Early Effects of the New York City Paid Sick Leave Law

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Introduction

Paid sick leave provides a number of benefits for businesses, individuals, families, and consumers. Those who receive paid sick leave are more likely to take time off for an illness or injury[1], and there is growing literature demonstrating that paid sick leave policies promote recovery from illness. For example, studies have found that those lacking access to paid sick days on average spent a higher number of days in bed due to illness.[2] Kivimaki et al. found that the frequency of serious coronary events is twice as high among unhealthy employees who continue to work while sick compared to those who take at least some time off work for illness.[3]

Paid sick leave not only promotes recovery from illness, it also impacts the prevention and spread of illness. Kumar et al found that lack of sick leave is responsible for the spread of influenza-like illnesses.[4] According to the CDC, 70% of reported norovirus outbreaks from contaminated food come from infected co-workers, recommending that food workers with contagious illnesses stay home when ill.[5] Another study found that nursing homes with paid sick leave provisions were less likely to have communicable disease outbreaks.[6]

Families and children also benefit from paid sick leave, as it makes it easier for parents and family members to take time off of work to care for loved ones. It has been found that having more than three children significantly increases the risk of working while sick.[7] Despite this, many parents lack such coverage. According to Heymann et al, 36% of mothers who had a child with a chronic condition did not receive any sick leave, and 38% of parents in poverty did not receive sick leave benefits.[8]

Paid sick leave can also be useful for businesses in helping them attract and keep the most qualified employees. Earle et al found that paid sick leave had a significant association with return to work after an illness.[9]

While in the US paid sick leave has traditionally been provided at the discretion of the employer that is not the case in peer countries. In a 2009 report, the Center for Economic and Policy Research found that out of 22 countries ranked highly in terms of economic and human development, the US was the only that did not guarantee workers at least a minimal amount of paid sick leave.[10]

Many employers in the US provide paid sick leave voluntarily or through union contracts, but while such provisions are widespread, disparities are evident by industry type and salary. According to the Bureau of Labor Statistics (BLS), 81% of full-time workers in private industry have access to paid sick leave, while only 35% of part-time workers do. There are also disparities by wage level, in which 43% of workers in the bottom wage quartile had access to paid sick leave compared to 89% in the top quartile.[11] Associations have been shown between lower income and worse health for workers and their children, and the smaller likelihood of low-wage workers having sick days may compound the challenge of poor health.[12, 13]

In the absence of a federal law guaranteeing paid sick leave to workers, a number of state and local governments have passed such laws. Eight states (Arizona, California, Connecticut, Massachusetts, Oregon, Rhode Island, Vermont, and Washington) as well as Washington D.C. have passed laws mandating paid sick leave for at least some private employees. In addition to state laws mandating paid sick leave, a number of major cities such as Seattle[14] and San Francisco[15] require employers to offer paid sick leave to at least some of their employees.

Several studies have suggested that passage of paid sick leave laws in states and localities across the country have yielded promising results. The percent of businesses that offered sick leave increased in San Francisco from 73% to 91% during the three years after passage of a sick leave law, and in Seattle from 67% to 73% after one year post-passage of a sick leave law [14,15]. These numbers highlight an increase in employers offering paid time off to at least some employees following the passage of paid sick leave laws. It is worth noting that within-business inequalities may be hidden in such studies, as these benefits are likely not reaching all of the employees within firms, especially those earning lower wages[16] or working part-time.[17] For this reason, it is valuable to focus on the rate of paid sick leave receipt as reported

by employees rather than looking simply at the percent of businesses that offer some level of paid sick leave.

New York City joined the list of US cities that implemented paid sick leave laws in 2014 with the Earned Sick Time Act [18], which was expanded in 2018 to become the Paid Safe and Sick Leave Law adding "domestic violence or unwanted sexual contact, stalking, or human trafficking"[19] to the situations for which paid leave could be used.

This paper aims to examine the prevalence and uptake of paid sick leave before and after the passage of the law. In this paper, we describe the data and methods used to analyze changes over time in paid sick leave-taking in NYC, and then provide evidence of the effects of NYC's paid sick leave law on leave- taking behavior.

Data and Methods

Sample

Our analyses utilize data from the New York City Longitudinal Survey of Wellbeing (NYC-LWS), which has data on two distinct representative samples (one collected pre- implementation of the law, and the other post-law) of adults in New York City. These samples are pooled in the presented analyses. Both data collection projects were approved by Columbia University's Institutional Review Board.

The first sample, or "pre-law sample", was collected in late 2012. Sampling methods can be found in Hall's paper, "Workers not paid for Sick Leave after Implementation of the New York City Paid Sick Leave Law"[17].

The second sample, or "post-law sample" was collected in Spring 2015 after respondents participated in the Community Health Survey administered by the NYC Department of Health and Mental Hygiene (DOHMH), which was also sampled using RDD. Again, this sample contains an additional subsample from Robin Hood funded social service agencies designed to provide an oversample of New Yorkers engaged in social services. Survey weights were applied to ensure both samples are representative of the New York City population.

Measures

Both samples constituted two longitudinal panel studies, which were conducted quarterly by phone, online, or by paper. To collect data about use of sick leave, we asked the following questions:

1. During the past 12 months, about how many days did you miss work at a job or business because you or someone you care for was ill or injured?
2. Were you paid for the days you missed because of illness or injury? (Respondents could reply that they were paid for all, some, or none of the days missed.)
3. During the past 12 months, about how many days did you go to work feeling sick because you could not afford to lose pay?

In the first panel these questions were fielded between February 2014 and July 2014, all prior to implementation of the NYC paid sick leave law. In the second panel, the same questions were fielded between April 2016 and August 2017, after implementation of the law. Note that while the samples were first collected in 2012 and 2015 respectively, the questions regarding paid sick leave were asked in future survey waves. Using these questions, respondents are coded into one of three mutually exclusive groups based on their responses; took some paid sick leave (paid for all or some sick days), took only unpaid sick leave (took sick leave but not paid for any sick days), or no sick days taken.

In addition to measures of paid sick leave, we included a number of demographic and employment-related characteristics that may be related to receipt and use of paid sick leave as potential confounders. These are gender, race/ethnicity, education, age, foreign-born status, marital status, presence of children in the household, income-to-needs ratio (logged), number of months worked in the past year, and whether the respondent worked full-time or part-time. We also tested sensitivity to inclusion of month and season of survey, neither of which altered results presented here and were thus dropped from the analyses.

Statistical Analysis

In the analyses that follow, we examine the percent of working New Yorkers who were paid (for some or all) and unpaid for their sick leave usage. We test for significant predictors of paid sick leave uptake using a multinomial logistic regression in which the outcome variable indicates the respondent took (in the last 12-months) sick leave and was paid for at least some of their time off, the respondent took sick leave and wasn't paid for any of their time off, and that the respondent didn't take any sick leave. To test whether the change in the percentage of each outcome was significant ($p<.05$) we ran weighted logistic regressions. To assess who is or is not utilizing sick leave, we predict marginal probabilities of being paid for sick days with respect to a number of demographic characteristics pre- and post-law. Finally to analyze whether there is a significant difference ($p<.05$) in the percent that work while sick we ran a logistic regression with the outcome being whether the respondent worked while sick. These analyses were all preformed using STATA 15 (College Station, Texas).

Both samples, which were recruited similarly, use weights to adjust for the sample design. These weights were created by first adjusting for the probability of being included in the sample (adjusting for oversampling of poorer households, and the sample inclusion for a random digit dial). The baseline waves for both samples were raked separately to a combined American Community Sample (ACS) relevant to when the baseline wave was collected (the pre-law sample was adjusted to the 2011-2013 ACS, the post law to the 2014-2015 ACS[1]). Multi-year ACS estimates were used for stability. The raking variables include household demographics (like the number of children, the number of working adults), age, sex, race, education level, poverty status and months worked. The data used in these analyses were collected in waves after baseline. The weights for the relevant waves were created by first adjusting for non-response from the baseline wave, and then re-raking to the relevant baseline population. We re-ran all results restricted to only the RDD sample from both panels (results available upon request) and found no substantive differences in the pattern of results presented here.

Results

[1] The post-law ACS was raked to a two year ACS because the 2016 ACS had only just been made available when the survey weights were calculated.

Our findings indicate that since passage of the law there has been over a 10 percentage point increase in the rate of being paid for at least some of the sick days taken by workers in NYC (as opposed to not being paid at all while on sick leave, or not taking sick time). During this time there was a 5-percentage point decrease in the rate of not being paid for any sick days. We also found that the percent of New Yorkers not taking any sick days decreased from 54% pre-law to 48% post-law (Figure 1). Using weighted logistic regressions to compare pre and post-law rates of paid sick leave uptake, unpaid sick leave uptake, and not taking sick leave we find the difference in the proportion of paid sick leave uptake (pre and post-law) is significant ($p=0.0001$), as is the difference in the proportion taking only unpaid sick leave ($p=0.0283$) and not taking any sick leave ($p=0.0466$).

Table 1 presents the results of a multinomial logistic regression model, which shows that post-law, respondents are significantly less likely to be unpaid for sick days and less likely to not take any sick days relative to being paid for some or all of their sick days taken. We also see that some groups seem to remain more or less likely than others to be paid for sick days. Specifically, we predict those with a college education, those with higher incomes, those who work more months of the year, those who work full-time, and males as more likely to be paid for their sick days. We found no significant differences (pre/post-law) in the likelihood of going to work while sick although some groups remained more likely than others to work while sick such as females, blacks and Hispanics (see Appendix).

Figure 2 illustrates the predicted probability (using a multinomial logistic regression) of being paid for some or all sick days, not being paid for any sick days, and not taking any sick days pre- and post-law when controlling for the demographics in Table 1. We see that, post-law, respondents are 14 percentage points more likely to be paid for some or all sick days and 5 percentage points less likely to not be paid for any sick days. The share of New Yorkers not taking any sick days decreased by 9 percentage points.

We next examine which demographic groups in New York City did or did not experience an increase in paid sick leave. Table 2 shows marginal probabilities of being paid for sick days pre/post passage by demographic groups. These were calculated using five individual

multinomial logistic regression models with the same controls as the regression in table 1 (including an added control for the interaction between the demographic and the pre/post-law indicator). Overall, as shown in Figure 2, we see an increase in paid sick leave receipt, a decrease in not being paid for sick leave, and a decrease in no sick leave taken. When comparing the marginal predictions by demographic group we see some groups experience a greater increase in their utilization of paid sick time than others. The largest increases in paid sick leave receipt we observed was among women, Hispanics, Whites, college graduates, full-time workers, and those 18-35 years old. Specifically, women reported a 15 percentage point increase in paid sick leave receipt when comparing their pre-law receipt to their post law receipt; Hispanics reported a 15 percentage point increase; Whites reported a 15 percentage point increase; college graduates reported a 19 percentage point increase; full-time workers reported an 17 percentage point increase; and 18-35 year olds reported a 20 percentage point increase from pre- to post-law, net of other variables included in our models. It is important to note that we are only comparing marginal probabilities here and not whether these demographics differences pre- and post-law are statistically significant.

Part-time workers exhibited a smaller probability of paid sick leave taking post-law implementation, indicating that the effects of the law may have not reached all groups equally.

Discussion

These findings add to the growing literature on the effects of local paid sick leave laws on leave-taking among affected workers. We find that since passage and implementation of the paid sick leave law in NYC, there has been an overall increase in payment for sick time taken, and an increase in the likelihood of taking time off when workers were ill or injured or someone those workers care for was ill or injured.

However, while these findings are promising, the majority of working New Yorkers (64%) as of August 2017 were still either not being paid for the sick days they took (16%) or were not taking sick days at all (48%). Furthermore, some groups continue to be more likely to fall into these categories: those with less than a HS degree, and those working part-time jobs are two

prominent examples of the limitations of the law's reach. It is important that future laws (and enforcement of the current law) focus on expanding access to these groups.

We observe that specific demographic groups - women, Whites, Hispanics, college graduates, those 18-35 years old, and full-time workers -- saw particularly high increases in their rates of taking paid sick leave. However, other groups do not appear to experience as high increases in their likelihood of taking sick leave. Future laws might consider how to include a larger share of workers. Future studies should also consider the longer-range impacts of paid sick leave laws as they unfold in states and localities over time.

There are important limitations to note regarding these analyses. One limitation is that we don't know the rate of illness among respondents. This means we are not able to distinguish non-sick leave users who were sick from those who weren't sick. We also don't know the specific amount of sick time or sick days respondents' were/weren't paid for. Another limitation is related to the fact that the sample stems from two distinct panels, collected at different time points. Thus the city may have changed between 2012 and 2015 in ways that would explain the change in sick leave usage. This is to say way don't know the mechanism by which paid sick leave uptake is changing, only the estimated pre- and post-law rates.

Public Health Implications

As more New Yorkers are paid for sick leave, we anticipate a number of benefits, both to individual workers and to the public health. With more workers staying home, we expect faster recovery for employees and their families, and a decrease in the spread of contagious illnesses. However, to maximize these benefits, the impact of paid sick leave laws must be felt more evenly across all categories of workers, including those working part-time and those with less-education, who remain disadvantaged in NYC relative to more advantaged workers. It would be valuable for future studies to look at receipt of paid sick leave in specific industries, as some are more likely than others to be places where illnesses are transmitted more frequently, raising important public health concerns.

Figures and Tables

Figure 1

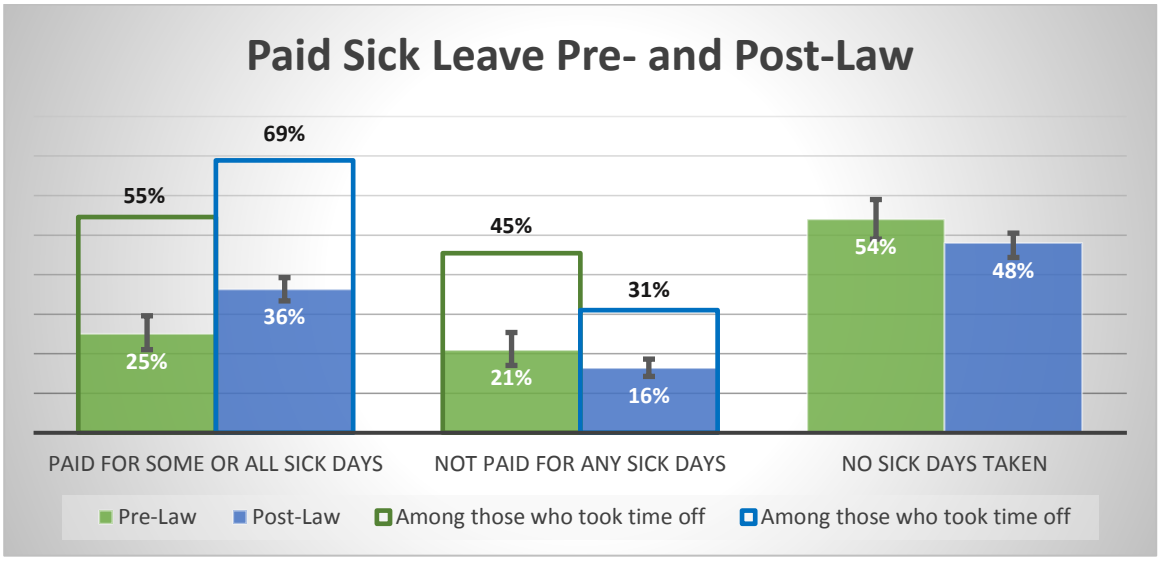

Table 1 - Change in Paid Sick Leave Outcomes Post-Law – Results from Multinomial Logistic Regression

	Reference: Paid for Some or All Sick Days	
	Not Paid for Any Sick Days	No Sick Days Taken
	RRR	RRR
	SE	SE
	CI	CI
Post-Law	0.488***	0.536***
	-0.08	-0.06
	0.360,0.662	0.426,0.674
Female	1.410*	0.785*
	-0.24	-0.09
	1.011,1.967	0.622,0.990
Black	1.08	1.1
	-0.23	-0.17

	0.705,1.654	0.812,1.489
Other/Multi-Racial	1.029	1.22
	-0.31	-0.26
	0.567,1.867	0.806,1.846
Hispanic	1.238	1.118
	-0.27	-0.18
	0.806,1.902	0.819,1.528
Some College/VoTech	0.675	0.679*
	-0.14	-0.12
	0.452,1.008	0.485,0.950
College Graduate	0.373***	0.646**
	-0.08	-0.1
	0.249,0.559	0.473,0.883
36-45	0.88	0.844
	-0.18	-0.13
	0.593,1.307	0.624,1.142
46-55	0.774	1.013
	-0.16	-0.15
	0.519,1.155	0.754,1.362
56-65	0.656	1.06
	-0.15	-0.17
	0.414,1.041	0.773,1.454
Foreign born	1.061	1.134*
	-0.09	-0.07
	0.902,1.249	1.003,1.282
Has Spouse or Partner	0.946	1.076
	-0.17	-0.14
	0.669,1.337	0.839,1.382

Has Biological or Step Child	1.129	0.780*
	-0.19	-0.1
	0.809,1.576	0.610,0.997
Log (SPM) Income to Needs	0.836*	1
	-0.07	-0.07
	0.708,0.988	0.875,1.143
Number of Months Worked in Past 12 Months	0.853***	0.851***
	-0.03	-0.02
	0.802,0.908	0.806,0.899
Works Full-time	0.329***	0.450***
	-0.06	-0.08
	0.225,0.483	0.324,0.625
_cons	14.668***	30.507***
	-6.58	-11.51
	6.086,35.350	14.566,63.892
R2=.087		
N=1810		

* Indicates significant at 95% CL, ** indicates significant at 99% CL, and *** indicates significant at 99.99% CL.

Note: Income-to-needs is measured using total Supplemental Poverty Measure resources (post-tax cash income plus in-kind benefits, minus non-discretionary work, child care, and medical expenses), divided by the SPM poverty line, logged to account for greater effects of income at lower levels of income to needs.

Figure 2

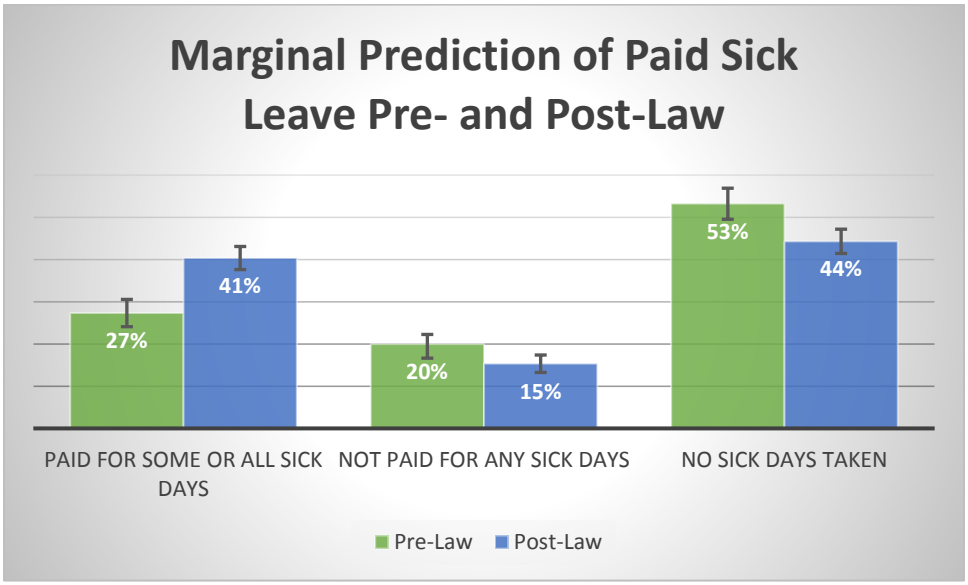

Table 2 – Predicted Probabilities of Paid Sick Leave Outcomes by Selected Variables

	Paid For Some or All Sick Days			Not Paid For Any Sick Days			No Sick Days Taken		
	Pre-Law	Post-Law	Difference	Pre-Law	Post-Law	Difference	Pre-Law	Post-Law	Difference
Gender									
Male	28%	38%	**10%**	15%	12%	**-3%**	57%	50%	**-7%**
Female	27%	42%	**15%**	22%	17%	**-5%**	51%	41%	**-10%**
Race									
White	28%	43%	**15%**	20%	14%	**-6%**	53%	43%	**-10%**
Black	28%	39%	**10%**	17%	17%	**0%**	55%	44%	**-10%**
Hispanic	25%	40%	**15%**	23%	15%	**-8%**	52%	45%	**-7%**
Education									
Graduated High School or Less	23%	30%	**7%**	25%	20%	**-5%**	51%	50%	**1%**

Some College/VoTech	31%	37%	**6%**	22%	18%	**-4%**	47%	45%	**-2%**
College Graduate	27%	46%	**19%**	14%	11%	**-3%**	58%	43%	**-15%**
Age									
18-35	22%	42%	**20%**	22%	17%	**-5%**	56%	41%	**-15%**
36-45	35%	39%	**4%**	22%	16%	**-6%**	43%	45%	**2%**
46-55	27%	40%	**13%**	18%	14%	**-4%**	55%	46%	**-9%**
56-65	28%	40%	**12%**	14%	13%	**-1%**	58%	48%	**-10%**
Job Status									
Part-time	26%	20%	**-6%**	21%	24%	**3%**	53%	56%	**3%**
Full-Time	28%	45%	**17%**	19%	12%	**-7%**	53%	43%	**-10%**

Appendix

Table A1 – Change in Working While Sick Outcomes Post-Law – Results from Logistic Regression Reference: Did Not Work While Sick	
	Worked While Sick
	OR
	SE
	CI
Post-Law	0.944
	-0.1

	0.767,1.163
Female	1.508***
	-0.17
	1.212,1.877
Black	1.475**
	-0.22
	1.107,1.967
Other/Multi-racial	1.567*
	-0.3
	1.072,2.289
Hispanic	1.869***
	-0.28
	1.399,2.497
Some College/VoTech	0.784
	-0.11
	0.596,1.031
College Graduate	0.484***
	-0.07
	0.370,0.632
36-55	0.889
	-0.13

	0.673,1.175
46-55	1.011
	-0.14
	0.770,1.327
56-65	0.932
	-0.14
	0.690,1.259
Foreign Born	0.947
	-0.05
	0.847,1.058
Has Spouse or Partner	0.847
	-0.1
	0.669,1.071
Has Biological or Step Child	1.434**
	-0.17
	1.142,1.801
Log (SPM) Income to Needs	0.769***
	-0.05
	0.683,0.867
Number of Months Worked in Past 12 Months	1.009
	-0.02

	0.972,1.047
Works Full-time	1.036
	-0.13
	0.803,1.336
_cons	0.553*
	-0.15
	0.327,0.937
R2=.0834	
N=1878	

* Indicates significant at 95% CL, ** indicates significant at 99% CL, and *** indicates significant at 99.99% CL. Income-to-needs is measured using total Supplemental Poverty Measure resources (post-tax cash income plus in-kind benefits, minus non-discretionary work, child care, and medical expenses), divided by the SPM poverty line, logged to account for greater effects of income at lower levels of income to needs.

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