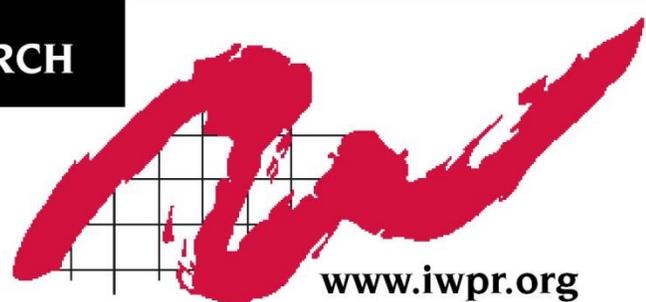


Briefing Paper



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Valuing Good Health in Newark: The Costs and Benefits of Earned Sick Time

1. Summary

Policymakers across the country are increasingly interested in ensuring that workers can earn paid time off to use when they are sick. In addition to concerns about workers' ability to respond to their own health needs, there is growing recognition that, with so many dual-earner and single-parent families, family members' health needs also sometimes require workers to take time off from their jobs. Allowing workers with contagious illness to avoid unnecessary contact with co-workers and customers has important public health benefits. Earned sick days also protect workers from being disciplined or fired when they are too sick to work, helps families and communities economically by preventing lost income due to illness, and offers savings to employers by reducing turnover and minimizing absenteeism.

Legislators in the Newark City Council are considering the Worker Sick Leave Ordinance, a law that would allow employees to earn up to five days of paid earned sick time per year if they are restaurant workers,¹ child care workers or personal care aids, or work in business with 10 or more employees; and up to 3 days for employees in business with under 10 workers. Using the parameters of the proposed legislation and publicly available data, the Institute for Women's Policy Research (IWPR) estimates the anticipated costs and some of the anticipated benefits of the law for employers providing new leave, as well as some of the benefits for employees.

This briefing paper uses data collected by the U.S. Bureau of Labor Statistics, the Centers for Disease Control and Prevention, the New Jersey Department of Health, and the U.S. Census Bureau to evaluate costs and benefits of Newark's Worker Sick Leave Ordinance. It estimates how much time off Newark workers would use under the proposed policy and the costs to employers for that earned sick time. This analysis also uses findings from previous peer-reviewed research to estimate cost-savings associated with the proposed policy, through reduced turnover, reduced spread of contagious disease in the workplace, prevention of productivity losses from employees working while sick, minimized nursing-home stays, and reduced norovirus outbreaks in nursing homes. The study is one of a series of analyses by IWPR examining the effects of earned sick day policies.

¹ We considered the following occupations to be restaurant workers: Chefs and Head Cooks; First-Line Supervisors of Food Preparation and Serving Workers; Cooks; Food Preparation Workers; Bartenders; Combined Food Preparation and Serving Workers, Including Fast Food; Counter Attendant, Cafeteria, Food Concession, and Coffee Shop; Waiters and Waitresses; Food Servers, Nonrestaurant; Dining Room and Cafeteria Attendants and Bartender Helpers; Miscellaneous food preparation and serving related workers including dining room and cafeteria attendants and bartender helpers; Dishwashers; Host and Hostesses, Restaurant, Lounge, and Coffee Shop; Food Preparation and Serving Related Workers, All Other.

The analysis, which quantifies only a subset of potential benefits, finds a net economic benefit from the proposed legislation. Likely additional benefits from earned sick days, not quantified in this analysis include: reduced health care spending due to reduced public contagion and more timely and regular preventive care and treatment; improved economic security among families who receive pay on sick days and are less likely to be fired or disciplined for taking sick time; and improved school outcomes and reduced contagion in schools, when parents can avoid sending sick children to school or child care.

Key provisions of Newark’s Worker Sick Leave Ordinance

- All employees have the right to earned sick days, except government employees, including school district personnel and Board of Education members, and any workers who is a member of a construction union or covered by a collective bargaining agreement.
- Employees shall accrue at least one hour of earned sick time, to be used as either earned sick or safe time, for every 30 hours worked.
- Employees of businesses with more than 10 employees, and all food service, child care and home care businesses, would accrue paid time off to a maximum of five earned sick days (40 hours) per year. Employees of businesses with less than 10 employees would accrue paid time off to a maximum of three earned sick days (24 hours) per year. (Unless otherwise noted, the figures in this cost-benefit analysis are a weighted average based on the number of large and small business.)
- Earned sick time may be used for personal illness, to care for family members, for preventive care, or in case of domestic violence, sexual assault or stalking.
- Time may also be used in the event that a public official closes a school or place of business due to a public health emergency.
- Employers already offering equal or more generous earned sick time or paid time off or any type of paid leave that can be used for the sick leave purposes defined in the law would be unaffected. Employers who aren't currently meeting the minimum standard may meet the requirement with the same flexibility.

Who will access and use earned sick time?

- In Newark, approximately 26,973 private workers currently lack paid leave benefits of any kind (including vacation) and are eligible to receive new leave under the ordinance.
- Employees are estimated to use an average of 2.09 days annually out of a maximum of five that may be accrued, excluding safe days and maternity.
 - Workers covered by the earned sick time law is estimated will use an average of 1.3 earned days for their own medical needs.
 - On average, workers will use half a day to address family members’ medical needs and about a third of a day for doctor visits.
 - Workers will use all of their five or three days of earned sick days after they give birth to or adopt a child. Half of their partners will also use all of their earned sick time.

- Victims of domestic violence that take time off will also use all of their allotted five or three days of earned sick time.

How much will earned sick time cost businesses?

- Annually, Newark employers are expected to expend about \$8.5 million in providing new earned sick time for employees. Small businesses pay only 10 percent of the costs and make up about 14 percent of employers in Newark. This cost of the law for employers which accrues due to lost productivity and increased wages, including benefits and administrative expenses—is equivalent in size to a \$0.16 per hour increase in wages for employees receiving new leave, or about \$6.09 per week for covered workers (Table 1). Covered workers work on average 7.5 hours per day.
 - Covered workers who give birth and half of their partners are expected to use all of their available earned sick time, for an additional annual cost of \$200,000.
 - Workers without earned sick time currently come to work sick, work at less than full productivity, resulting in current productivity losses of about \$900,000; this represents an adjustment to expected costs of implementing the proposed law.
 - The costs for business of the spread of flu within workplaces, when employees go to work while ill, are about \$500,000 annually. Savings for families of reduced spread of flu and norovirus are estimated to be about \$120,000 in doctor visits and prescription costs. These costs are likely to be underestimated as they only account for a subset of contagious illness (the flu and norovirus). A comprehensive accounting of the spread of all common contagious diseases—including colds, mononucleosis, hepatitis, strep throat, and conjunctivitis (pink eye)—would reflect much higher costs.

What benefits will earned sick time produce?

- Providing new earned sick time is expected to yield benefits of \$13 million annually for employers, largely due to savings from reduced turnover. The anticipated benefits for employers are expected to have a wage equivalent of a savings of \$0.24 per hour, or about \$9.04 per week for covered workers (Table 1).
- When estimating anticipated benefits for employers against costs for employers from the ordinance, \$4 million is expected in net savings for employers, equivalent to \$2.95 per worker per week for covered workers (Table 1).
- Workers and their families will enjoy lower expenditures for reduced nursing stays totaling about \$1.1 million annually.
- The community will spend about \$1 million less annually on health care expenses as a result of reduced emergency department use. About half of these savings (\$420,000) are predicted for public health insurance programs—and taxpayers—as a result of making earned sick time universally accessible in Newark.
- In addition to the benefits listed above, earned sick time will likely create many other significant benefits for employers, workers, families, and the broader community. These benefits are likely to include: improved health and more efficient utilization of health care for family members of

workers who use earned sick time to provide care; improved public health through reduced spread of contagious disease; improved family economic security as a result of wage replacement and stable employment; and reduced expenditures on public assistance programs due to improved family economic security.

The estimates presented in this briefing paper assume that all workers eligible for leave under the new policy would know about their new earned sick time. On the contrary, during the early years of the program, it is likely that many workers will be unaware of their new leave benefits and not take any time off under the new law.¹ In particular, workers may not be aware of the multiple uses allowed by the law. Thus, both costs and benefits in the early years of a new program may be considerably lower than these estimates.

Table 1. Summary of costs and benefits of Newark’s Ordinance

Costs and benefits	Business with 10 or more employees	Business with less than 10 employees	Total
COSTS TO EMPLOYERS			
Wages, wage-based benefits, payroll taxes, and administrative expenses of:			
PSD for workers currently lacking any paid leave	\$8,218,177	\$966,191	\$9,184,368
Use of PSD for domestic violence	\$41,775	\$2,813	\$44,588
Use of PSD for parental leave	\$191,083	\$12,690	\$203,773
Currently lost productivity (adjustment to costs)	-\$776,224	-\$115,799	-\$892,023
Employers' costs	\$7,674,810	\$865,896	\$8,540,706
Weekly Average Per-Worker Cost	\$6.41	\$4.23	\$6.09
Hourly Average Per-Worker Cost	\$0.17	\$0.11	\$0.16
BENEFITS TO EMPLOYERS			
Lower turnover	10,610,391	1,582,891	\$12,193,282
Reduced flu contagion in the workplace	427,893	63,834	\$491,728
Employers' savings	\$11,038,284	\$1,646,725	\$12,685,010
Weekly Average Per-Worker Benefit	\$9.21	\$8.05	\$9.04
Hourly Average Per-Worker Benefit	\$0.24	\$0.22	\$0.24
BENEFITS TO THE COMMUNITY			
Reduced nursing stays			\$1,079,740
Reduced norovirus ¹			\$51,165
Reduced flu contagion			\$69,123
Reduced emergency department visits			\$1,028,358
Community Savings			\$2,228,385
Weekly Average Per-Worker Benefit			\$1.59
Hourly Average Per-Worker Benefit			\$0.04
NET SAVINGS FOR EMPLOYERS²	\$3,363,474	\$780,829	\$4,144,304
Weekly Average Per-Worker Net Savings	\$2.81	\$3.82	\$2.95
Hourly Average Per-Worker Net Savings	\$0.07	\$0.10	\$0.08

Source: Institute for Women’s Policy Research Analysis.

2. Access and Use of Earned Sick Time under Newark's Worker Sick Leave Ordinance

The number of Newark, NJ workers who will benefit from the proposed policy and the cost and benefits of the proposal are estimated below.

How many workers will be affected?

The share of workers covered by either vacation or earned sick time (or both) is calculated by occupation from the 2010 National Compensation Survey (NCS). Data on the number of workers by occupation in Newark is from the 2011 American Community Survey (ACS). In Newark, approximately 26,973 workers have no paid leave benefits of any kind (including vacation) and are eligible to receive new leave under the ordinance.

Some workers who lack earned sick time do have paid vacation leave or general paid time off. This estimate assumes that employers with this kind of leave program will convert their current policy to one that conforms to the proposed law, transforming paid vacation days to earned sick time or general-use paid time off without offering more total days off than they do now.²

Some Newark workers who currently have paid time off will receive additional days under the proposed law. This is not likely to have a significant cost impact, because (1) workers with sick time with pay are granted an average of eight or nine days, therefore little or no change will be needed for most employer policies (U.S. Bureau of Labor Statistics 2012) and (2) most workers will not use their full allotment of earned sick time (see below).

How much earned sick time will workers take?

To care for their own medical needs, their families' needs, and for doctors' visits, workers are estimated to use an average of 2.65 days annually. Methods for calculating expected leave amounts are described below.

For their own medical needs

The average number of days of work that are missed for health reasons is calculated for the U.S. workforce by occupation and firm size using data from the 2011-2012 National Health Interview Survey (NHIS).³ When workers are limited to a maximum of five days of work loss, workers with earned sick time miss an average of 2.0 days annually for illness and injury, if limited to a maximum of three days, workers with earned sick days take 1.7 excluding safe days and maternity leave. About half of all workers who are covered by earned sick time do not take any days off for illness or injury in a given year.

For family care

According to the U.S. Department of Labor's 2000 Family and Medical Leave Act Survey of Employees (FMLA) workers take 0.3 days of FMLA-type leave to care for ill children, spouses, and parents for every 1.0 days of own-health leave (Rutgers University Center for Women and Work 2005).

For doctor visits

Workers with earned sick time visit the doctor an average of three times per year (IWPR analysis of the 2011-2012NHIS). These visits may be during or outside of work hours or might already be included in time off due to illness or injury. For the analysis in this briefing paper, the average number of doctor visits

is calculated by occupation and by business size from the 2011-2012 NHIS. Each visit is assumed to take 1.0 hours of work-time.⁴

Table 2. Costs of Newark’s Worker Sick Leave Ordinance

Cost factor	Value	Source
Workers currently without paid leave of any kind		IWPR analysis of the American Community Survey (ACS) 2010, National Compensation Survey (NCS) 2010, Current Population Survey, Displaced Worker, Employee Tenure and Occupational Mobility Supplement File 2010 and the Annual Social and Economic Supplement (ASEC) 2010-2013.
Large business	23,037	
Small business	3,936	
Average number of paid sick days workers will take		IWPR analysis of the National Health Interview Survey (NHIS) 2011-2012.
Large business	2.0	
Small business	1.7	
Average additional days taken by new mothers, their partners, and/or victims of domestic violence		IWPR analysis of the National Health Interview Survey (NHIS) 2011-2012 and the Annual Social and Economic Supplement 2010-2013.
Large business	3.0	
Small business	1.3	
Average hourly wage		IWPR analysis of the Annual Social and Economic Supplement 2010-2013
Large business	\$16.80	
Small business	\$14.69	
Average daily work hours		IWPR analysis of the Annual Social and Economic Supplement 2010-2013
Large business	7.55	
Small business	7.37	
Average cost of benefits and payroll taxes	33.0%	IWPR analysis of the National Compensation Survey (NCS) 2010.
Subtotal	\$9,432,729	
Large business	\$8,451,034	
Small business	\$981,695	
Adjustment for lost productivity	\$892,023	IWPR analysis of the National Health Interview Survey (NHIS) 2011-2012; Nichol (2001).
Large business	\$776,224	
Small business	\$115,799	
Total	\$8,540,706	
Large business	\$7,674,810	
Small business	\$865,896	

Note: Monetary amounts are in 2013 dollars

For maternity leave

There are an estimated 1,260 births and adoptions each year to women employed in Newark, and about 310 of these women currently lack paid vacation and sick leave (IWPR analysis from the 2010–2013 Annual Social and Economic Supplement of the Current Population Survey (ASEC) and 2010 National Compensation Survey).

Each of these workers is expected to take the maximum number of earned sick time using the additional days for prenatal care and maternity recovery. Half of these new mothers are assumed to have an employed spouse or partner who would also use all their earned sick time to accompany the woman to doctor visits or provide care during her pregnancy.

For domestic violence victims

Newark's Worker Sick Leave Ordinance would also guarantee Newark workers the ability to access services for domestic violence, sexual assault, and stalking, without the risk of losing wages or a job. While a relatively small number of Newark workers will likely need safe days for these purposes, this job-protected paid time off could be critical to building family safety and security.

For the purposes of this estimate, data were obtained from the U.S. Department of Justice Bureau of Justice Statistics (Catalano 2012). The most recent data indicate that in 2010 the rate of intimate partner victimizations for females was 3.6 victimizations per 1,000 females ages 12 years or older. Applying this rate to the Newark working population, we estimate there are about 410 individuals that are victims of domestic violence and do not have access to paid leave of any kind. From the National Intimate Partner and Sexual Violence Survey (CDC 2011) we know that only about 28 percent of victims of violence take time off from work. We used these figures to estimate the incidence of domestic violence in Newark relative to the eligible population. Around 88 employees per year are estimated to take time off work for reasons related to domestic violence or stalking in Newark. We assume these workers will take the maximum number of days allowed under earned sick time.

3. Employer Costs of Implementing Earned Sick Time

How much do workers earn?

Average hourly wages and average daily work hours are calculated by occupation for the Newark workforce using information for the Middle-Atlantic region from the 2010–2013 ASEC (see Table 2). Sample sizes are not sufficient to limit these analyses to Newark.

What other costs will employers incur?

Employers pay certain benefits and taxes as a percent of their payroll: retirement contributions and legally mandated payroll taxes (the employer's share of Social Security and Medicare taxes, plus federal and state unemployment insurance taxes and workers' compensation).⁵ These costs are calculated for the Middle-Atlantic Census Division by occupation from the 2010 NCS, and are estimated at 33 percent of wages, including administrative expenses of 18 percent of wages.

Administrative expenses estimated at 18 percent of wages are one-third the average ratio of administrative costs to benefit payments for state Temporary Disability Insurance programs (TDI) in California, New Jersey, and Rhode Island (U.S. Social Security Administration 2007). TDI is similar to earned sick time in that both relate to workers' illness-related work absence, but TDI is more complex, involving collection of payroll taxes, evaluation of medical disability, tracking of health status, and long-term benefit periods. It is likely that administration of a state-wide TDI program is more expensive than an employer's costs for adding an earned time policy to an existing payroll system.

Will employers need to replace workers taking earned sick time?

By definition, employers pay wages that are equal to each worker’s productivity or the value they produce for the employer. If an employer elects to hire a temporary worker to fill in for a worker using earned sick time, there is no additional net employer expense; the presence of a replacement worker means no productivity is lost. Thus, while employers hiring replacements will pay wages to two workers, the net impact accounting for both wages and productivity will be the same as if no replacement were hired. As an illustration, assume a worker and her replacement (if any) are paid \$100 for a day’s work; replacement workers generate productivity equivalent to their pay (\$100) and, thus, earned sick time is only generating additional costs for one worker, not two (Table 3).

Table 3. Analysis of cost of replacing workers using earned sick time

Absence/Replacement Situation	A. Wage Cost	B. Productivity	Employer's Net Cost of Absence (= A - B)
Without Earned Sick Time			
Absent worker not paid, not replaced	\$0	0%	\$0
Absent worker not paid, replaced	\$100	100% (= \$100)	\$0
With Earned Sick Time			
Absent worker paid, not replaced	\$100	0%	\$100
Absent worker paid, replaced	\$200	100% (= \$100)	\$100

Net employer costs, either with or without a replacement worker, are accounted for in the estimate of wages and payroll taxes for workers receiving earned sick time (Table 2). Hiring of temporary workers is likely to be relatively uncommon for the short leaves possible under the proposed law. A 2010 survey of employers providing earned sick time in San Francisco found that only 8.4 percent of employers reported “always” or “frequently” hiring a replacement for a sick worker, with 23.6 percent of employers saying they “rarely” hire replacement workers (Drago and Lovell 2011).

Cost adjustment: Wages currently paid to workers with low productivity

Empirical studies document that workers with influenza have worse performance on a variety of tasks than healthy workers. A study that used random assignment of experimentally induced colds and influenza found that “minor illnesses . . . have significant effects on performance efficiency” during both incubation and symptomatic periods (Smith 1989, 68). A follow-up study discovered that performance impairment continues even after clinical symptoms have ended (Smith 1990). Other research suggests that productivity during this extra time at work is only 50 percent of normal (Nichol 2001). The total cost to employers of this unproductive time, in terms of wages and associated payroll taxes, is \$892,000 per year (Table 4). This reflects a cost of illness already being borne by employers.

Employers pay substantial wages to employees who are unproductive because of health issues. Goetzel et al. (2004) estimate the average total annual productivity loss, per employee, for the top ten most costly health conditions at between \$217.07, using low productivity loss estimates, and \$1,567, using average productivity loss estimates (in 2001 dollars).

Table 4. Cost savings from not paying ill workers for unproductive time on the job

Cost factor	Value	Source
Workers currently without paid leave of any kind		IWPR analysis of the American Community Survey (ACS) 2010, National Compensation Survey (NCS) 2010, Current Population Survey, Displaced Worker, Employee Tenure and Occupational Mobility Supplement File 2010 and the Annual Social and Economic Supplement (ASEC) 2010-2013.
Large business	23,037	
Small business	3,936	
Lost productivity currently paid	0.4 days at 50 percent effectiveness	IWPR analysis of the National Health Interview Survey (NHIS) 2010-2011; Nichol (2001).
Average hourly wage		IWPR analysis of the Annual Social and Economic Supplement 2010-2013
Large business	\$16.80	
Small business	\$14.69	
Average daily work hours		IWPR analysis of the Annual Social and Economic Supplement 2010-2013
Large business	7.55	
Small business	7.37	
Average cost of benefits and payroll taxes	33%	IWPR analysis of the National Compensation Survey (NCS) 2010.
Total	\$892,023	
Large business	\$776,224	
Small business	\$115,799	

Note: Monetary amounts are in 2013 dollars

4. Benefits of the Proposed Earned Sick Time Policy

Ensuring that workers have paid time off work when needed to take care of their own health needs or those of members of their families is likely to lead to improved health outcomes for workers and their families (Lovell 2004). Better health outcomes will reduce health care expenditures and improve the quality of life. While there is solid theoretical work suggesting the nature of these benefits, in some cases there are no specific empirical data for valuing a benefit. This report presents an estimate of several benefits of earned sick time and discusses other likely benefits. Future research may provide measures of these benefits that can be added to those analyzed here.

Reduced voluntary job turnover

What we can estimate: Having earned sick time reduces voluntary job mobility by three to six percentage points (the effect varies by sex and marital status; Cooper and Monheit 1993). Because workers value earned sick time, when they have that benefit, they are less likely to look for a different job. Workers who experience a health care crisis are also more likely to return to their employer if they have a paid leave policy—more than twice as likely, in the case of women with heart disease (Earle, Ayanian, and Heymann 2006).

If all Newark employers provide earned sick time, this effect on voluntary turnover may be reduced since workers considering a job change will have earned sick time both at their current job and at their potential new job. However, having earned sick time in a current job may increase worker loyalty to the current employer or reduce work/life conflict, even if the same benefit would be offered by any other employer. Since changing jobs is somewhat costly and risky for workers, even a universal earned sick time policy is likely to strengthen the attachment between workers and their current employers.

Table 5. Cost savings from reduced turnover

Cost factor	Value	Source
Workers currently without paid leave of any kind		
Large business	23,037	IWPR analysis of the American Community Survey (ACS) 2010, National Compensation Survey (NCS) 2010, Current Population Survey, Displaced Worker, Employee Tenure and Occupational Mobility Supplement File 2010 and the Annual Social and Economic Supplement (ASEC) 2010-2013.
Small business	3,936	
Reduction in voluntary turnover	5.3	IWPR calculation of weighted average from Cooper and Monheit (1993), based on Lovell (2005).
Cost of turnover	20% of annual compensation	
Average hourly wage		
Large business	\$16.80	IWPR analysis of the Annual Social and Economic Supplement 2010-2013
Small business	\$14.69	
Average daily work hours		
Large business	7.55	IWPR analysis of the Annual Social and Economic Supplement 2010-2013
Small business	7.37	
Average cost of benefits and payroll taxes	33%	IWPR analysis of the National Compensation Survey (NCS) 2010.
Total	\$12,193,282	
Large business	\$10,610,391	
Small business	\$1,582,891	

Note: Monetary amounts are in 2013 dollars

Other impacts that cannot be measured: Having earned sick time also affects involuntary turnover, by protecting workers from being fired for unauthorized work absences when they are sick or must care for sick family members (Heymann 2000; Earle and Heymann 2002). Seven percent of women’s job separations are responses to health issues and another 15 percent are in response to concern to other family or personal reasons (Emsellem, Allen, and Shaw 1999). We lack data for accurately estimating the savings related to lowered involuntary turnover that would flow from the earned sick time proposal, although a recent national survey found that 16 percent of workers have lost a job for missing work when sick or to care for an ill family member (Smith and Kim 2010). Any overestimation in savings from voluntary turnover in this analysis will most likely be more than offset by savings in employer expenses from reduced involuntary turnover.

Why turnover is expensive for employers: Turnover entails a variety of costs for employers of which actual outlays to recruit a new worker are only a small portion. Low productivity of new hires, drains on the productivity of the new worker’s colleagues and supervisors, human resources processing time for

exit and entry, training, and lost productivity during vacancies are also real costs to employers (Phillips 1990).

Careful analyses of the range of impacts associated with turnover provide evidence regarding the true costs to employers. Phillips (1990) reports that replacing a mid-level manager costs 1.5 times the worker's annual salary. A study of the costs of replacing front-desk associates at two hotels in New York found total turnover costs of 28 percent and 31 percent of annual compensation (Hinkin and Tracey 2000).

A widely cited rubric for calculating turnover costs places them at 25 percent of total annual compensation (Employment Policy Foundation 2002). A slightly more conservative figure of 20 percent is used in this analysis.

Reduced spread of the flu within workplaces; reduced overall absence and improved productivity

Employers are increasingly aware of the cost of the spread of disease within workplaces when employees practice presenteeism or go to work while ill. Two of every five employers identify presenteeism as a problem for their organization (CCH Incorporated 2004a). As Dr. Richard Chaifetz notes, presenteeism can lead to “the spread of illness for an even greater reduction in productivity” than would be caused by an individual worker's absence (ComPsych 2004). Firms with low employee morale are more likely to experience presenteeism than those with better morale (CCH Incorporated 2004b).

Empirical research has documented the widely suspected link between presenteeism and contagion within workplaces. Li, Birkhead, Strogatz, and Coles (1996) find lower rates of respiratory and gastrointestinal infection among nursing home residents when nurses have earned sick time, demonstrating that the spread of disease is diminished (at least in workplaces involving intimate physical contact) when ill workers can stay home. Potter et al. (1997) report reduced disease and mortality among patients in long-term care hospitals when health care workers are vaccinated against influenza.

Because influenza (the flu) is highly contagious and accounts for 10 to 12 percent of all illness-related employment absences—about the same portion as musculoskeletal disorders (Keech, Scott, and Ryan 1998)—the impact of earned sick time on transmission of the flu virus is likely to be the largest consequence of increased paid leave on the spread of disease in the workplace.

Longini, Koopman, Haber, and Cotsonis (1988) estimate the probability of an individual contracting influenza from community contacts at 16.4 percent and from an infected household member at 26.0 percent. Islam, O'Shaughnessy, and Smith (1996) calculate the probability of an individual catching an infection from community contacts during a flu epidemic at 0.168;⁶ intra-household disease transmission probabilities per cohabitant are a bit higher (mean of 0.177). These transmission rates suggest that a sick worker who is in the workplace while contagious is likely to infect 1.8 of every ten co-workers. By a low estimate, five percent of healthy working adults will get the flu in a given flu season (Nichol 2001). Studies find that workers with the flu miss one to five days of work (Nichol 2001). Half of employees out sick with the flu are attended by a caregiver, with an average work-loss of 0.4 days per caregiver (Keech, Scott, and Ryan 1998). Workers with the flu also incur costs for doctor visits (45 percent seek medical care; Nichol 2001), hospitalizations (occurring at a rate of four hospitalizations per 10,000 flu cases; Nichol 2001), and purchase of prescription and non-prescription medications and other treatments (Kavet 1977). In addition, the flu kills one in every 100,000 infected individuals (Nichol 2001). These factors are combined with workforce data to estimate savings under Newark's earned sick time law from reduced spread of the flu in workplaces (Table 5).

Table 6. Cost savings from reduced spread of the flu within workplaces

Cost factor	Value	Source
Workers currently without paid leave of any kind		IWPR analysis of the American Community Survey (ACS) 2010, National Compensation Survey (NCS) 2010, Current Population Survey, Displaced Worker, Employee Tenure and Occupational Mobility Supplement File 2010 and the Annual Social and Economic Supplement (ASEC) 2010-2013.
Large business	23,037	
Small business	3,936	
Influenza illness rate	5%	Nichol (2001), Table 6.
Contagion rate (i.e., each co-worker's chance of contracting the flu)	18%	Islam, O'Shaughnessy, and Smith (1996).
Assumed number of close daily work contacts	5 co-workers	Islam, O'Shaughnessy, and Smith (1996).
Number of missed workdays per infected co-worker	2	Nichol (2001).
Number of missed workdays for employed caregivers of ill workers	An average of 0.4 lost workdays per caregiver	Keech, Scott, and Ryan (1998).
Lost productivity for infected co-workers on return to work	0.5 days at 50 percent productivity	Nichol (2001).
Average hourly wage		
Large business	\$16.80	IWPR analysis of the Annual Social and Economic Supplement 2010-2013
Small business	\$14.69	
Average daily work hours		
Large business	7.55	IWPR analysis of the Annual Social and Economic Supplement 2010-2013
Small business	7.37	
Employers' savings	\$491,728	
Large business	\$427,893	
Small business	\$63,834	
Doctor visits for 45 percent of ill workers	Average cost of \$34	Nichol (2001); American Medical Association (2013)
Prescription drugs for 42 per 100 ill workers	Average cost of \$99	Kavet (1977), Kaiser Family Foundation (2013)
Workers' savings	\$69,123	
Large business	\$59,050	
Small business	\$10,074	
Total savings	\$560,851	

Note: Monetary amounts are in 2013 dollars

Reduced expenditures for treating victims of norovirus outbreaks in nursing homes

Earned sick time policies that allow ill workers to stay home can have important public health impacts, by limiting the spread of contagious diseases. Data are not yet available to measure most of this benefit of earned sick time. One that can be calculated is the cost of health care for nursing home residents and staff who contract norovirus. The estimates of those costs for Newark are described in Table 7.

Table 7. Cost savings from reduced norovirus outbreaks in nursing homes

Cost factor	Value	Source
Nursing homes that experienced norovirus or GI outbreak in Newark in the last 12 months	3	Centers for Disease and Control Prevention Foodborne Outbreak Online Database (2013)
Relative risk of experiencing an outbreak between homes with earned sick time and homes without earned sick time	38 percent	Li et al. (1996).
Share of nursing home workers with access to earned sick time (nationally)	73 percent	IWPR analysis of the March 2006 National Compensation Survey.
Number of outbreaks that would be avoided if all nursing home workers had earned sick time	1	IWPR calculation based on Li et al (1996).
Number of residents on nursing houses exposed to higher risk each year	878	Estimated from data from the State of New Jersey Department of Health; Nursing Homes Staffing Reports (2013).
Average ratio of staff to residents	2%	Estimated from data from the State of New Jersey Department of Health; Nursing Homes Staffing Reports (2013).
Attack rate for norovirus	30 percent	California Department of Public Health; Morbidity and Mortality Weekly Report (2007).
Excess number of staff and residents in nursing homes without earned sick time exposed	269	Based on methodology developed by Korey Capozza and David Graham-Squire for Valuing the Good Health in California: The Costs and Benefits of the Healthy Families, Healthy Workplaces Act of 2008 (2008).
Percent of norovirus victims who will require hospitalization	10 percent	Calderon-Margalit et al. (2005).
Cost of treatment		
Medicaid	\$105.15	American Association of Pediatrics; CeraLyte (oral rehydration); Xiao et al. (2004); American Medical Association 2013; Kaiser Family Foundation 2010 and Mayo Medical Laboratories (2012).
Medicare	\$121.56	
Private Insurance	\$131.14	
Total	\$51,165	

Note: Monetary amounts are in 2013 dollars

Detailed data are not available to estimate savings from other contagious diseases (see text box), although are undoubtedly significant.

The Cost of Other Contagious Diseases

The flu and norovirus are the only contagious diseases for which accurate data could be located on transmission rates, work absence, and treatment costs. A comprehensive accounting for the spread of all relatively common contagious diseases—including colds, mononucleosis, hepatitis, strep throat, and conjunctivitis (pink eye)—would certainly be much higher. In addition, costs related to work absence and health care use that result from the spread of disease in child-care or school settings when parents cannot keep their sick children home are not calculated here.

Reduced expenditures for short-term nursing home stays

Workers with the flexibility to provide informal care for elderly, disabled, and medically fragile relatives may be able to reduce expenditures for health care, including paid care at home or in nursing homes that might otherwise be financed by Medicaid or Medicare. Certainly, individuals consider the level of informal care available to them in decisions about purchasing formal care. When adult children increase their hours of informal care for their single parents, the likelihood of purchasing home health care and nursing home services decreases, and lengths of stays in nursing homes and hospitals are reduced (Van Houtven and Norton 2004). Because informal care may increase elders' ability to navigate the health care system, informal care increases hospital stays, outpatient surgery, and physician visits. A 10 percent increase in the number of hours of informal care provided to individuals aged 70 and older reduces the probability of entering a nursing home by 0.77 percentage points, from 8.60 to 7.83 (Van Houtven and Norton 2004). Elderly patients discharged from acute care wards will return home at higher rates if they have children, rather than moving to a lower-level care facility of the hospital (McClaran, Berglas, and Franco 1996). Unmarried and childless individuals are more likely to enter nursing homes than others (Freedman 1993), as they less often have an informal caregiver to help them return home.

Table 8. Cost savings from reduced short-term nursing home stays

Cost factor	Value	Source
Caregivers of adults aged 50 and older in Newark	27,136	IWPR estimations based on the National Alliance for Caregiving and American Association of Retired Persons 2009, Figure 1, and IWPR analysis of the American Community Survey (ACS) 2011.
Average number of caregivers per care recipient	2	IWPR calculation based on Kramarow et al. (1999).
Percent of private workers with no paid leave	24%	IWPR analysis of the American Community Survey (ACS) 2010, National Compensation Survey (NCS) 2010, Current Population Survey, Displaced Worker, Employee Tenure and Occupational Mobility Supplement File 2010 and the Annual Social and Economic Supplement (ASEC) 2010-2013.
Estimated length of nursing home stay averted with earned sick time	1 day per care recipient	IWPR's calculation based on Kramarow et al. (1999).
Average cost of one day of nursing home stay, semi-private room	\$336	MetLife Nursing Home Costs 2012
Total	\$1,079,740	

Note: Monetary amounts are in 2013 dollars

With nearly 29.8 million full-time workers providing care to adults aged 50 and older (IWPR calculation from National Alliance for Caregiving and AARP 2009), nearly 1.4 million nursing facility patients at any one time (Kaiser Family Foundation 2010), and average per day costs of roughly \$250 (Metlilfe 2012), savings to families and taxpayers from reduced nursing home use could be substantial. An even larger number of elderly individuals receive paid care at home (Lo Sasso and Johnson 2002). This group may be particularly affected by their adult children’s work hours flexibility—having a child who can respond to medical crises may mean the difference between staying at home and transitioning to assisted living or nursing home facilities.

Preventing short-term nursing home care of medically frail individuals saves money for families and taxpayers and leads to better health outcomes for the individuals themselves. Recognizing this, the government has stated that “preventing premature institutionalization is a major public health goal” (Sahyoun et al. 2001). Savings from reduced short-term nursing home stays are estimated in Table 8.

Health care savings resulting from reduced use of hospital emergency departments

Earned sick time allows workers to take time away from work for medical appointments, rather than waiting until after their work hours, at which point they might opt to utilize hospital emergency services. Analysis of data from the NHIS has shown that workers with earned sick time are less likely than workers without earned sick time to utilize hospital emergency departments, even after accounting for variables such as age, income, education, and health insurance access.

Table 9. Cost-savings from reduced emergency department visits

Cost factor	Value	Source
Preventable Emergency Department Costs	\$539	IWPR analysis of the 2011 Medical Expenditure Panel Survey.
Overall number of preventable Emergency Department visits with Earned sick time	1,908	IWPR analysis of the 2011–2012 National Health Interview Survey.
Overall cost premium for Emergency Department visits	\$1,028,358	IWPR analysis of the 2011–2012 National Health Interview Survey; the 2010 National Compensation Survey, and the 2011 Medical Expenditure Panel Survey.
Number of preventable Emergency Department visits with Earned sick time for those using public health insurance	777	IWPR analysis of the 2011–2012 National Health Interview Survey.
Cost premium for Emergency Department visits for those using public health insurance	\$418,919	IWPR analysis of the 2011–2012 National Health Interview Survey; the 2010 National Compensation Survey, and the 2011 Medical Expenditure Panel Survey.

Note: Calculations limited to private sector workers, monetary amounts are in 2013 dollars.

It is estimated that a lack of earned sick time contributes to 1.3 million preventable emergency department visits each year nationally. These visits are more expensive than a visit to a primary care physician for the same condition; and, thus, if these preventable emergency department visits were replaced by primary care visits, health care costs would be decreased by over \$1.1 billion per year nationally, of which over \$500 million is currently paid by public insurance programs such as Medicaid (Miller, Williams, and Yi 2011).

It has been estimated that in Newark, universal access to earned sick time would prevent about 1,900 emergency department visits per year among private sector workers and their families. These prevented visits would result in a health care cost reduction of about \$1 million (2013 dollars) annually (Table 9). These potential cost savings would be shared by hospitals, physicians, patients, private insurers, and public health insurance programs such as Medicaid and the State Children’s Health Insurance Program (SCHIP). Analyses of data on those receiving public health insurance reveal that savings of \$420,000 (about half of the total savings) is predicted for public health insurance programs—and taxpayers—as a result of making earned sick time universally accessible in Newark.

5. Additional Potential Benefits of Earned Sick Time and Other Effects

While data are currently lacking to calculate the economic impact of all the consequences of workers not having adequate earned sick time, it is certain that there are many others, in addition to those discussed above, that do impose costs on workers, their families, employers, taxpayers, and society as a whole. Eliminating these costs thus confers benefits on society.

Additional benefits to employers

- **Reduce length and cost of illness:** Health care expenditures are likely to be greater for workers who are unable to recuperate at home, resulting in extra expenditures for workers and firms. Without adequate time to regain health, minor medical problems may be exacerbated (Grinyer and Singleton 2000), eventually requiring longer work absence and/or increased treatment costs.
- **Savings to employers by minimizing scheduling uncertainties:** Workers with sick leave may be more likely to give advance notice of an absence. Workers without sick leave may be more likely to call in sick at the start of their shifts when they knew the previous day they would have to stay home with a sick child.
- **Improved morale and resultant productivity:** Enhanced worker loyalty and job satisfaction related to having adequate paid time off may translate into gains for employers through improved customer relations.

Improved Health among Family Members

- **Reduced illness among children:** Keeping children at home with contagious diseases like the flu can prevent illness and work absences among their schoolmates’ parents. Children are more susceptible to influenza (King 2004), preventing children from being disease vectors in school and childcare settings can significantly reduce workplace absence and productivity effects among adults.
- **Improved health outcomes for children:** Children have better short- and long-term health outcomes when they are cared for by their parents while in the hospital (Palmer 1993). Hospital stays are shorter when parents are involved in care (Kristensson-Hallstrom, Elander, and Malmfors 1997). With increased flexibility in attending to sick children, earned sick time is likely to reduce treatment costs and overall length of illness.
- **Better family support:** Heart attack survivors who perceive that they receive adequate social support have decreased mortality rates and better overall health outcomes than those perceiving inadequate levels of tangible social support (Woloshin et al. 1997). Being married or having

children (even if not living nearby) reduces the length of hospital stays for elderly patients in acute care wards (McClaran, Berglas, and Franco 1996). Stroke victims have better functional and social outcomes when they receive high levels of family social support, and are more likely to receive nursing home care if they have low levels of support (Tsouna-Hadjis et al. 2000). Workers with the flexibility provided by earned sick time may be able to positively affect the health status of their relatives with coronary disease and other chronic medical conditions by providing more timely care.

Other benefits to families and society when workers can take time needed to provide care

- **Reduced school absences:** When parents cannot stay home to care for sick children, older siblings may be kept out of school to care for their younger siblings (Dodson and Dickert 2004). These school absences may affect school performance and have long-range impacts on the older children's education and work productivity.
- **Reduced expenditures on public assistance:** Workers who lose their jobs due to having inadequate earned sick time would be less reliant on public assistance. For instance, 8.7 percent of workers who take an FMLA-type (Family and Medical Leave Act) leave and do not receive their full wages during the leave turn to public assistance for support (Cantor et al. 2001).
- **Improved quality of life:** When families are healthier they feel better and enjoy life more.

Economic benefits to workers and their families

- **Respite for caregivers:** Informal caregivers whose work schedules are incompatible with the care needs of their relatives may decrease their work hours or even leave the labor force completely (Stone and Short 1990). Earned sick time may provide sufficient leave to many caregivers to allow them to maintain their desired level of employment, while continuing to perform their caregiving work as well.
- **Fewer lost wages:** Workers would not be suspended or fired for missing work without authorization when they are sick or a family member needs care (Browne and Kennelly 1999; Dodson, Manuel, and Bravo 2002).
- **Increased financial stability and economic well-being of families:** When incomes are not interrupted by unpaid leave, families experience greater financial stability and economic well-being.

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¹ It can be difficult to inform workers of changes in their employment benefits. For instance, three years after California's new paid family leave program went into effect, only a quarter of workers knew about their new right to take paid leave (Milkman 2008), despite the requirement that employers notify their employees of their right to paid family leave.

²While it is the clear intent of the earned sick days law that workers have a separate benefit of earned sick time, in addition to any other paid leave they have, as drafted the law would accept a paid time off leave program that could be used for illness as meeting the requirements of the law. This estimate assumes that employers that currently offer paid vacation leave, but no earned sick time, would convert their vacation leave into a general paid time off program covering both vacation and sick leave and, thus, workers in such firms would not receive additional paid time off under the law. They would, however, receive important protections against dismissal or other penalties for using their statutorily mandated earned sick time.

³State-level data and below are not available from the National Health Interview Survey.

⁴This estimate of the time involved in visiting the doctor is very conservative, in order to allow for some workers who may seek treatment at times when they are not scheduled to work. With travel and waiting time, a doctor visit could easily take two to four hours.

⁵Other employer-provided benefits such as health insurance and paid holidays are typically cost as a monthly premium or annual allotment. A worker who is granted leave with pay would not cost an employer any more for these benefits than would a worker taking time off without pay.

⁶This is the mean of six rates derived from data on three disease outbreaks.

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