Farming on the Urban Fringe

The Economic Impacts of Niche and Local Marketing Strategies

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Agricultural Sustainability Threatened

Canadian agriculture

- Aging and shrinking farm population
- Environmental concerns: air & water quality, diseases
- Global competition, imports with different environmental & labour rules

At the urban fringe

- High land prices impacted by development
- Lack of agricultural services
- Nuisance issues
- Fragmentation

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Urban Fringe Agriculture

- More organic and other niche producers
- Increasing consumer demand for farm-fresh products
  - Linked to climate change and personal health
- Some recognition for other benefits: landscape, local jobs, environmental amenities

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Research Questions

At the Urban Fringe...

...How do niche and direct marketing farmers compare with the average farmer?

...Do niche and direct marketing enhance success and long-term sustainability of agriculture? If so, how?

...What economic and policy issues are most pressing?

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Methods - Survey

- In-person interview of 25 farmers on the Saanich Peninsula (near Victoria) and 29 mail-out respondents of farmers in the GVRD and FVRD (focus on Langley and Abbotsford)
- Names obtained from COABC and DFMA lists
- 70% and 26% response rates respectively
- Survey: farm holdings, income, production, marketing, household, impacts of policy

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Methods – Data Analysis

- Analyses performed using Stata (in progress)
- To compare with census
  - Mean-comparison test (t-test)
  - Binomial probability test
- Decision-making models and success
  - Regress capital investments, return on investments with other factors to investigate relationships
- Compare organic v. conventional farms, GVRD v. FVRD, and agritourism v. nonagritourism

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Saanich Results

- Fraser Valley Survey still being analyzed
- Some preliminary results presented at end

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Census vs. Survey Comparisons

(Saanich Peninsula, farms with >$10,000 gross farm receipts)

	Census (n=181)	Saanich (n=20)	Sig.
Gross farm receipts, mean ($)	223,500	244,000	
Net farm income, mean ($)	16,600	75,800	
Farm-related debt (% of farms)	41%	25%	
Total farm area (acres)	37.8	39.1	
Farm area < 10 acres (% of farms)	44%	45%	
% of land rented	30%	32%	
Farms with tractors	75%	75%	

*, **, and *** denote significance at 0.10, 0.05, and 0.01 levels, respectively

Census vs. Survey Comparisons

(Saanich Peninsula, farms with >$10,000 gross farm receipts)

	Census (n=181)	Saanich (n=20)	Sig.
Organic Products (regardless of certification)	22%	50%	**
Certified organic (% of farms)	4%	35%	**
Farms with employees	64%	85%	***
# of operators per farm	1.4	2.1	***
Female operators	38%	49%	
Operator age (yrs)	54	51	*

*, **, and *** denote significance at 0.10, 0.05, and 0.01 levels, respectively

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Organic vs. Conventional - Saanich

- Disproportionate # of certified organic farmers in "hobby farm" category
- For the "serious" farms, certified organic was associated with ...

  ... more female operators (58% vs. 45%)

  ... more university degrees (100% vs. 50%) AJE1
- No other significant differences observed

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Slide 10

AJE1 corrected these values, Nov 6th 2008
Alison J. Eagle, 11/6/2008

Hints of Sustainability

- 96% of farms reported some or all of acreage in IPM or organic production
  - 88% of these indicated that consumer demand is a key factor in this decision
- Some dissatisfied with farm income, but most felt they...

  ...make positive returns on farm investments (64%)

  ...farm investments increase earning potential (72%)

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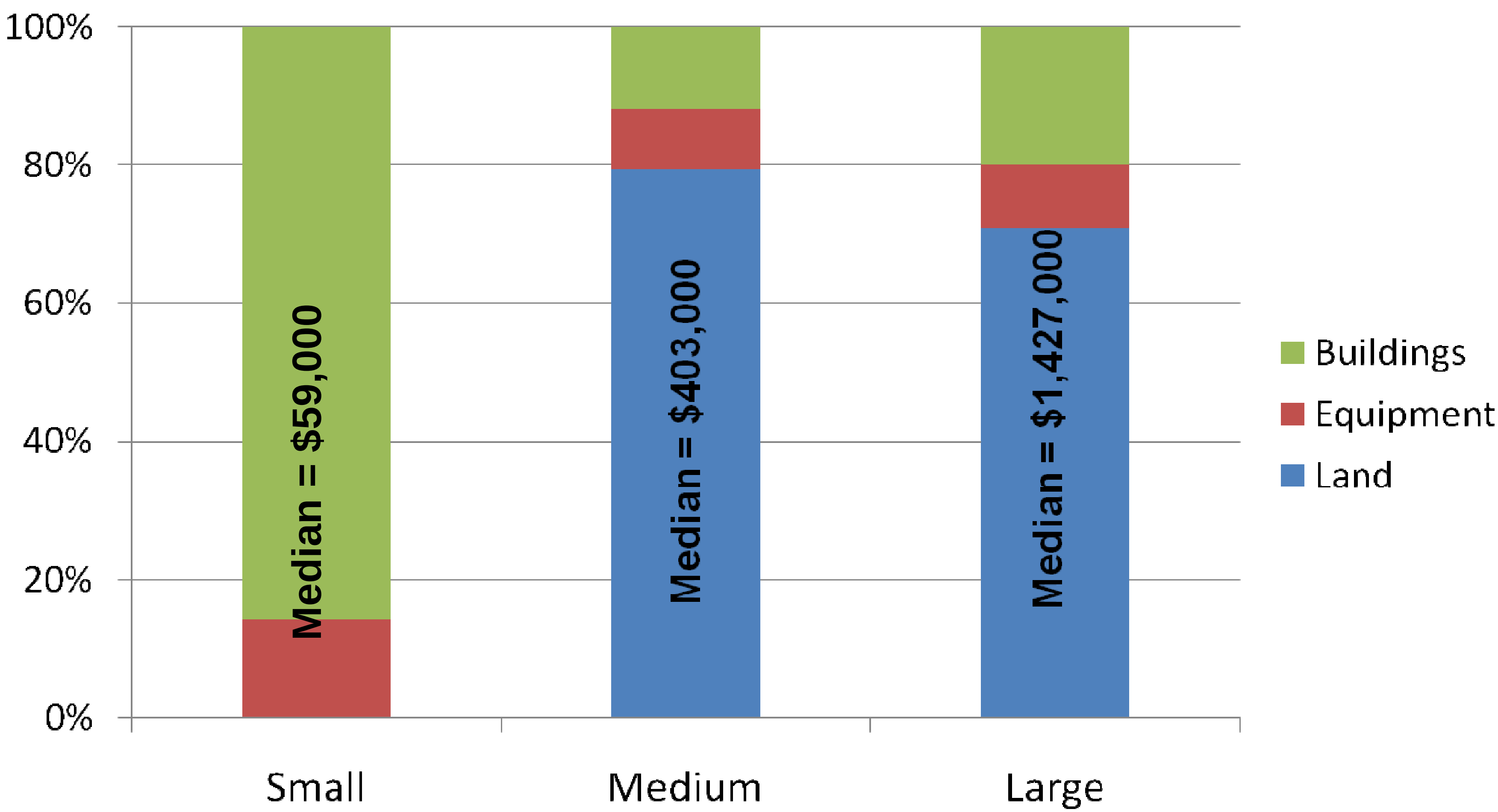
Capital investments for direct marketing farms in three size categories*



*by gross farm income: <$25,000=Small, $25,000 - $249,999 = Medium, >$250,000 = Large

Capital investments (ln) – regression model

Factor	p-value	Min. Value	Max. Value	Impact Direction	Effect ($'000s)
Years farming	p=0.001	3 yrs	40 yrs	+	2,520
Age category	p=0.015	30-49 yrs	>65 yrs	-	720
Greenhouse vs. all capital	p=0.068	0	0.941	-	619
Gross income per acre (rented & owned)	p=0.029	$1,333	$75,000	+	2,056
Year-round, full-time farmer	p=0.007	0	1	+	1,171
Rented land (% of total)	p=0.001	0%	100%	-	799

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Return on capital investments – regression model

Factor	Coefficient	p-value
Debt (0,1)	0.8932	0.136
Years farming (yrs)	-0.0539	0.037
Investments in past 5 yrs (ln $)	0.2468	0.008
Education (3 categories)	-0.6660	0.014
Total capital investments (ln $)	-0.6141	0.000

Dependent variable = gross income ($) per unit of capital investments ($), r^2 =0.7809

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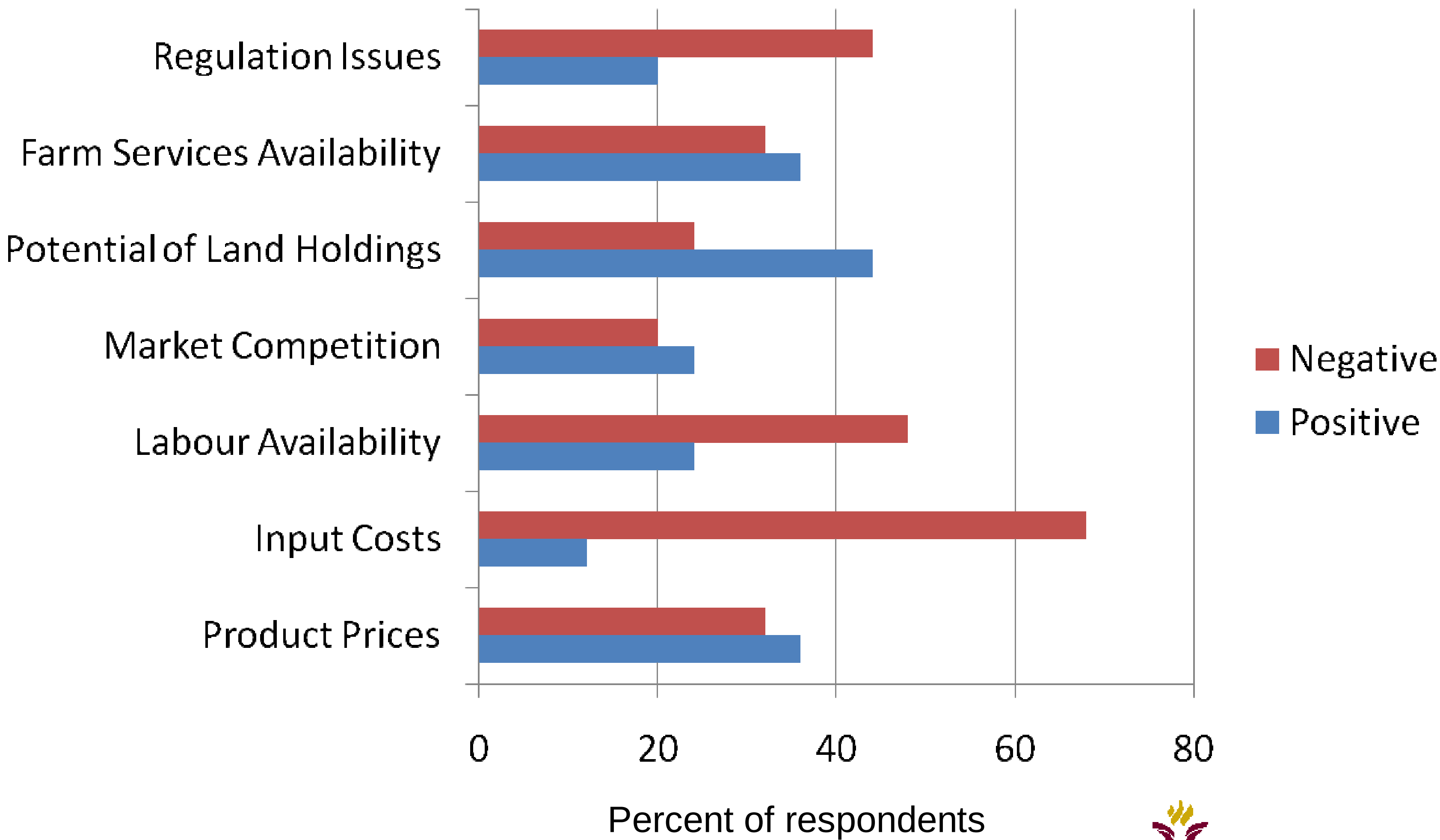
Impacts on farm earning potential
(as stated by farmers)



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Other Farm Issues related to Policy

- 36% spend time or money directly resolving or preventing conflict with non-farm neighbours
  - 56% changed farming activities, 33% installed vegetative barriers, 22% participated in agricultural awareness or environmental conservation efforts
  - Average of 240 hours and $6,560 in past year
- 96% said farm property tax rate has significant positive impact on farm economic stability

More on Policy

- 100% indicated that DFMA had positive economic impact
- 75% felt imports of foreign farm products negatively impacted ability to market their products
- Low participation in federal farm programs
  - 4% for each of (1) Production Insurance and (2) Canadian Agricultural Skill Services

Implications

- Organic and direct marketing farmers on the urban fringe...
  - ... have direct consumer link & quicker response to market demand – enhanced ecological practices
  - ... tend to be younger than the average – perhaps bucking the trend, adding resilience
  - ... may appreciate assistance in issues surrounding labour availability, input costs, non-farming neighbours, and local regulations

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Preliminary Mainland Results

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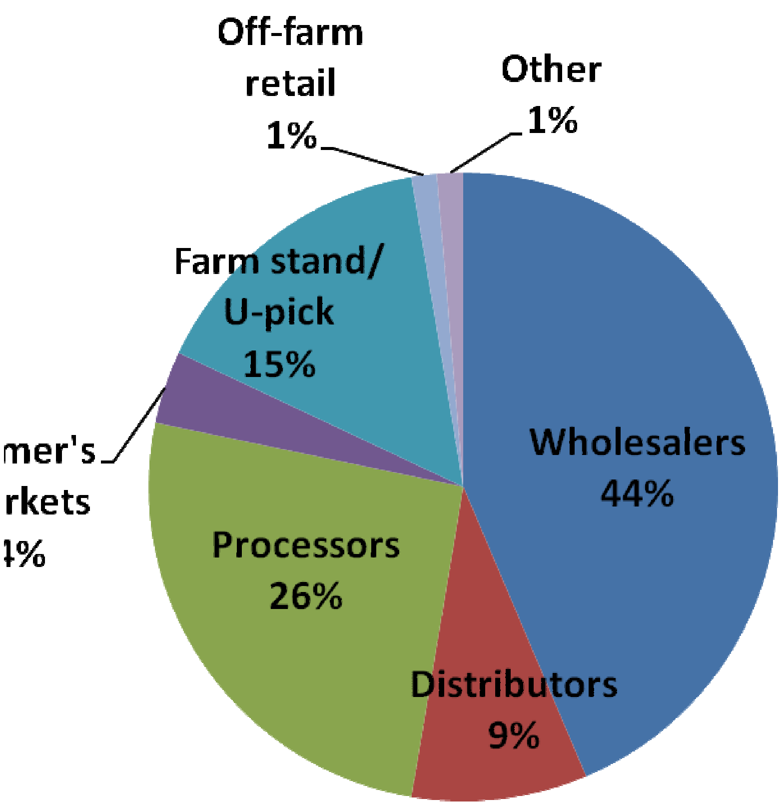
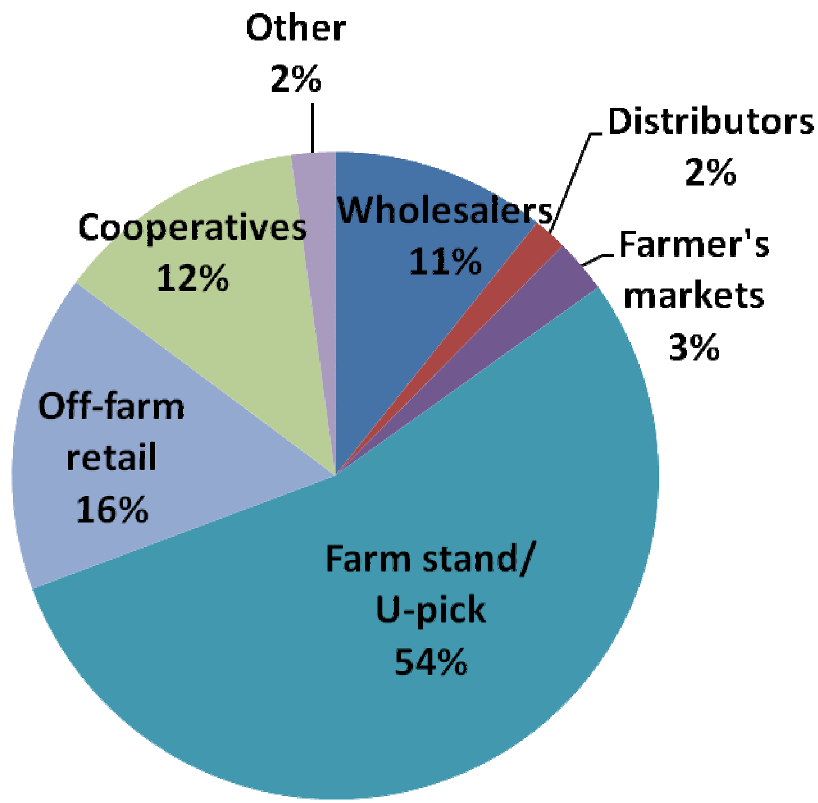
Marketing of Farm Products

(% of total product value)



Fraser Valley



Saanich Peninsula

Census vs. Survey Comparisons

(Langley and Abbotsford farms)

	Census - Abbotsford	Survey - Abbotsford	Census - Langley	Survey - Langley
Gross farm receipts, mean ($)	466,200	596,875	176,800	365,250
Farm-related debt (% of farms)	57%	75%	33%	80%
Total farm area (acres) per farm (average)	56.3	84.89	24.8	72.13
Farm area < 10 acres (% of farms)	29%	50%	49%	30%
Farms with tractors	90%	100%	85%	90%

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Census vs. Survey Comparisons

(Langley and Abbotsford farms)

	Census – Abbotsford	Survery – Abbotsford	Census – Langley	Survey – Langley
Organic Products	7%	41.7%	16%	60%
Certified organic (% of farms)	2.2%	41.7%	1.3%	40%
Farms with employees	38%	91.7%	37%	80%
# of operators per farm	1.5	1.92	1.5	2
Female operators	30%	39.13%	37%	40%
Operator age (yrs)	50.5	47	54.2	55.48

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Comparisons: GVRD v. FVRD

- GVRD significantly greater
  - Acres owned
  - Agritourism
  - Upick or farm stand marketing
  - Belonging to a professional organization
  - More female operators
  - Hosted a party (or social gathering) in the last year

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Comparisons: GVRD v. FVRD

- FVRD significantly greater
  - Households supported by farm
  - More positive opinions of the ALR
  - More positive opinions of Right to Farm laws
  - Believes local agricultural zoning makes positive impact on protecting farmland
  - More total family members

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Comparisons: Conventional v. “Organic”

- Conventional significantly greater
  - Years farming
  - Positive opinion of Right to Farm laws
  - Believes entry of new farmers possible with current land rental rates
  - More children (age 5 to 14)

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Comparisons: Conventional v. “Organic”

- Organic significantly greater
  - Acres owned
  - Number of operators
  - More female operators
  - More older household members (aged 65 to 74)

Comparisons: Agritourism v. Not Agritourism

- Agritourism significantly greater
  - Upick and farm stand marketing
  - Hosted a party (or social gathering) in the last year
  - Percent of income earned off-farm
  - Participation in the Direct Farm Marketing Association
  - Age (of primary and secondary farm operators)
  - More household members (aged 65 to 74)

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Comparisons: Agritourism v. Not Agritourism

- Non-agritourism significantly greater
  - More investment in machinery
  - More investment in irrigation
  - Higher net farm income
  - Marketing via processors
  - More time spent in resolving/preventing conflicts with neighbours
  - Satisfied with farm income
  - Satisfied with return on investment

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Regressions

- What factors are significantly correlated with years been farming?
  - *<u>Positive correlates</u>*
    - Other operators
    - Active in professional organization
    - Member of service organization
    - Regular church/synagogue/etc. attendee
    - Age
  - *<u>Negative correlates</u>*
    - Female operator
    - Organic production

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Conclusions

- Some intuitive and some counter-intuitive results
  - Organic/direct marketers appear to be younger in Saanich but older on lower mainland
    - More female operators both places
    - More likely to be joint-operators in both places
  - Conventional farmers spent more time dealing with conflicts with neighbours

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Conclusions

- Theory regarding agritourism – is it a “last ditch effort” to save the farm, or a hobby?
  - Current survey results suggest they are not thriving compared to conventional farmers
- Similiarly with off-farm income – is it sought out because farm does not generate sufficient income or do people with high off-farm income not try to produce as much agricultural products?
  - Both probably happening, but comments suggest the latter is more common

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Thank you
Questions? Comments?

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