

The Economic and Fiscal Impact of Connecticut's Proposed Statute to Recoup Costs Attributable to Low-Wage Employers

Full Report

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Introduction

State and local governments across the country, as well as the federal government, face increasing costs to sustain workers who are not paid enough to achieve basic economic security.¹ The growth of low-wage work in Connecticut has implications for both those whose earnings are insufficient to meet their families' needs and for the economic and fiscal problems facing the state. The state's taxpayer-supported social programs have attempted to accommodate the growth in low-wage work so that these workers can make ends meet. Employers whose strategies impose costs on society must recognize the squeeze this puts on government spending that could otherwise support programs favoring broad economic development.

In light of these challenges, a statute has been proposed in the Connecticut legislature (SB 1044, see note 5) that would levy a fee on private, for-profit employers (firms and franchises) of 500 or more workers, some of whom earn \$15 per hour or less.² The fee is \$1.00 for each hour such workers accumulate in a calendar quarter. As proposed, firms with less than 500 employees would pay no fee, while larger firms would pay according to their total low-wage (\$15 per hour or less) hours worked each quarter, including overtime hours.

This report identifies and quantifies the costs and benefits of the proposed statute using an economic model of the state's economy³. Technical appendices describe the fee estimation and economic impact modeling methodologies.

Key Findings

- The fee collected from covered employers would generate an estimated \$188,592,170 in new revenue for the state.
- Firms may adopt a variety and mixture of strategies to absorb the fee, including reducing their profit, passing part or all of the fee cost on to consumers and other firms, improving efficiency, employing more automation and reducing employment. We model the following three strategies:

- If covered firms reduce their sales by the fee amount, net state employment increases by 532 jobs, state GDP increases by \$92.4 million, and net state revenue increases by \$183.86 million.
- If firms and their customers share the fee cost equally, net state employment increases by 960 jobs, state GDP increases by \$111.5 million, and net state revenue increases by \$186.7 million.
- If covered firms' customers bear the full cost of the fee, net state employment increases by 1,388 jobs, state GDP increases by \$130.57 million, and net state revenue increases by \$189.7 million.

Discussion

The proposed statute provides for a quarterly fee collection period, allowing for seasonal fluctuations in low-wage employment as well as for cyclical, structural and frictional employment changes that affect total employment. In modeling the fee's impact, we regard the fee as a non-wage labor cost akin to an excise or per-unit tax. The fee will affect firms in certain industries more than others because of the occupational structure of the industry. We make this clear as we present the data driving the economic and fiscal impacts.

We estimate the number of low-wage hours (that is, hours worked at firms and franchises with 500 or more employees who are paid at \$15 an hour or less) in Connecticut in 2014 to be approximately 188,592,170.⁴ It is important to note that the proposed statute covers franchises that individually or collectively employ 500 or more workers paid \$15 per hour or less. The state data to which we have access does not provide information on franchises that may collectively employ 500 or more people paid \$15 per hour or less. Therefore, our estimate above is necessarily conservative.

Assessed on each measured hour worked, the \$1 per hour fee would therefore generate an additional \$188,592,170 in revenue for the state annually. These dollars drive the net economic and fiscal impacts described below.

The proposed bill states that the fee revenue will flow into the state's General Fund and be disbursed to the Departments of Social Services (DSS) and Developmental Services (DDS), as well as the Office of Early Childhood (OEC), and support the Department of Labor for their role administering the law. An advisory board will "advise the Labor Commissioner, the Departments of Social Services and Developmental Services

and the Office of Early Childhood generally on matters related to the implementation of the low-wage employer fee, public assistance usage among working residents of the state, improvement of the quality of public assistance programs affecting such residents, wages and working conditions for the workforce delivering services to low-wage working families and reliance of large businesses on state-funded public assistance programs.” We assume the funds flow to their highest and best use through the board’s diligence.

Further, the proposed statute charges the Department of Labor with collecting the fee quarterly and hearing complaints. These actions incur costs that the Office of Fiscal Analysis estimated to be approximately \$311,962 in FY 16 and \$415,950 annually thereafter for salary (\$75,000) and fringes (\$28,988) associated with the hiring of four staff attorneys to hear complaints and \$11.1 million in FY 16 and \$14.8 million annually thereafter for program administration.⁵

While this policy clearly intends to recapture a portion of the costs low-wage firms impose on the public sector and taxpayers, we assume that for some firms the wage gap (the difference between \$15 and current wage rates for their low-wage employees) far exceeds the \$1 fee and they may choose not to raise wages. Increasing wages by any dollar amount per hour incurs payroll taxes, unemployment insurance costs, and perhaps other employee benefit costs related to hourly wage rates. Further, raising hourly wages of workers below \$15 per hour creates pressure on hourly wage earners immediately above the \$15 per hour threshold (wage compression). Firms contemplating raising low-wage hourly rates would want to make adjustments in their broader wage structure.

There is a range of responses firms may adopt to accommodate the fee. Many firms will absorb the fee in reduced profit, especially if they have market power in the labor market and earn extra-normal profit (a condition that is likely for the large firms the proposed statute covers). It is possible that some firms will pay the fee and adjust their cost and pricing structure such that profits are not reduced. Some of the fee cost may be passed to consumers in higher prices. Alternatively, some of the fee cost may encourage firms to employ more machines, computers or other automation strategies. Some firms may reduce benefits and some may reduce employment. Others will try to improve efficiency and productivity in their operations in an attempt to absorb the increased cost. Some firms will file a complaint and seek relief if possible, incurring costs for the firm and the state. In reality, firms may employ a combination of these strategies to accommodate the fee.

If firms absorb the fee in reduced profit, there may be no discernible adverse economic effect because sales and employment will likely remain unchanged. In this case, firms would report lower profit and pay less tax to the state and federal governments. This phenomenon cannot be modeled using our economic model of Connecticut (IMPLAN).

If prices are increased to absorb the fee, the impact is likely to be small, because the total fee is quite small relative to Connecticut’s firms’ sales on the one hand and consumer final demand (that is,

how much households buy in state) on the other. Domestic and foreign sales by all Connecticut businesses were \$383.3 billion in 2013. Final consumer demand in the state in 2010 was \$162.5 billion (note 6). The estimated \$188.6 million fee from the proposed policy change represents 0.12 percent of consumer demand (in 2010) and 0.049 percent of Connecticut’s business sales in 2013.⁶ Further, the state collected \$16.4 billion in taxes in FY13–14 (DRS Annual Report) of which the estimated fee revenue represents 0.115 percent.

For purposes of this report, we analyze three scenarios in which the costs of the fee 1) are borne entirely by consumers, 2) shared equally between consumers and producers (firms), and 3) borne entirely by covered firms.⁷ These scenarios ignore the mixture of strategies firms might adopt to absorb the costs because we have no way to determine what the mix or proportion of the fee costs that would be applied to any strategy such as increased use of machines, reduction in employment, efficiency gains or pass-through to buyers (consumers and other firms). These scenarios provide a range of possible behavioral responses to the fee while not exhausting all possibilities including that some firms may leave the state.

Table 1 shows the summary results of the economic and fiscal impact analysis for each scenario described above (impacts measure economic and fiscal changes due to the policy change). Total net employment consists of the direct and indirect employment effects and the relatively large positive effect of increased government revenue (begetting a relatively large increase in public sector employment), offset by reduced firm sales and employment. Value added is a measure of the value of goods and services produced in the state in a year and represents part of the state’s GDP. Net state and local taxes consist of income, sales and property taxes on households and businesses. In the case in which we assume firms bear the full burden of the fee (no pass-through), taxes decline because of reduced sales.⁸ In the case in which households bear the full burden of the fee via complete pass-through, household tax revenue gains (from increased state employment) are larger than business tax declines. The detailed methodology and IMPLAN modeling strategy as well as the 10 industries principally affected in each scenario appear in Technical Appendix B.

As mentioned, part of the fee revenue supports administrative and complaint resolution costs at the Department of Labor. Most of the revenue, however, will support additional and improved services at the three targeted agencies (DSS, DDS and OEC). To model the public benefits of the fee revenue accruing to the state, we assume state government spending increases by the fee amount in the category of state and local government employment and spending in the non-education area. This is one of two categories in the IMPLAN model for such spending changes (the other is educational spending). In input-output models such as IMPLAN, government’s value added is primarily the cost of labor to deliver public services, that in this case will manifest in increased employment in the Departments of Labor, Social Services and Developmental Services and the Office of Early Childhood (about 1,800 new employees overall). That is, roughly, each additional \$100,000 of new state revenue creates one additional government job. In each scenario in Table 1,

the \$188.6 million in new revenue creates approximately 1,800 new state jobs to deliver the additional services envisioned under the proposed statute. These state job additions offset job losses in other industries as firms and households transfer part of their incomes or revenues to the state.

We take this approach not only because of the limitations in the economic model, but further, we do not know how the advisory board will apportion the fee revenue and what the three agencies will do with their fee shares. There is a range of opportunities for improving the wellbeing of working families who are paid low wages; once these are identified it will be possible to estimate more precise public benefits.

In the first scenario, in which firms bear the full fee burden, firm sales decline according to the distribution of worker hours in an industry at \$1 per hour. Table 2 shows our estimation of the workers and hours by industry. Because Connecticut-based firms buy goods and services from each other proportionately more than Connecticut consumers buy locally produced goods and services, the net effect is smaller as firms bear a larger proportion of the fee burden. Much of what consumers buy is not produced in Connecticut; items such as food, clothing, transportation (e.g., vehicles, air travel, fuel), and many retail goods are imported. Connecticut businesses, on the other hand, purchase disproportionately more goods and services from other firms in the state than consumers do (firms do import as well).

The second scenario is 50-50 blend of reduced revenue to firms and reduced household spending.

In the third scenario, in which consumers bear the full fee burden (firms pass through their fee to consumers), the net effect is the largest of the three scenarios because consumers purchase mostly imported retail goods and the effects on the state economy are felt primarily through reduced retail sales. The effect on the state economy is typically less than 30 percent of the retail sale, which is an approximate gross margin for retail sales. The cost of goods sold makes up 70 percent of the purchase price and flows outside the state.

Technical Appendix A: Data Methodology

Data Sources

There are two major sources of data for this study: Public Use Microdata Sample (PUMS), from the American Community Survey (ACS), and the Connecticut Unemployment Insurance (UI) Tax database known as the Quarterly Census of Employment and Wages (QCEW) discussed below.

The ACS-PUMS files are a set of untabulated records about individual people or housing units. They differ from the ACS summary products, which show data that have already been tabulated for specific geographic areas.⁹ The data used for this study are drawn from the 2009-2013 PUMS Sample. For the selected five-year period, a total of 74,041 housing units were sampled in Connecticut.¹⁰ Five years of ACS-PUMS data

ensure that sample sizes would be sufficient to estimate distributions of wages and work hours by NAICS industry for those living in Connecticut.

Critical ACS-PUMS Variables

There are nine variables depicted in Table A-1. These are the critical variables, from the PUMS database, that were used to select the sub-sample used in this study. The first column lists the variable name, the middle column presents the definition, and the third column shows the page number in the 2009-2013 ACS PUMS Data Dictionary in which the given variable's definition appears.

Selected Sub-Sample from the ACS 2009-2013, Five-Year Sample

To narrow the sample down to the relevant sub-sample for analysis, the approach of Cook County was followed and the sample was restricted to 16- to 64-year-olds who reported having worked in the previous year.¹¹ Since 2008, the ACS micro data reports the weeks worked during the previous year only in intervals. The technique followed here is that employed by Welsh-Loveman, Perry and Bernhardt (2014). That is, we use the class mark, or interval midpoint to transform the number of weeks worked per year from a categorical to a continuous variable.¹²

To summarize, in terms of the variables presented in Table A-1:

- The sample consists of U.S. civilians aged 16 to 64, who had non-zero income in the previous 12 months. ($15 < \text{AGEP} < 65$)
- Those who worked last week, and who were not self-employed, unpaid family workers, or in exempt non-profit, charitable organizations, or federal or state government employees (these groups of workers are not covered by city or county minimum wage laws). ($\text{COW} = 1$)
- In addition, respondents who worked more than three hours per week were selected; and those who reported working the previous week were selected. This was to identify workers actively connected to the labor market. ($\text{WKHP} > 3$; $\text{WKL} = 1$; $\text{WKW} = 1, 2, 3, 4, 5, 6$)

The nine variables in Table A-2 represent adjustments, transformations, and recodes to create additional variables to carry out this study, including to impute the hourly wages and then obtain the distribution of wages above, and below, \$15/hour, and the distribution of hours worked by 2-digit NAICS industry, both critical inputs into the impact analysis. In addition, we use the variable transformations presented in Table A-2 in the discussion of the creation of the imputed hourly wage-rate variable highlighted in Box A-1.

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BOX A-1: Creating the Hourly Wage Variable

Following common practice, hourly wages (variable WHRLY in Table A-1), were imputed using the transformation of the ACS categorical estimates of annual weeks worked into a continuous estimate (variable WKS in Table A-2), usual hours worked per week (variable WKHP in Table A-1), and annual wages or salaries (variable WAGP in Table A-1). All observations with wage-rates below \$1.00 or in excess of \$100.00, in 2013 dollars, were omitted, because these wage rates were likely to be erroneous. This is a slight modification the practice followed in the Economic Policy Institute's (EPI) State of Working America series.¹³ To trim outliers, EPI drops wage-rates below \$0.50 per hour, and above \$100.00 per hour. For this study, we use EPI's upper bound, for trimming outliers, but Connecticut's lower bound was set at \$1.00 per hour rather than EPI's \$0.50 per hour.

Wage Distribution by Industry

Because wage and employment data by individual firms can be subject to suppression to preserve the anonymity of establishments, according to U.S. Bureau of Labor Statistics (BLS) rules and guidelines, in accordance with U.S. law, BLS withholds publication of data for any geographic industry level in which there are fewer than three firms or in which the employment of a single firm accounts for over 80 percent of the industry. At the request of a state, data are withheld where there is reason to believe that the "fewer than three" rule would not prevent disclosure of information pertaining to an individual firm or would otherwise violate the state's disclosure provisions. Information concerning federal employees, however, is fully disclosable.¹⁴ Consequently, the number of employees, and the number of firms and franchises with 500 or more employees from the Quarterly Census of Employment and Wages (QCEW) for Connecticut, state-wide, obtained from the Office of Research, Connecticut Department of Labor, still has some suppression at the NAICS 2-Digit industry level.

Although no individual employer is likely to have exactly the same distribution of wages or work hours as its industry as a whole, due to suppressions—2-digit NAICS industry data are the best available source of information to estimate firm-level wage and hour distributions.

To obtain the distribution of those above, and below, \$15/hour, we created Variable WLT15 in Table A-2 to obtain the share of people who are paid \$15 an hour or less in firms with 500 or more employees in each 2-digit NAICS industry. We calculated the average number of hours per low-wage worker per year for those making less than \$15/hour (i.e., WLT15=1).

Derivation of Estimated Revenue from the Low-Wage Fee

Table A-3 presents the data and calculations used to derive the estimated revenue from the low-wage fee. We use the following four-step process to derive the estimated total revenue raised by the fee assessed on firms and franchises with 500 or more employees paying less than \$15/hour:

1. The first step multiplies the: (Number of workers in the fourth quarter of 2014 in firms and franchises with 500 or more employees, in each 2-digit NAICS sector [Column (6) in Table A-3]) by the (Percent of workers, in that 2-digit sector, making less than \$15/hour in firms and franchises with 500 or more employees [Column (7)]) to obtain the number of workers making \$15/hour or less [Column (8)].
2. The value in Column (8) is then multiplied by the average number of hours worked per year [Column (9)] to obtain the number of person hours worked by low-wage workers in each of the 2-digit NAICS industries not subject to suppression [Column (10)].
3. The third step adds the total person-hours worked by those making less than \$15/hour for each 2-digit NAICS industry not subject to suppression, [Column (10)] to obtain the aggregate number of person-hours worked by Connecticut workers in firms or franchises with 500 or more employees making less than \$15/hour.
4. Finally, the total low-wage estimated hours, 188,592,170, is multiplied by the \$1.00 per person-hour fee for each person-hour of work below \$15/hour to obtain the estimated fee-generated revenue of \$188,592,170.

We use this estimate of the fee-generated revenue as an input to the impact modeling in the IMPLAN Input-Output software.

A final note: We use the ADJINC Variable (see Table A-1) to adjust the income and wage data to 2013 dollars. Because the ACS 5-year sample is a rolling sample from 2009 to 2013, we had to adjust respondents' incomes from earlier years to bring them in line with 2013 dollars. For this purpose, the ACS provides the variable ADJINC to adjust all the income variables. Thus, actual inputs to the calculations of industry person hours were RWLT15 (adjusted WLT15) and RWHRLY (adjusted WHRLY) (see Table A-2).

Technical Appendix B: Economic and Fiscal Impact Modeling Strategy

IMPLAN uses the changes in government revenue, industry sales and household spending to calculate the direct, indirect and induced effects of these changes on the state economy. These spending changes represent changes in direct final demand for goods and services. The direct effect represents the impact (e.g., changes in employment, sales, value added and labor income) for the expenditures and/or production values we specify as direct final demand changes in IMPLAN. The indirect effect represents the IMPLAN-calculated impact (e.g., changes in employment, sales, value added and labor income) caused by the rounds of industries purchasing from industries that results from the initial direct final demand changes. The induced effect represents the IMPLAN-calculated impacts on all local industries caused by the expenditures of new household income generated by the direct and indirect effects of direct final demand changes. In other words, the spending of wages and salaries due to the state's expanded payroll and the net new wages and salaries earned due to all other firm and household spending comprises the induced effect. The total impact is the sum of the direct, indirect and induced effects. Labor income is the sum of employee compensation and sole proprietorship income. For simplicity of exposition in the above discussion of the results, we have combined the direct, induced and indirect effects into the total effect.

IMPLAN is a regional input-output model whose basic assumptions we outline below.

Input-output (I-O) analysis is a means of examining relationships within an economy, both between businesses and final consumers. It captures all monetary market transactions for consumption in a given time period. The resulting mathematical formulas allow for examinations of the effects of a change in one or several economic activities on an entire region (impact analysis). IMPLAN expands upon the traditional I-O approach to include inter-institutional¹⁵ transfers and thus can more accurately be described as a Social Accounts Multiplier (SAM) model, though the terms I-O and SAM are often used interchangeably. Although IMPLAN provides a framework to conduct an analysis of economic impacts, the user must carefully scrutinize each stage of an analysis to ensure it is logical and fits the economic activity being modeled. The user must validate procedures and assumptions. Basic assumptions of the IMPLAN modeling framework appear below.

Constant Returns to Scale

This means that the same quantity of inputs is needed per unit of output, regardless of the level of production. In other words, if output increases by 10 percent, input requirements will also increase by 10 percent.

No Supply Constraints

I-O assumes there are no restrictions to raw materials and assumes there is enough to produce an unlimited product. IMPLAN cannot tell if values are unreasonable. The user will need to decide whether this is a reasonable assumption for their

study area and analysis, especially when dealing with large-scale impacts.

Fixed Input Structure

This structure assumes that changes in the economy will affect the industry's output level but not the mix of commodities and services it requires to produce that output. In other words, there is no input substitution in response to a change in output.

Industry Technology Assumption

An industry will always produce the same mix of commodities regardless of the level of production. In other words, an industry will not increase the output of one product without proportionately increasing the output of all its other products. Industry by-product coefficients are constant.

Commodity Technology Assumption

The commodity technology assumption comes into play when data is collected on an industry-by-commodity basis and then converted to industry-by-industry matrices. It assumes that an industry uses the same technology to produce each of its products. In other words, an industry's production function is a weighted average of the inputs required for the production of the primary product and each of the by-products, weighted by the output of each of the products.

The IMPLAN Model is Static

No price changes are built in. Impact runs do not affect the underlying data and relationships. The relationships for a given year do not change unless the user accesses another year of data.

Specific Assumptions for Aggregating IMPLAN Industries to the 2-Digit NAICS Level

To maximize the amount of data available to estimate the wage and hours distributions by industry, or, in other words, to minimize suppressions, we obtained 2-digit NAICS (North American Industrial Classification) data from the Connecticut Department of Labor. IMPLAN has 440 industries including several 'institutions,' which are households, and federal, state and local governments.

We represent the effect of the fee as a reduction in industry sales. In order to distribute the sales reduction to the detailed IMPLAN industries, we need to aggregate IMPLAN's industries to the 2-digit level for the affected industries appearing in Table A-3. We aggregated IMPLAN industries for the utilities, manufacturing, retail, transportation and warehousing, information, finance and insurance, professional and technical services, administrative support and waste management services, educational services, health care and social assistance, arts, entertainment and recreation, and accommodation and food services industries. IMPLAN distributes the shock (reduction in industry sales for each scenario) to the detailed industries.

Specific Assumptions for Household Spending Change

IMPLAN has nine household (annual) income groups: less than \$10,000; between \$10,000 and \$15,000; between \$15,000 and \$25,000; between \$25,000 and \$35,000; between \$35,000 and \$50,000; between \$50,000 and \$75,000; between \$75,000 and

\$100,000; between \$100,000 and \$150,000 and greater than \$150,000. We distribute the estimated household spending reduction in each scenario according to the share of final demand in total demand for each household income group. IMPLAN provides detailed study area data (in this case, for Connecticut) part of which is household final demand (household consumption in dollars) of each income group.

Specific Assumptions for the Fee Revenue to the State

The \$188.6 million flows into the General Fund and is disbursed to the Departments of Social Services and Developmental Services and the Office of Early Childhood. As we do not know precisely how much and how services will be improved or increased, we represent the social benefit as an increase in state and local employment and payroll in the non-education area in IMPLAN by the amount of the fee. As mentioned, input-output models such as IMPLAN assume public services are valued at what they cost to deliver, namely, what state employees are paid.

Table 1: Economic and Fiscal Impacts of SB 1044

Scenario	Total Net Employment Impact	Net Value Added Impact	Net State and Local Tax Impact	Net Revenue to the State
Firms Bear Full Fee Burden	532	\$92,448,706	(\$4,731,900)	\$183,860,270
Firms & Households Share Fee Burden Equally	960	\$111,509,913	(\$1,799,500)	\$186,792,670
Households Bear Full Fee Burden	1,388	\$130,571,119	\$1,132,901	\$189,725,071

Source: IMPLAN models and authors' calculations

Table 2: The Distribution of Workers and Hours by Industry for Connecticut Firms of 500 or More Employees

CT FIRMS WITH 500 OR MORE EMPLOYEES		Workers Earning < 15/Hr by Industry		Workers Earning < 15/Hr by Industry		Workers Earning < 15/Hr by Industry						
Year	Qtr	NAICS Code	NAICS Title	FirmsCnt	Q AvgEmp	Percent	Number	AvgYrlyHrsWorked	PerHrs Yr	HrsFirm_Qtr	PerHrs Yr	HrsFirm_Qtr
2014	4	22	Utilities	3	3,250	4.48	146	1,863	271,293	67,823	22,608	22,608
2014	4	23	Construction	NP	NP	NA	NA	NA	NA	NA	NA	NA
2014	4	31-33	Manufacturing	30	53,000	16.92	8,969	1,892	16,970,834	4,242,708	141,424	141,424
2014	4	42	Wholesale Trade	4	3,491	18.38	642	1,802	1,156,532	289,133	72,283	72,283
2014	4	44-45	Retail Trade	48	82,476	50.64	41,770	1,334	55,705,364	13,926,341	290,132	290,132
2014	4	48-49	Transportation & Warehousing	11	15,642	32.56	5,093	1,706	8,688,298	2,172,075	197,461	197,461
2014	4	51	Information	13	13,956	14.74	2,057	1,633	3,358,988	839,747	64,596	64,596
2014	4	52	Finance & Insurance	30	56,589	9.77	5,529	1,849	10,222,428	2,555,607	85,187	85,187
2014	4	53	Real Estate and Rental & Leasing	NP	NP	NA	NA	1,763	NA	NA	NA	NA
2014	4	54	Professional, Scientific, & Technical Services	11	12,239	10.82	1,324	1,601	2,120,191	530,048	48,186	48,186
2014	4	55	Management of Companies & Enterprises	11	9,253	0	0	0	0	0	0	0
2014	4	56	Admin. & Support & Waste Mgmt. & Remed. Services	20	18,616	42.68	7,945	1,605	12,752,656	3,188,164	159,408	159,408
2014	4	61	Educational Services	19	34,790	36.24	12,608	1,314	16,563,908	4,140,977	217,946	217,946
2014	4	62	Health Care & Social Assistance	66	94,652	30.10	28,490	1,590	45,293,273	11,323,318	171,565	171,565
2014	4	71	Arts, Entertainment, & Recreation	3	2,025	45.29	917	1,329	1,219,298	304,824	101,608	101,608
2014	4	72	Accommodation & Food Services	19	15,475	67.79	10,491	1,360	14,269,108	3,567,277	187,751	187,751
2014	4	81	Other Services (except Public Administration)	NP	NP	NA	NA	1,529	NA	NA	NA	NA
2014	4	TOTAL	TOTAL OF 2-DIGIT INDUSTRIES	288	415,456	30.29	125,835		188,592,170	47,148,043	163,708	163,708

Avg Yrly Hrs Worked 1,498.72

VARIABLE DEFINITIONS

PerHrs_Yr = AveYrlyHrsWorked*Number (Earning < 15/Hr)
 PerHrs_Qtr = PerHrs_Yr/4
 HrsFirm_Qtr = PerHrs_Yr/Number of Firms with > 500 Emp

NOTE: PerHrs is the number of Person Hours (=Workers*Number of Hours Worked)
 NP means data is not publishable due to confidentiality issues

Table A-1: Definitions of Critical Variables

Variable	Definition	2009-2013 ACS PUMS Data Dictionary Page Number.
ADJINC	Adjustment factor for income and earnings dollar amounts	p. 29
AGEP	Age	p. 30
COW	Class of worker	p. 33
WAGP	Wages or salary income in the past 12 months	p. 45
WKHP	Usual hours worked per week past 12 months	p. 46
WKL	When last worked	p. 46
WKW	Weeks worked during past 12 months	p. 46
WRK	Worked last week	p. 46
NAICSP	NAICS industry code based on 2012 NAICS codes	p. 98

Source: U.S. Census-ACS PUMS

Table A-2: Variable Transformations

Variable	Definition
NAICS_3	RECODE: extract(NAICSP, 1, 3)
NAICS_2	RECODE: extract(NAICS_3, 1, 2)
WKS	RECODE: If Then(WKW = 1, 51.0; WKW = 2, 49.5; WKW = 3, 43.5; WKW = 4, 33.0; WKW = 5, 20.0; WKW=6, 6.5)
YRHRS	RECODE: WKHP*WKS
WHRLY	RECODE: WAGP/YRHRS
HRSCHECK	RECODE: YRHRS/WKS
WLT15	RECODE: If Then(WHRLY < 15, 1; WHRLY >= 15, 2)
RWHRLY	RECODE: WHRLY*ADJINC
RWLT15	RECODE: RWLT15*ADJINC

N.A. = Not applicable

SOURCE: U.S. Census-ACS, NCSS Software, and authors' calculations

Table A-3: Fee Assessment Estimation Steps and Results by Industry

CT FIRMS WITH 500 OR MORE EMPLOYEES				Workers Earning < 15/Hr by Industry		Workers Earning < 15/Hr by Industry		Workers Earning < 15/Hr by Industry			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Year	Qtr	NAICS Code	NAICS Title	FirmsCnt	QAvgEmp	Percent	Number	AvgYrlyHrsWorked	PerHrs_Yr	PerHrs_Qtr	HrsFirm_Qtr
2014	4	22	Utilities	3	3,250	4.48	146	1,863	271,293	67,823	22,608
2014	4	23	Construction	NP	NP	NA	NA	NA	NA	NA	NA
2014	4	31-33	Manufacturing	30	53,000	16.92	8,969	1,892	16,970,834	4,242,708	141,424
2014	4	42	Wholesale Trade	4	3,491	18.38	642	1,802	1,156,532	289,133	72,283
2014	4	44-45	Retail Trade	48	82,476	50.64	41,770	1,334	55,705,364	13,926,341	290,132
2014	4	48-49	Transportation & Warehousing	11	15,642	32.56	5,093	1,706	8,688,298	2,172,075	197,461
2014	4	51	Information	13	13,956	14.74	2,057	1,633	3,358,988	839,747	64,596
2014	4	52	Finance & Insurance	30	56,589	9.77	5,529	1,849	10,222,428	2,555,607	85,187
2014	4	53	Real Estate and Rental & Leasing	NP	NP	NA	NA	1,763	NA	NA	NA
			Professional, Scientific, & Technical Services	11	12,239	10.82	1,324	1,601	2,120,191	530,048	48,186
2014	4	55	Management of Companies & Enterprises	11	9,253	0	0	0	0	0	0
			Admin. & Support & Waste Mgmt. & Remed. Services	20	18,616	42.68	7,945	1,605	12,752,656	3,188,164	159,408
2014	4	61	Educational Services	19	34,790	36.24	12,608	1,314	16,563,908	4,140,977	217,946
2014	4	62	Health Care & Social Assistance	66	94,652	30.10	28,490	1,590	45,293,273	11,323,318	171,565
2014	4	71	Arts, Entertainment, & Recreation	3	2,025	45.29	917	1,329	1,219,298	304,824	101,608
2014	4	72	Accommodation & Food Services	19	15,475	67.79	10,491	1,360	14,269,108	3,567,277	187,751
2014	4	81	Other Services (except Public Administration)	NP	NP	NA	NA	1,529	NA	NA	NA
2014	4	TOTAL	TOTAL OF 2-DIGIT INDUSTRIES	288	415,456	30.29	125,835		188,592,170	47,148,043	163,708

Avg Yrly Hrs Worked 1,498.72

VARIABLE DEFINITIONS

PerHrs_Yr = AveYrlyHrsWorked*Number (Earning < 15/Hr)

PerHrs_Qtr = PerHrs_Yr/4

HrsFirm_Qtr = PerHrs_Yr/Number of Firms with > 500 Emp

NOTE: PerHrs is the number of Person Hours (=Workers*Number of Hours Worked)

NP means data is not publishable due to confidentiality issues

Endnotes:

- ¹ See the Issue Brief, “The Economic and Fiscal Impact of Low-Wage Work in Connecticut,” at <http://cahs.org/wp-content/uploads/2015/04/issueBriefCT6.pdf> and references therein.
- ² Nonprofit firms and government employers are exempt under the Fair Labor Standards Act from minimum wage laws; however, SB 1044 may pose an interesting case in interpreting the FLSA.
- ³ We use the IMPLAN economic model.
- ⁴ This number was estimated using American Community Survey (Public-Use Microdata System) and data from the Connecticut Department of Labor on the distribution of firm sizes by industry. The detailed methodology appears in Technical Appendix A.
- ⁵ See <http://www.cga.ct.gov/2015/fn/2015SB-01044-R000344-FN.htm>.
- ⁶ Sales from County Business Patterns 2013 and the Economic Census 2007. Final demand estimates are from the IMPLAN study area data.
- ⁷ The first scenario assumes perfectly inelastic demand and finite supply elasticity in each industry’s market. The second assumes equal demand and supply elasticities, while the third assumes perfectly inelastic supply and finite demand elasticity.
- ⁸ Taxes on production and imports (TOPI) decline more than the increase in household taxes. TOPI consist of tax liabilities, such as general sales and property taxes that are chargeable to business expenses in the calculation of profit-type incomes. Also included are special assessments. TOPI are comprised of state and local taxes—primarily non-personal property taxes, licenses, and sales and gross receipts taxes—and federal excise taxes on goods and services. See http://www.bea.gov/faq/index.cfm?faq_id=93.
- ⁹ U.S. Census Bureau, A Compass for Understanding and Using American Community Survey Data: What PUMS Data Users Need to Know (February 2009) U.S. Department of Commerce: Washington, p. 1.
- ¹⁰ U.S. Census Bureau, 2009-2013 PUMS Accuracy of the Data, p. 6.
- ¹¹ University of Illinois-Chicago, The Economic Impact of the Proposed Cook County Fair Share Fee Ordinance (March 2015) Center for Urban Economic Development, Footnote 2, p. 7.
- ¹² Welsh-Loveman, Jeremy, Ian Perry, and Annette Bernhardt, Data and Methods for Estimating the Impact of Proposed Local Minimum Wage Laws (June 2014) Institute for Research on Labor and Employment, University of California, Berkeley, p. 2.
- ¹³ Mishel, Lawrence, Josh Bivens, Elise Gould, and Heidi Shierholtz, The State of Working America, 12th Ed (November 2012), Economic Policy Institute, Chapter 4-Wages, and Documentation and Notes.
- ¹⁴ U.S. BLS. See http://www.bls.gov/opub/hom/homch5_d.htm#Presentation.
- ¹⁵ In IMPLAN, institutions include Households (broken down into nine income categories), Administrative Government, Enterprises (basically, corporate profits), Capital and Inventory.

About the University of Connecticut School of Social Work

The University of Connecticut School of Social Work builds knowledge to improve social work practice, while maintaining a strong public service mission. Situated on the University of Connecticut Greater Hartford campus, the school offers access to a major urban center, ethnically and economically diverse populations, hundreds of human service agencies, and state government offices. MSW education has been its signature program since 1946, with over 6,800 alumni. The school offers a Ph.D. in social work and provides extensive non-degree programs. The school has a clear and strong commitment to promoting social and economic justice and improving well-being for the citizens of the state of Connecticut, as well as individuals, families and communities nationally and internationally.



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