The Tale of Two Food Supply Chains:
Exploring the Emerging Bimodal Structure of U.S. Food and Beverage Manufacturing

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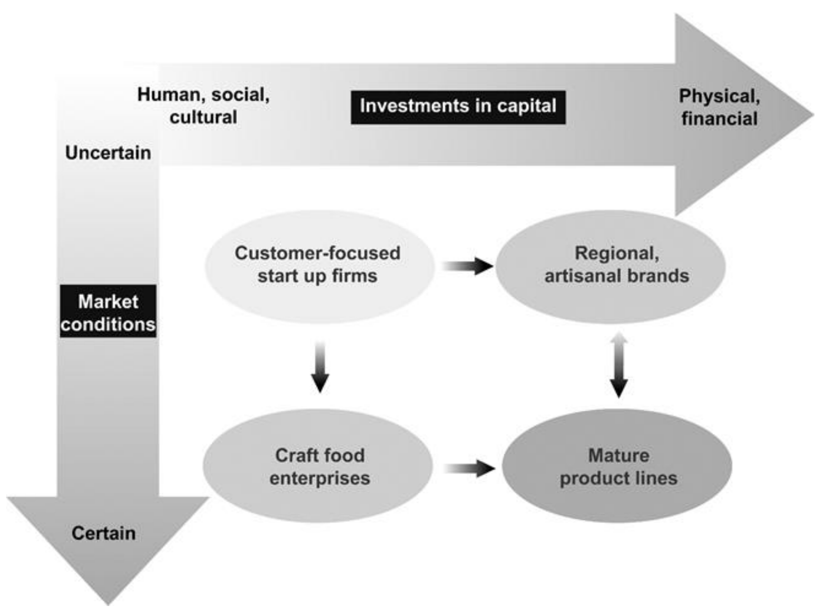
- There are a number of competitive strategic positions emerging in the food manufacturing sector
- Consumer trends and new competitive factors have resulted in a bimodal structure in a number of food and beverage subsectors, several of which are presented as case studies here
- Such restructuring may provide market access and economic development opportunities

Consumers continue to show strong interest in locally-produced, niche and artisanal food brands, but even so, the level of consolidation in national food brands persists. In essence, the steep rise in microbreweries within a sector formerly dominated by a handful of brewers may be a trend mimicked in the food industry, resulting in a bimodal market among food manufacturers. For example, the growing demand for healthier, simpler, or allergen-free versions of a variety of food products may also fuel innovation, with some brands seeking to target buyer segments who desire healthful and transparent regional brands.

There are a number of consumer, supply chain and economic development implications that would arise if large, national firms with relatively stable growth coexist with entrepreneurial smaller firms that are more regionally dispersed across the U.S. Even if acquired and integrated into larger brand portfolios, these regional brands may still maintain business models and site establishments in their home locales, if it is part of their comparative advantage. For example, Justin Gold, founder of Justin's Nut Butter, retained both control and the firm's original Boulder, Colorado, headquarters when the company was acquired by Hormel in 2016 for $286 million. Gold originally envisioned the specialty, organic nut butter as a squeezable energy bar/supplement for mountain bikers around Boulder but his market quickly expanded when consumers used the individually-packaged servings for portion control and as a trial for Justin's more expensive nut butters (Bronner, 2018).

Why might we see the structure of food manufacturing change? A recent Deloitte report on consumer trends posits that brand/product portfolios designed for economies of scale may no longer seem relevant (Conroy et al., 2015). A conceptual model of food manufacturing segments assuming they face different market environments and make different strategic investments is made (right). Although each axis is a continuum, and this is only a subset of market and factors, it presents a new approach to segmentation across food supply chain enterprises.



- On the vertical axis, the market environment is defined in terms of the relative certainty of customer demand, costs and competition, and may vary depending on how rapidly consumer preferences (and ultimately, retailer interests) change.
- On the horizontal access, strategic capital investment decisions can vary. Investments in physical and financial capital to achieve economies of scale and technical efficiency are one end of the continuum while investments in human, social, and cultural capital, related more to "soft skills" are better suited to customer- and employer-focused entrepreneurs who seek to capture market share quickly within evolving niches.

Resulting Food Manufacturer Strategic Positions:

1) Mature Product Lines emerge when certain and stable market conditions catalyze few product line updates, and the need for significant physical manufacturing capacity may serve as an entry barrier to new or small firms
2) In contrast, Customer-Focused Start ups may see uncertain/changing market conditions as a comparative advantage where consumers value unique offerings, and invest in the human, social, and cultural capital/skills to innovate new products.
3) Some enterprises stay small, with multiple pathways to growth: start-ups may mature in their chosen locale as Craft Food Enterprises and never diversify into more products or brands, and never choose to serve the national market (where margins may tighten).
4) Another pathway to innovation for national brand lines is to invest in, acquire or merge with smaller start-ups seeking growth to establish Regional, Artisanal Brands. This allows the national brand to be nimble without investing in "riskier" product R&D.

The Changing Structure of Food Manufacturing

Over the past two decades, changing strategic positions likely have led to a changing number and size of food manufacturers if there are different consumer trends and competitive forces at play. The figures below present employment and establishment shares by establishment size categories (1-9, 10-99, 100-499 and 500 plus) for both 1991 and 2012, including four key subsectors (animal slaughter, bakeries, snack food and breweries) for comparative purposes.

Note the animal slaughter sector had stable/declining establishment numbers, with little change across time in terms of the share of establishments and employment that is reported by employers of certain sizes (similar to farms, there are more small employer establishments, but the majority of employment is reported by the largest category). The animal slaughter industry's stability in "employment structure" serves as an interesting baseline. Bakeries and bread manufacturers were never as consolidated as animal slaughter, but in 2012 there are fewer large plants and small- and mid-size bakeries report a much greater share of the employment. Bakeries may capture value from being freshly prepared nearby their consumers, requiring some share to remain as craft enterprises or simply grow into a regional brand rather than a mature product line, other industries may catalyze start-ups to remain viable.

For breweries, employment was more consolidated than bakeries in 1990, and "mid-size" manufacturers employing between 10 and 500 workers increased by almost five-fold even by 2012 even though the share of establishments in the sector remained stable. The mid-size categories in this sector are more pronounced, perhaps signaling a transition from the start-up segment as firms transition to a craft or regional brand. In contrast, snack foods reported increased establishment numbers, but the consolidation of employment is more pronounced in 2012: there may be more start-ups with few growing or transitioning to a viable size.

Implications for Markets and Communities

Changing dynamics in the food supply chain may have important market access, economic and employment implications, especially in rural America where food manufacturing is relatively important to the economy and serves as an integral link between production agriculture and urban markets. The response of food and beverage manufacturing to consumer demand and changing competitive forces is resulting in a bimodal industry structure—with both a set of large, stable, national firms and a set of more geographically dispersed, young and small firms.

In a food industry concerned about consolidation among raw agricultural ingredient buyers or communities with a reliance on a few large employers, a reversal of concentration may be welcome. The agricultural sector should seek out and collaborate with those food and beverage entrepreneurs who are positioned in the locale of their target customers and nimble enough to adapt to changing consumer preferences: local raw inputs will likely benefit from increased demand. For communities, the increasing share of small establishments hiring 1-100 employees may translate to improved economic opportunities.

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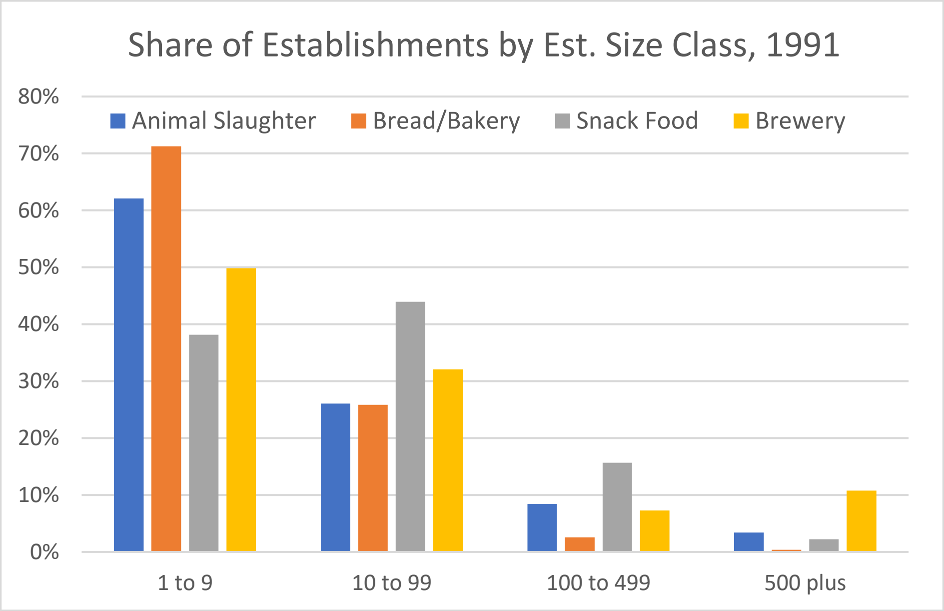
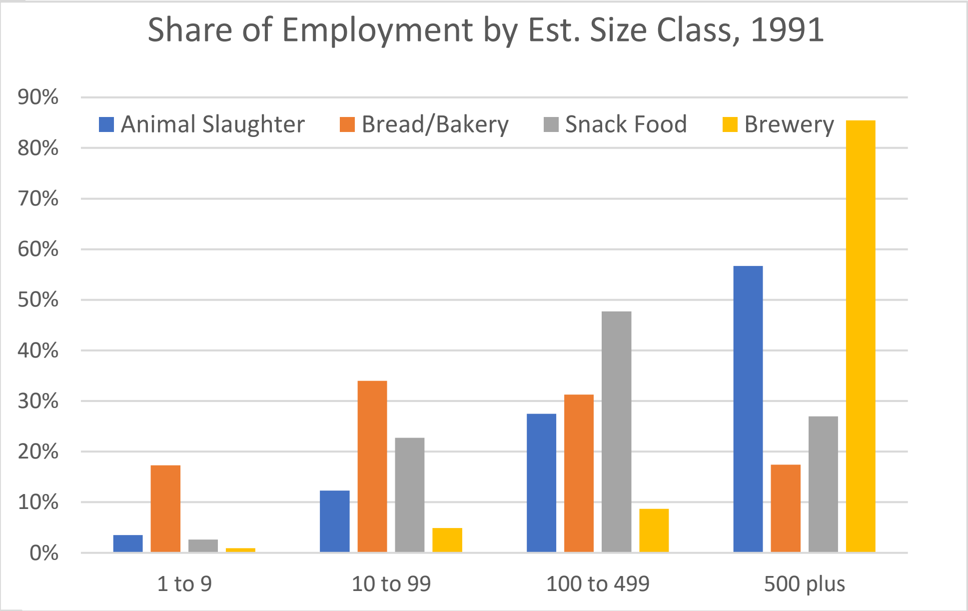

Share of Establishments by Est. Size Class, 1991
80%
70%
60%
50%
40%
30%
20%
10%
0%
Animal Slaughter
Bread/Bakery
Snack Food
Brewery
1 to 9
10 to 99
100 to 499
500 plus


Share of Employment by Est. Size Class, 1991
90%
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50%
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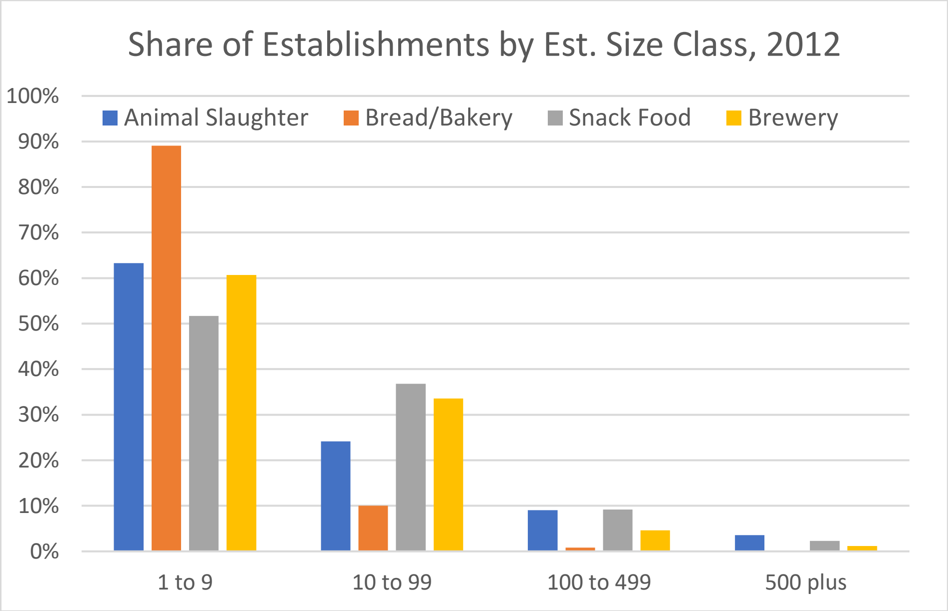
Share of Establishments by Est. Size Class, 2012
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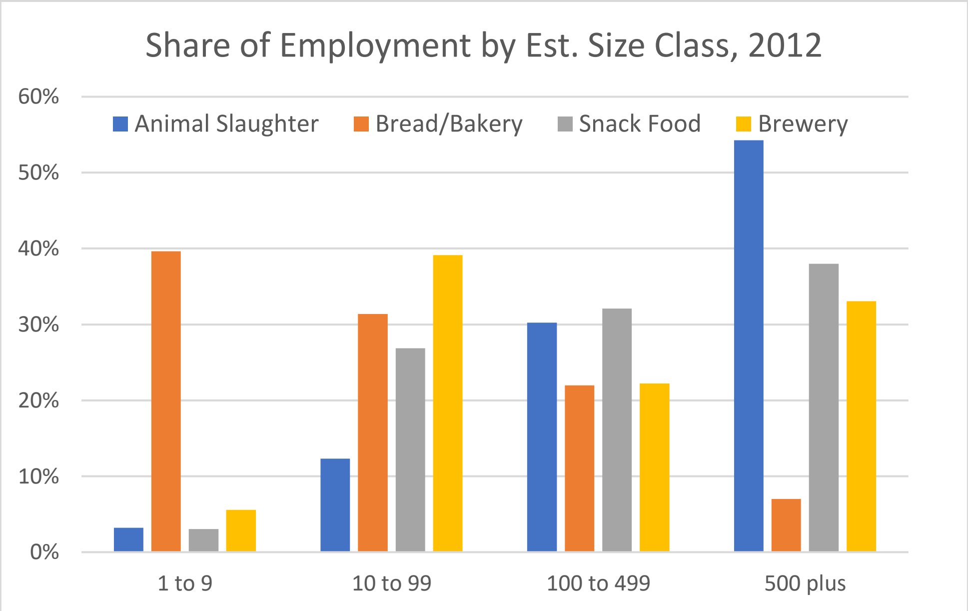
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