

Demand for N.C. Seafood & the Commercial Industry's Economic Impact on the State

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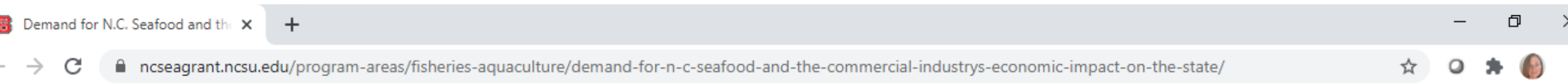
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Highlights

- Consumer demand for N.C. seafood appears strong across the state.
- North Carolina's wild-caught seafood industry contributes nearly \$300 million in value and 5,500 jobs to the state's economy.
- Consumers have a preference for seafood like shrimp and flounder from North Carolina and U.S. sources over foreign products, which may result in a price premium in certain markets.
- The commercial industry has opportunities to increase its market share through targeted marketing, home-preparation guidance, new supply chains and prepared-seafood meals.

Results available here:
go.ncsu.edu/NCSeafoodDemand



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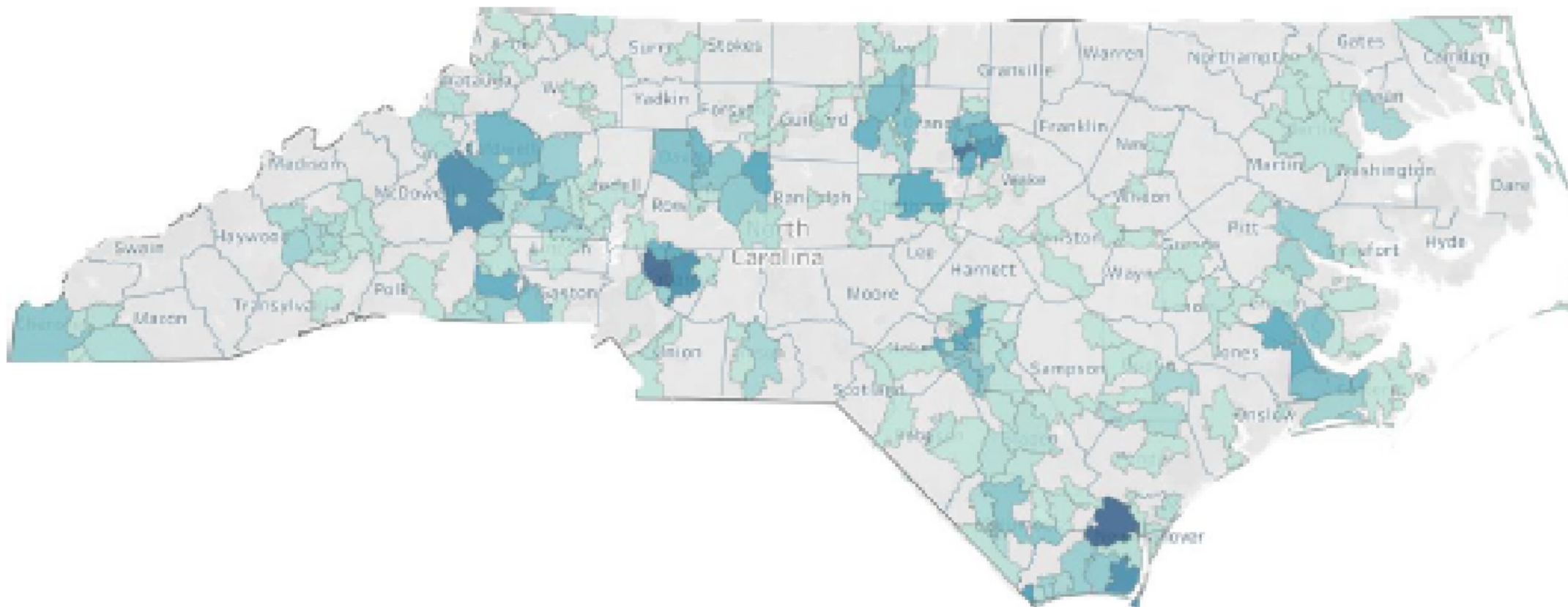
New research published in 2021 considers the impact of commercial fisheries on local economies and the state overall.

Consumer Demand for N.C. Seafood

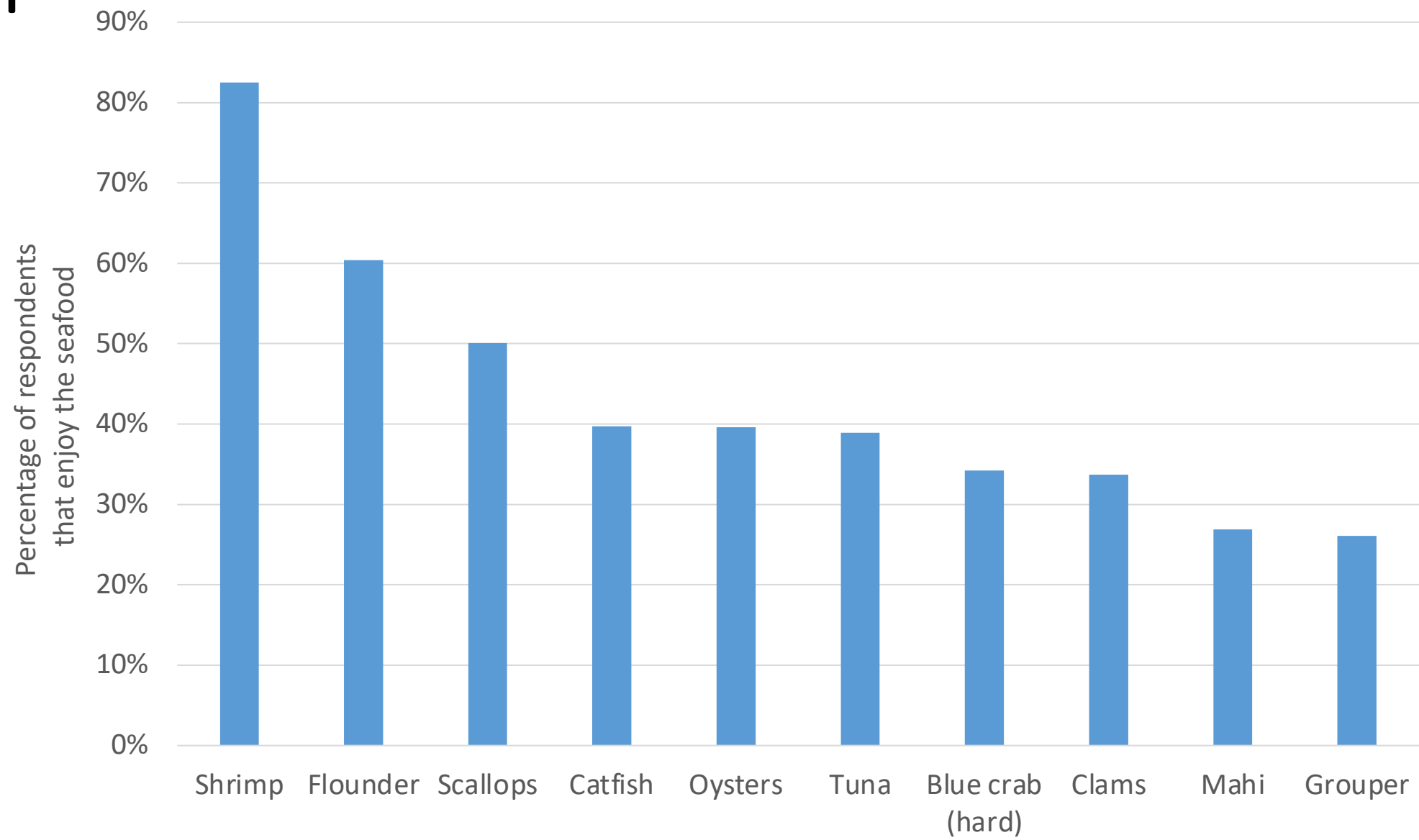
Survey of 1,600 N.C. residents who eat seafood to determine:

- How often do N.C. consumers eat seafood at home? At a restaurant?
- Where do N.C. consumers primarily purchase seafood? Grocery stores, restaurants, seafood retailers, or farmers markets?
- Are N.C. consumers aware of the origin of the seafood they eat?
- How do N.C. consumers' perceptions of seafood vary based on geographic source of product, environmental perceptions, and aspects related to quality or freshness?

Survey Respondents by Zip Code



N.C. Seafood (Top 10) Enjoyed by Survey Respondents



Seafood Choice Experiment

- Determines respondents' willingness-to-pay (WTP) based on price, product origin, and sustainable and wild-caught labeling.
- Applies lessons from discrete choice experiments.
- Crafted for shrimp and flounder.

Seafood Choice Experimental Design

Attribute	Levels for shrimp	Levels for flounder
Origin	China, Louisiana, North Carolina	Iceland, Florida, North Carolina
Sustainable label	No, Yes	No, Yes
Wild-caught label	No, Yes	No, Yes
Price	\$7, \$11, \$13, \$15, \$19 per pound	\$7, \$11, \$13, \$15, \$19 per pound

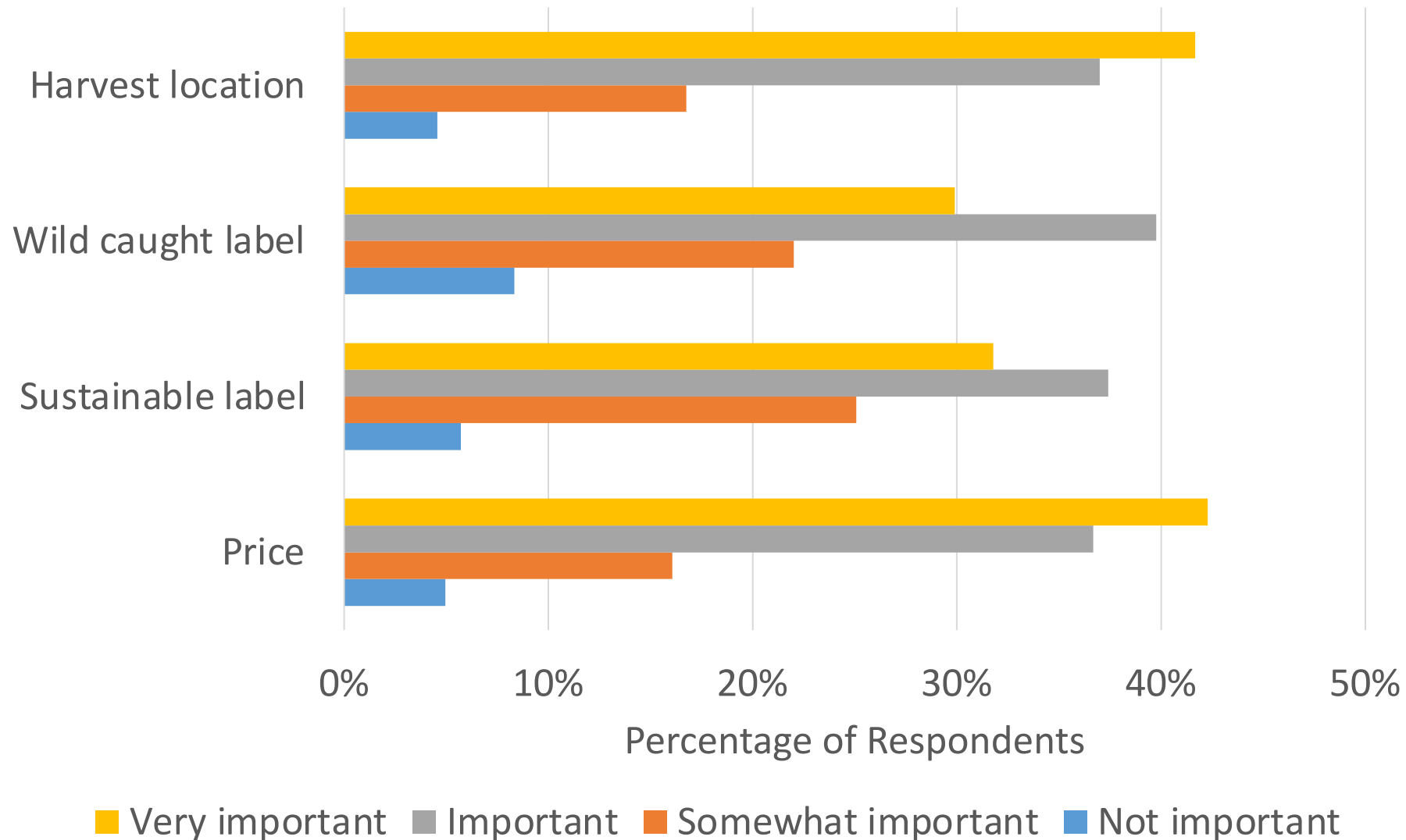
Imagine you are at the grocery store seafood counter. You are deciding whether to purchase **shrimp**. The shrimp are large in size, which means there are 21-25 shrimp per pound. You have two options that differ by the information on their labels:

- Harvest location: State or country of origin
- A wild-caught label confirms the seafood was caught in open waters, not farmed
- A sustainable seafood label confirms the seafood has been harvested by fishermen who follow rules that conserve fish populations and protect the habitats they live in
- Price (before taxes)

Which shrimp product would you purchase, or would you purchase neither?

- ☐ Shrimp A: Product of China, Sustainable Seafood, Wild-caught Seafood, \$11 per pound
- ☐ Shrimp B: Product of North Carolina, \$11 per pound
- ☐ Neither

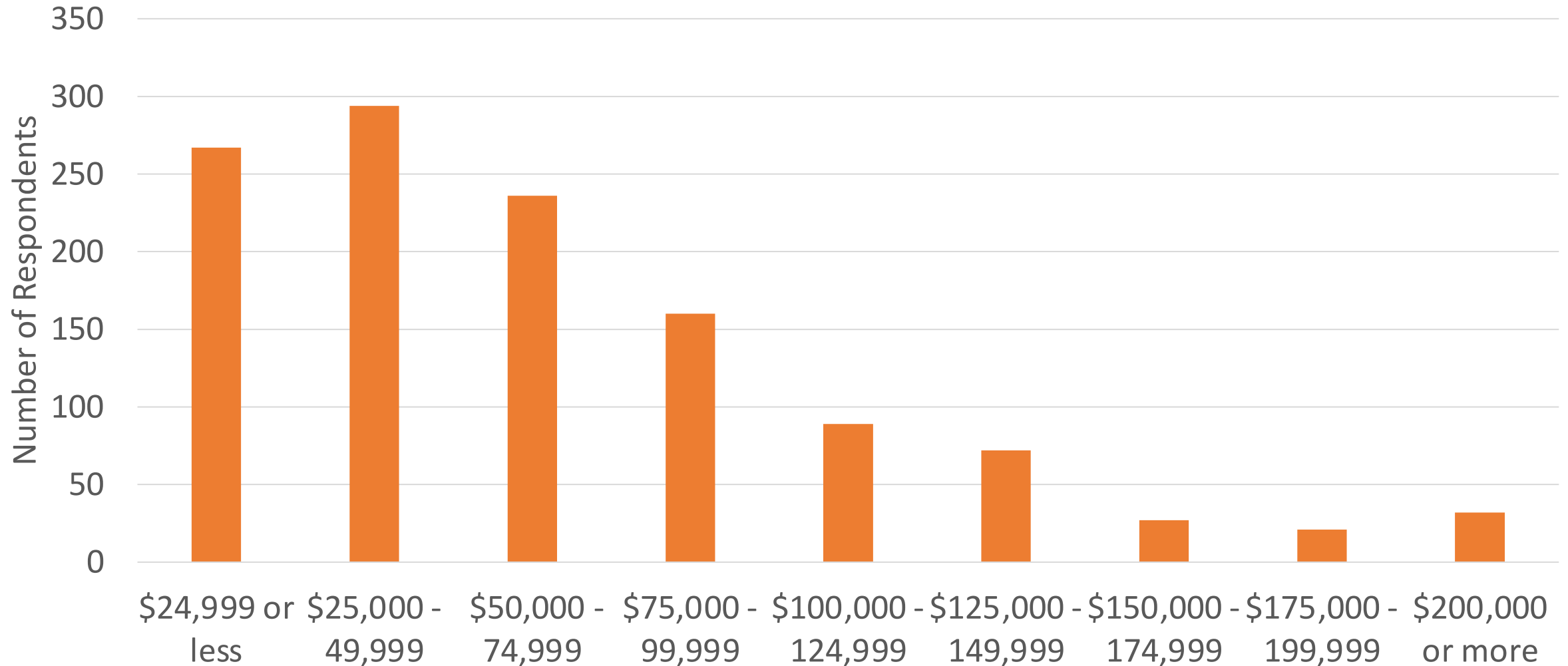
How important was each shrimp attribute, according to respondents?



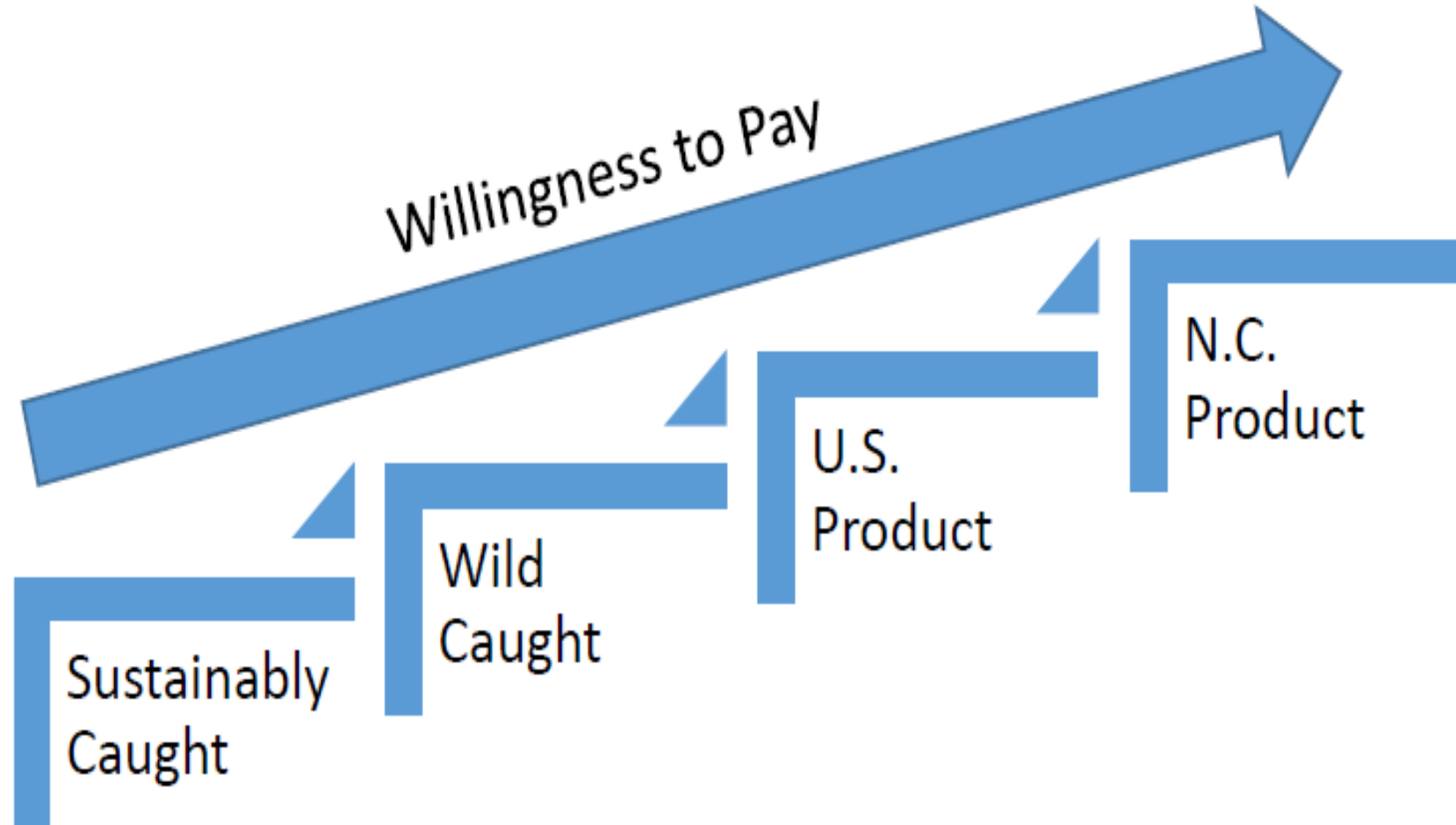
Seafood Choice Experiment Findings

- Wild-caught and sustainable labeling may permit premium pricing in select markets.
- WTP for N.C. shrimp: \$25 per pound; WTP for Louisiana shrimp: \$18 per pound; WTP for Chinese shrimp: \$5 per pound.
- WTP for N.C. flounder: \$31 per pound; WTP for Florida flounder: \$20 per pound; WTP for Iceland flounder: \$15 per pound.
- Price also had a strong influence on purchase intent. Why?

Household Annual Income of Survey Respondents



Willingness to Pay by Product Attribute



Lessons from Choice Experiment

- Consumers' perceptions of fair pricing are influenced by multiple factors.
- Price was a prime factor influencing respondents' purchasing decisions.
- Pricing results from our models cannot be generalized to all N.C. seafood markets.
- Understanding the purchasing behavior of a core group of customers is integral to any pricing strategy.

Where Consumers Purchase Seafood

- 41% of respondents buy seafood at grocery stores.
- 31% buy seafood at restaurants.
- 18% buy seafood at seafood retail outlets.
- 7% buy seafood at farmers markets.

Other Survey Findings

Respondents agree or strongly agree:

- Purchase dollars should support the livelihoods of N.C. fishermen.
- Where seafood is harvested in the world matters.
- Damaging impacts on the environment can be reduced by purchasing N.C. seafood.
- Processors should comply with rules that ensure seafood's safety.
- Fishermen should follow state and federal rules that conserve fishery resources.

2008 Consumer Survey by UNC-Chapel Hill

91% of respondents would buy N.C. seafood over imports if given a choice. *Why?*

- **Local seafood is higher in quality** (98% of respondents).
- Marine stocks are managed for continuity by state and federal regulators (79% of respondents).
- Processors comply with state and federal rules that protect the safety of local seafood (87% of respondents).
- **Purchasing local seafood supports the livelihoods of commercial-fishing communities** (94% of respondents).

2010 Consumer Survey by UNC-Greensboro

- 86% of respondents wanted greater access to N.C. seafood where they lived inland from the coast.
- 78% of respondents said branding seafood as harvested or landed in the state would positively influence their purchase decision.

Other Survey Findings

Taste appeal is the primary reason people eat seafood. Other reasons:

- omega-3 fatty acids;
- priced comparable to beef, poultry, and pork;
- easy to cook at home;
- good source of important vitamins and minerals;
- lower caloric content compared to beef, poultry, and pork.

Other Survey Findings

- Recipes were most desired for cooking seafood at home.
- Nearly half of respondents would purchase heat-and-serve seafood meals.
- Nearly 43% would purchase ready-to-serve seafood meals.
- Nearly 41% would purchase meal kits.

Sea Grant Research (2017 to 2020)

- Access to N.C. seafood means preparing home meals with ***fresh*** products.
- ***Recipes*** are the most desired enhancement for preparing seafood at home.
- Marinersmenu.org offers kitchen-tested recipes.
- Meal kits: Consumers want to select ***fresh*** seafood and non-seafood ingredients at a single retail venue.
- Demand for ready-to-cook and ready-to-eat seafood meals is more limited than national market research suggests.

Recommendations

We are grateful to John Aydlett of the N.C. Department of Agriculture and Scott Baker and Sara Mirabilio of N.C. Sea Grant for their contributions to this section.

Product

- Seafood is flavorful and promotes good health.
- Stakeholders follow regulations that conserve limited fishery resources.
- N.C. seafood is safe to eat.
- Small “carbon footprint.”

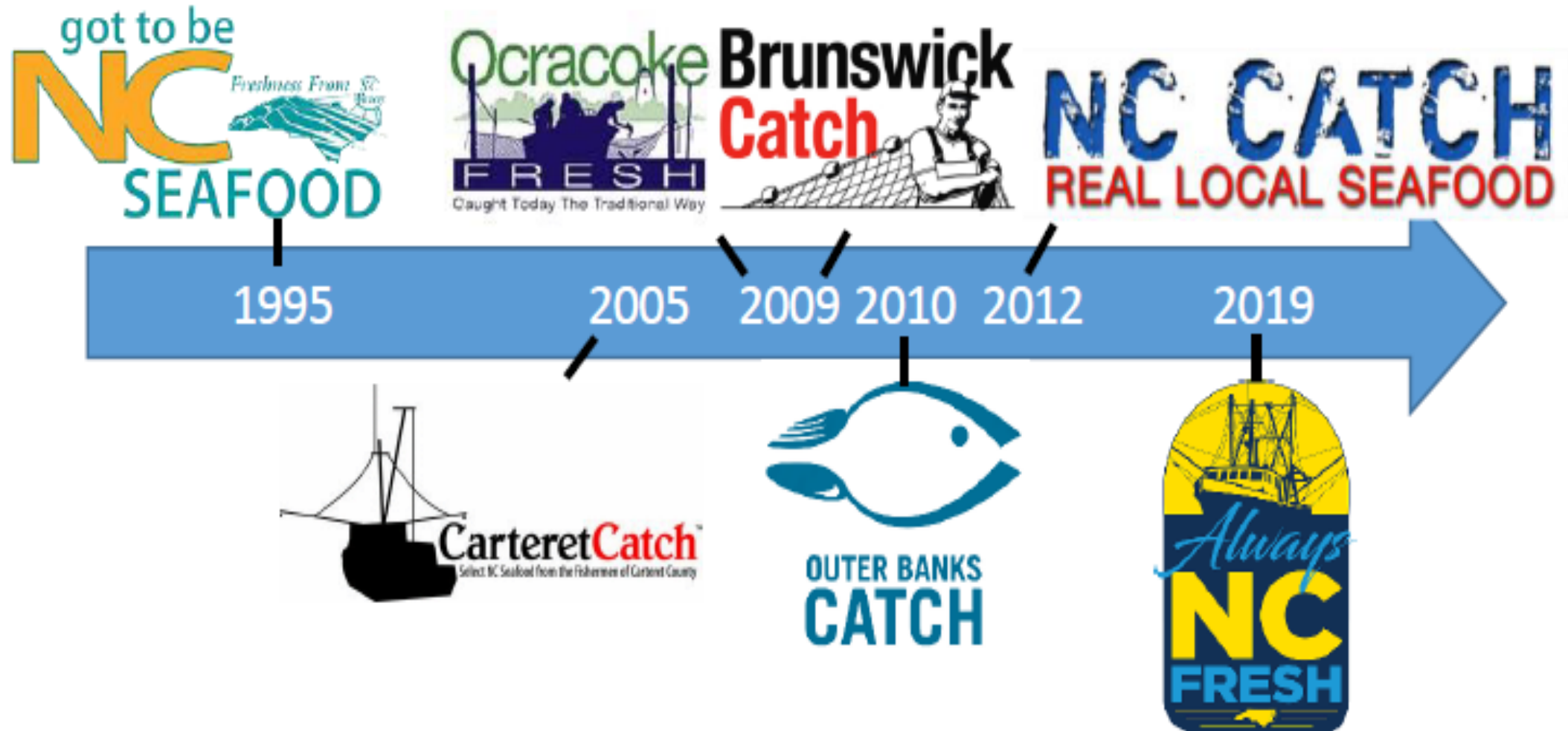
Place

- Availability of N.C. seafood at grocery chains decreases as stores become more distant from the coast.
- Seafood managers' knowledge of seafood decreases as stores become more distant from the coast.
- Construct at least one processing and cold-storage aggregation facility on the coast (2013 report by ECU College of Business and Sea Grant).
- Build a centralized distribution operation farther inland from the coast (2013 report by ECU College of Business and Sea Grant).

Price

- Grocery chains have a uniform supply of seafood due to imports.
- A 2013 study by the ECU College of Business and Sea Grant found little price variation among seafood products anywhere in the state.
- Price *is* a prime determinant of purchase intent.
- Does offering N.C. seafood through major grocery chains make strategic sense? We recommend more research here.

Promotion



Promotion

Industry's flagship brand should have broad consumer recognition and recurring funds to support marketing.

Brand management requires people with marketing and digital expertise who understand the N.C. commercial fishing industry.

Transparency in Marketing

- Many consumers care where their seafood is harvested, but....
- Many consumers want access to seasonal species year round.
- Will N.C. consumers buy from N.C. producers when some species originate beyond the state's borders?
- Reestablishing an annual meeting to address the opportunities and challenges of expanding markets for N.C. seafood.

Questions?