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Economic Effects of a Paid Sick Leave Mandate on New Jersey Small Businesses

Executive Summary

This report analyzes the potential economic impact of implementing the statewide paid sick leave mandate outlined in A4125 on New Jersey private sector employment and production. Introduced on May 20, 2013 and sponsored by Assemblywoman Pamela R. Lampitt and Assemblyman Thomas P. Giblin, A4125 proposes a statewide paid sick leave mandate that would impose new costs on NJ employers in the forms of compensation costs associated with paying workers taking paid sick leave, lost production due to more workers taking leave, and new paperwork and recordkeeping costs incurred by complying with the mandate. Assuming passage and implementation of the mandate in 2014, more than 25,000 NJ jobs could be lost by 2023, and NJ real output could decrease by more than $18.1 billion between 2014 and 2023. Small businesses would bear 58 percent of job losses and 54 percent of lost sales. More than five years following the official end of the Great Recession, the state unemployment rate in New Jersey is still 8.7 percent, the sixth worst rate in the nation. In economic circumstances where job creation remains a top priority, policymakers would do well to bear in mind the potential negative effects to employment and production that employer mandates, such as paid sick leave mandates, can have.

Introduction

This report analyzes the potential economic impact of a proposed paid sick leave mandate on New Jersey employers, workers, and economy. Paid sick leave mandates have become a popular policy issue for private enterprise following the passage of the first statewide paid sick leave employer mandate in Connecticut in 2011. In New Jersey, legislation is currently pending which, if passed, would establish a minimum time-off standard for paid sick leave by requiring New Jersey businesses to allow their employees (full-time, part-time, and temporary) to earn one hour of paid sick leave for every 30 hours worked.

In general, paid sick time is to be provided to employees to care for their own or a family member's physical or mental illness, injury, health condition, need for a medical diagnosis, care, or treatment, or need for a medical procedure or preventive medical care. Paid sick time is also to be provided to help employees prevent or deal with the consequences of domestic violence. In practice, the price of these new mandated entitlements would be new costs imposed on New Jersey employers which would lead to reduced profitability, lost sales and production, and lost jobs.

The BSIM is a dynamic, multi-region model based on the Regional Economic Models, Inc. (REMI) structural economic forecasting and policy analysis model which integrates input-output, computable general equilibrium, econometric, and economic geography methodologies. It has the unique ability to forecast the economic impact of public policy and proposed legislation on different categories of U.S. businesses differentiated by size of firm. Forecast variables include levels of private sector employment and real output. By comparing simulation results for scenarios which include proposed or yet-to-be-implemented policy changes with the model's baseline forecast, the BSIM is able to obtain estimates of how these policy changes might impact employer firms and their workers.

BSIM inputs in this study consist of (1) new employer costs generated by the proposed mandate and (2) new spending on healthcare-related goods and services due to an increase in paid sick leave taken by employees. Passage and implementation of the mandate is assumed to occur in 2014. Economic forecasts were generated by BSIM for years 2014 through 2023, a ten-year window from the assumed date of implementation. The simulation results suggest that if the statewide paid sick leave mandate currently under discussion passes, more than 25,000 NJ jobs could be lost and cumulative NJ real output could decrease by over $18.1 billion through 2023. Small firms would bear 58 percent of the job losses and 54 percent of lost sales.

New Employer Costs Generated by a Paid Sick Leave Mandate

A paid sick leave mandate modeled after the legislation introduced in the New Jersey assembly would impose three major costs on employers: compensation costs associated with paying more workers taking paid leave, lost production due to more workers taking leave, and new paperwork and recordkeeping costs incurred by complying with a paid leave mandate. These three costs, and our attempts to model them, are discussed in detail below.

A. Employee Compensation

A major cost to employers from this legislation is a "compensation cost" in the form of compensation (both wages and benefits) transferred from employers to employees during their additional paid time off. According to bill language, the New Jersey mandate would enable all

employees to earn one hour of earned paid sick leave for every 30 hours worked. Employers would not be required to permit an employee to accrue at any one time more than 40 hours of earned paid sick leave if the employer is a small employer or more than 72 hours of earned paid sick leave if the employer is not a small employer.[1] Employers would be required to pay employees for earned sick leave at the same rate of pay with the same benefits as the employee normally earns, except that the pay rate may not be less than the state minimum wage. The mandate would apply to full-time, part-time, and temporary employees.

It should be noted that the legislation does not impose a "cap" on the maximum number of earned paid sick leave hours an employee can earn during a given calendar year. For example, assuming that the accrued number of earned paid sick leave hours for a worker does not reach its upper limit (40 hours for workers at small employers and 72 hours for workers at "not small" employers) through regular use of paid sick days through the year, then a worker who works 30 hours a week may be expected to earn approximately 6 earned paid sick leave days per year.[2]

The size of new employer compensation costs will depend on the amount of additional paid time off that employees take, either for sick leave or to deal with the impact of domestic violence in their lives. This study assumes that employees with newfound access to paid sick leave will use, on average, 5.2 days of their newly available paid sick leave time. This assumption is based on research from the Institute for Women's Policy Research (IWPR) which estimates that workers covered by paid sick days policies "miss an average of 3.9 days of work per year for their own illness and injury (excluding maternity leave)" and "need 1.3 days of paid sick time per year to care for family members" (on average).[3] The sum of these two figures yields the assumed 5.2 paid sick leave days taken per year. Workers already with access to paid sick leave are assumed to not change the amount of paid leave they take after the mandate is implemented. The paid sick leave these workers have access to is also assumed to be sufficiently generous that it satisfies the mandate's requirements. It is assumed that the average amount of paid safe time taken off by workers is negligible and does not contribute materially to the average number of paid leave days taken off by covered workers.

Compensation cost estimates were calculated using data and assumptions regarding [1] the number of NJ employees newly eligible for paid sick leave, [2] the quantity of additional paid sick leave taken by employees if the mandate passes, and [3] the current compensation of these employees. To estimate [1], industry-level estimates of the percentage of workers without paid sick leave were multiplied by the number of workers in those industries. This calculation produces an estimate of the number of NJ employees with no paid sick days—the set of employees newly eligible for paid sick leave if the mandate were implemented. The percent estimates of NJ workers ineligible for paid sick leave were derived from employee coverage rates for paid sick leave published by the IWPR and the Bureau of Labor Statistics. Industry-level data on the number of NJ private sector employees were obtained from the Census Bureau. These figures are shown in **Table**

[1] For the purposes of this legislation, a "small employer" means an employer who had, on average, fewer than 10 employees during the preceding calendar year, or during the current year if the employer had no employees during the preceding calendar year.

[2] (30 hours worked per week) x (48 work weeks per year) x (1 earned paid sick leave hour per 30 hours worked) x (1 earned paid sick leave day per 8 earned paid sick leave hours) = 6 earned paid sick leave days.

[3] Hartmann, Heidi I., "The Healthy Families Act: Impacts on Workers, Businesses, the Economy, and Public Health," Testimony before the U.S. Senate Committee on Health, Education, Labor, and Pensions, February 13, 2007.

1 along with the calculated estimates for the number of NJ employees currently without paid sick days, by industry (right-most column).

BSIM has a unique capacity among forecasting models to generate results for specific firm-size categories. This ability allows for a finer analysis of policy impacts on small firms than other forecasting tools. To produce firm-size-specific outputs, BSIM requires that inputs also be firm-size specific. The estimates of NJ employees without paid sick leave in Table 1 therefore need to be allocated to a pre-defined set of firm-size categories.

Table 1: Estimated Number of NJ Employees without Paid Sick Days, by Industry

NAICS Industry Code	Private Sector Industry	Percent of Workers without Paid Sick Days Nationally[4]	Number of NJ Employees, by Industry[5]	Estimated Number of NJ Employees without Paid Sick Days, by Industry
11	Agriculture	62	1,721	1,067
21	Mining	52	1,255	646
22	Utilities	15	18,018	2,636
23	Construction	75	132,555	98,992
31-33	Manufacturing	48	235,161	112,807
42	Wholesale Trade	29	251,510	72,712
44-45	Retail Trade	55	429,216	235,897
48-49	Transportation/Warehousing	44	152,675	67,314
51	Information	26	98,038	25,009
52	Finance and Insurance	18	195,280	34,857
53	Real Estate	33	56,005	18,717
54	Prof., Scientific, & Tech. Services	31	317,389	98,867
55	Management	23	128,542	29,860
56	Admin., Support, Waste Man., & Rem. Services	69	257,218	177,686
61	Education	32	94,563	29,976
62	Healthcare and Social Assist.	29	524,392	151,444
71	Arts, Entertain., & Recreation	65	53,121	34,481
72	Accommodation and Food Serv.	78	274,955	214,602
81	Other Services	51	145,248	73,612
--	All Industries	44	3,366,862	1,480,117

[4] Except for agriculture, industry-level paid sick days coverage rates are taken from Vicky Lovell's *Taking Care: Adequacy and Equity of Paid Leave*, published by the Institute for Women's Policy Research. Lovell's estimates are derived using data from the BLS March 2006 National Compensation Survey, adjusted for eligibility using data from the BLS Nov. 2005 through Oct. 2006 Job Openings and Labor Turnover Surveys (JOLTS). The coverage rate for agricultural workers is taken directly from the BLS March 2013 National Compensation Survey and is not adjusted using JOLTS data.

[5] Estimates of the number of NJ employees by industry are taken from the Census Bureau's 2010 Statistics of U.S. Businesses dataset.

The approach taken in this study was to distribute the estimates of NJ employees currently ineligible for paid sick leave according to the present firm-size distribution of NJ employees. To illustrate this process, consider the case of the construction industry where an estimated 132,555 NJ construction employees are ineligible for paid sick leave. **Table 2.A** gives Census Bureau data on the distribution of NJ employees working construction across firm-size groups. Multiplying the estimated number of NJ construction workers without paid sick leave, 132,555, by the percentage shares for the firm-size categories in Table 2.A yields an estimated distribution of construction employees without paid sick leave across firm-size categories (**Table 2.B**). This process was repeated for most 2-digit NAICS industry categories to obtain a matrix of estimated NJ employees without paid sick leave by firm-size category and major industry (**Table 2.C**), completing the estimation of [1].

Table 2.A: Distribution of NJ Construction Employees, 2010

		No. of Employees per Firm					
	All Construction Employees	**1-4**	**5-9**	**10-19**	**20-99**	**100-499**	**500+**
No. of Employees	132,555	22,831	17,792	21,518	36,911	17,819	15,684
% of Employees	100.00%	17.22%	13.42%	16.23%	27.85%	13.84%	11.83%

Source: Census Bureau, Statistics of U.S. Businesses

Table 2.B: Estimated Distribution of NJ Construction Employees without Paid Sick Leave

	All Construction Employees without Paid Sick Leave	**No. of Employees per Firm**					
		1-4	**5-9**	**10-19**	**20-99**	**100-499**	**500+**
No. of Employees	98,992	17,050	13,287	16,070	27,565	13,307	11,713
% of Employees	100.00%	17.22%	13.42%	16.23%	27.85%	13.44%	11.83%

Table 2.C: Estimated Number of NJ Employees without Paid Sick Leave, by Firm Size and Industry

	No. of Employees per Firm					
Industry	**1-4**	**5-9**	**10-19**	**20-99**	**100-499**	**500+**
Agriculture	245	153	204	226	0	0
Mining	0	0	122	243	0	507
Utilities	47	45	0	427	435	17,018
Construction	22,831	17,792	21,518	36,911	17,819	15,684
Manufacturing	5,865	8,904	15,819	54,805	54,516	95,252
Wholesale Trade	12,720	13,583	19,356	53,405	41,892	110,554
Retail Trade	27,485	24,853	25,228	48,212	30,113	273,325
Transportation/Warehousing	5,120	5,079	7,010	22,106	25,381	87,979
Information	1,758	1,732	2,737	8,114	8,379	75,318
Finance and Insurance	7,017	5,722	5,655	15,429	16,801	144,656
Real Estate	8,751	6,266	6,627	10,753	5,162	18,446
Prof., Scientific, & Tech. Services	31,469	22,081	26,598	54,298	43,987	138,956
Management	0	122	195	2,317	7,526	118,289
Admin., Support, Waste Man., & Rem. Services	10,727	10,074	12,802	35,925	39,773	147,917
Education	2,363	3,502	5,302	23,254	19,968	40,174
Healthcare and Social Assist.	22,193	33,447	38,847	81,483	94,497	253,925

Arts, Entertain., & Recreation	2,389	2,716	4,740	16,745	14,369	12,162
Accommodation and Food Serv.	15,627	19,886	31,125	71,653	22,351	114,313
Other Services	27,860	23,940	25,783	39,333	15,788	12,544

Regarding [2], the quantity of additional paid leave taken under the mandate will be the sum of additional time off taken by newly eligible workers either for traditional family and medical leave reasons or to deal with the impact of domestic violence in their lives. As mentioned above, employees newly-eligible for paid sick leave are assumed to avail themselves of 5.2 days per calendar year for own-medical and caretaking reasons while the average amount of paid safe time taken is assumed to be negligible.

Finally, estimates for [3], employee compensation, were derived using industry-level data on the average workweek lengths of employees and average hourly earnings[6] or wages of employees. Data on average workweek lengths of employees come from the Bureau of Labor Statistics' Current Employment Statistics database, as do data on average hourly earnings or wages for employees. The BLS workweek length and earnings/wage data are given in columns (A) and (B) in **Table 3**. This study assumes that a typical workweek consists of 40 hours and that any time worked during a given week in excess of 40 hours constitutes overtime. It is assumed that workers taking paid leave under the mandate would earn regular, and not overtime, pay. The hourly earnings/wage rates for mining, utilities, and manufacturing therefore had to be adjusted downward to obtain estimated rates of regular pay for those industries (not shown).[7] The values in column (C) are the estimated earnings/wage cost per employee per year (5.2 work days), obtained by multiplying the respective hourly earnings/wage rates for regular pay by the average number of hours worked per day multiplied by 5.2 days (of assumed paid sick leave taken off per year).

BSIM requires inputs to be provided for individual firm-size categories. This was achieved for most industries by multiplying the 5.2-day earnings/wage costs in column (C) by the industry-by-firm-size matrix of estimated numbers of NJ employees without paid sick leave (Table 2.C). The result is an industry-by-firm-size matrix of new compensation costs to employers for providing paid sick leave under the mandate (**Table 4**). These compensation costs are based on the latest data available and are assumed to apply for the year 2014.

[6] Average hourly earnings reported by BLS reflect the actual return to a worker for a stated period and are different from wage rates, which are the amounts stipulated for given units of work or time. BLS earnings do not measure the level of total labor costs on the part of employers since they exclude items like benefits, irregular bonuses, retroactive items, and the employer's share of payroll taxes.

[7] For industries where the average workweek length exceeded 40 hours, non-overtime hourly earnings/wages were imputed for use in calculating compensation costs due to the paid sick leave mandate. Overtime pay was assumed to equal 1.5 times regular pay for the relevant industries. Non-overtime earnings/wages were estimated using the equation: Average Weekly Earnings/Wages = (40 Hours) x (Non-Overtime Earnings/Wage Rate) + (Avg. Workweek Length in Hours – 40) x (Overtime Earnings/Wage Rate).

Table 3: Estimated Earnings, Wages, and Hours Worked by NJ Employees, by Industry[8]

Industry	Avg. # Hrs. Worked per Week (A)	Avg. Hourly Earnings/Wages (B)	Earnings/Wages per Employee for 5.2 Work Days (C)
Agriculture	34.5	$23.53	$844.26
Mining	43.9	$28.75	$1,394.36
Utilities	41.8	$34.24	$1,595.66
Construction	34.3	$35.17	$1,254.58
Manufacturing	40.1	$25.23	$1,048.26
Wholesale Trade	38.7	$26.89	$1,082.27
Retail Trade	31.6	$16.29	$535.35
Transportation/ Warehousing	38.4	$20.50	$818.69
Information	36.6	$31.89	$1,213.86
Finance and Insurance	36.5	$36.43	$1,382.88
Real Estate	37.4	$22.54	$876.72
Prof., Scientific, & Tech. Services	35.9	$32.60	$1,217.15
Management	38.1	$34.85	$1,380.90
Admin., Support, Waste Man., & Rem. Services	34.8	$18.12	$655.80
Education	32.9	$24.23	$829.05
Healthcare and Social Assist.	33.1	$24.52	$844.08
Arts, Entertain., & Recreation	24.7	$19.05	$489.36
Accommodation and Food Serv.	32.4	$21.67	$730.19
Other Services	31.6	$20.85	$685.21

Table 4: Estimated Earnings and Wages Paid by Firms to Employees Newly Eligible for Paid Sick Leave, Year 2014

	No. of Employees per Firm					
Industry	**1-4**	**5-9**	**10-19**	**20-99**	**100-499**	**500+**
Agriculture[9]	$173,946	$108,627	$144,837	$160,456	$0	$0
Mining	$0	$0	$87,608	$174,497	$0	$364,075
Utilities	$10,235	$9,799	$0	$92,986	$94,728	$3,705,922
Construction	$21,390,901	$16,669,743	$20,160,720	$34,582,784	$16,695,040	$14,694,708
Manufacturing	$2,949,220	$4,477,383	$7,954,596	$27,558,737	$27,413,413	$47,897,542

[8] All dollar values in Table 3 represent or are derived from 2010 earnings data taken from the Bureau of Labor Statistics' Current Employment Statistics (CES) dataset. When available, NJ-specific earnings data were used. In the absence of NJ-specific earnings data, national-level data were used.

[9] The zero values present in this and subsequent tables are not errors. According to Census Bureau data, there are no New Jersey employees working at agricultural firms with 100 or more employees, mining firms with fewer than 10 employees or with 100 to 499 employees, utility firms with ten to nineteen employees, or management firms with fewer than five employees.

Wholesale Trade	$3,979,883	$4,249,902	$6,056,181	$16,709,564	$13,107,332	$34,590,565
Retail Trade	$8,086,935	$7,312,520	$7,422,856	$14,185,459	$8,860,174	$80,420,651
Transportation/ Warehousing	$1,848,113	$1,833,313	$2,530,326	$7,979,372	$9,161,514	$31,756,859
Information	$544,375	$536,324	$847,528	$2,512,548	$2,594,607	$23,322,665
Finance and Insurance	$1,732,108	$1,412,445	$1,395,906	$3,808,565	$4,147,236	$35,707,550
Real Estate	$2,564,029	$1,835,928	$1,941,701	$3,150,612	$1,512,458	$5,404,649
Prof., Scientific, & Tech. Services	$11,931,262	$8,371,864	$10,084,455	$20,586,725	$16,677,378	$52,684,243
Management	$0	$39,135	$62,553	$743,252	$2,414,207	$37,945,010
Admin., Support, Waste Man., & Rem. Services	$4,859,610	$4,563,784	$5,799,639	$16,274,958	$18,018,202	$67,010,243
Education	$621,020	$920,361	$1,393,419	$6,111,384	$5,247,790	$10,558,130
Healthcare and Social Assist.	$5,409,972	$8,153,351	$9,469,706	$19,863,053	$23,035,466	$61,899,116
Arts, Entertain., & Recreation	$758,845	$862,714	$1,505,619	$5,318,903	$4,564,187	$3,863,153
Accommodation and Food Serv.	$8,906,063	$11,333,332	$17,738,608	$40,836,127	$12,738,173	$65,148,705
Other Services	$9,674,849	$8,313,564	$8,953,576	$13,659,039	$5,482,646	$4,356,113

The reader will note that the compensation figures given in Table 4 do not represent the total labor cost to employers generated by the paid sick leave mandate (see footnote 6). Significant additional costs include employee benefits and payroll taxes paid by employers for employees newly taking sick leave. To estimate the true labor cost to employers, the figures in Table 4 must be adjusted to account for these factors.

The incorporation of employee benefits into the model was achieved by adjusting the compensation figures in Table 4 upward by a percentage based on the ratios of benefits and wages/salary to total compensation. This adjustment was performed on an industry-by-industry basis. For example, the Bureau of Economic Analysis reports that in 2011, average compensation per private sector employee working in manufacturing totaled $77,060. Of this figure, $60,172 was due to wage and salary accruals. The balance of $16,888 consists of non-cash benefits and other wage and salary supplements, including the employer's share of payroll taxes. In general, an employer's share of payroll taxes equals 7.65 percent of employee wages and salary. Of this 7.65 percent, 6.2 percentage points are intended to help fund old age, survivors, and disability insurance, and 1.45 percentage points go toward helping to pay for Medicare hospital insurance. Subtracting the employer's share of payroll taxes from the balance of $16,888 therefore yields an estimate of the share of employee compensation represented by non-cash compensation for manufacturing employees, roughly 17.0 percent of total employee compensation.[10]

[10] The balance of $16,888 includes the employer's share of payroll taxes. Under current law, the employer's share of payroll taxes is 7.65 percent of employee wage and salary. On average, this amounts to 0.0765 x $60,172, or $4,603 per manufacturing employee. Subtracting this figure from estimated wage and salary supplements yields $12,284, roughly 17.0 percent of reported per-employee compensation (not including the employer's share of payroll taxes).

Note that the subtraction of the employer's share of payroll taxes here is done solely to calculate the ratio of non-cash compensation received directly by employees to total compensation received directly by the employee. Payroll taxes are not ignored as an employer cost in this analysis and are introduced at a later stage of the modeling process.

This share is likely to vary by firm size, given the comparative ease with which large firms can provide non-cash benefits to their employees due to greater financial resources and cost savings achieved through greater purchasing power. In contrast, smaller firms are less able to afford non-cash benefits like health insurance for their workers. For this reason, the percentage share of employee compensation represented by benefits was assumed to vary with the number of workers per firm, with the percentage share represented by benefits being smaller at small firms and larger at large firms.[11] In accordance with this assumption, the cash compensation figures in Table 4 were adjusted by degrees varying by firm size to reflect the costs of non-cash employee compensation to employers. The resulting adjusted compensation cost figures which include both cash and non-cash compensation are given in **Table 5**.

Table 5: Compensation Costs before Accounting for Taxes, Year 2014

	No. of Employees per Firm					
Industry	**1-4**	**5-9**	**10-19**	**20-99**	**100-499**	**500+**
Agriculture	$147,122	$91,876	$122,501	$135,712	$0	$0
Mining	$0	$0	$96,182	$191,576	$0	$449,003
Utilities	$14,347	$13,737	$0	$130,345	$142,076	$5,976,332
Construction	$24,687,094	$19,238,438	$23,267,351	$39,911,758	$20,447,552	$19,171,651
Manufacturing	$3,549,645	$5,388,925	$9,574,056	$33,169,363	$35,107,182	$65,536,839
Wholesale Trade	$4,387,210	$4,684,864	$6,676,008	$18,419,727	$15,291,654	$42,854,875
Retail Trade	$9,188,044	$8,308,185	$8,433,545	$16,116,936	$10,672,870	$103,082,454
Transportation/ Warehousing	$2,195,755	$2,178,172	$3,006,297	$9,480,344	$11,572,312	$42,817,736
Information	$626,568	$617,302	$975,494	$2,891,909	$3,168,715	$30,335,665
Finance and Insurance	$1,948,878	$1,589,209	$1,570,601	$4,285,199	$4,944,413	$45,269,794
Real Estate	$2,854,738	$2,044,085	$2,161,850	$3,507,827	$1,783,209	$6,771,332
Prof., Scientific, & Tech. Services	$13,115,877	$9,203,079	$11,085,707	$22,630,713	$19,399,500	$65,067,914
Management	$0	$43,919	$70,199	$834,109	$2,870,389	$47,966,506
Admin., Support, Waste Man., & Rem. Services	$5,468,231	$5,135,356	$6,525,990	$18,313,248	$21,483,524	$84,963,053
Education	$701,685	$1,039,907	$1,574,411	$6,905,196	$6,284,467	$13,449,137
Healthcare and Social Assist.	$6,217,379	$9,370,193	$10,883,005	$22,827,500	$28,087,339	$80,374,161
Arts, Entertain., & Recreation	$835,184	$949,502	$1,657,083	$5,853,979	$5,315,871	$4,777,604
Accommodation and Food Serv.	$9,739,653	$12,394,109	$19,398,906	$44,658,307	$14,736,215	$79,994,698
Other Services	$10,677,908	$9,175,489	$9,881,856	$15,075,167	$6,404,495	$5,404,189

The figures in Table 5 are estimates of what employers could expect to pay employees newly taking paid sick leave in the absence of tax distortions. They are not accurate estimates under current tax law, however, which permits employers to deduct the value of certain benefits,

[11] The ratio of non-cash compensation to overall compensation for all firms in a particular industry was adopted as the ratio for firms with 100 to 499 employees in that industry. For firms with fewer than 100 employees, this ratio less five percentage points was adopted. For firms with 500 or more employees, this ratio plus five percentage points was adopted.

like their share of employee health insurance premiums, when calculating income tax liability. This feature of tax law was accounted for in the model by assuming that employers of all sizes (a) pay an income tax rate of 35 percent, (b) have sufficient earnings to deduct the maximum share possible of their contributions toward employee benefits, and (c) actually do deduct the maximum value. Current tax law also requires employers to make federal insurance contributions in the form of payroll taxes on behalf of their employees, an amount equal (generally) to 7.65 percent of employee wages and salary.

To incorporate these features of tax law into the model, the compensation figures in Table 5 were first reduced by an amount equal to 35 percent of the corresponding estimates of non-cash employee benefits. Next, a sum equal to 7.65 percent of the non-benefit (pre-tax) share of compensation was added to each term. The resulting compensation cost figures are given in **Table 6**.

Table 6: Compensation Costs after Accounting for Taxes, Year 2014

Industry	No. of Employees per Firm					
	1-4	5-9	10-19	20-99	100-499	500+
Agriculture	$150,325	$93,876	$125,168	$138,667	$0	$0
Mining	$0	$0	$99,883	$198,948	$0	$447,130
Utilities	$14,005	$13,409	$0	$127,238	$135,660	$5,578,997
Construction	$25,169,830	$19,614,630	$23,722,325	$40,692,200	$20,411,344	$18,728,866
Manufacturing	$3,565,112	$5,412,405	$9,615,772	$33,313,887	$34,511,489	$63,027,247
Wholesale Trade	$4,549,106	$4,857,745	$6,922,367	$19,099,452	$15,529,852	$42,608,545
Retail Trade	$9,421,307	$8,519,110	$8,647,652	$16,526,107	$10,716,230	$101,303,003
Transportation/ Warehousing	$2,215,461	$2,197,720	$3,033,277	$9,565,425	$11,429,389	$41,375,829
Information	$639,445	$629,988	$995,542	$2,951,343	$3,166,265	$29,665,299
Finance and Insurance	$2,005,515	$1,635,394	$1,616,244	$4,409,732	$4,982,665	$44,654,636
Real Estate	$2,949,138	$2,111,678	$2,233,338	$3,623,824	$1,804,149	$6,706,448
Prof., Scientific, & Tech. Services	$13,614,003	$9,552,601	$11,506,729	$23,490,202	$19,722,577	$64,763,974
Management	$0	$45,239	$72,308	$859,168	$2,895,412	$47,361,775
Admin., Support, Waste Man., & Rem. Services	$5,626,974	$5,284,435	$6,715,439	$18,844,881	$21,649,054	$83,805,853
Education	$720,960	$1,068,473	$1,617,660	$7,094,883	$6,323,086	$13,244,982
Healthcare and Social Assist.	$6,348,649	$9,568,030	$11,112,783	$23,309,467	$28,081,397	$78,643,178
Arts, Entertain., & Recreation	$866,517	$985,123	$1,719,251	$6,073,598	$5,401,942	$4,753,078
Accommodation and Food Serv.	$10,129,211	$12,889,837	$20,174,805	$46,444,508	$15,011,370	$79,782,477
Other Services	$11,066,963	$9,509,803	$10,241,906	$15,624,439	$6,501,270	$5,370,605

The compensation cost estimates in Table 6 are based on the latest data available, and we assume them to be the costs employers can expect to pay in 2014. Given inflation, these costs can be expected to be higher in 2015 and beyond. To account for inflation, the analysis assumes that employee compensation costs increase annually between 2014 and 2023 at their historical rate of

growth during recent years. Based on data from the Bureau of Economic Analysis, the average annual percentage change for nominal full-time private sector employee compensation between 2004 and 2011 was 3.11%. This growth rate was applied to the figures in Table 6 to obtain estimated compensation costs for years 2015 through 2023 (not shown).

The figures in Table 6 and corresponding tables for years 2015 through 2023 represent the final estimated compensation costs to employers created by a paid sick leave mandate during the next ten years. It should be noted that these estimates rely upon a key assumption regarding employer behavior, namely, that no preemptive action is taken by employers in anticipation of the mandate's implementation. According to the economic theory of rational expectations, rational agents (business owners) will take actions in the present that optimize the value of expected present and future outcomes. When future expectations change, agents will adjust their behavior in the present to account for the change in expectations. Hypothetically, it is possible that certain employers will seek to offset some of the expected future costs generated by the mandate by immediately lowering employee compensation, reducing the number of workers employed, eliminating paid vacation, or decreasing other business spending. No such effect was modeled as part of this analysis.

B. Lost Production Due to Absent Workers

The absence of workers from work causes employers to suffer lost production. Absent workers are unable to produce the goods and services that businesses sell. Given demand, this translates into lost sales which hurt business earnings and profit. A mandated paid sick leave policy will increase the number of work days missed by employees. The financial loss from this increase can be material and is an important consequence of the proposed legislation.

One should take care to note that the "cost" of lost production is separate and different from the compensation cost described earlier. With a paid sick leave mandate, workers are paid compensation whether they are present and healthy or absent and sick. The compensation costs accrue during occasions of worker absence. During these occasions of worker absence, the business is also not producing as many goods and services as it otherwise would. This should translate into lower revenue (and maybe profits) for the firm assuming that the market for the firm's products is not oversupplied and if prices are relatively constant.[12] In the real world, these two assumptions need not hold: sometimes there is too much product available for too little demand, and prices can and often do change. The impact of lost production on firm revenue and profitability is therefore less certain (insofar as modeling is concerned) than the cost of compensating an employee for a given period of time.

Despite the importance of this cost, exogenous production losses were not included in the BSIM forecast because of technical constraints. For one thing, there is a lack of available data necessary to estimate the magnitude and distribution of these production losses across industries. Labor productivity varies by industry, and labor productivity data only exist or are publicly available for select industries. Modeling and simulating the impact of an industry-neutral policy shock (such as the proposed paid sick leave mandate) using BSIM, however, requires input for all major NAICS industry codes. Including production losses in the model would therefore require the

[12] If supply outstrips demand, adding more goods and services to the market may not generate more revenue. Instead, the additional product might just sit on the shelf as unsold inventory.

estimation of labor productivity for industries with missing data values, creating a potentially large source of error. More important, BSIM is not set up to accept exogenous changes in production levels as input. Rather, the module is designed to receive input in the form of nominal costs to employers or employees, from which it subsequently computes forecasts for production, employment, and other macro variables.

These obstacles prevented the inclusion of exogenous production losses due to increased worker absences to the analysis. However, we should point out that if one actually had a model capable of accepting such production losses and were capable of measuring them with a reasonable degree of accuracy, it is important to avoid double-counting in the sense that such a model might not also accept as input compensation costs like the ones described above in the same way that BSIM does. More could be said about this technical point, but we will not do so here. In any event, *to the extent that such production losses are absent from the model, the forecast job and output losses associated with a statewide paid sick leave mandate contained herein may be low*.

One final note concerning production effects due to a paid sick leave mandate: Some contend that a paid sick leave mandate will increase labor productivity among workers, the argument being that sick workers are less productive than healthy workers and spread their germs to co-workers, further reducing firm-wide productivity. While some research has suggested that improved health status among workers might lead to higher productivity growth, the results of other studies urge caution with regard to claims that better health outcomes lead to greater growth. The Congressional Budget Office's official position on this matter is one of agnosticism.[13] Lacking a sufficient body of evidence to sway us from a state of uncertainty, we assume that a paid sick leave mandate would neither increase nor decrease labor productivity.

C. Paperwork and Recordkeeping Costs

The proposed mandate would also impose costs on employers in the form of additional paperwork and recordkeeping. Employers would be required to retain records documenting hours worked by employees and earned sick leave taken by employees, for a period of five years. They shall also be required to allow the appropriate state department to access these records to monitor compliance with the mandate.

Small business owners frequently handle such paperwork and recordkeeping themselves, allocating valuable time and energy to these administrative tasks that could be spent acquiring new customers, making business decisions, or otherwise operating and growing their businesses. According to a 2003 NFIB National Small Business Poll on paperwork and recordkeeping, 39.3 percent of small business owners/managers surveyed indicated that they personally handled their businesses' personnel paperwork and recordkeeping.[14] In that same survey, small business owners/managers responded that they felt $40 (approximately) was a fair per-hour amount to claim

[13] When assessing potential productivity effects due to changes in the health insurance system during the recent national healthcare reform debate, the Congressional Budget Office issued a report which came to the conclusion that "[b]ecause the impact on health outcomes from major changes to the health care system is uncertain, it is not clear whether such changes would have a substantial impact on overall economic output or productivity." See Congressional Budget Office, "Key Issues in Analyzing Major Health Insurance Proposals" (December 2008).

[14] See William J. Dennis, Jr., "Paperwork and Record-keeping," NFIB National Small Business Poll, Volume 3, Issue 5, 2003.

for the time and effort they spent doing paperwork and recordkeeping required by government.[15] To account for this burden, it is assumed that an employer newly providing paid sick leave under the mandate will face a new paperwork and recordkeeping cost of 10 person-hours per year. At $40 per hour, the paperwork and recordkeeping costs for an employer newly offering paid sick leave translates to $400 per year.

Effects of the Paid Sick Leave Mandate on Private Sector Demand

Employees newly eligible for paid sick leave who use it can be expected to increase demand for healthcare-related goods and services. Employees may, for example, spend their paid sick leave time visiting the doctor's office, going to the dentist, or purchasing and taking medication for an illness. All these activities represent increases in the consumption of healthcare-related goods and services. To account for this effect, it is assumed that demand for private sector healthcare goods and services produced in New Jersey will increase by a dollar amount equal to the increase in NJ employer costs.[16†¥]

Increased demand is assumed to be distributed across industries according to historical patterns of healthcare expenditures in New Jersey. Data on 2009 NJ healthcare expenditures from the Centers for Medicare and Medicaid Services were used as the template for new healthcare spending (**Table 7**). The pattern of NJ healthcare expenditures is assumed to be static in the medium term, so new demand is allocated according to the distribution in Table 7 for all forecast years.

Table 7: Healthcare Expenditures in New Jersey, 2009[17]

Personal Healthcare	50.0%
Hospital Care	15.5%
Physician and Clinical Services	13.5%
Other Professional Services	7.7%
Dental Services	3.9%

[15] The poll asked respondents whether they thought government should compensate them for dealing with the added paperwork and recordkeeping it required of their businesses. Respondents who answered "Yes" were then asked: "What do you think would be a fair per hour amount to claim for your time and efforts?" The average response was $43.30. Respondents who answered "No" were asked: "If the decision were made to reimburse you, what do you think would be a fair per hour amount to claim for your time and effort?" Their average response was $40.72.

[16] This assumption is reasonable, but it is possible that it overestimates new demand for healthcare goods and services. While some episodes of employees taking sick leave will certainly generate new healthcare expenditures (*e.g.*, paying for a visit to the doctor, dentist, or hospital), other cases may produce no or very little new expenditures. An example of the latter set of cases is the case of an employee with a minor cold which simply requires a day or two of rest at home for the employee to fully recuperate. Such an episode does not entail significant new healthcare expenditures. To the extent that demand for NJ healthcare goods and services is overestimated, the forecast job and output losses may be low.

[†] This assumption also ignores the presence of workers originally without paid sick leave who took unpaid leave prior to the mandate being implemented, and who begin taking paid leave after implementation. Such workers might be expected to generate no or very little new healthcare spending, since they might already be consuming healthcare while on unpaid leave. According to a survey on the Family and Medical Leave Act (FMLA) conducted by the Department of Labor in 2000, 16.5 percent of employees nationwide took leave in the 18 months preceding the survey.

[¥] To the extent that demand for goods and services outside of NJ increase due to the mandate, the forecast job and output losses may be understated. The assumption that only demand for NJ goods and services increases is a constraint imposed by BSIM's regional structure.

[17] These data are available on the Centers for Medicare and Medicaid Services website, https://www.cms.gov.

Home Health care	2.8%
Prescription Drugs and Other Nondurables	2.7%
Nursing Home Care	1.8%
Durable Medical Products	1.3%
Other Health, Residential, and Personal Care	0.8%
Total:	**100.0%**

Source: Centers for Medicare and Medicaid Services

For illustrative purposes, the dollar values of the assumed increases in healthcare expenditures based on the distribution in Table 7 are given below in **Table 8** for year 2014. The estimated total cost to NJ employers in 2014 due to a statewide mandate is $1,563,194,163. Multiplying this sum by the percentages in Table 7 yields the dollar values in Table 8.

Table 8: Estimated New NJ Healthcare Expenditures in 2014 Due to Statewide Paid Sick Leave Mandate

Personal Healthcare	$781,585,226
Hospital Care	$242,333,627
Physician and Clinical Services	$211,188,302
Other Professional Services	$120,680,723
Dental Services	$60,867,947
Home Health care	$43,451,700
Prescription Drugs and Other Nondurables	$41,578,475
Nursing Home Care	$20,688,463
Durable Medical Products	$28,892,713
Other Health, Residential, and Personal Care	$11,926,988

Effects of the Paid Sick Leave Mandate on Government Demand

A statewide mandate will likely allocate powers necessary to successfully administer and enforce the mandate to the appropriate state-level agency. These responsibilities will result in new government costs. The uncertainty of what powers the agency will adopt, how many complaints might be filed, and the availability of state funds to compile information related to compliance of paid sick leave policies, make estimating these costs difficult. The current strained nature of state and local finances also makes it unlikely that a material share of government funds will be allocated toward these new responsibilities in the short term. Hence, for modeling purposes, it is assumed that the net effect on government demand as a consequence of the mandate's implementation is zero.

Forecast Economic Impact of the Paid Sick Leave Mandate

The BSIM results suggest that a statewide paid sick leave mandate modeled after the legislation introduced in New Jersey could cause substantial job loss and output[18] loss in New Jersey. Based on the assumptions described above, the BSIM forecasts that if such a statewide mandate is implemented:

- More than 25,000 NJ jobs will be lost by 2023.
- Real output in NJ will be $3.0 billion less in 2023 than if the paid sick leave mandate had not been implemented. (The real output gap will be $3.0 billion in 2023.)
- Cumulatively, over $18.1 billion in real output will be lost between 2014 and 2023.

Employment forecasts are presented in **Table 9** and **Figure 1** as employment differences relative to a baseline forecast. The baseline forecast represents the path of the economy if no policy shock occurs and the mandate is not implemented. According to the results, firms with one to four employees are forecast to employ 2,362 fewer workers (10.5 percent of the total employment difference) in 2023 if the mandate goes into effect, firms with five to nine employees are forecast to employ 1,927 fewer (7.9 percent), and firms with ten to 19 employees are projected to employ 2,459 fewer (10.1 percent). Job losses at firms with 20 to 99 employees are forecast to be considerably larger than those in any of the previous three categories. In 2023, these firms are expected to employ 5,297 fewer workers (21.6 percent of all jobs lost). Also, firms in the 100-to-499-employee category are forecast to employ 2,506 fewer workers (8.0 percent), while firms with 500 or more employees are projected to employ 11,005 fewer workers (42.0 percent) in 2023 if the mandate is implemented.

Table 9: Forecast NJ Employment Difference from Baseline (in Units)

Firm Size	NJ Jobs Lost in 2023	% of Jobs Lost in 2023
1 to 4 Employees	2,362	10.5%
5 to 9 Employees	1,927	7.9%
10 to 19 Employees	2,459	10.1%
20 to 99 Employees	5,297	21.6%
100 to 499 Employees	2,506	8.0%
500 or More Employees	11,005	42.0%
< 20 Employees	6,748	28.5%
< 100 Employees	12,045	50.1%
< 500 Employees	14,551	58.0%
All Firms	25,556	100.0%

[18] The term "output" refers to the aggregate output of the New Jersey economy (New Jersey's gross domestic product (GDP)). GDP has three possible definitions: (1) the value of final goods and services produced in an economy during a given period (as opposed to raw materials or intermediate goods which are produced or sourced earlier in the production process), (2) the sum of value added during a given period, or (3) the sum of incomes in the economy during a given period. It is a technical term whose significance may be better understood by the reader if she considers that because of the first definition, output serves as a rough proxy for sales.

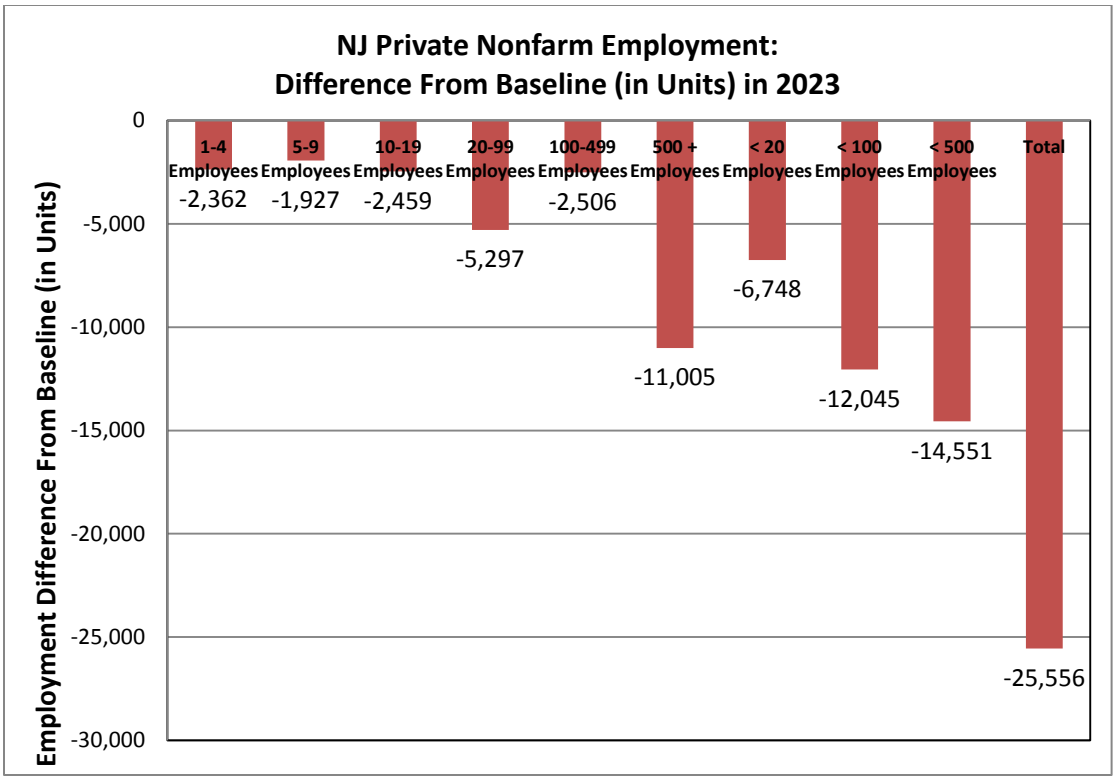

Figure 1

The results suggest that small businesses will shoulder a large percentage of future job losses due to the paid sick leave mandate. Just under 60 percent of the employment gap in 2023 will be experienced by firms with fewer than 500 employees.[19] In total, these small businesses are projected to employ 14,551 fewer workers in 2023 due to the additional costs imposed by the mandate. Fifty percent of the employment gap will be at firms with fewer than 100 employees. Twenty-nine percent of job losses will occur at firms with fewer than 20 employees.

Dividing the percentage share of (forecast) job loss experienced by a firm-size group by that group's (historical) percentage share of private sector employment yields an index of employment change (**Figure 2**). This index serves as an indicator as to whether the job loss forecast for a particular firm-size group is proportionate to the group's existing employment base. An index value of 100 indicates that a firm-size group experiences job losses proportionate to the group's existing employment base. An index value higher than 100 indicates a firm-size group that experiences a disproportionately high number of job losses relative to its current employment share (and vice versa for an index value lower than 100).

Firms with fewer than 100 employees clearly bear a disproportionately large amount of job losses generated by the mandate. The employment change index value for firms with one to four employees, for example, is 162, the result of dividing the percentage share of jobs lost by firms with one to four employees (10.8 percent) by the percentage share of private sector employment

[19] This analysis adopts the Small Business Administration's size-of-business threshold of 500 employees to distinguish between small businesses and large businesses. The 500-employee threshold is frequently used by researchers to delineate the small business sector when working with firm-size data.

currently represented by this firm-size category (6.1 percent). Other firm-size categories with fewer than 100 employees also have disproportionately high index values. Firms with five to nine, ten to 19, and 20 to 99 employees have index values of 116, 117, and 112, respectively.

In contrast to firms with fewer than 100 employees, larger firms bear a disproportionately small amount of the job losses generated by the mandate (when the share of private sector employment is used as the reference point). Firms with 100 to 499 and 500 or more employees have index values of 70 and 92, respectively. The dichotomy separating index values below and above the 100 mark highlights the comparatively high sensitivity of very small firms to regulatory costs.

The variation in employment effects across different employee-size-of-firm groups is consistent with IWPR research analyzing possible negative effects on San Francisco workers due to that city's implementation of a paid sick leave ordinance in 2007. In a recent IWPR report detailing the results of a survey of private-sector employees of San Francisco firms, over 18 percent of respondents at firms with fewer than 25 workers indicated they had experienced layoffs or saw their total number of work hours reduced. In contrast, just 8.4 percent of workers at firms with 25 to 99 workers reported experiencing such negative employment events, and 13 percent of workers at firms with 100 or more workers reported experiencing such events.[20]

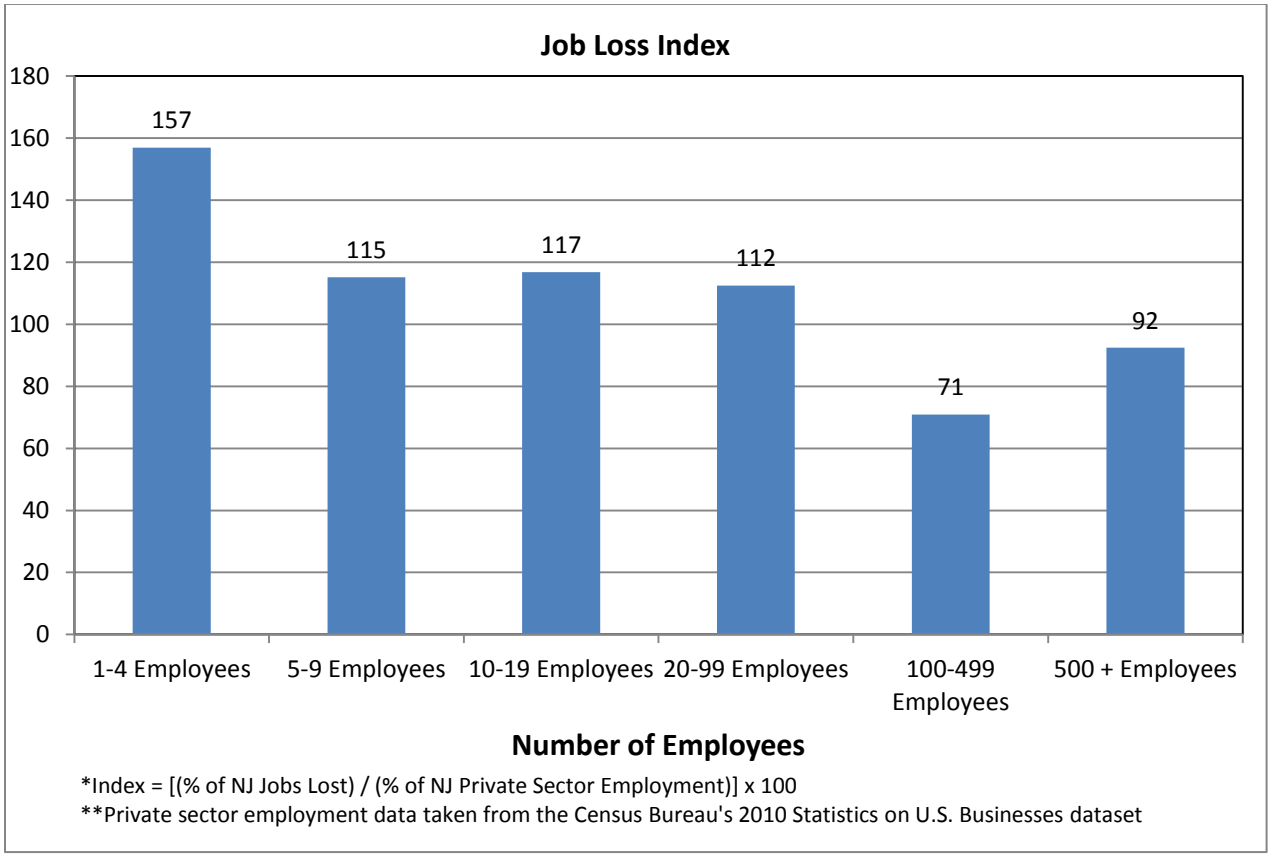

Figure 2

[20] Drago, Robert and Vicky Lovell, "San Francisco's Paid Sick Leave Ordinance: Outcomes for Employers and Employees," Institute for Women's Policy Research, February 2011.

Detailed forecasts for NJ real output losses are given in **Table 10** and **Figure 3**. As with employment, the output forecasts are presented as differences relative to a baseline forecast representing the path of the economy if the mandate is not implemented. The annual real output gap is forecast to average approximately $1.8 billion from 2014 to 2023. In 2023, the output gap is projected to be $3.0 billion. Over the ten years spanning 2014 through 2023, the cumulative real output loss experienced by New Jersey employers is forecast to total $18.1 billion.

Small businesses (< 500 employees) are projected to bear approximately 54 percent of all lost output through 2023. Forty-four (44) percent of the lost output is forecast to occur at firms with fewer than 100 employees, whereas firms with fewer than 20 employees are projected to shoulder 25 percent of the output loss. As with job losses, the incidence of lost ouput is projected to be felt most strongly by small firms.

Figure 4 presents an index of output change by firm size, constructed analagously to the index of employment change, except with output losses serving as the numerator and gross receipts (a proxy for output) as the denominator. Output losses are most disproportionate for the smallest firms, those with one to four employees. These firms will bear 9.5 percent of the cumulative output gap through 2023 but currently account for just 6.1 percent of statewide gross receipts, resulting in an index value of 202. The share of output losses faced by larger, but still small firms, is also disproportionate. Firms with five to nine, ten to 19, and 20 to 99 employees have output change index values of 185, 205, and 164, respectively. As with changes in employment, firms with 100 or more employees bear a disproportionately small amount of lost output. Firms with 100 to 499 and 500 or more employees have output change index values of 75 and 68, respectively.

Table 10: Forecast Cumulative NJ Real Output Lost by 2023 (in Billions of 2000 $s)

Firm Size	Cumulative NJ Real Output Lost by 2023	% of Cumulative Real Output Difference by 2016
1 to 4 Employees	1.732B	9.5%
5 to 9 Employees	1.241B	6.8%
10 to 19 Employees	1.572B	8.7%
20 to 99 Employees	3.489B	19.2%
100 to 499 Employees	1.753B	9.7%
500 or More Employees	8.355B	46.1%
< 20 Employees per Firm	4.545B	25.1%
< 100 Employees per Firm	8.034B	44.3%
< 500 Employees per Firm	9.787B	53.9%
All Firms	18.142B	100.0%

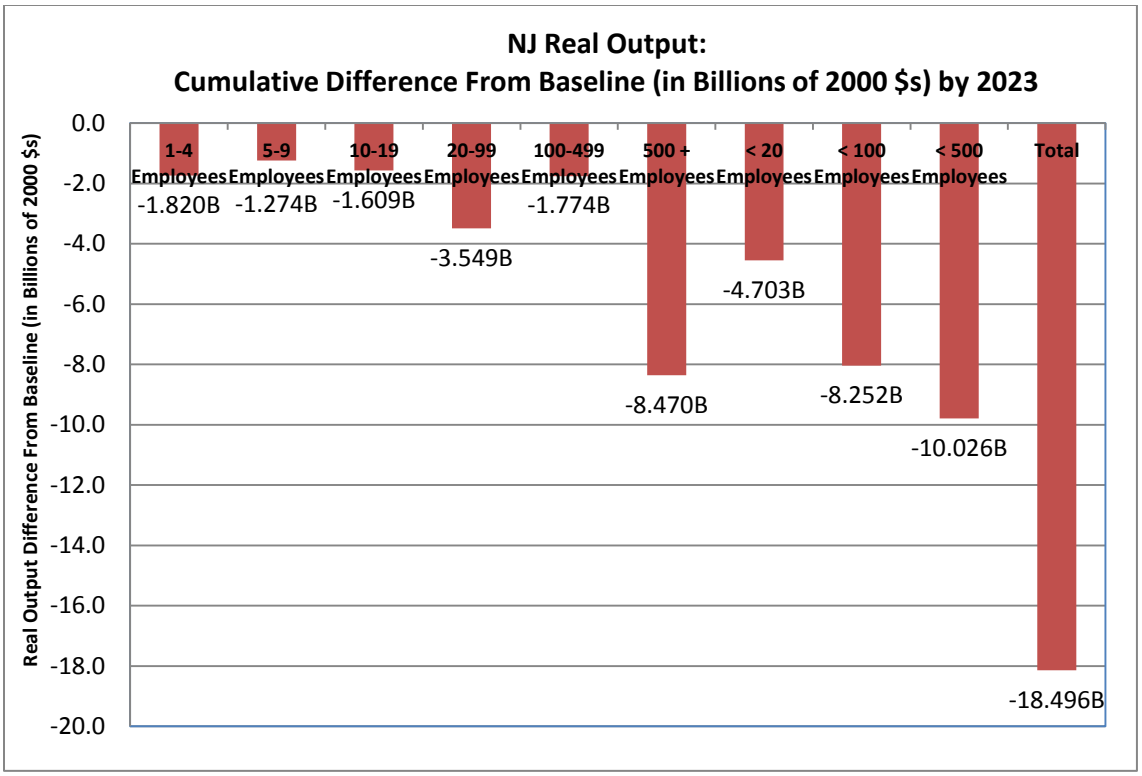

Figure 3

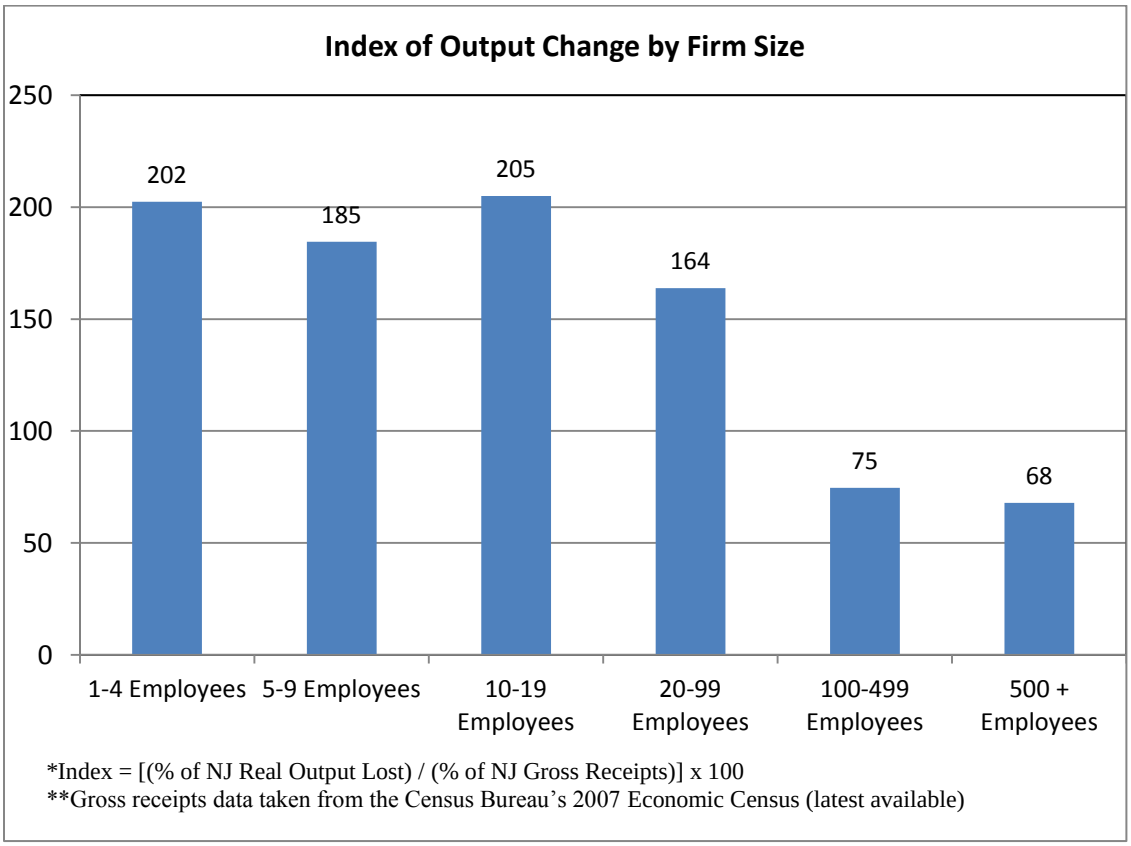

Figure 4

Summary

A statewide paid sick leave mandate modeled after the legislation currently pending in New Jersey would impose new costs on NJ employers in the forms of compensation costs associated with paying workers taking paid sick leave, lost production due to more workers taking leave, and new paperwork and recordkeeping costs incurred by complying with the mandate. Assuming passage and implementation of the mandate in 2014, the BSIM forecasts that more than 25,000 NJ jobs could be lost by 2023, and NJ real output could decrease by more than $18.1 billion. Small firms would bear 58 percent of the job losses and 54 percent of lost sales. More than five years following the official end of the Great Recession, the state unemployment rate in New Jersey is still 8.7 percent, the sixth worst rate in the nation. In economic circumstances where job creation remains a top priority, policymakers would do well to bear in mind the potential negative effects to employment and production that employer mandates, such as paid sick leave mandates, can have.