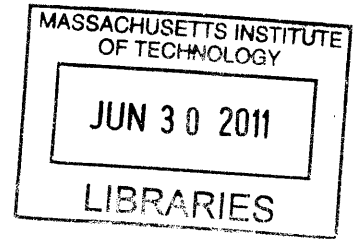


The Social Cost of Low Wages

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Submitted to the Department of Urban Studies and Planning
In Partial Fulfillment of the Requirements for the Degree of

Master in City Planning

at the

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

June 2011

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I. INTRODUCTION

A. The Issue

Living wage ordinances require city-contracted firms to pay their workers a wage that is set above the state's minimum wage. The first ordinance was implemented in Baltimore in 1994, in recognition that workers earning close to the minimum wage do not earn enough to be able to meet their basic needs and support their families. Community leaders in Baltimore began a living wage campaign to place pressure on firms to pay higher wages. They focused their efforts on city-contracted firms as they believed that firms receiving taxpayer dollars should be held accountable to the public. Since the enactment of Baltimore's Living Wage ordinance, over 120 municipalities across the United States have also implemented ordinances with the goal of reducing poverty levels.

The economic impact of living wage laws is still not completely understood which has led to the emergence of a field of living wage research. Living wage studies have primarily focused on the effects of living wage laws on economic indicators such as employment levels, wages, poverty rates, prices and business growth. To capture the effects of ordinances, researchers typically examine how firms and workers affected by living wage laws have fared compared to those who are unaffected. Other studies attempt to contrast the experiences of workers and employers within a city before and after an ordinance is implemented. However, there has been limited research on how low wages impact workers and have ripple effects on the economy.

Although it is generally accepted that low wages can lead to higher poverty rates and can have adverse impacts on families and communities, these affects are not often measured in substantive ways. Developing research methods that lead to more concrete measurements of how families and communities are affected by low wages, can strengthen the living wage movement and help policymakers design more effective anti-poverty and living wage laws. Additionally, measuring the cost of supporting poor working families through the use of public subsidies can serve to measure the magnitude of externalities.

The purpose of this thesis is to expand the analytical scope of living wage research by illustrating the importance of analyzing the effects of low wages on families and taxpayers. To accomplish this, I conduct a qualitative study of two poor working families to depict how their lives are impacted by low wages. I then discuss how data on working families using public subsidies can be collected and reported for the purposes of living wage research. It is important to note that the research presented in this report is not necessarily intended to advocate for living wage laws but to strengthen and expand the scope of living wage research so that living wage laws can be more accurately evaluated.

Overview of Chapters

- In chapter one, I first explain the Boston Living Wage Ordinance in order to provide an example of the policy structure of living wage ordinances. Additionally, I discuss the scope of living wage studies and discuss the importance of measuring externalities.
- The second chapter explains the methodological approach that was used to select participants and conduct interviews.
- The third chapter describes who are Boston's low wage workers and the role they play in the economy and the occupations and industries that are most affected by low wages.

- Chapter four provides a summary of the qualitative study conducted with two low wage workers and how they manage to support their families on a limited income.
- In chapter five, an in-depth analysis of their budget is conducted to determine the costs of the public subsidies they use and how they manage to reduce their household expenditures.
- The sixth chapter discusses how researchers and administer of public subsidies can better track and report data that demonstrates the magnitude of worker dependency on public subsidies and its implication for tax payers.
- The final chapter focuses on key findings of this study and recommendations for the future.

B. Boston Living Wage Ordinance

In 1998, the City of Boston became one of the first cities to adopt a living wage ordinance. Community organizers and labor unions, primarily AFL_CIO¹ and ACORN², united to persuade City Councilors and the Mayor of the city to adopt a living wage ordinance. The proposal was passed but there was resistance from the private sector and a threat to sue the City over provisions of the law. Consequentially, the passage of the ordinance into law was delayed for a year (Luce, 49). The living wage ordinance written and enacted into law by states,

The City of Boston awards millions of dollars in contracts for services each year that result in the creation or maintenance of a wide variety of employment opportunities; and these contracts are paid for by taxpayer dollars and-should be used to promote the sustenance and creation of jobs that will increase consumer income, decrease levels of poverty, invigorate neighborhood businesses and reduce the need for taxpayer-funded programs in other areas (City of Boston)

Reducing “the need for tax-payer funded programs” and “decreasing levels of poverty” are two of the ordinances primary goals and the impetus for many living wage ordinances across the United States, essentially intended to reduce the affects of low wages.

The ordinance covers both for-profit and non-profit entities that have a contract with the city of \$25,000 dollars or more and have at least 25 full time workers. Not all workers who are employed by the contractor, but only those who work directly on the contracted public project, are required to receive the living wage rate. The wage rate is currently \$13.02 and is adjusted annually to match changes in the consumer price index.

¹ AFL-CIO is an acronym for American Federation of Labor and Community Organization for Reform Now.

² Association of Community Organization for Reform Now

The wage is designed to be sufficient for a family of four to survive on an income slightly above the federal poverty level (\$22,350). Below is a chart of the weekly, monthly and annual earnings a full time employee can expect to earn at the living wage rate.

Table I. Earnings at Living Wage Rate

Boston Living Wage Rate	
Hourly Rate	\$13.02
Weekly Income	\$520.80
Monthly Income	\$2,256.80
Yearly Income	\$27,081.60

Compared to living wage ordinances that have been implemented in other municipalities, Boston’s coverage laws are conservative in the breadth and types of firms they cover. There are approximately 120 municipalities in total that incorporate a range of different coverage laws into their ordinance (Brenner, 5). These size and types of municipalities in which ordinances are adopted in vary in size however the majority of these ordinances are passed in major cities and towns.

Table II. Living Wage Ordinance Laws by Type and Popularity

Ordinance Law	Law Coverage	Number of Municipalities with Laws
City Service Contractors	Businesses Contracted to Provide City Services	130
Firms Receiving Economic Assistance	Receiving local tax breaks or subsidized loans	39
Municipality Employees	Businesses leasing or operating on city owned land.	23
Geographic Region	Firm within a given area	13

**In addition to increasing wage rates, some municipalities require firms to provide benefits such as health insurance, sick and personal days. (Luce and Brenner, 5)*

Although ordinances have become a widely accepted, they remain controversial and their impact on the economy is still not completely understood. For example, in theory, one of the potential adverse impacts of living wage ordinances is that unemployment will increase as a consequence of firms not being able to maintain the same number of workers at a higher wage rate (Neumark 492). Others fear that firms will increase the bidding price of the services they provide to the city and therefore pass on the cost of wage increase to the city. Because of these fears and concerns, a field of living wage research has emerged to evaluate the overall effectiveness of these laws.

The Importance of Living Wage Research

Although, the City of Boston does not have immediate plans to expand its coverage, other cities have issued proposals for more expansive policies. Research has the ability to influence how cities structure ordinances and whether or not they decide to pursue more expansive coverage laws. In fact, the City of New York is currently in the process of considering a new coverage law that would extend their ordinance to businesses and real estate developers operating on city land that has received a public subsidy (CRA 4). In light of this proposal, New York's Economic Development Corporation contracted the Charles River Associates (CRA), a research firm, to complete a one million dollar study on New York's proposed Living Wage Ordinance (Living Wage NYC, 2011). This report will guide New York's City Council as they redesign the ordinance's coverage laws. Given the influence of living wage studies on public policy, researchers must continue to find more accurate methods of measuring the effects of living wage laws and expand the scope of research questions they seek to address.

To date, researchers have primarily evaluated living wage laws by focusing on the effects of ordinances. They examine changes in economic trends like employment, wages and business vitality to determine the overall effectiveness of the ordinance. Although, this is an important analysis, researchers often do not take into account how cities are impacted by low wages. Low-wages make it difficult for working families to survive, as well as increase poverty levels and the need for public subsidies. Although there have been studies conducted on the affects of ordinances on poverty levels, more thorough analyses of living wage ordinances would weigh the cost and benefits of living wage laws to the effects of low wages.

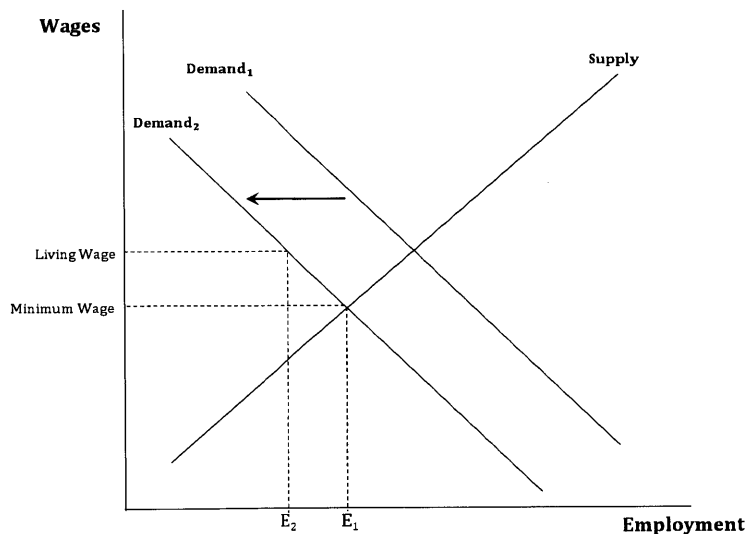
The need for living wage research that examines the cost of low wages, and not just the impact of ordinances, has inspired me to find more substantive methods of measuring the effects of low wages. Much of my research draws from the theory of labor market externalities, a model used in economics to explain how insufficient wages impose costs on society. I will first explain the historical development of this model and its application to the living wage movement. I will then make the case that not incorporating this model into living wage research has resulted in less comprehensive evaluations of living wage laws. Lastly, I will provide a brief overview of living wage studies and the extent to which they have incorporated labor externality models into their research

C. Historical Development of Living Wage Theory and Labor Market Externalities

Much of the current living wage rhetoric and research emerged from the historical fight for a national minimum wage. The living wage debate thus relies on the same paradigms of analysis that the founding fathers of both neoclassical and institutional

economics used to debate minimum wages. In the late 1700s, classical economist Adam Smith argued that labor should not be treated any differently from capital as this would lead to market inefficiencies. But Smith also realized that like capital, labor had to be sustained. He stated that “a man must always live by his work and his wages must be at least sufficient to maintain him” (Kaufman, 45). However, Smith’s definition of a ‘sufficient’ wage was the natural wage set by supply and demand. He believed that workers, like firms, would act in their best self-interests and would not sell their labor power if the wage rate was not enough to support their survival (Knoedler and Champlin, 877). This assertion provided the groundwork for the classic labor economics model of supply and demand. In this model, if the proposed subsistence wage (living wage) surpasses the natural wage, employment, production and profits are at risk of declining.

Figure 1: Labor Supply and Demand Model



In Classical Economics if the minimum wage rate is set to the living wage rate, the demand for labor shifts to the right as firms lower their employment to absorb the cost of higher wages. This results in higher unemployment and may even cause some firms to go out of business. However, it is difficult to predict by how much unemployment will increase (Bernstein, 19). If higher levels of unemployment occur, poverty levels will increase even though some low wage workers enjoy a higher wage (Kaufman, 448).

It was not until the emergence of institutional economics in the early 1900s, that the argument for a wage floor that met the needs of workers was advanced and that workers were seen as being more than just labor power (Prasch 441, Kochan 5). Institutional economists, such as, Beatrice Web and John M. Clark attested that there were inefficiencies embedded in the labor market as a result of firms only accounting for labor costs as a per unit accounting cost and not as social overhead costs (Prasch 2004, Kaufman 445). The social overhead costs were defined as the costs of sustaining a worker and a worker's family in order to assure that there was a future workforce (Clark, 362). Institutional economists John Kaufman states,

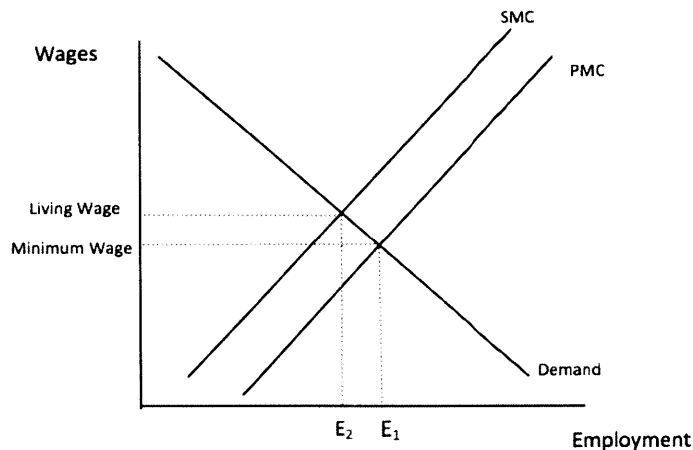
“the wage must cover all items that define the long-run subsistence cost of labor, such as minimal necessary health expenditure, minimal retirement income, minimal income support during periods of unemployment, and minimal income for dependent children (so the nation has a future workforce) (Kaufman, 445).”

If the wage rate does not meet a worker's needs, the worker must find ways to supplement his or her income or must forgo basic needs such as access to health care (Prasch, 10). Workers who choose to supplement their income do so through various means. Some workers are able to depend on friends and family for support others have to rely on the use of public subsidies (Champlin and Knoelder, 887). Whether or not a worker chooses to supplement his income or forgo his needs, the worker and society must bear the cost of the firm's failure to pay a sufficient wage (Prasch, 6).

These costs are more commonly referred as labor externalities. In theory, firms set the price of their goods where demand intersects marginal cost, the incremental cost of producing an additional unit of a good. In practice, most firms do not accurately calculate

the social marginal cost as they only account for their private marginal cost and not the negative externalities that low wages produce. In a more accurate pricing model firms would price goods where demand intersects social marginal cost, marginal private cost plus marginal externality cost.

Figure 2: Labor Externality Model



The difference between private marginal cost and social marginal cost represents the externality that firms impose on society by not paying living wages. Because prices are lower when firms set their prices at the intersection of demand and private marginal cost consumers pay lower prices but in turn the cost is shifted on to workers in the form of low wages and back on to society (Kaufman 445).

Valuing external costs is challenging. Environmentalists have typically calculated the cost of externalities to be the cost of remediating environmental damage caused by a firm's pollution. In the context of labor markets, one method is to calculate the cost of supporting poor working families through various public assistance programs. Such an approach would require knowledge of just how many low-wage workers rely on public assistance and the cash value of the assistance they receive.

The development of institutional economic theory was important, in that, it provided an alternative paradigm of analysis to the neo-classical model of supply and

demand. It introduced the concept of externalities as a natural occurrence in labor markets that stemmed from the competitive behavior of firms seeking to maximize profits and reduce input costs (Kaufman 445, Prasch 3). This model helped justify the need for a national minimum wage and has been used by living wage advocates to champion workers' rights. Despite the incorporation of this model into the living wage movement, its use in the field of living wage research remains primarily theoretical. Living wage studies have not attempted to perform empirical analyses of the labor market externalities that firms produce. Instead they have focused much of their attention on refuting the neo-classical labor model of supply and demand by focusing on employment, wages and business vitality.

C. Literature Review

This section provides an overview of the common research methods used in living wage studies and variations in the findings of these studies. Additionally, it discusses the extent to which living wage studies have incorporated labor externality models into their research design and offers an example of how studies can benefit from the use of this model.

Typology of Living Wage Studies

Studies on living wage ordinances are generally conducted when a new ordinance is proposed, as in the case of New York, or after an ordinance has already been implemented. Before city officials pass an ordinance into law, researchers will try to forecast the potential impacts of living wage policies in a municipality. This is often done by estimating how many firms will be covered by the ordinance and the ability of these firms to absorb higher

labor costs. One example of such a study is *Living Wages and the San Francisco Economy: The Benefits and the Costs*. Researchers Michael Reich, Peter Hall, and Fiona Hsu, used the American Business Directory and a list of firms contracted by the City of San Francisco, to determine the size and industry of the firms that would be covered under the City of San Francisco's ordinance. They then use industry and wage data to estimate the number of workers who will experience wage increases as a result of the ordinance and the additional costs that firms will incur (Reich, 11). They estimate that approximately 5,200 of the 36,650 potentially covered workers would experience a wage increase of approximately \$2.43 (Reich, 2).

Studies conducted after an ordinance is implemented tend to be more concise as researchers do not have to estimate or forecast what the affect of an ordinance will be. They are able to actually collect the data. Researchers David Reynolds and Jean Vortkamp's study of the impact of Detroit's ordinance on non-profit organizations. After conducting 64 interviews with non-profits they conclude that most of the non-profits already supported living wages and paid their employees at the living wage rate and although some non-profits struggled with the wage increase impacts were minimal (Reynolds and Vortkamp, 1).

Common Research Methods

Living wage studies have relied on both qualitative and quantitative research methods. In quantitative research studies, difference-in-difference methods are commonly employed to capture the before and after effects of ordinances. Researchers search for changes in the economic trends of cities with living wage ordinances; these cities are

treated as the treatment group. These cities are then compared to cities without living ordinances that act as the control group. If only the treatment group experiences change in economic trends, a living wage affect is detected.

Living wage researchers David Neumark and Scott Adams utilize difference in difference methods in their study, *Do living wages reduce urban poverty?* The authors examine changes in wages, employment and poverty levels using information provided by the Current Population Survey, a monthly survey of households conducted by the Census, and other secondary data sources. They conclude that the ordinances increase the wages of some low wage workers but have modest effects on poverty levels (Neumark, 1). However, researcher Jared Bernstein criticizes Neumark and Adams and other living wage researchers for their use of city-wide data sets. He states that since CPS data cannot be used to identify living wage employees and that affected employees represent a small percentage of the city, thus it is difficult to detect a living wage signal (Bernstein, 20). On the other hand, living wage advocates hope that ordinances will result in a horizontal wage push also known as spillover affects, in which employers are pressured to increase the wages of non-covered firms and employees (Reich, 19). If this were to occur, researchers would expect the Current Population Survey to detect changes (Jeanette Wicks-Lim, 1).

Qualitative studies allow researchers to directly ask firms, employees and municipalities questions that cannot necessarily be detected by public data sets. Some examples of these questions are employee turnover rates, hiring practices and horizontal wage affects within a firm. In a study of the economic impact of Baltimore's living wage ordinance by Christopher Neidt et al, researchers interview living wage employees to

examine how the wage increase affects their overall quality of life. They conclude that although the ordinance increases the income of workers, many of these workers still struggled to meet their basic needs even at the living wage rate (Neidt, 3).

Externality Models and Living Wage Studies

Two of the more comprehensive studies conducted within the field of living wage research that use qualitative and quantitative studies respectively are: The Economic Impact of Living Wages in Boston by Mark Brenner and the Economic Impact of Living Wages in New York by Charles River Associates (CRA). I will summarize the key findings of Brenner's study and use his study to provide an example of how understanding the cost of low wages can widen our analysis of living wage ordinances. I will then discuss CRA's incorporation of labor externalities in their research.

Brenner analyzes the effect of Boston's Ordinance on firms three years after its implementation in 2001. His research team interviews half of the 140 firms that were covered by the ordinance in 2001 (Brenner, 63). These firms accounted for 5,177 employees in the city that were covered by the City's ordinance (Brenner, 69). Interview questions addressed employee turnover, cost of contracts, wages, firm growth, absenteeism and employee work hours. Although all firms in Brenner's study were subject to Boston Ordinance's regulations, Brenner contrasts the experiences of firms that were already in compliance, affected firms, to those that had to increase their wages to meet ordinance regulations, unaffected firms. Because he uses difference in difference methods by creating a control group and a treatment group, to an extent, he is able to control for exogenous factors such as changes in the economy. His study suggests that the ordinance

has had minimal negative impacts. Some of the key findings from his study are summarized below:

Employment

From 1998 to 2001, the percentage of full time workers increased for both affected and unaffected firms by about 13-14%. The number of workers that were designated by affected firms to work on a city project increased by an average of 17 people while unaffected firms averaged a 1 person increase on average (Brenner, 69).

Wages

After the implementation of the ordinance, the number of firms paying workers less than \$9.25 per hour decreased by 19% for affected firms and by less than 1 % for unaffected firms. The percentage of workers earning less than \$11.75 did not change for affected firms and increased by 1% for unaffected firms (Brenner, 76).

BID Prices and Firm Profit

After the implementation of the ordinance, approximately 15.4 % of affected firms increased their bid prices to the city while only 7% of unaffected firms increased their bid prices for outside contracts. However, close to 40% of affected firms reported lower profits. This means that the large majority of firms in the sample absorbed the costs of the mandatory wage increase through lower profits rather than passing on the cost to the city through higher bid prices (Brenner, 78).

Brenner's research could be further expanded by providing insight into the impact of low wages on employees prior to the ordinance. Brenner reports that the cost of the security guard contracts for Boston Public Libraries increased by 39% as a direct result of

the mandated wage increase. This sharp increase in price could have forced the Boston Public Library to curtail the quality of its services through the reduction of security guard staffing. Fortunately, an increase in the Boston Public Library's budget allowed the Boston Public Library to absorb the higher contract costs (Brenner and Luce 27). If the Boston Public Library had not been able to absorb the higher costs, Boston residents and tax payers may not have considered the ordinance to be in the best interest of the city. This viewpoint most likely would be supported by an evaluation of the ordinance that consists solely of a comparison of the Boston Public Library's performance and the wages of the security guards before and after institution of the ordinance. However, understanding how low wages affected the lives of the security guards and taxpayer resources would provide a more comprehensive analysis.

Most living wage researchers and advocates emphasize the ability of living wages to reduce workers dependency on public subsidies. However, very few living wage studies attempt to conduct an empirical analysis of how low wages affect welfare rolls and use of other public subsidies. CRA's report, which was published while writing this thesis in May 2011, is one of the very few living wage studies that attempt an empirical analysis of worker dependency on public subsidies. They use simulation models to estimate the number of low wage workers in New York that would be eligible for public subsidies depending on the structure New York's coverage laws. For example, they find that if the City were to extend their coverage law to business and real estate developers operating on city land that has received more than \$100,000 in public subsidies, there would be \$10, 286, 289 reduction in the amount of tax credit benefits that New York City workers would

eligible for and a \$76, 073 reduction in SNAP³ benefits. But because they also estimate that unemployment would increase as a result of the wage hike, total household earnings across New York would decline by \$9, 983, 620 (CRA 36). Given the decrease in public subsidy use but decrease in total income, the newly proposed ordinance would only result in a net gain of \$378,742. As mentioned earlier, it is difficult to be able to estimate the extent to which employment would decrease as a result of wages increasing, so this cannot be taken as the definitive net gain. Additionally, it cannot be assumed that the estimates used in Charles River Associate's simulation models are accurate as studies that attempt to forecast the affects of an ordinance can only do just that.

The research studies mentioned in this literature review serve to demonstrate the wide variations in research methodologies used and the breadth of different findings in living wage studies. Because there isn't a definitive understanding of the impact of living wages, improved research methods are needed and researchers must expand the scope of questions that they seek to address.

D. Research Objectives

Robert Pollins, a living wage researcher, states that, "the task of the researcher is not to simply recognize possibilities but to examine each case" (Pollins, 5). This paper seeks to examine the social and economic cost of low wages using the City of Boston as a case study. By analyzing the affects of low wages, we are able to make a more informed decision about whether or not to pursue a living wage policy or accept the costs associated with low wages.

³ Supplemental Nutrition Assistance Program

The primary objective of this research is to model an alternative approach to evaluating living wage policies by analyzing the affects of low wages. To accomplish this, I will address the following question: How are workers, workers' families and taxpayers affected by low wages? More specifically, I will examine how poor working families survive on limited incomes and how it impacts their quality of life and dependency on public subsidies. Secondly, I discuss how researchers can examine worker dependency on public subsidies to determine the cost of supporting poor working families.

II. RESEARCH METHODOLOGY

Research Site

Boston will serve as a case study for measuring the affects of low wages. The City of Boston was chosen as a site to conduct this research because it was one of one of the first municipalities to implement a living wage ordinance and therefore serves as a model for other municipalities and institutions considering similar policies.

Qualitative Research Methods

Since low wages have the most direct and immediate affects on workers and their families, they will be the focus of this study. Two low-income working families were chosen to participate in a six-week study that consisted of ongoing interviews. Word-of-mouth and flyers were used to find the workers. The following selection criteria were used:

- Must earn below \$13.02 (City of Boston Living Wage Rate)
- Must be supporting a family.
- Must be willing to share personal information about finances.
- Must be working more than 25 hours a week

The interviews were 45 minutes long and the participants received \$20 dollars for each of the interviews they participated in. There were 6 in total and one interview was scheduled per week. The interviews took place in locations and at times that were most convenient to the participant. Scheduling was sometimes difficult because participants were often juggling multiple responsibilities and jobs.

Interview questions were designed to understand how participants support their families on a limited income and how they feel their wage impacts their family's overall quality of life. The questions touched on the following subjects:

Expenses
Spending habits
Support from family members and partners
Debt and credit card use
Child Care
Financial challenges
Use of welfare programs
Work patterns and side jobs

The methods that the workers used to supplement their income can be summarized into three categories: network-based strategies, work-based strategies and agency-based strategies. Researcher Kathryn Eden created these categories to describe the different survival strategies that low-income mothers use in her book, *Making Ends Meet* (Eden 149,167, 179). I will use these strategies throughout the report to describe the experiences of the participants. Below is a description of each strategy:

- *Network-Based Strategies* –These strategies describe any type of financial support that the participant receives from family members or friends. It may also include non-financial support that helps the participant reduce their expenses such as free childcare.
- *Work-Based Strategies* –These strategies refer to any side-jobs that the participant works beyond their primary job. These jobs are often sporadic and pay under the table.
- *Agency Based Strategies* –These strategies refers to the use of public subsidies.

In addition to focusing on the strategies that families use to supplement their income, I will also provide an analysis of the participants' budgets and expenses.

Examining Worker Dependency on Public Subsidies

To provide an example of how researchers and agencies can analyze worker dependency patterns on public subsidies for the purposes for living wage research. To accomplish this, I will focus on two of the most common subsidies: Temporary Assistance to Needy Families and Massachusetts Public Subsidized Health Insurance.

III. BOSTON'S LOW WAGE INDUSTRIES, OCCUPATIONS AND WORKERS

Studying the cost of low wages requires a basic understanding of the prevalence of low wage jobs and the industries in which they are concentrated. Additionally, if living wage laws are to be expanded, it's important to know which industries will be affected. This chapter provides an overview of Boston's economy, the demographics of Boston's working poor and the occupations and industries they work in.

A. Income Disparities

Boston's core industries require a high-skilled and professional work force. It is thus not surprising that Boston is one of the most educated cities in the nation. In 2008 approximately 41.3% of adults 25 years or older held a bachelors and/or professional degree (Avault, J., Perkins 7). Boston's high skilled labor force, coupled with the availability of professional occupations, has made the median household income, \$90,200, which in Boston is quite high.

Despite Boston's strong economy, income disparities are pervasive. Boston's core industries generate high-income occupations, but also require support occupations. In 2008, half of Boston's total household income was earned by only 20% of Boston households (Boston Indicator's Project). Income disparities are continuing to rise. Boston's highest wage earners have steadily enjoyed an increase in real income, while the real income for low wage earners has remained relatively stagnant (Boston Indicator's Project).

B. The Role of Low Wage Workers in Boston's Economy

Boston's core industries are expanding and generating both low wage and high wage jobs. Growth and employment in these occupations will ultimately affect the strength of Boston's economy. Thus, it is important to identify occupations in these industries with high employment rates and low wages.

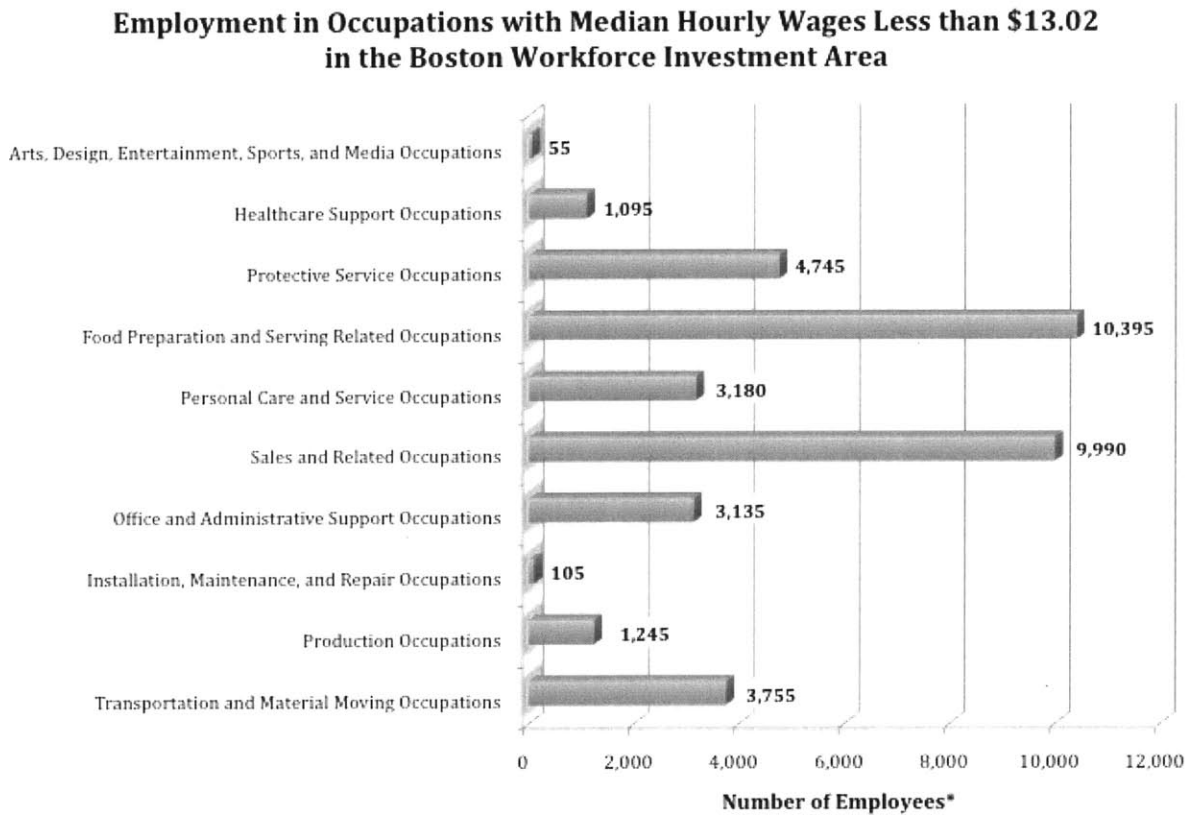
Each year, the Massachusetts Executive Office of the Department of Workforce Development (EOLWD) publishes a list of the different occupations within the Boston-Quincy-Cambridge metropolitan area organized by industry. For each industry and occupation, EOLWD provide summary statistics of 2009 wage rates⁴ and total employment. Using this data, this section analyzes the industries with the highest concentrations of low wage occupations and workers.

Aggregate Employment in Occupations with Median Hourly Wages below \$13.02

In 2009, there were 75,400 employees who worked in occupations in which the median earnings were below \$13.02 the approximate salary of a living wage employee. Below is a chart of these industries and the number of employees that worked in these industries.

⁴ The annual wage earnings reflect earnings for a full time employee

Table IV: Occupations with workers earning below \$13.02 in Boston's core industries



Source: Massachusetts's Executive Office of Workforce Development Employment and Wages ES-202 data

Low Wage Occupations in Boston's Core Industries

Boston's primary industries and occupations can be categorized into three super-sectors: Health Care and Social Assistance, Professional and Business Services and Financial Activities (Avault, J., Perkins 2). All three sectors generate high-wage occupations, but the Health Care and Social Assistance and Professional and Business Service sectors have a high percentage of low-wage jobs. Sales and Related Occupations and Food

Preparation and Serving are also strong industries in Boston with high concentrations of low wage jobs.

Health Care is one of the only industries in Boston that has been able to generate new jobs during the economic crisis (Avault, J., Perkins 14). In 2009, it employed 228,720 workers. Two of the lowest-wage occupations in this industry are: home health care aids and physical therapist assistants. They are also among top 20 fastest growing occupations in Massachusetts that will generate the most jobs by 2016 (EOLWD 17). These wage levels are not enough to support a family given Boston's current living wage rate and they will likely result in increased use of government subsidies among families supported by these professions.

Although most workers in the business and professional services earn high wages, workers in the administrative and support service industry are among the city's lowest paid workers. However, stock clerks and order fillers were the only workers in this industry with median incomes below the living wage rate.

Because Boston's core industries produce a diversity of occupations that require a wide range of education and skill levels, it is important that all workers who contribute to the economy are able to earn a living wage or have other economic support options. While it is crucial that we continue to expand education and job training opportunities that help low wage workers access higher paying jobs, it is important to not underestimate the role that support and entry-level positions play in our economy. Many of these occupations are growing, which means understanding the affects of low wages as it pertains to our economy and the overall quality of life is going to become even more important.

Following, is a chart that displays the wage rates by these industries by occupation. The wage rate is set to \$13.50 to capture the workers who are on the cusp of the living wage rate such as security guards and counter and rental clerks.

Table V: Occupations with workers earning below \$13.50 in Boston's core industries

Industry	Occupation	Employment	Median Hourly Wage (\$)	Median Annual Wage (\$)
Arts, Design, Entertainment, Sports, and Media	Fine Artists, Including Painters, Sculptors, and Illustrators	55	9.66	20,094
Food Preparation and Serving	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	820	12.39	25,770
	Food Servers, Nonrestaurant	615	12.36	25,699
	Cooks, Short Order	605	11.13	23,152
	Dining Room and Cafeteria Attendants and Bartender Helpers	1,320	10.92	22,704
	Food Preparation Workers	1,930	10.16	21,130
	Dishwashers	1,340	10.01	20,817
	Cooks, Fast Food	115	9.82	20,426
	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	1,035	9.60	19,964
	Combined Food Preparation and Serving Workers, Including Fast Food	2,615	9.37	19,499
Healthcare Support	Home Health Aides	1,095	12.73	26,487
Installation, Maintenance, and Repair	Helpers--Installation, Maintenance, and Repair Workers	105	13.19	27,430
Office and Administrative Support	Tellers	1,075	13.12	27,285
	Couriers and Messengers	180	11.81	24,569
	Stock Clerks and Order Fillers	1,880	10.80	22,455
Personal Care and Service	Manicurists and Pedicurists	150	12.82	26,673
	Recreation Workers	395	12.73	26,483
	Locker Room, Coatroom, and Dressing Room Attendants	40	11.93	24,824
	Hairdressers, Hairstylists, and Cosmetologists	505	11.88	24,718
	Personal and Home Care Aides	1,175	11.49	23,892
	Shampooers	60	10.02	20,834
	Baggage Porters and Bellhops	215	9.57	19,907
	Amusement and Recreation Attendants	100	9.38	19,504
	Ushers, Lobby Attendants, and Ticket Takers	280	9.05	18,824
	Transportation Attendants, Except Flight Attendants and Baggage Porters	260	9.00	18,719
Production	Meat, Poultry, and Fish Cutters and Trimmers	140	12.73	26,483
	Team Assemblers	325	11.90	24,757
	Helpers--Production Workers	145	11.27	23,435
	Packaging and Filling Machine Operators and Tenders	130	11.24	23,389
	Painting, Coating, and Decorating Workers	20	11.00	22,878
	Photographic Processing Machine Operators	25	10.21	21,246
	Food Batchmakers	90	9.93	20,649
	Sewing Machine Operators	185	9.93	20,647
	Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic	40	9.68	20,130
	Production Workers, All Other	145	8.93	18,573
Protective Service	Security Guards	4,475	13.25	27,561
	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	270	9.87	20,539
Sales	Counter and Rental Clerks	390	13.49	28,053
	Retail Salespersons	5,620	10.26	21,336
	Cashiers	3,980	9.31	19,359
Transportation and Material Moving	Laborers and Freight, Stock, and Material Movers, Hand	1,530	12.89	26,803
	Motor Vehicle Operators, All Other	80	12.69	26,389
	Sailors and Marine Oilers	30	10.86	22,578
	Packers and Packagers, Hand	575	10.50	21,842
	Cleaners of Vehicles and Equipment	175	10.07	20,936
	Parking Lot Attendants	1,365	9.50	19,755

**The data set used to produce this table is from the Massachusetts Executive Office of Workforce Development Employment and Wages ES-202 data*

IV. SUMMARY OF PARTICIPANTS' STORY

The first set of interviews focused on the worker's employment and educational history. Because of each of the participant's limited time, I agreed to conduct the interview while the participant was engaged in other tasks. Each participant apologized for having to do this, but felt they had no other free time in their schedule to meet with me. Talking to participants while they were performing other tasks, gave me a greater glimpse into their lives and made the conversations more candid.

First Participant: Rachel

The first participant I interviewed while she was making ice cream with her 5-year old daughter. Given the amount of hours she works, it has become important to her that she secure time to spend with her child and not falter from that. I interviewed my second participant while she was working, which allowed me to better understand the stresses she faces at work.

First Summary Interview with Rachel (Week 1, February 8th)

The first participant Rachel, is a 26-year old single mother of a 5 year old. She shares an apartment with her sister, niece and nephew. She graduated from Lasell College in 2002 with a bachelor's degree in fashion design. She participates regularly in paid and non-paid fashion shows, but she has not yet been able to pursue a full time job in her profession. Instead, she has held jobs in retail and in the non-profit sector. She currently works two part-time jobs at two different organizations and holds several side jobs. In her senior year of college, she was pregnant and made the decision to receive assistance from the

Department of Transitional Assistance⁵. This was a difficult decision, she wanted to make sure that she was able to save and be prepared for her child's arrival. Upon graduation in 2006 she worked at several retail stores and held temporary office jobs. In 2007, she began to work 30 hours per week at a local youth development organization. Organization 1. She learned of this job because she had participated in the program as a youth and then as a counselor while in college.

When she began working at Organization 1 she initially earned \$12 per hour. During this time she stopped receiving assistance from the DTA but remained on MassHealth. She received small increases in pay over the course of her 3 years there. Initially, she was only scheduled to work 30 hours per week but was working 40 hours a week on average. After arguing that she was working more hours than she was being paid for, the organization made her a full time employee. Her responsibilities included administrative work and teaching diversity workshops to youth. In her third year working there she was offered a summer position that resulted in a pay increase to \$15. She ultimately decided to stop working at the organization for several reasons. Primarily, she wanted to create more time in her schedule to be able to reach her career goals and felt that the opportunity to advance in the organization did not exist. Furthermore, she believed she was underpaid for the work she was doing. Upon reducing her work hours the organization agreed to pay her \$15 per hour since she was no longer worked full time.

After reducing her work hours she took a temporary job working for Macy's until she found a permanent job. At Macy's she earned minimum wage and worked 20 hours per

⁵ State agency that administer public subsidies.

week. Eventually she found an administrative position at a local diversity consultant firm, Organization B. Her hourly pay is \$10 and she generally works 16-20 hours a week with no opportunity for overtime or benefits. Although she states she is underpaid, she believes the organization does not have enough funds to pay her more than her current hourly rate. Her primary responsibilities include event planning and office work. Despite the low pay and lack of benefits, the job does offer career advancement opportunities. For example, occasionally she is given the chance to work as a diversity consultant and during the summer she hopes she will be placed in charge of their youth program. Both of these work opportunities pay \$15 per hour.

In addition to working at these two organizations, she has several side jobs. She works each Friday and Saturday at a nightclub in the Fenway at a wage of \$10 per hour. She believes she earns a fair hourly wage because her only responsibility is to collect cash at the door. During three-day weekends, she works Sunday nights at different nightclubs and is paid under the table. Depending on the number of club-goers, she can make anywhere from \$60 to \$120 in four hours.

Although she has not partaken in any fashion shows in the last year, she has several shows she is preparing for in the next few months. Each show generally pays between \$400 and \$600 and she spends approximately \$200 on fabric. In the last 6 months, she has worked as a make-up artist and has been able to find more frequent gigs this way. When she is working she asks close friends or the child's grandparents to 'chip in' and help her with her daughter.

Recently, she made the decision to receive food stamps, which provides a total of \$175 dollars per month. She states, "I wanted to know that at the very least I had food on

the table". Although she finds the extra cash to be helpful, she resents the DTA's disorganization. She states, "The DTA believes I tried to pull one over on them but I really wasn't trying to." After receiving a full-time position a year after graduation, she contacted the DTA to inform them of the change. She left several messages for her counselor but never received a response. Eventually she learned that that they had changed her counselor. She admits that she may have missed the notice in the mail, but wonders why her old counselor never returned her call to inform her of the change. She continued to receive food stamp benefits for several months after she received a full-time position. The DTA eventually accused her of fraud and has confiscated part of her tax returns. She believes she owes approximately \$3,000 to the DTA.

Last week she was injured in a car accident and chose not to go to the hospital because she didn't have insurance. She stopped driving the first couple of days due to the pain in her back. Her supervisor recommended she stay home upon seeing her limp, but she could not afford to take a day off from work. She currently pays \$20 a month for her daughter to be on MassHealth and is in the process of applying for the same benefits.

Her child's father lives in another state but still provides financial support. They split the cost of daycare and he sends her cash for 'big ticket' items whenever possible. She considers clothing, Christmas and birthday presents to fall under this category. Recently, she has tried not to ask for any financial support because he is currently in school.

Second Summary Interview with Rachel (Week 2, February 22nd).

I interviewed Rachel while she was sewing for an upcoming fashion show. Because it is February vacation for Boston Public School students, she took the week off of work to

watch her child. To balance the hours lost this week, she worked overtime last week. Although her extra earnings will not completely balance her loss in income, she has no choice but to “bite the bullet until she gets her check next week”. School vacation week has given her time to prepare for her upcoming fashion shows. She spends approximately 40-60 hours preparing for each show but plans to earn approximately \$500 for each show. She has had trouble paying off debt so she has chosen not to have a credit card. Although she believes she would have difficulty obtaining one because of her poor credit score. Whenever she finds herself in debt she looks the other way because she doesn’t have a means of paying it. She recently had a boot on her car for not paying her parking ticket fines. To have the boot removed, she paid \$500 and had to use her rent money to do so. She worked out a deal with her landlord that she would pay \$50 extra each month until she paid for her January rent or could make a lump-some payment. She has just finished paying a cash-now loan, borrowing for \$300 and repaying \$600. She states that she would never accept a cash-now loan again but had no choice at the time. She has approximately \$25,000 in student loans, which she has been unable to repay. A portion of her student loan debt is deducted from her taxes each year.

Third Summary Interview with Rachel (Week 3, March 12th).

These past two weeks Rachel has had to deal with financial ramifications of having to take time off from work to watch her child during school break. Normally, she would have expected a weekly check of \$330 before taxes from her primary job, but her check only came to \$148. To make up for the loss in funds, she attempted to postpone her car insurance this month but was unable to. Instead, she did not put \$125 of her check aside as she normally would have for rent. She is still trying to catch up on her rent and is now

behind on her cable and phone bill. She owes \$233 on her phone bill and is normally suppose to pay \$140 per month for phone service for both her and her grandmother. She does not pay utilities, but is responsible for paying for the cable bill in her household, which is \$150 per month including the internet.

She recently had to resubmit proof of income with the Department of Transitional Assistance to continue to be eligible for SNAP benefits. When she started her new job in January her income increased thus her benefits decreased from \$175 to \$132.

Fourth Summary Interview with Rachel (Week 4, March 21st).

She used the \$600 check she received from one of her fashion show, to purchase plane tickets for both her and her daughter to travel to Atlanta and Florida. She plans to feature her work in a benefit for Haiti fashion show in Miami and give her daughter the opportunity to spend time with her father who lives in Florida. She states that her decision to participate in a fashion show in Atlanta was 'selfish' but she believes featuring her work in different states will allow her to build her portfolio and make more connections in the fashion industry.

She recently received \$2,900 from her tax return. She purchased a laptop for the first time for \$800 and placed a down payment of \$100 for summer camp. She plans to use the rest to pay for a dance class for her child although she is currently trying to bargain for a cheaper price. She is also planning to move and has set aside money to help her with moving expenses.

She currently lives with her sister, sister's boyfriend, niece and nephew. However she no longer feels that it's the best place for her daughter and her to live because of

differences in parenting style and conflict among the kids. She is looking for a new place but is having a difficult time finding an affordable place to rent or appropriate roommate situation. She is unable to pay more than \$600 in rent, so she is looking for a temporary housing situation until a public housing unit becomes available or she moves up on the wait list for Section 8. She had recently made plans to move into a studio-like space for \$500 per month. However, the landlord decided last minute that the space would not be appropriate for her and her daughter because of its size. However, he did say that he had an attic space that he would rent to them and was expecting the tenant of the apartment to leave soon.

A large part of her tax return will be used to pay for her online cosmetology course. The six month course costs \$1070. She began the course in the summer when she was working full-time and earning \$15 per hour. She believes it is an important investment in her career in fashion design. She has been able to get side jobs doing make-up ranging from \$50 to \$25 per job. Right now she is hoping that prom season will allow her to increase her clientele base. She has placed an advertisement on craigslist for make-up jobs and recently did a photo shoot to advertise her work.

Fifth Summary Interview with Rachel (Week 5, March 28th).

Rachel recently had to spend \$450 to get her car fixed again. She is glad that she still has approximately \$1,500 in savings from her tax return to be able to fix her car. She always tries to maintain a savings account for emergencies but is often unsuccessful. Every time she is able to make a deposit into her savings it does not last very long because an emergency situation will occur and she is forced to spend it. This time it is really important that she does not touch the money that is there so that she can use it to be able to move. She is not caught up on her bills but refuses to dip into her savings account to pay the bills.

This week her aunt told her that a local affordable housing development was accepting applications. She went to retrieve an application but was told that they had no vacant facilities. There were, however, opening their waiting list.

This week she earned \$50 for a jacket that she made however it took her about 8 hours to make it. She also has another client who wants her to make a dress. She expects to charge the client \$50 as well depending on how long it takes her.

She recently signed her daughter up to be part of softball league. It cost her a \$100 including the uniform. She and her daughter are also taking a joint dance class and will have a recital together. The class cost \$60 per person but she agreed to be responsible for sewing and designing the recital uniforms in exchange for free classes.

Fifth Summary Interview with Rachel (Week 6, April 7th).

Rachel will be receiving a pay increase at the consultant organization she will be working with over the summer. Since she will be leading the youth program and not working as an administrative assistant the organization believed that she deserved to have an increase in pay from \$10 to \$15 dollars.

Rachel is excited because she has the opportunity to sell a few of her items at a local boutique that is opening up. Her long-term goal is to potentially have her own boutique. Right now, she views her work in fashion as a part-time job but she would eventually like fashion to become her primary source of income. In the mean times she plans to take all the small steps necessary to reach her goals.

Second Participant: Samantha

First Summary Interview with Samantha (Week 1, February 9th).

I met Samantha at her new place of employment, a small pizza shop in Roxbury. She is the nighttime delivery girl and it's her third day on the job. Because of her busy schedule, this was the only time she was able to meet.

She is a 24-year old single mother of a 4-year old boy. She currently lives alone in an affordable housing development. She works part-time and attends nursing school at Bunker Hill Community College part-time. She studied cosmetology at vocational high school in Boston. While in school, she interned at a local hair salon and was able to receive a full-time position upon graduating. She worked at the salon for 2 years but was unhappy with the work. She was paid under the table and her pay was unpredictable because it was based on the number of customers coming to the salon each week. Furthermore, she found it to be an unpleasant environment to work in because of the constant bickering and gossip. Looking for a more stable position, she accepted a job at a retail store earning \$8 per hour. While working, she attended nursing school part-time at Roxbury Community College. She only stayed there for one semester because the college lacked the structured support systems she desired.

After working for two years at the retail store, she accepted a part-time job working at Target and began attending nursing school at Bunker Hill Community College. Her current hourly rate at Target is \$9.25. There are opportunities for career advancement and wage increases but she believes these opportunities are given out arbitrarily and are often based on "the supervisor's mood". Since working there she has been given greater

responsibilities but this has not resulted in higher compensation. Target does offer benefits but she has chosen not to receive these, because her contribution to pay for benefits would reduce her check significantly. Instead, she relies on MassHealth insurance. Whenever possible, she supplements her income by working more shifts. She does worry about working more shifts because it impacts the amount of time she gets to spend with her son.

Within the last week her car broke down and she has sought additional work opportunities to earn enough cash for the repairs. One of her friends works for an independent delivery company used by local restaurants. Borrowing her friend's car, she has worked for three nights as the delivery girl. Since it is a new position she is still trying to prove that she is capable of doing the work but finds it stressful and is slightly concerned about her safety. As a new delivery driver, she is unfamiliar with many of the streets and relies on the GPS, which slows her down. She makes up for this lost time by speeding. She is confident that she will become better at the job but is still concerned about her safety and plans to buy a taser. She also worries about the time commitment because she has to find a babysitter for her son.

Second Summary Interview with Samantha (Week 2, March 6th).

During the day the participant's son attends daycare. The cost is pro-rated and can range from \$10 to \$260 per week, however she currently pays \$40. Her parents babysit on Saturdays and Sundays when she is working at Target from 10:30 am to 7:30 pm. When her parents are unable to babysit, the child's father or godmother will watch the child. She rarely goes out with friends because of the difficulty in finding a sitter. Although she wishes she could spend more time with her son and dedicate more time to her schoolwork, she uses the income she earns at Target to pay her bills. She used to take on more overtime but

cannot physically handle the workload at Target anymore. She complains that she receives two 15 minutes breaks and one 30 minute breaks for a 10 hour shift.

Although her work as a delivery girl provides her with extra spending cash, she does not feel that she is compensated enough to justify the number of hours she spends at the restaurant. On average she earns \$40 for 8-10 hours of work and spends approximately \$20 on gas weekly. The restaurant she works at has recently opened and does not have a wide customer base. Because of this, she makes infrequent deliveries and the restaurant only charges a small delivery fee to attract more customers. For each delivery run, she receives a minimum of \$5.00, however some customers do give her a larger tip. Despite, the low pay, the job does have a couple of advantages. One of the job's advantages is that when she is not making deliveries, she is able to study or even run home for a while. Additionally, her employer plans to create a contract with another restaurant in Brighton within a few months and when that happens, she believes this job will be worthwhile, because deliveries will be more frequent and a she will receive a minimum of \$10 per delivery run. She anticipates earning over \$100 for 8 hours worth of work.

Her frustration with her current job makes her anxious to finish school. She is in the process of completing her pre-requisites and will enroll in a two year nursing program in less than a year. She has not taken out any loans beyond paying for her school tuition and books. This is because she hopes to immediately begin to save for a house once she graduates. At one point she incurred a large amount of credit card debt that took her a while to pay off . Consequently, she only owns one credit card that she does not use. The debt she incurred at Roxbury Community College is taken out of her state taxes.

Third Summary Interview with Samantha (Week 3, March 17th).

She has been struggling to keep up with her writing course, in part, because her new job at the pizza shop is time consuming and stressful. However, she explained to her teacher that she was a single mother working two jobs and her teacher agreed to allow her to submit her late assignments for credit. However, she has to join a tutoring group at her school that teaches time management and self-learning skills. She currently has a C average in her math class but wants to work towards improving her grade.

She has now been working as a delivery girl from Monday through Thursday for approximately 9 hours per day. When she is working long hours, her son's godparents or father will pick up her son from daycare. Last week, they did not need her and she was relieved but feels she needs to continue working even if it is stressful. When asked why she does not increase her hours at Target since they pay a higher wage, she replied for now that it was not a possibility. Her hours at Target were reduced when new employees were hired to create the work schedules. She lost about 12 hours in her workweek. She complained multiple times about the decrease in her work hours but nothing has been done about it.

Despite her loss in work hours, her job as a delivery person has allowed her to keep up with her bills and living expenses. She has always been a month early for rent and her phone bill and has never paid her car insurance late. She doesn't pay for cable and uses free WIFI provided by the City of Boston.

Fourth Summary Interview with Samantha (Week 4, March 23rd).

Last week, she had the opportunity worked at a Pizza shop in Brighton. The shop was busier and she earned more money. However, it was slightly more difficult because she doesn't know the Brighton and Cambridge area. She was nervous at first about working the night shift in an unknown area but most of her deliveries were to college students. She thinks that the company that she works for is going to begin rotating their employees amongst the different pizza shops they serve as their employees have been complaining about not earning enough money at certain shops.

Her parents are not pleased that she has this job but are unable to give her advice. Both her parents are on welfare, which is something that she refuses to do. She does not want to sit around waiting for a check each month. She says that towards the end of the month her parents cannot make any purchases and are anxiously anticipating their checks. She likes being able to have money on a weekly basis to spend. So welfare is not an option for her. Nor is she able to obtain a job at another establishment, as this would increase her rent expenses. Since she lives in an affordable housing development, she has to pay 30% of her income on rent. Since her pizza job is under the table, she does not have to worry about her rent being increased. Other people who are working the pizza job are in similar situations or have recently been released from jail and have not been able to obtain a job.

Fifth Summary Interviews (Week 5-6, April 7th - April 14th).

Samantha begins to realize that her work as a delivery driver was not generating enough income to cover all of her basic needs. The wages were too little and "did not add up" in comparison to the time spent away from her son.

To this end, she made the decision to stop working and spend more time with her child. She noticed that the wages lost from the terminated employment did not affect her circumstances by much. She struggled to maintain with just about the same degree of difficulty as when she was employed. She feels that the only way to remedy this disparity is to find another job that pays more and is not as time consuming.

She made ends meet by using her tax returns, a portion of which she used to purchase a much needed bedroom set and a used car. Even though she still has not found another job yet, she spends a significant amount of time helping her parents run errands that involves the use of her vehicle. This way, she feels she is compensating them for the time they spend babysitting her son.

She stands by the decision she has made to make more time for her son by not “tying” herself down with a minimum wage job that doesn’t make her situation any easier.

Interview Summary Conclusions

The interviews with the participants provide a snap shot of the different strategies that they have developed to reduce their living expenses and increase their income.

Rachel primarily relies on work based strategies. Her talent in fashion design and make-up artistry allowed her to bring in extra cash over the course of the interviews. In reading her story, it’s important to realize that self employment is not an option for most low wage workers. Additionally, opportunities to participate in fashion shows are sporadic and are not a steady source of income and because of this she must work additional side jobs. Although she juggles multiple responsibilities and jobs now, it may not be a realistic option for her in the future given the amount of energy it requires. Additionally, her

reliance on work based strategies is only possible because of her family's willingness to babysit her child while she is working. Living with her sister and her sister's family is one of the sacrifices that Rachel has had to make in order to afford rent. She is not satisfied with her living situation but her housing options are limited because of her income. Although she uses public subsidies, it only covers a small fraction of her living expenses and she detests the bureaucratic application process.

On the other hand, Samantha primarily utilizes agency based strategies to supplement her income. It is evident that she shares the same negative sentiments towards public subsidy dependency as Rachel. Her ongoing effort to obtain a side-job and her refusal to accept TANF cash assistance, demonstrates her preference for work based strategies. Because she is in school, she is not able to easily increase her work hours without sacrificing her student or parenting responsibilities. She is also aware that any increases in her income will decrease her eligibility for public subsidies, which may not be offset by her increase in work hours.

In poverty research, this situation with Samantha is referred to as the cliff effect. The cliff effect occurs when wages/earnings are not high enough to offset the earnings that a family receives in public subsidies. Consequently families are discouraged from working more hours. Living wage advocates argue that living wages have the potential to control for the cliff effect if the wage rate is set high enough. Conversely, if the living wage rate is too modest it risks reducing a family's eligibility for public subsidies and not substantially increasing their income. In this case, the living wage would further push families into poverty but reduce public subsidy dependency.

The budgets and big-ticket purchase items of the participants over the course of 6 weeks were not reflective of their normal expenditure patterns. This is because both participants received their tax returns in February. Samantha's tax return allowed her to replace her car that broke down and Rachel's tax return gave her the financial security she needed to set aside money to move. They were also able to purchase other items that did not fit in the category of 'basic needs' like furniture.

Rachel's trip to Atlanta and Miami may at first seem like frivolous spending given her fixed income, but she is in fact making career investments and marketing her work. Over the course of the six weeks, Rachel spends \$2,000 in total in career investments. This includes the plane tickets, make-up purchases and online cosmetology class. She uses her earnings from two fashion shows and part of her tax returns to make these investments. Her expenditures are modest compared to the average costs of post graduate certification programs and start up business costs.

Credit cards and loans are commonly used by low income families to postpone payments, yet both participants sought to avoid credit cards as they had accrued high debts in the past. Rachel, however, had just finished paying a cash-now loan, which affected her ability to pay her other bills on time. Rachel's ability to negotiate payment plans and prioritize the most important bills has allowed her to avoid financial pitfalls. Samantha on the other hand is committed to paying her bills a month ahead of time and is able to do this because her use of public subsidies has stabilized her income. On the other hand, Rachel's income fluctuates with her ability to obtain side jobs.

V. ANALYSIS AND STUDY OF PARTICIPANT'S BUDGETS

Following the stories of the two participants over the course of six weeks provided insights into the network-based, agency-based, and work-based strategies that the participants' used to meet their basic needs. This chapter analyzes the participants' budgets and their expenses, and it compares the costs of living in Boston to earnings at the living wage rate.

A. Living Wages Versus the Cost of Living in Boston

Each year Boston's living wage rate is set for a family of four to survive on, at, or above the Federal Poverty Level (FPL). Currently, the city's FPL for a family of four is \$22,350. This means that the average pay rate for one adult, who works 40 hours a week, would be \$11.47 per hour. Economist Molly Orshansky, who worked for the Social Security Administration, established the present FPL in 1963. Orshansky needed a measurement to describe U.S. economic disparities and a threshold that indicated the bare minimum that a family needed to survive. She based this threshold on the consumption patterns of U.S. households. Orshansky estimated that families spend a third of their budget on food expenses. To calculate the FPL for families of different sizes, Orshansky then multiplied the cost of a low economy food plan, which was and still is determined by the Department of Agriculture, by a factor of three. However, the FPL does not take into consideration the variations in the cost of living across the United States or the changes in family consumption patterns since the development of the FPL in 1963 (SSA History Pages).

Because of this, the FPL severely underestimates the cost of living and poverty threshold. For example, the 2011 FPL for one person is \$10,890.

Despite the inaccuracy of the FPL, municipalities still use the outdated thresholds to establish modern living wage rates for a family of four (with one adult worker). This is because the federal minimum wage, currently \$7.25, yields a gross income that is \$7,850 lower than the FPL for a family of four. In Boston, the living wage and state minimum wage surpass the federal minimum wage rate by almost 200% and 115% respectively. These figures are not surprising given Boston's high cost of living. According to the National Low Income Housing Coalition, Massachusetts has the sixth highest fair market rent value⁶ (\$1,215) in the United States. In order for one worker to be able to pay this rent, they would have to earn a wage rate of \$23.37 per hour, or \$48,602 annually (NIHC).

Many living wage workers are still eligible for public subsidies depending on the size of their family. Agencies that administer public subsidies use the FPL as a guideline for determining eligibility standards and cash benefits. For example, for an individual to be eligible for SNAP they must earn less than 130% of the FPL (DTA X). Living wages are not always enough for a family to achieve self-sufficiency, yet they can improve a family's quality of life and reduce their dependency on public subsidies. I will later demonstrate this through an analysis of the participant's budgets.

Because the federal poverty level and the living wage rate underestimate living costs, Crittenton Women's Union, a think tank and social service provider in Boston, created the Massachusetts Economic Independence Index (Mass. Index). The Mass. Index

⁶ According to HUD, this is the dollar amount below which 40 percent of the standard-quality rental housing units is rented.

takes into account the age and composition of the household as well as the price of local goods and services. Although, it would be hard to make the argument that individuals should receive a wage based on the composition of their household, it does provide insight into the real cost of living for different family types and sizes.

Below is a chart that summarizes typical household budget items and the different sources used by the Index to estimate living costs.

Table VI: Massachusetts Economic Independent Index Sources and Budget Items

Household Budget Item	Sources of Expense Estimates
Rent	Department of Housing and Urban Development (HUD) Fair Market Rents.
Utilities	HUD Estimates
Food	U.S. Department of Agriculture's Low-Cost Food Plan
Transportation	Fuel, Maintenance, Insurance, Massachusetts Registration and License costs.
Child Care	Based on 2008 Child Care Market Rate Survey
Personal & Household Needs	2008 Consumer Price Index
Health Care	Commonwealth Health Insurance Connector Authority

Using the Mass. Index as a point of reference, the following summaries and analyses of each participant's budget are presented in this chapter⁷:

- 1) *Participant's Budget versus the Massachusetts Economic Independence Index Estimated Budget.*
- 2) *Estimate of Expenses Met by Participant's Earned Income and Public Subsidies Used to Cover Unmet Expenses.*
- 3) *Estimated Reduction in Transfer Receipts if Participants Earned the Living Wage Rate.*

⁷ Even though, the budgets of the participants changed from week to week, the budgets used for this analysis reflected the participants' weekly expenses.

B. Analysis of Rachel's Budget

Table VII: Analysis of Rachel's Budget

Household Budget Item	Mass Index Estimated Expenses	Participant's Reported Expenses	Mass Index Estimated Minus Reported Expenses	Public Subsidies Utilized
Housing	\$ 954	\$ 500	\$ 454	-
Utilities	232	-	232	-
Food	445	300	145	\$ 123
Transportation	188	230	(42)	-
Child Care	581	300	281	-
Personal & Household Needs	377	350	27	-
Health Care	300	300	-	280
Total Monthly Expense	3,077	1,980	1,097	403
Total Annual Expenses Before Taxes	36,924	23,760	13,164	4,836

1. Participant's Budget versus the Massachusetts Economic Independence Index Estimated Budget

Rachel survives on significantly less than the Mass. Index's projected cost of living. This is because she has found strategies to reduce her expenses. However, these strategies have not been without consequence. For example, Rachel saves on rent by living with relatives but she is uncomfortable with her living situation and needs more space.

2. Estimate of Expenses Met by Participant's Earned Income and Public Subsidies Used to Cover Unmet Expenses.

Rachel uses MassHealth and Supplemental Nutrition Assistance Program (SNAP) benefits to cover approximately \$400 of her monthly expenses. Although she appreciates both the subsidies she receives, she often finds herself frustrated with the bureaucratic process that she must endure to receive benefits.

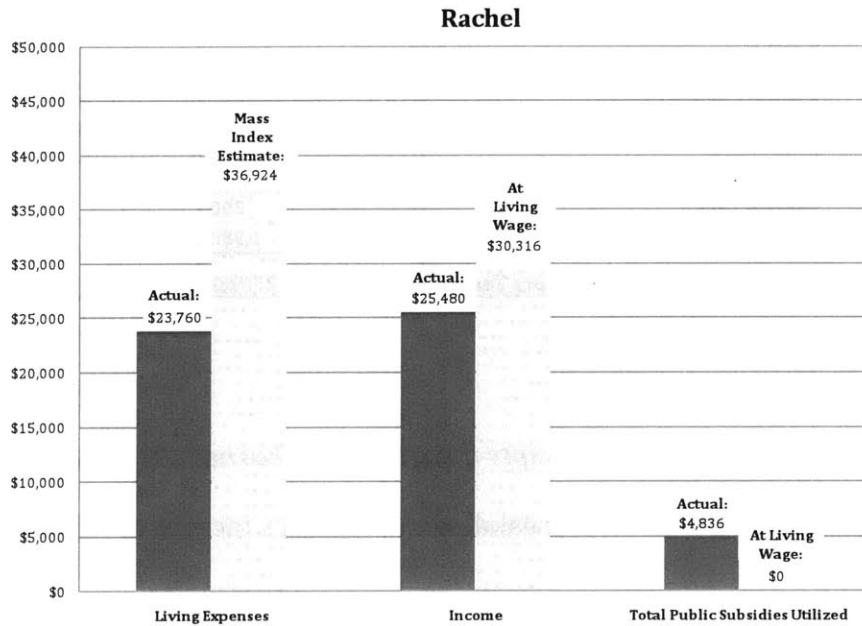
Table VIII: Use of Public Subsidies

Household Budget Item	Participant's Reported Expenses	Public Subsidies Utilized
Housing	\$ 500	-
Utilities	-	-
Food	300	\$ 123
Transportation	230	-
Child Care	300	-
Personal & Household Needs	350	-
Health Care	300	280
Total Monthly Expense	1,980	403
Total Annual Expenses Before Taxes	23,760	4,836

3. *Estimated Reduction in Transfer Receipts if Participants Earned the Living Wage Rate.*

The two tables below show a breakdown of Rachel’s income at her current wage and her hypothetical income at the living wage. Her annual income increases by \$4,464. With this additional income, Rachel would only need \$372 dollars annually in subsidies. Alternatively, the additional money she would receive could be used to find a more comfortable living situation for her and her daughter.

Chart II : Summary of Rachel's Budget Analysis



C. Analysis of Samantha's Budget

Table IX: Analysis of Samantha's Budget

Household Budget Item	Mass Index Estimated Expenses	Participant's Reported Expenses	Mass Index Estimated Minus Reported Expenses	Public Subsidies Utilized
Housing	\$ 954	\$ 954	\$ 0	\$ 704
Utilities	232	232	-	232
Food	378	350	28	330
Transportation	188	150	38	-
Child Care	996	700	296	660
Personal & Household Needs	361	200	161	-
Health Care	287	-	287	280
Total Monthly Expenses	3,396	2,586	810	2,206
Total Annual Expenses Before Taxes	40,752	31,032	9,720	26,472

1. Participant's Budget versus the Massachusetts Economic Independence Index Estimated Budget

Compared to Rachel, Samantha has higher living expenses because she has a child that is not of school age and thus has to cover more childcare costs. Additionally, Samantha's budget and expenses more closely resemble Mass Index's estimated living

expenses. This is because Samantha uses less work-based strategies to reduce her expenses and utilizes more public subsidies. She would like to work more hours but she has schedule limitations because she is a part-time student; in addition, doing so creates the risk of a reduction in her subsidies. Her expenses for personal and household needs are significantly less than the Mass Index estimate's because Samantha spends very little on personal needs like clothing.

2. Participant's Budget versus the Massachusetts Economic Independence Index Estimated Budget

Compared to Rachel, Samantha has higher living expenses because she has a child that is not of school age and thus has to cover more child care costs. Additionally, Samantha's budget and expenses more closely resembles Mass Index's estimated living expenses compared to Rachel. This is because Samantha uses less work based strategies to reduce her expenses and utilizes more public subsidies. She would like to work more hours but risks reducing her subsidies and does not have a significant amount of free time because she is a part time student. Her expenses for Personal and Household Needs is significantly less than the Mass Index estimates because Samantha spends very little on clothing.

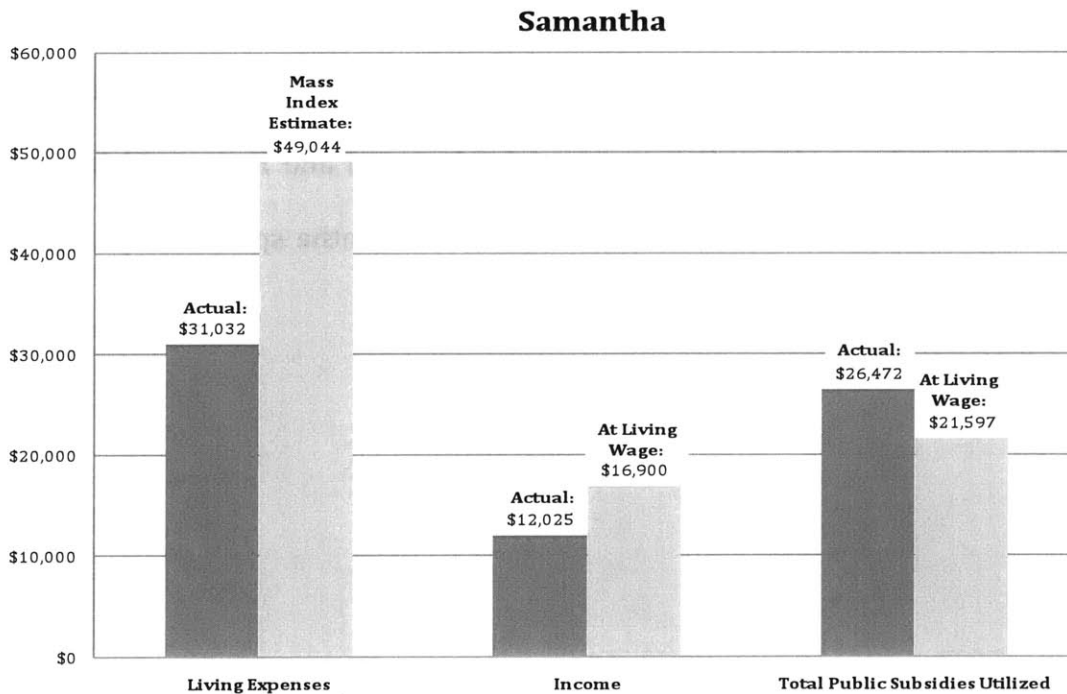
Table X: Analysis of Samantha's Budget

Household Budget Item	Participant's Reported Expenses	Public Subsidies Utilized
Housing	\$ 954	\$ 704
Utilities	232	232
Food	350	330
Transportation	150	-
Child Care	700	660
Personal & Household Needs	200	-
Health Care	-	280
Total Monthly Expenses	2,586	2,206
Total Annual Expenses Before Taxes	31,032	26,472

3. Estimate of Expenses Met by Participant's Earned Income and Public Subsidies Used to Cover Unmet Expenses.

A large portion of Samantha's expenses is met by public subsidies. As mentioned before, this is because she does not have the option to significantly increase her work hours on an ongoing basis.

Chart III : Summary of Samantha's Budget Analysis



VI. MEASURING EXTERNALITY COSTS USING TRANSFER RECEIPTS

Another methodology for assessing the magnitude of the externalities associated with low wage jobs not covered by living wage ordinances would be to examine publicly available data on the range of public subsidies made available to low-income workers. This chapter focuses on two of the more commonly used public subsidies: Massachusetts Publicly Subsidized Health Care (PSHC) and Temporary Assistance to Needy Families (TANF). The purpose of this chapter is to illustrate the magnitude of worker dependency on public subsidies and encourage public agencies to provide more detailed information about the portion of funds they spend on low wage workers. This would allow future researchers to develop more complete estimates of labor externalities.

To be able to effectively measure externality costs, researchers need specific information about the work patterns of public subsidy recipients and their employers. The Division of Health Care and Public Finance (DHCPF) published a report in 2008 that identified firms with large amounts of workers utilizing PSHC.

Massachusetts Publicly Subsidized Health Care

Overview

Many low wage jobs also do not provide health care benefits and therefore many low and moderate income families in Massachusetts rely on state subsidized insurance. This is in part, because in 2006, Massachusetts mandated that all residents be enrolled in an insurance plan. To help facilitate this process, the state offers three subsidized insurance plans that are summarized in the table below (DHCF 1) :

Table XV: Summary of Subsidize Health Insurance Plans in Massachusetts

<p>MassHealth</p>	<p>MassHealth is a Medicaid program offered to participants on a sliding fee scale.</p> <p>Eligibility Requirements:</p> <ul style="list-style-type: none"> • Must be moderate to low income • Under the age of 19 or caring for a dependent. • One may also be eligible if they have been unemployed for an extended period, are disabled, or have a qualified health issue such as HIV or cervical cancer.
<p>Health Safety Net</p>	<p>Health Safety Net is a one-year emergency health plan for Massachusetts’s residents who are not eligible for Mass health or Commonwealth care.</p> <p>Eligibility Requirements:</p> <ul style="list-style-type: none"> • Must live below 400% of the federal poverty line.
<p>Commonwealth Care</p>	<p>Commonwealth Care plan subsidizes, on a pro-rated scale, the health insurance costs of employees and their dependents.</p> <p>Eligibility Requirements</p> <ul style="list-style-type: none"> • Must be 19 years or older • Not offered subsidized insurance from their employers • Income must not exceed 300% of the federal poverty line.

Source: MassachusettsResources.org

Massachusetts workers are considered to have access to affordable employee subsidized insurance if the employer covers 33% of the insurance costs for an individual and at least 20% of insurance costs for a family. However, it is common for workers to be excluded from their employer’s insurance plan if they are part-time, temporary or a new

employee (DHCF 2). The Division of Healthcare Finance (DHCF) conducted a survey of firms and found that only 26% of Massachusetts firms cover part-time workers and the majority of these firms require that eligible employees work 20 hours or more. Nearly half of the interviewed firms stated that employees must work for at least three months before they can purchase the employer sponsored insurance (DHCF 3).

Under the Fair Share Contribution (FCS) policy, firms with 11 or more full time employees must provide subsidized insurance for their workers. The firm must cover 33% of insurance costs or be able to prove that 25% of their workforce is enrolled in the offered insurance program (DHCF 1). If they do not meet these requirements, they are forced to pay up to \$295 per full time employee. In 2008, 96.7% of Massachusetts firms subject to the FCS met all requirements. However, the Department of Revenue collected a total of \$7.1 million from firms who did not abide by the FCS policy. Penalizing firms for not adequately contributing to the sustenance of their employees is a policy tool that could be potentially expanded to other public subsidies.

Worker Dependency and Public Subsidy Costs

Since health insurance is administered at the state level, the information that is presented focuses on the entire State of Massachusetts rather than the City of Boston alone. Nonetheless, the data still achieve the goal of identifying the number of workers who utilize public subsidies and the cost of these programs to taxpayers and the government. DHCF provides a detailed summary and analysis of this information in their report *Employers who had fifty or More Employees Using MassHealth, Commonwealth Care, or the Health Safety Net*

in State FY09. The report details the participation rates of each of the health care plans, total expenditures on each plan, and the top employers of workers utilizing these plans.

According to DHCFP, in 2009, a total of 611,738 employees and their dependents rely on publicly subsidized health care. The State spent a total of \$459.9 million to cover workers and \$345.2 million to cover their dependents (DHCF 2). Here is a break-down of costs and programs:

Table V: Massachusetts's State Spending on Subsidized Health Insurance

	Total Cost of Supporting Employees	Total Cost of Supporting Dependents of Employees	Number of Employees And Dependents Enrolled
Commonwealth Care	\$154.2	\$17.9	131,350
Mass health	\$256.6	\$319.4	429,098
Health Safety Net	\$49.1	\$7.9	132,663

Source: Division of Health Care and Finance

DHCF used two different methodologies to identify and rank the top 25 Massachusetts firms who had the highest number of workers participating in PSHC in 2009. The first list uses self-reported information and the second list uses information collected from the Massachusetts Department of Revenue. There were primarily three types of firms that dominated the list: Big Box Retailers and Franchise Stores, Government Bodies and Agencies and Health Care Firms.

Some of the large retail and franchise stores on the list included S&S Credit Co (Stop & Shop), Target Corporation, May Department Stores, McDonalds, Walgreens and Wal-Mart Associates Inc. These retailers typically offer low wages in addition to providing inadequate health insurance benefits. This list reflects what we know about the earnings of workers in sales and related occupations in Boston and as well as the experiences of both of the studies participants who have each worked at one of these companies.

Surprisingly, other employers that made the 'top 25 list' include the City of Boston, Commonwealth of Massachusetts and U.S Postal Service. Unlike workers in the retail industries, workers for the City, State and Federal government earn a wide range of salaries. With only this information at hand, it is difficult to determine if there are a large number of City and State employees who earn low wages and do not have access to affordable health care. However, the information does suggest that the City of Boston could benefit from exploring the potential of extending its coverage laws to its employees.

Strengths and Weaknesses of DHCF's Report

One of the report's strengths is that it focuses on workers and their dependents instead of the entire pool of subsidized health insurance recipients. Creating stronger policies to support low-income families requires that agencies present information that explains why working recipients are in need of aid. Not all families require public assistance because they are earning low wages. Some families may have a larger ratio of workers to dependents, which explains their need for public assistance. Other families may be earning high wages at their job but are not working enough hours to be self-sufficient.

Agencies should be able to distinguish between these families and provide summary statistic information.

Additionally, DHCF's list of top 25 firms allows researchers to determine which companies and types of firms are costing taxpayers the most in public subsidies. This list can be used to help guide the process of developing coverage laws and allow taxpayers to make more educated decisions about where they spend their dollars. Publishing this list can also serve to garner more public support for living wage laws.

However, DHCFP could improve the value of its information for assessment of living wage ordinances by providing more detailed data on the wages earned by those receiving health insurance subsidies and by distinguishing between employers covered and excluded from living wage ordinances. These are the data that will be needed to assess the size of the benefit cost externalities now absorbed by the state government for low wage employees who also lack employer provided health insurance.

Temporary Assistance to Needy Families

Overview

Temporary Assistance to Needy Families (TANF), more commonly known as welfare, is a block grant distributed to states by the federal government. States may use this funding for a variety of programs designed to reduce poverty and increase self-sufficiency. This includes child care services, the provision of SNAP Benefits, and direct cash assistance.

After growing concern that the provision of welfare was discouraging families from working, the Bill Clinton administration passed the Personal Responsibility and Work

Opportunity Reconciliation Act (PRWORA) in 1996 (DHHS). PRWORA created work requirements for dependent families and placed limits on the number of years that families could receive welfare benefits. Simultaneously, the federal government increased the national minimum wage and expanded the provision of tax credits to low-wage workers. This was done in recognition that minimum wage rates are so low that some TANF dependents may receive a higher income collecting welfare benefits than working full-time at the minimum wage rate. As mentioned earlier, this paradox is known as the cliff affect.

Since the enactment of PRWORA, welfare researchers have attempted to gage the effectiveness of PRWORA's policies in helping TANF recipients' transition into the workforce without putting them at risk of becoming further impoverished. This is of particular importance since low wage markets are the principle pipelines for TANF recipients entering the workforce. Living wage research is an extension of this research in that it analyzes the capacity for low wage markets to increase wages and help families achieve economic self-sufficiency. The Charles River Associates demonstrated this by creating simulation models that predicted how the public subsidy eligibility status of low wage workers would change based on the capacity of real estate developers and businesses in New York to absorb higher wage costs. Although their study is prospective in nature, examining TANF non-exempt caseloads can more accurately portray the relationship between low wages and TANF caseloads.

The federal government has required state agencies that administer TANF to record the work participation rates (the number of hours worked) of TANF non-exempt recipients. This information is requested in order to track the effectiveness of PRWORA in helping

TANF recipients enter the workforce (HHS 1996). However, additional information on the work patterns of non-exempt participants is needed for the purposes of living wage research. For example, in 2008, Massachusetts reported that 14,996 of the 38,346 non-exempt recipients were employed. These individuals worked an average of 29.6 hours per week (HHS 2011). Although, this helps provide a snapshot of the extent to which workers in Massachusetts utilize TANF, providing information on the employers of TANF recipients and their wage rates could serve to further advance the study of living wages. If TANF were to report this data, researchers would be able to observe the trends in the different types of firms that place the heaviest burden on taxpayers by paying low wages. This information could then be used to determine how to best structure living wage coverage laws.

VII. CONCLUSION

The purpose of this research was to show the importance of expanding the analytical scope of living wage research to illustrate the affects of low wages on families and the externality costs associated with supporting poor working families through public subsidies. To accomplish this, I examine externalities by conducting extensive interviews with two low wage workers in Boston. Although, both of the workers have learned to provide for their family on a limited income it does affect their overall quality of life. Both workers have to rely on side jobs, support from family members and public subsidies to be able to afford Boston's high cost of living. The workers, Rachel and Samantha, receive public subsidies of \$4,875 and \$26,47, respectively. If they were both to be paid the living wage rate, only Samantha would need additional income in the form of public assistance.

I also explore the available data on Massachusetts Subsidized Public Health Care and the federal welfare program (TANF). The data does not allow researchers to estimate how much of these funds are going to low wage workers excluded from living wage ordinances, the data available suggest the magnitude may be substantial. However, the Department of Health and Finance Division does provide information on the employers of dependent workers. This information can be used to decide how to best target living wage coverage laws.

This was only an exploratory study designed in part to encourage more systematic investigation of these aspects of the debates over living wage ordinances. Based on my findings, I suggest that future evaluations of living wage ordinances, and future policy

debates over these laws expand to consider the costs of these externalities. I also suggest that state and federal data on public subsidies (e.g. health insurance, TANF, and others) be collected and published in ways that allow more direct analysis of how many recipients are in low wage jobs excluded from living wage ordinance coverage and what percentage of the public expenditures go to these excluded individuals.

By expanding the analysis of living wage ordinances in these ways, the data would be available to debate the tradeoff involved in either supporting low wage workers with public expenditures or through the wages and benefits provided by employers. Until these data are made available and introduced into policy debates, evaluation of living wage ordinances will remain incomplete.

The research presented in this thesis is not necessarily intended to advocate for more expansive living wage laws. Instead, one of the goals of this paper is to contribute to the existing body of research on poverty alleviation. Living wage laws are heralded in this report because they shift the cost of supporting families back on to the employer instead of taxpayers and families. However, this research did not provide an evaluation on the potential negative impacts of living wage laws, which are not to be underestimated. As mentioned in the introduction, living wage laws, if not designed or implemented correctly, can create unemployment affects and cause firms to go out of business. There is also concern that if the living wage rate is not set high enough, it can cause families to be ineligible for public subsidies without actually providing them with enough income to become self-sufficient.

In measuring the cost of supporting families with public subsidies, this research does not seek to suggest that investment in welfare programs should be reduced or that taxpayer funding in these programs is a waste of public resources. Instead, it seeks to estimate the degree to which public funds can be used to meet other public needs. Additionally, if municipalities choose not to create stronger living wage laws they must create stronger welfare states that support families who are working and contributing to the economy but are not being paid adequately. Creating opportunities for low-income families to achieve upward social mobility through job training and education is optimal but it should also be recognized that the occupations and jobs they work in are important to our economy and are growing.

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