

# Organizing Industries for Growth

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# Organizing Industries for Growth

## Disclaimer

- I'm *very* new to Michigan, and these are my initial perceptions
- Key personnel with high quality, long-standing, Michigan hops and malting barley knowledge are Erin Lizotte, Ashley McFarland, and Rob Sirrine

# Overview

- About me
- Consumer research
- Product differentiation and sensory testing
- Potential legislation that could help MI growers
- Other strategies for growth

# About Me

Opinion: How can craft beer companies survive? Use ratings

- Home
- Curriculum Vitae
- Presentations
- Publications

DR. TREY MALONE  
ASSISTANT PROFESSOR OF AGRICULTURE

## Institutional and Behavioral Economics Section (IBES)

### CHOICES

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Beer, Policy, and a Changing Global Market



What Do Beer Laws Mean for Economic Growth?

Trey Malone and Martin Stack

### IBES Outstanding Graduate Student Paper Competition

Best Paper Winner: Trey Malone, Oklahoma State University, "The Excessive Choice Effect Meets the Market: Experiments on Craft Beer Choice"



## HOW RURAL IS OUR LOCAL FOOD POLICY?

By Trey Malone and Brian Whitacre | September 17, 2012 | Print article

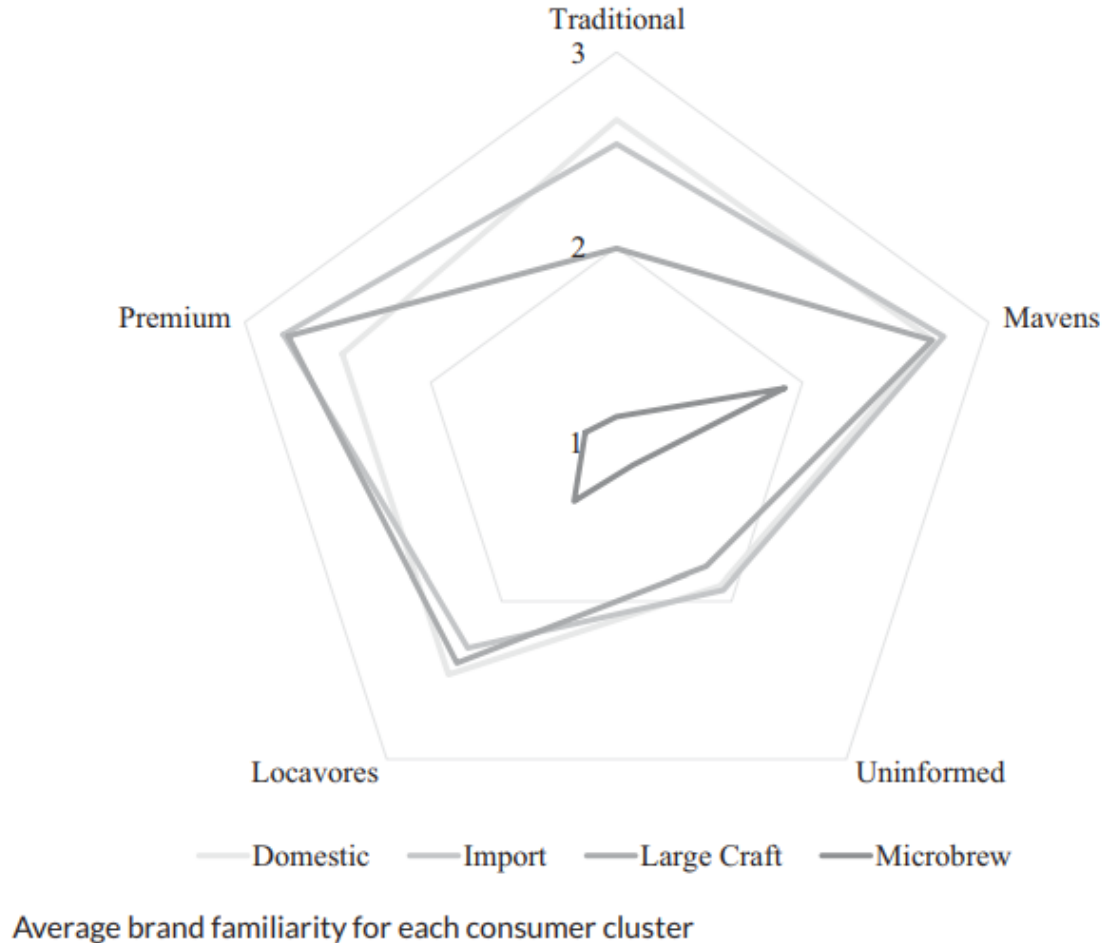
# About Me

- 50% Research
- 35% Extension
  - Agribusiness and Agricultural Marketing
- 15% Teaching



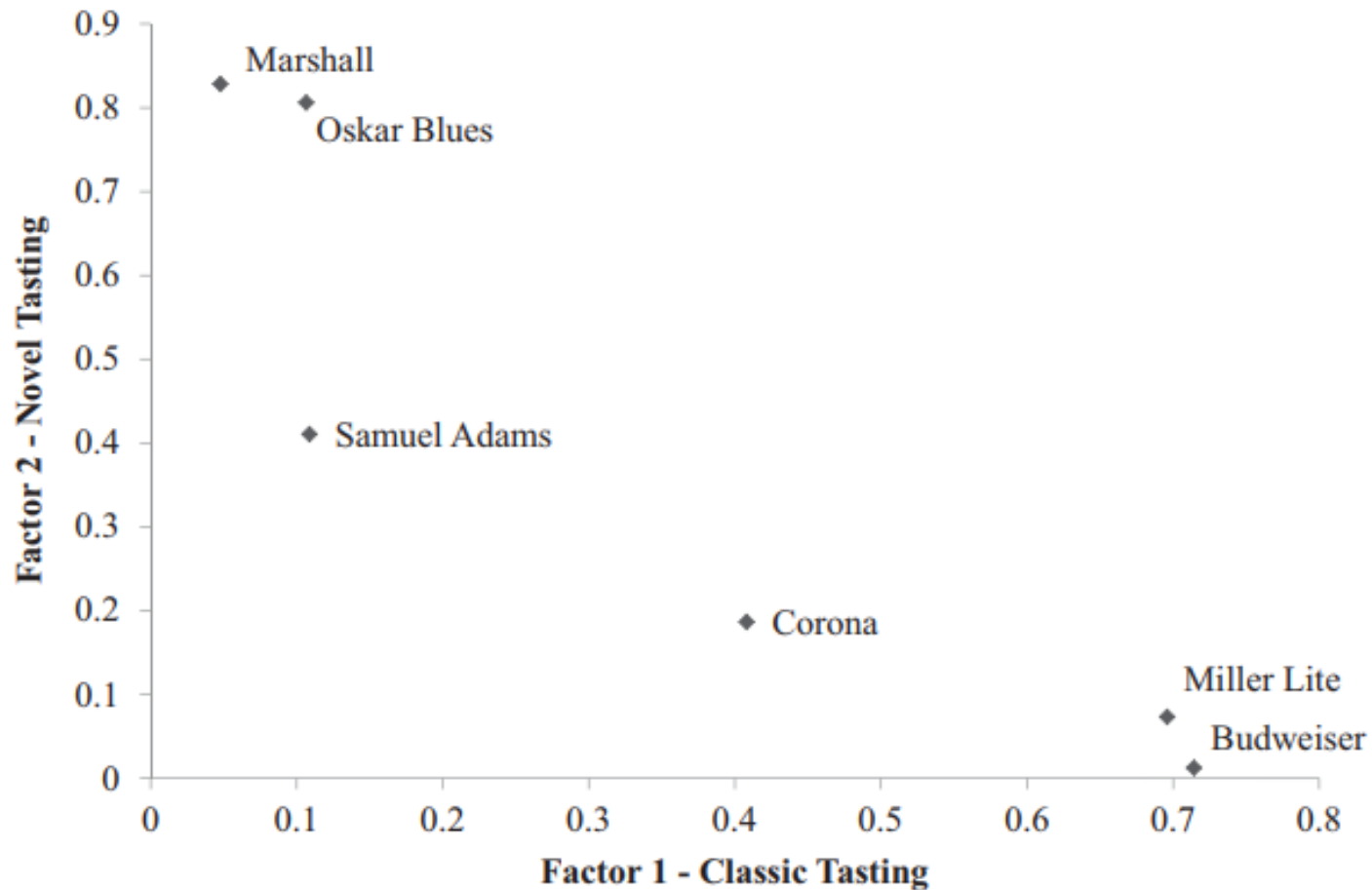
# Consumer Research

Malone, Trey and Jayson L. Lusk. 2017. "If You Brew it, Who Will Come? Market Segments in the American Beer Market." *Agribusiness: an International Journal*.



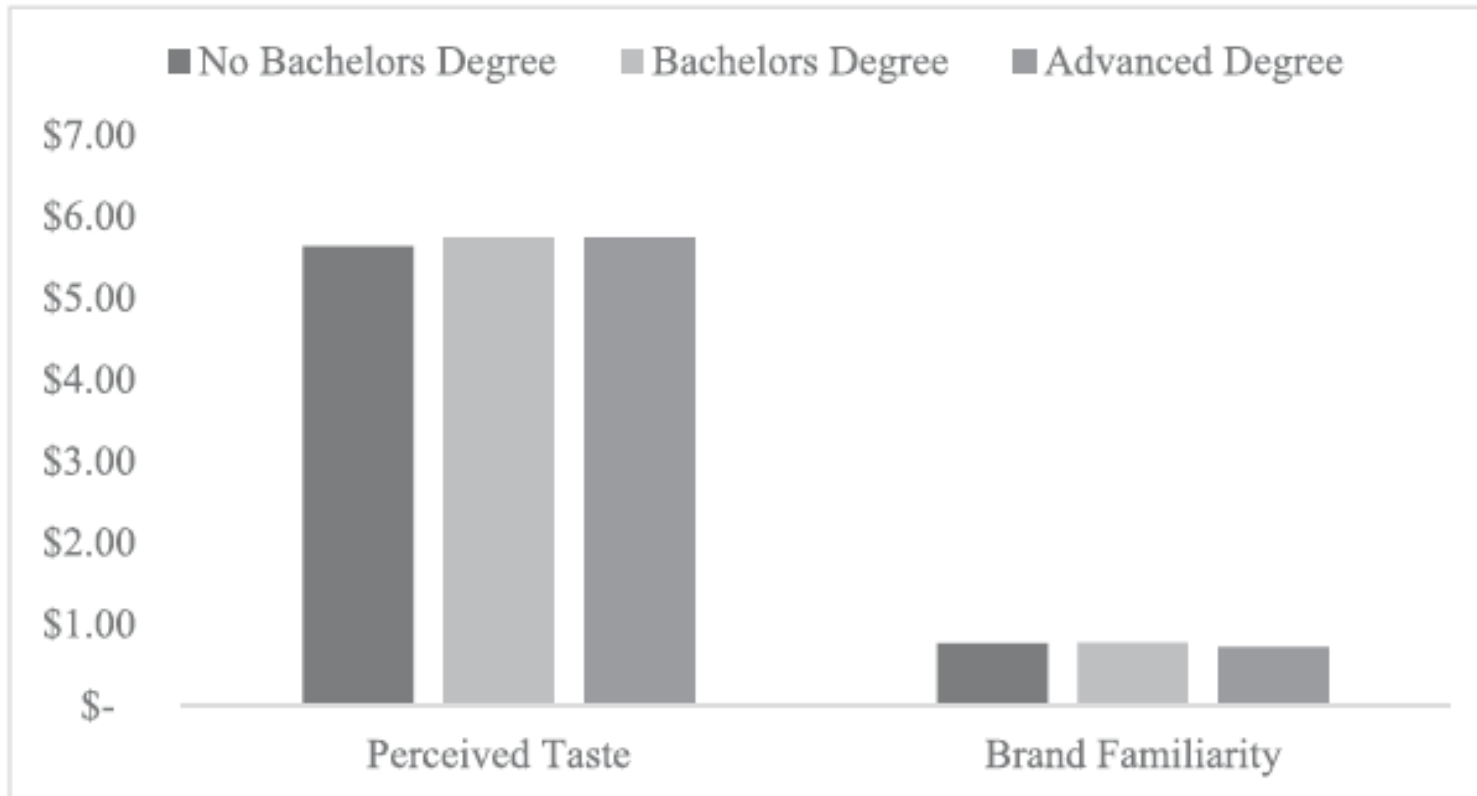
# Consumer Research

Malone, Trey and Jayson L. Lusk. 2017. "If You Brew it, Who Will Come? Market Segments in the American Beer Market." *Agribusiness: an International Journal*.



Factor analysis of taste perceptions

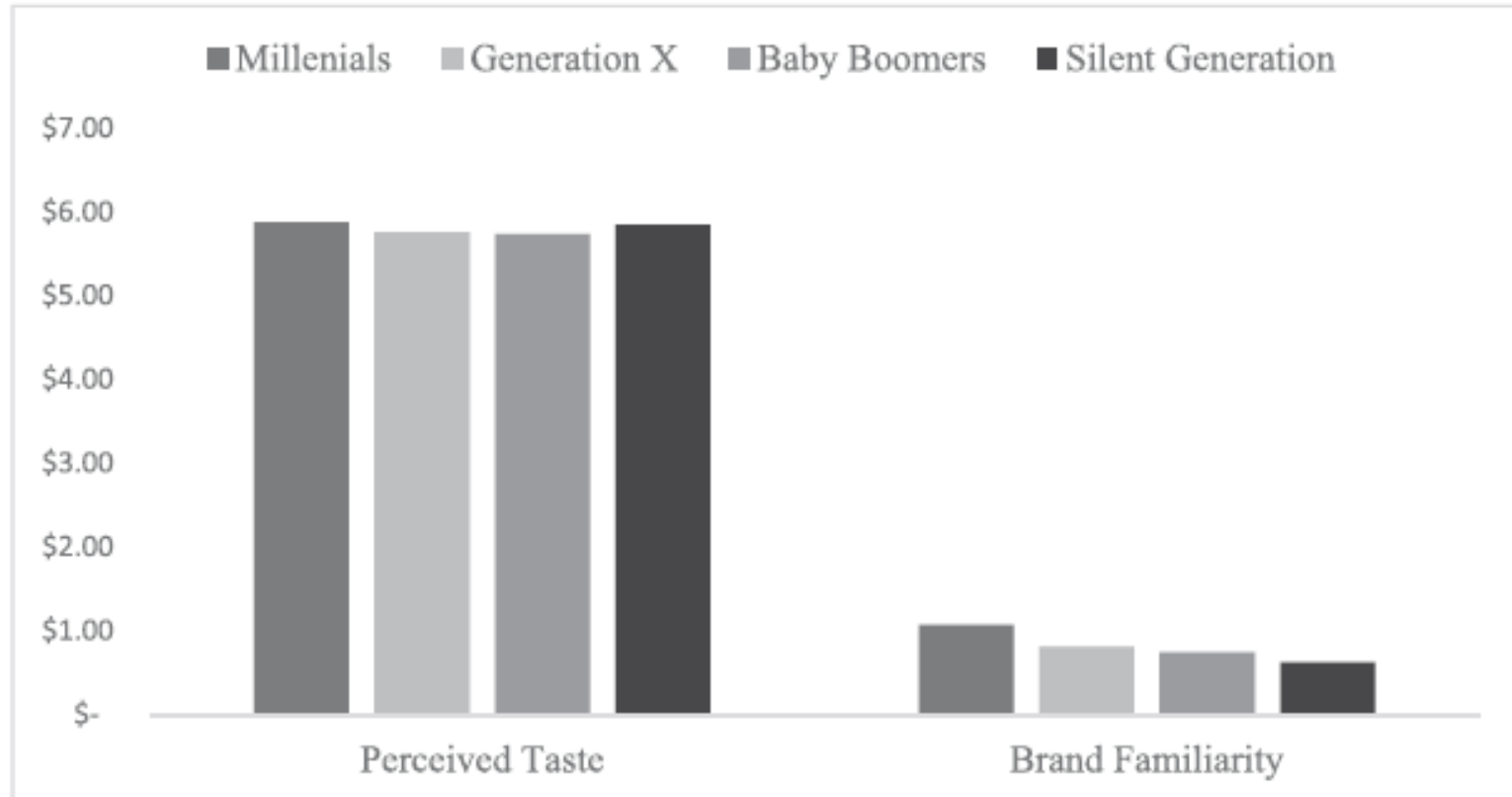
# Consumer Research



Malone, T. & J.L. Lusk. 2018. “An Instrumental Variable Approach to Distinguishing Perceptions from Preferences for Beer Brands.” *Managerial & Decision Economics*.



# Consumer Research



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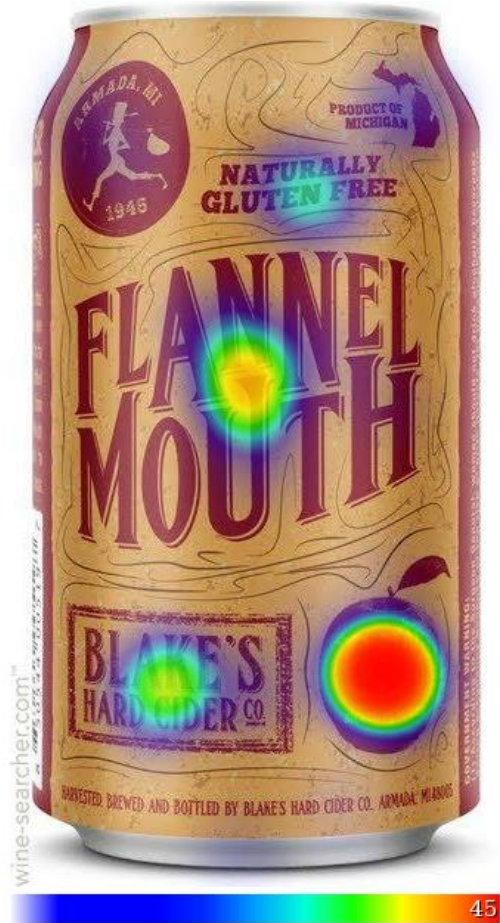
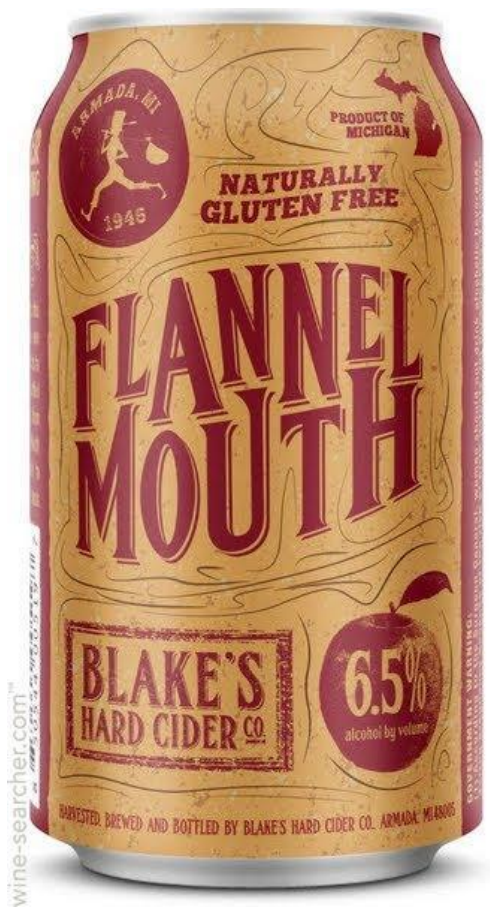
# Consumer Research

- Phil Howard: “Craftwashing in the U.S. Beer Industry”
  - Counted 4-packs and 6-packs in Lansing, MI stores



- “30% of 4- and 6-pack facings recorded in craft beer sections (n = 1145) had ownership ties to big brewers”

Please click the location on the label you consider most important for your hard cider purchasing decision.



# Consumer Research

- Ha et al., 2018. Consumers' Valuation for Craft Beer: Does the Localness of Inputs Matter?
- Evaluated willingness-to-pay for local and/or organic attributes in Indiana beer

Which of the following craft beer products do you prefer most? If neither option A nor option B meet your preferences, you should choose to opt-out by selecting option C. Select one.

	Option A	Option B	Option C
Brewing location	Indiana	Within the US, outside of the Great Lakes region	I would not choose Option A or Option B.
Location of hops production	Indiana	Within the US, outside of the Great Lakes region	
Production method of ingredients	Organic		
Price	\$10.99	\$6.99	
I prefer...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

# Consumer Research

**Table 4. Mean WTP Estimates (USD/6-pack of craft beer (72 oz.))**

Attribute	Entire Sample		Craft Drinkers		Non Craft Drinkers	
	WTP	SE	WTP	SE	WTP	SE
Brew Indiana	2.97 ***	0.82	3.27 ***	1.17	2.59 **	1.02
Brew Great Lakes	0.76	0.75	-0.22	1.09	2.06 **	1.03
Hops Indiana	0.43	0.74	1.00	1.12	0.27	0.91
Hops Great Lakes	-0.47	0.83	-0.35	1.21	0.12	1.02
Hops U.S.	0.43	0.60	0.09	0.90	0.77	0.82
Hops Organic	-0.49	0.49	-0.05	0.71	-0.84	0.6
Price	-1.00		-1.00		-1.00	
<b>Interaction Effects</b>						
Brew IN x Hops IN	-0.39	0.97	0.37	1.41	-1.32	1.22
Brew IN x Hops GL	1.33	1.04	2.28	1.57	-0.14	1.29
Brew IN x Hops U.S.	1.71 *	1.01	3.11 **	1.53	-0.12	1.23
Brew GL x Hops IN	0.21	0.95	2.13	1.45	-2.44 *	1.27
Brew GL x Hops GL	-0.48	0.92	0.74	1.37	-2.23 *	1.21
Brew GL x Hops U.S.	0.96	0.95	1.89	1.42	-0.16	1.24

Notes: \*\*\*, \*\*, \* indicate significance at 1%, 5% and 10% level

# Consumer Research

“...Indiana consumers are willing to pay a **price premium for** craft beer brewed in Indiana, as well as a **positive, but smaller, premium for local hops.**”

“**Experienced consumers have a high WTP for local attributes** (both processing and origin of inputs) defined at the state level, but discount local attributes defined at the regional level.”

“...**We find that average and inexperienced consumers view localness claims of the different supply chain stages as substitutes.**”

# Consumer Research

Waldrop and McCluskey. 2018. “Does Information about Organic Status Affect Consumer Sensory Liking and Willingness to Pay for Beer?”

- Sensory tests of organic beers for 298 consumers (Pullman, WA and Portland, OR)
- Most drinkers aren't WTP for Organic but if they do, it's because of:
  - Environmental concerns
  - Variety-seeking
  - Health

# Consumer Research Idea

## **Spartan barley seed now available**

Michigan farmers now have the opportunity to grow the historic barley variety.

Posted on **February 7, 2018** by [Ashley McFarland](#), Michigan State University Extension

- How much do people value a product's story?
  1. Have consumers taste a beer brewed with Spartan barley (unlabeled) and ask for willingness-to-pay
  2. Have consumers taste the same beer brewed with *labeled* Spartan barley and ask for updated willingness-to-pay




# Sensory Research



Research article

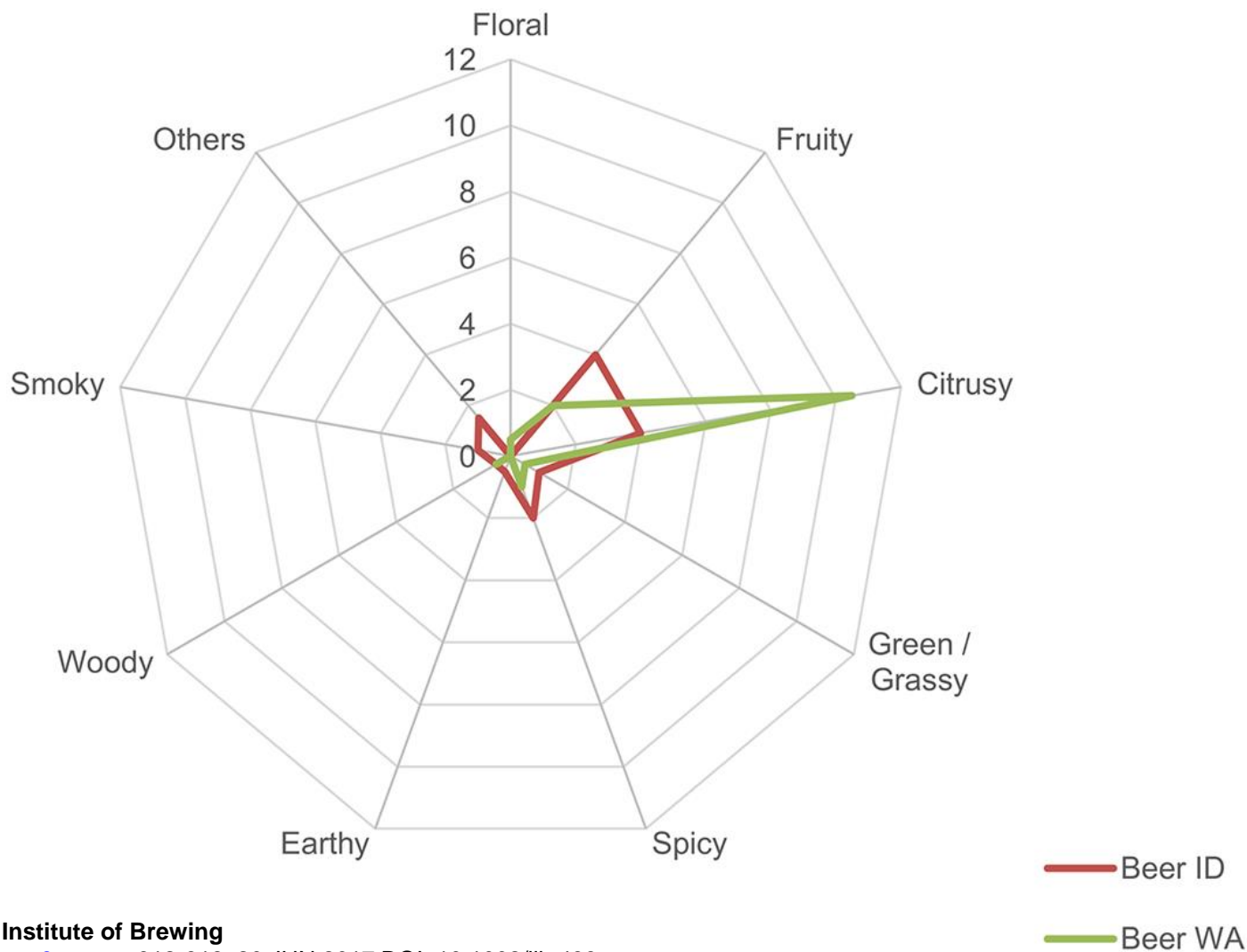
## The brewing value of Amarillo hops (*Humulus lupulus* L.) grown in northwestern USA: A preliminary study of terroir significance

Ann Van Holle, Anita Van Landschoot, Isabel Roldán-Ruiz, Dirk Naudts,  
Denis De Keukeleire 

- Idaho vs. Washington Amarillo pellets, Pilsner malt
- Trained taste panel (n = 15)

**Abstract:** "...This preliminary study indicates that brewers must rely on desired hop varieties from the same terroir in order to achieve consistent hoppy aromas in their beers."

# The brewing value of Amarillo hops (*Humulus lupulus* L.) grown in Northwestern USA: A preliminary study of terroir significance

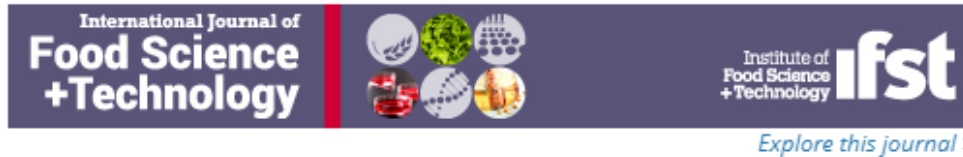


Journal of the Institute of Brewing

Volume 123, Issue 3, pages 312-318, 20 JUN 2017 DOI: 10.1002/jib.433

<http://onlinelibrary.wiley.com/doi/10.1002/jib.433/full#jib433-fig-0004>

# Sensory Research



Original Article

## A preliminary investigation into differences in hops' aroma attributes

Susan Barry, Elizabeth M. Muggah, Matthew B. McSweeney , Shane Walker

First published: 1 November 2017 [Full publication history](#)

- Nova Scotia vs. Oregon/England dry-hopped and whole-leaf
  - Cascade (US), Mt. Hood (US), Nugget (US), and Golding (UK)
- 2 “projected mappings” of 12 untrained female participants

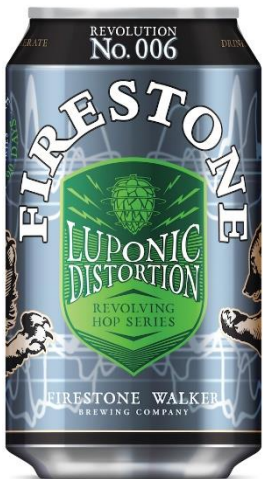
**Abstract:** “Results indicated that there are differences in the hop aromas of both whole-leaf hops and dry-hopped lager...”

# Sensory Research

## Michigan grows to No. 1 in hops production outside Pacific Northwest

Robert Allen, Detroit Free Press Published 6:00 a.m. ET Feb. 14, 2018 | Updated 4:14 p.m. ET Feb. 14, 2018

“...terroir is widely understood to make a difference with hops, and brewers frequently show a preference for hops by certain regions.”



### Luponic Distortion's Newest Features Michigan Hops

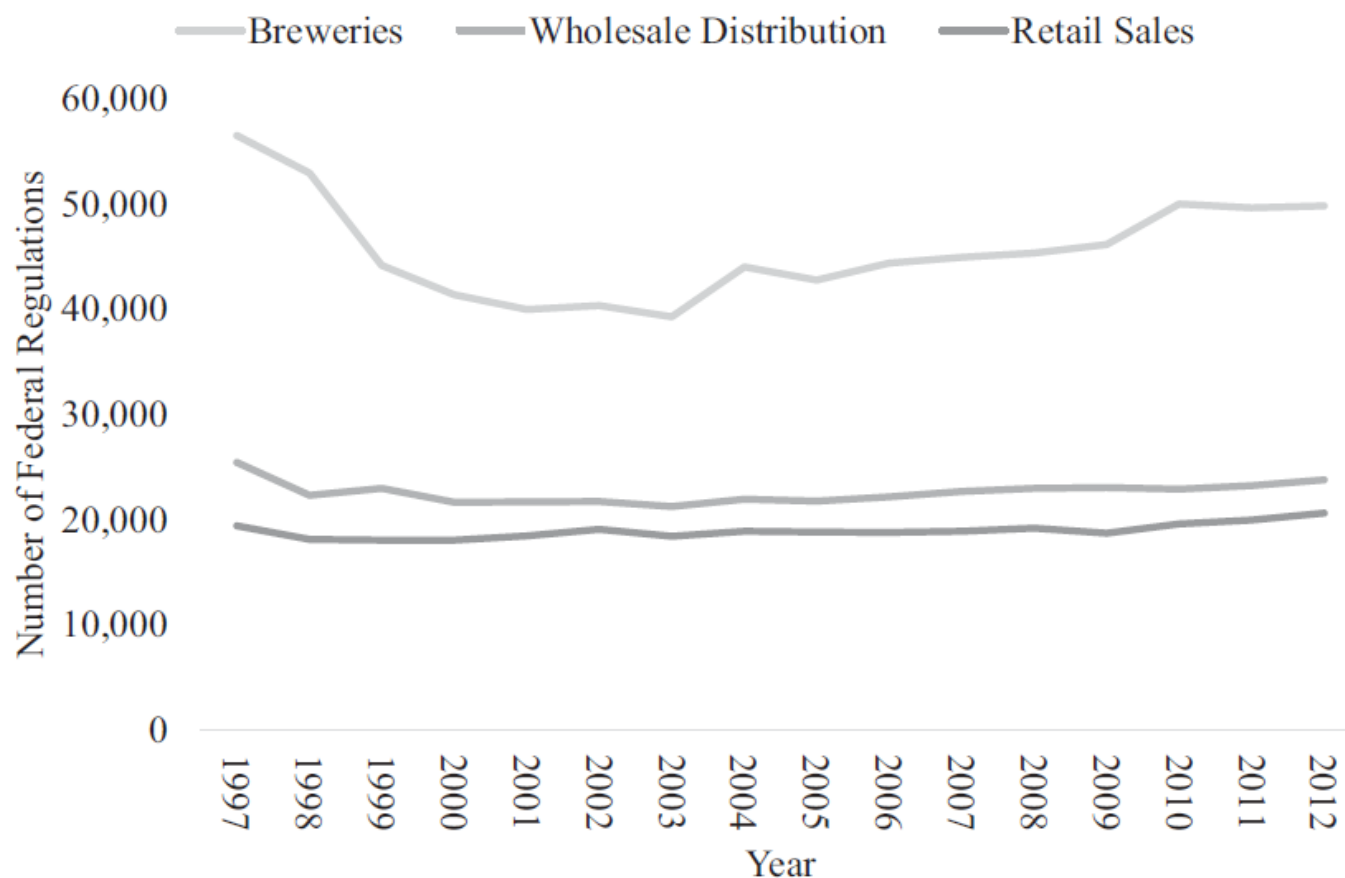
“In contrast to the piney, grapefruit notes Brynildson has imprinted in his head for the Pacific Northwest grown hop, he found **more Mandarin orange in the Michigan grown cones**. It is a showcase of terroir and how a difference of 2,000 miles can distinctly influence a hop.”

# Sensory Research Idea

1. Brew two beers that are identical except one is brewed with MI Chinook and one brewed with WA Chinook
2. Conduct sensory and triangle tests to see if people can taste the difference

# Legislative Ideas

**FIGURE 2** Total (direct and input) beer value chain regulatory restrictions



Malone, T. & D. Chambers. 2017. "Quantifying Federal Regulatory Burdens in the Beer Value Chain." *Agribusiness: an International Journal*.

# Legislative Ideas



- Third-party Quality Control Groups?
  - USDA GroupGAP
  - Global GAP

# Legislative Ideas

## **Can liberalization of local food marketing channels influence local economies? A case study of West Virginia's craft beer distribution laws**

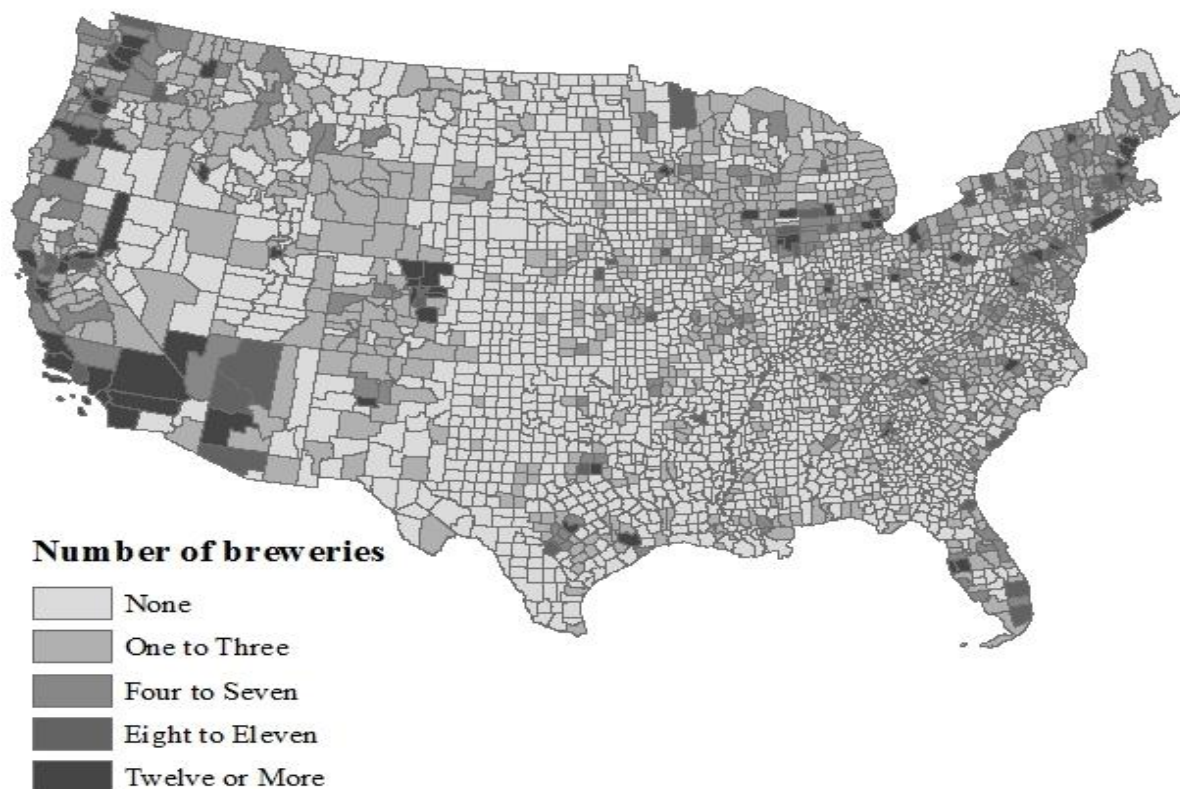
**Trey Malone<sup>1</sup> • Joshua C. Hall<sup>2\*</sup>**

### **Abstract**

Over the past decade, local food systems have been identified as having a significant influence on regional economies. Using a recent change in West Virginia's craft beer distribution laws as a case study, we show that although employment might not experience a statistically significant change due to additional legalized marketing channels, wages did experience a significant increase. Our findings suggest that state economies might benefit from reducing restrictions on small, local producers.



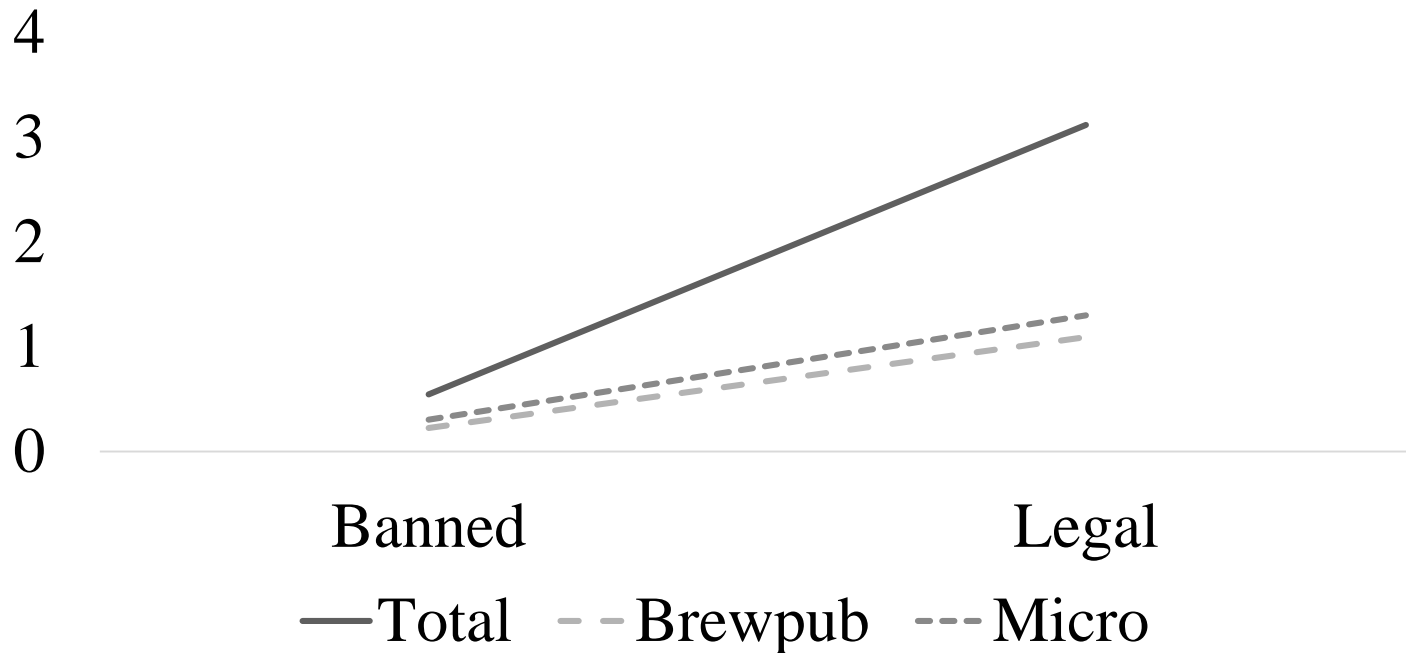
# Legislative Ideas



Malone, Trey and Jayson L. Lusk. 2016. “Brewing Up Entrepreneurship: Government Intervention in Beer.” *Journal of Entrepreneurship & Public Policy*. [Outstanding Paper Winner, Editorial Board].

# Legislative Ideas

Malone, Trey and Jayson L. Lusk. 2016. "Brewing Up Entrepreneurship: Government Intervention in Beer." *Journal of Entrepreneurship & Public Policy*. [Outstanding Paper Winner, Editorial Board].



Average predicted number of breweries, microbreweries, and brewpubs within a county when the state legalized self-distribution

# Legislative Ideas

- New York Farm Brewery Law
  - To get the license, the beer must be made primarily from NY inputs
    - 20% until the end of 2018,
    - then 60% until 2024 and then 90%
  - Eliminates the need for a permit to serve beer by the glass
- Potential collaboration opportunity with Michigan Brewers Guild?

# Strategies for Growth

- Unique marketing opportunities
  - Wet hopping
  - International markets
  - Vertical integration
  
- Establishment of HGM in 2014

Hop Growers of Michigan makes a positive difference in Michigan's hop industry by providing **educational opportunities** and **research** for better **hop production and processing**, as well as **advocating for and promoting the use of Michigan grown hops**.

# Strategies for Growth

- Grower groups are often used for collaboration with researchers
- Are there ways that MSU could help?
  - Applying for grants to conduct demand and marketing studies:
    - Sensory evaluations
    - Consumer surveys
    - Focus groups

# Strategies for Growth

- Are there other commodity groups that hops and malting barley could learn from?



- ... “charged with marketing, communications, consumer education, and research on behalf of Michigan growers.”

# Strategies for Growth

- Likely barrier:
  - Difficult to generate any funding to leverage for research and promotion
- How some groups have overcome the barrier:
  - Check-off
  - Block grants
  - Pure Michigan campaign
  - Project GREEN

# Strategies for Growth

- Check-offs
  - Collects funds through a “checkoff” mechanism
  - Uses these funds to broadly promote and do generic research on that particular commodity.
- Strengths
  - Common and consistent
- Weaknesses
  - What rate?
  - Collective action problem





# Strategies for Growth

- Block grants, ex. MDARD Specialty Crop Block Grant Program
  - “...awards funds to projects to enhance the competitiveness of Michigan specialty crops, which include fruits and vegetables, tree nuts, dried fruits, horticulture, and nursery crops.”
- Strengths
  - Awarded within the state (\$100,000 max)
- Weaknesses
  - Requires reimbursements and uncertainty

# Strategies for Growth

- Pure Michigan Campaign
  - Straightforward local food marketing
  - Michigan hops labeling?
- Strengths
  - Michigan-centric
- Weaknesses
  - Michigan-centric

PURE *M*ICHIGAN®

# Strategies for Growth

- Project GREEN
  - MSU Internal Grant Program
  - Applied Research, Basic Research, Extension or Seed Grants

Project **GREEN** 

- Strengths
  - Could be used to leverage toward other projects
- Weaknesses
  - Smaller funding (\$40,000 per year)

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**U N I V E R S I T Y**



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