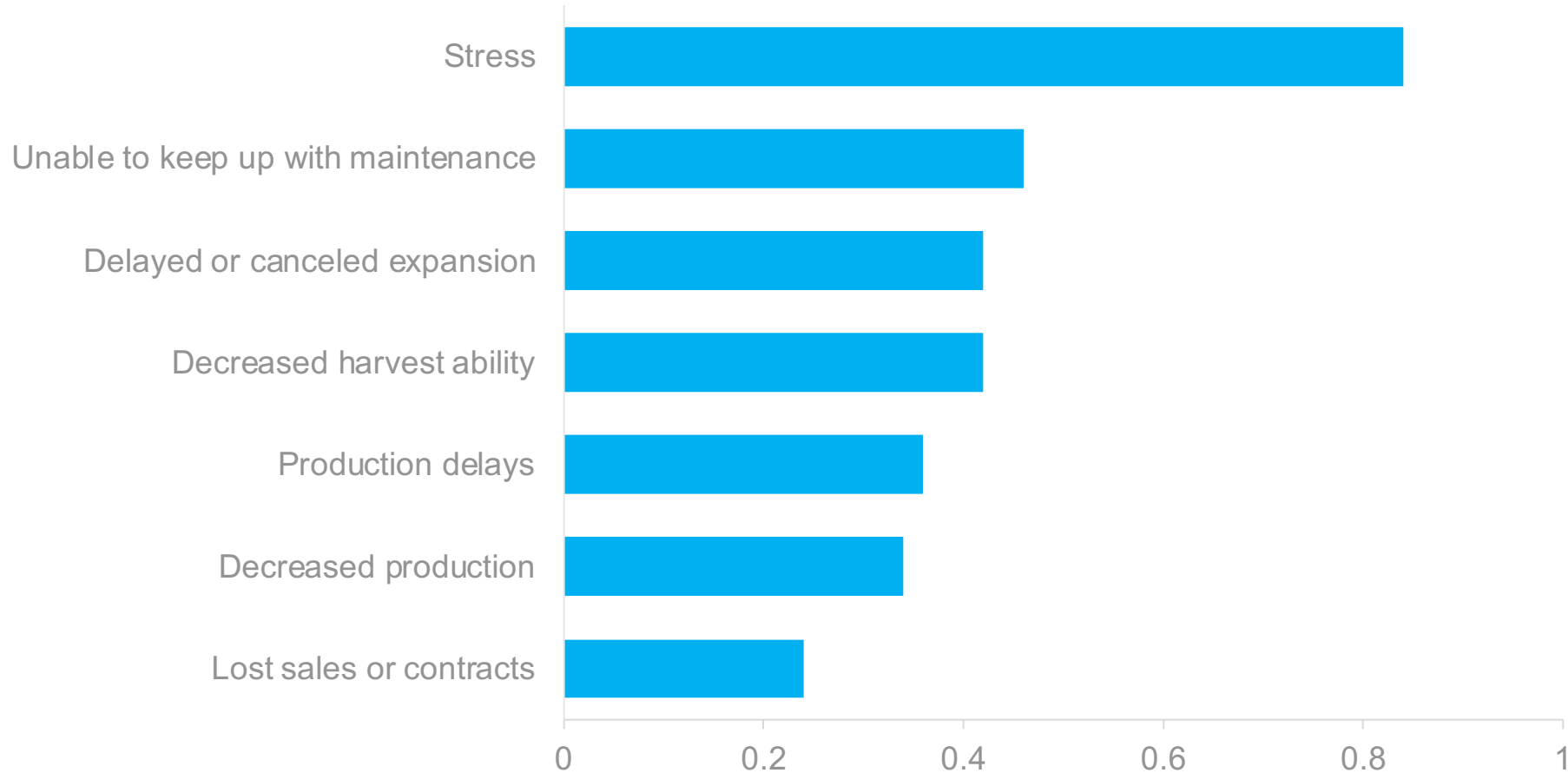
Labor Demand and Worker Shortages

Potential Determinants of Worker Shortages:
Compensation, Housing, and Employer Perceptions

Reported Impacts of Worker Shortages:
Business Risk and Other Impacts
Supplementing using Technology and H-2A

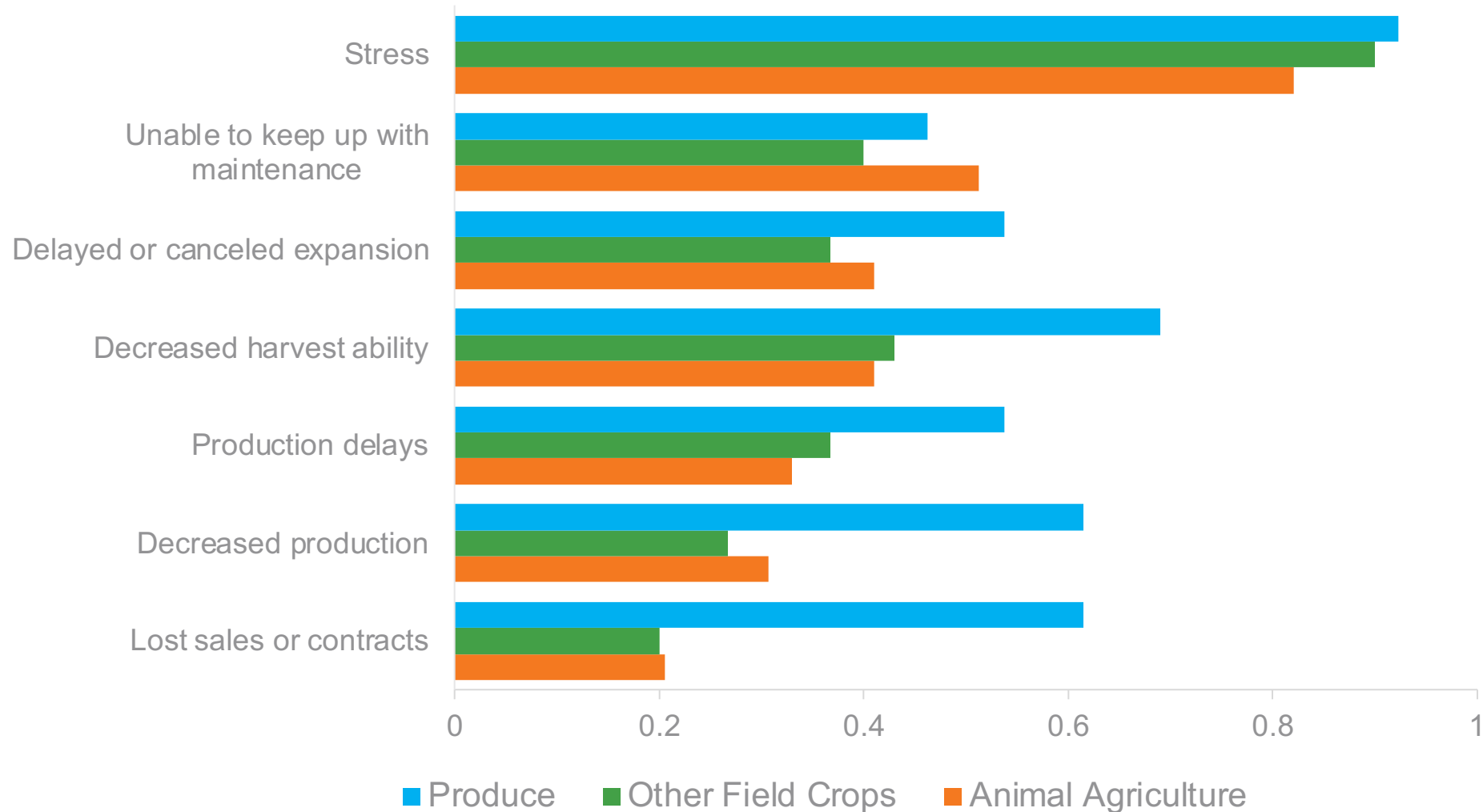
Stress is the Most Common Effect from Labor Shortages

Have labor shortages impacted you in any of the following ways? (select all that apply)



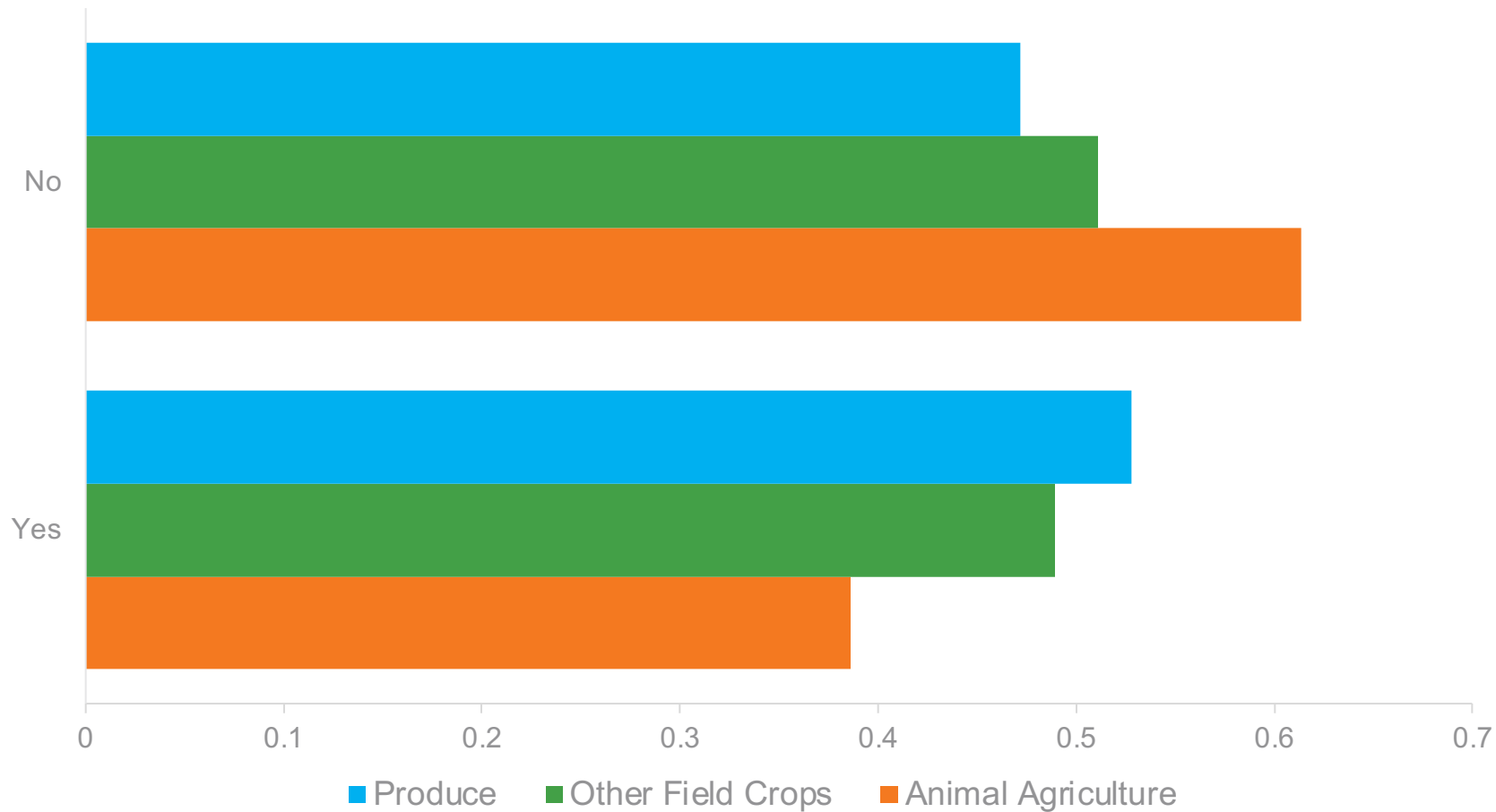
Reported Impacts are Generally Higher for Produce Growers

Have labor shortages impacted you in any of the following ways? (select all that apply)

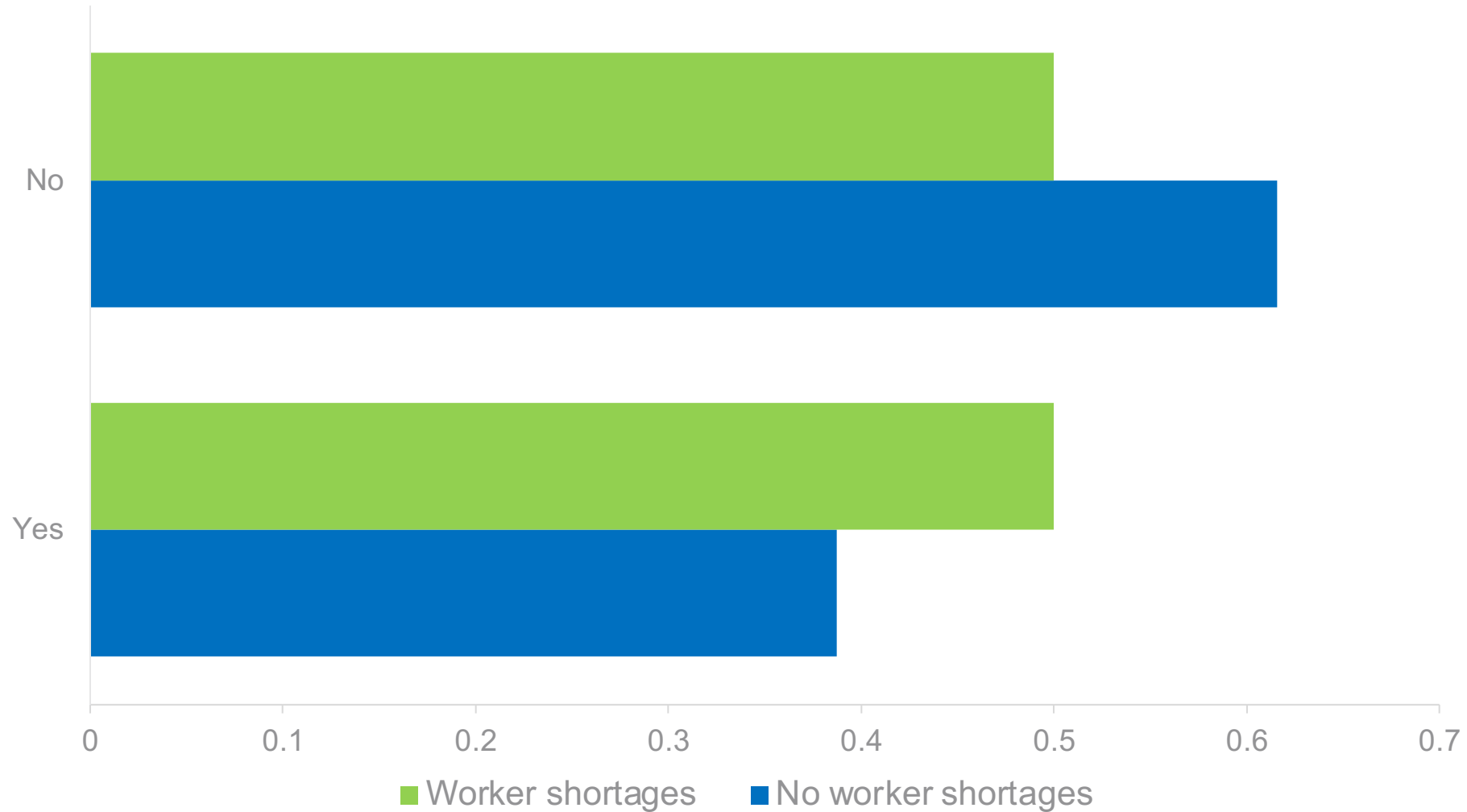


The Majority of Produce Growers Have Adopted Labor-Saving Technologies

During the past 5 years, have you used a new technology that has reduced the amount of labor you require to produce your main ag product?



Employers who have Experienced Worker Shortages are More Likely to have Adopted Labor-Saving Technologies



Other Reasons for Technology Adoption

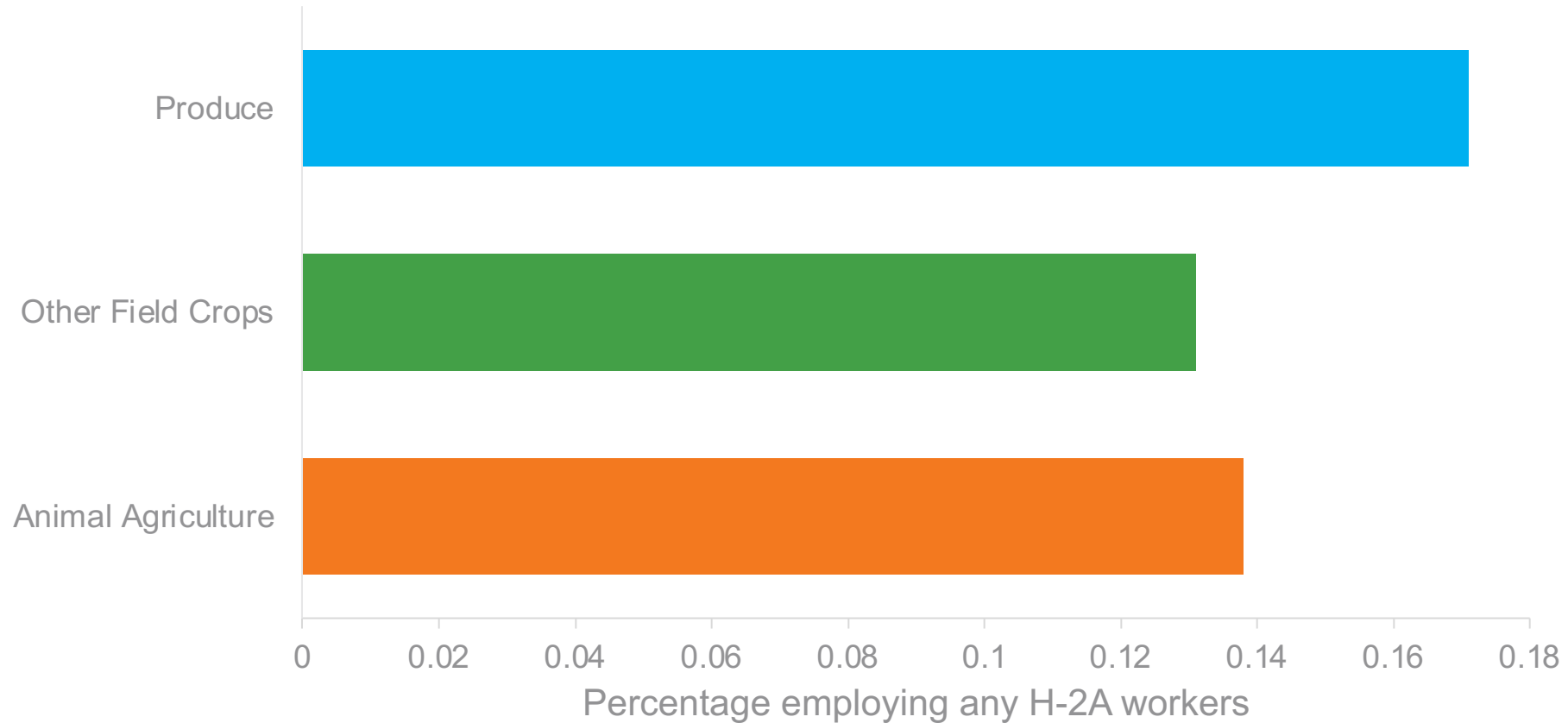
Among employers who responded with 'other', the reasons given include:

- 'Grant money'
- 'Increased utilization of resources and less use of hired labor'
- 'Technology made systems more efficient/profitable and allowed labor to be more efficient... We are able to increase our labor force and pay better due to technology and systems.'
- 'To ease the physical stressors of employees'
- 'To reduce risks from employees suing'
- 'Because of my age I can no longer do the strenuous labor'



H-2A Use is Most Prevalent Among Produce Growers

During the past five years (2016-2020), has your farm employed H-2A workers?



Program Cost is the Main Reason for Not Using H-2A

Why have you chosen not to use the H-2A program?



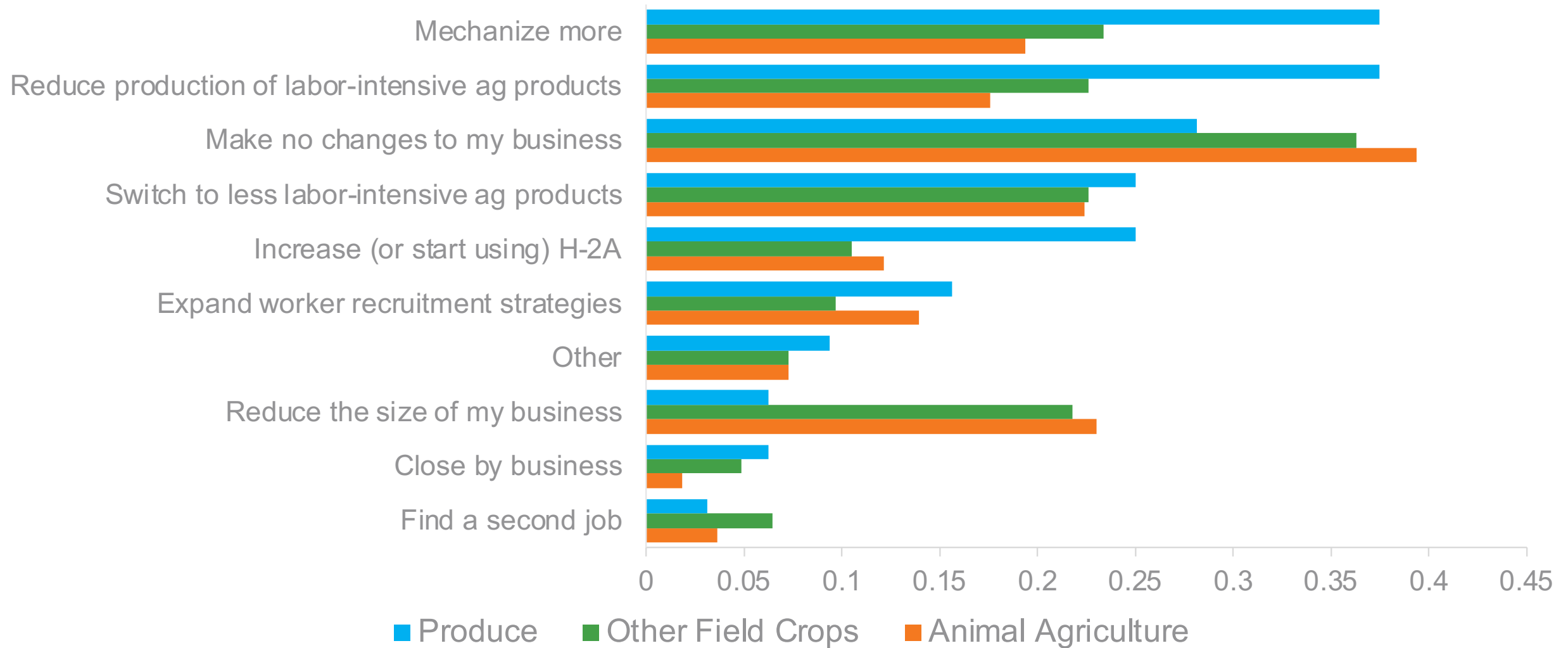


Looking Forward:

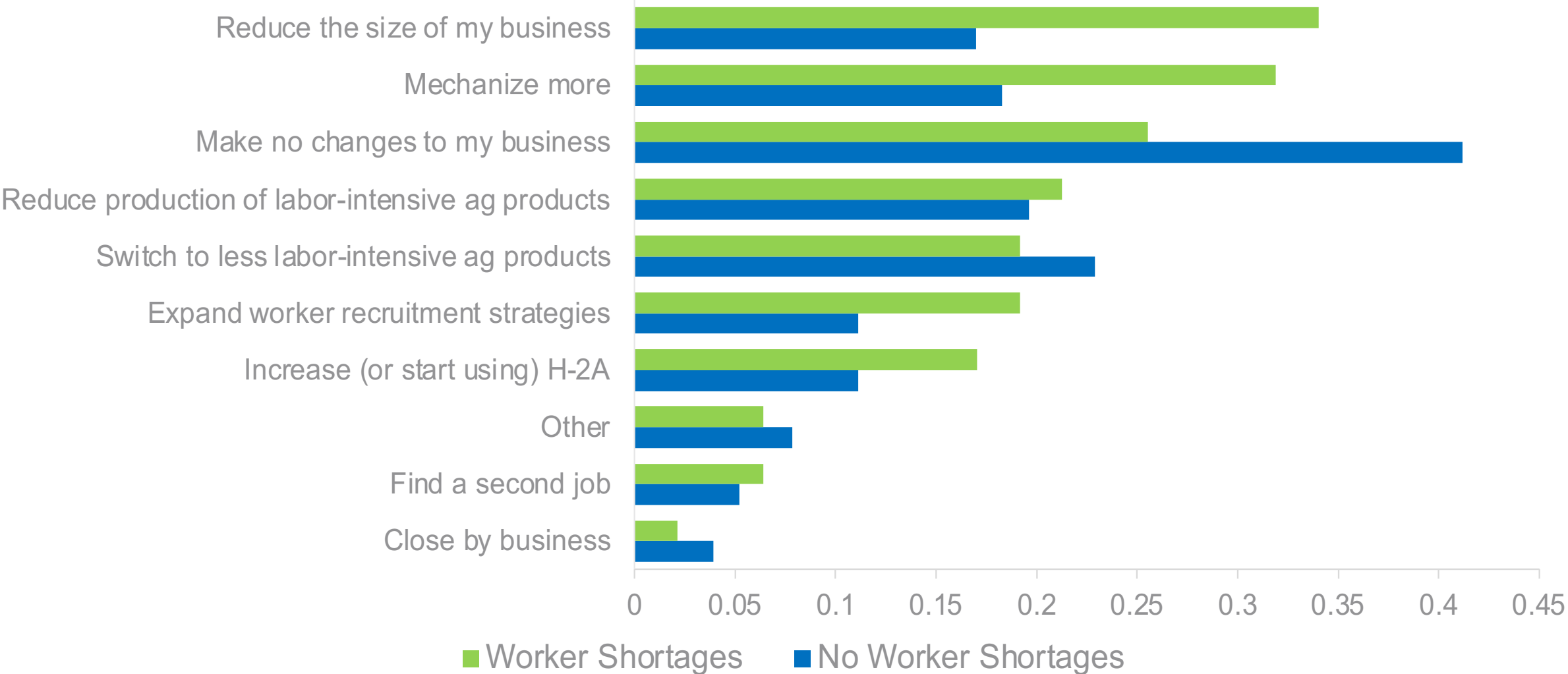
What employer actions might we expect?

What is the desired role of government policies?

Produce Growers are Most Likely to Increase Mechanization



Operations that Report Worker Shortages are More Likely to Report Needing to Make Changes to their Business



Concluding Remarks

Relevance to Recent Policy Changes

- Minimum wage laws
- Overtime laws

Top policy solutions:

- Employers suggested: Health care, rent, and farm labor subsidies as the top policy solutions for ongoing labor challenges.
- Our analysis also suggests: payments for seasonal unemployment in agriculture, investments in agricultural R&D to increase worker efficiency and improve job desirability, and policies specifically targeting produce growers.

You can access all of our outreach materials from the 2020 Colorado Agricultural Labor Survey for Employers at:

<https://foodsystems.colostate.edu/research-impacts/agricultural-labor/>





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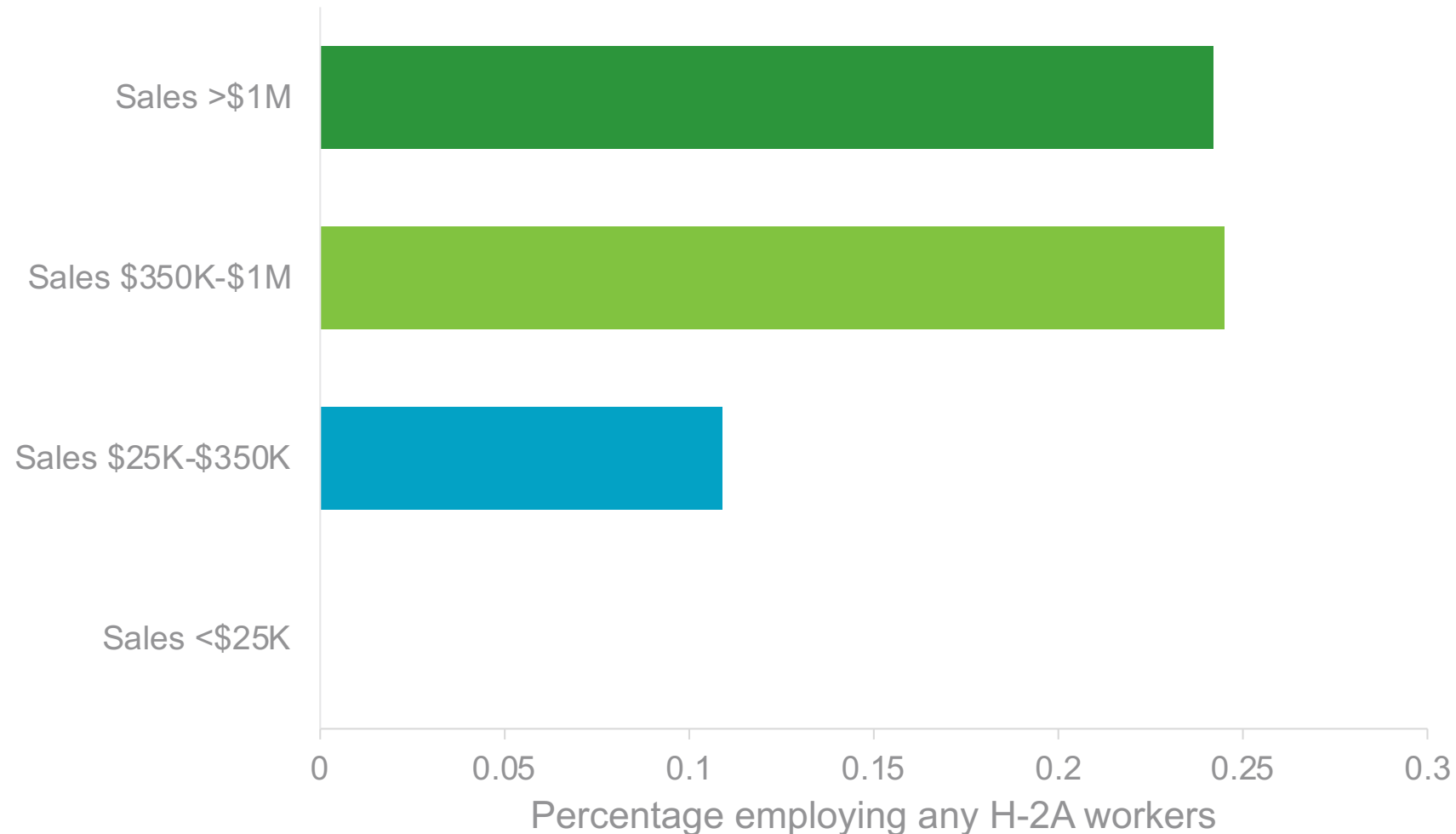
[alexandraehill@github.io](https://alexandraehill.github.io)

Similar Levels of Risk for Operations Experiencing Worker Shortages



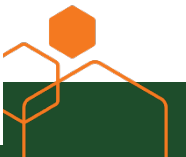
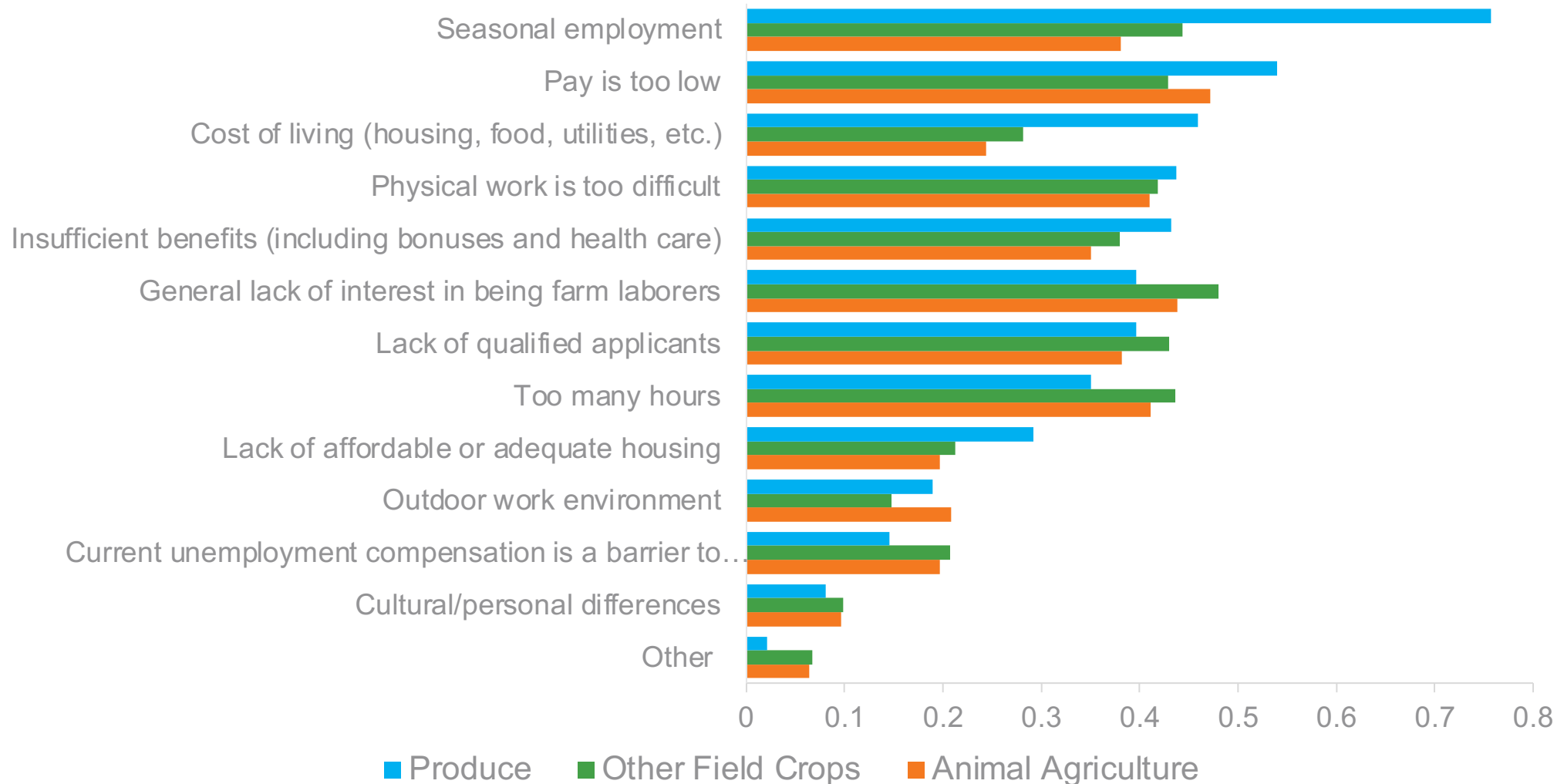
H-2A Use is Most Prevalent Among Larger Operations

During the past five years (2016-2020), has your farm employed H-2A workers?



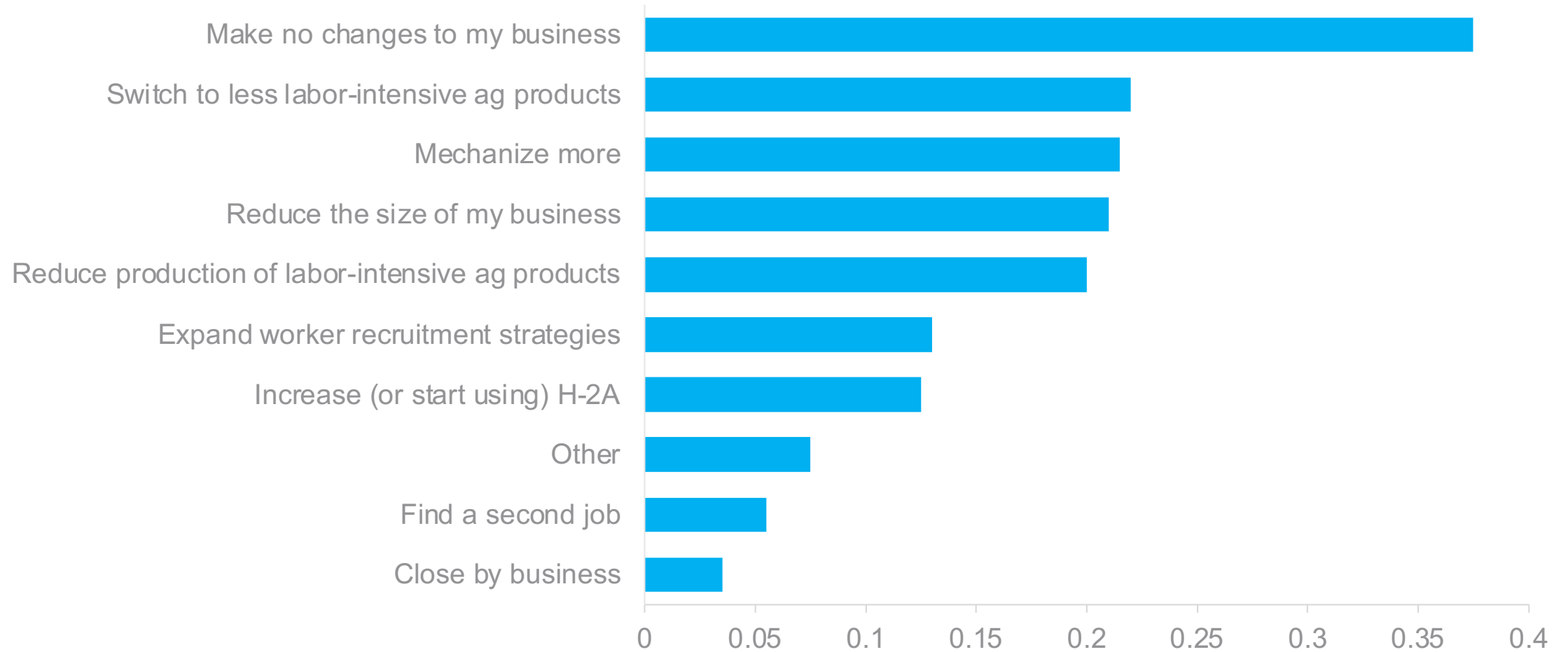
Employer Perceptions of Barriers to Worker Recruitment

What do you perceive as the main challenge(s) to recruiting domestic agricultural workers? (select all that apply)



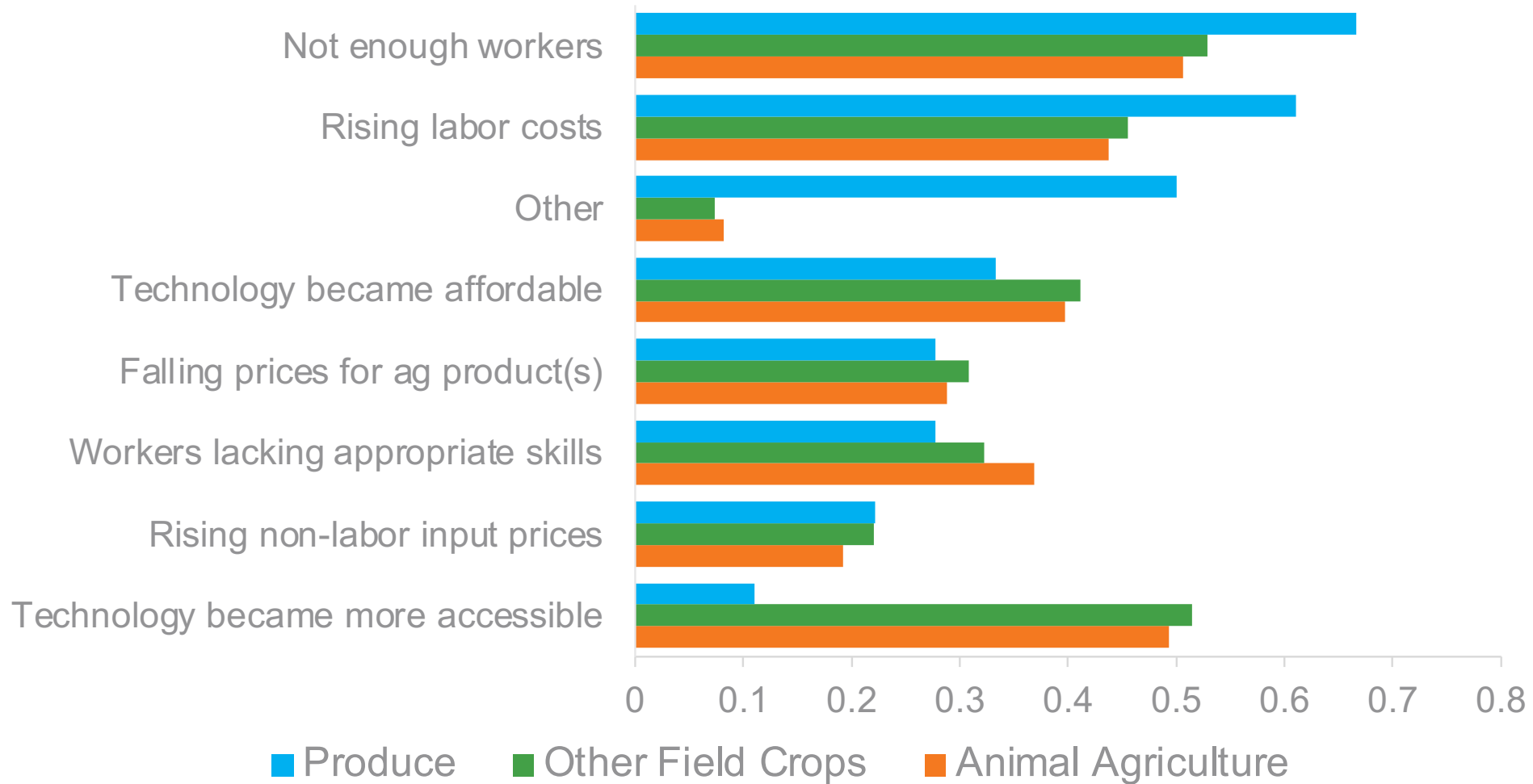
Looking Forward

If ag worker supply issues do not change for me, I will (select all that apply):



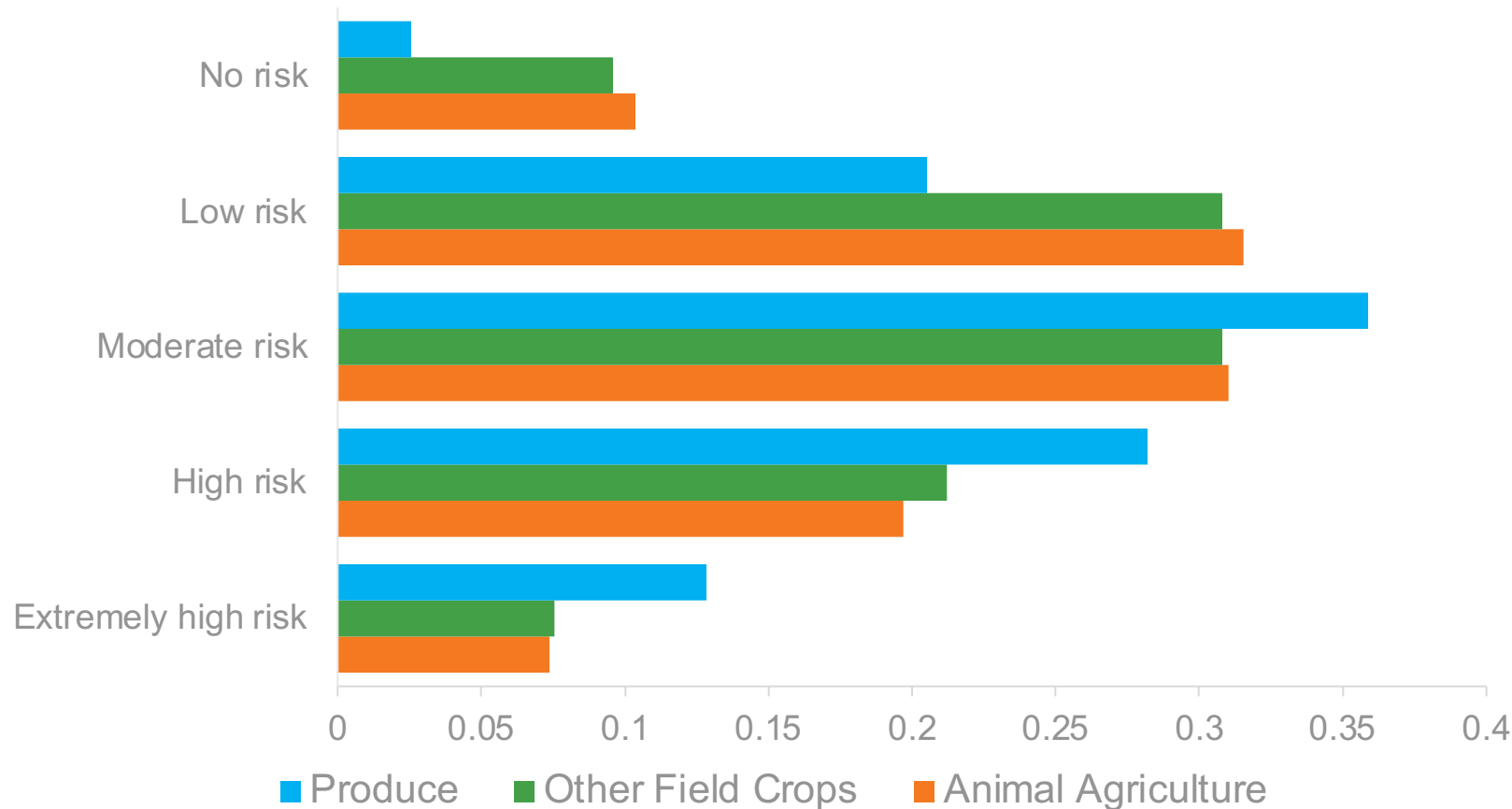
The Majority of Produce Growers Cite Labor Reasons As Main Motivations for Adopting New Technology

What motivated you to use this technology? (select all that apply)



Business Risk from Recruitment and Retention Largest for Produce Growers

How would you characterize your level of business risk (e.g. monetary losses, inability to produce desired ag product, etc.) regarding recruiting and retaining qualified farm workers?



Large and Small Operations Report Similar Future Behavior, with a few exceptions

