



Community Supported Agriculture (CSA) in California:

findings from the CSA farmer/operator survey

Libby Christensen,[^] Ryan E. Galt,^{*^~} Katharine Bradley,[^]
Natasha Simpson,[~] & Kate Munden-Dixon[^]

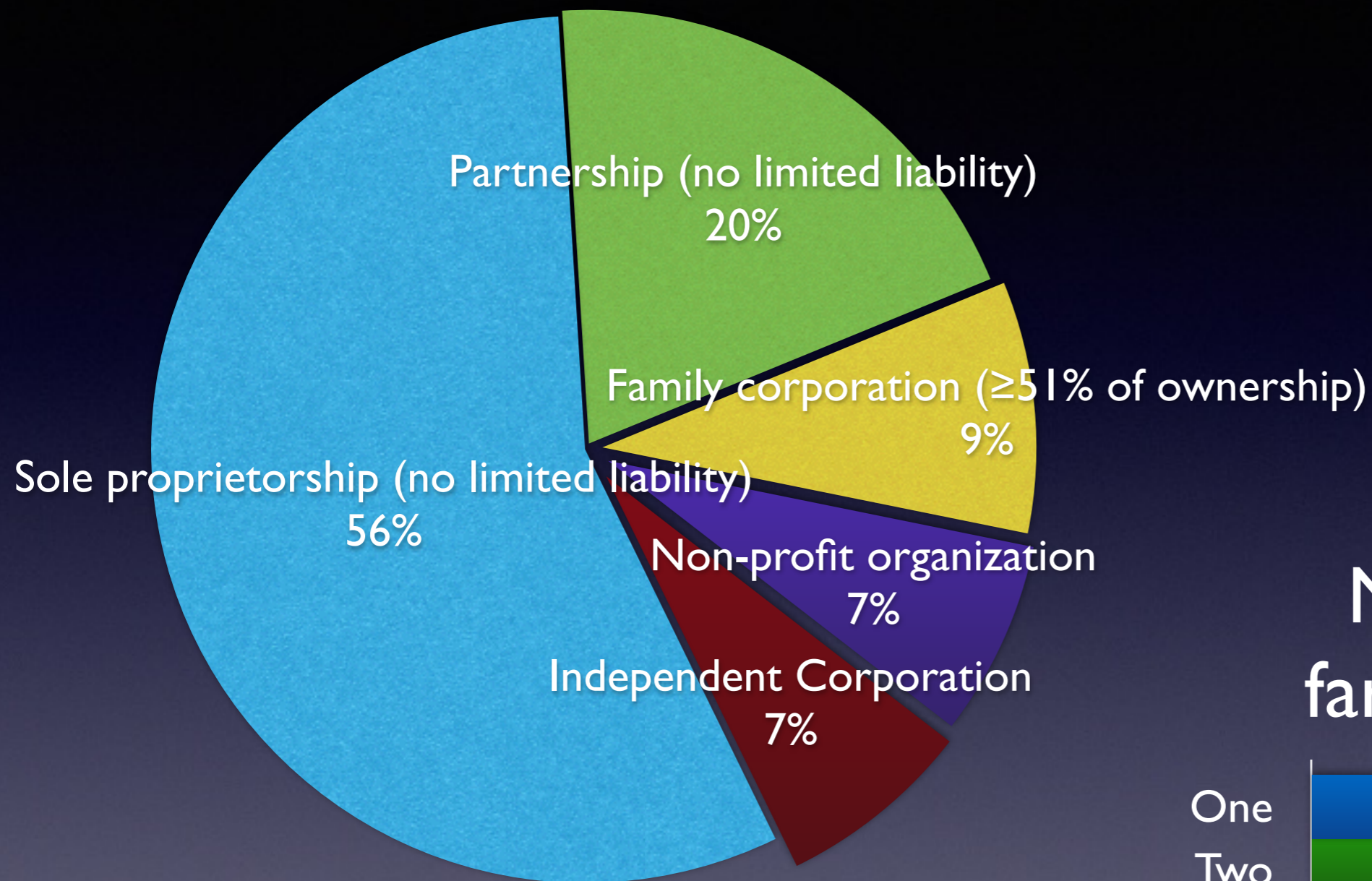
University of California, Davis,^{*}Department of Human Ecology,
[^]Geography Graduate Group, [~]Community Development Graduate Group
UC Davis-CAFF CSA Workshop, Sebastopol Grange, Sebastopol 9/28/15

Outline

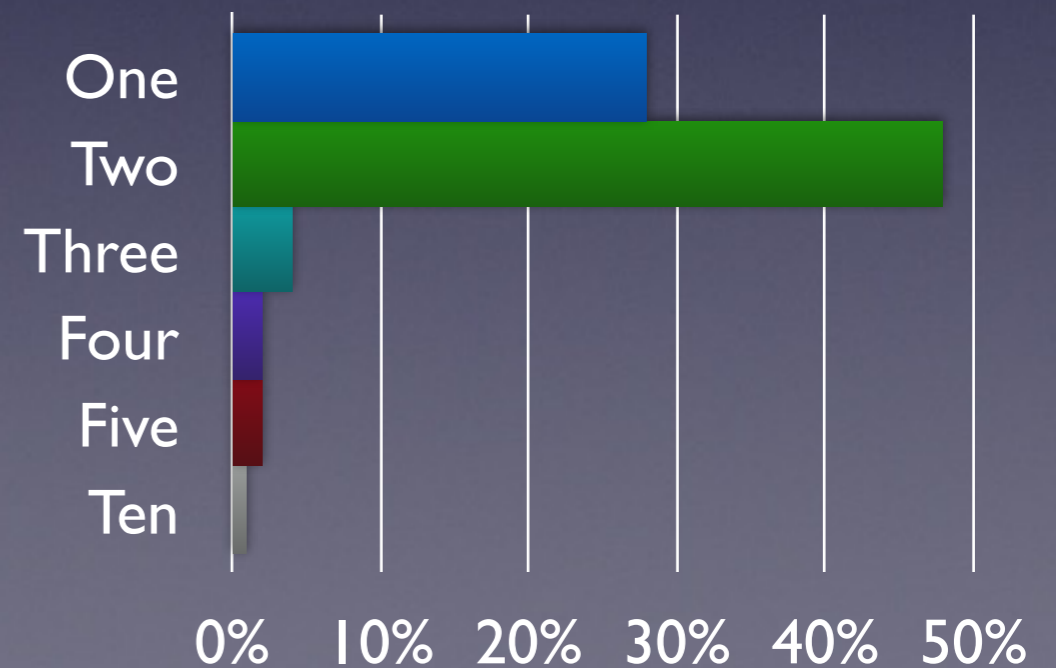
- Farm details
- CSA farmer/operator details
- CSA characteristics
- CSA shares
- CSA membership & retention
- Farm finances
- Farm labor
- Farmer satisfaction
- Regional comparisons

Farm details

Ownership structure of the farm



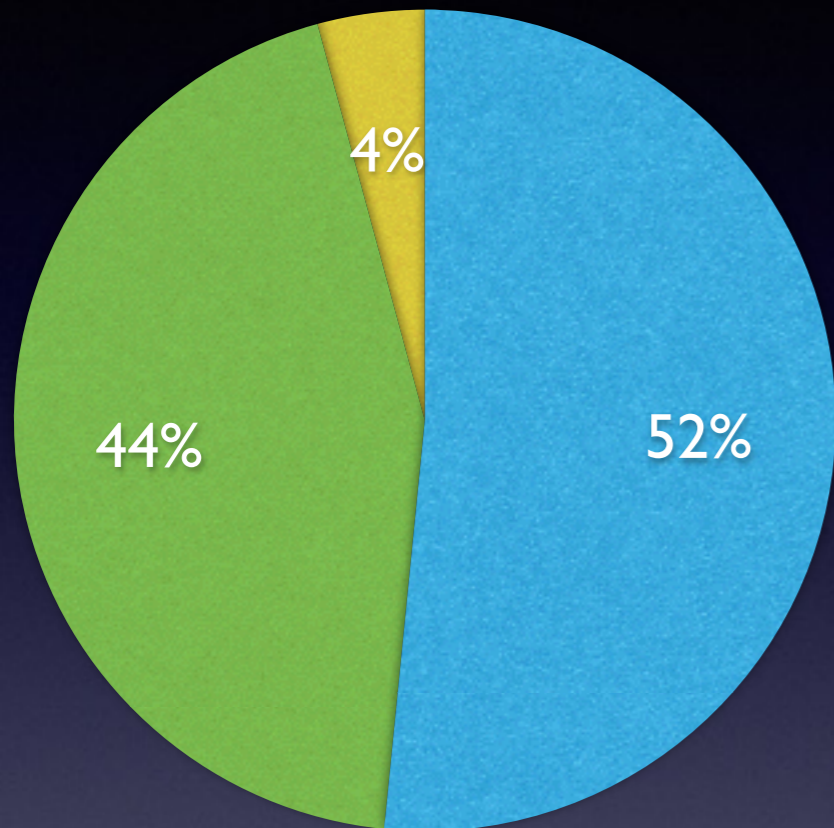
Number of farm partners



Farm land

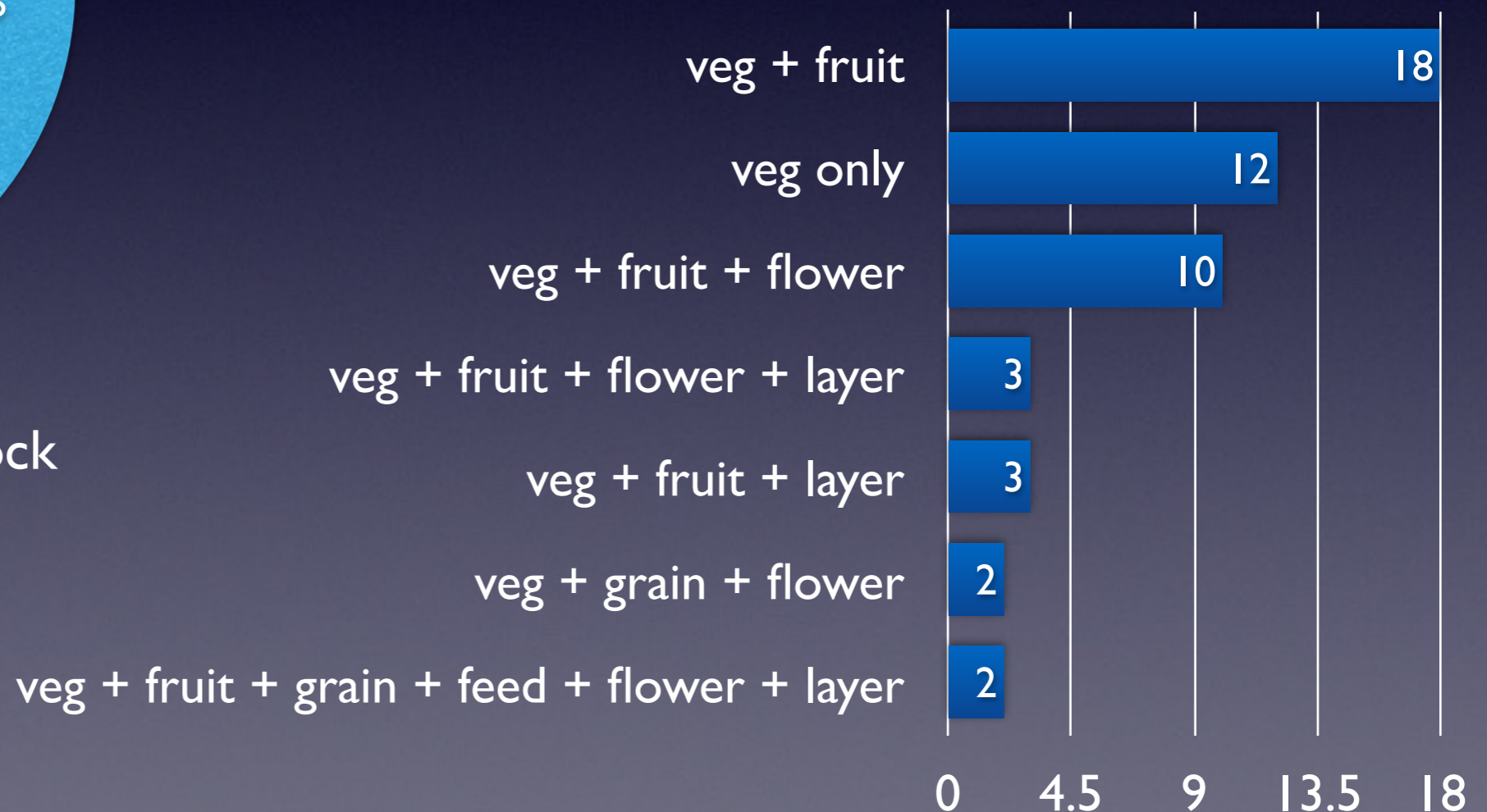
Acres	Mean	Median	% of farms
Total	242	15	—
Owned	19	0.75	51%
Rented	210	7.5	83%
Cropland	53	7	97%
Rangeland/pasture	187	0	37%
Certified organic	13	0	34%
Subsidized land access	—	—	48%

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

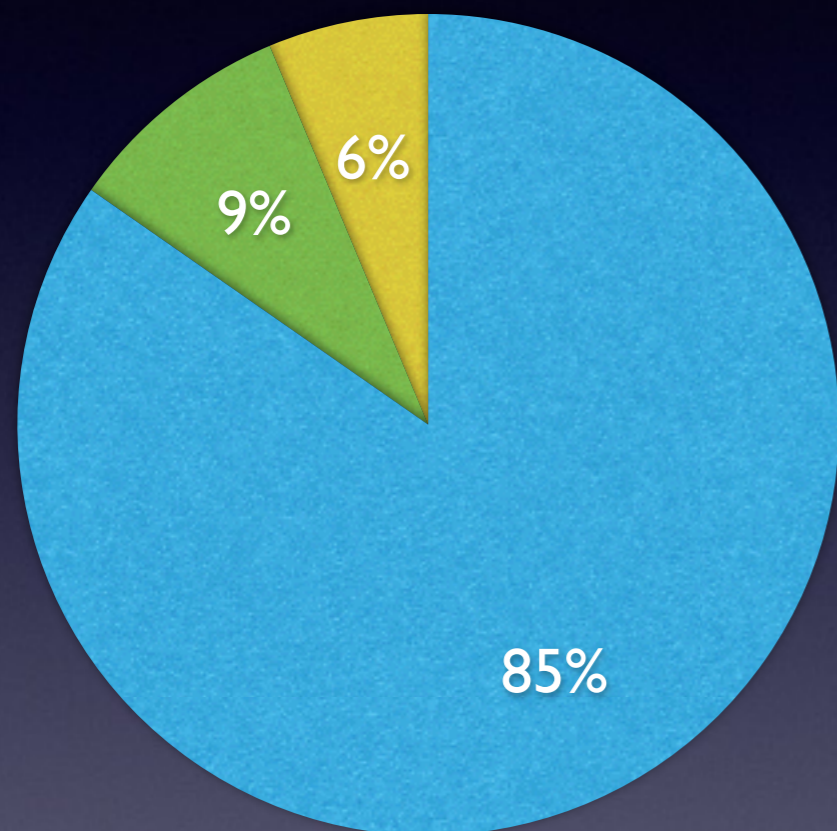
What year did you...	Average	Median
start farming/gardening (even if as a hobby)?	1990	1994
start farming as a profession (or start selling your farm's products)?	1999	2004
start your CSA?	2006	2008

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

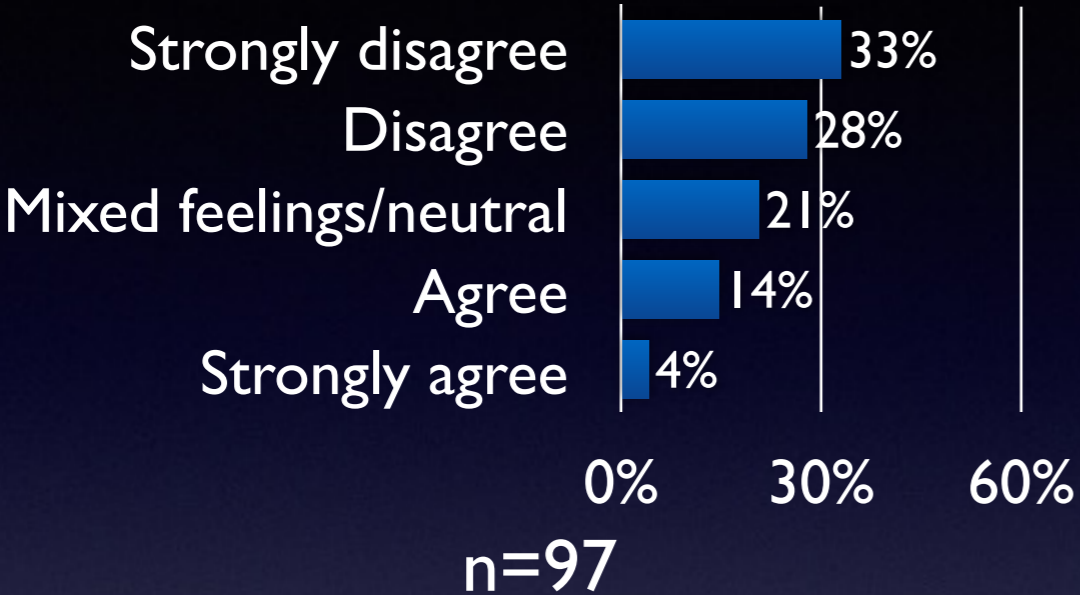
Types of CSAs by organization



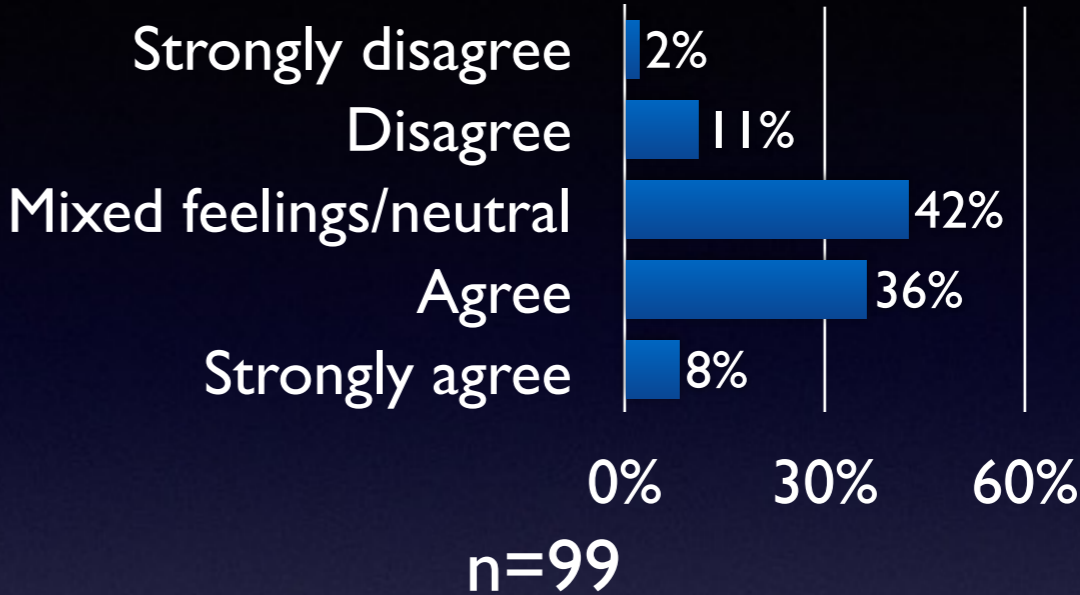
- Single-farm CSA
- CSA independent of farm
- Multi-farm CSA

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

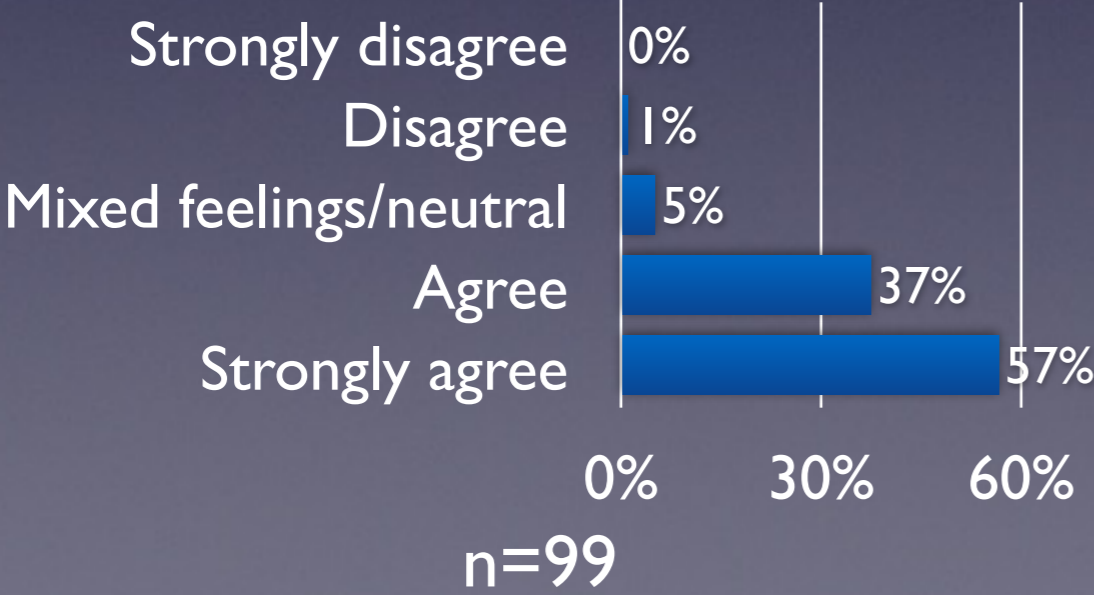
The CSA shares production risk w/ members



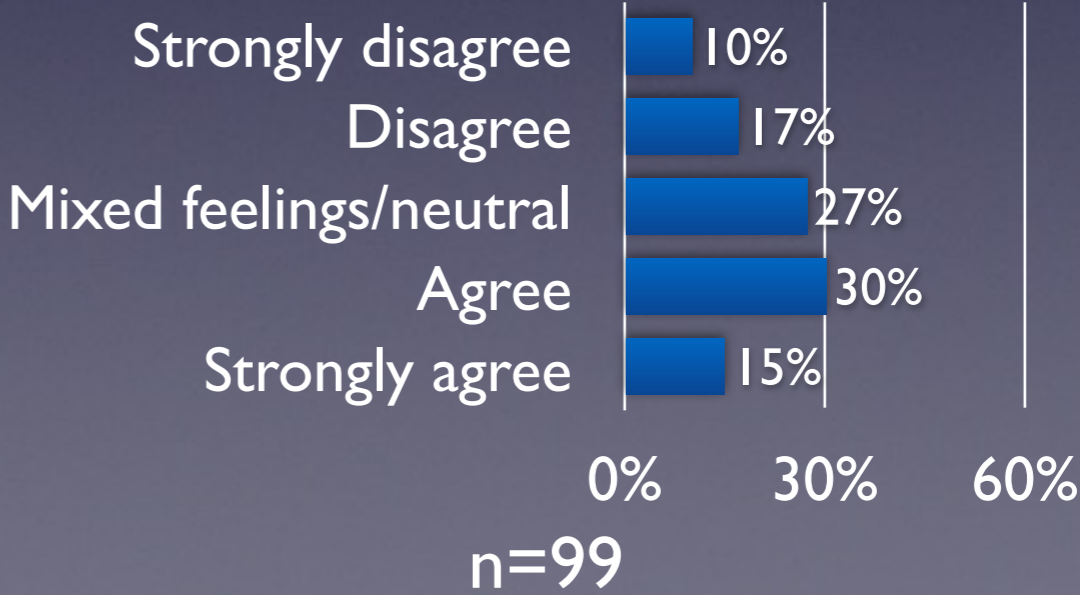
Members form a supportive community



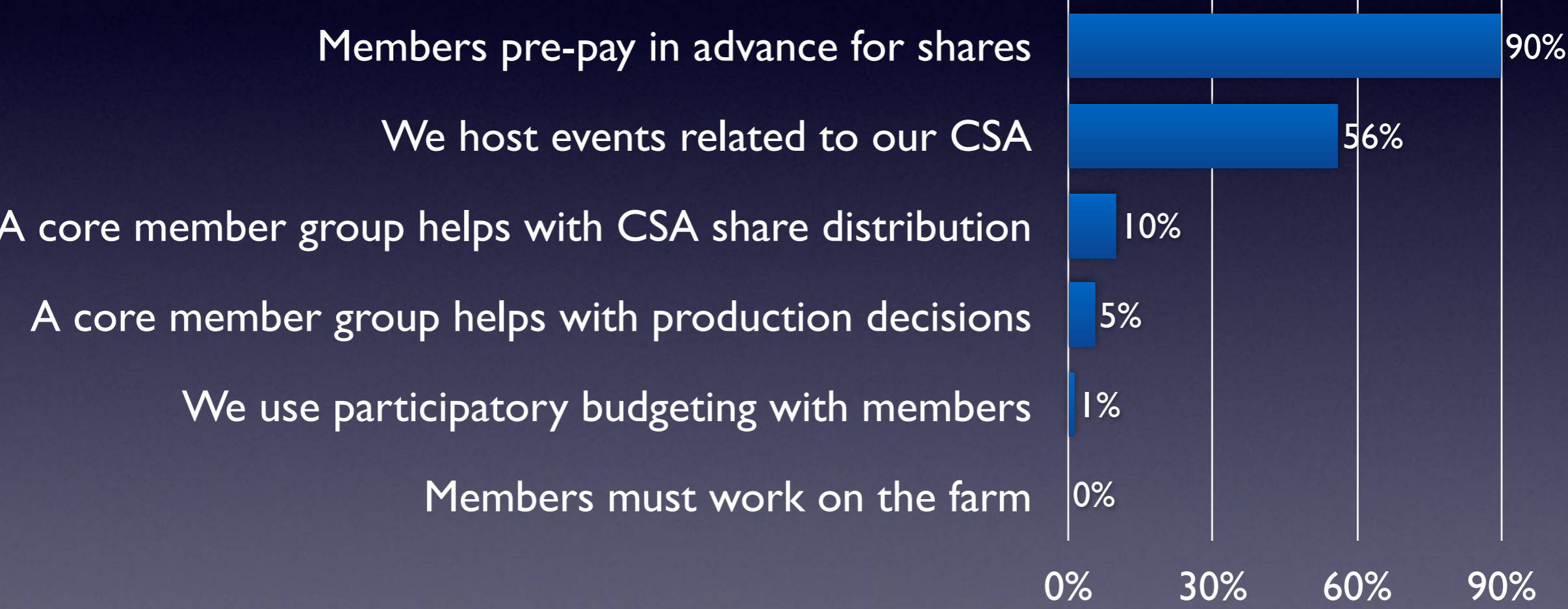
Members get a good value for their money



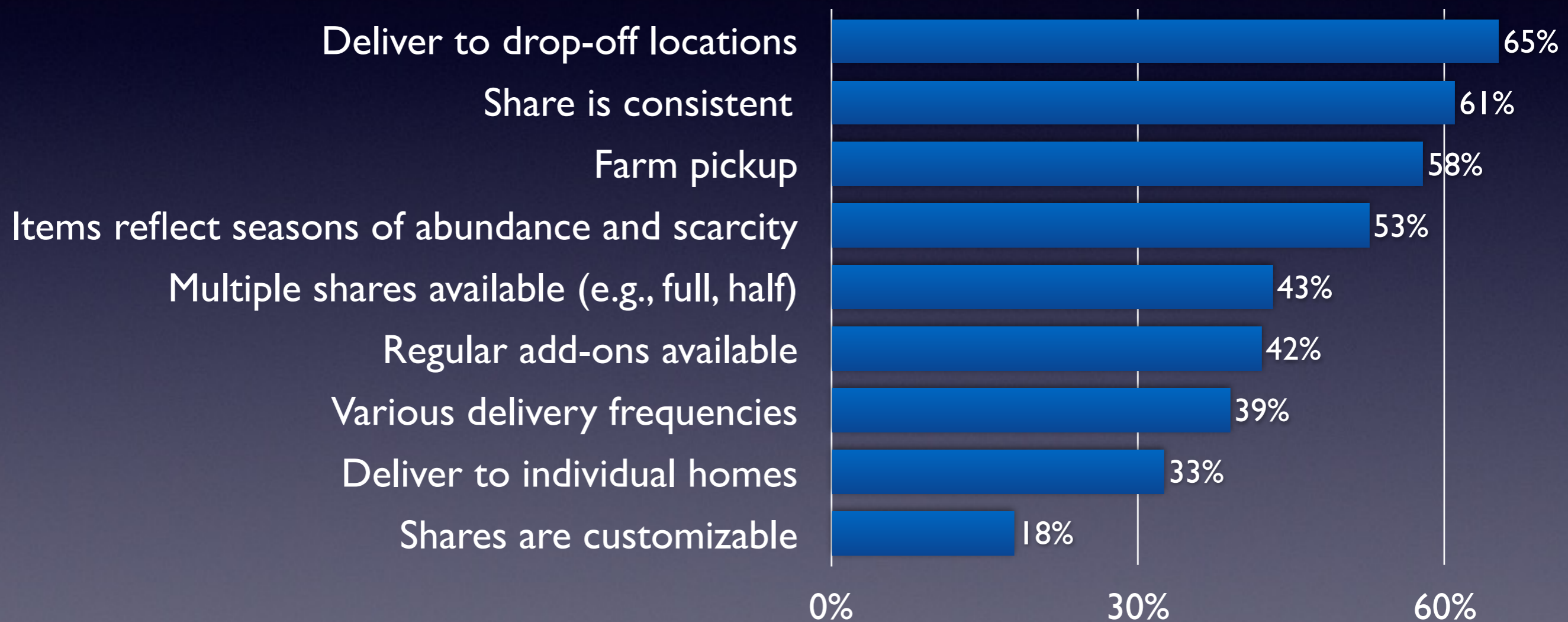
Members cover costs of production



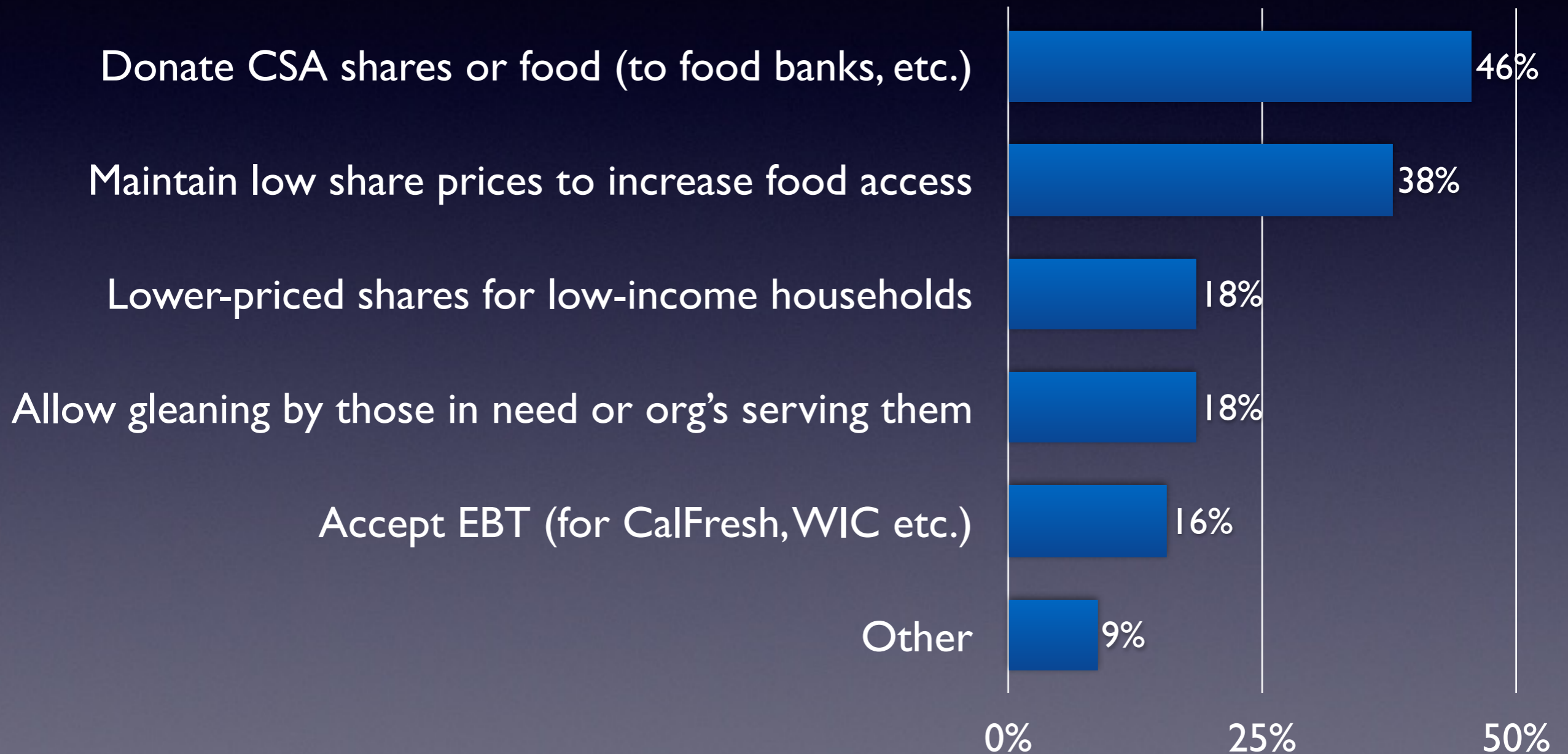
Characteristics of member relationship (% of farms)



Characteristics of shares (% of farms)



Community food security strategies

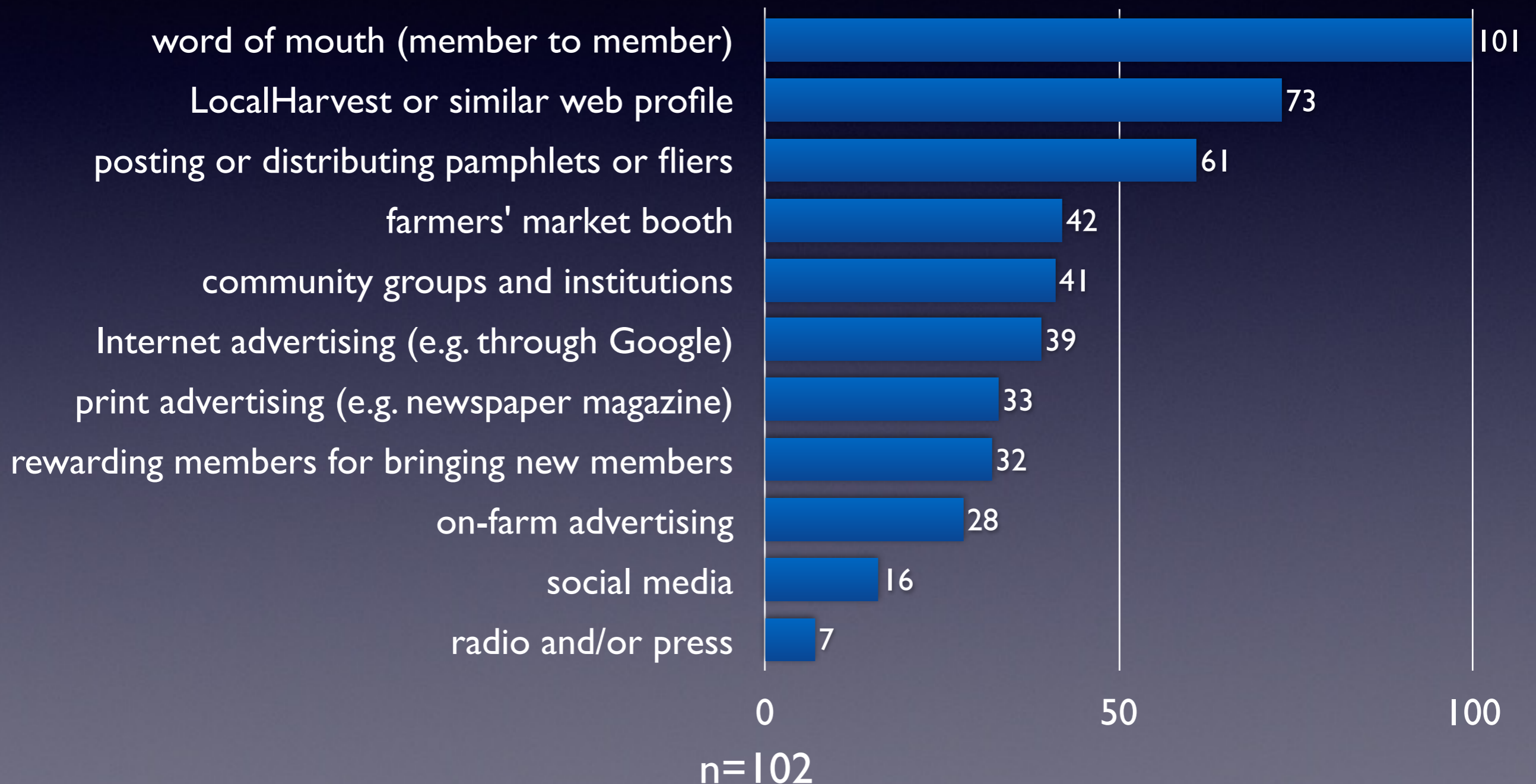


n=103

CSA membership & retention

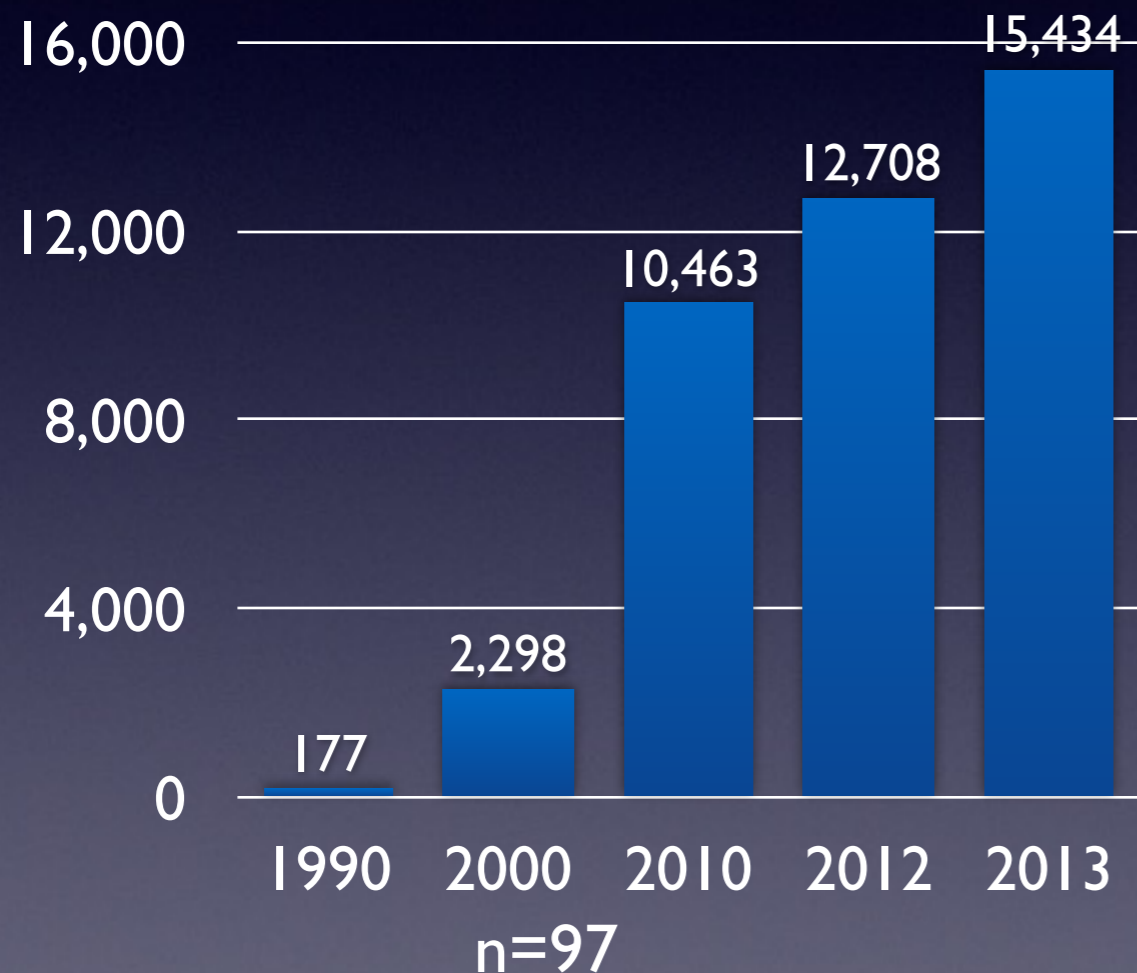
CSA membership

Recruitment strategies



CSA membership

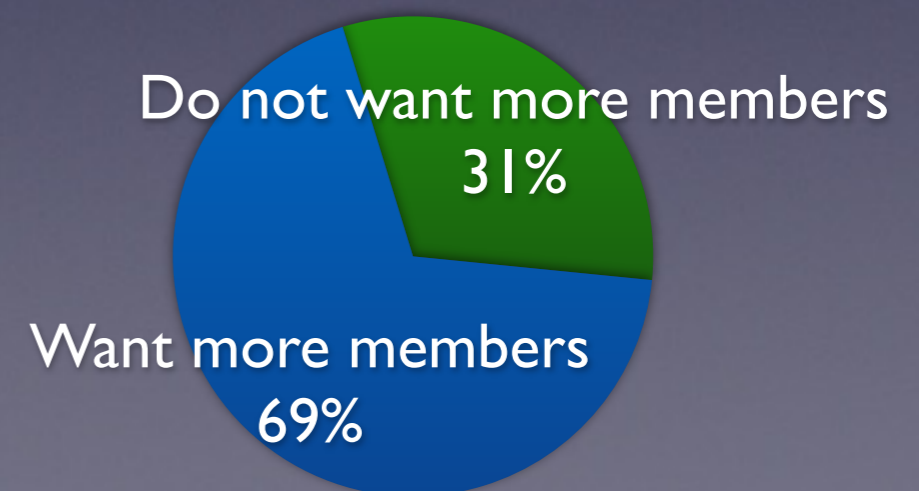
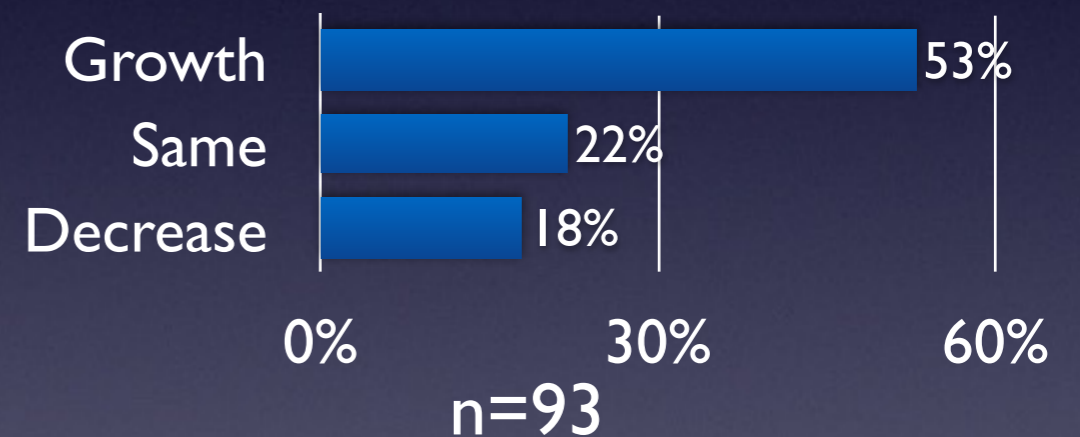
Cumulative change in membership, 1990-2013



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

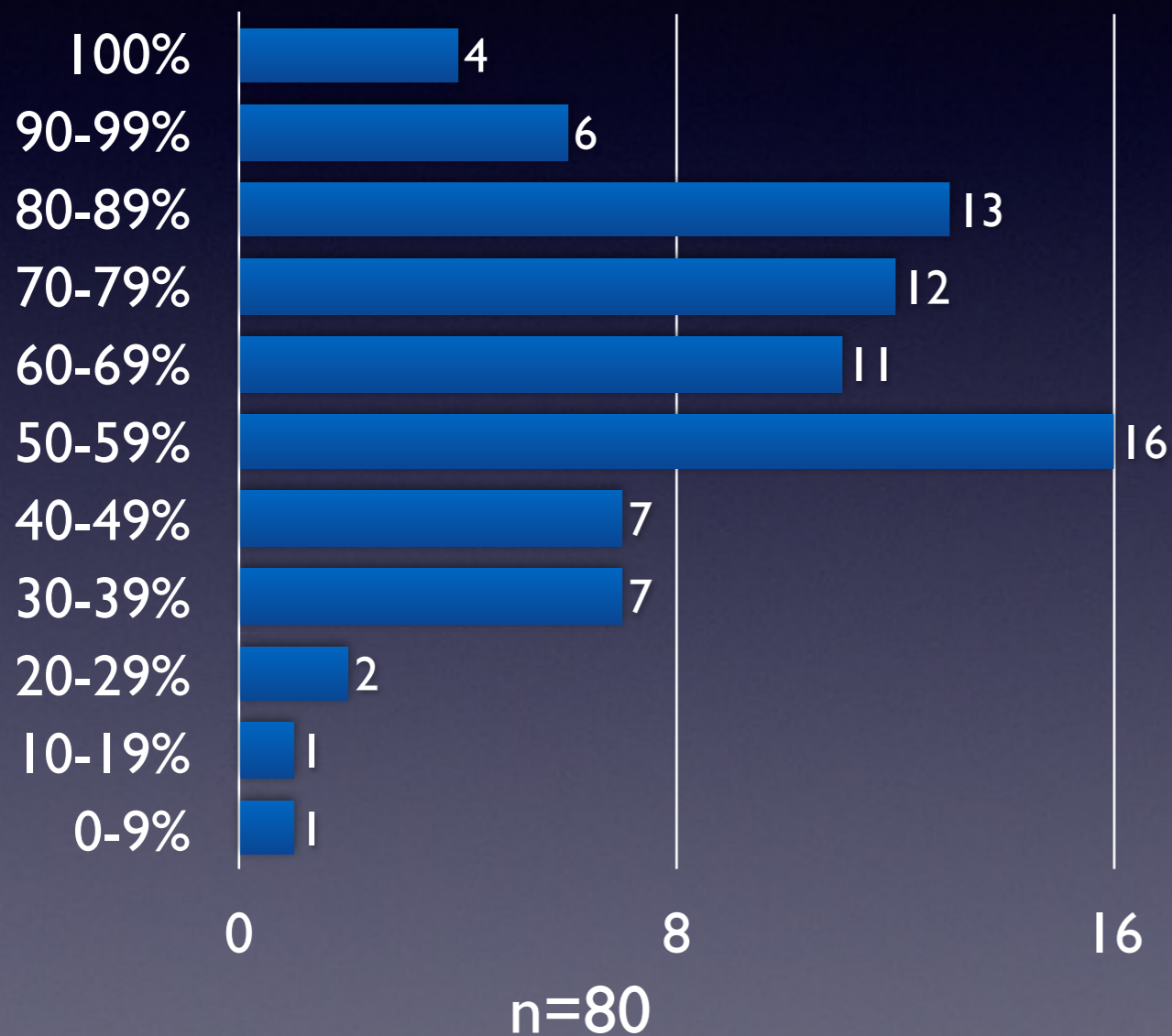
- Mean membership size: 159
- Median membership size: 50

Change in membership, 2012-2013



CSA membership retention

Retention rates, 2012-2013

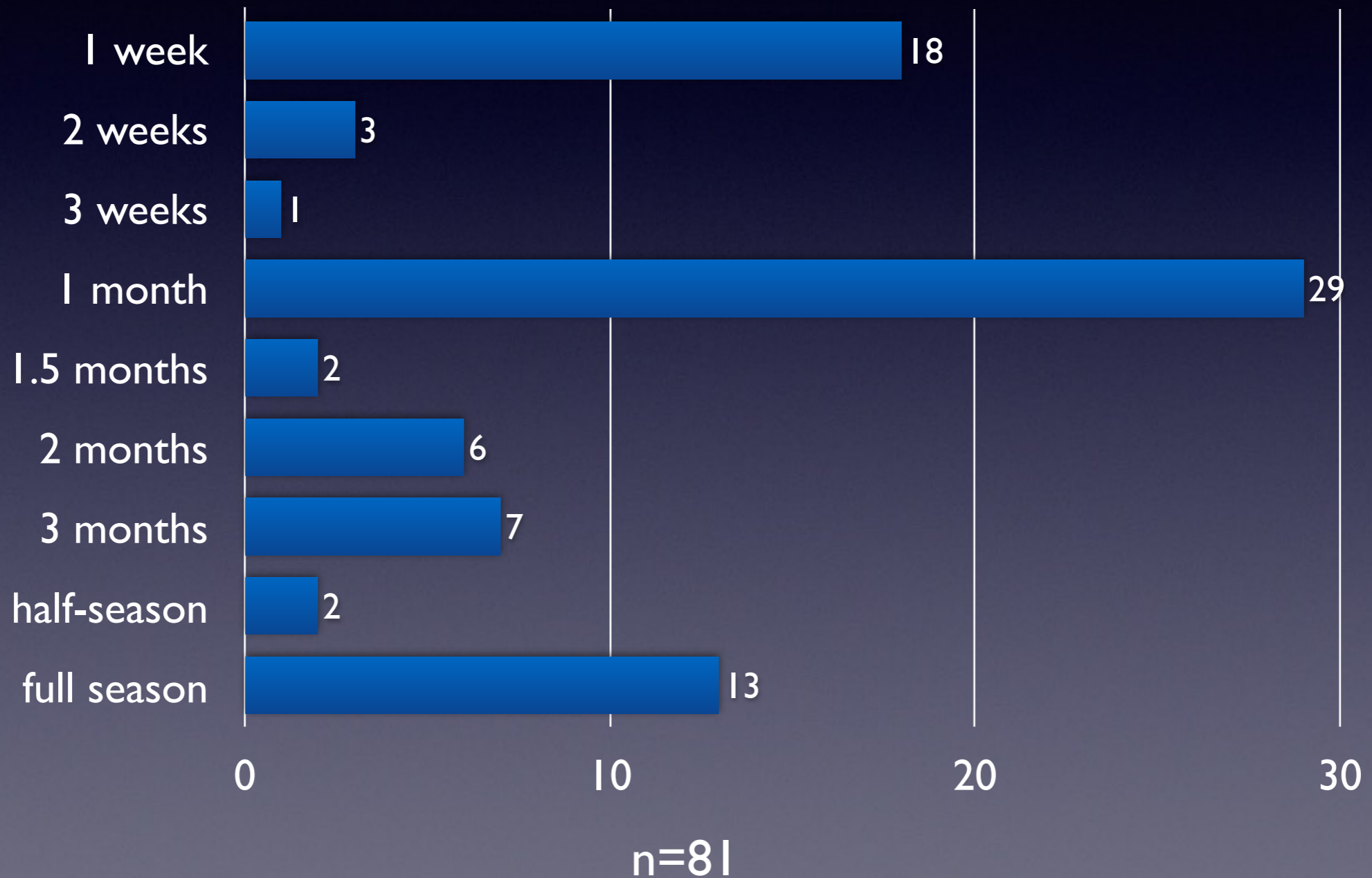


- Mean = 62.9%
- Median = 62.7%

CSA shares

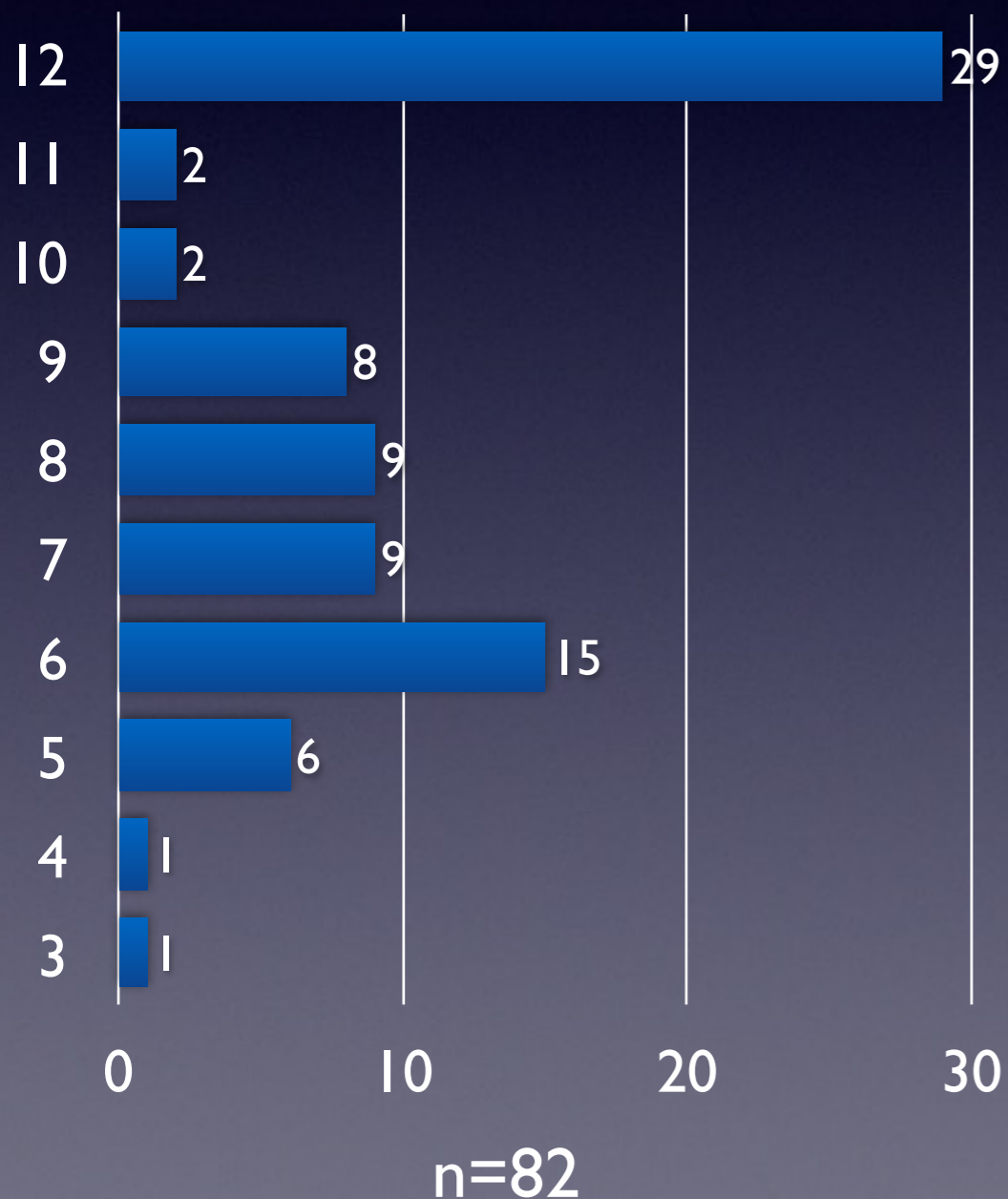
CSA characteristics

Minimum pre-payment period

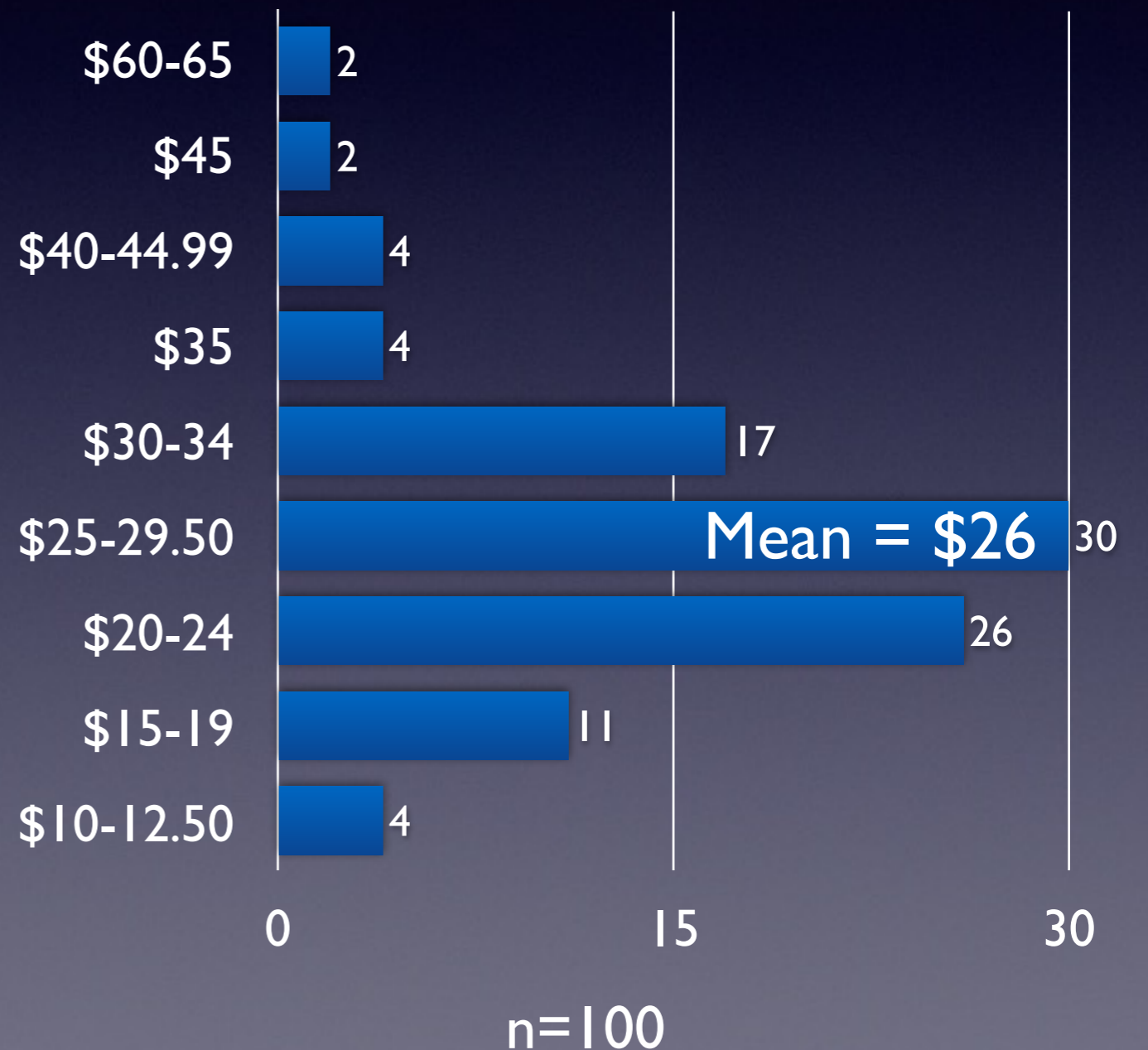


Share characteristics

Duration of shares, in months



Weekly value of shares

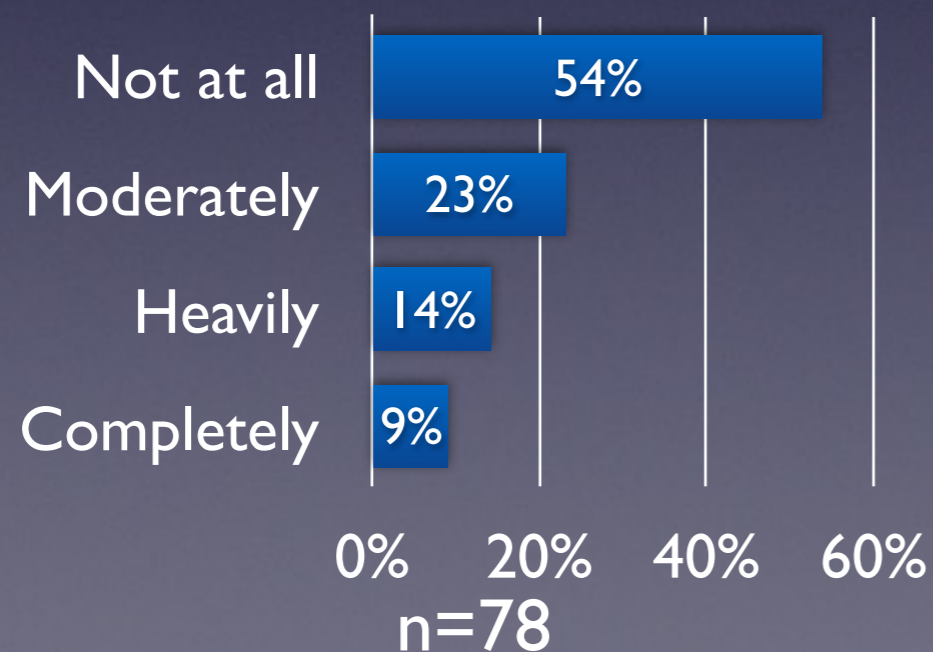


Farm finances

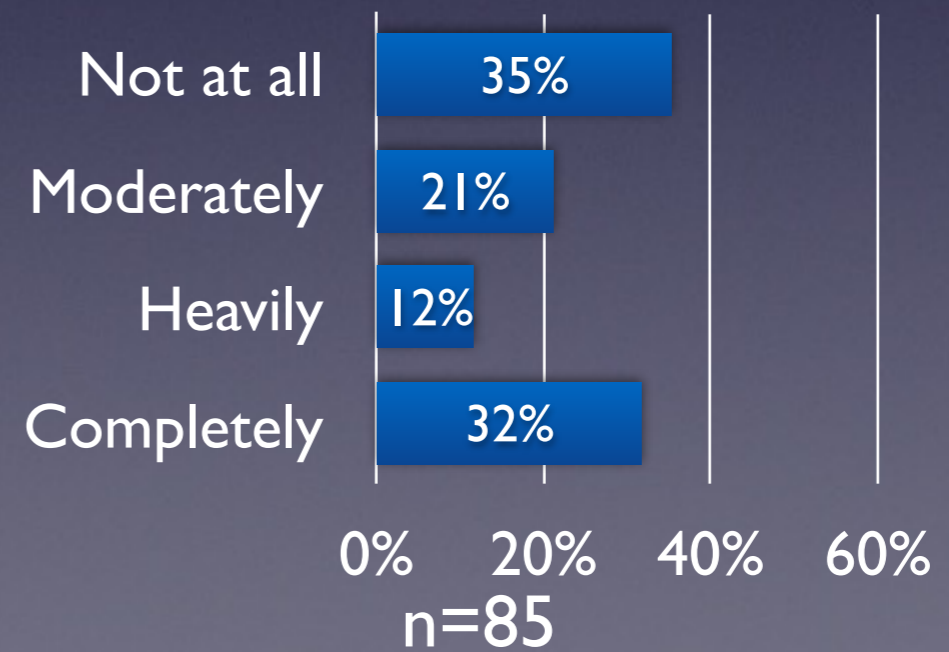
Off-farm income

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

Off-farm income covers farm expenses

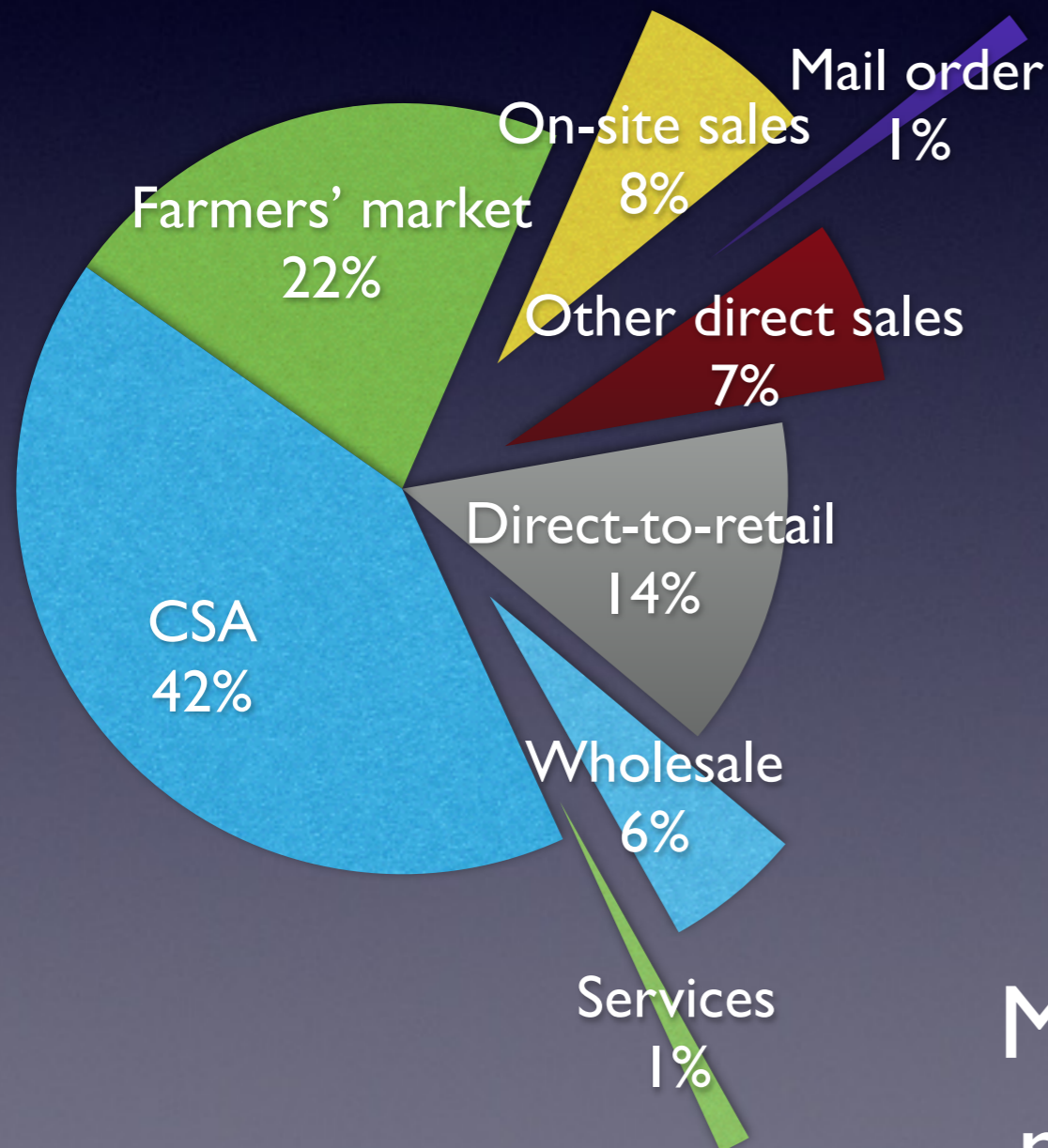


Off-farm income covers household expenses

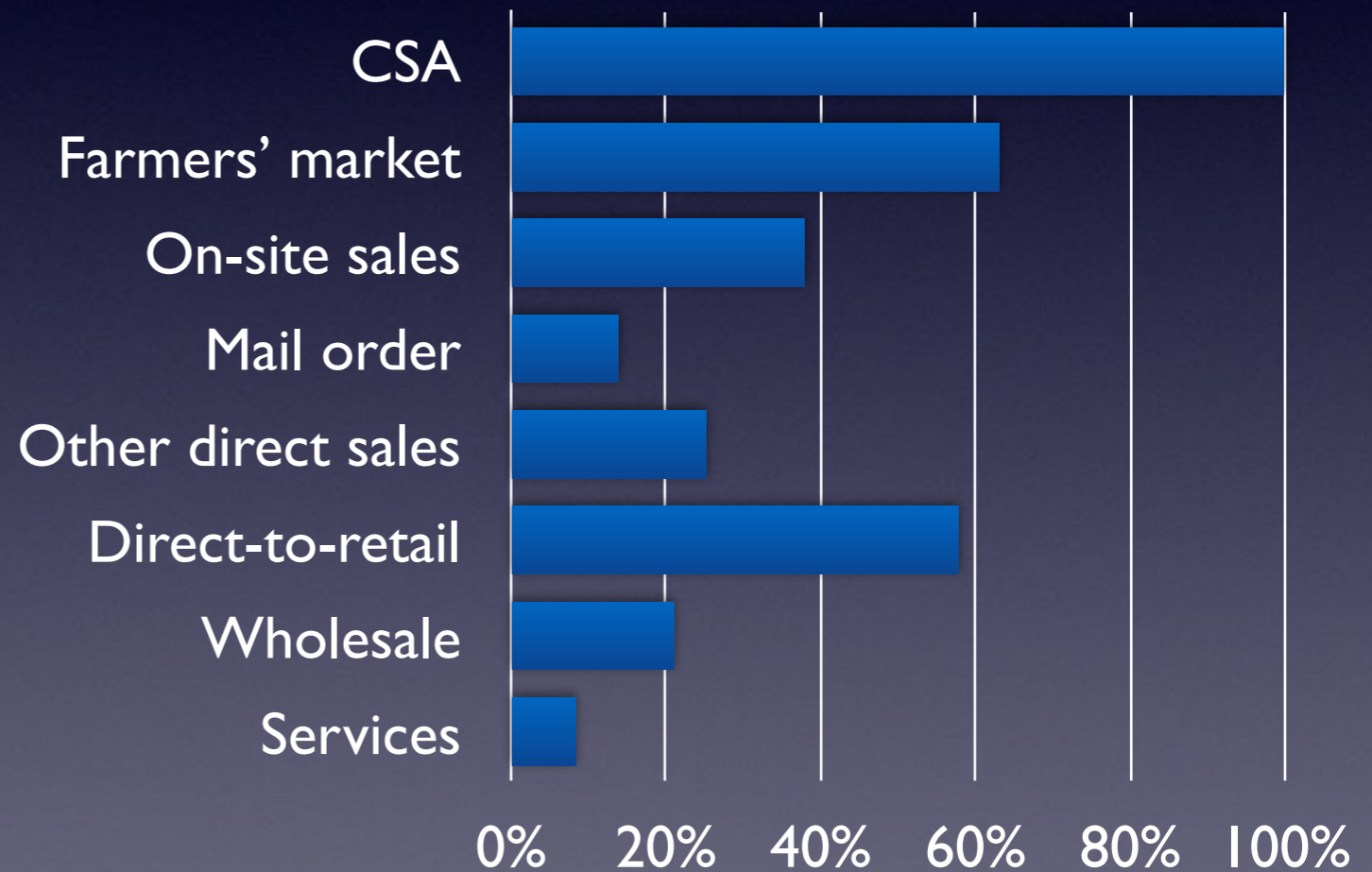


Market outlets

Average % of sales



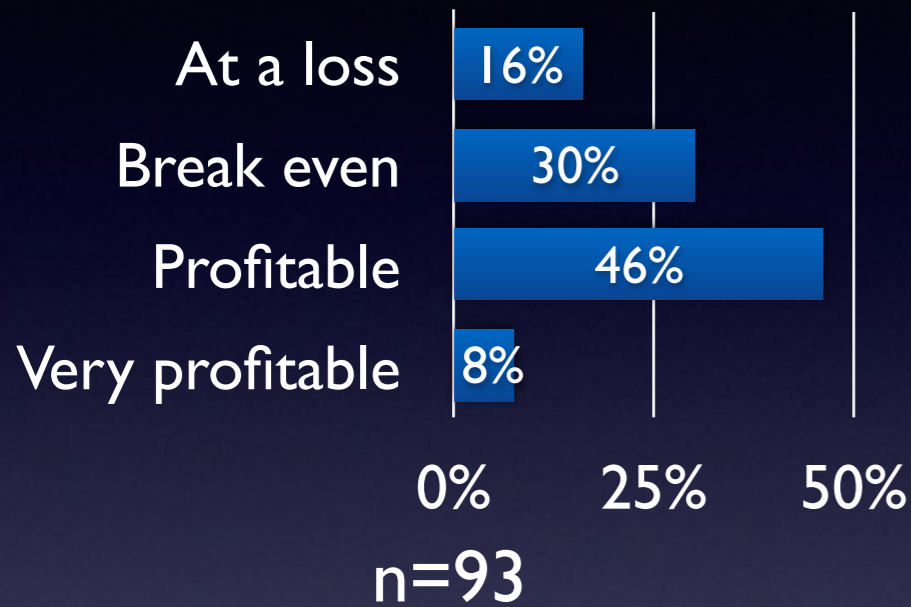
% of farms using various market outlets



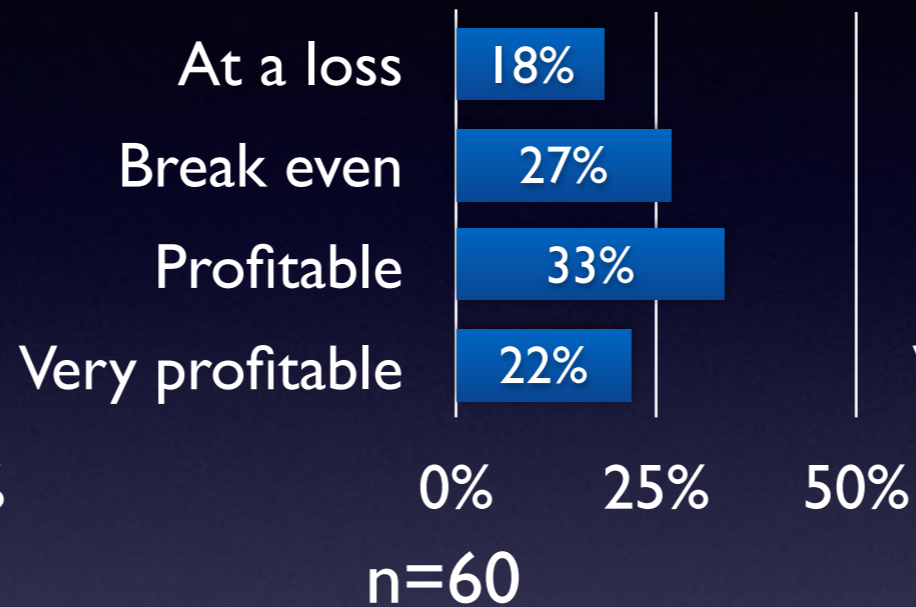
Market outlets per farm:
mean = 2.6, median = 3

Profitability of market outlets

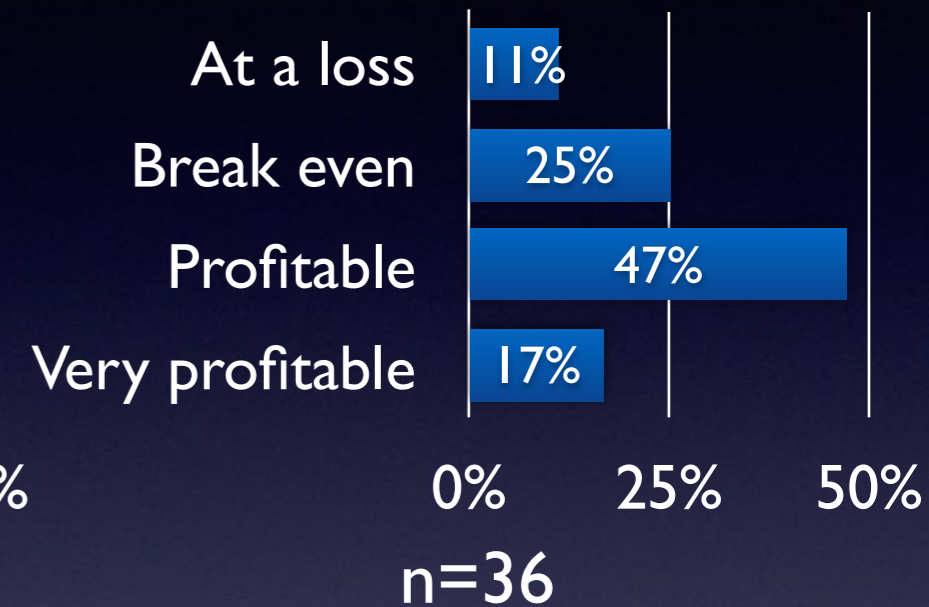
CSA



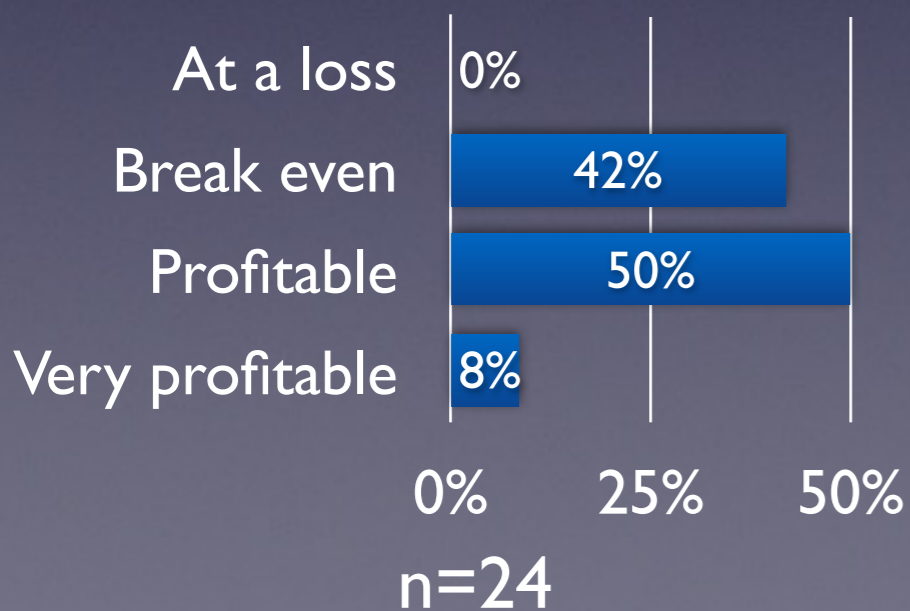
Farmers' market



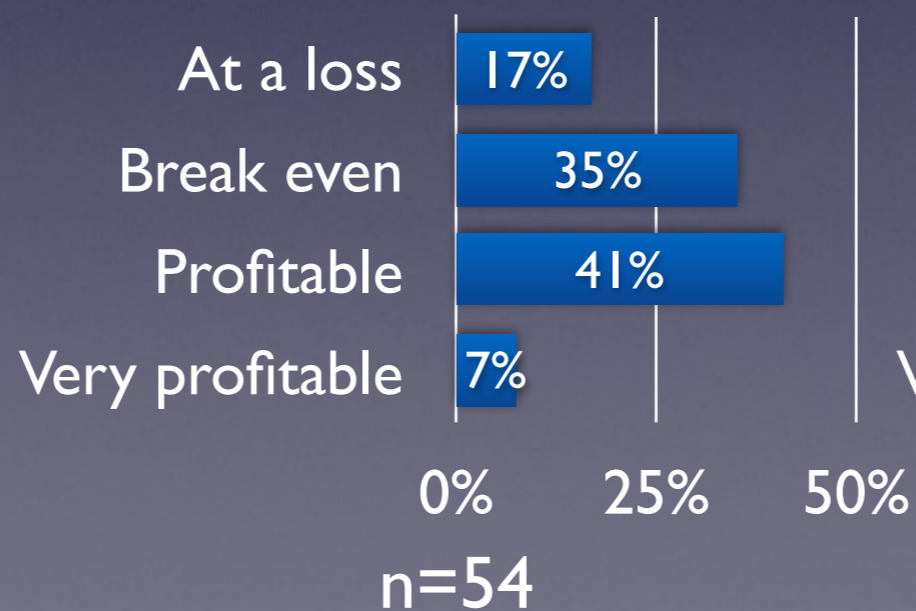
On-site sales



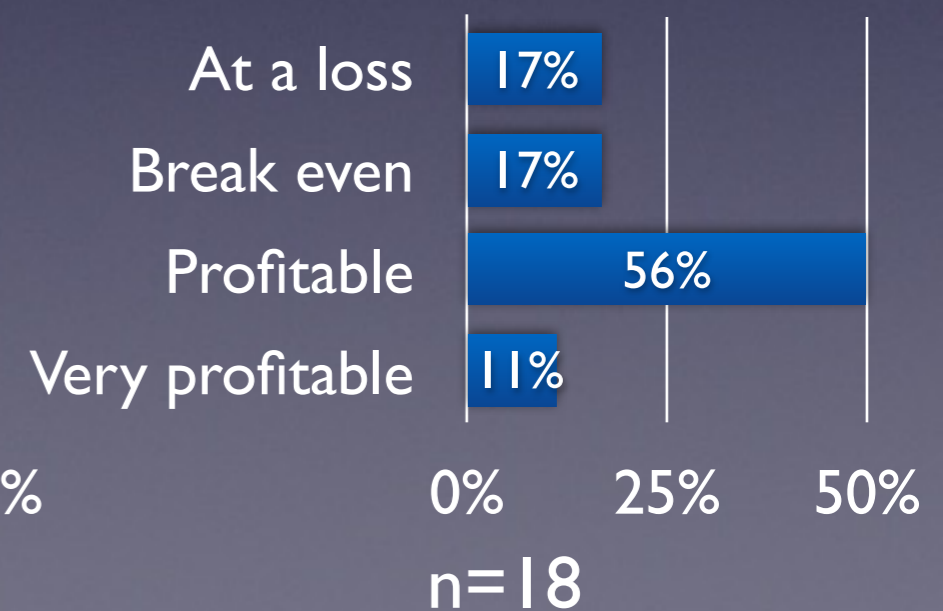
Other direct



Direct-to-retail



Wholesale



Farm budgets

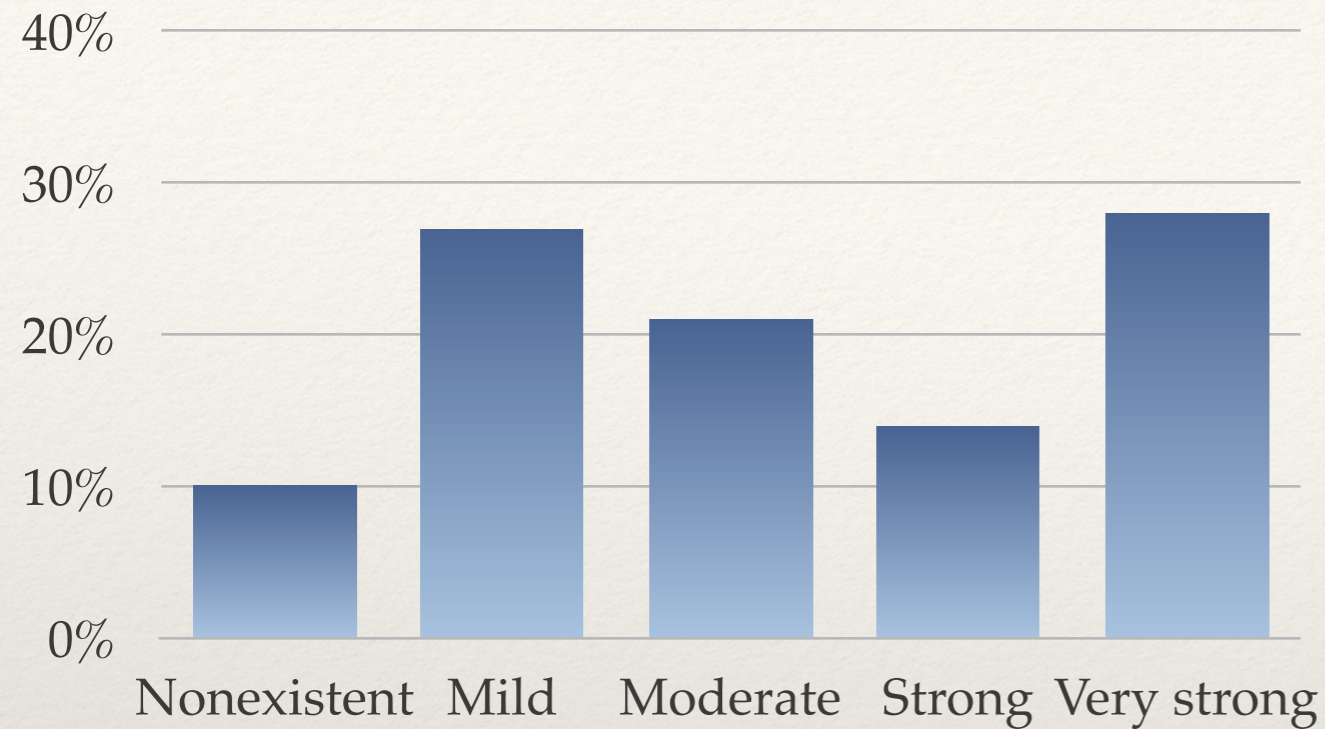
	Ave.	Median	Min.	Max.
Operating expenses	\$223,125	\$51,500	\$1,000	\$4,156,182
Per partner earnings	\$14,258	\$2,750	\$0	\$148,000
Capital expenses	\$22,162	\$5,000	\$0	\$250,000
Gross income	\$544,883	\$57,500	\$0	\$20,000,000
Net profit (- earnings)	\$4,221	\$0	-\$324,000	\$240,000
Net profit + earnings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

Views of CSA profitability

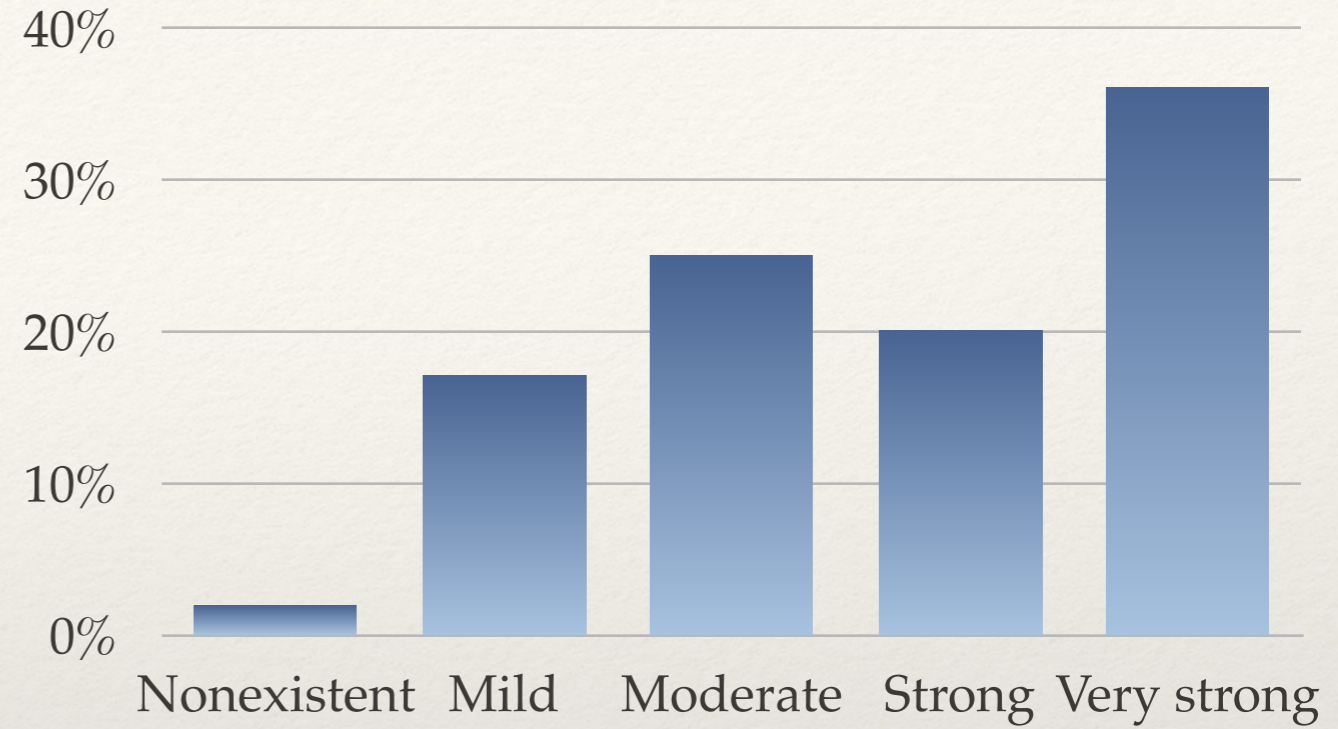
- 72.6% of CSA farmers are not satisfied with their CSA's profitability
- Of these, the percentages below feel they can't raise their CSA prices due to:
 - competition — 52%
 - market size — 23%
 - other reasons — 14%

Farmers' perceptions of competition within their CSA market region

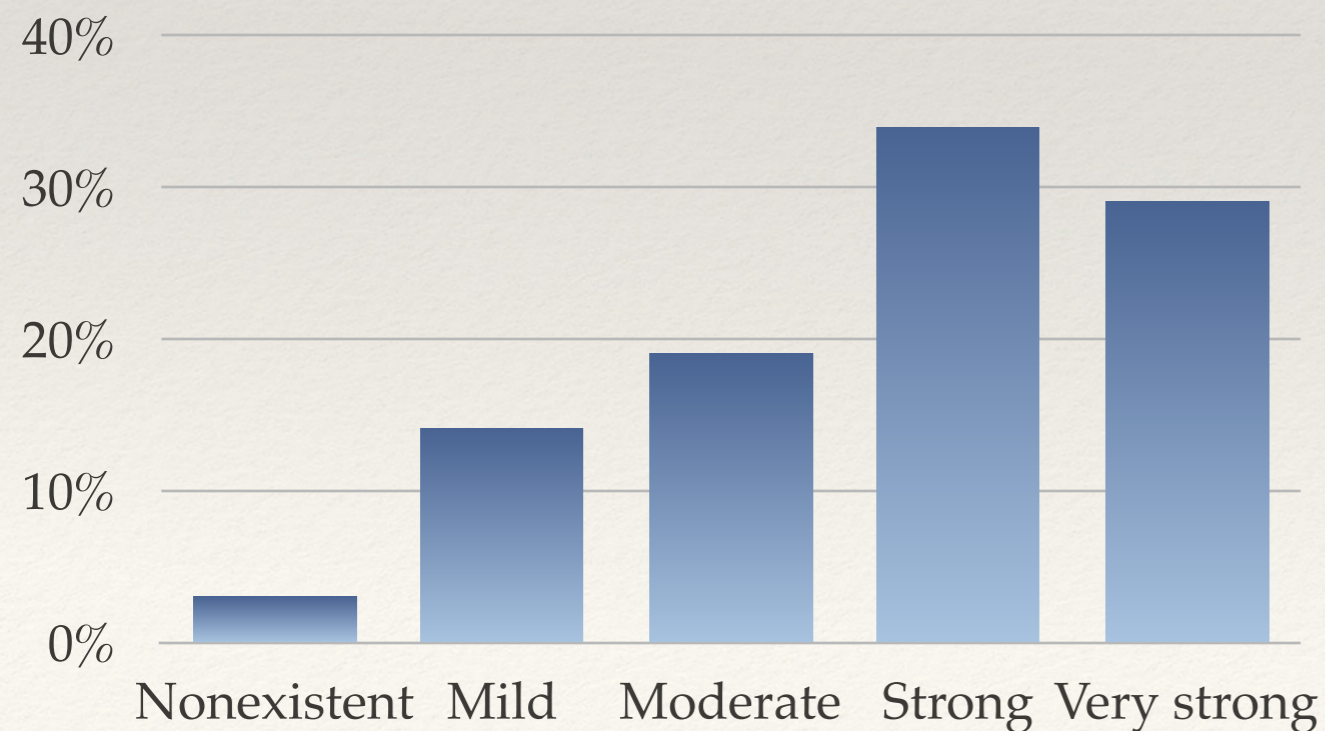
with other CSAs



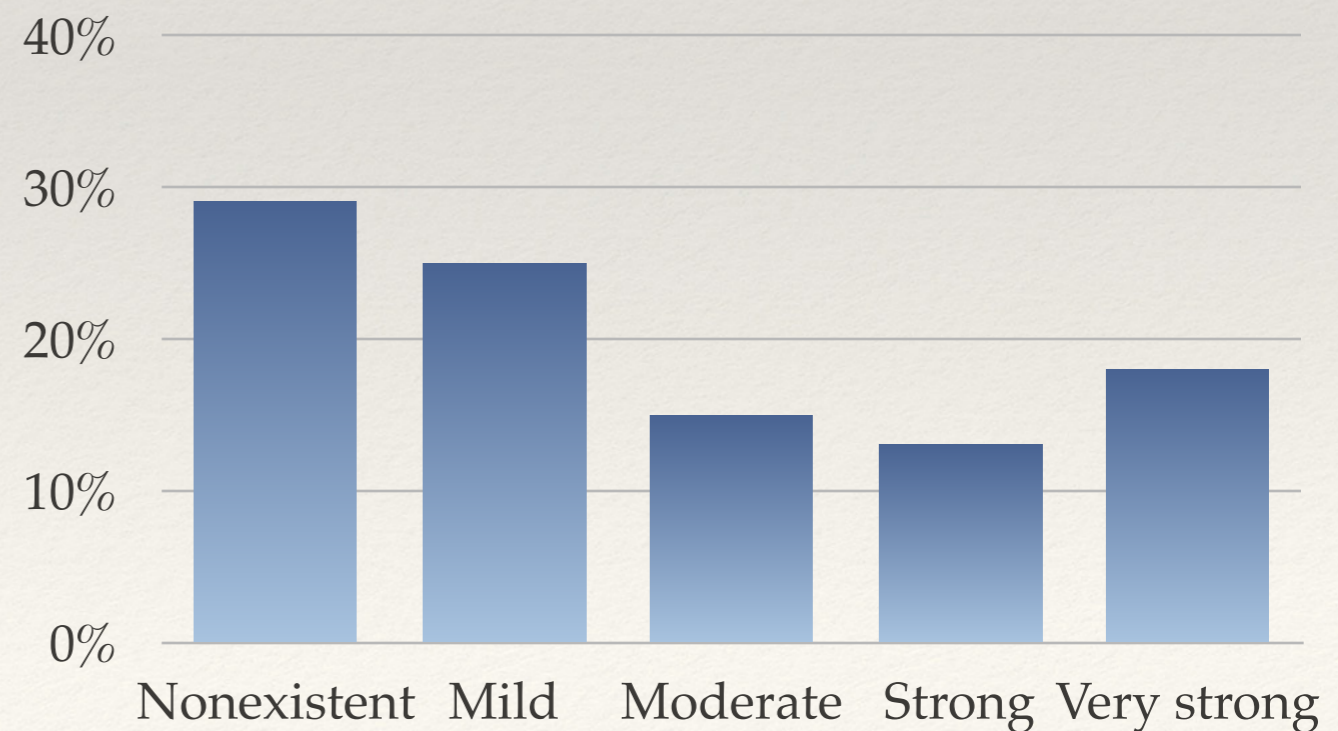
with other direct marketing channels



with retails market channels



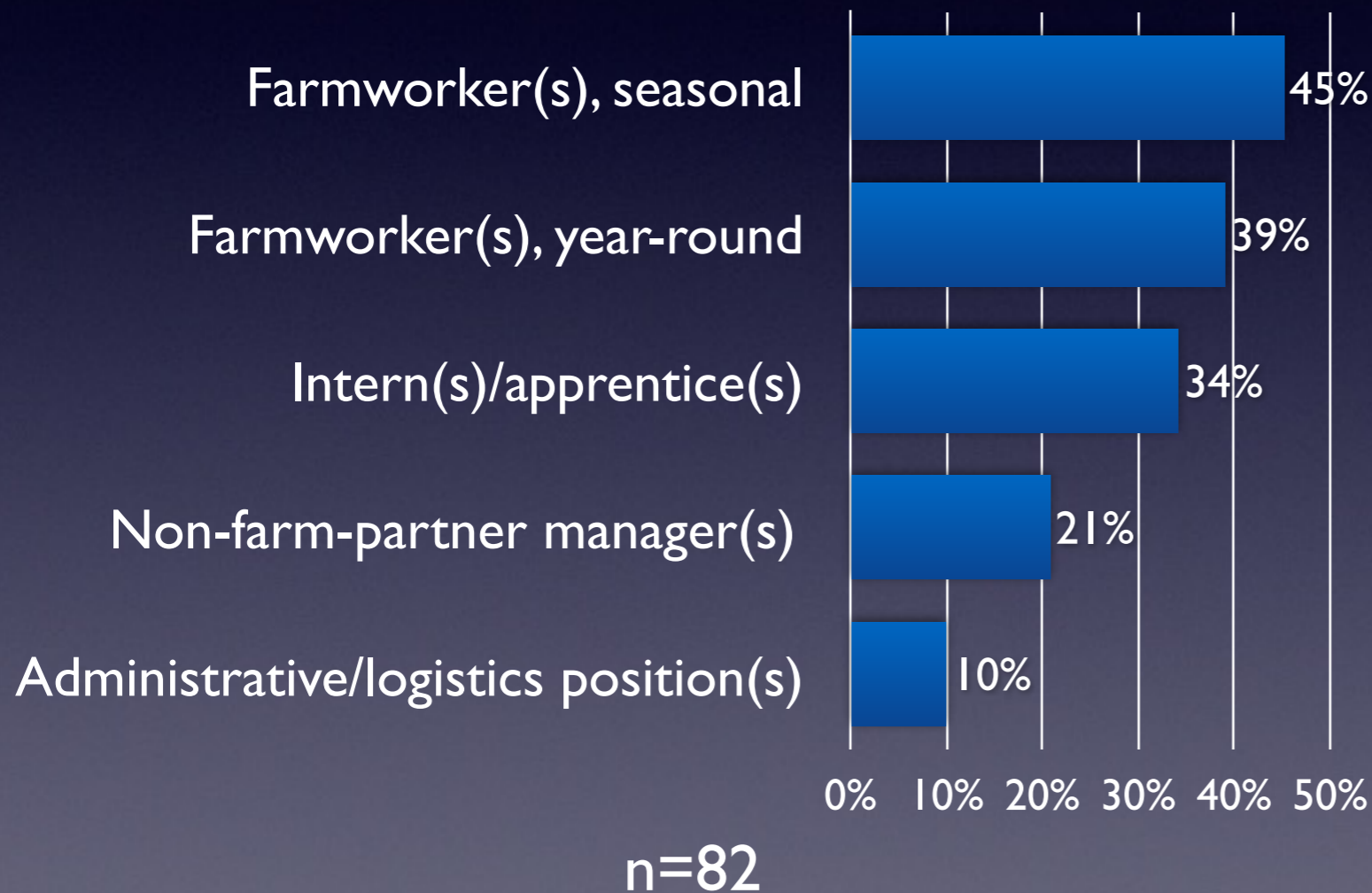
with grocery home delivery services



Farm labor

Employees

Types of employees (% of farms)



Average wages of employees



Farmer satisfaction

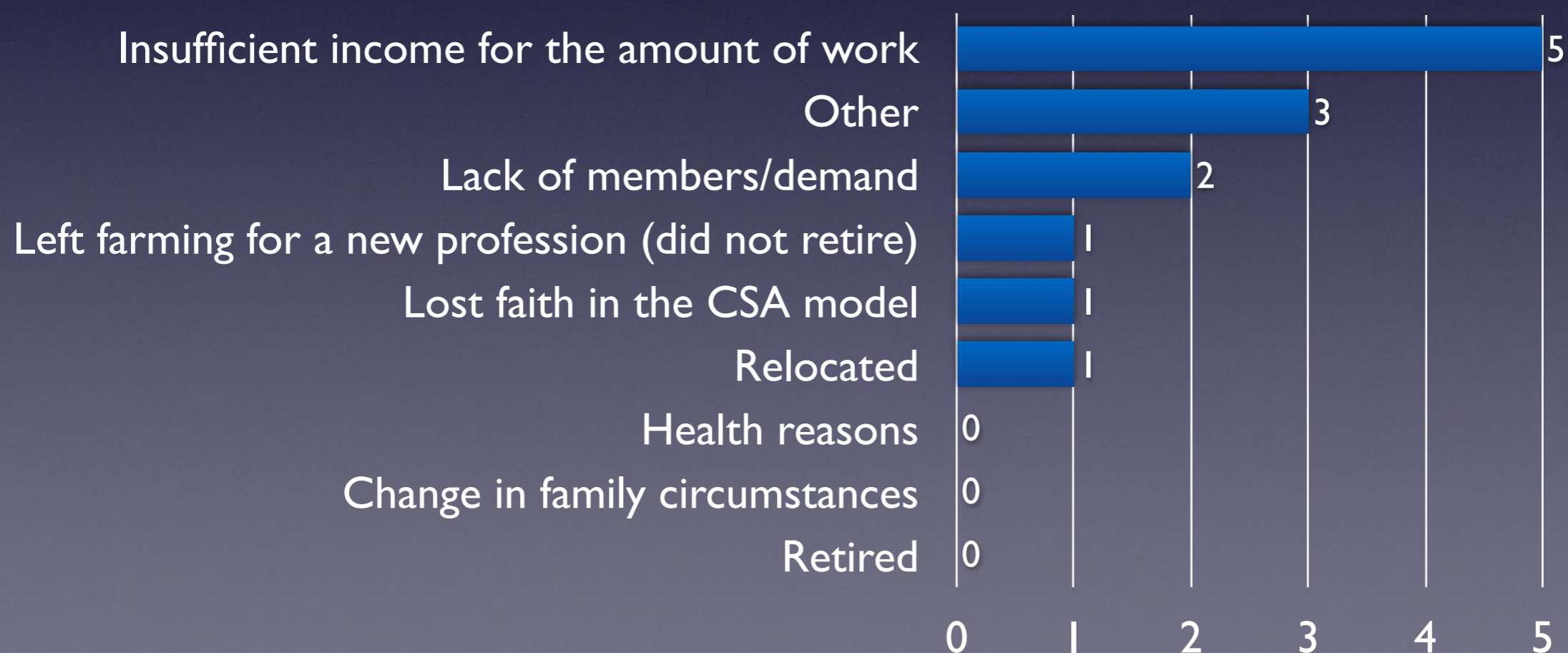
Farmer satisfaction



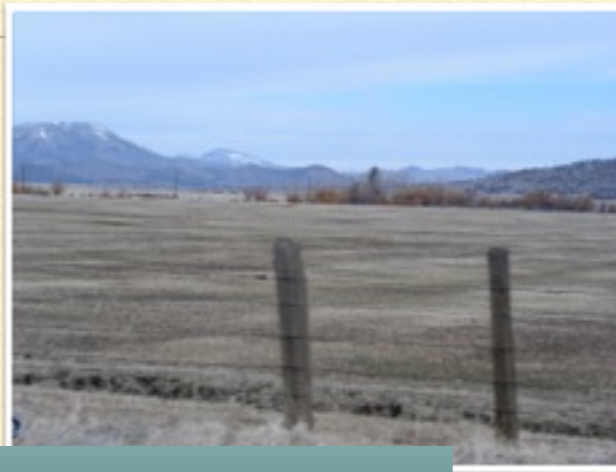
1=very unsatisfied, 2=unsatisfied, 3=mixed feelings/neutral, 4=satisfied, 5=very satisfied

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

FOUR REGIONS IN CALIFORNIA

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

ANALYSIS OF CSA CHARACTERISTICS BY REGION

- 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 [^]	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 ^{^^}
Farmer demographics														
Female head farmer (b)	31%	0.5	16	54%	0.5	28	60%	0.5	30	59%	0.5	17	2.69	0.10 *
Farm characteristics														
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 **
Farm finances (none significant)														
CSA characteristics														
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 **
Community food security strategies														
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 ***
Farmer satisfaction														
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 *

[^] b=binary, c=categorical, index=combined variables, i=integer, L=Likert-scale, %=percentage

^{^^} 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:
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