

# **The Impact of Labor Standards on Restaurant Business Practices in Boston, MA**

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B.A. in Anthropology  
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## **Abstract**

My research seeks to understand the impact of labor standards, or labor regulations, on restaurant business practices. I replicated a survey of full-service restaurants in Boston that was originally administered by T. William Lester in the Research Triangle Park and San Francisco (2016). The survey asked restaurant employers how they recruit, retain, and compensate employees and, particularly, servers and cooks. I hypothesized that, following the theory of dynamic monopsony, wage variation and “high road” practices among restaurants in Boston, with middling labor standards, would fall somewhere between the Research Triangle, with no locally-enacted labor standards, and San Francisco, with the highest labor standards in the country. For servers, I found that wage variation in Boston was similar to the Research Triangle likely because both regions have a tipped minimum wage that is lower than the regular minimum wage. For cooks, the wage variation could not be explained by dynamic monopsony. At the time of study, Boston had the highest regular minimum wage, but it had more variation in wages and a much higher average wage than the other regions. My results can likely be explained by labor supply. A linear regression found that, at a 99% confidence level, restaurants that could easily hire cooks paid \$2.33 more than restaurants that had difficulty hiring cooks, which suggests that some restaurants offer higher wages to fill positions and retain workers. I also found that a substantial portion of restaurants (40%) follow high road practices, but there are discrepancies between my data and a recent survey of Boston area restaurant employees (Reyes and Rodriguez 2016a). Ultimately, I recommend that the City of Boston or an appropriate intermediary craft a career ladder strategy for current restaurant workers and city residents in collaboration with local businesses that ensures that the businesses will offer high quality jobs to newly-trained employees.

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## **Chapter 1: Introduction**

My research on the restaurant industry in Boston, Massachusetts was inspired by a broader interest in the service industries that predominantly offer low-wage employment. In this introduction, I provide an overview of the challenges presented by low-wage work in the United States. I then discuss the ways in which the restaurant industry epitomizes these challenges and share statistics on the local industry in Boston. I also introduce my research questions and methodology and review the organization of this report.

My research adds to a small, but growing number of studies that eschew aggregate data as a principle mode of inquiry on the impacts of labor standards (and, particularly, the impacts of increases in the minimum wage). Instead, these studies, like mine, use surveys and interviews to gain insights into the variety of employment strategies at restaurants. For this project, the rising minimum wage in Massachusetts and the possible “labor shortage” in the Boston restaurant industry provide the context for my questions on business strategy and, especially, on the recruitment, retention and compensation of employees. Through a survey of restaurant owners and managers, I characterize restaurant employment practices in Boston and compare my results to other regions (Lester 2016). Ultimately, I seek to contribute to our understanding of how restaurant businesses can improve wages and working conditions for their employees; and how stakeholders in the Boston region and elsewhere can address the growth of low-wage service industries in the interests of the local residents that the businesses employ.

### **Low-Wage Employment in the United States**

Low-wage employment comprises a significant portion of all employment opportunities in the United States with, of course, a concentration of employment in urban areas. If we define low-wage as a wage that meets the poverty threshold for a family of two, which is calculated as three times the cost of the minimum amount of food that the family needs, then 13% of the employed population, or 15 million people in America, earn the low wage of \$9.25 per hour or less (Fusaro and Shaefer 2016). If we define it as 125% of the poverty threshold for a family of three, or \$13.50 per hour, then 30% of the employed population, or 36 million people, earn low wages (Fusaro and Shaefer 2016). This segment of the workforce is large and growing larger. Since 2000, the growth in low-wage and low-skill employment has outpaced the growth in both middle- and high-skill employment (Autor 2010).

The low wages are not livable wages. At \$9.25 per hour, or three times the cost of food for a family of two, the family must purchase, not only food, but also housing,

transportation, health care, and everything else. There are few places in the country where the basic costs of living are low enough for that wage to suffice. Unsurprisingly, nearly 20% of the workers that earn \$9.25 or less per hour also receive public subsidies, such as food stamps and health insurance, to assist with basic costs (Fusaro and Shaefer 2016). While earning such low wages, workers can hardly provide for themselves and their families, and they certainly cannot thrive.

Low-wage employment is further cheapened by the conditions of the work. Scholars have followed the growth of “precarious” or “contingent” work that is subcontracted, temporary or unpredictable and sometimes hazardous (Kalleberg 2014; Katz and Krueger 2016). Marc Doussard describes exploitative workplace cultures in which employers “make workers toil harder, work faster, skip lunch, and reflexively say yes to any request from a boss” (Doussard 2013). But he writes that “the primary tactic that firms ... use to suppress labor costs is outright legal evasion – the payment of subminimum wages, the underpayment of overtime, and the nonpayment of agreed-upon compensation levels for work performed” (Doussard 2013). A survey of more than 4,000 workers in low-wage service industries in three major cities found that, just in the week prior, 26% had been paid less than the minimum wage and 76% of those who had worked overtime were underpaid (Bernhardt et al 2009).

### **Low-Wage Employment in the Restaurant Industry**

The restaurant industry can be characterized in all of these ways. The industry is large and growing, and the work is often low-wage and performed under difficult and sometimes exploitative conditions. Both locally and nationally, the restaurant industry has grown significantly in recent years. Between 2000 and 2014, it added nearly 2.5 million jobs nationwide (U.S. Census County Business Patterns). Locally, in Suffolk County, which includes Boston and three smaller municipalities, the industry added approximately 12,000 jobs. Relatively, employment in the industry has grown faster in Suffolk County than it has across the nation, increasing by 47% over fifteen years, as compared to 33% nationwide. And within Suffolk County, the Accommodation and Food Services sector, which includes the restaurant industry, grew more than any other sector between 2005 and 2014. (For a more detailed analysis of the industry’s growth, please refer to the Appendix.)

According to industry analysts, the growth is tied to increases in consumer spending and particularly that of wealthy consumers. People with incomes in the top quintile (or top 20% of income-earners nationally) make 40% of all purchases from the restaurant industry nationwide (Alvarez 2016). In Suffolk County, the number of families with a combined income greater than \$100,000 per year has grown in tandem with the restaurant industry. In 2005, there were approximately 28,000 such families (American Community Survey). By

2014, there were 45,000, which represents an increase of 62% over ten years (American Community Survey).

Despite increasing employment opportunities, wages in the industry remain low. The overall sector, Accommodation and Food Services, has the lowest wages of any sector in the United States (Occupational Employment Statistics 2016). In fact, tipped restaurant workers often earn a subminimum wage, which can be as low as \$2.13 per hour, though tips are supposed to raise it to at least the regular minimum wage.

The combined hourly wages for food preparation and serving occupations at the national, state and regional level are listed in Table 1.1, below. The wages in metro Boston are higher than the state and country, but are still not “living” wages for the region. The Massachusetts Institute of Technology’s Living Wage Calculator computes that a wage of \$13.02 per hour is just sufficient to purchase the minimum of goods and services that an individual needs to remain healthy and independent while living in metro Boston (Glasmeier 2017). For someone with a child, the living wage is \$27.31 per hour (Glasmeier 2017). Because the gap between the living wage and the actual median wage is substantial, especially for families with children, many restaurant workers rely on public assistance for basic necessities. In the Boston area, 14% of restaurant workers receive food stamps and 27% receive publicly-subsidized health insurance (Reyes and Rodriguez 2016a).

**Table 1.1: Wages for Food Preparation and Serving Occupations**

	<b>Median Wage</b>	<b>Mean Wage</b>
<b>United States</b>	\$10.01	\$11.47
<b>Massachusetts</b>	\$11.43	\$13.40
<b>Metro Boston</b>	\$11.87	\$14.09

**Source:** U.S. Bureau of Labor Statistics Occupational Employment Statistics, May 2016

The conditions are often difficult in restaurants, though in different ways for “front of house” workers, which include hosts, servers, bartenders, and bussers, and “back of house” workers, which include chefs, cooks, and dishwashers. The Restaurant Opportunities Centers United, or ROC United, recently surveyed 500 restaurant workers in the Boston area to learn more about employment conditions in restaurants and other issues (Reyes and Rodriguez 2016a). They found that many workers cope with unpredictable schedules, with 35% reporting that their schedules change on a weekly basis (Reyes and Rodriguez 2016a). Front of house staff, in particular, are more likely subject to demand-based scheduling. The work can also be quite stressful for front and back of house staff, especially when demand is high during the lunch or dinner rush, and even more so if the restaurant is understaffed.

Of the surveyed workers, 81% reported working when the restaurant was understaffed, and 78% reported doing multiple jobs at once (Reyes and Rodriguez 2016a). The work is also dangerous. Back of house workers are more likely to suffer burns, cuts, and slips; while front of house workers are more likely to suffer chronic pain (Reyes and Rodriguez 2016a). Overall, 54% of the workers reported experiencing at least one of those work-related injuries (Reyes and Rodriguez 2016a).

The rate and type of labor violations also differ between front and back of house staff because of the different positions and wage structures as well as the different characteristics of the workers themselves. For their report, ROC United also analyzed American Community Survey data to better characterize the restaurant industry's workforce in the Boston area (Reyes and Rodriguez 2016a). They found that front of house staff are more likely to be white and female and to have completed high school or college. Front of house staff were also more likely to report that they have experienced sexual harassment, whether from customers, supervisors or coworkers (Reyes and Rodriguez 2016a). When front of house staff experience wage theft, it is likely because their tips, together with the subminimum wage, have not reached the regular minimum wage, or because their tips have been misappropriated by supervisors.

Back of house staff are more likely to be male and non-white and to have less formal education than front of house staff (Reyes and Rodriguez 2016a). They are also more likely to be immigrants (Reyes and Rodriguez 2016a). According to the American Community Survey data, 32% of restaurant workers in the Boston area are foreign born and 19% lack citizenship; but this is likely an underestimate because unauthorized immigrants are less likely to report their status than authorized immigrants or citizens (Reyes and Rodriguez 2016a; Jayaraman 2014a). In the back of house, staff are more likely to work overtime and not be compensated for it. Restaurants frequently pay back of house staff a single weekly rate; but many weeks, when you divide the rate by the number of hours actually worked, the hourly wage is lower than the minimum wage. The survey of service industries in major cities found that foreign born workers were twice as likely as U.S.-born workers to experience minimum wage violations; while a separate survey of the food system in the United States, including restaurants, found that foreign born workers were three times as likely to experience such violations (Bernhardt et al 2009; The Food Chain Workers Alliance 2012).

### **Research Questions and Methodology**

The statistics demonstrate that many restaurant businesses offer low wages and poor or exploitative conditions. But still some restaurants offer higher wages and better conditions. After all, the average wage for food service occupations in Boston is just over \$14, and, for example, though 35% of workers do not have a consistent schedule, at least

50% do. To distinguish between businesses that offer living wages and respectful work environments and those that do not, economic development practitioners often use the terms “high road” and “low road.” Though it seems like restaurants, which have low profit margins, would by necessity follow the low road, cutting costs wherever possible, prior studies of the industry demonstrate that restaurants can, at the least, increase wages. I discuss the studies in more detail in the next chapter, but, in general, restaurants can increase prices to cover increased wages, and increased wages can lead to reduced recruitment and training costs. For my thesis, I explore how labor policy can nudge restaurants towards high road business practices.

Perhaps the most prominent labor policy, with the most impact on wages, is the minimum wage, though other policies are certainly important. Hundreds of studies have examined the impact of the minimum wage, generally using aggregate datasets from the federal government or employment and payroll data from specific chain stores. Such data can detect changes in wages, employment levels, and turnover, but cannot reveal subtler business practices related to employee recruitment, training, or promotions, as examples. Several recent studies on employment in the restaurant industry have used phone and in-person surveys and interviews to deepen our understanding of restaurant business practices beyond aggregate data (Dube, Naidu and Reich 2007; Hirsch, Kaufman and Zelenska 2011; Haley-Lock and Ewert 2011; Haley-Lock 2012; Lester 2016). Of these, the study by T. William Lester offers perhaps the broadest set of questions and, importantly, two contexts for comparison with the restaurant industry in Boston. For his study, Lester surveys and interviews the owners and managers of full-service restaurants in the Research Triangle Park in North Carolina, including Wake, Durham, and Orange counties, which have no locally-enacted labor standards, and in San Francisco, California, which has the highest labor standards in the country.

**Table 1.2: Indicators by Region**

Indicators	RTP	SF	BOS	USA
Total Population	1,372,000	829,000	748,000	314,000,000
Total Employment	638,000	573,000	572,000	121,000,000
% Employment in Accommodation and Food Service Sector	11%	14%	10%	11%
% Employment in Professional, Technical and Scientific Sector	12%	17%	11%	7%
Total Full-Service Restaurants	1,100	1,900	900	239,000

**Sources:** Population estimates based on American Community Survey 2014, 5-year estimates. Employment and establishment estimates based on U.S. Census County Business Patterns 2014. RTP refers to Durham, Orange, and Wake counties, NC; SF refers to San Francisco County, CA; and BOS refers to Suffolk County, MA.

My research adds data from Boston, Massachusetts. According to the indicators in Table 1.2, Boston is similar to the other regions; but the city follows a different set of labor standards. On the next page, Table 1.3 compares the labor standards in each region. The Research Triangle follows federal policy for both the regular and tipped minimum wages and for sick leave and health care, which are regulated by the Family Medical Leave Act and the Affordable Care Act, respectively, and which only apply to businesses with more than fifty employees (thus excluding many restaurants). San Francisco follows a locally-enacted minimum wage that applies to both regular and tipped workers. At the time of study, the wage was \$10.74 per hour, though by the end of the study period, a new ordinance had passed to increase the minimum wage to \$15 per hour by 2018. San Francisco also passed a Health Care Security Ordinance that requires employers to provide health insurance or pay \$2.33 per hour per worker towards the city’s low-cost public health care system. For sick leave, both the city and state require that, at a minimum, all employers allow employees to accrue one hour of sick time for every thirty hours worked (up to five days per year).

The city of Boston follows state law for both the regular and tipped minimum wage and for sick leave; while it follows federal policy for health care coverage. The regular minimum wage and the sick leave policy are similar to the standards in San Francisco, while the tipped minimum wage and the health care policy are similar to those in the Research Triangle. At the time of study, in January 2017, the regular minimum wage in Massachusetts had just reached \$11 per hour. This was the third and last in a series of \$1 increases over three years that had been mandated by the state legislature. The tipped minimum wage increased simultaneously, but only by 25 cents each year.

**Table 1.3: Labor Standards by Region**

<b>Labor Standards</b>	<b>RTP</b>	<b>SF</b>	<b>BOS</b>
<b>Minimum Wage</b>	\$7.25	\$10.74	\$11
<b>Tipped Minimum Wage</b>	\$2.13	\$10.74	\$3.75
<b>Paid Sick Leave</b>	Family Medical Leave Act	1 hour of paid sick leave for every 30 hours worked.	1 hour of paid sick leave for every 30 hours worked.
<b>Health Insurance</b>	Affordable Care Act	Health Care Security Ordinance	Affordable Care Act

For his study, Lester collected fifty surveys and interviewed fifteen restaurant owners and managers in both the Research Triangle and San Francisco. In Boston, I used a modified version of Lester’s survey and completed several interviews with restaurant owners and managers and other key informants. For the survey, I shortened the length, but retained the questions that were important for comparing the three regions. I also added a few

questions to better understand how restaurants responded to the recent increases in the minimum wage and to better characterize the restaurant “labor shortage” that has received attention in the local media.

The data from the surveys allows me to contribute answers to three distinct research questions. First, how do restaurant employment practices vary between regions that have different labor standards? And specifically in Boston, what are the patterns in employment practices? Second, how have restaurants in Boston adjusted to the recent increases in the minimum wage? For example, have restaurants adopted a surcharge? And third, what is the labor market for restaurant positions in Boston? How have both labor standards and labor supply impacted business practices in the region?

### **The Organization of the Report**

In the next chapter, Chapter 2, I develop hypotheses for each of the research questions. To summarize, I hypothesize that restaurants in Boston, following labor standards that are more stringent than the Research Triangle but less so than San Francisco, will be more likely to choose employment practices that characterize “high road” employers than those in the Research Triangle, but less likely than those in San Francisco. I also hypothesize that Boston will exhibit less variation in wages than the Research Triangle, but more than San Francisco. Regarding the local labor market, I hypothesize that the restaurants’ responses will be conflictual or inconsistent because the “labor shortage” is not a true shortage of potential workers, but rather a refusal by workers to accept the low wages and difficult conditions in restaurants.

In Chapter 3, I describe my research methodology in more detail, and in Chapter 4, I share my results. A key conclusion is that the labor market data does actually exhibit some patterns. In particular, more than half of the restaurants in my sample reported that they have difficulty hiring line cooks and that they experience frequent turnover among servers. But these restaurants, on average, offered less income to both cooks and servers than the restaurants that did not have difficulty filling cook and server positions. Another important finding is that many restaurants did not need to change their business models or strategies in response to the increases in the minimum wage in Massachusetts. And the restaurants that did adjust their strategies may have been more concerned with other issues, such as inflation and health care policy, than with the minimum wage.

Finally, in Chapter 5, I summarize my findings and share recommendations. I recommend a workforce development strategy that focuses on supporting career ladders within restaurants. I also discuss the importance of ensuring that the positions are high quality so that the investment in training leads to desirable and sustainable jobs.

## **Chapter 2: Hypotheses**

In this chapter I develop my hypotheses based on theoretical models and background research. I follow the competitive model of the economy and two variations, the monopsonistic and institutional models. Though problematic, they have guided much of the comparable research on the minimum wage and restaurant business practices. I begin with the monopsonistic model and its implications for businesses' responses to increases in the minimum wage and, especially, how businesses adjust the distribution of wages that they offer. I then discuss other responses suggested by the competitive model as well as the empirical research on those responses. Overall, the research guided by these models has found that increases in the minimum wage lead to less variation in wages both within and between restaurants; less turnover among employees; steady employment levels; and slightly higher menu prices. I then consider the institutional model and some of the research on more nuanced responses to higher labor standards, such as shifting costs from food inputs to employees, raising expectations for new hires, and experimenting with alternative compensation strategies. I end with a discussion of the local labor market and, particularly, the "labor shortage" narrative and debate; and I hypothesize that the shortage is just a narrative because ample labor supply exists in the Boston area.

### **Hypothesis: Wage Variation**

Since the minimum wage was first enacted as part of the Fair Labor Standards Act in 1938, researchers have completed hundreds of studies on its impacts (Belman and Wolfson 2014). Most of these have sought to understand the impact on employment levels because if, as neoclassical economic theory predicts, an increase in the minimum wage results in a decrease in employment, then minimum wage policies may adversely impact low-wage workers. In an important, but controversial study on the fast food industry in New Jersey and Pennsylvania, David Card and Alan Krueger found that an increase in the minimum wage did not result in significant employment losses and may have even led to increases in low-wage employment (1994).

More recent studies, that address the critiques of Card and Krueger's methodology, have also not found statistically significant changes in employment levels in places where the minimum wage increased (Dube, Naidu and Reich 2007; Dube, Lester and Reich 2010; Addison, Blackburn and Cotti 2012; Even and Macpherson 2013). To explain this, Card, Krueger, and others have further developed the theory of monopsony, which posits that the labor market is not perfectly competitive (but still follows most assumptions of the competitive model of the economy). Monopsony differs from monopoly in that "a buyer,

rather than a seller, has sufficient market power to set its own price” (Dube, Naidu and Reich 2007). Specifically, under monopsony, firms have enough market power such that they can set wages below what they could potentially pay their workers. Government mandates are, therefore, an effective way to raise wages and potentially increase employment “as workers’ increased willingness to take and stay in higher-paying jobs reduces vacancies and separations” (Dube, Naidu and Reich 2014).

Card, Krueger and others have adapted the traditional monopsony model to describe low-wage labor markets in which no single employer dominates, but smaller employers still offer wages below the “marginal product” of their employees and accept the resulting “frictions” of high turnover and unfilled vacancies (Card and Krueger 1995; Dube, Lester and Reich 2010; Schmitt 2013). They term this “dynamic” monopsony (Card and Krueger 1995). A major study by Dube, Lester and Reich, that replicates Card and Krueger’s original experiment, but greatly expands it, supports this model (2010). The researchers found that across the country increases in the minimum wage did not impact employment levels, but did significantly decrease turnover rates in restaurants (Dube, Lester and Reich 2010). This, and other studies with similar findings, bolsters the theory of dynamic monopsony and suggests that many restaurants offer “suboptimal” wages and accept high turnover (Fairris 2005; Howes 2005; Hall, Jacobs and Reich 2005; Dube, Naidu and Reich 2007). By increasing the minimum wage, these restaurants must offer wages similar to restaurants that offer “optimal” wages to decrease turnover and fill vacancies and, thereby, reduces the variation in wages between restaurants.

In addition to reducing the differences between restaurants, increases in the minimum wage reduce wage variation within restaurants. Several studies have shown that wages at restaurants increase on average in response to increases in the minimum wage, though more so at limited-service than at full-service restaurants (Dube, Naidu and Reich 2007; Addison, Blackburn and Cotti 2013; Dube, Lester and Reich 2010; Even and Macpherson 2014). This suggests that restaurants do not reduce the wages of higher-wage workers in order to meet the minimum wage requirements for lower-wage workers.

But do they increase the wages of higher-wage workers as a “spillover effect,” thus maintaining the prior wage distribution? A study on employment across industries in California, following increases in the minimum wage, found that the wages of “bounded” workers, or those whose wages were below the new minimum wage, increased significantly. Those whose wages were \$0.75 above the new minimum also experienced an increase, but those whose wages were \$1.50 above the new minimum did not (Reich and Hall 2001; Belman and Wolfson 2014). This phenomenon, in which wages only rise at the bottom of the wage scale and not at the top, thus reducing the difference between the lowest and highest wages, is often described as “wage compression.” Studies specifically on the restaurant industry have found similar results, in which wages increase on average, but more so for

lower-wage workers than higher-wage workers (Spriggs 1994; Hirsch, Kaufman and Zelenska 2011; Lester 2016). As a result, there is likely less variation in the wages offered at a given restaurant business, following an increase in the minimum wage.

In his study on the Research Triangle and San Francisco, Lester showed that there was less wage variation both within individual firms and among firms in San Francisco, which has a higher minimum wage, than in the Research Triangle, with a lower minimum wage (2016). He did this, first, by comparing the wages that are offered to servers. In his sample, 62% of restaurants in San Francisco paid all of their servers the tipped minimum wage, while in the Research Triangle 43% did. This signifies less variation in wages for servers both within and among restaurant businesses in San Francisco. He also compared the standard deviations from the means of the highest and lowest wages for the server, line cook, and dishwasher positions in each region; and he compared the average intra-firm wages in each region. Again, San Francisco exhibited less variation than the Research Triangle both within firms, as measured by the average intra-firm wage, which was lower, and among firms, as measured by the standard deviation from the mean, which was also lower. Through my survey, I collected similar data for Boston, and hypothesized that Boston, with minimum wage requirements that are higher than the Research Triangle, but not as high as San Francisco, would, by those same measures, exhibit less variation than the Research Triangle, but still more than San Francisco.

### **Hypothesis: Responses to Minimum Wage Increases Aggregate Data**

As I described above, a key prediction of the competitive model of the economy is that an increase in the minimum wage will result in lower employment levels; yet the preponderance of studies has shown that employment levels in the restaurant industry remain steady. The competitive model offers alternative predictions, or “channels of adjustment,” many of which have been tested by researchers (Hirsch, Kaufman and Zelenska 2011; Schmitt 2013). One possibility is that, rather than lay off employees, businesses just reduce employees’ hours. Businesses may also raise their prices, especially if demand is “price inelastic” and customers will continue to dine at restaurants despite higher prices. Businesses may reduce employee benefits as a “compensating effect” (Dube, Naidu and Reich 2007). Or they may replace current employees with higher-skilled employees (Schmitt 2013). They also may reduce the costs of other inputs through a process of “input substitution” (Dube, Naidu and Reich 2007). Or they may simply accept fewer profits. Below I summarize the research on these strategies in order to develop my own hypothesis on the likely responses of Boston restaurants to the recent minimum wage increases.

Few studies have focused on reductions in employees' hours because it is more difficult to measure than overall employment levels. Of the studies that have attempted to calculate the changes in hours at restaurants, most have found no discernible effects (Dube, Naidu and Reich 2007; Powers 2009; Persky and Baiman 2010; Even and Macpherson 2014). One found a possible effect on the hours of tipped workers, such as servers and other front of house staff, but the data is imperfect (Even and Macpherson 2014; Belman and Wolfson 2014).

On the other hand, researchers have repeatedly found statistically significant increases in menu prices at restaurants following minimum wage increases; but, similar to the increases in the average wage at businesses, the impact is greater at limited-service than at full-service restaurants (Lee, O'Roarke and Schluter 2000; Aaronson 2001; MacDonald and Aaronson 2006; Dube, Naidu and Reich 2007). Through a review of thirty studies on the price impacts of the minimum wage, Sara Lemos found that food costs increase more than the cost of any other product (2008). This is likely due to the dependence of the food system, from agricultural laborers to servers, on minimum wage jobs. According to Lemos, a 10% increase in the minimum wage nationwide results in no more than a 4% increase in the cost of food and a 0.4% increase in prices overall (2008). Another study that focused solely on the restaurant industry predicts that a 10% increase in the minimum wage results in only a 0.7% increase in restaurant prices (Aaronson, French and MacDonald 2008).

Most of the research on the minimum wage has examined its impact on employment levels and wages, perhaps followed by prices. Much less has considered the impacts on employee benefits or skill requirements or on business profitability, and even less has considered strategies that cannot be easily represented by aggregate data, such as reducing costs through input substitution.

Of the research that exists on benefits, the consensus is that the minimum wage does not have a discernible impact (Simon and Kaestner 2004; Dube, Naidu and Reich 2007; Marks 2011; Belman and Wolfson 2014). For the restaurant industry in San Francisco, prior to the passage of the Health Care Security Ordinance, increases in the minimum wage did not impact the provision of health insurance by restaurant businesses (Dube, Naidu and Reich 2007). A cross-industry study found that smaller firms did reduce health care coverage for employees with less than a high school degree, but the research methodology is imperfect (Marks 2011; Belman and Wolfson 2014). The research has also not found an impact on workforce composition, though the focus has been race, gender, and age characteristics, rather than skills or educational attainment (Allegretto, Dube and Reich 2011; Dube, Lester and Reich 2015; Giuliano 2013).

Finally, studies on firm profitability and failure rates also suggest that the minimum wage does not have an impact, though many of these studies focus on large publicly-traded firms and not small businesses (Card and Krueger 1995; Camhout, McBride and Waltman 1998; Pacheco and Naiker 2006; Draca, Machin and Van Reenen 2011). Overall, failure rates are quite high for small businesses across the country (Osterman and Shulman 2011). Of the studies that specifically examine restaurant failures, none cite government policy as an important factor in the failures. Rather they cite lack of capital, poor management, and inappropriate concepts as the most common reasons for failures (King, Njite, Parsa and Self 2005; Fields 2007).

This body of research suggests several plausible responses for restaurants in Boston to the statewide increases in the minimum wage. The responses that have the strongest empirical support are that restaurants will not lay off workers and that they will raise prices; so this is my hypothesis and expectation for most restaurants. Though, as I discuss below, it is certainly possible that some restaurants may choose other “second-order but nontrivial adjustments,” such as reducing staff hours or benefits or reducing other costs (Hirsch, Kaufman and Zelenska 2011).

### **Hypothesis: Responses to Minimum Wage Increases Survey and Interview Data**

So far, I have focused on the responses that can be predicted by a competitive model of the economy and that can be measured by aggregate data. In this section, I discuss subtler responses that can be better explained by the “institutional” model of the economy and measured by specially-designed surveys and interviews. I begin with a description of the institutional model and related frameworks for understanding business behavior; and then I summarize relevant studies that have used surveys and interviews to uncover alternative responses by restaurant owners and managers to higher labor standards.

The institutional model of the economy is relevant, in part, because institutional economists advocated for the inclusion of a minimum wage in the Fair Labor Standards Act in the 1930s, when the policy was first enacted (Kaufman 2010). Like monopsony, the model shares many of the assumptions of the competitive model, but “brings into conventional microeconomic analysis subjects and concepts ... either omitted or treated as exogenous background factors” (Kaufman 2010). In particular, it highlights the importance of political processes and the institutions that such processes create in determining economic outcomes. The institutional model acknowledges that markets are not perfectly competitive and market actors are not perfectly rational. According to Kaufman, in the 1930’s institutional economists believed that, as a result of political processes and institutions, employers tended to have more bargaining power than workers, and the

minimum wage would help to equalize the negotiation process and create a more competitive labor market (2010).

Another contribution of institutional economists is the concept of “internal labor markets,” which seeks to describe the internal processes of individual businesses. The concept suggests that businesses do not choose particular policies and activities solely to maximize efficiency (and thereby profit); but rather, the policies and activities are determined through a process of negotiation between internal “groups with competing objectives and perspectives,” potentially bolstered by external dynamics (Osterman 2011). Key to the concept is that “customs, norms and power ... shape employment relationships” (Osterman and Burton 2006).

The increasing variation in the practices of internal labor markets since the 1970’s is often simplified by describing employers as either “low road” or “high road.” In general, “low road” employers treat their employees as costs to be minimized, while “high road” employers invest in employees. The Restaurant Opportunities Centers United has published “Taking the High Road: A How-To Guide for Successful Restaurant Employers,” which describes the high road for restaurant businesses as “employment practices that support workers and unleash their loyalty, creativity, and productivity to make the restaurant successful” (Batt 2012). According to ROC, the “highest road” restaurants offer living wages, paid sick time, health insurance, vacation days, raises, career ladder opportunities, and formal or informal profit-sharing opportunities (Batt 2012). Though less tangible, they also provide a positive work environment and informal employee leadership and development opportunities.

For their report, ROC United convened thirty-three high road restaurant businesses from across the country, but overall these practices are rare in the industry, in large part because the businesses “are under such intense competitive pressure that they see few alternatives to squeezing their workforce” (Osterman and Shulman 2011). Full-service restaurants not only compete with each other, but with limited-service restaurants, coffee shops, grocery stores with prepared foods, and any of the myriad businesses that offer meals to customers (Alvarez 2016). Because of this intense competition, in 2016, the average profit margin for full-service restaurants nationwide was only 4.5% (Alvarez 2016). The average annual revenue was approximately \$700,000; so, in dollars, the average profit margin that year amounted to just over \$30,000 (Alvarez 2016). Even if restaurant owners were willing to invest this in their employees, the average restaurant, with thirteen employees, could only offer additional benefits valued at approximately \$2,500 per employee per year without changing their business model (Alvarez 2016).

The restaurants that do offer additional benefits are often driven by the personal values of their owners, though there is an economic argument for investing in employees

and research to support it (Enz 2004; Osterman and Shulman 2011; Batt 2012; Ton 2014). Above, I discussed the relationship between wages and turnover. Lower wages are correlated with more turnover, but turnover has its own costs, such as the recruitment and then training of new employees and the provision of new uniforms and equipment (Batt 2012; Dube, Naidu and Reich 2014; Jayaraman 2014b). Researchers have also shown that better human resources practices in restaurants and other hospitality businesses improve employee performance, which increases customer satisfaction and then profits (Koys 2003; Enz 2004; Borchgrevink, Kacmar and Susskind 2007; Michel, Stafford and Tews 2013). My research seeks to understand the potential impact of labor standards on employers' decisions to follow high road or low road practices, since both normative values and economic arguments seem to have minimal impact on the restaurant industry as a whole.

In recent years, other studies have done this through surveys and interviews; and the findings are quite different from those of aggregate analyses. Through extended interviews, researchers Anna Haley-Lock and Stephanie Ewert compared “restaurant practices related to waitstaff wages, fringe benefits, and staffing and scheduling in two lower-end, national restaurant chains” across two metropolitan areas with differing labor standards, Seattle and Chicago (2011). They attribute much of the variation between businesses to their market segments (one chain is “family” dining, while the other is “casual” dining) and to local labor supply issues (Haley-Lock and Ewert 2011). But they do find that in Seattle, where the labor standards are higher, businesses do tend to engage in more voluntary high road practices, such as allowing servers to keep a higher percentage of their tips and to change their schedules based on their personal needs (Haley-Lock and Ewert 2011).

Another team of researchers surveyed managers and interviewed owners of limited-service restaurants in Georgia and Alabama and also examined payroll data, following increases in the federal minimum wage (Hirsch, Kaufman and Zelenska 2011). The rigorous survey uncovered several common responses to the minimum wage increases. Many managers attempted to reduce food costs through a variety of methods, as well as utilities and insurance costs (Hirsch, Kaufman and Zelenska 2011). Managers also sought to increase employees' productivity through workplace culture, and to more carefully manage employees' schedules in order to reduce overtime expenses (Hirsch, Kaufman and Zelenska 2011). They also expanded their marketing efforts to increase customer volume and revenue (Hirsch, Kaufman and Zelenska 2011).

As I described in Chapter 1, T. William Lester surveyed and interviewed restaurant owners and managers in the Research Triangle and San Francisco, asking about wages and benefits, recruitment and training, and related issues (2016). Lester found that the high labor standards in San Francisco not only led to wage compression, but also to a differentiated set of business practices (2016). In particular, he describes the “professionalization” of the server occupation, in which employers engage in more careful

recruitment of new employees and expect servers to have more experience and therefore require less training (Lester 2016). This contrasts with common practice in the Research Triangle, where very high turnover has led to mass recruitment and training practices of new employees who often have no experience in the industry (Lester 2016). Lester also notes that the highest minimum wage standards in the country have led to the proliferation of nonmonetary benefits and the adoption of new compensation strategies (2016).

For the most part, the new compensation strategies seek to balance pay between front and back of house employees. In many upscale and casual fine-dining restaurants, servers earn more than kitchen staff because they receive tips, which are a percentage of the restaurant's revenue. It is difficult for restaurants to fill the gap in pay between front and back of house with the remaining revenue; and if they increase prices, the gap persists. So, many restaurants have added a surcharge of 3% to customer's bills specifically for back of house staff. There are other models as well. For example, restaurants may add a service charge of 20% in lieu of tips and switch servers to salaries so that the service charge can be used to pay front and back of house staff (though this is barred by statute in Massachusetts); or may raise prices, request that customers do not leave tips, and switch servers to salaries; or other variations of these. Many restaurants in San Francisco have adopted these strategies, perhaps initially in response to the health care ordinance, when it passed in 2008 (Colla, Dow and Dube 2011). In Massachusetts, several restaurants have been highlighted in the local news for adopting these strategies, and my survey included questions to determine whether or not other restaurants are following their lead (Osterman and Weaver 2017).

I hypothesize simply that restaurants in Boston, following labor standards that are more stringent than the Research Triangle but less so than San Francisco, will be more likely to choose employment practices that characterize "high road" employers than those in the Research Triangle, but less likely than those in San Francisco. Through the survey, I can better characterize the range of wages that restaurants offer, as well as benefits and even "career ladder" opportunities. For recruitment, I expect that restaurants in Boston conduct more careful searches for new employees than those in the Research Triangle.

### **Hypothesis: Labor Demand and Supply**

Though the focus of my research is the impact of labor standards on restaurant business practices, I also seek to better understand labor demand and supply issues in Boston's restaurant industry. The local news media as well as data from the Massachusetts Job Vacancy Survey suggest that the industry may be experiencing a labor "shortage," but academic researchers are often skeptical of these claims.

In recent years, Boston's news media have carried articles with dramatic headlines like "The Great Cooks Shortage," "Chef Shortage Leaves Restaurants Struggling," "Restaurant Jobs Are Going Unfilled," and "Restaurant Hiring Crisis" (Luna 2013; Nanos 2015; Woolhouse 2015; Kummer 2016). The articles include quotes from the owners and managers of well-known and often high-end restaurants, describing their difficulties hiring and retaining kitchen staff.

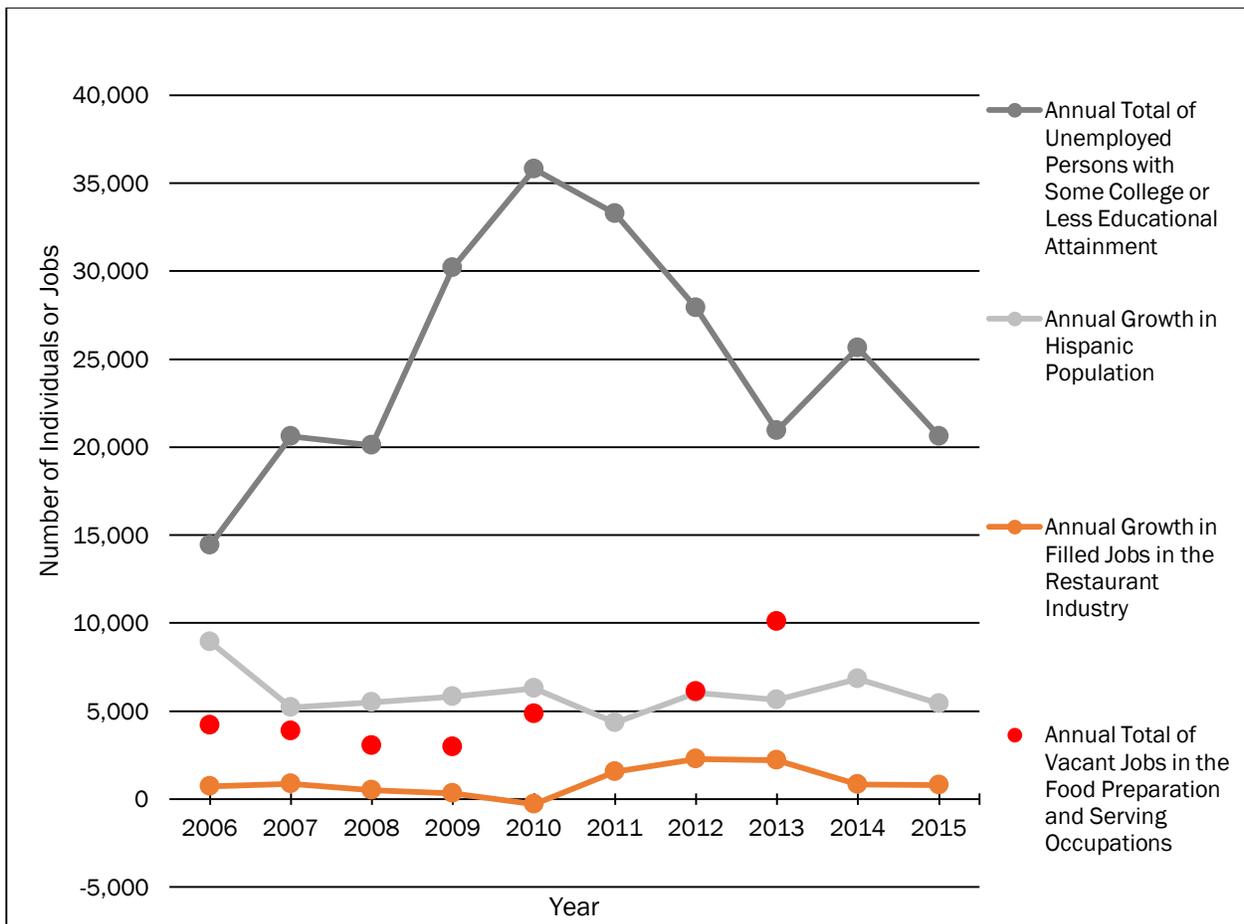
These difficulties are reflected in the Massachusetts Job Vacancy Survey that was administered between 2005 and 2013. According to the survey, food service and preparation jobs consistently have high vacancy rates in comparison to other occupations in the Greater Boston area. In 2010, 2012, and 2013, they had the most vacancies of any occupational group, reaching 10,000 reported vacancies in 2013. That year was the last of three consecutive years in which the restaurant industry in Suffolk County experienced very high growth in total employment, increasing by 5.6% in 2011, 5.8% in 2012, and 8.8% in 2013, an addition of nearly 6,500 filled positions over three years (U.S. Census County Business Patterns).

The possibility of a labor "shortage" is further corroborated by ROC United's survey of local restaurant workers, which, as I described in the Introduction, found that most restaurant employees have worked when the restaurant was understaffed and have performed multiple jobs at once. The National Restaurant Association (NRA) has also collected data on hiring difficulties. According to their national survey of restaurant owners, only 22% to 24% of full-service restaurants in the family dining, casual dining, and fine dining segments report that it is not a challenge to recruit and retain employees (Grindy, Riehle and Stensson 2014). The remainder are divided between perceiving it as a "moderate" challenge or a "significant" challenge (Grindy, Riehle and Stensson 2014). About half of the restaurants in these segments plan to invest more resources in recruitment, retention and training in the future (Grindy, Riehle and Stensson 2014).

Restaurateurs, industry analysts, commentators, and others have posited various reasons for the possible shortage. Most confirm that low wages are the key factor, aggravated by Boston's high cost of living and possibly jobseekers' debts from culinary school (Luna 2013; Kummer 2016; Traverso 2016; Reyes and Rodriguez 2016a). They also note that the schedules for restaurant workers are difficult, and the work environment is stressful (Traverso 2016; Shah 2015). As I described in the Introduction, scholars and advocacy organizations emphasize the precarity of the work and, in particular, the frequent violations of workers' legal rights (Batt, Lakhani and Lee 2014; Doussard 2013). The often low wages, difficult schedules, and poor working conditions could certainly explain why restaurants have difficulty attracting and retaining employees.

For this reason, many labor market researchers are skeptical of employers' complaints of "labor shortages," especially for low- to middle-skill occupations in places where unemployment exists. In a 2013 Boston Globe article on the Job Vacancy Survey and the restaurant industry, Andrew Sum, a professor at Northeastern University, explained that "more than two-thirds of openings were for part-time work, while the majority of unemployed people were seeking full-time positions," implying that restaurants could fill vacancies if they combined part-time positions or offered additional hours (Luna 2013).

**Chart 2.1: Labor Demand and Supply Indicators**



**Sources:** Unemployed persons and Hispanic population data are from the American Community Survey, 1-year estimates; jobs in the restaurant industry are from the U.S. Census County Business Patterns; and job vacancies are from the Massachusetts Job Vacancy Survey. All of the data represent Suffolk County, MA, except for the job vacancy data, which represents multiple counties that compose Greater Boston.

Chart 2.1 combines a few different indicators of labor demand and supply. It shows that, even in 2013 when the reported vacancies for food service and preparation jobs in Greater Boston were highest, unemployment among people with lower educational

attainment, just in Suffolk County, was twice as high. The unemployment figure does not include the much larger number of unemployed people in Suffolk County who were not actively seeking employment. Chart 2.1 also shows the high levels of annual growth in the Hispanic population, which is disproportionately represented in the restaurant industry, during this time period (American Community Survey).

According to the competitive model of the economy, labor shortages should simply not exist, because employers should respond to low levels of labor supply by raising wages and potentially lowering skill requirements (Cappelli 2015). As discussed above, the restaurant industry does not participate in a perfectly competitive labor market but, nevertheless, could take on these costs, raising wages and providing more training to workers that do not have prior experience, in order to bolster recruitment and retention. (Based on the NRA survey, it seems like some restaurants will do this.) It is possible that the complaints of a “shortage” by industry leaders are, by implication if not by design, meant to shift this cost of workforce development from the private sector to the public sector (Osterman and Weaver 2017; Cappelli 2015). It is also possible that the difficulties are overblown. In a careful study of the supposed skills gap in the manufacturing sector, Osterman and Weaver found that most firms do not actually have difficulty hiring for higher-skill positions (2017).

My survey does not examine vacancies as carefully as that of Osterman and Weaver (2017). But I do ask owners and managers to choose the positions that are easiest to fill with good candidates and those that are hardest. I predict that the restaurants’ responses will be conflictual or inconsistent because the “labor shortage” is not a true shortage of potential workers, but rather a refusal by workers to accept the low wages and difficult conditions in restaurants.

## **Chapter 3: Methodology**

For my research, I used a modified version of T. William Lester's survey to gather data on business practices from fifty full-service restaurants in Boston. I also completed key informant interviews while I was drafting the survey to ensure its relevance, and while I was analyzing the data to gain additional perspectives on the results. In this chapter, I describe how I developed the survey and how I distributed it. I also compare the restaurants that participated in the survey to the restaurant industry in Boston as a whole to uncover any sampling bias.

### **Development of the Survey**

Last fall, I drafted a survey that featured open-ended questions on the minimum wage increases in Massachusetts, on alternative compensation strategies like the service charge, and on the various constraints on restaurant businesses' profitability. I expected to administer the survey in person and write the owners' or managers' responses as they shared them with me. While I was in the process of finalizing the survey and completing initial key informant interviews, I read Lester's working paper that describes his research in North Carolina and California. I contacted him, and he generously shared his survey for my review and potential replication.

Lester's survey is longer than what I had initially written. It includes questions about employee recruitment and retention, in addition to questions about the minimum wage and compensation strategies. Many of the questions addressed issues that my key informants had recently raised, regarding labor supply and workforce development. Ultimately, I decided to use a modified version of Lester's survey so that, like him, I could collect more complete accounts of restaurants' business practices and so that I could compare my results for Boston to his conclusions for the Research Triangle and San Francisco.

In modifying the survey, one of my main objectives was to reduce its length. Unlike Lester, I could not offer participants a reward for completing it. I also had a short timeline to conduct the research, and I wanted to increase the participation rate. To reduce the length, I focused on just two positions, servers and cooks. In the original survey, Lester included eight questions that required responses for each of twelve restaurant positions. I decided to only ask five questions about the two positions, servers and cooks, because they are the most common, and perhaps the most important, positions in the front and back of house, respectively. They are also the two positions that Lester highlights in his conclusions. However, for cooks, I asked for responses that applied to both prep and line cooks, which, I realized later, meant that my data on cooks did not completely match Lester's data that was specific to line cooks. I discuss the implications of this in the next chapter.

I also discarded several questions that were not relevant to my research interests or Lester's key conclusions. And I added a few questions that allowed me to better understand restaurants' responses to the minimum wage increases and their issues with labor supply. In particular, I asked them to explain why they had responded as they did to the minimum wage increases; and I asked which three positions the restaurants had most recently filled (a more "factual" approach to the question of turnover). I also added questions about ongoing training and internal promotions to better differentiate high and low road practices and to determine workforce development implications. I also kept the question on obstacles to businesses' success that I had originally drafted; though I found that the question did not generate interesting results.

For the most part, I maintained the sections and order that Lester used. The survey begins with a statement on informed consent, and then a few basic questions about the restaurant, followed by sections on workforce characteristics, training, wages, recruitment, turnover, and finally the minimum wage increases. For servers and cooks, the survey includes specific questions about the amount of prior experience that new hires must have; the typical level of educational attainment among staff in those positions; the amount of training offered to new hires; and the lowest and highest wages currently paid to staff in those positions. As I discuss in the next chapter, I mistakenly reduced the number of multiple choice options for the amount of required experience and of training offered (thus increasing the length of time that each choice represented), such that my results were perhaps not as precise or as comparable to Lester's as they could have been. The survey also includes two questions that differentiated between front and back of house staff. The first asked for the number of employees that are paid at or near the minimum wage in the front and back of house, which was, in retrospect, too vague. And the second asked how the restaurants recruit new employees, which, I eventually realized, was quite similar for both front and back of house staff at each restaurant and would, perhaps, have been more interesting if I had asked specifically about servers and cooks instead. The survey also includes a series of questions in which respondents were asked to select the three positions (from a list of ten common positions) that are hardest to hire, easiest to hire, most recently filled, and that experience the most turnover.

Before I implemented the survey, I tested it with two restaurants that were secondary contacts from my local network. As expected, the trial surveys went well. (After all, Lester had already administered the survey to more than one hundred restaurants.) Through the process, I found a few more questions that did not elicit useful responses for my research questions, but still required valuable time, so I removed them from the survey, and then I began implementation.

## Sampling and Distribution Methods

My sample frame included all of the full-service restaurants in the city of Boston that were listed in ReferenceUSA's database in January 2017. Limited-service restaurants, by definition, do not offer table service and therefore do not have servers, so the survey is not applicable to them. The full-service restaurants could be independently-owned or chains. I attempted to restrict the size of the restaurant, by only including restaurants that ReferenceUSA had listed as employing 50 people or fewer, but several of the participating restaurants reported in the survey that they actually employed more than 50 people.

With only the small and medium-sized restaurants, the sample frame amounted to 1,246 restaurants. To select my sample, I used the random number function in Excel to randomly assign a number to all of the restaurants in the frame. The 200 restaurants with the lowest numbers became my sample. As I completed my outreach, I realized that at least a quarter of the restaurants listed on ReferenceUSA as full-service, were actually limited-service. As I removed each limited-service restaurant from my sample, I added new full-service restaurants to my sample (based on the order that had been randomly generated), so that I could maintain a sample size of 200.

To begin my outreach, I mailed a packet to each of the restaurants in my sample. I did this in three separate batches over six weeks in February and March 2017. The packet included a letter, a survey, and a pre-stamped envelope that was addressed to my advisor at the Massachusetts Institute of Technology. In the letter, I explained the research project and the survey, and I offered to send a summary of my analysis to the restaurants that opted to participate.

Approximately ten days after I mailed the packets, I called each of the restaurants in the batch. I explained to whoever answered the phone that I had sent a survey, but had not received a reply; and I asked what the best way to share the survey with an owner or manager would be, whether it was over the phone, by email, or in-person at the restaurant. Many of the people that I spoke with offered helpful advice, suggesting that I call or visit the restaurant at a specific time or that I email a specific address. Some passed the phone directly to an owner or manager, and I asked the same question. Most of the owners and managers were helpful. Only a few told me directly that they did not want to participate in the survey. Another set of people that answered the phone were evasive, asking me to call again later when a manager might be available, but not specifying a day or time, or suggesting that I send an email to the address listed on their website.

I followed up with all of the restaurants as they suggested. Ultimately, I collected 53 surveys. 15 were returned by mail, 17 were completed online, and I administered 15 in person and 6 over the phone. This represents an overall response rate of 26.5%. For the

most part, the surveys were complete, except ten restaurants did not respond to the questions on wages for cooks, which were, specifically, “what is the lowest hourly wage paid to a prep or line cook” and “what is the highest hourly wage paid to a prep or line cook.” (Three of these also did not respond to the same questions on wages for servers.) Most of these restaurants submitted the survey by mail or online. One, that completed it in-person, explained that in his position as manager, he only knew the wages of front-of-house staff. Another told me that the information on wages was “private.” It is possible that some of the restaurants pay their cooks a salary or a weekly rate and so do not know the hourly conversion. As I described in the Introduction, if the weekly rates are low, back-of-house staff that work long hours may actually earn less than the minimum wage on an hourly basis.

### **Analysis of Survey Participants**

In this section, I compare the basic characteristics of the restaurants that participated in my survey in Boston to the restaurants of the workers that participated in ROC United’s survey in Boston and the restaurants that participated in Lester’s survey in the Research Triangle and San Francisco. Then I compare the restaurants that participated to my overall sample frame, the restaurant industry in Boston, as represented by ReferenceUSA and U.S. Census County Business Patterns data. For the comparison with the participants in the Research Triangle and San Francisco and in ROC’s survey, I examine the market segments and the number of seats, as reported by the restaurants. For the comparison with the local industry, I examine the number of years that the restaurants have been in operation; the number of staff that the restaurants employ; the types of cuisines that they serve; and the neighborhoods where the restaurants are located. As I describe below, I found that the participating restaurants are representative of the industry, though there is likely some bias towards older, larger and fancier restaurants.

One of the first questions in the survey asks restaurants how they would describe their market segment, as moderately-priced family-style, casual fine dining, upscale fine dining, or something else. Lester also included “diner or luncheonette” as an option, but I decided to combine it with the “other” category because relatively few restaurants in the Research Triangle and San Francisco selected it (2016). ROC United included “quick serve” or limited-service restaurants, unlike Lester’s and my samples (Reyes and Rodriguez 2016a). Nevertheless, a comparison of the market segments represented by the participating restaurants in each study suggests that they are quite similar. On the next page, Table 3.1 shows the market segments that are represented in my sample.

**Table 3.1: Market Segments of Survey Participants in Boston**

	<b>BOS</b>
<b>Restaurant Market Segment</b>	<b>N=53</b>
Moderately-Priced Family-Style	11
<i>Percent (%)</i>	21%
Casual Fine Dining	29
<i>Percent (%)</i>	55%
Upscale Fine Dining	4
<i>Percent (%)</i>	7%
Other	9
<i>Percent (%)</i>	17%

**Source:** The author’s survey results, 2017.

The Research Triangle and the ROC samples have a higher proportion of family-style restaurants: approximately 35%, as compared to 20% in San Francisco and Boston (Lester 2016; Reyes and Rodriguez 2016a). And San Francisco and Boston have a higher proportion of fine dining restaurants, combining both “casual” and “upscale” fine dining: approximately 60%, as compared to 50% in the Research Triangle and ROC samples (Lester 2016; Reyes and Rodriguez 2016a). The remaining 15% to 25% of restaurants in each sample were “other,” which often meant luncheonettes or bars; in the ROC sample 13% were “quick serve” (Lester 2016; Reyes and Rodriguez 2016a). Overall, the mix of market segments is similar between the three locales. The average size of the restaurants is also similar. The restaurants in my sample in Boston had, on average, 103 seats; the restaurants in San Francisco had 94 seats; and in the Research Triangle, 142 seats (Lester 2016). This is important to ensure that the comparisons of the aggregate survey data are valid.

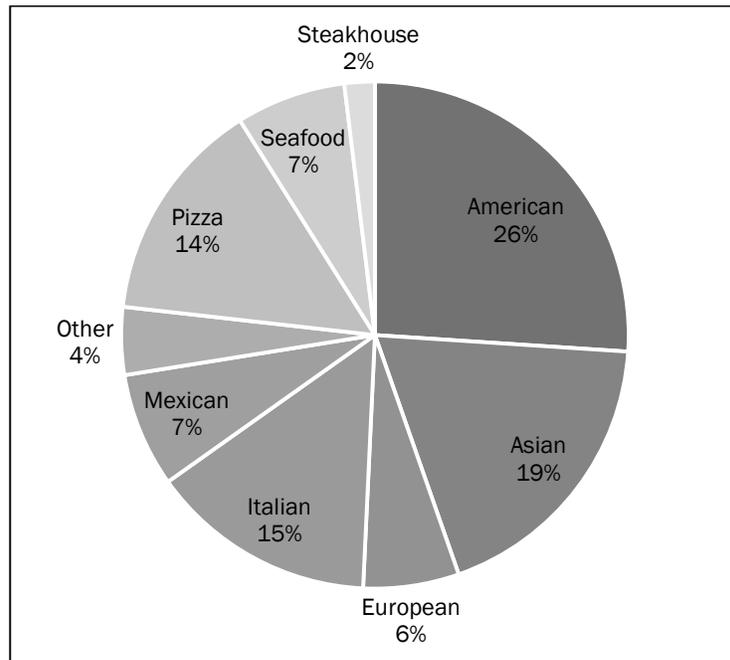
To compare the participating restaurants to the local industry, I began by analyzing the number of years that the restaurants have been in operation. Removing an outlier that has been in operation for more than 100 years, the participating restaurants reported that they have operated, on average, for 14.5 years. The average number of years that the same restaurants have been in the ReferenceUSA database is 14.2 years. The ReferenceUSA average is lower because seven of the restaurants have operated for more than 33 years, which they reported in the survey, but ReferenceUSA has only collected data for 33 years, and so that is the longest that any restaurant has been in the database, thus skewing the average downward. In part because of this limitation, the average tenure for the industry in Boston, according to ReferenceUSA, is low at just 11.9 years. By another measure, 13% of the restaurants in my sample have been in operation for 33 years or more, while only 5% of the restaurants in the ReferenceUSA database have been listed for 33 years. Both

measures show that the restaurants that participated in my survey tended to be older and more established than the industry as a whole.

The next indicator is the number of staff that the restaurants employ. On average, the participating restaurants reported that they employ 33 people. According to ReferenceUSA, the same restaurants employ 18 people, on average. ReferenceUSA uses an algorithm to estimate the number of employees at the restaurants, and it seems like the algorithm predicts fewer staff than the restaurants actually employ. For the industry as a whole, the ReferenceUSA database suggests an average of 22 employees per restaurant. Because the algorithm is suspect, and, as I mentioned before, a significant portion of the sample frame may actually be limited-service restaurants, which employ fewer people than full-service restaurants, I decided to also calculate the number of employees per full-service restaurant in Suffolk County based on U.S. Census County Business Patterns data. Dividing the total number of full-service restaurant employees by the total number of establishments results in an average of 26 employees per restaurant. Again, it is possible that some limited-service restaurants may have been mislabeled as full-service in the County Business Patterns data. On the other hand, it seems very likely that the restaurants that participated in my survey are larger on average than the local industry. The bias may have occurred because larger restaurants have more capacity to complete a survey or because they have, by necessity, more legitimate business practices that they are willing to discuss in a survey. By recognizing this bias, I can better interpret my aggregate results in the next chapter. The bias is particularly relevant to health care benefits because the standards set by the Affordable Care Act differ for larger and smaller restaurants.

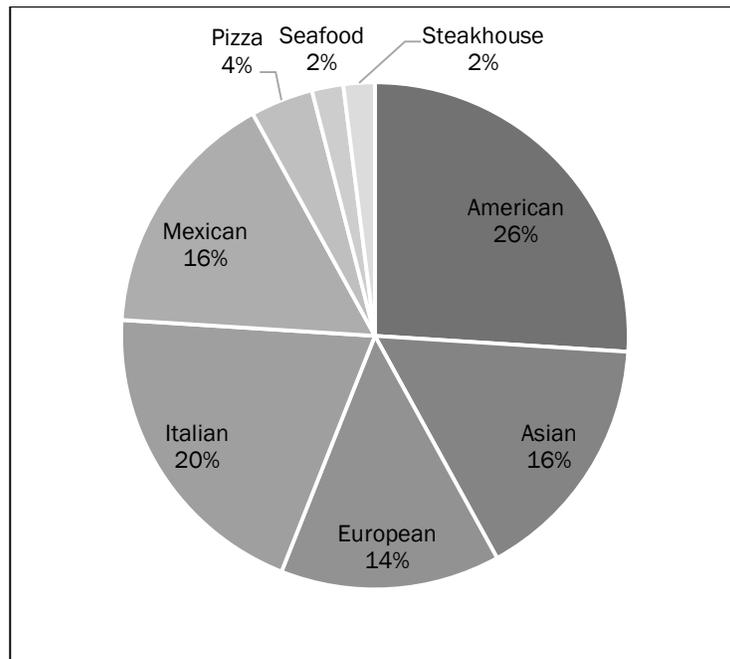
The next indicator is the types of cuisines that the participating restaurants serve. The ReferenceUSA database includes a cuisine category for each restaurant. Chart 3.1, below, shows the distribution of cuisines among the restaurants in the sample frame (the local industry), while Chart 3.2 shows the distribution for the restaurants that participated in the survey. Overall, the distributions are quite similar. A larger proportion of “Mexican”, or Latin American, restaurants participated in the survey, possibly in part because I was able to communicate in Spanish with a few of them. Also, a larger proportion of European restaurants participated. These restaurants tended to be fancier. Unfortunately, I cannot compare the participating restaurants to the sample frame on the basis of market segment or menu prices because ReferenceUSA does not collect that data, so my measurement for “fanciness” is qualitative. A smaller proportion of pizza and seafood restaurants participated in the survey, likely because many of these were actually limited-service and so eventually had to be removed from my sample.

**Chart 3.1: Cuisines at Restaurants in Boston**



Source: ReferenceUSA, January 2017.

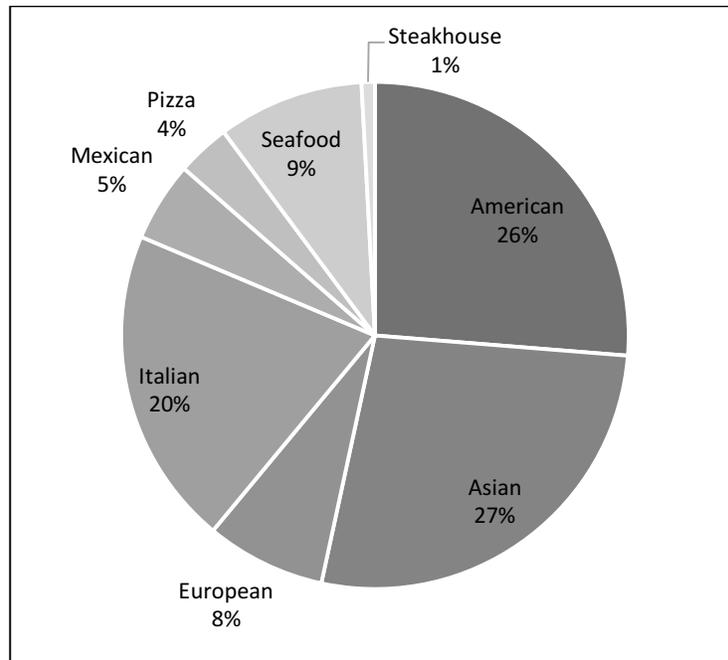
**Chart 3.2: Cuisines at Restaurants that Participated in the Survey**



Source: ReferenceUSA, January 2017.

Chart 3.3, below, shows the cuisines served at the restaurants that I contacted, but that ultimately declined to participate in the survey. Proportionally, Asian restaurants and seafood restaurants were more likely to decline. Just as Spanish language skills helped me to connect with the owners of Mexican restaurants, a lack of communication skills in Chinese and other languages prevented me from effectively communicating with the staff at many of the Asian restaurants.

**Chart 3.3: Cuisines at Restaurants that Declined to Participate in the Survey**



**Source:** ReferenceUSA, January 2017.

ReferenceUSA also lists the neighborhood where each restaurant in the database is located. Table 3.3, below, compares the neighborhoods in the sample frame to the neighborhoods that participated in the survey. Overall, the survey participants seem to be representative of the sample frame. However, a smaller proportion of restaurants in downtown Boston participated in the survey. This is likely because many of the restaurants in the downtown were actually limited-service lunch counters that did not qualify to participate. And a larger proportion of restaurants in the South End, the North End, and the Fenway-Kenmore area participated in the survey. These again may represent a bias in favor of “fancier” restaurants.

**Table 3.3: Neighborhood Locations of Restaurants**

<b>Neighborhood</b>	<b>Restaurants in Boston</b>	<b>Surveyed Restaurants</b>
Allston	4%	2%
Back Bay	13%	13%
Beacon Hill	5%	6%
Chinatown	6%	4%
Dorchester	2%	0%
Downtown	18%	8%
East Boston	6%	2%
Fenway-Kenmore	11%	15%
Jamaica Plain	0%	0%
Mission Hill	1%	2%
North End	10%	15%
Roxbury	2%	2%
South Boston	8%	10%
South End	8%	15%
Unknown	6%	6%

**Source:** ReferenceUSA, January 2017.

Overall, these comparisons suggest that older, larger, and fancier restaurants were more likely to participate in my survey. Such restaurants may have more resources and capacity to complete surveys. They probably also have more resources and incentives to treat their employees well or, at least, to fulfill their legal obligations to their employees, which may increase their willingness to respond to a survey on employment practices. In the next chapter, I share my analysis of the survey results with the understanding that my sample represents some bias.

## **Chapter 4: Data Analysis**

In this chapter, I share the results of my survey and analysis. I begin with labor market data to show how owners and managers perceive and experience the different positions in their restaurants. I then compare my wage data from Boston to data that was collected in the Research Triangle and San Francisco and discuss how both the local labor market and labor standards may have resulted in the differing wage rates among the three locales. I also examine restaurant practices related to recruitment and retention in Boston, comparing these to restaurants in the Research Triangle and San Francisco when possible, and better characterizing the local industry. Finally, I review the strategies that restaurants chose to address the increases in the minimum wage with a focus on how those decisions may have impacted employees.

### **The Local Labor Market**

In the restaurant survey, I included questions that would allow me to better characterize the labor market in Boston. Each respondent selected three positions (from a list of ten common positions) for four categories: “hardest to hire,” “easiest to hire,” “most recently hired,” and “most turnover.” For each category, I then summed the number of restaurants that had selected each position, and ranked the positions from 1 to 10, with 1 signifying that the most restaurants had selected that position for that category, and 10 signifying that the fewest restaurants had. On the next page, Table 4.1 lists the rank of each position for each category.

I had hypothesized that my data on hiring and turnover would be conflictual or inconsistent because the “labor shortage” is not a true shortage of workers, but rather a consequence of low wages and poor working conditions. A review of the ranks assigned to each position suggests that restaurant employers’ opinions on hiring and turnover may actually be quite consistent. The positions that ranked high for “hardest to hire,” ranked low for “easiest to hire,” and vice versa; and positions that ranked high for “most recently hired” also ranked high for “most turnover.” But, as I describe below, while the rankings overall seem consistent, there is some conflict in the details.

For the category of “hardest to hire,” which most directly relates to the labor shortage, line cook was the position cited most frequently - by twenty-seven restaurants, or just over half of the restaurants in my sample. This supports the claims made by restaurateurs of a “cook shortage” that have appeared in the news media. Yet, seven restaurants selected line cook as one of the positions that are “easiest to hire.” For turnover, the position of line cook ranked third of the ten positions for “most recently hired” and for “most turnover.” The high turnover may be related to the relatively high demand for

line cooks combined with the variability in wages and working conditions among restaurants in Boston that I discuss in the next sections. If line cooks are dissatisfied with their conditions of employment, they can seek better opportunities at other restaurants.

**Table 4.1: Rank for Restaurant Positions by Category in Boston, MA**

<i>Position:</i>	Hardest to Hire	Easiest to Hire	Most Recently Hired	Most Turnover
Head Chef	3	9	10	9
Sous Chef	8	10	9	10
Line Cook	1	7	3	3
Prep Cook	10	5	8	7
Dishwasher	7	3	2	2
Manager	2	8	6	6
Host	5	4	4	4
Bartender	6	6	7	8
Server	4	2	1	1
Busser or Food Runner	9	1	5	5

**Source:** Author’s analysis of survey of full-service restaurants (N=53), March 2017.

To further my analysis, I completed a linear regression with the highest wages offered to cooks at the restaurants in my sample as the dependent variable and whether or not the restaurants selected line cooks as “hardest to hire” as the independent variable. The results showed that, at a 95% confidence level, restaurants that have difficulty hiring line cooks offer a maximum hourly wage to their cooks that is, on average, \$1.93 less than restaurants that do not have difficulty hiring line cooks. In other words, restaurants that have difficulty hiring line cooks offer a maximum hourly wage of \$16.47 on average, while restaurants that do not have difficulty offer a maximum hourly wage of \$18.40 on average. When I remove

an outlier, the results are, at a 99% confidence level, that restaurants that experience difficulty hiring line cooks offer a maximum hourly wage that is \$2.33 less than other restaurants. Similarly, the seven restaurants that find it easy to hire line cooks offer a maximum hourly wage that is \$2.00 higher, on average, than the restaurants that do not find it easy (though this difference is not significant, according to a regression analysis). Understandably, cooks would be more willing to work at restaurants that offer a wage that is 12% higher on average. This suggests that, though I initially chose the wrong measurement for my hypothesis, my reasoning is supported by other measures. Restaurants that offer higher wages to cooks do not report the line cook “shortage,” and so perhaps it is not a shortage but a refusal by workers to accept lower wages.

Interestingly, the position of prep cook was the least frequently cited for “hardest to hire” with only six restaurants selecting it. By another measure, prep cook was cited by ten restaurants as “easiest to hire.”. And the position of prep cook was cited far less frequently than line cook as experiencing turnover. The greater availability and stability of prep cooks suggests the potential to develop line cooks internally from the employees who currently work as prep cooks.

Following line cooks, the position of manager was the next most frequently cited as difficult to fill, by twenty-one restaurants. (Only three restaurants found it easy to fill the position of manager.) Two restaurant owners, in interviews, both said that the key characteristics of a good manager are intelligence and commitment. They have found intelligent people but few who are committed to always doing the best for their businesses. Restaurant businesses operate on tight margins so it is essential that managers actively seek to reduce costs and maximize employee productivity. Similar to the position of line cook, it seems like restaurants might benefit from a career ladder strategy, training and promoting current employees that are knowledgeable about the business and committed to it.

Head chef was the next position that was most frequently cited as difficult to fill. Head chefs must combine skills that are similar to both line cooks and managers, with high-level culinary skills, an understanding of operations, and an ability to effectively oversee other employees. Head chefs are decently compensated, earning an average annual income of \$56,700 in the Boston area (BLS Occupational Employment Statistics 2016). Again, it would be interesting to explore the challenges to becoming a chef and working as a chef over the long-term in Boston.

The positions that were cited most frequently as easiest to fill with good candidates were busser or food runner, followed by server, and then dishwasher. Servers were also cited the most frequently as experiencing significant turnover, followed by dishwashers, and

then line cooks. Below I discuss servers and then briefly compare bussers and food runners to dishwashers.

While servers were cited as easy to hire by twenty restaurants, they were also cited as difficult to hire by fourteen restaurants. This mix of opinions is likely related to the very high turnover among servers. Thirty-five restaurants (two-thirds of the restaurants in my sample) said that server was one of the three positions that they had hired most recently. The high turnover among servers may be related to their relatively high educational attainment. One-third of the restaurants in my sample hire servers that predominantly have high school degrees, half of the restaurants hire servers with some college credit, and several restaurants hire servers with college degrees. Servers are not only mobile within the restaurant industry but also between industries and occupations.

The high turnover may also be driven by the potential to earn more tip income in other restaurants. A regression analysis shows that, at a 99% confidence level, restaurants that could easily recruit new servers charged \$9.80 more for their highest-priced entrée than restaurants that had difficulty hiring servers. In other words, those that did not have difficulty charged on average \$36 for their highest-priced entrée, while those that did have difficulty charged \$26. It seems that servers prefer to work at more expensive restaurants where their tip income will be higher. In the next section I show that most servers in Boston only earn the subminimum wage of \$3.75 per hour, so tip income is essential to them.

The other positions that are easiest to fill require the fewest skills of any position in a restaurant: busser, food runner, and dishwasher. Yet these positions experience very different levels of turnover. Dishwasher was cited twice as often as a high turnover position than busser and food runner. This is likely because bussers and food runners, as front of house staff, usually participate in the tip pool and receive tip income in addition to the minimum (or a higher hourly) wage and the work of bussers and food runners is much less physically intense than that of dishwashers.

To summarize, my data reveals patterns in the labor market for Boston's restaurant industry. Though good candidates are more difficult to find for some positions than others, there is evidence that higher wages, at least for line cooks and potentially for servers, can alleviate this difficulty. Based on this and the unemployment data in Chapter 2, I would not describe restaurants' hiring difficulties as a "labor shortage." In addition to offering higher pay and better working conditions, restaurants could find ways to strengthen internal career ladders to fill more highly-skilled positions that are currently difficult to fill with employees from lower-level positions that are easier to fill.

## **Wage Variation in Boston, the Research Triangle, and San Francisco**

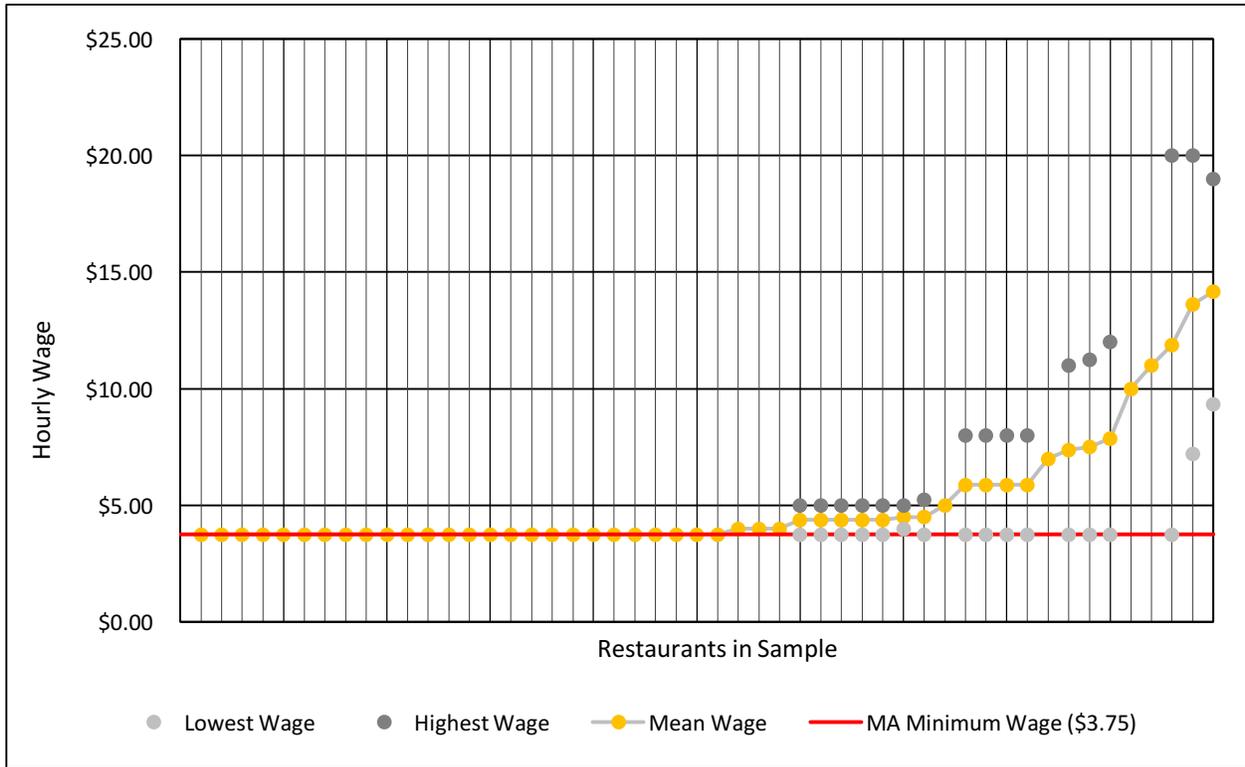
In addition to characterizing the labor shortage, through my survey I also sought to uncover patterns in the employment practices of restaurants in Boston. The survey specifically asked about restaurants' strategies for employee recruitment, retention, and compensation. In addition to understanding the industry in Boston, the results can be compared to William Lester's analysis of the Research Triangle Park and San Francisco (2016). In many ways, these two regions are similar to Boston, but each has a different set of labor regulations that impact employment practices.

One measure of the impact of these regulations is the variation in wages offered for specific positions at restaurants. As described above, the theory of monopsony implies that markets with lower labor standards and a lower minimum wage will have more variation in wages than markets with a higher minimum wage. Lester demonstrated this in his comparison of the Research Triangle and San Francisco (2016). The Research Triangle, which follows the federal minimum wage for tipped and non-tipped employees, had both more variation in wages between firms and within individual firms for the positions of server and line cook than San Francisco, which has a much higher minimum wage that applies to both tipped and non-tipped workers, and which may experience wage compression, the opposite of wage variation, in which wages trend towards the minimum (Lester 2016).

From my survey, I have added wage data from Boston, which can be viewed on the next two pages in Chart 4.1, Chart 4.2 and Table 4.2. I originally predicted that Boston, which has middling labor standards, would have less variation in wages than the Research Triangle, but more variation than San Francisco. By one measure, this is correct for servers. Of the restaurants in Lester's sample, 57% in the Research Triangle paid at least one server more than the tipped minimum wage, while only 38% in San Francisco paid at least one server more than the minimum wage there (2016). In Boston, 51% of restaurants paid more, which, of course, implies less variation than the Research Triangle but more than San Francisco.

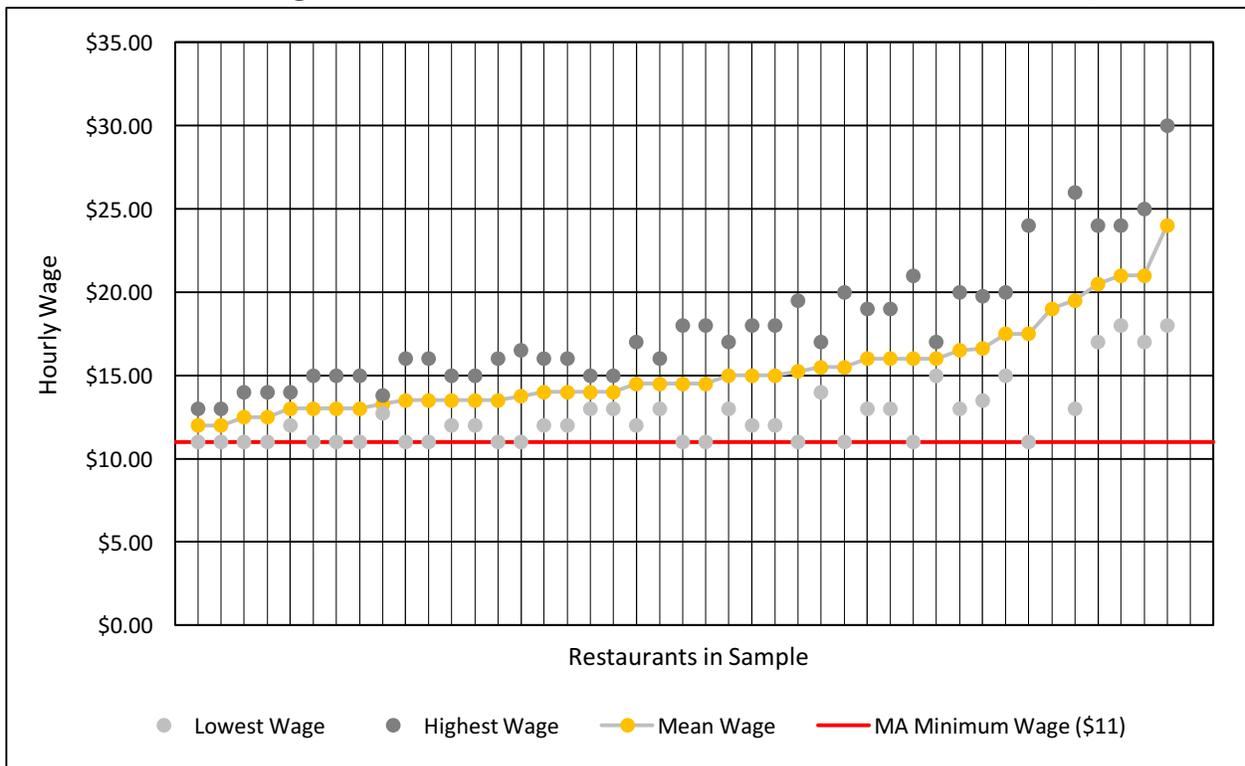
A slightly more sophisticated analysis, based on data available in Lester's working paper, suggests that the variation in wages for servers in Boston is quite similar to that of the Research Triangle, while the variation in wages for cooks is similar to San Francisco. This makes sense (and likely should have been my hypothesis) because the tipped minimum wage for servers in Boston is similar to that of the Research Triangle, while the regular minimum wage in Boston is almost equal to San Francisco's.

**Chart 4.1: Wage Variation for Servers at Full-Service Restaurants in Boston, MA**



Source: Author's analysis of survey of full-service restaurants (N=50), 2017.

**Chart 4.2: Wage Variation for Cooks at Full-Service Restaurants in Boston, MA**



Source: Author's analysis of survey of full-service restaurants (N=43), 2017.

Table 4.2: Wage Variation in Boston, the Research Triangle and San Francisco

Average Hourly Wage Rates by Occupation	BOS	ANOVA		Tukey HSD Post-Hoc Test		
		Sig. Level	p-value	RTP v SF	RTP v BOS	SF v BOS
<b>Servers</b>	(N=50)					
Lowest wage	\$4.31	***	0.0000	0.0000	0.0060	0.0000
Standard Deviation	\$1.64					
Highest wage	\$6.06	***	0.0000	0.0000	0.5738	0.0000
Standard Deviation	\$4.19					
Intra-firm wage range	\$1.75	*	0.0753	0.0774	0.8690	0.2209
Standard Deviation	\$3.58					
<b>Cooks</b>	(N=43)					
Lowest wage	\$12.70	***	0.0000	0.0000	0.0000	0.9729
Standard Deviation	\$2.18					
Highest wage	\$17.90	***	0.0000	0.0000	0.0000	0.0001
Standard Deviation	\$3.79					
Intra-firm wage range	\$5.19	***	0.0000	0.2474	0.0006	0.0000
Standard Deviation	\$3.03					

Source: The wage data for Boston were compiled and analyzed by the author in 2017.

For his paper, Lester performed a t-test to compare mean wage rates in the Research Triangle and San Francisco (2016). To compare rates among the three locales, I performed an analysis of variance (ANOVA), adjusting for inflation between June 2014 and February 2017, the midpoints in Lester's and my data collection periods, respectively. The results of the ANOVA and Tukey post-hoc test are listed in Table 4.2. The highest wages offered to servers in Boston and the Research Triangle were not significantly different (p-value of 0.57). Likewise, the lowest wages offered to cooks in Boston and San Francisco were not significantly different (p-value of 0.97). But the findings for cooks are problematic and difficult to explain with just the theory of monopsony.

The data for cooks' wages in the Research Triangle and San Francisco specifically refer to line cooks, while the wage data that I collected in Boston refers to both prep and line cooks (Lester 2016). This was an oversight in my design, as I sought to simplify Lester's version of the survey. The most important implication is that the lowest wages for cooks in Boston may not be comparable to the other locales because it represents the lowest wage for prep cooks, who are paid less than line cooks; and so the lowest wages for line cooks in Boston are very likely higher and may actually be significantly different from the lowest wages offered in San Francisco.

Nonetheless, the highest wages for cooks in the three locales are comparable because they all refer to line cooks. A review of the highest wages suggests that they do not conform to the theory of monopsony. At the time of study, Boston had the highest minimum wage by about twenty cents, and yet the city exhibits the most variation in cooks' wages. The average of the highest wages offered to line cooks in Boston is \$17.90 with a standard deviation of \$3.79. This is \$2.50 higher than the mean highest wage offered in San Francisco and \$5.50 higher than in the Research Triangle; and the standard deviation is about one dollar higher in Boston than in the other two locales (Lester 2016).

Rather than labor standards, the wage variation in Boston may be explained by the "labor shortage" or the difficulty recruiting for the position of line cook. In the regression analysis that I described above, I found that about half of the restaurants in my sample did not have difficulty hiring cooks, and these restaurants in Boston offered \$2 more per hour, on average, to their most highly-paid line cooks. This suggests that hiring difficulties may have led many restaurants in Boston to increase the wages that they offer to cooks.

Because the regular minimum wages in Boston and San Francisco are almost equal and quite high, the theory of dynamic monopsony predicts that the actual wages in both cities should exhibit similar and minimal variation. The data, however, show that the wages paid to line cooks in Boston are significantly higher and more varied than in San Francisco. It is possible that the variation is related to the hiring challenges in Boston or to other labor market indicators, such as the educational attainment or immigration status of the

workforce or the possibility of employment in other industries. Perhaps San Francisco attracts a larger “supply” of aspiring chefs because it offers a more vibrant food scene than Boston. Or there may be other differences between the restaurant industries in each city; though the samples themselves appear to be quite similar, both in terms of the market segments that are represented and the average size of the restaurants that participated, as I discussed in the previous chapter. My sample in Boston does include three hotel restaurants (both unionized and not). I do not know if the sample in San Francisco includes any hotel or otherwise unionized restaurants. But I recalculated the averages and re-ran the statistical tests without the hotel restaurants in Boston, and the results were very similar.

### **Employment Practices at Local Restaurants**

Through his research, Lester concluded that the high labor standards in San Francisco not only led to wage compression, but also to a differentiated set of business practices: the careful recruitment of new employees; the “professionalization” of the server occupation such that servers are expected to have more experience and then are offered less training; the proliferation of nonmonetary benefits; and the adoption of new compensation strategies (2016). The first two, in particular, contrast with common practice in the Research Triangle, where high turnover has led to mass recruitment and training practices of new employees who often have no experience in the industry (Lester 2016).

My hypothesis focused on recruitment and training, predicting that Boston would be somewhere in between San Francisco and the Research Triangle in terms of the expectations that restaurants have for their new employees, particularly servers and cooks, and the amount of training that they offer to them. As I describe below, my data suggests that the recruitment practices in Boston, like the compensation practices, may be more related to labor supply than regulations; that restaurants require experience but still offer training; that many restaurants offer nonmonetary benefits, though often informally or only because they are required; and, lastly, that few restaurants are considering alternative strategies for compensating their employees.

To begin with employee recruitment strategies, restaurants in Boston primarily rely on referrals. Of the fifty-three restaurants in my sample, forty-three, or 81%, selected “referrals from current employees” as one of the most important recruitment methods for open positions in both the front and back of house. Many also relied on referrals from their own networks of restaurant owners and managers in the local industry.

It is somewhat surprising that referrals were used for both front and back of house positions because those two sets of workers are distinct in terms of gender and race (front of house workers are more likely to be women and white) and even more so in terms of

educational attainment (Reyes and Rodriguez 2016a). Eighty percent of the restaurants in my sample reported that, in general, their back of house staff have at most a high school degree, while only forty percent reported that for their front of house staff. As one owner describes in ROC United's Boston report, it is also possible that relying on referrals perpetuates these differences between front and back of house employees.

The reliance on referrals suggests that both front and back of house workers have strong local networks, likely enhanced by the high turnover and, therefore, high likelihood that staff have worked at other restaurants in the Boston area. As a strategy, it may also reduce "search frictions" for managers because they can rely on their employees to find and vet candidates. Finally, it likely also points to tightness in the labor market and the difficulty of finding high-quality candidates through other means, such as online postings.

Craigslist and other generic job listing websites were the next most frequently cited recruitment methods. Twenty-six or approximately half of restaurants use Craigslist for front of house positions, while eighteen or approximately one-third use it for the back of house. Though referrals and online job listings do not necessarily imply careful recruitment as in San Francisco, those strategies are certainly not the mass recruitment of the Research Triangle, where restaurants have routinized the continuous recruitment and training of new employees (Lester 2016). Indeed, their use may be more influenced by labor supply than labor standards, if applicants are not readily available and restaurants rely on personal connections to recruit new employees.

For the experience required of new hires, my results are mixed. Lester published his data for servers, and the starkest data point is, perhaps, the willingness of 46% of the restaurants in the Research Triangle to hire servers that do not have any prior experience (2016). Only 8% of restaurants in San Francisco will hire servers without experience (Lester 2016). This difference is very likely due to the difference in labor standards and, particularly, the minimum wage rate in each locale, with San Francisco employers paying servers \$8.50 more per hour than their counterparts in North Carolina. On this measure, Boston falls in the middle, as I hypothesized, with 21% of restaurants willing to hire servers with no prior experience.

However, many restaurants in Boston require newly-hired servers to have more than a year of experience. In my sample, it was 49% of restaurants, while only 33% of restaurants in San Francisco and 25% of restaurants in the Research Triangle require that level of experience (Lester 2016). It is possible that the discrepancy is a result of the options that were offered in my survey, which differ from the options in Lester's survey. To simplify the survey, I only offered two options to describe "less than 1 year of experience", while Lester

offered four options.<sup>1</sup> Because these represent most of the options in his survey, it is possible that the restaurants in Lester's sample were simply more likely to pick a lower range than a higher range. The restaurants in my sample offered very similar responses for cooks as they did for servers, with 59% reporting that they require more than a year of experience for newly-hired cooks.<sup>2</sup>

To better understand my data, I ran several linear, multi-linear and logistic regressions, looking for relationships between experience requirements and other factors. A few relationships did emerge, which can be summarized as follows: less expensive restaurants pay their employees less and require less experience. The highest-priced dinner entrée costs, on average, \$11.50 less at restaurants that do not require newly-hired servers to have any experience, at a 99% confidence level. Restaurants that require newly-hired cooks to have less than one year of experience offer, on average, wages that are \$2.15 less than restaurants that require more experience, at a 95% confidence level. I was also curious about the feasibility of requiring servers to have more than a year of experience because that position, in particular, turns over so frequently. I found that restaurants that require servers to have between one and three years of experience were less likely to complain of turnover among servers, at a 95% confidence level, and, therefore, perhaps more likely to have servers on their staff for that length of time. Though this data does not explain the discrepancy between Boston and the other two locales, it does highlight patterns in employment practices in Boston.

I also tested the relationship between the amount of experience required by employers in Boston and the amount of training that they offer to understand if Boston has, like San Francisco, "professionalized" its workforce. The chi-squared test of independence did not find a statistically significant relationship between experience required and training offered for cooks in Boston. From my conversations with restaurant owners and managers, it seems like some expect that new hires can easily learn their methods, while others emphasize continuous training, regardless of how much prior experience their cooks have.

The chi-squared test did find a statistically significant relationship between experience required and training offered for servers, at a 95% confidence level. An examination of the tabular data shows that the most common practice for restaurants in Boston is to require servers to have one to three years of experience and then offer them one to four weeks of training. (Eighteen restaurants do this.) This pattern suggests that Boston has not professionalized the server occupation because most restaurants require

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<sup>1</sup> Lester included three more options than I did: "less than 3 months", "3 to 6 months", and "6 months to 1 year" of experience.

<sup>2</sup> Many restaurants had the same answer for both servers and cooks (thirty in total), and most of the restaurants picked contiguous ranges for the two positions (either lower requirements, middling requirements, or higher requirements for both).

significant experience, while still offering substantial training. Again, it is possible that the options in my survey were too broad to discern more subtle patterns. Lester divided “1 to 4 weeks” of training into “1 to 2 weeks” and “2 to 4 weeks,” which might be more realistic increments for differentiating the level of training that is offered to servers.

While employers in San Francisco offered minimal training to new hires, other non-monetary benefits proliferated in response to the higher labor standards in the city. Some of these benefits, such as health care, add significant costs, while others, such as the use of the restaurant kitchen or the bulk order of food supplies for employees’ other pursuits, are nominal costs (Lester 2016). In San Francisco, a few employers in Lester’s sample decided to purchase health insurance for their employees in defiance of the government mandate that they otherwise contribute \$2.33 per hour worked by each employee towards the city’s health care system (2016). In Boston, there is no local health care ordinance, but twenty-one restaurants in my sample reported that they provide insurance in accordance with the Affordable Care Act, which requires businesses with fifty employees or more to offer coverage to those employees that work thirty hours or more each week.<sup>3</sup> Seven restaurants in my sample that are smaller and not subject to those requirements also offered health insurance. Most of these reported other business practices that classify them as “high road” employers, including offering higher wages and providing more intensive and ongoing training to staff.

In total, twenty-eight restaurants or 53% of my sample reported that they provide health insurance to non-management employees. Yet, the Restaurant Opportunities Centers United, in their survey of workers in the Boston area, reported that only 6% of workers have employer-provided health insurance (Reyes and Rodriguez 2016a). I am not certain how to explain this discrepancy. One difference between my sample and ROC’s is that they surveyed employees of restaurants in Boston as well as some of the surrounding cities and towns, while I exclusively surveyed owners and managers in Boston; but health care regulations are the same across Massachusetts. Another difference is that they surveyed employees at both full- and limited-service restaurants, while I exclusively surveyed at full-service restaurants. It is possible that limited-service restaurants are less likely to provide health insurance than full-service restaurants, but I have not read anything that would confirm this.

While I cannot compare the size of the restaurants in my sample to that of ROC’s, I did determine that the restaurants in my sample are larger on average than the local industry. If ROC’s sample is more representative of the industry and fewer restaurants are required to provide insurance under the Affordable Care Act, then size may have contributed

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<sup>3</sup> Ten of the restaurants have fifty or more employees working at their establishments, and eleven of the restaurants that have fewer than fifty employees were part of multi-establishment chains or restaurant groups that have fifty or more employees across their businesses.

to the discrepancy. The exception in the Act for part-time workers may have also contributed, if employees that participated in ROC's survey worked less than thirty hours each week.

Both health insurance and paid vacation were explicit options in my survey, following the question, "What benefits do you offer to non-management employees?" Twenty-eight restaurants (or 53%) selected paid vacation, but two stated that the paid vacation is actually the earned sick time that was recently mandated in Massachusetts. They prefer that their employees use sick time like vacation so that they have advance notice of when their employees will not be working. This is a different interpretation of the labor standard than what was intended by policymakers and advocates.

Here there is less of a discrepancy between my data from restaurant owners and managers and the Restaurant Opportunity Center's data from employees. Of the workers surveyed, fourteen percent get paid vacation (Reyes and Rodriguez 2016a). The difference between the twenty-eight percent in my sample and the fourteen percent in ROC's may be accounted for by the inclusion of limited-service restaurants in their sample. On the other hand, ROC United found that eighty-three percent of restaurant employees do not get paid sick time, despite the state mandate. My survey did not include a question to test whether or not owners and managers know about the mandate, but it seems like at least a few do.

The question on benefits also included space for employers to write-in other benefits that they offer. Four restaurants wrote-in that they provide dental insurance and three that they offer 401k packages. These restaurants also offer general health insurance and tend to be larger establishments. Three restaurants wrote that they offer discounted or free meals to their employees, a practice that is probably very common, but may not have been considered a "benefit" by most of the survey respondents. Restaurants also wrote-in that they provide discounts on ingredients to their employees, access to free products and services from other businesses that they operate, and even company stock. It makes sense that in Boston, like in San Francisco, where the minimum wages are high, restaurants would seek to both differentiate themselves and reward their employees through alternatives to hourly pay increases.

Restaurants can also differentiate themselves by offering ongoing training and career ladder opportunities. Not only do employees benefit from such practices, but restaurants can also benefit from increased productivity, retention, and recruitment for open positions through internal promotions. In the survey, I explicitly asked restaurants if they offer any ongoing training to staff and what kind of training they provide. Twenty-eight restaurants (again 53%) responded that they offer training beyond supervisory or staff meetings. Most responses described food and alcohol training, and many described various types of safety training. The three alternative responses included a restaurant that cross-trains employees so that they can do other jobs and two restaurants that offer "cultural" training related to the

cuisine that they serve. Some of the responses implied that training was formalized and occurs regularly, while many responses were vague.

The survey also included a question on internal promotions, though it was originally only intended for restaurants that selected promotions as an important recruitment strategy (and it only appeared in the online version of the survey if they selected it). Fifteen restaurants or 28% selected promotions as a recruitment strategy, but twenty-seven restaurants in total (or 51%) responded to the question. The additional twelve restaurants completed the paper survey and so they saw the question even though they did not select it as a recruitment strategy. This suggests to me that many restaurants do promote staff internally, but probably not through a formal system as a key recruitment method.

Most restaurants offer the promotions that I had listed as options on the survey: host to server, prep cook to line cook, and line cook to sous chef. But twelve restaurants wrote in other promotions that they offer. Notably, dishwashers have the opportunity to become cooks; and hosts, bussers and barbacks have the opportunity to become servers and bartenders. (Interestingly, the internal promotions, like referrals as a recruitment strategy, also perpetuate the separation of front and back of house staff.) Here, my data on training and promotions is supported by ROC's data. Forty percent of workers reported that they do "receive the on-going training they need to advance in position in the restaurant industry" (Reyes and Rodriguez 2016a). Both the practice of ongoing training and of promoting internally seem to be common among restaurants in Boston, but perhaps not formalized.

For a rough understanding of the number of high road restaurants in my sample, I created a chart to show which restaurants meet ROC's criteria for high road businesses by offering living wages, health insurance, vacation days, and career ladder opportunities in the form of on-going training or internal promotions or both (Batt 2012). Four restaurants offer all of these and more, though two of these are hotel restaurants, in a local market that is highly unionized. Twelve restaurants offer all of these, but no additional benefits. Of the restaurants that provide health insurance and one or two other benefits, six offer significantly higher wages, so I classified them as high road. Of the remaining restaurants, most offered substantially lower wages, except for one. Partly based on the high wages and partly based on my conversation with the owner regarding the nonmonetary supports that he provides for his employees, I would also label that restaurant "high road." Overall, about 40% of the restaurants in my sample meet the basic standards for high-road employers, though at least partly because of local and national labor regulations, like the Affordable Care Act, and also perhaps as a result of sample bias. While I cannot compare these findings to the Research Triangle and San Francisco, they do seem promising for the Boston restaurant industry.

The final impact of labor standards in San Francisco is the experimentation with new business models, and especially models that address the wage gap between front and back of house employees. Many of these models involve a surcharge that is added to customers' bills, which may be specifically for back of house staff or for something else, such as health care costs. In Boston, it seems that the labor standards have not yet pushed restaurants to adopt new business models. In fact, as I describe below, many restaurants in my sample did not have to adjust their business practices at all in response to the recent increases in the minimum wage. Only one restaurant in my sample temporarily added an administrative fee for back of house staff to customers' bills, but they ended the policy because it did not add much revenue and customers had complained. In total eleven restaurants in my sample have considered adopting the service charge or administrative fee model. Five of these have partly adopted it, by adding a service charge for large parties, for functions, or for take-out. Two restaurants explicitly decided not to adopt it because it would increase their tax liability. (They would no longer be eligible for the tax credit that federal and state governments offer to employers for the earnings of tipped employees.) Of those that would not consider adding a surcharge, the most common reason was that customers would not accept it. Beyond my sample, about a dozen restaurants in Boston and Cambridge have been highlighted in the news for adopting alternative business models. This is still far fewer than in the San Francisco or New York City restaurant industries. It seems that in Boston, the local labor standards have not led businesses to consider alternative models, and, in general, interest in alternative models is only very slowly building among businesses and, perhaps, customers.

### **Local Restaurants' Responses to Increases in the Minimum Wage**

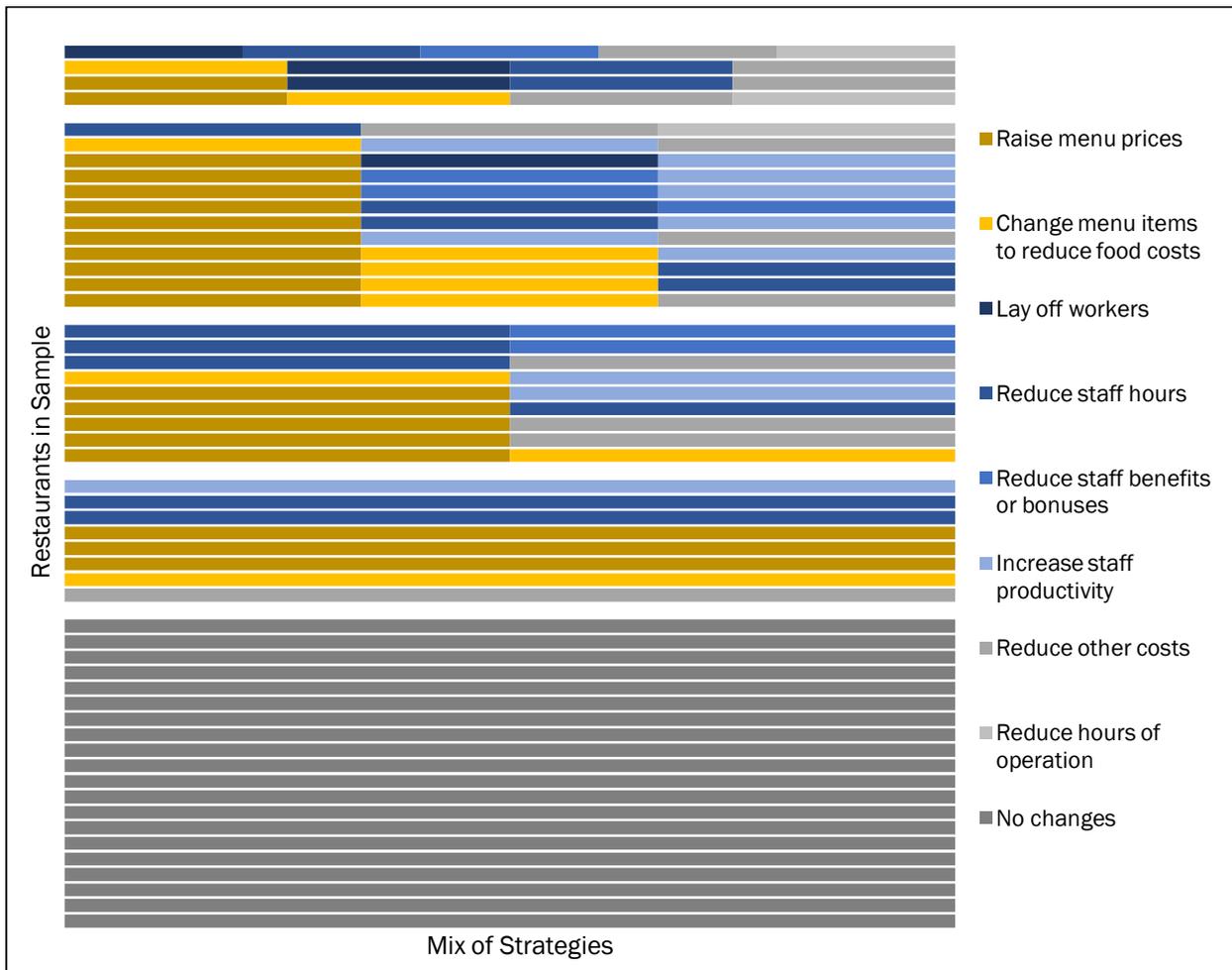
In the final section of my analysis, I examine the strategies, other than surcharges, that restaurants used to adapt to the minimum wage increases in Massachusetts. The strategies are summarized visually in Chart 4.3 on the next page. Each horizontal line represents the strategy or the mix of strategies selected by a restaurant in my sample. The yellow tones represent strategies that primarily impact customers; the blue tones primarily impact workers; and gray tones are neutral strategies (Schmitt 2013).

Twenty restaurants, or thirty-eight percent of my sample, did not make any changes in response to the minimum wage increases. Several explained that all of their employees already earned \$11 per hour or more. A few wrote that they had simply decided to accept less profit. Though I did not predict that this would be one of the most common responses, it makes sense that a portion of the restaurants in my sample would have paid more than the minimum wage. Already in 2013, the year before the minimum wage legislation was enacted, the median wage for food service jobs in the Boston area was \$10.94, just six cents below what would become the minimum wage in January 2017. By May 2016, the

median wage was \$11.87, so more than half of all employees in the local industry already earned \$11 per hour. Likely many employers increased wages in response to the legislation and in advance of the mandated increases, while many increased wages to attract workers to a growing industry in a region with a high cost of living and recruitment challenges.

Another twenty restaurants chose to raise the prices on their menus as either their singular strategy or in combination with other strategies. This is the response that I had expected based on my review of prior research. Interestingly, four restaurants explicitly stated that they raised menu prices in response to rising costs other than wages. In particular, they cited food costs. Another four restaurants, that did not select “raising prices” as a strategy, explained that they had considered it, but decided not to because they did not want to risk losing customers.

**Chart 4.3: Restaurants’ Responses to Increases in the Minimum Wage in Boston, MA**



**Source:** Author’s analysis of survey of full-service restaurants (N=53), March 2017.

Fourteen restaurants decided to reduce staff hours. Three restaurants explained that they now monitor hours more carefully to ensure that staff, and especially servers, do not work more than their scheduled hours. A linear regression analysis revealed a relationship between the number of employees at a restaurant and the likelihood of that restaurant choosing to reduce staff hours. On average, the restaurants that reduced staff hours had twelve more employees than the restaurants that did not reduce hours. One potential explanation is that large restaurants already have the systems in place to manage many part-time employees. Another explanation may be that large restaurants want to avoid additional health insurance obligations under the Affordable Care Act. Eight of the restaurants that reduced staff hours provide health insurance to their employees, but they are only obligated to provide it to employees that work thirty hours or more each week. Four of the restaurants also selected “reduce staff benefits and bonuses” as an additional strategy, which further supports a possible connection between reducing staff hours and health care policy.

The next most common responses to the minimum wage increases were to reduce other costs (twelve restaurants); to change menu items or recipes to reduce food costs (ten restaurants); and to increase staff productivity (ten restaurants). Altogether, the most common responses did not negatively impact employees as much as the less common responses likely did. In total, six restaurants reduced staff benefits and bonuses, and four restaurants laid off workers.

The chart, above, shows the mix of strategies that restaurants chose and suggests the impact that those strategies may have had on either customers or employees. In a way, this differentiation was suggested by the restaurants themselves. Ten restaurants in my sample stated that they chose certain strategies specifically to avoid impacting either staff or customers, and five of these explicitly sought “neutral” strategies that would not negatively impact staff or customers. A close examination of the chart reveals an almost even split. Eight restaurants only chose strategies that would impact staff (sometimes together with neutral strategies). Nine restaurants only chose strategies that would impact customers (and neutral strategies). Fifteen restaurants chose a mix of strategies that would impact both staff and customers; and the remaining twenty-one chose neutral strategies, mainly doing nothing at all. I examined the restaurants that predominantly chose strategies that would impact staff to find patterns in their behavior, but they were no more likely to pay low wages or offer few benefits than restaurants that chose either neutral or customer-oriented strategies.

To summarize, a significant portion of my sample did not have to do anything to adapt to the increases in the minimum wage, and the other common responses, raising menu prices and reducing staff hours, were likely influenced by factors other than the

minimum wage, such as rising food costs and federal health care policy. In all, the strategies were fairly benign for both workers and customers.

## Chapter 5: Recommendations

I begin my final chapter with a summary of the findings from my analysis in Chapter 4. I then share preliminary recommendations based on the findings. My principle recommendation is that an intermediary convene restaurant industry stakeholders to craft a workforce development strategy that supports career ladders within restaurants and across food service and hospitality businesses. Such a strategy can transform the industry by ensuring that the investment in training is realized as desirable and sustainable careers.

### Summary of Findings

#### *Broad patterns in the labor data, but conflict in the details*

An analysis of the rank order of restaurant positions suggests broad agreement on the those that are the easiest and hardest to fill and those that experience the most turnover. Line cooks, managers, and chefs were cited most frequently as hard to recruit, in that order; and servers were cited most frequently as experiencing high levels of turnover.

Indeed, the position of line cook is discussed more than any other in local news articles on the restaurant industry's "labor shortage." But, a more detailed examination shows that only 51% of the restaurants in my sample find it difficult to recruit line cooks, while 13% reported that they actually find it easy, and the remaining 36% did not report that it was either easy or difficult to recruit for the position, choosing other positions instead. These conflicting perspectives, and the unemployment data that I shared in Chapter 2, suggest that the label "labor shortage" does not accurately describe the local labor supply.

#### *Higher earnings potential correlates with ease of recruitment*

At a 95% confidence level, restaurants that have difficulty hiring line cooks offer a maximum hourly wage to their cooks that is, on average, \$1.93 less than restaurants that do not have difficulty hiring line cooks. When I remove an outlier, the results become more conclusive. At a 99% confidence level, these restaurants offer a maximum hourly wage that is, on average, \$2.33 less. That is the difference between earning approximately \$16.05 per hour or \$18.40 per hour for long hours in a fast-paced restaurant kitchen.

While there was broad agreement that the position of server experiences high turnover, with 68% of restaurants reporting that they recently hired a server, there was significant disagreement on whether it is easy or hard to fill a vacant server position, with 40% of restaurants reporting that it is easy and 26% reporting that it is hard. A linear regression showed that, at a 99% confidence level, restaurants that find it hard to hire

servers charged, on average, \$9.80 less for their highest-priced entrées than the restaurants that do not find it hard. That is the difference between an entrée that costs \$26 and one that costs \$36, or potentially \$2 in tip income per customer, assuming a 20% tip.

#### *Dynamic monopsony predicts some, but not all variation in wages*

The variation in the wage data that I collected for servers does follow the theory of dynamic monopsony, but the variation in the wage data for cooks does not. Dynamic monopsony predicts that there will be less variation in compensation practices in places with higher labor standards and, particularly, a higher minimum wage. Both the Research Triangle and Boston have a tipped minimum wage for servers that is much lower than the regular minimum wage, while San Francisco only has a regular minimum wage that applies to all workers and that was the highest in the country at the time of study. As dynamic monopsony predicts, because the Research Triangle and Boston have similarly low standards for servers' wages, they have similarly low mean wages (\$5.35 and \$6.06, respectively) and similarly high variation in wages across restaurants (standard deviations of \$3.91 and \$4.19, respectively) (Lester 2016). In San Francisco, the mean wage is much higher at \$11.90, and the variation, as measured by the standard deviation, is lower at \$2.25 (Lester 2016).

In Boston the regular minimum wage applies to cooks. During the study periods, the regular minimum wage in Boston was the highest of the three locales by about twenty cents (\$11 per hour as compared to \$10.74 per hour in San Francisco and \$7.25 in the Research Triangle). Yet, despite the high standard, the city exhibited the most variation in cooks' wages. The mean of the highest hourly wages offered to line cooks at restaurants in Boston is \$17.90 with a standard deviation of \$3.79. This is \$2.50 higher than the mean highest wage offered in San Francisco and \$5.50 higher than in the Research Triangle; and the standard deviation is about one dollar higher in Boston than in the other two locales (Lester 2016). Though a more in-depth comparison of the labor markets and restaurant industries in Boston and San Francisco is beyond the scope of this project, my findings do suggest that Boston restaurants may be offering higher wages to cooks in order to ease the recruitment process.

#### *A networked industry, with a mix of experience requirements and training opportunities*

Approximately 80% of the restaurant owners and managers that responded to the survey selected "referrals from current employees" as one of the most important recruitment methods for open positions in both the front and back of house; and 45% selected "referrals from other restaurant owners or managers." Approximately 55% selected Craigslist or other job search websites.

For newly-hired servers, most restaurants expect 1 to 3 years of prior experience and offer 1 to 4 weeks of initial training. For cooks, there is significantly more variation both in terms of experience requirements and the amount of training offered at the restaurants in my sample.

### *Many employers claim to take the high road*

According to the survey data, approximately 40% of the restaurants in my sample meet the basic standards for high-road employers that are described by the Restaurant Opportunities Centers United (Batt 2012). The restaurants report that they offer benefits, ongoing training, promotions, and “living” or above average wages. The benefits and wages are certainly supported, if not required, by local and national labor standards, such as the statewide minimum wage and earned sick time requirements and the federal Affordable Care Act.

However, there are important discrepancies between what owners and managers reported in my survey and what employees reported in the ROC United survey (Reyes and Rodriguez 2016a). 53% of the restaurants in my sample reported that they provide health insurance to non-management employees, but only 6% of employees reported to ROC that they have employer-provided health insurance (Reyes and Rodriguez 2016a). Also, only 17% of employees reported to ROC that they have earned sick time, a legal requirement for all workers in Massachusetts (Reyes and Rodriguez 2016a). Furthermore, though many owners and managers reported in my survey that they offer ongoing training and internal promotions, the descriptions of the trainings were vague, and “internal promotions” was rarely selected as a key recruitment strategy, which suggests that both of these practices are often not formalized at restaurants.

### *The recent increases in the minimum wage had minimal impact on Boston’s restaurants*

More than one-third, 38%, of my sample did not have to change anything to adapt to the recent increases in the minimum wage. Furthermore, the other common responses, raising menu prices (selected by 38% of my sample) and reducing staff hours (selected by 26%), may have been influenced by factors other than the minimum wage, such as inflation and federal health care policy. The strategies that restaurants chose were, overall, benign for both employees and customers.

## **Recommendations**

In the final section of my report, I offer recommendations based on my findings and research on the industry. The recommendations are principally intended for the City of

Boston and local restaurant businesses, but are relevant to the full spectrum of organizations and businesses involved in food service locally. The main recommendation is that the City or an appropriate intermediary develop a comprehensive workforce strategy because, as my results show, restaurants are seeking candidates for middle-skill and decently compensated positions that require some training, but offer livable wages. The strategy must ensure that the positions are, and remain, high-quality opportunities by supporting high road business practices at restaurants and by enforcing labor standards.

### *Craft a Career Ladder Strategy*

The three positions that are most difficult to fill, line cook, chef, and manager, are also among the most highly-compensated positions in restaurants. In my sample, line cooks in restaurant kitchens could earn up to \$17.90 per hour, on average. In the Boston area, the median hourly wage for chefs is \$27.28; for supervisors, it is \$18.70; and for managers, it is \$31.75 (Occupational Employment Statistics 2016). For a single person, these wages are sufficient to cover the cost of living (Glasmeier 2017). Because the positions are decently compensated, but require some skill, and are currently experiencing vacancies, it may be appropriate to create a workforce development strategy both for people who are currently unemployed and for people who are employed in the industry, but in lower-skill, poorly-compensated positions.

To begin with current employees, according to my survey, the position of prep cook is relatively easy to fill and stable. In terms of skill, the key difference between the positions of prep and line cook is that prep cooks prepare the ingredients, measuring, cleaning and cutting them, while line cooks actually cook the ingredients and arrange the dishes (BLS Occupational Outlook Handbook). These skills do not require formal training, so a prep cook can potentially learn to become a line cook on-the-job in the same kitchen where he or she works. And, in fact, this is a common practice. Of the twenty-seven restaurants that offer internal promotions, fifteen have promoted employees from prep to line cook, according to my survey. If it is not possible to train employees in the kitchen due to constraints on time or space, there are several local programs that offer training in the culinary arts. Perhaps the most convenient and affordable options for current employees are Bunker Hill Community College in Boston and Newbury College in Brookline, which offer professional courses in the culinary arts for approximately \$500 per course. On the next page, Table 5.1 lists several local and regional schools that offer courses in the culinary arts and hospitality management as well as the approximate costs for the culinary arts programs.

Just as prep cooks can become line cooks, line cooks can become chefs if they receive significant training and support at their workplace or if they pursue a professional certificate or degree. Both Bunker Hill and Newbury College offer certificates and Associate's degrees in the culinary arts. Though more expensive, Boston University and the Cambridge

School of Culinary Arts offer intensive 15-week certificate programs. More expensive still, Johnson & Wales in Providence, Rhode Island and the Culinary Institute of America in New York City offer Associate’s and Bachelor’s degrees. The potential debt for any of these programs is an important consideration. It should either be avoided from the start by finding a way to train people on-the-job; it should be subsidized by industry, philanthropic, or public resources; or it should be factored into the compensation packages that are offered to new line cooks and chefs.

**Table 5.1: Local and Regional Culinary Arts and Hospitality Management Schools**

School	Location	Duration	Culinary Arts Approximate Costs	Hospitality Management?
Bunker Hill Community College	Boston, MA	1-2 years, if full-time	\$500 per course \$5,000 for certificate \$11,000 for Associate's	Yes
Newbury College	Brookline, MA	1-2 years, if full-time	\$500 per course \$5,000 for certificate \$11,000 for Associate's	Yes
Boston University	Boston, MA	15 weeks	\$14,000 for certificate	Yes
Cambridge School of Culinary Arts	Cambridge, MA	15 weeks	\$14,000 for certificate	No
New England Culinary Institute	Montpelier, VT	2-4 years	\$14,000 for certificate \$74,000 for Associate's \$100,000 for online Bachelor's \$114,000 for Bachelor's	Yes
Johnson & Wales	Providence, RI	2-4 years	\$64,000 for Associate's \$128,000 for Bachelor's	Yes
Culinary Institute of America	New York, NY	2-4 years	\$64,000 for Associate's \$128,000 for Bachelor's	Yes

It is also possible and desirable to promote current employees to the position of manager. Employers need managers that are committed to their restaurant, and current employees, who have been trained and promoted into the position, are likely to be more committed than an outside hire. Current employees may need training in accounting, operations, or marketing. Though much of that can be taught on-the-job, Bunker Hill Community College does offer courses on those topics and more, which can lead to a certificate or an Associate’s degree in hotel and restaurant management. Other local schools offer more advanced degrees in hospitality management, but they are significantly more expensive.

ROC United’s “how-to” guide for high road restaurants highlights best practices for internal promotions based on thirty-three case studies from across the country (Batt 2012).

First, restaurants should carefully hire entry-level employees (Batt 2012). In Boston, employers reported that it is easy to fill busser and food runner, dishwasher, and other positions. Restaurant employers should explicitly ask people in interviews if they are interested in working for the restaurant over the long-term and moving into different positions; and they should use a trial employment period to decide if the new employee is someone that they want working for the restaurant over the long-term (Batt 2012).

Second, employers should cross-train employees, so that they learn how to fill different roles in the restaurant (Batt 2012). In the process, they should not perpetuate the common “segregation” between front and back of house staff, which often differ by gender, race, and educational attainment, but allow employees to experience both the front and back of house and fill vacancies in either (a strategy that may help to address the high turnover typical of servers in Boston). Finally, employers should always offer open positions to current employees first, and the application process should be “transparent, formalized, and consistent” so that no tensions emerge (Batt 2012). Together, these are simple guidelines to build career ladders in often hectic small businesses with limited “human resources” capacity.

Two potential challenges to promoting current employees are language skills and immigration status. One-third of restaurant workers in the Boston area are immigrants with, of course, varying English language skills and immigration statuses. There are many English language courses in and around Boston, but attendance requires time and possibly funding. For Boston residents, the City already collaborates with the Boston Chinatown Neighborhood Center to offer a free “ESL for Customer Service” course that has led to positions in the restaurant industry. The Restaurant Opportunities Centers United and Unite Here have also developed English language curriculums specific to the hospitality industry, which may reduce the time, and consequently the expense, of preparing employees.

Immigration status may be simple for some employees that can continue to work with the documents that they already have. Employees with legal permanent resident status can gain citizenship by studying and applying for naturalization on their own or by participating in a citizenship class. There are several classes that are regularly offered in the Boston area. Unite Here Local 26 and SEIU 32BJ, union locals that are based in Boston and represent hospitality and building service employees respectively, offer citizenship classes and even legal support to immigrant employees, both of which are funded, at least partly, by employers. For those without legal residency, it is much more difficult to gain citizenship because the immigration system is currently biased towards highly-skilled long-term employment and lower-skilled seasonal employment. The National Restaurant Association’s “principles for immigration reform” perpetuate this bias by advocating for a more “efficient” employment verification system, “improved border security,” and a “viable temporary-worker visa program” (NRA 2017). In response to the Trump administration’s criminalization of

immigrants and expansion of the detention and deportation system, many individual restaurants have begun to act in support of their immigrant employees by participating in political actions, raising funds for immigrant organizations, and more mundane activities like arranging rides between home and work (Hester 2017; Pfeiffer 2017). It is possible that these individual efforts could be collectively mobilized as a “sanctuary” movement to influence national immigration policy.

For potential workers that are currently unemployed or underemployed in other industries, there are many ways to gain employment in the restaurant industry. One is, of course, to take an entry-level position, ideally with a restaurant that will offer training and opportunities for advancement. Another option is to take classes at any of the schools described above, though the tuition costs may be prohibitive. Alternatively, there are increasing opportunities for un- and underemployed people to participate in free training programs in the culinary arts. In Boston, the New England Center for Arts & Technology (NECAT) offers a 16-week course; Community Servings offers a 12-week course; and the Salvation Army Kroc Community Center offers a 10-week course. There are also programs that provide training specifically to youth and homeless adults “in cooking techniques, knife skills, food terminology, menu planning, nutrition, and kitchen safety standards” (Pfeiffer 2016). A prominent youth program, Future Chefs, engages high school students in restaurant industry career ladders so that they graduate enrolled in culinary arts programs, employed at restaurants, or on other paths to fulfilling careers.

These programs are supported by private individuals and organizations as well as public institutions. The City of Boston supports the NECAT and Community Servings programs with funds from linkage fees. Two food service businesses, Sodexo and SnapChef (a local staffing agency), are among the donors that directly support the NECAT program. Most of the programs have fostered connections with local restaurants and food service businesses, with varying degrees of formality, which is important partly for funding and for on-the-job training as well as for references in a highly-networked industry.

A workforce development strategy requires more analysis than what I have provided here. The demand by current restaurant employees and potential employees for training should be examined as well as the potential for restaurant businesses and local organizations to provide the training. And beyond training, the strategy should ensure that employees are offered high-quality employment opportunities at high road businesses that adhere to labor standards. An appropriate intermediary should be identified to coordinate the analysis, strategy, and implementation, and to manage the relationships between stakeholders. A key intermediary in Boston is SkillWorks, and one of their current programs, the hotel training center run by BEST Corporation, offers a model and possibly an opportunity for a broader food service program.

## *Support High Road Business Practices*

Restaurant owners and managers are key stakeholders that must be involved in the development of the workforce strategy and, particularly, in defining their role within it. Restaurants can participate in the workforce strategy in many different ways. They can provide training to their employees, or they can fund training for their employees that is offered by local schools or organizations. At a minimum, restaurants should offer high-quality employment opportunities to people that receive training or are otherwise qualified. My survey results and key informant interviews suggest that many business owners in Boston are improving the quality of employment in their restaurants to attract employees. Any public or philanthropic investment to enhance the restaurant industry's potential workforce must be met with a guarantee that restaurants will offer high-quality employment opportunities over the long term. To create these opportunities, stakeholders should collaborate on programs that support restaurant businesses to become "high road" employers, while continuing to raise labor standards through local governance structures.

Full-service restaurants may need support to become high road employers in part because they have tight profit margins and often cannot simply spend more on employees. In addition to analyzing the workforce development system, stakeholders should study local restaurants' finances and operations and then develop programs that reduce costs and benefit employees. For example, restaurants could purchase employee health insurance collectively (Haley-Lock and Ewert 2011). City government could streamline application processes and offer fee waivers to restaurants that meet high road standards (Reyes and Rodriguez 2016a). High road restaurants could share best practices through seminars or coaching. Indeed, there are many possibilities. Fundamentally, the program must meet a common financial need, and it must be feasible.

For labor standards, stakeholders should begin by advocating for further increases in the minimum wage. The tipped minimum wage should equal the regular minimum wage, and the regular minimum wage in Boston should equal or exceed the living wage and then be tied to inflation. As the survey respondents described, many restaurants in the city already recognize that the current minimum wage is not a living wage and offer higher wages to their employees. At other restaurants, an increase in wages should not lead to an unsustainable decrease in hours or unpredictable, on-demand schedules (Haley-Lock 2012). As an example, San Francisco has an ordinance that requires chain employers to offer additional hours to part-time employees before hiring additional employees and to share schedules at least two weeks in advance (Reyes and Rodriguez 2016b). Also, if a higher minimum wage leads to more adoption of surcharges as a compensation strategy, Santa Monica and other cities in California have adopted ordinances to ensure full disclosure on how the surcharge funds are distributed among employees (Reyes and Rodriguez 2016b). Beyond the minimum wage, stakeholders should research other ways to

improve labor standards, connecting with movements across the state and country to raise health and safety standards or expand access to maternity and paternity leave, as examples.

### *Enforce Labor Standards*

Finally, the standards must be effectively enforced. In Massachusetts, the Attorney General's office is one of the few organizations that pursues workplace violations on behalf of low-income employees. Other legal services organizations are sorely underfunded, turning away approximately 75% of qualified workplace violation cases, according to a recent study (Woolhouse 2014). Locally, the City of Boston now requires businesses applying for a new or renewed food or liquor licenses to disclose labor violations or citations; and upon disclosure, the Licensing Board may conduct a special hearing and refuse to grant a license. (The nearby City of Somerville automatically refuses licenses to businesses that have been found guilty of violations.)

Clearly, this is not enough. Funds must be secured not only for job training, but for ensuring that the jobs meet high standards. Researchers have studied best practices in enforcement (Fine and Gordon 2010; Osterman and Shulman 2011; Dietz, Levitt and Love 2014). They highlight the importance of empowering employees and the organizations that represent them either on a neighborhood, ethnic, or industry basis. The training programs can include know-your-rights sessions, and the funding can compensate organizations for handling or referring violations cases (Dietz, Levitt and Love 2014). An enforcement strategy should include publicity that engages local consumers, so that they can decide to dine at restaurants that treat their employees well.

Together, these three recommendations, crafting a career ladder strategy, supporting high road business practices, and enforcing labor standards, can potentially transform the local restaurant industry, creating more opportunities for residents to fill high-quality and living-wage positions.

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## **Appendix: The Growth of the Local Restaurant Industry**

In the Appendix, I share my initial analysis of the growth of the local restaurant industry in Boston, Massachusetts. I examined the industry's growth in terms of revenue, employment levels, and the number of establishments. I compare the industry's growth locally to its growth nationwide and to other local industries. I find that the growth has outpaced both the national industry and other local industries.

### *Growth in Revenue*

A local measure of restaurant industry revenue was recently established in Boston. In 2009, the Massachusetts state legislature created a "local option" tax on meals, which permits municipalities to levy a local tax of 0.75% on the sale of meals through a vote of the city or town's legislative body. (This is in addition to the state sales tax of 6.25% that was already levied on the purchase of meals statewide.)

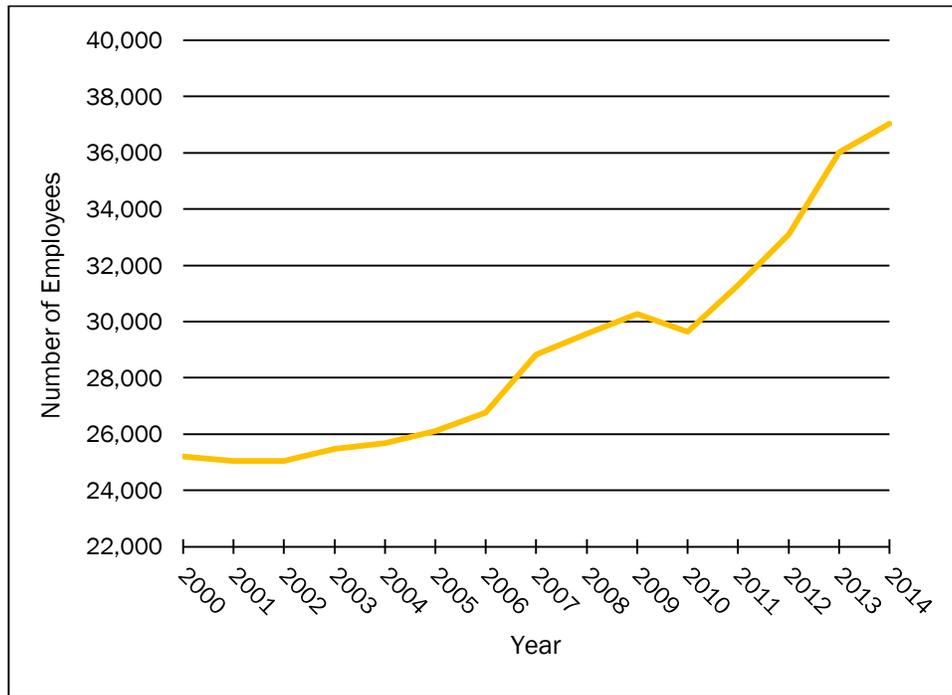
The City of Boston was one of the first municipalities to adopt the local option meals tax, and so data on the sales volume of meals in the city has been available since 2011, the first full year of meals tax collections. In 2011, the city raised \$18.4 million from the tax, which means that total revenue from the sale of meals in the city was \$2.5 billion (MA DOR Division of Local Services). Since then, citywide revenue has grown steadily, by \$100 to \$200 million each year, or an annualized growth rate of 6.1%. In 2016, the city collected \$28 million, which translates to \$3.7 billion in total revenue for local businesses. This total represents the sales of limited-service restaurants, cafes, cafeterias, and bars, in addition to full-service restaurants, which are the focus of this thesis (MA Department of Revenue).

The annualized rate of growth in revenue for establishments in the city of Boston is much higher than the rate of growth for the restaurant industry nationwide. Data on total revenue for full-service and limited-service restaurants shows a rate of just 2.7% between 2011 and 2016, as compared to 6.1% in Boston (Alvarez 2016). The strength of the local industry is apparent by other measures as well, which are described below.

### *Growth in Employment*

Data on local employment in the industry has been compiled by the U.S. Bureau of Labor Statistics for many years and demonstrates significant growth over time. In Suffolk County, which includes Boston and three smaller municipalities, the restaurant industry (including both full-service and limited-service establishments) added approximately 12,000 jobs between 2000 and 2014, representing an annualized growth rate of 2.6% (U.S. Census County Business Patterns). By 2014, the industry counted 37,000 employees, which was 6.5% of total employment in Suffolk County.

**Chart A1: Local Employment in the Restaurant Industry in Suffolk County, MA**

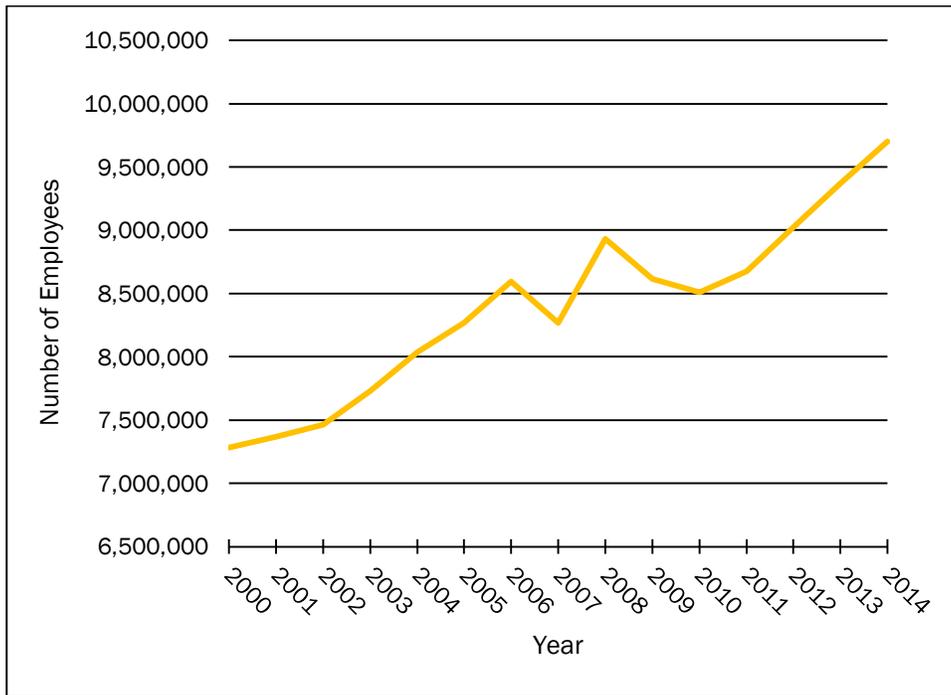


**Source:** U.S. Census County Business Patterns, 2000-2014

Nationally, the industry added nearly 2.5 million jobs during those fifteen years, growing at an annualized rate of 1.9% (U.S. Census County Business Patterns). By 2014, the industry counted 9.7 million employees, which was 8% of total employment in the United States. This suggests that, while the restaurant industry in Boston is proportionally smaller than the industry nationwide, it has grown faster over the past several years.

The graphs of employment growth in Suffolk County, above, and in the US, below, clearly show the increasing strength of the industry locally, even through the recession. While nationwide restaurant employment dipped in 2007 and then was effectively flat through 2011, Suffolk County experienced growth beginning in 2006 through 2014 with just a pause in 2010.

**Chart A2: National Employment in the Restaurant Industry**

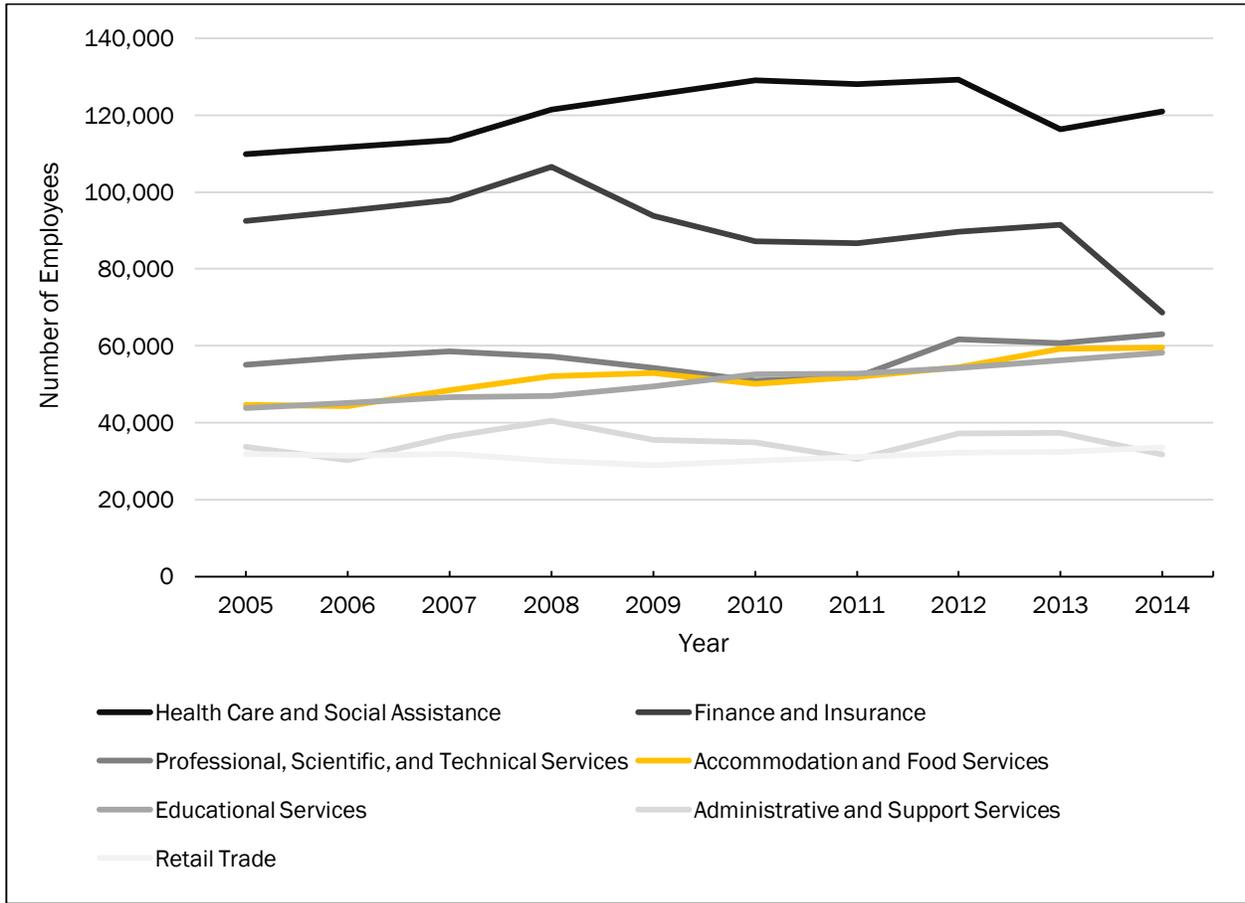


**Source:** U.S. Census County Business Patterns, 2000-2014

It is also useful to compare local employment growth in the industry to growth in other sectors to understand the importance of the industry in Boston. The restaurant industry is classified by the U.S. Bureau of Labor Statistics as one component of the Accommodation and Food Services sector. In addition to restaurants, the sector includes all types of food service businesses, including drinking establishments, and all types of hotel (or accommodation) businesses.

The graph below shows annual employment in the six largest sectors in Suffolk County between 2005 and 2014. Currently, Accommodation and Food Services is the fourth largest sector. Health Care and Social Assistance is easily the largest, followed by Finance and Insurance, though that sector has declined significantly in the last few years. Accommodation and Food Services (with approximately 59,000 employees) is on par with both Professional, Scientific and Technical Services (63,000 employees) and Educational Services (58,000 employees). Administrative and Support Services and Retail Trade are also important sectors in the local economy.

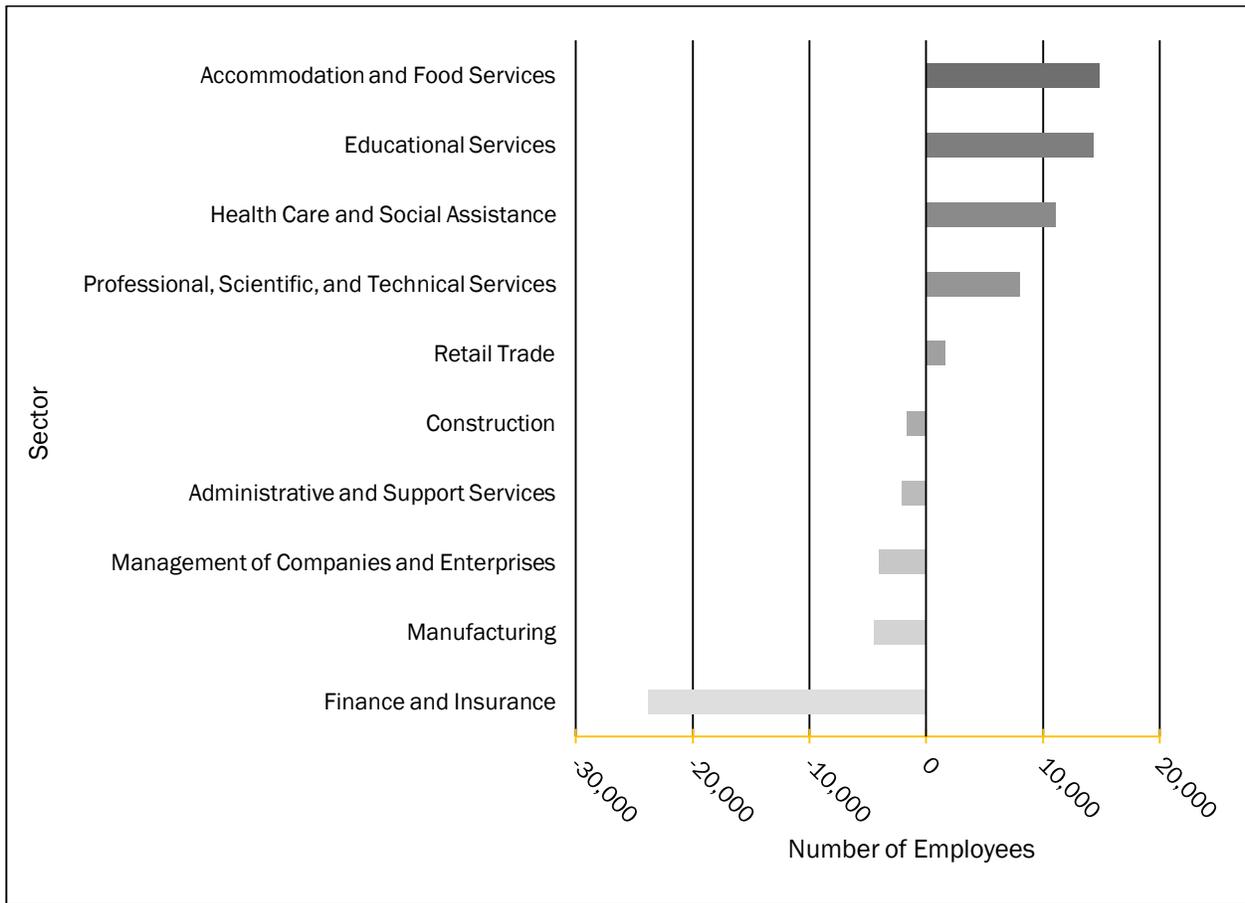
**Chart A3: The Largest Sectors by Employment in Suffolk County, MA**



**Source:** U.S. Census County Business Patterns, 2005-2014

The graph that follows tells a slightly different story. It shows that Accommodation and Food Services has added more jobs than any other sector in Suffolk County between 2005 and 2014. To better understand the changes in employment, I conducted a shift-share analysis. Shift-share is a calculation that shows how many local jobs gained or lost can be attributed to changes in the national economy, changes in the specific sector nationally, or local dynamics. For Accommodation and Food Services, the analysis confirms my findings for the restaurant industry both locally and nationally. Some of the local growth reflects growth in the industry nationally, but most of the local growth can only be attributed to local dynamics.

**Chart A4: Change in Employment in Ten Sectors in Suffolk County, MA**

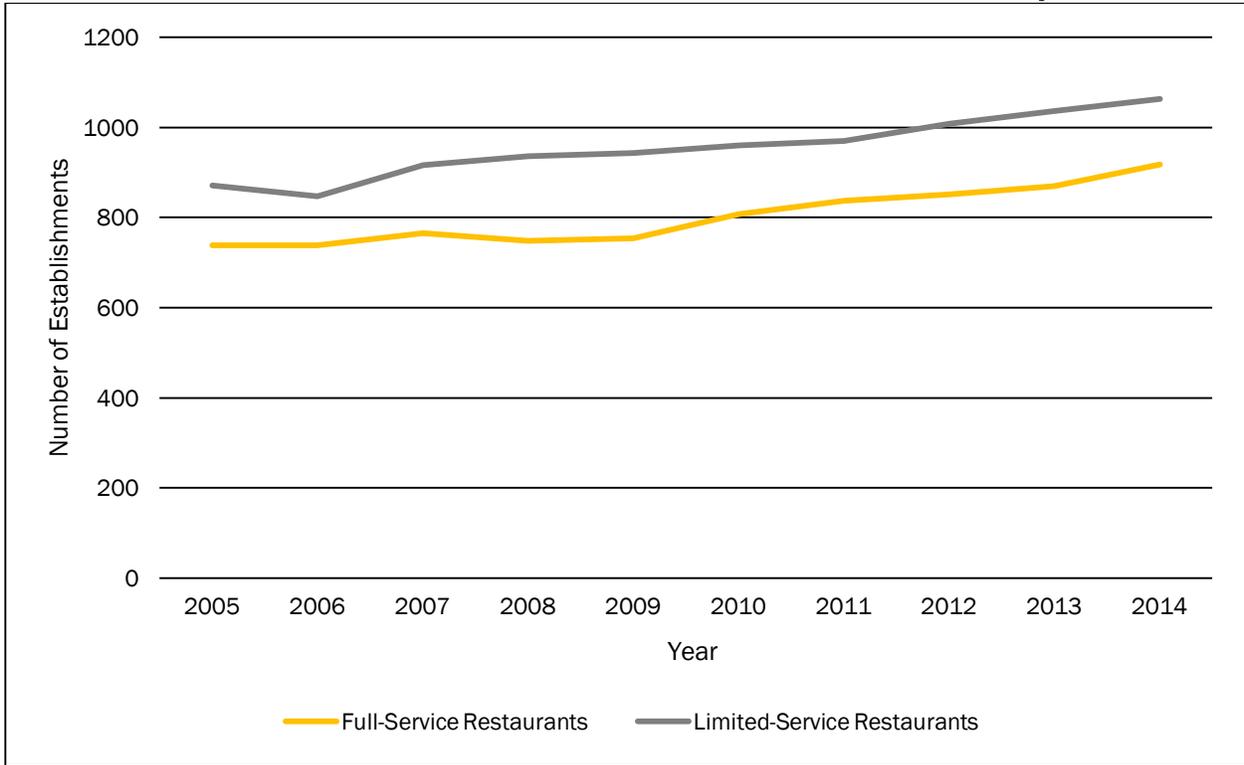


**Source:** U.S. Census County Business Patterns, 2005-2014

*Growth in Establishments*

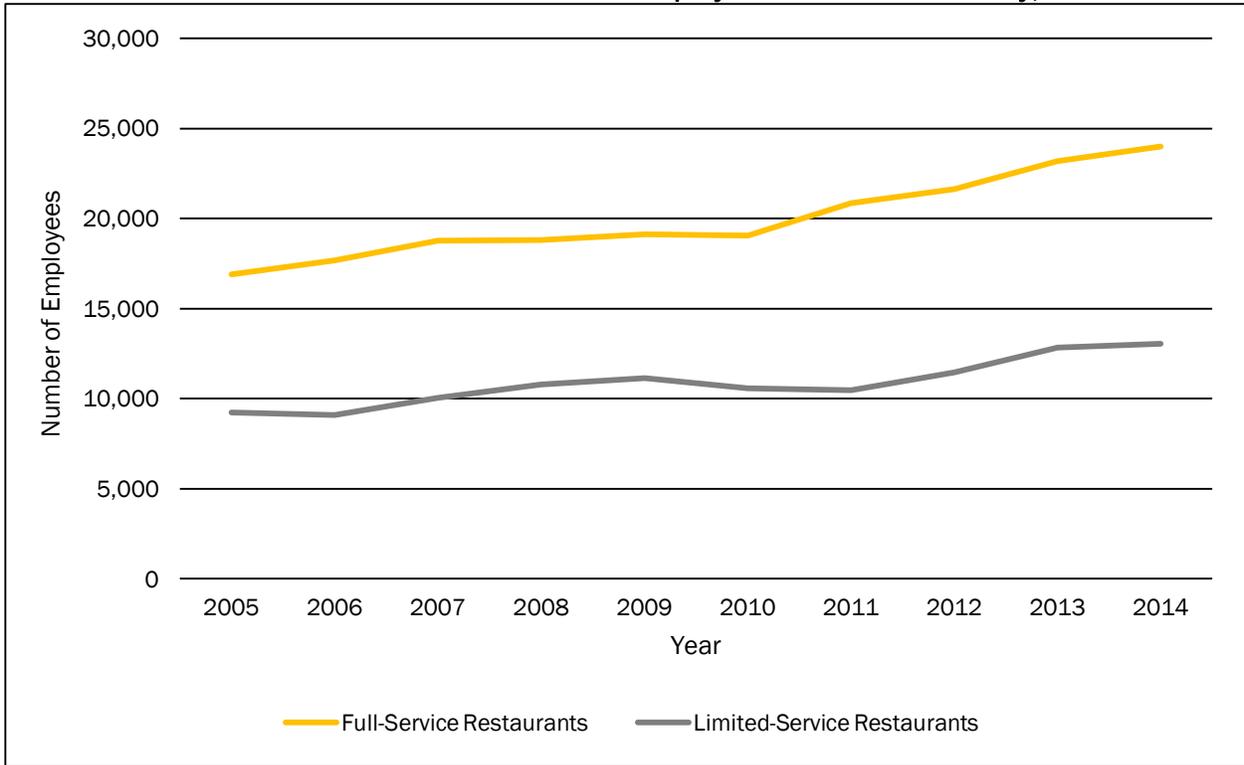
The number of full-service and limited-service restaurants in Suffolk County has increased steadily since 2005 at an annualized rate of 2.1% (U.S. Census County Business Patterns). The charts below show that, while there are more limited-service establishments in Suffolk County than full-service establishments, there are significantly more employment opportunities in full-service establishments. On average over this time period, limited-service restaurants have hired 11 employees per establishment, and full-service restaurants have hired 25 employees per establishment.

**Chart A5: Full- and Limited-Service Establishments in Suffolk County, MA**



Source: U.S. Census County Business Patterns, 2005-2014

**Chart A6: Full- and Limited-Service Employment in Suffolk County, MA**



Source: U.S. Census County Business Patterns, 2005-2014

The data on the growth in the number of establishments in Suffolk County is net of the restaurant businesses that have closed during that time period. Currently, on average, full-service restaurant businesses in Boston have been in operation for 11.5 years (ReferenceUSA). Though this is not a rate of business closure, it does suggest that a significant number of the nearly 1,000 full-service establishments in Boston close each year. The County Business Pattern data above represents both new restaurants that have replaced former establishments and new restaurants that have expanded the market each year.