



# Community Supported Agriculture (CSA) in California:

findings from the CSA farmer/operator survey

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Natasha Simpson,<sup>~</sup> & Kate Munden-Dixon<sup>^</sup>

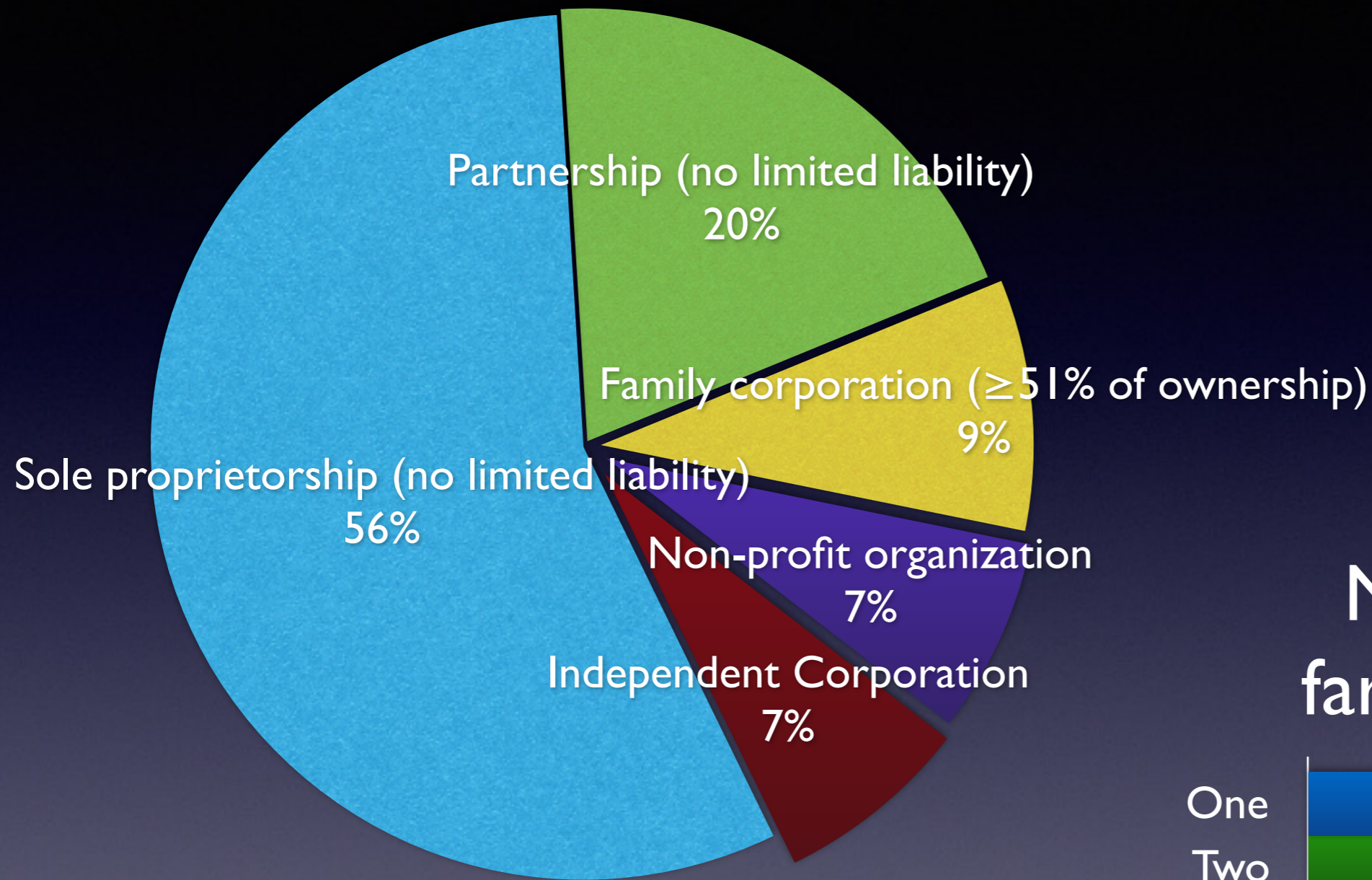
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UC Davis-CAFF CSA Workshop, Sebastopol Grange, Sebastopol 9/28/15

# Outline

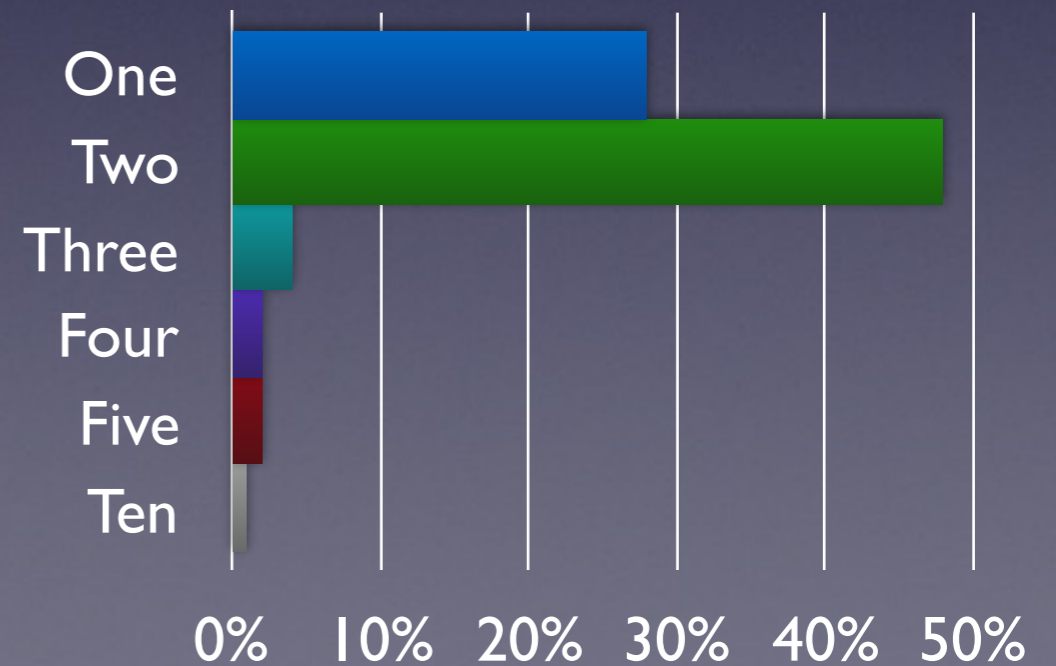
- Farm details
- CSA farmer/operator details
- CSA characteristics
- CSA shares
- CSA membership & retention
- Farm finances
- Farm labor
- Farmer satisfaction
- Regional comparisons

# Farm details

# Ownership structure of the farm



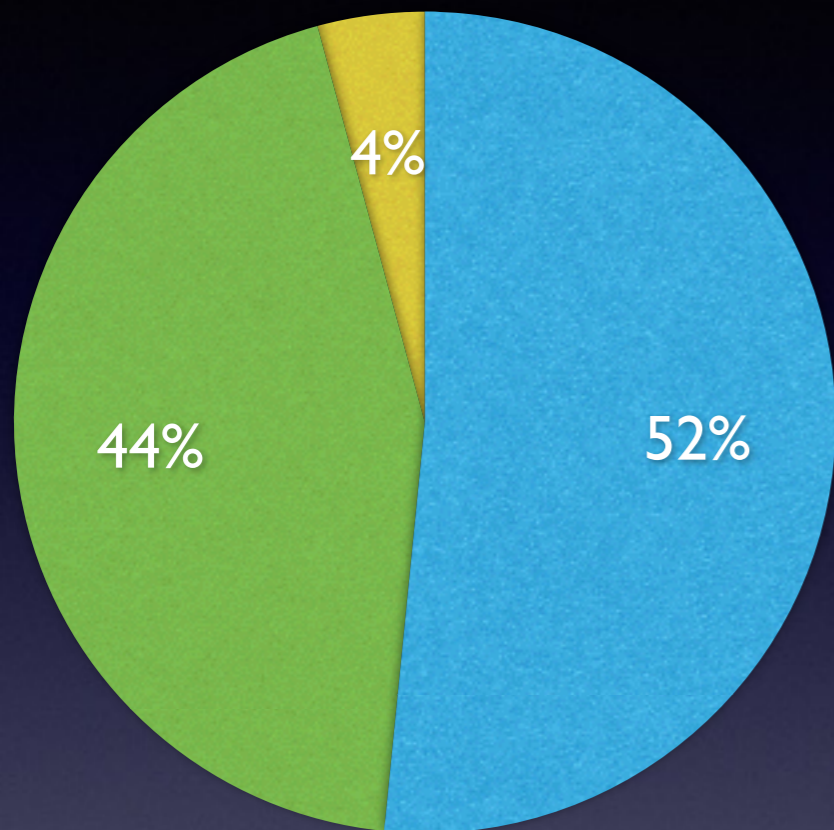
## Number of farm partners



# Farm land

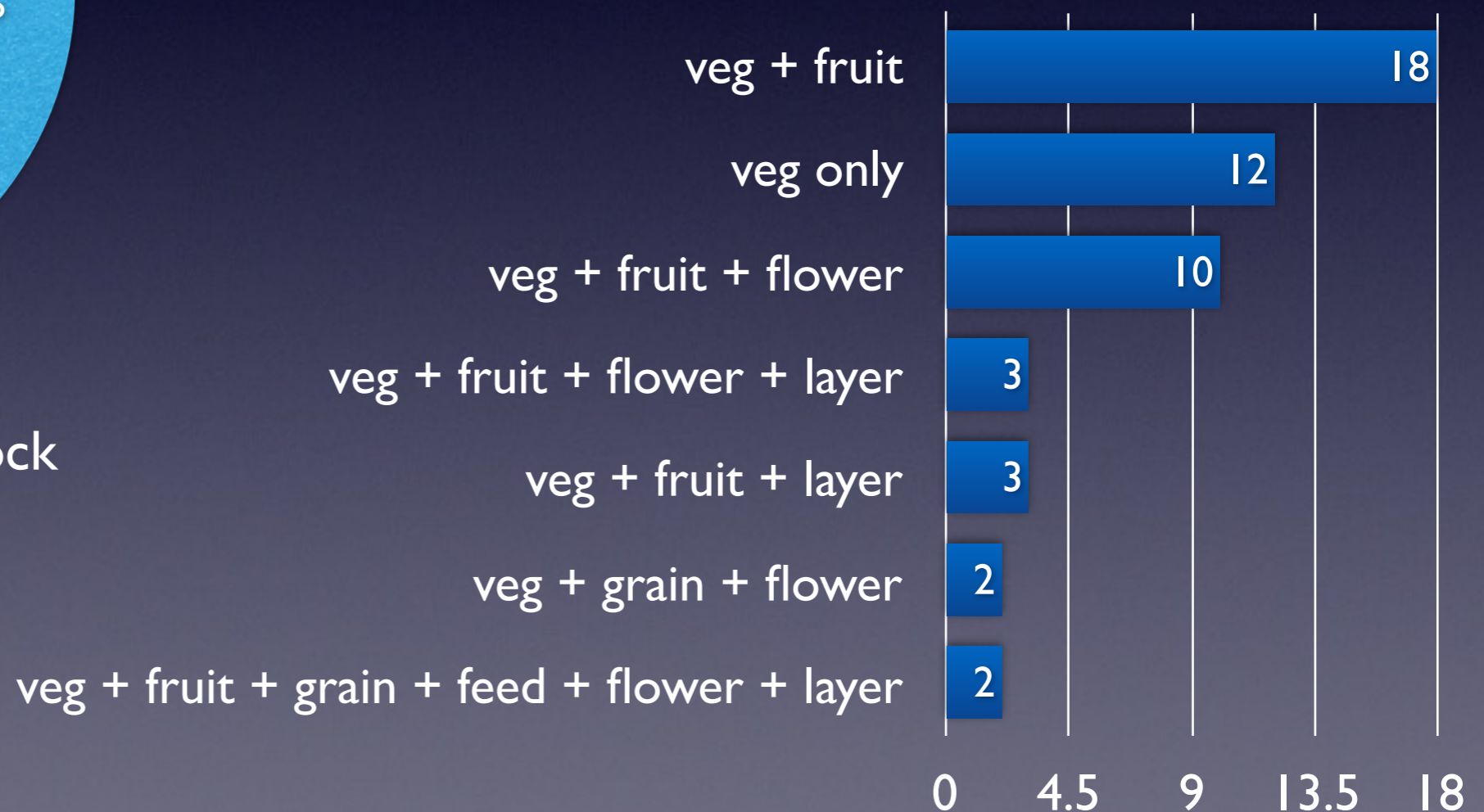
Acres	Mean	Median	% of farms
Total	242	15	—
Owned	19	0.75	51%
Rented	210	7.5	83%
Cropland	53	7	97%
Rangeland/pasture	187	0	37%
Certified organic	13	0	34%
Subsidized land access	—	—	48%

# Production mix: crops & livestock



- Crops only
- Mixed crops & livestock
- Livestock only

## Numbers of farms with specific production mixes



# Farm practices in relation to organic

Practices	% of farms
certified organic	44%
follow organic rules but the farm is not certified	38%
consider practices to be beyond organic	42%
biodynamic	8%
most but not all of practices comply with organic	8%
use synthetic pesticides	2%
use synthetic fertilizers	4%

# CSA operator details



# CSA operators' beginnings

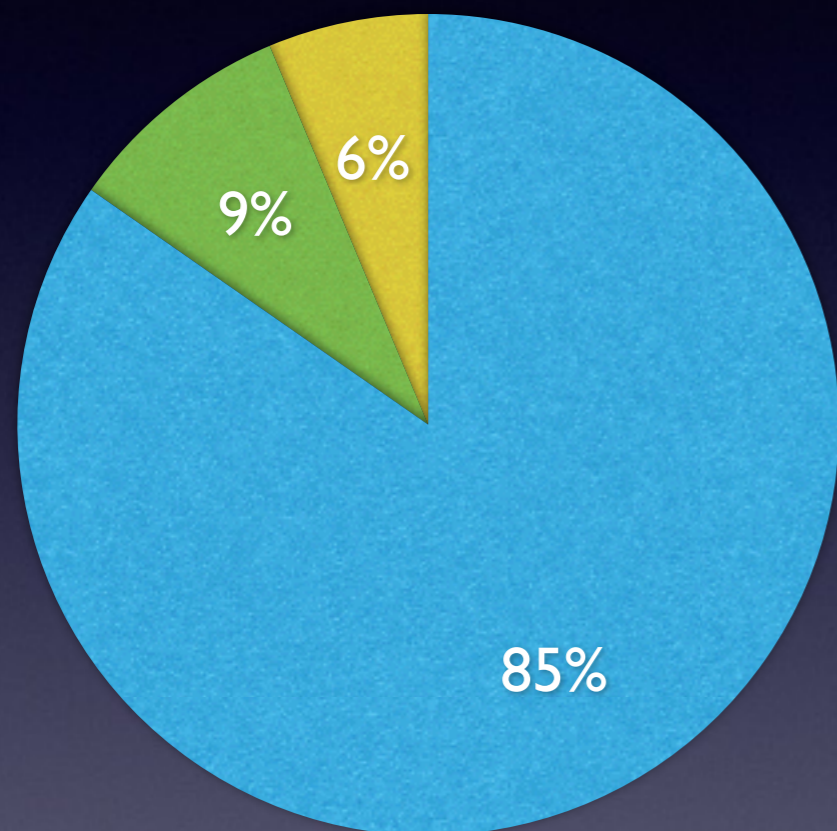
What year did you...	Average	Median
start farming/gardening (even if as a hobby)?	1990	1994
start farming as a profession (or start selling your farm's products)?	1999	2004
start your CSA?	2006	2008

# CSA operator demographics

	Mean	Median	Percentage
Age	45	46	—
Gender: female	—	—	53%
Race: white	—	—	84%
Race: POC	—	—	14%
Undergraduate degree	—	—	73%
Graduate degree	—	—	19%

# CSA characteristics

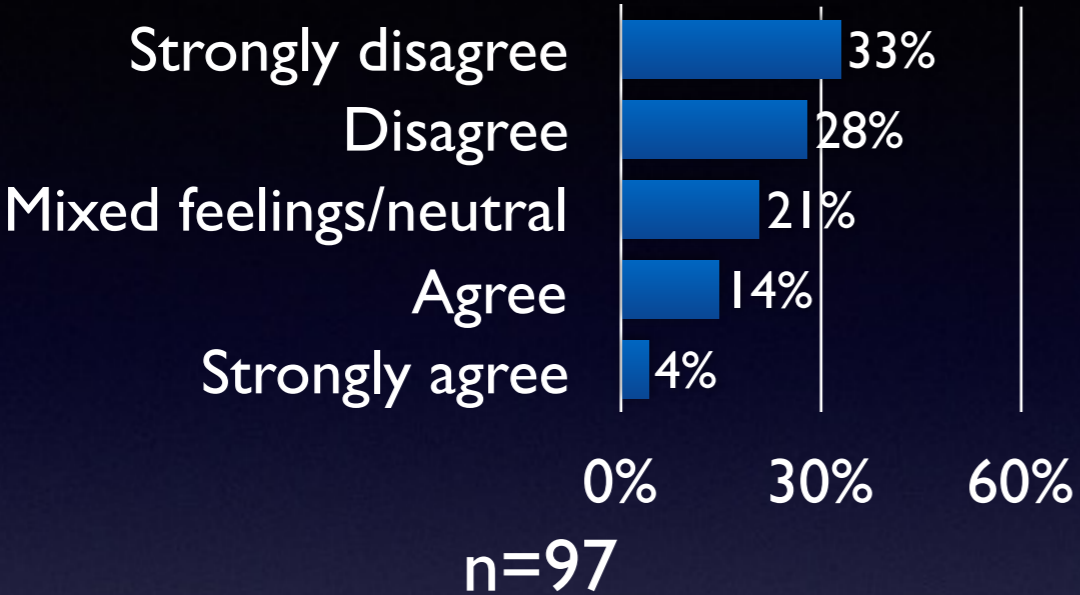
# Types of CSAs by organization



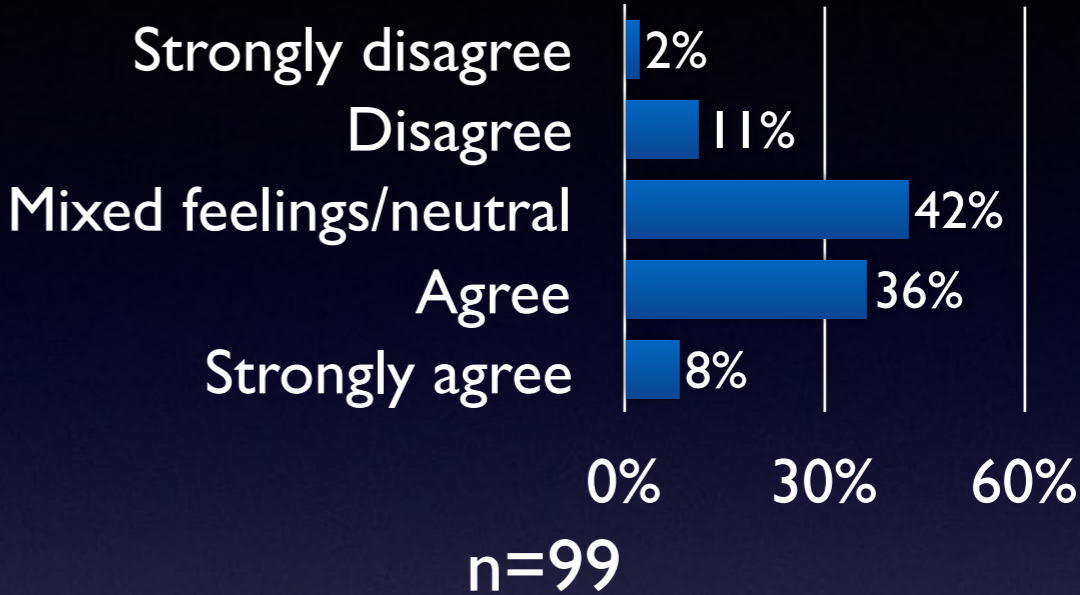
- Single-farm CSA
- CSA independent of farm
- Multi-farm CSA

Management structure of non-single-farm CSAs		
	CSAs indep. of farm	Multi-farm CSAs
jointly run	—	1
core group runs	2	2
staff independent of a farm	6	—
one farm runs	—	1
run by my farm	2	3

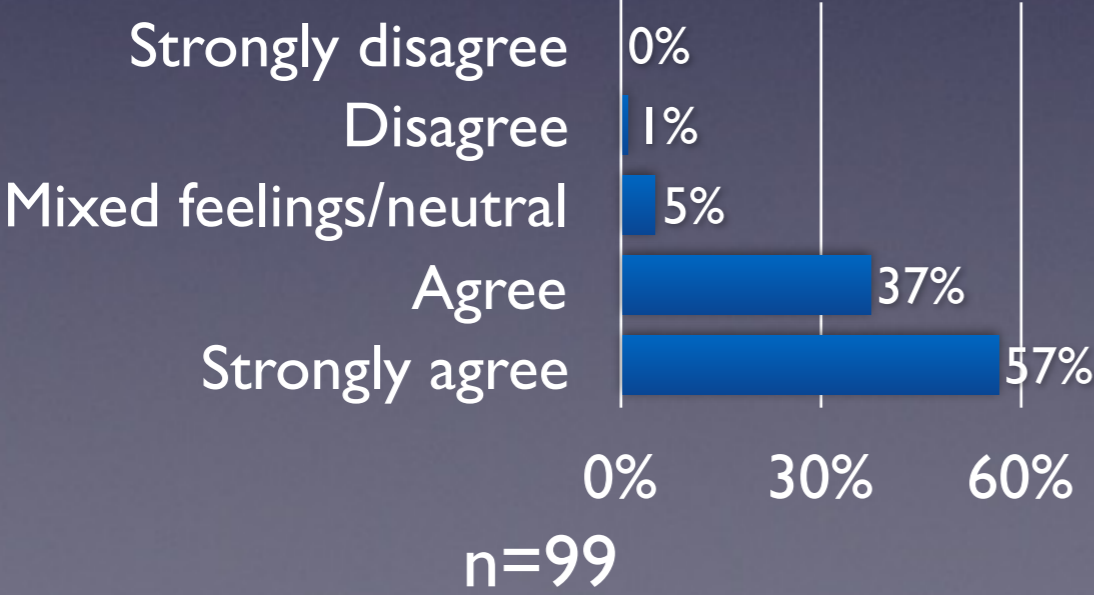
# The CSA shares production risk w/ members



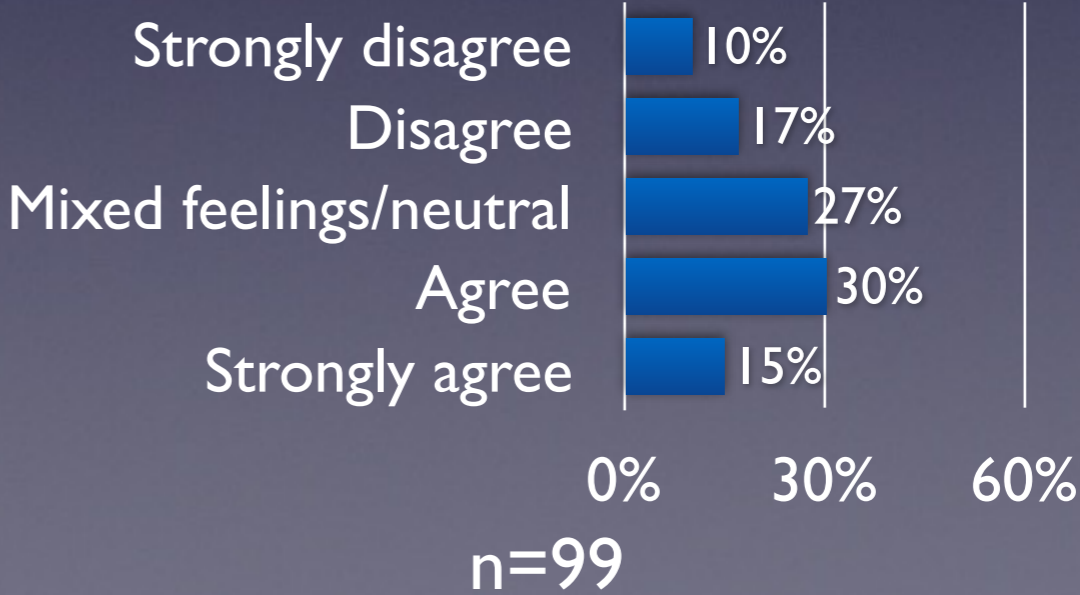
# Members form a supportive community



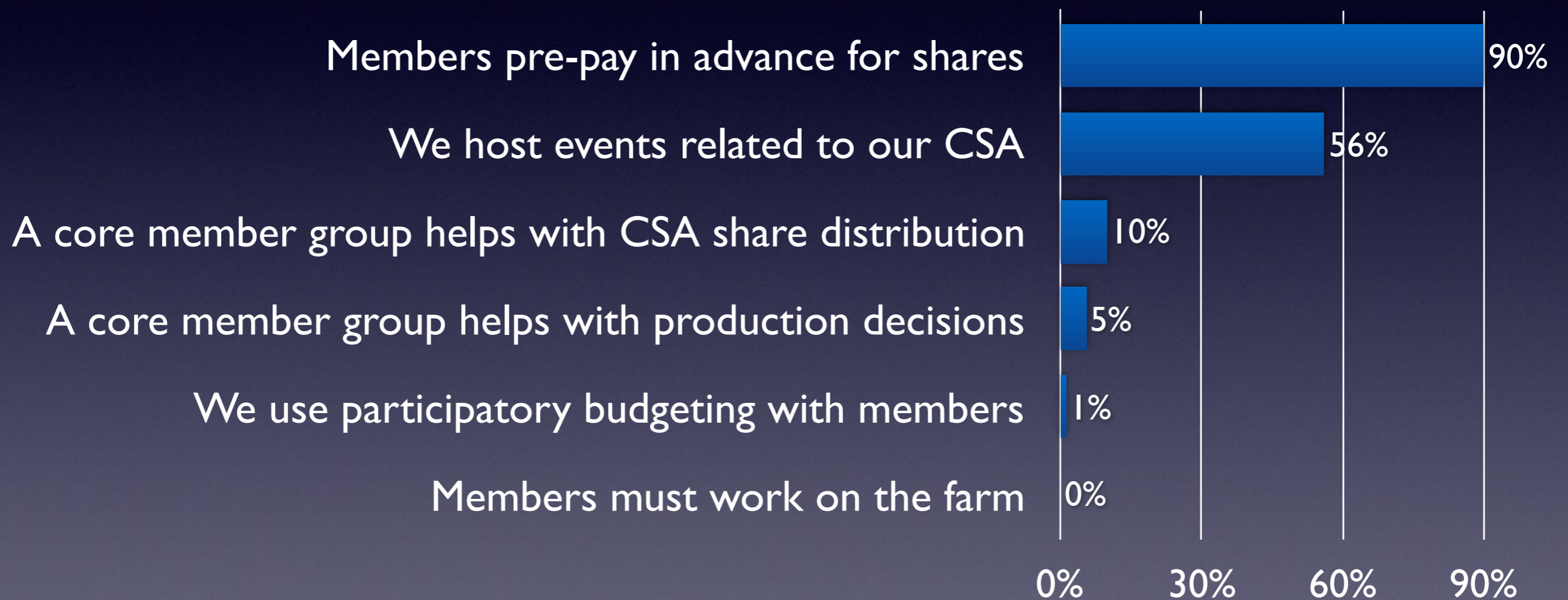
# Members get a good value for their money



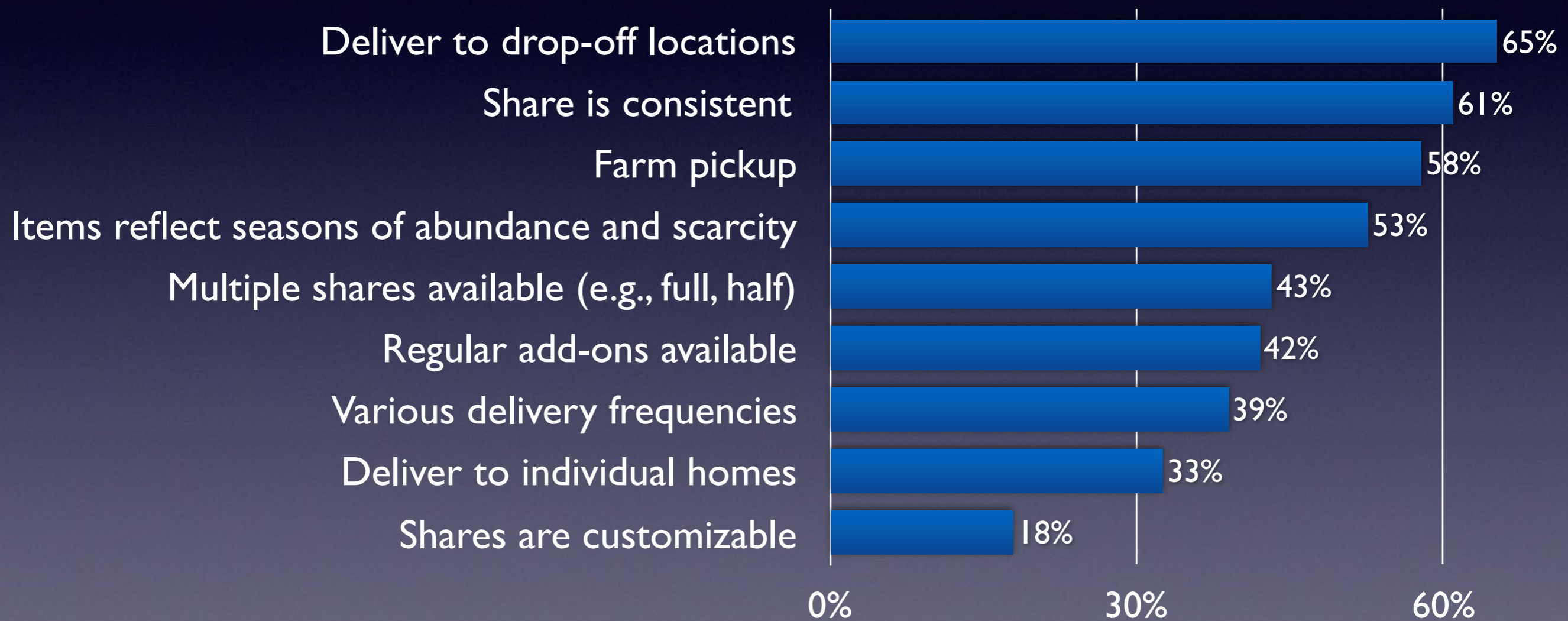
# Members cover costs of production



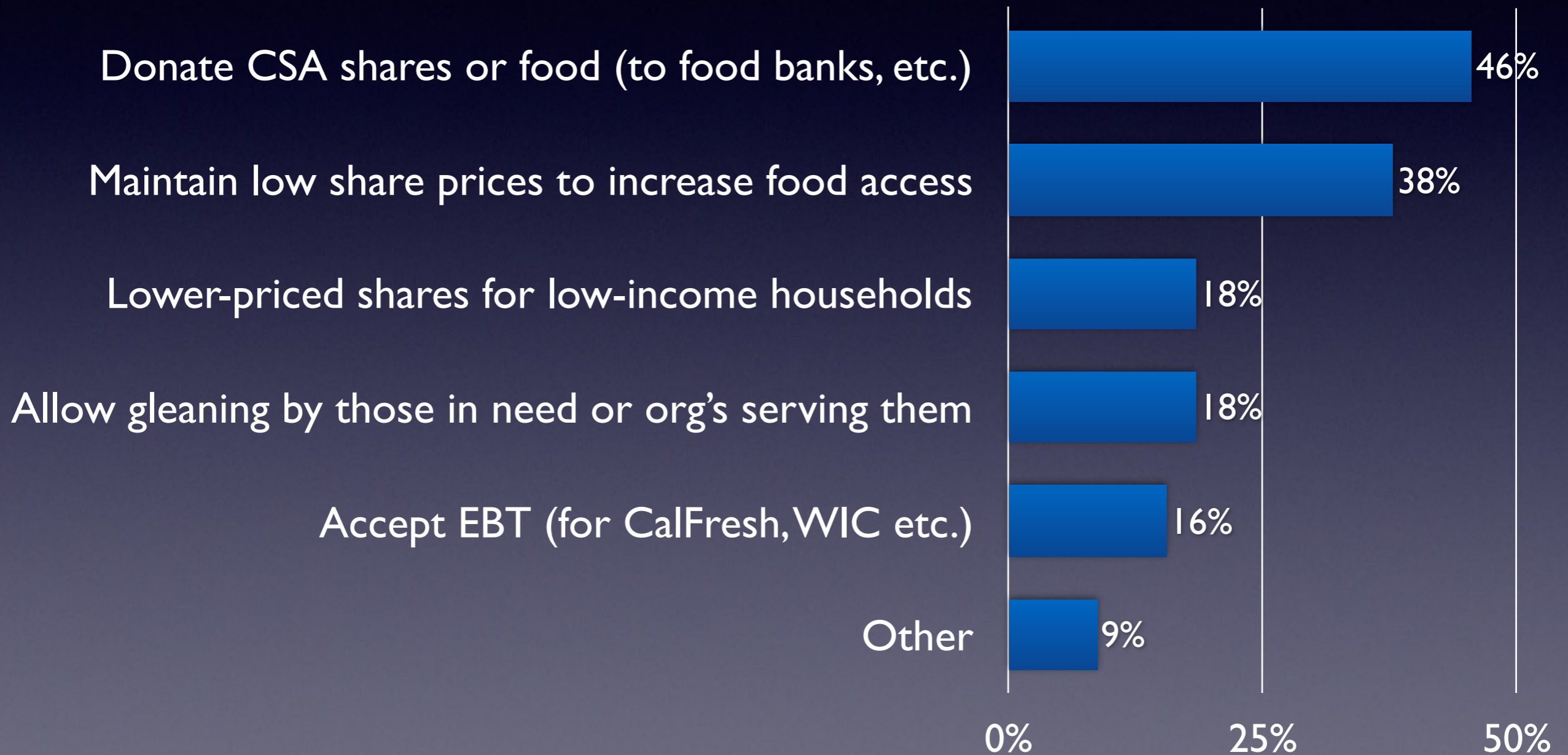
# Characteristics of member relationship (% of farms)



# Characteristics of shares (% of farms)



# Community food security strategies



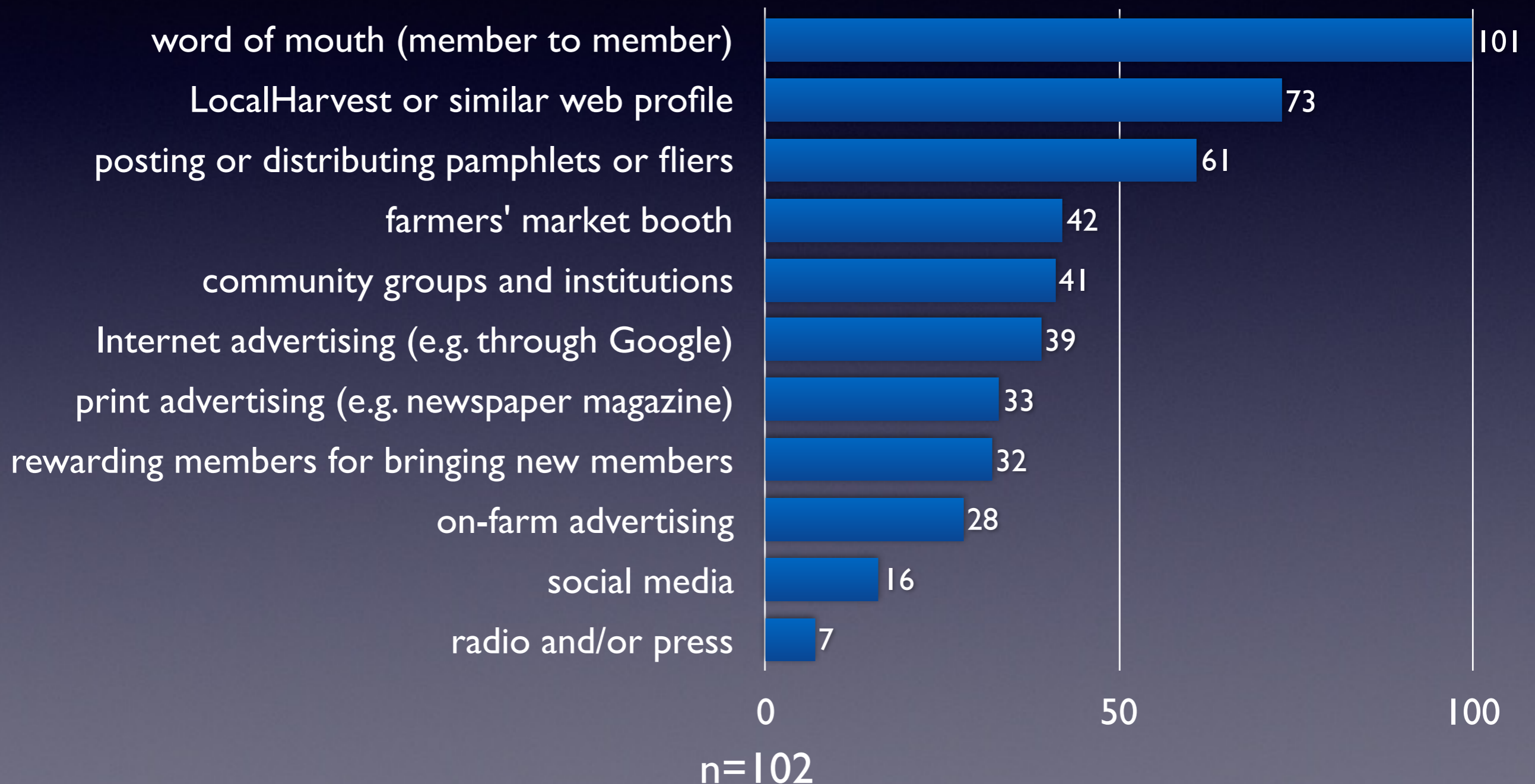
n=103



# CSA membership & retention

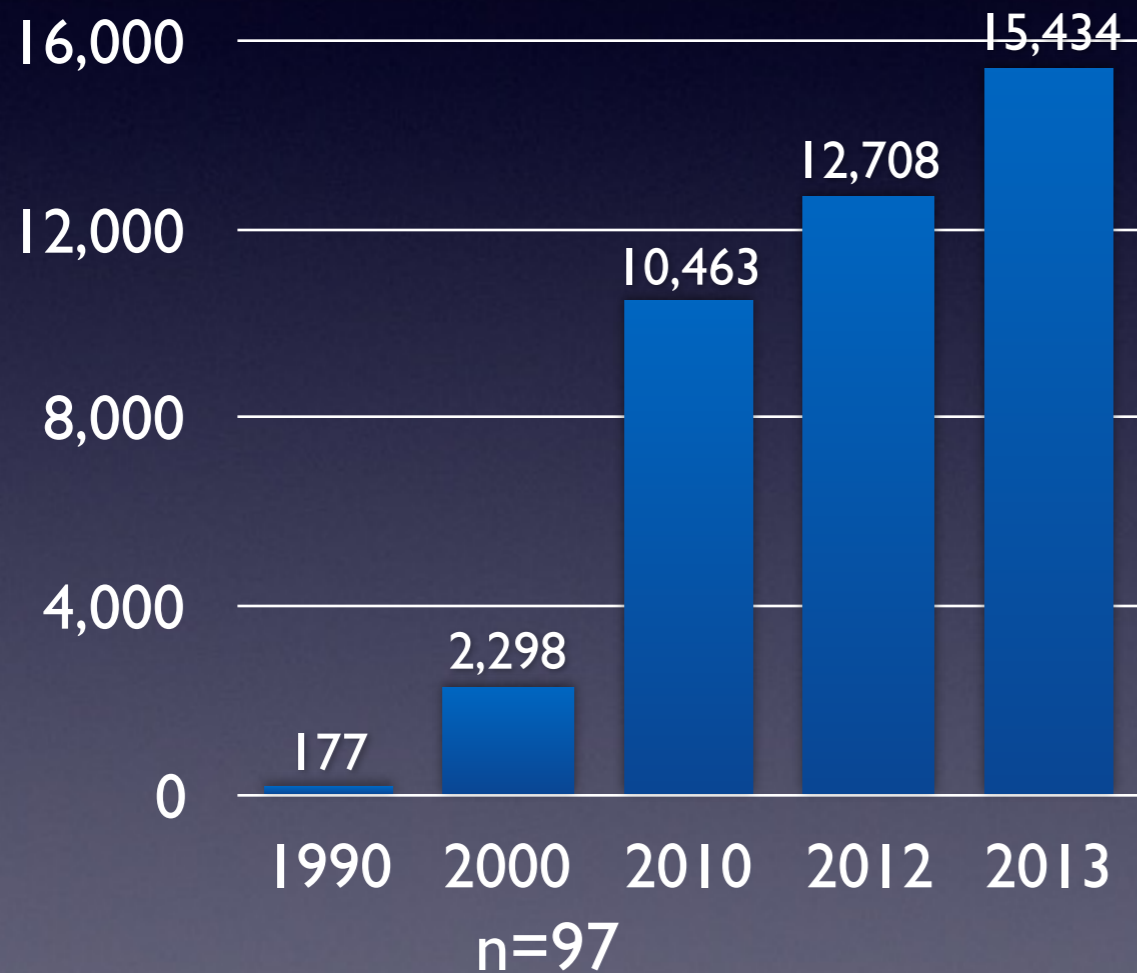
# CSA membership

## Recruitment strategies



# CSA membership

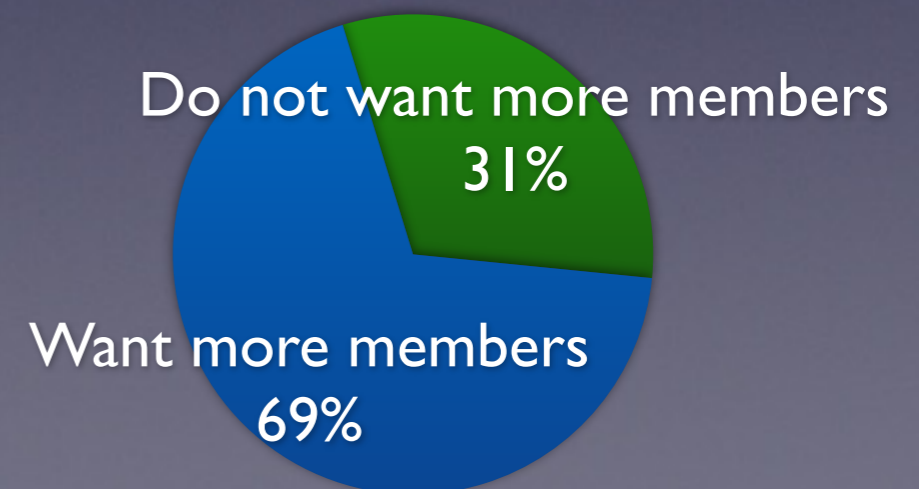
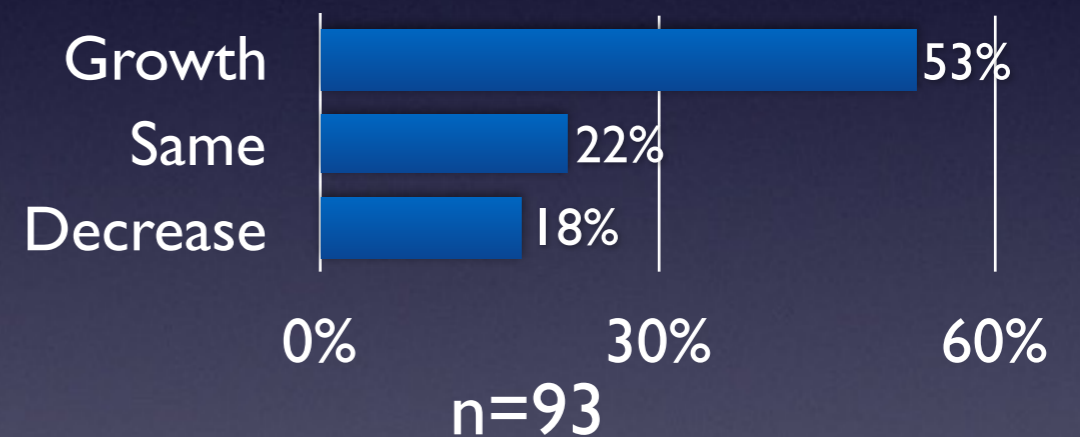
## Cumulative change in membership, 1990-2013



- 100% communicate in English
- 9% communicate in Spanish

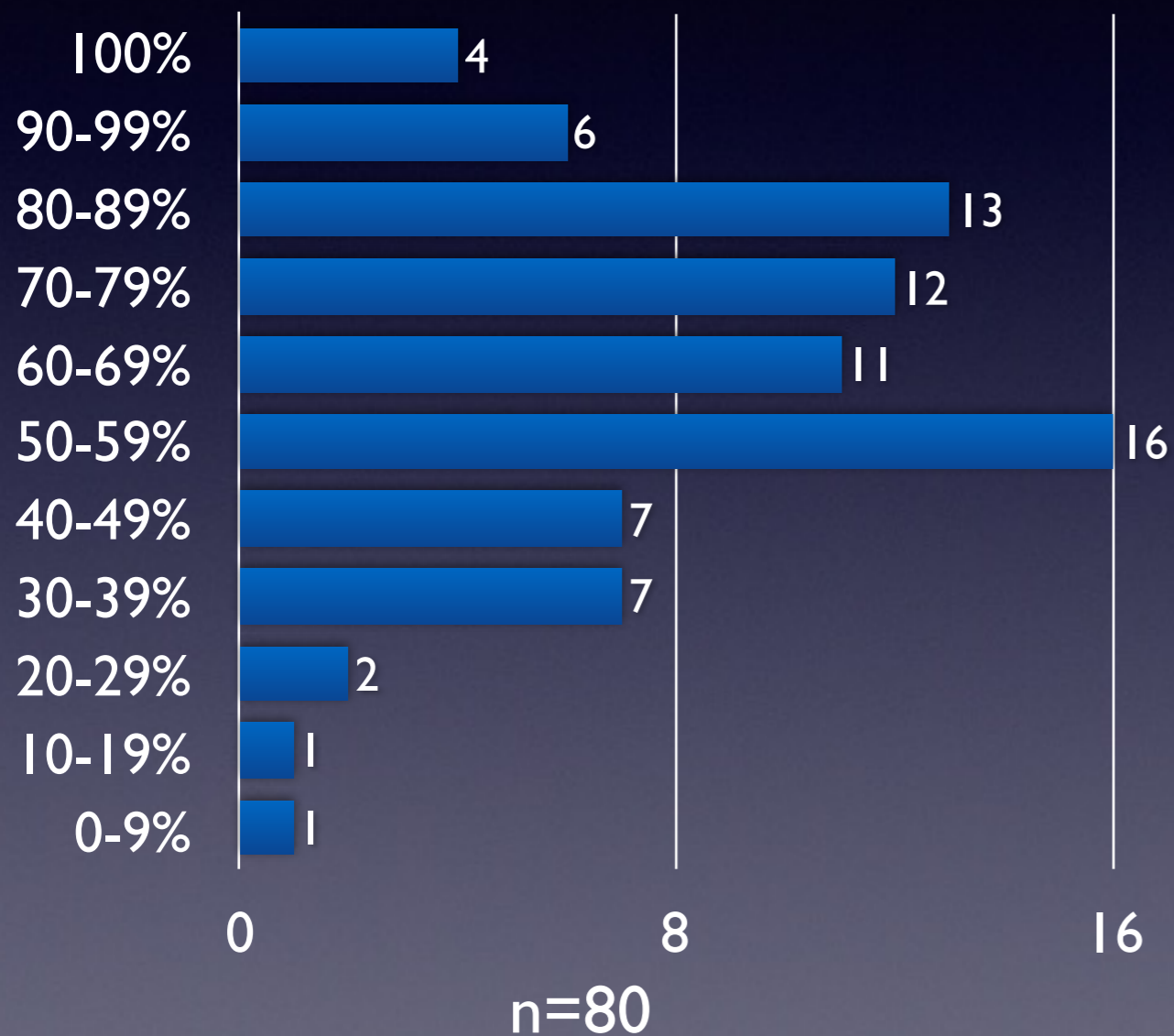
- Mean membership size: 159
- Median membership size: 50

## Change in membership, 2012-2013



# CSA membership retention

## Retention rates, 2012-2013



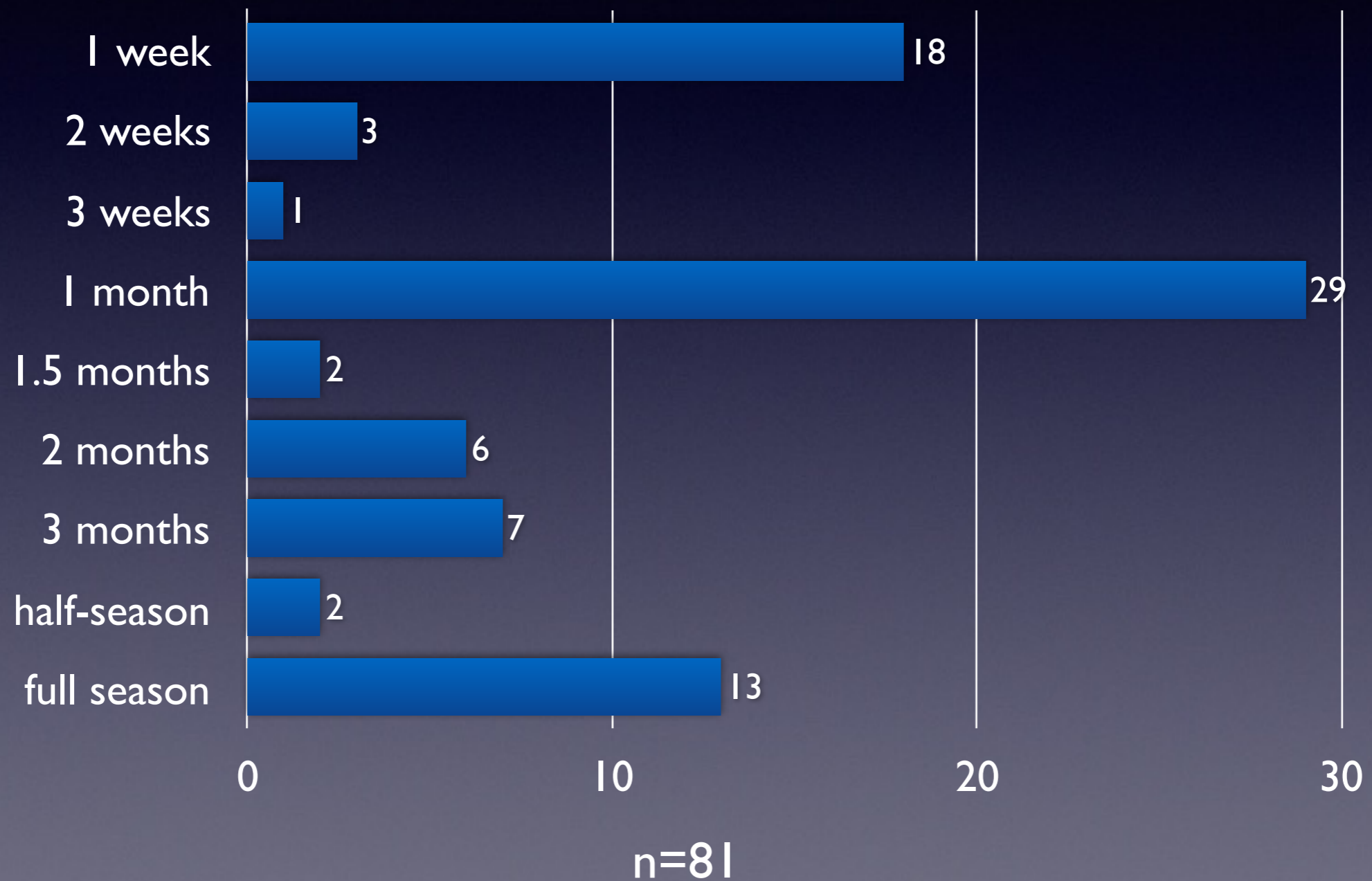
● Mean = 62.9%

● Median = 62.7%

CSA shares

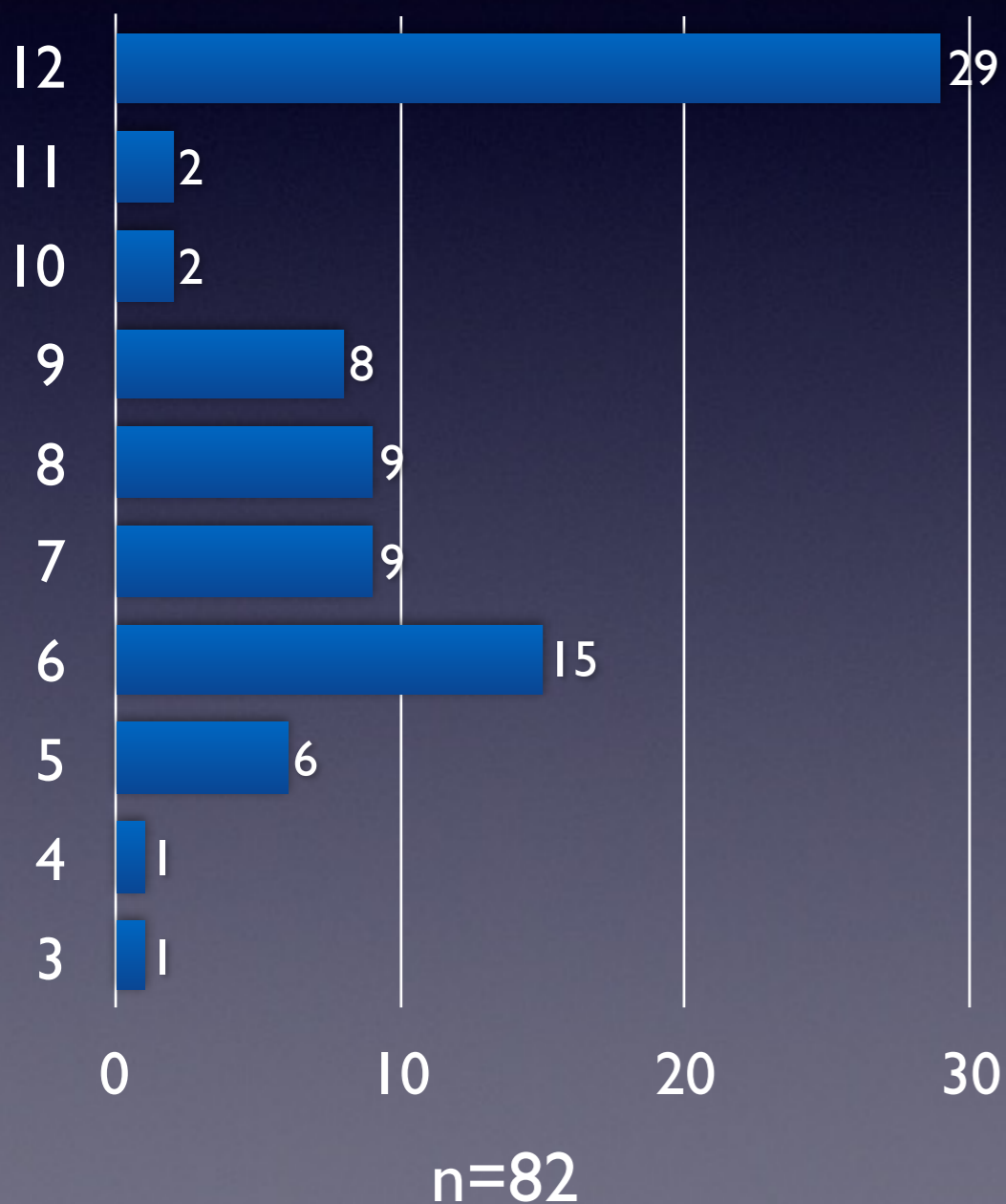
# CSA characteristics

## Minimum pre-payment period

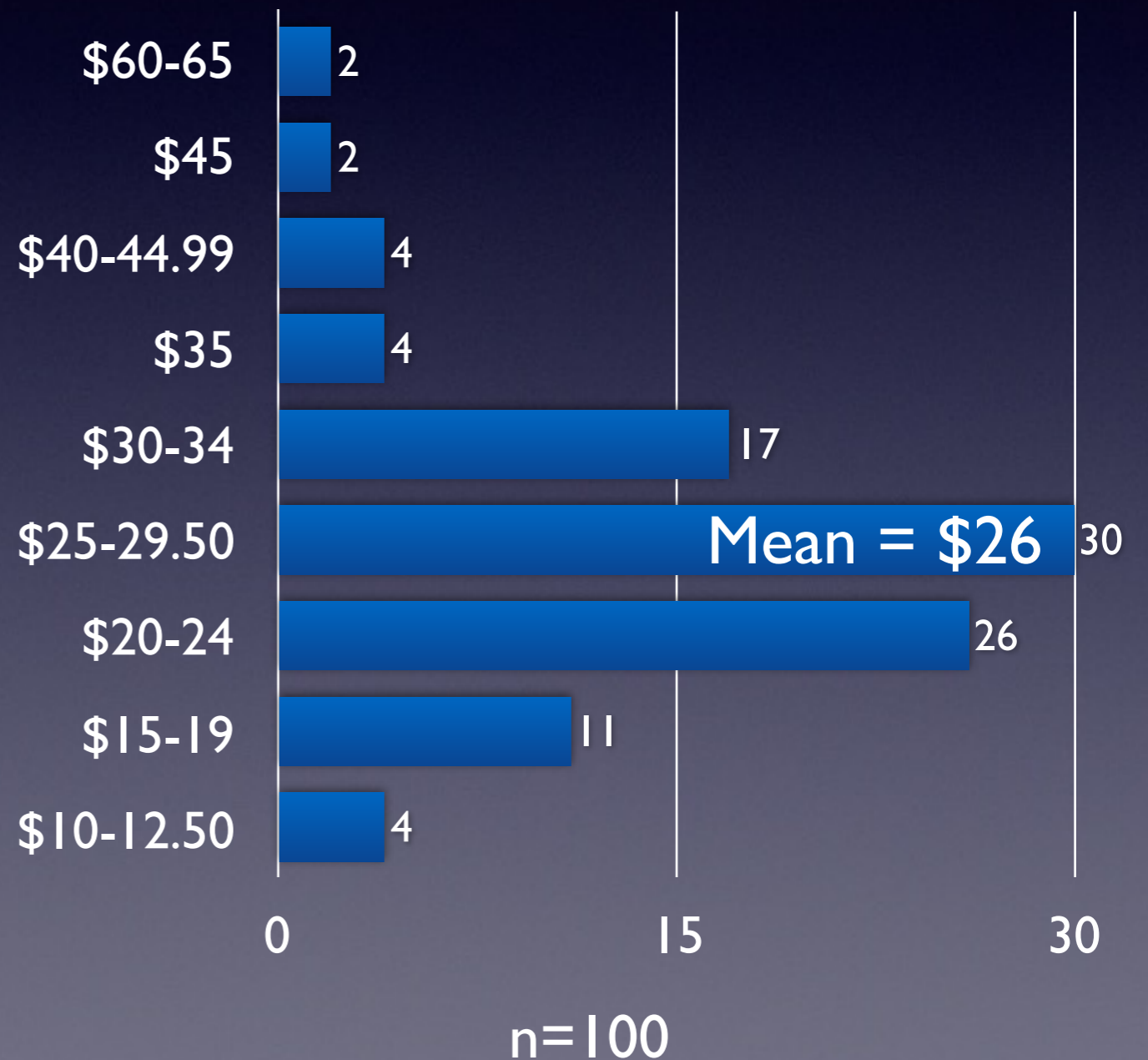


# Share characteristics

## Duration of shares, in months



## Weekly value of shares



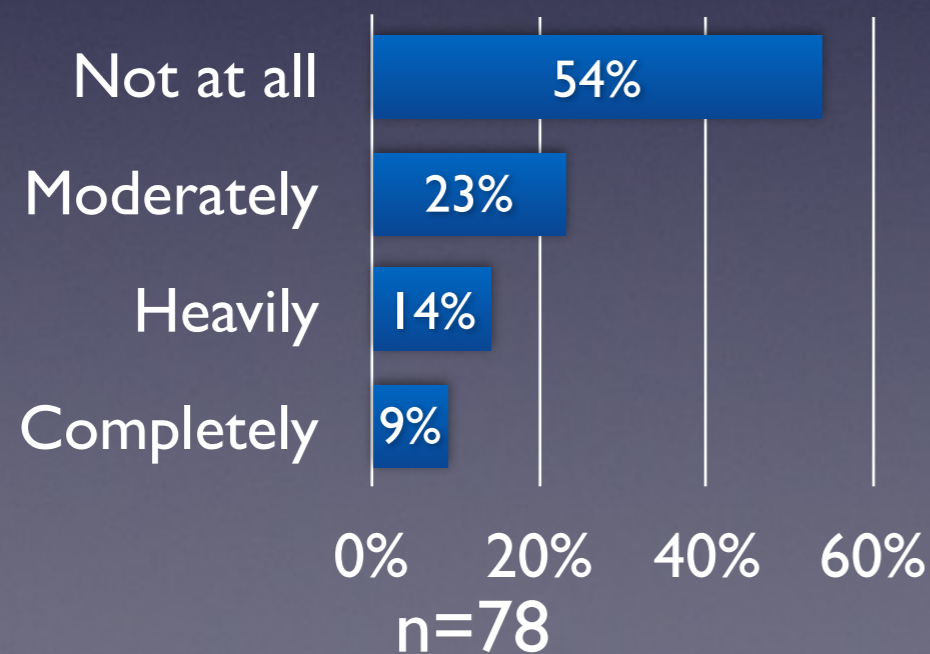
# Farm finances



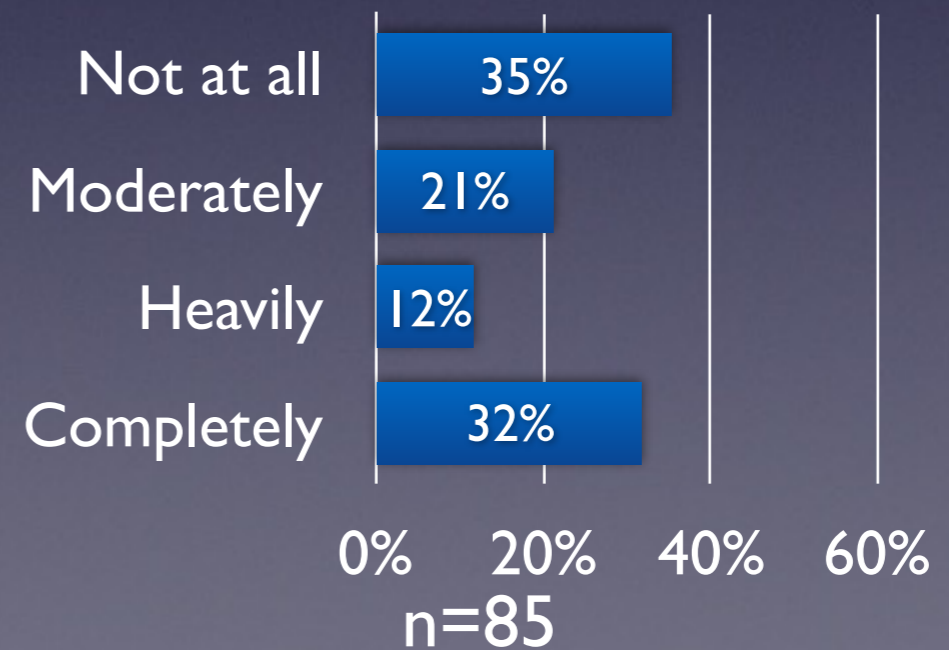
# Off-farm income

- 50% of CSAs have at least one farm partner working an off-farm job

Off-farm income covers farm expenses

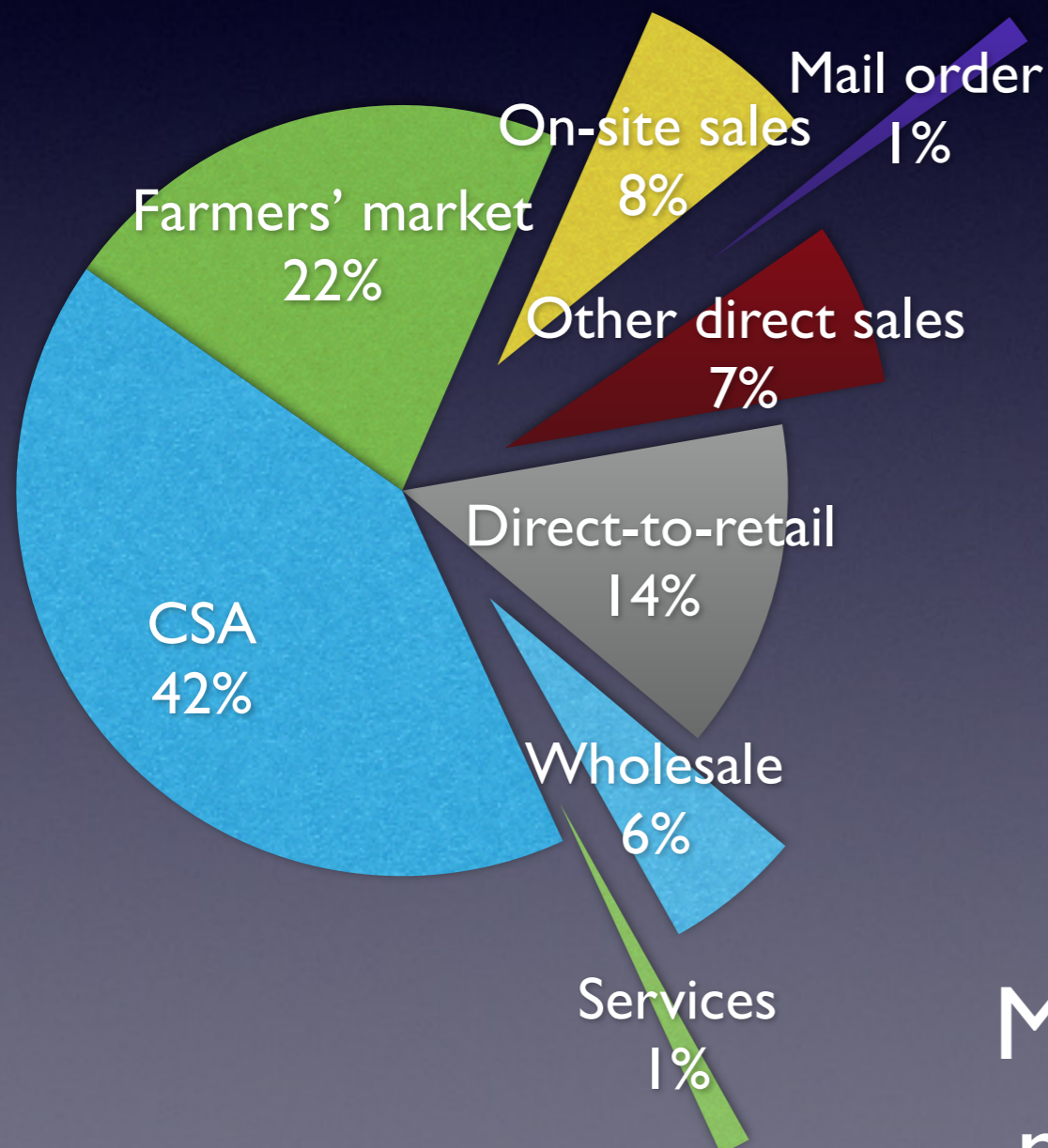


Off-farm income covers household expenses

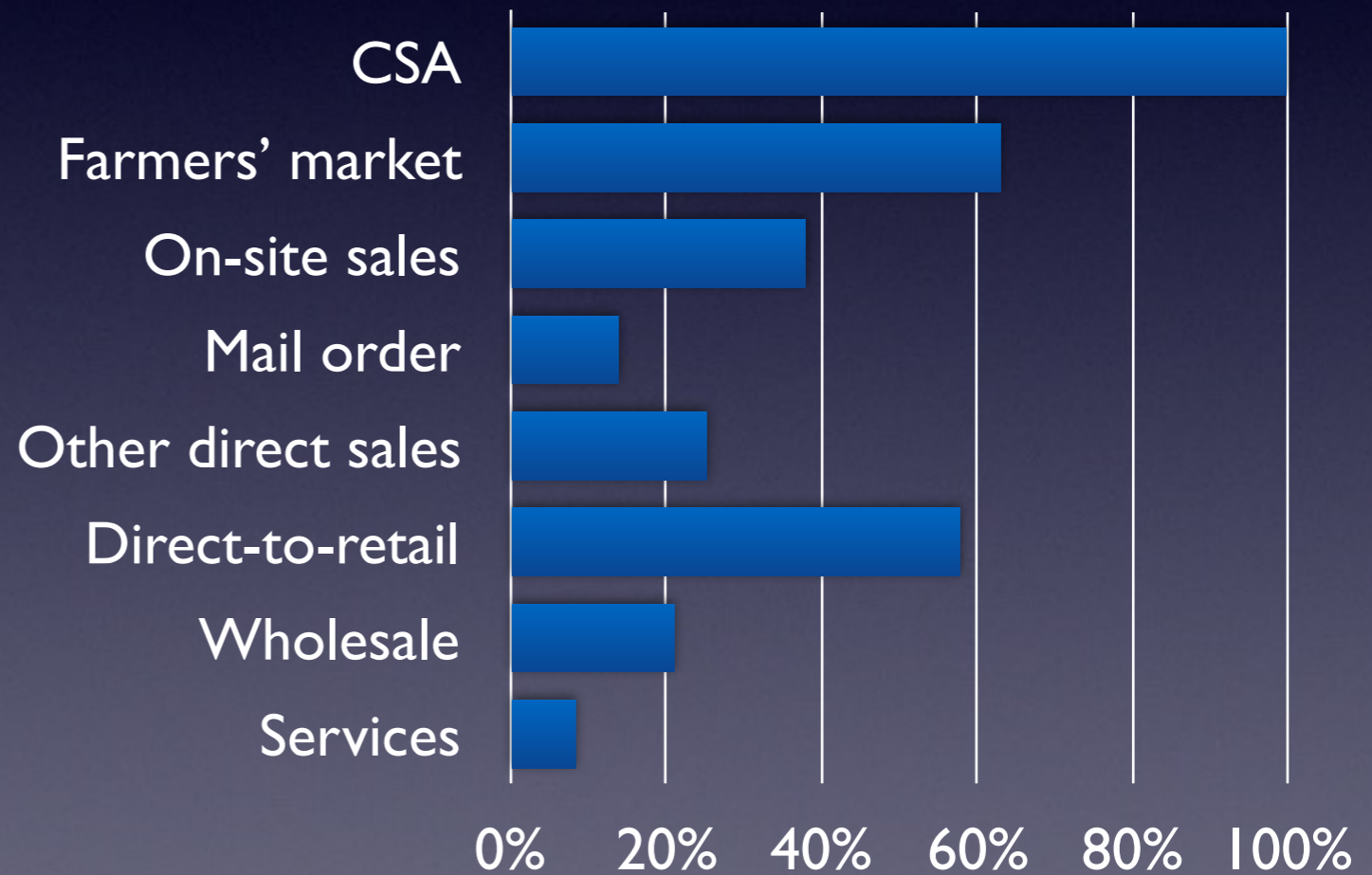


# Market outlets

## Average % of sales



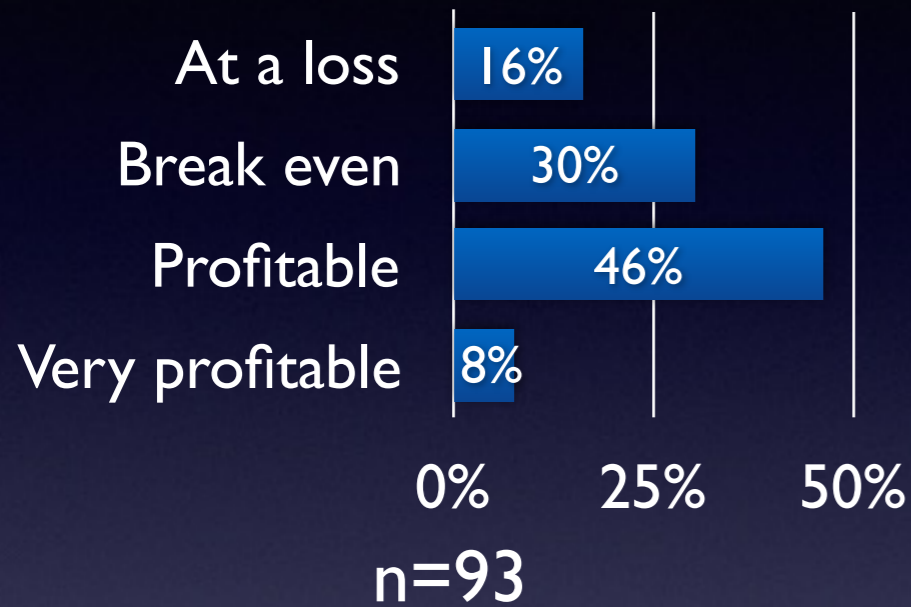
## % of farms using various market outlets



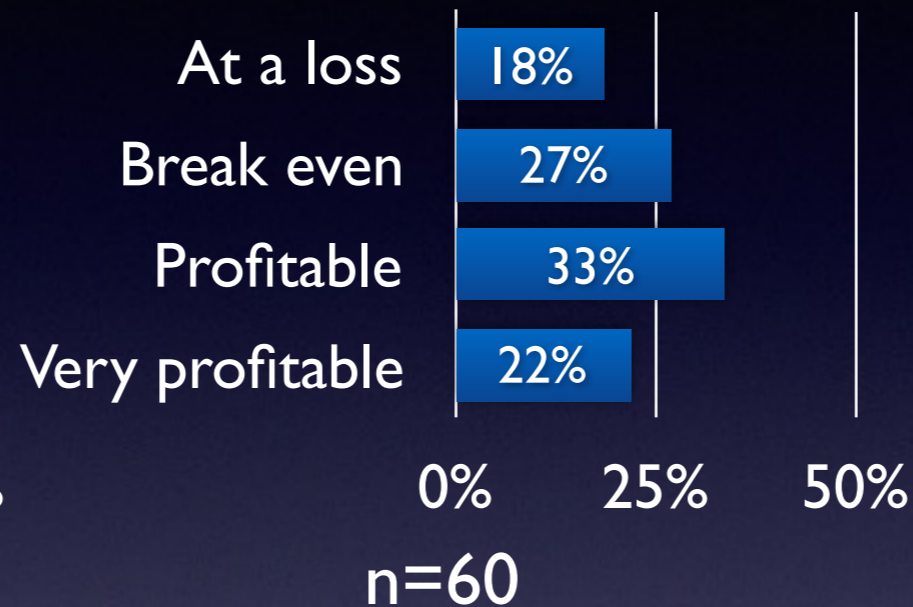
Market outlets per farm:  
mean = 2.6, median = 3

# Profitability of market outlets

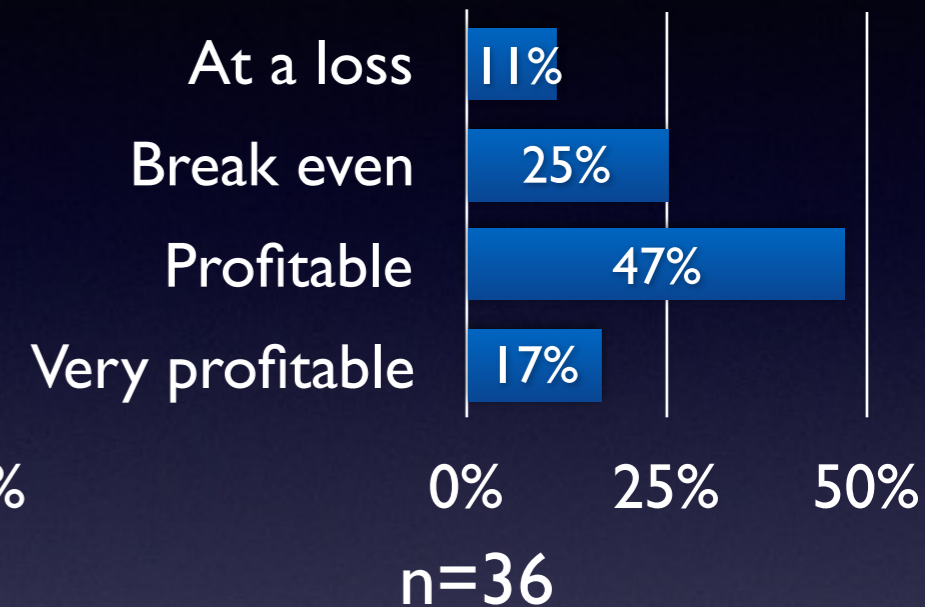
## CSA



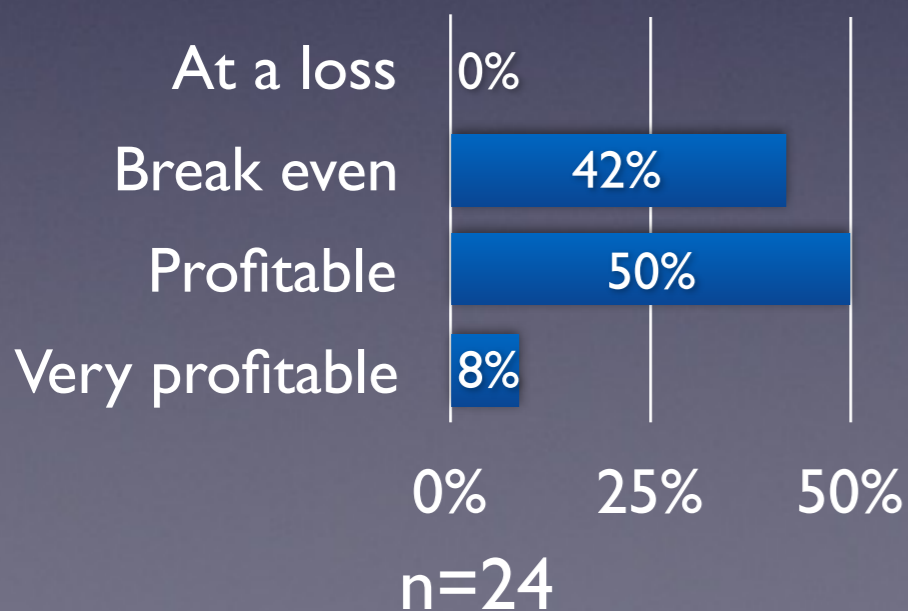
## Farmers' market



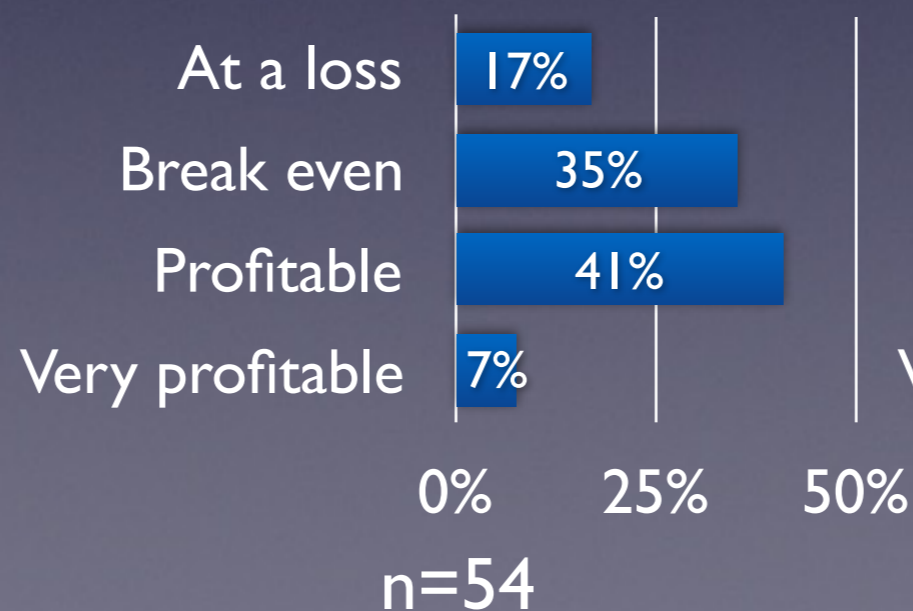
## On-site sales



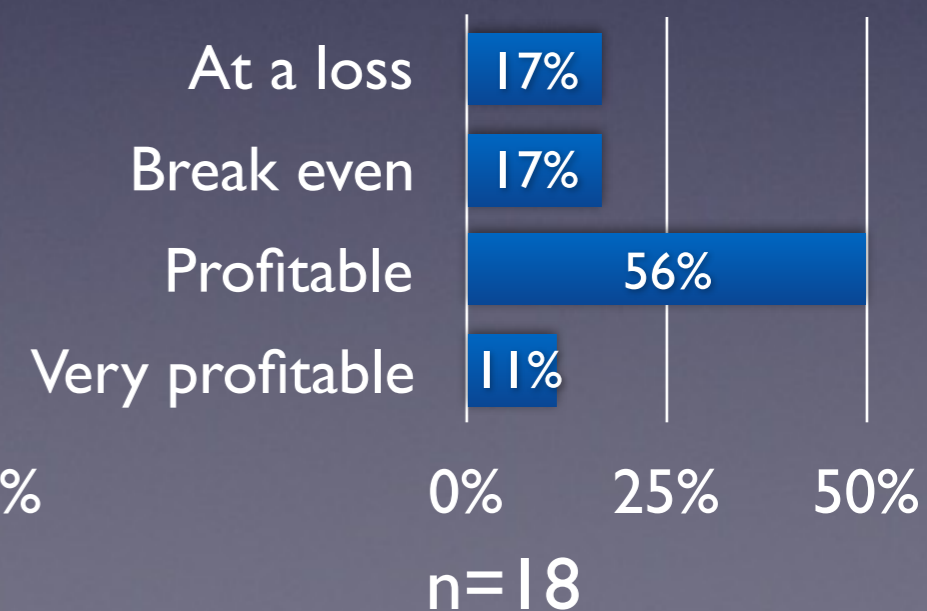
## Other direct



## Direct-to-retail



## Wholesale



# Farm budgets

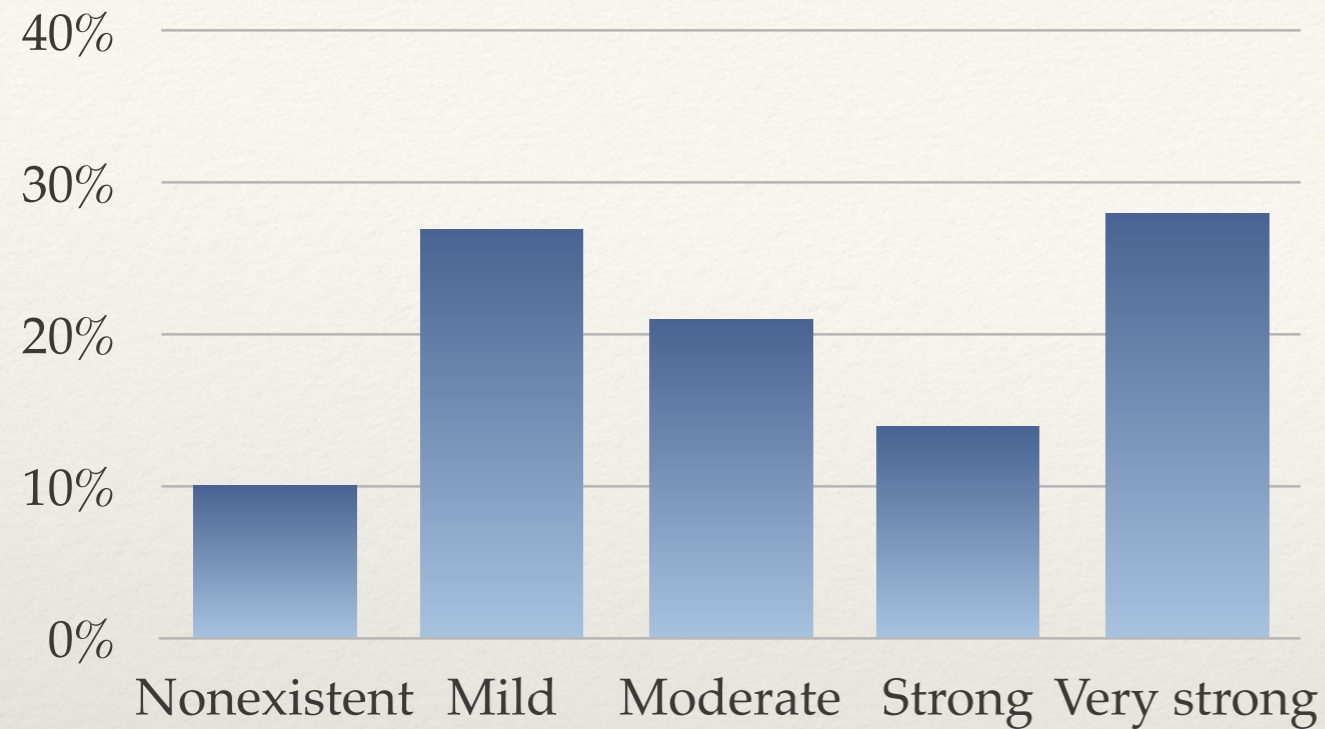
	<b>Ave.</b>	<b>Median</b>	<b>Min.</b>	<b>Max.</b>
Operating expenses	\$223,125	\$51,500	\$1,000	\$4,156,182
Per partner earnings	\$14,258	\$2,750	\$0	\$148,000
Capital expenses	\$22,162	\$5,000	\$0	\$250,000
Gross income	\$544,883	\$57,500	\$0	\$20,000,000
Net profit (- earnings)	\$4,221	\$0	-\$324,000	\$240,000
Net profit + earnings	\$26,628	\$4,000	-\$323,300	\$444,306
Grants	\$701	\$0	\$0	\$13,978

# Views of CSA profitability

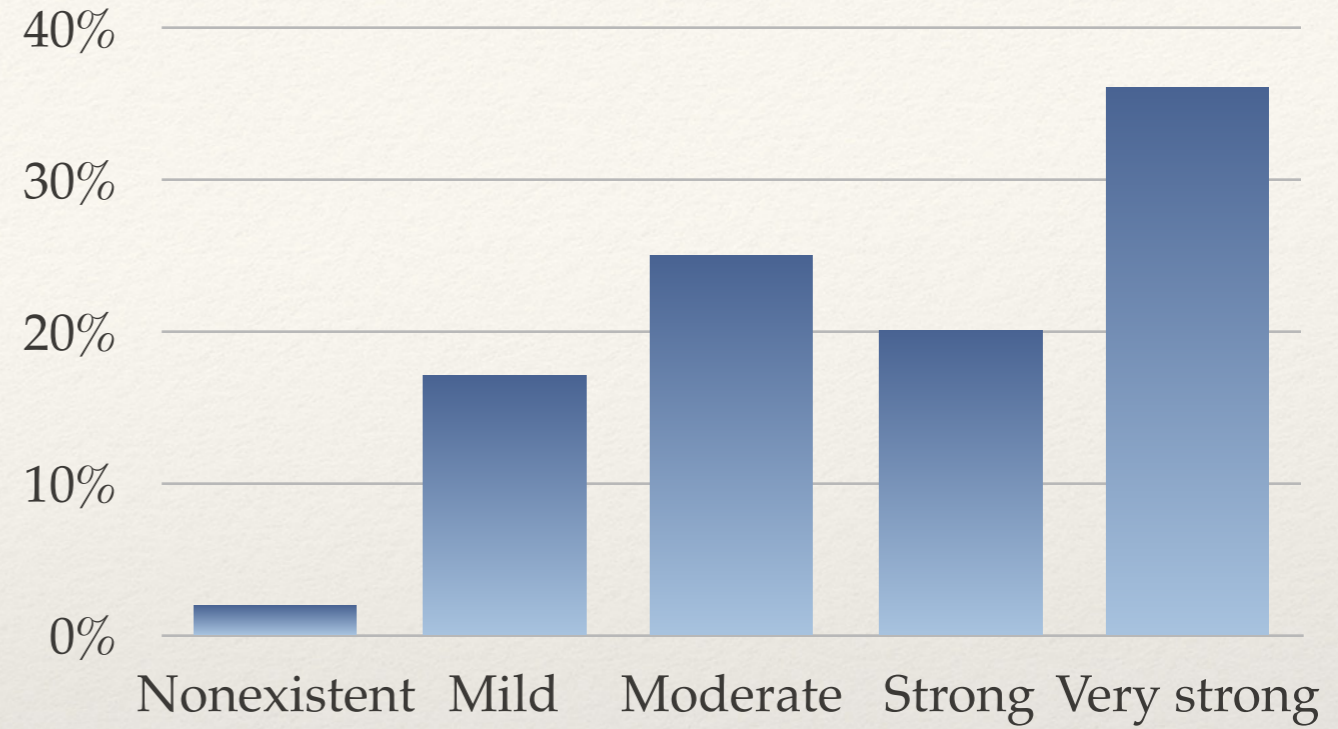
- 72.6% of CSA farmers are not satisfied with their CSA's profitability
- Of these, the percentages below feel they can't raise their CSA prices due to:
  - competition — 52%
  - market size — 23%
  - other reasons — 14%

# Farmers' perceptions of competition within their CSA market region

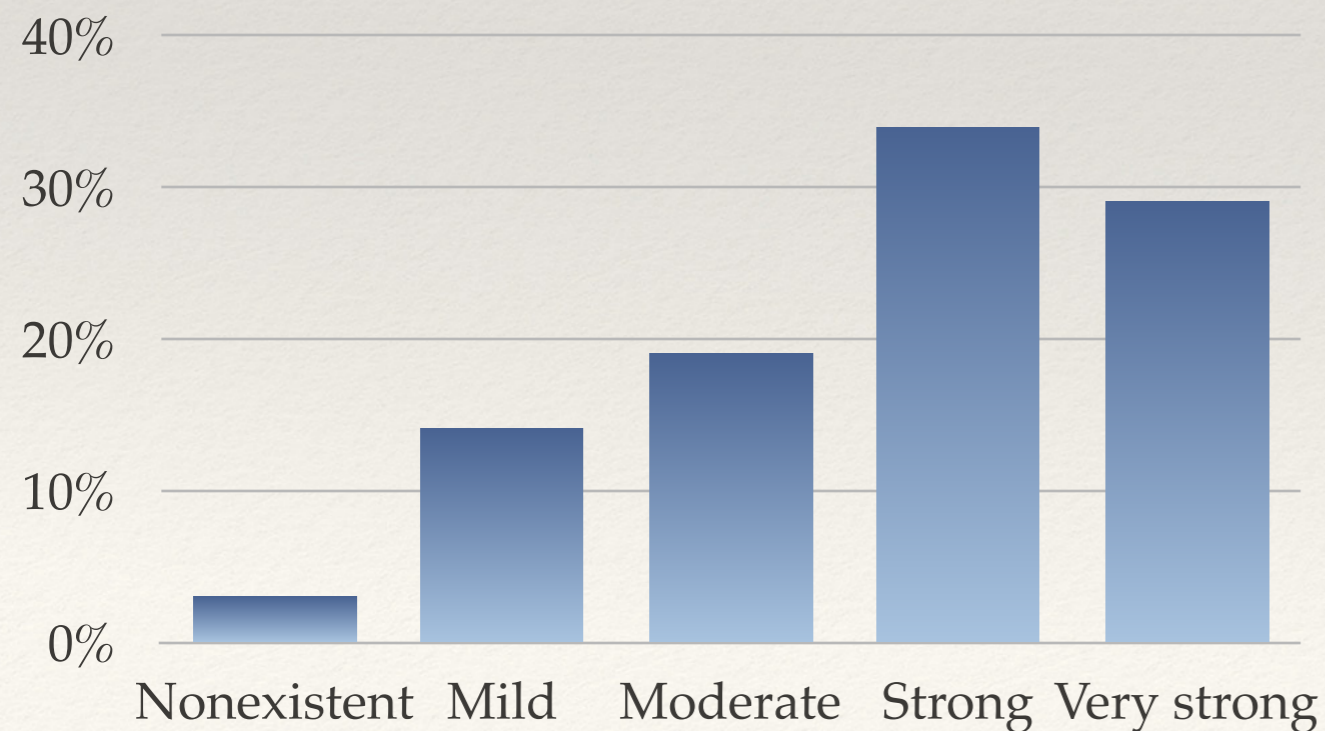
## with other CSAs



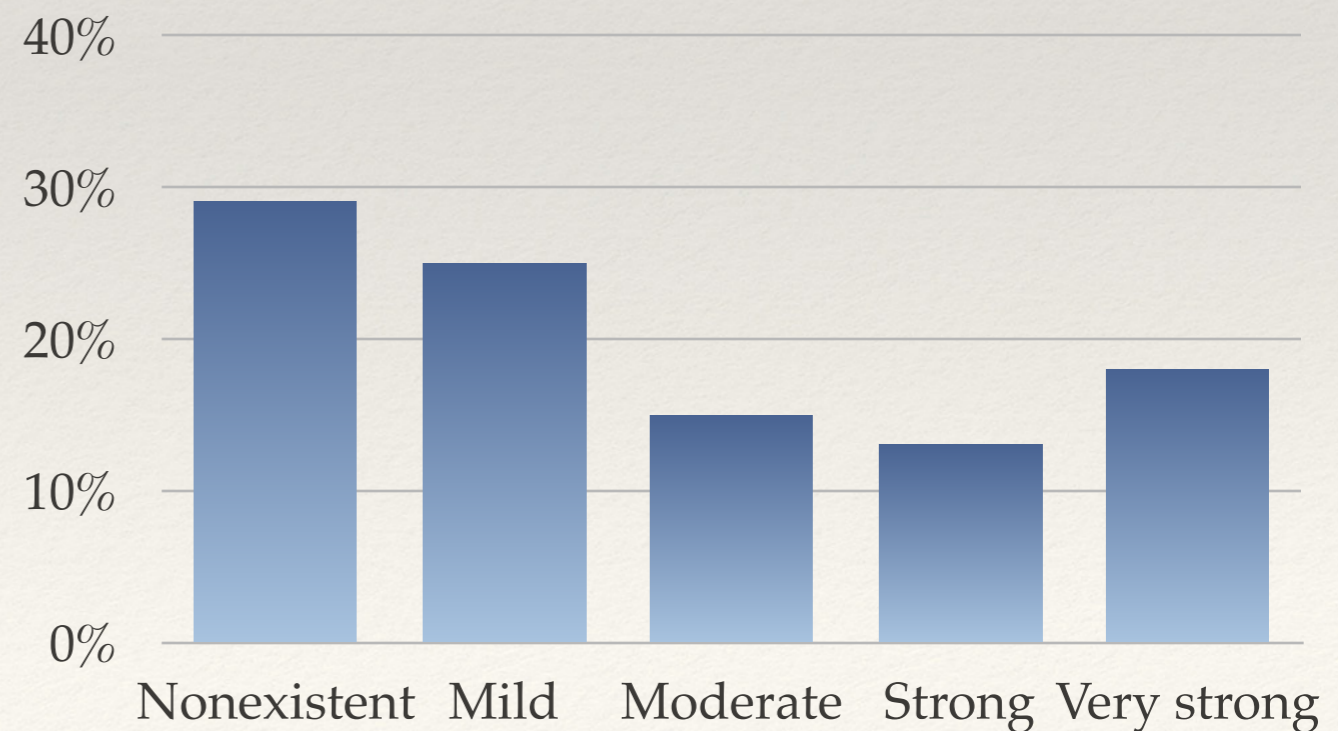
## with other direct marketing channels



## with retails market channels



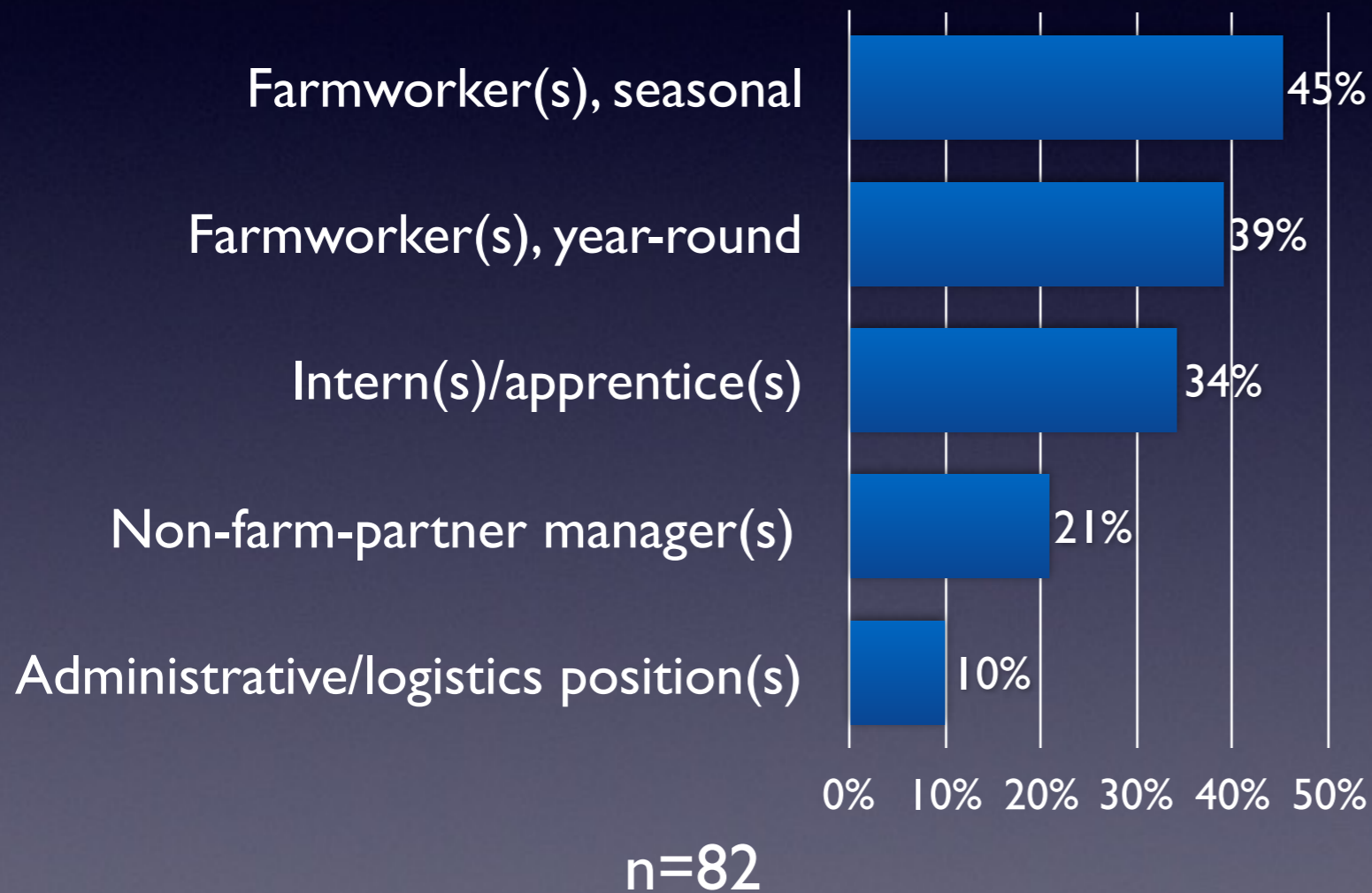
## with grocery home delivery services



# Farm labor

# Employees

## Types of employees (% of farms)



## Average wages of employees





# Farmer satisfaction

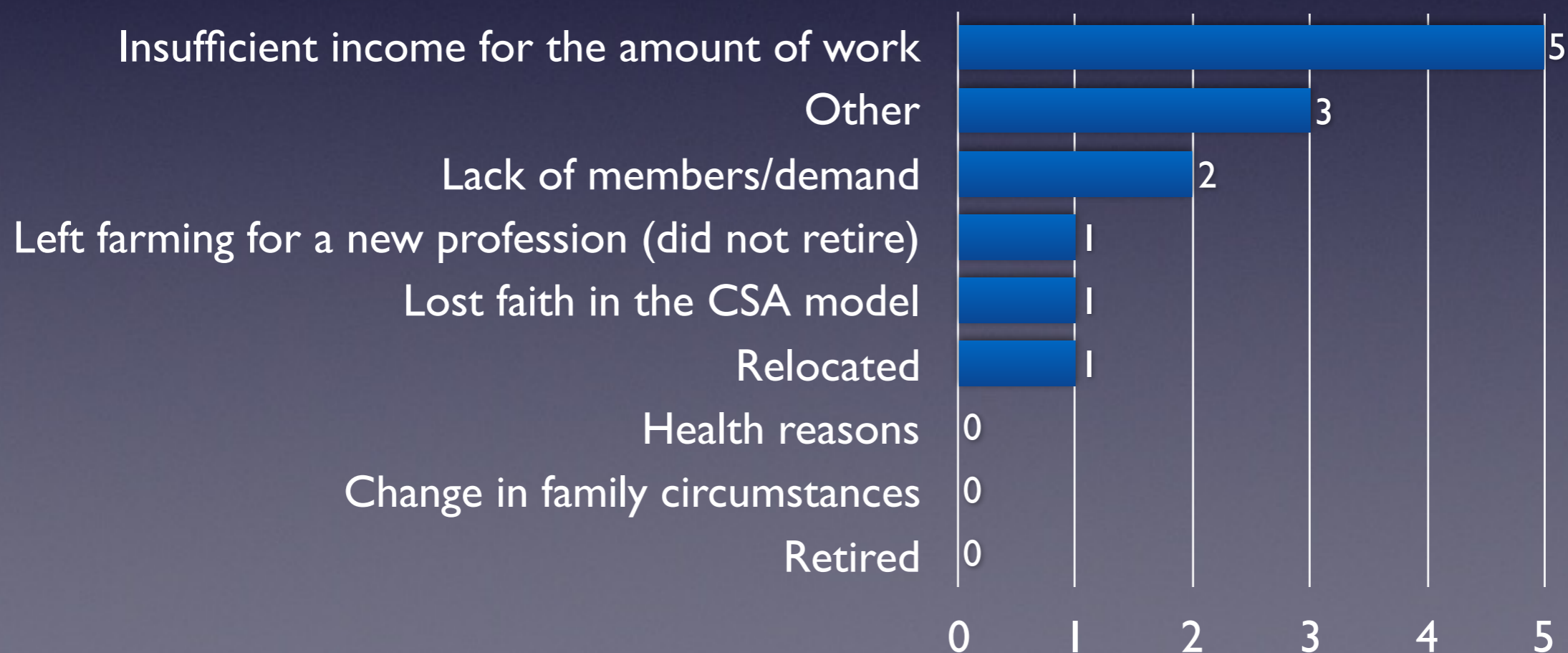
# Farmer satisfaction



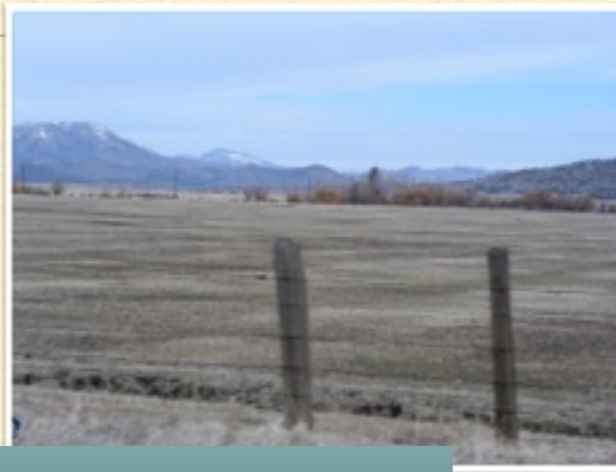
1=very unsatisfied, 2=unsatisfied, 3=mixed feelings/neutral, 4=satisfied, 5=very satisfied

# Discontinuation of their CSA

- 8 of the 111 CSAs had discontinued in the previous year



# Regional comparisons

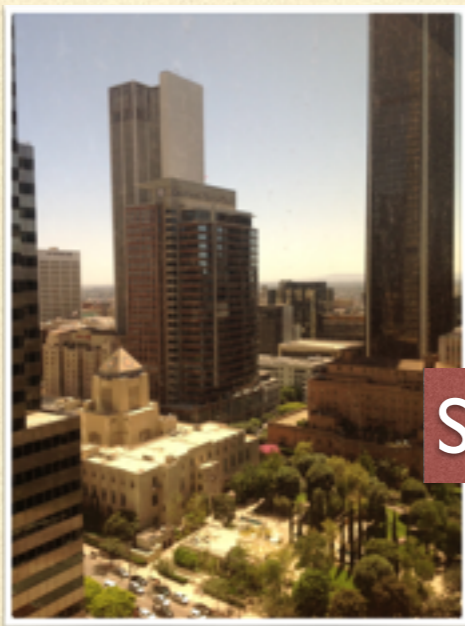


Northern California

Central Coast



Central Valley



Southern California

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# FOUR REGIONS IN CALIFORNIA

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**Table 1: Regional characteristics**

Region	Population	% of State Population	Square Miles	% of State Area	Population Density
Southern CA	22,175,462	58%	45,083	29%	1,031
Central Coast	8,045,956	21%	14,556	9%	2,203
Central Valley	6,843,613	18%	42,162	27%	238
Northern CA	1,267,490	3%	54,271	35%	39
Total/Average	38,332,521	100%	156,072	100%	685

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# ANALYSIS OF CSA CHARACTERISTICS BY REGION

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- ANOVA tests were performed on a wide range of variables:
    - farmer demographics: age, gender, race, education, number of partners
    - farm characteristics: start year, acres, subsidized rent, organic certification, grows crop, raises livestock, diversity, employee numbers, membership size
    - farm finances: income from CSA, profitability of CSA, profit rate, index of perceived competition, retention rate
    - CSA characteristics: risk sharing, member support, member loyalty, event hosting, core group, member participation in distribution, length of pre-payment
    - community food security strategies: accepts EBT, sliding scale pricing, donations, gleaning, low prices for low-income families
    - farmer satisfaction: income, financial security, maintaining infrastructure, stress, soil building, workload, compensation for workers, worker benefits, community
-

**Table 2: Significant differences in variables between the regions**

Variable & type <sup>^</sup>	Southern CA			Central Coast			Central Valley			Northern CA			ANOVA test	
	mean	st dev	n	mean	st dev	n	mean	st dev	n	mean	st dev	n	F	p-value <sup>^^</sup>
<b>Farmer demographics</b>														
Female head farmer (b)	31%	0.5	16	54%	0.5	28	60%	0.5	30	59%	0.5	17	2.69	0.10 *
<b>Farm characteristics</b>														
Total employees (i)	6.0	3.9	9	5.3	2.7	18	4.5	4.2	24	4.4	2.5	12	2.01	0.04 **
<b>Farm finances (none significant)</b>														
<b>CSA characteristics</b>														
Shares risk (L)	1.7	0.9	20	2.2	1.3	30	2.4	1.1	31	3.0	1.2	16	3.84	0.01 ***
Members are supportive (L)	3.4	0.9	20	3.6	1.0	31	3.3	0.9	32	3.1	0.6	16	2	0.10 *
Host farm events (b)	60%	0.5	20	70%	0.5	27	52%	0.5	29	33%	0.5	15	3.51	0.06 *
Core group (b)	0%	0.0	20	0%	0.0	27	7%	0.3	29	20%	0.4	15	7.6	0.01 ***
Length of pre-pay period (c)	3.5	2.2	17	4.8	2.7	25	4.3	2.9	26	6.2	2.4	13	2.05	0.05 **
<b>Community food security strategies</b>														
Community food security strategies (% index)	28%	0.2	22	20%	0.2	32	22%	0.3	31	34%	0.3	17	3.31	0.01 ***
<b>Farmer satisfaction</b>														
with covering costs (L)	2.4	1.1	16	3.2	1.0	24	3.3	1.1	27	3.3	1.1	14	2	0.10 *
with maintaining infrastructure (L)	2.1	0.8	14	3.0	0.9	24	2.9	1.1	27	3.3	1.2	14	2.6	0.04 **
with workers' pay (L)	2.5	1.1	13	3.0	1.0	21	2.9	1.2	25	3.9	0.7	10	2.55	0.05 **
Average (L index)	2.6	0.7	16	3.2	0.7	24	3.0	0.7	27	3.3	0.7	14	2.51	0.06 *

<sup>^</sup> b=binary, c=categorical, index=combined variables, i=integer, L=Likert-scale, %=percentage

<sup>^^</sup> p-values shown as <0.10 = \*, <0.05 = \*\*, <0.01 = \*\*\*



# Conclusion: CSA farms & farmers

- Farms running CSAs are small and medium size, using organic production
- CSA farmers are younger on average than other farmers, and tend to have higher levels of formal education
- Most CSAs engage in one or more community food security strategies

# Conclusion: membership

- CSAs are unlikely to share production risk with members, and for only 45% members clearly cover the costs of production
- Retention rates vary widely, but are 63% on average
- The average membership size is 159, while the median is 50

# Conclusion: shares

- The most common pre-payment length is 1 month, followed by 1 week and full season
- The average full-share price is \$26 per week

# Conclusion: finances

- 54% of CSA farmers/operators report their CSA is profitable, yet 72.6% of CSA farmers are not satisfied with their CSA's profitability
- CSA farmers/operators perceive strong competition, especially with retail outlets
- CSA farmers/operators report highest satisfaction with building soil quality, and lowest with farmer compensation and financial security

# Acknowledgements

- We would like to thank:
  - the CSA farmers and CSA members (current and former) who participated in the study
  - UC Cooperative Extension Advisors Rachel Surls, Julia Van Soelen Kim, Ramiro Lobo, Cindy Fake, Aziz Baameur, and Richard Molinar, who have helped the project greatly
  - the UC Division of Agriculture and Natural Resources for its generous funding through a competitive grant