

Briefing Paper



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Valuing Good Health in Massachusetts: The Costs and Benefits of Paid Sick Days

A proposed law requiring employers to allow workers to earn paid sick days is predicted to have benefits that outweigh the costs. The anticipated cost of the law for employers is equivalent to a 19 cent per hour increase in wages for employees receiving new leave. The anticipated savings to employers are expected to have a wage equivalent of 22 cents per hour. Annually, businesses in Massachusetts are expected to expend \$198 million in providing new paid sick days for employees. Providing new paid sick days is expected to yield benefits to employers of \$224 million annually, for a net savings for Massachusetts employers of \$26 million annually.

Benefits to workers and the broader community will be substantial. Benefits to workers and their families as a result of improved ability to care for sick relatives and reduced flu contagion are estimated at \$24 million annually. An additional annual reduction in \$24 million in health care costs is predicted from reduced emergency department usage and prevented norovirus outbreaks in nursing homes. In total, the proposed law is expected to have a net benefit of \$74 million annually.

Executive Summary

Policymakers across the country are increasingly interested in ensuring that workers can take paid time off 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 can only be addressed by workers taking a break from their scheduled time on the job. Allowing workers with contagious illness to avoid unnecessary contact with co-workers and customers is a public health issue. Paid sick days also protect workers from being fired when they are too sick to work and offer substantial savings to employers by reducing turnover and minimizing absenteeism.

Legislators in Massachusetts are considering An Act Establishing Earned Paid Sick Time (HB 3995), allowing employees to earn sick time at the rate of one hour for every thirty hours worked. Using the parameters of the proposed law and publicly available data, this paper 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 report uses data collected by the U.S. Bureau of Labor Statistics, the U.S. Department of Health and Human Services, the Massachusetts Department of Public Health, and the U.S. Census Bureau to evaluate the likely impact of the Massachusetts Act Establishing Earned Paid Sick Time. The study is one of a

series of analyses by the Institute for Women's Policy Research (IWPR) examining the costs and benefits of paid sick days policies. It estimates how much time off Massachusetts workers would use under the proposed policy and the costs to employers for that sick time. It also uses findings from previous peer-reviewed research to estimate how this leave policy would save money, by reducing turnover, cutting down on the spread of disease at work, helping employers avoid paying for low productivity, holding down nursing-home stays, and reducing norovirus outbreaks in nursing homes.

The report finds significant economic benefits from the proposed sick time bill and there are likely to be many other meaningful benefits that cannot be measured with existing data. When workers can take needed time off without fear of being fired, they and their families can obtain necessary health care more promptly, leading to improved health outcomes, speedier recoveries, and reduced total health care spending. Fewer workers will be fired, suspended, or otherwise penalized for having to stay home when they are ill or have sick family members to care for, improving workers' economic security. The public health benefits are also likely to be considerable, as workers with contagious illnesses will be better able to avoid infecting others, and parents will not have to send sick children to school or child care.

Key provisions of the Act Establishing Earned Paid Sick Time

- All workers employed within the boundaries of Massachusetts except seasonal workers would accrue sick time. Workers at businesses with 11 or more employees would accrue paid sick time up to a maximum of 56 hours (seven days) per year, and businesses with between six and ten employees would accrue paid sick time up to a maximum of 40 hours (five days) per year; at businesses with between one and five employees, employees would accrue up to 40 hours (five days) of *unpaid* sick time per year.¹
- Earned paid sick time may be used when a worker is ill, for diagnosis or treatment of a worker's or child's health condition, for preventive care, or to address the effects of domestic violence.

Who Will Access and Use Paid Sick Days?

- About 910,000 Massachusetts workers lack paid sick days—36 percent of the private sector workforce. About 581,000 workers in Massachusetts currently have no paid leave benefits of any kind and are eligible to receive new leave under An Act Establishing Earned Paid Sick Time, of whom 531,000 will receive paid leave and 50,000 will receive unpaid leave.
- Employees of Massachusetts businesses with eleven or more employees are estimated to use an average of 2.5 days annually out of a maximum of seven that may be accrued, while employees at businesses with between six to ten employees are estimated to use an average of 2.1 days annually out of a maximum of 5 that may be accrued.
 - Workers covered by the earned paid sick time law will use an average of 1.6 days of paid sick time annually for their own medical needs.
 - On average, workers will use about half a day to address family members' medical needs and about half a day for doctor visits.
 - Workers utilizing earned paid sick time after they or their partner give birth to a child are expected to utilize all seven or five sick days available to them, as are those workers utilizing leave to address the effects of domestic violence.

- About half of all workers with paid sick days do not take *any* days off for illness in a given year.

How Much Will Paid Sick Days Cost Businesses?

- Annually, businesses in Massachusetts are expected to expend \$198 million in providing new paid sick days for employees. 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 19 cent per hour increase in wages for employees receiving new leave, or about \$6.54 per week for covered workers (Table 1).
 - The cost of increased wages and reduced productivity due to typical use of paid sick days by workers receiving new coverage will be about \$198 million annually.
 - Covered workers who give birth and some of their partners are expected to use all of their available paid sick days, for an additional annual cost of \$13 million.
 - Covered workers who experience an eligible event of domestic violence are expected to use all of their available paid sick days, for an additional annual cost of \$1.6 million.
 - Workers without paid sick days who currently come to work sick work at less than full productivity, resulting in current productivity losses of about \$16 million annually; this represents an adjustment to expected costs of implementing the proposed law.
- Costs of implementation will largely accrue to employers with 10 or more employees, with annual costs of \$186 million (equivalent to per-worker costs of \$7.36 per week or \$0.22 per hour) for businesses in this category. Annual costs of \$12 million are anticipated for businesses with between 6 and 9 employees (equivalent to per-worker costs of \$4.97 per week or \$0.16 per hour).

What Benefits Will Paid Sick Days Produce?

- Providing new paid sick days is expected to yield benefits of \$224 million annually for employers, largely due to savings from reduced turnover. The anticipated savings for employers are expected to have a wage equivalent of a savings of \$0.22 per hour, or about \$7.41 per week for covered workers (Table 1).
- Comparing costs to employers and anticipated benefits for employers, an annual net benefit for Massachusetts employers of \$26 million is expected, equivalent to a net savings for employers of about \$0.95 per worker per week for covered workers, or \$0.03 per hour worked (Table 1).
- Workers and their families will enjoy lower expenditures for health care services totaling \$24 million annually.
- The community will spend about \$24 million less annually on health care expenses as a result of reduced emergency department use and fewer norovirus outbreaks in nursing homes.
- In addition to the benefits listed above, earned paid 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 paid sick days 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; reduced expenditures on public assistance programs due to improved family economic security; and other benefits.

The estimates presented in this report assume that all workers eligible for leave under the new policy would know about their new earned paid 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.² 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 Massachusetts' Act Establishing Earned Paid Sick Time

Summary of Costs and Benefits	Dollars	Average Per-Worker	
		Weekly	Hourly
Employer Costs			
Wages, wage-based benefits, payroll taxes, and administrative expenses of:			
PSD for workers currently lacking any paid leave	\$198,450,414	\$6.57	\$0.20
Use of PSD for domestic violence	\$1,569,077	\$0.05	\$0.00
Use of PSD for parental leave	\$13,347,059	\$0.44	\$0.01
Currently lost productivity (adjustment to costs)	-\$15,738,763	-\$0.52	-\$0.02
All employers' Costs	\$197,627,786	\$6.54	\$0.19
Employers' costs, 10+ employees	\$186,013,738	\$7.36	\$0.22
Employers' costs, 6-9 employees	\$11,614,048	\$4.97	\$0.16
Employers' costs, 1-5 employees ¹	\$0	\$0.00	\$0.00
Employer Benefits			
Lower turnover	\$215,136,904	\$7.12	\$0.21
Reduced flu contagion	\$8,660,848	\$0.29	\$0.01
Employers' Savings	\$223,797,752	\$7.41	\$0.22
Net Benefit for Employers²	\$26,169,966	\$0.95	\$0.03
Worker and Community Benefits			
Fewer nursing home stays	\$22,701,495	\$0.75	\$0.02
Reduced flu contagion	\$1,177,173	\$0.04	\$0.00
Workers' Savings	\$23,878,668	\$0.79	\$0.00
Fewer norovirus outbreaks ³	\$282,575	\$0.01	\$0.00
Reduced emergency department use	\$23,399,000	\$0.77	\$0.02
Community Savings	\$23,681,575	\$0.86	\$0.03
Net Benefit (Employer Costs, All Benefits)	\$73,730,209	\$2.67	\$0.08

Source: Institute for Women's Policy Research analysis

Note: Columns may not sum to total due to rounding. Monetary amounts are in 2011 dollars.

¹These businesses are required to provide unpaid leave for employees. This is likely to result in some administrative costs, but because the model is based on wage costs, no annual cost to businesses providing unpaid leave is estimated here.

²The row "Net Benefit for Employers" refers to the sum of "Employers' Costs" and "Employers' Savings". Additional savings are included in the row "Net Benefit (Employer Costs, All Benefits)".

³Based on Korey Capozza's *Methodology in Valuing Good Health in California: The Costs and Benefits of Paid Sick Days*.

Access and Use of Paid Sick Days Under Massachusetts' Proposed Act Establishing Earned Paid Sick Time

The number of Massachusetts workers who will benefit from the proposed policy and the cost and benefits of the proposal are estimated using the following methodology.

How many workers will be affected?

There are about 2.5 million private sector workers in Massachusetts. About 900,000 Massachusetts workers lack paid sick days—or 36 percent of the private sector workforce (Williams et al. 2011).

Some workers who lack paid sick days 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 earned paid sick time law, transforming paid vacation days to paid sick days without offering more total days off than they do now.³ The share of workers covered by either vacation or paid sick days (or both) is calculated by occupation from the 2010 National Compensation Survey and data on the number of private sector workers by occupation in Massachusetts from the American Community Survey (ACS).

About 581,000 workers in Massachusetts currently have no paid leave benefits of any kind and are eligible to receive new leave under An Act Establishing Earned Paid Sick Time, of whom 531,000 will receive paid leave and 50,000 will receive unpaid leave.

In addition to these workers, some Massachusetts workers who currently have paid sick days will receive additional days under the paid sick days law. This is not likely to have a significant cost impact, because (1) workers who have paid sick days are granted an average of eight or nine days, therefore the majority of workers with paid sick days already meet the standard of the law (U.S. Bureau of Labor Statistics 2012) and (2) most workers will not use their full allotment of paid sick days (see below).

How many paid sick days will workers take?

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 from the 2010 National Health Interview Survey (NHIS).⁴ When workers are limited to a maximum of seven days of work loss (large business), workers with paid sick days miss an average of 1.61 days annually for illness and injury, excluding maternity leave. When limited to five days of work loss (small business), workers with paid sick days miss an average of 1.26 days (IWPR analysis of the 2010 NHIS).⁵ About half of all workers who are covered by paid sick days plans do not take any days off for illness or injury in a given year.⁶

For family care:

According to the U.S. Department of Labor's 2000 Family and Medical Leave Act Survey of Employees, 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 paid sick days visit the doctor an average of three times per year (IWPR analysis of the 2010 NHIS). These visits may be during or outside of work hours or might already be included in time off due to illness or injury in 2(a) above. For the analysis in this report, the average number of doctor visits is calculated by occupation from the 2010 NHIS. Each visit is assumed to take 1.0 hours of work-time.⁷

For these three leave circumstances, workers in large business are estimated to use an average of 2.5 days per year while workers in small business are estimated to use an average of 2.1 days per year.

For maternity leave:

There are an estimated 14,818 births each year to women employed in Massachusetts who currently lack paid vacation and sick leave (IWPR analysis from the 2008–2011 Annual Social and Economic Supplement to the Current Population Survey (ASEC) and 2010 National Compensation Survey).

Each of these workers is expected to take the maximum number of paid sick days, using the additional days (beyond those accounted for in paragraphs 2(a) – 2(c), above) for prenatal care and maternity recovery). This report estimates that women employed in large business who give birth or adopt a baby would use an additional 4.5 sick days to bring their total of seven, and women employed in small business who give birth or adopt would use an additional 2.9 sick days to bring their total of five.

Half of these pregnant workers are assumed to have an employed spouse or partner who would also use all their paid sick days to accompany the woman to doctor visits or provide care during her pregnancy.

To address needs resulting from domestic violence:

For the purposes of this estimate, data were obtained from the U.S. Department of Justice Bureau of Justice Statistics. The most recent data indicate that in 2008 the rate of intimate partner victimizations for females was 4.3 victimizations per 1,000 females ages 12 years or older. The equivalent rate of intimate partner violence against males was 0.8 victimizations per 1,000 males ages 12 years or older. These figures were used to estimate the incidence of domestic violence in Massachusetts relative to the estimated population, for an estimated incidence of 0.5 percent, affecting about 2,708 workers who would receive new sick days under the law.

It is assumed that workers utilizing sick days to address needs arising from domestic violence will utilize days in addition to the average use for other needs. This amounts to 4.5 additional days for covered workers employed in large business and 2.9 additional days for workers employed in small business.

Employer Costs of Implementing Paid Sick Days

How much do workers earn?

Average hourly wages and average daily work hours are calculated by occupation for the private-sector workforce using information for the New England region from the 2008–2011 ASEC. Sample sizes are not sufficient to limit these analyses to Massachusetts.

What other costs will employers incur?

a. 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).⁸ These costs are calculated for the New England Census Division by occupation from the 2010 National Compensation Survey.

b. Administrative expenses are estimated at 18 percent of wages. This is 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 paid sick days 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 a paid sick days policy to an existing payroll system.

Will employers need to replace workers taking paid sick days?

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 paid sick leave, 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 and thus paid sick leave is only generating additional costs for one worker, not two (Table 2).

Table 2. Analysis of cost of replacing workers using paid sick days

Absence/Replacement Situation	A Wage Cost	B Productivity	C Employer's Net Cost of Absence (= A - B)
Without Paid Sick Days			
Absent worker not paid, not replaced	\$0	0%	\$0
Absent worker not paid, replaced	\$100	100% (= \$100)	\$0
With Paid Sick Days			
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 paid sick days (Table 4). 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 paid sick days 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

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 \$1,566.63, using average productivity loss estimates (in 2001 dollars).

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). The National Federation of Independent Business, a small-business association, reminds employers that “working when you’re sick and not up to your best stifles and muddles creativity and depletes energy and stamina” (Townes 2006).

Workers without paid sick days miss fewer days due to illness and injury than workers with paid sick days, when constrained to the maximum provided for by the Massachusetts proposed paid sick days law (IWPR analysis of the 2010 NHIS). Other research suggests that productivity during this extra time at work is only 50 percent of normal (Nichol 2001). The total cost to Massachusetts employers of this unproductive time, in terms of wages and associated payroll taxes, is \$15.7 million per year (Table 3). This reflects a cost of illness already being borne by employers.

Table 3. 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) 2008-2011.
Business with 10+ employees	486,089	
Business with 6-9 employees	44,959	
Lost productivity currently paid	0.4 days at 50 percent effectiveness	IWPR analysis of the National Health Interview Survey (NHIS) 2010; Nichol (2001).
Average hourly wage		
Business with 10+ employees	\$17.12	IWPR analysis of the Annual Social and Economic Supplement 2008-2011.
Business with 6-9 employees	\$15.93	
Average daily work hours		
Business with 10+ employees	6.79	IWPR analysis of the Annual Social and Economic Supplement 2008-2011.
Business with 6-9 employees	6.13	
Average cost of benefits and payroll taxes	23%	IWPR analysis of the National Compensation Survey (NCS) 2010.
Total	\$15,738,763	
Business with 10+ employees	\$14,592,468	
Business with 6-9 employees	\$1,146,295	

Note: Earnings refer to calendar years 2008-2011 and have been adjusted to 2011 dollars using the CPI-U

Total Cost to Employers

Taking into account all of the above information, a total annual employer cost of implementing the Act Establishing Earned Paid Sick Time of \$198 million is estimated (Table 4), equivalent to a per-worker weekly cost of \$6.54 or a per-worker hourly cost of \$0.19 (Table 1).

Costs of implementation will largely accrue to employers with 10 or more employees, with annual costs of \$186 million (equivalent to per-worker costs of \$7.36 per week or \$0.22 per hour) for businesses in this category. Annual costs of \$12 million are anticipated for businesses with between 5 and 19 employees (equivalent to per-worker costs of \$4.97 per week or \$0.16 per hour).

Table 4. Summary of costs of the Massachusetts Act Establishing Earned Paid Sick Time

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) 2008-2011.
Business with 10+ employees	486,089	
Business with 6-9 employees	44,959	
Average number of paid sick days workers will take		
Business with 10+ employees	2.5	IWPR analysis of the National Health Interview Survey (NHIS) 2010.
Business with 6-9 employees	2.1	
Average additional days taken by pregnant women and their partners and workers addressing needs resulting from domestic violence		
Business with 10+ employees	4.5	IWPR analysis of the National Health Interview Survey (NHIS) 2010.
Business with 6-9 employees	2.9	
Average hourly wage		
Business with 10+ employees	\$17.12	IWPR analysis of the Annual Social and Economic Supplement 2008-2011.
Business with 6-9 employees	\$15.93	
Average daily work hours		
Business with 10+ employees	6.79	IWPR analysis of the Annual Social and Economic Supplement 2008-2011.
Business with 6-9 employees	6.13	
Average cost of benefits and payroll taxes	23%	IWPR analysis of the National Compensation Survey (NCS) 2010.
Subtotal	\$213,366,549	
Business with 10+ employees	\$186,013,738	
Business with 6-9 employees	\$11,614,048	
Adjustment for lost productivity	\$15,738,763	
Business with 10+ employees	\$14,592,468	See Table 2
Business with 6-9 employees	\$1,146,295	See Table 2
Total	\$197,627,786	
Business with 10+ employees	\$186,013,738	
Business with 6-9 employees	\$11,614,048	

Note: Earnings refer to calendar years 2008–2011 and have been adjusted to 2011 dollars using the CPI-U

Benefits of the Proposed Paid Sick Days 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 paid sick days 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 paid sick days 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 paid sick days, 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 Massachusetts employers provide paid sick days, this effect on voluntary turnover may be reduced since workers considering a job change will have paid sick days both at their current job and at their potential new job. However, having paid sick days 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 paid sick days policy is likely to strengthen the attachment between workers and their current employers.

Other impacts that cannot be measured: Having paid sick days 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 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 paid sick days 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). A newly hired low-paid retail worker may lose sales—and customers—during the period the employee is learning about the employer's products and may mistakenly undercharge for products (Johnson and Tratensek 2001).

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. An estimate by Johnson and Tratensek (2001) pegs the cost of turnover of retail

workers earning \$7 an hour at \$6,241 or 43 percent of their annual pay. 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.

Table 5. Cost savings from reduced turnover

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) 2008-2011.
Business with 10+ employees	486,089	
Business with 6-9 employees	44,959	
Reduction in voluntary turnover	5.3	IWPR calculation of weighted average from Cooper and Monheit (1993), based on Lovell (2005).
Cost of turnover	20%	As percent of annual compensation; see text.
Average hourly wage		
Business with 10+ employees	\$17.12	IWPR analysis of the Annual Social and Economic Supplement 2008-2011.
Business with 6-9 employees	\$15.93	
Average daily work hours		
Business with 10+ employees	6.79	IWPR analysis of the Annual Social and Economic Supplement 2008-2011.
Business with 6-9 employees	6.13	
Average cost of benefits and payroll taxes	23%	IWPR analysis of the National Compensation Survey (NCS) 2010.
Total	\$215,136,904	
Business with 10+ employees	\$199,467,919	
Business with 6-9 employees	\$15,668,986	

Note: Earnings refer to calendar years 2008–2011 and have been adjusted to 2011 dollars using the CPI-U

Reduced spread of the flu within workplaces; reduced overall absence and lowered 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 paid sick days, 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 paid sick days 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;⁹ 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 (with 45 percent seeking 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 Massachusetts’s paid sick days 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) 2008-2011.
Business with 10+ employees	486,089	
Business with 6-9 employees	44,959	
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		
Business with 10+ employees	\$17.12	IWPR analysis of the Annual Social and Economic Supplement 2008-2011.
Business with 6-9 employees	\$15.93	
Average daily work hours		
Business with 10+ employees	6.79	IWPR analysis of the Annual Social and Economic Supplement 2008-2011.
Business with 6-9 employees	6.13	
Employers' savings	\$8,660,848	
Large business	\$8,044,098	
Small business	\$616,750	
Doctor visits for 45 percent of ill workers	Average cost of \$60	Nichol (2001); BlueCross BlueShield of Texas n.d.
Prescription drugs for 42 per 100 ill workers	Average cost of \$58	Kavet (1977), Kaiser Family Foundation webtool (2005, adjusted for inflation).
Workers' savings	\$1,177,173	
Business with 10+ employees	\$1,077,513	
Business with 6-9 employees	\$99,660	
Total savings	\$9,838,021	

Note: Earnings refer to calendar years 2008–2011 and have been adjusted to 2011 dollars using the CPI-U

Reduced expenditures for treating victims of norovirus outbreaks in nursing homes

Paid sick days 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 paid sick days. 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 Massachusetts 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 Massachusetts in the last 12 months	100	Personal Communication from the Massachusetts Department of Public Health.
Relative risk of experiencing an outbreak between homes with paid sick days and homes without paid sick days	38 percent	Li et al. (1996).
Share of nursing home workers with access to paid sick days (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 paid sick days	31	IWPR calculation based on Li et al (1996).
Number of residents on nursing houses exposed to higher risk each year	3,066	Kaiser Family Foundation State Health Facts (2010)
Average ratio of staff to residents	4%	Estimated from data from the Kaiser Family Foundation's State Health Facts (2010).
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 paid sick days exposed	957	Based on methodology developed by Corey 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 (varies between staff and residents; between those requiring hospitalization vs. out-patient treatment; and by payer)		American Association of Pediatrics; CeraLyte (oral rehydration); Xiao et al. (2004); American Medical Association 2011; Kaiser Family Foundation 2008 and Mayo Medical Laboratories.
Medicaid	\$209.62	
Medicare	\$222.51	
Private Insurance	\$203.00	
Total	\$282,575	

Notes: Monetary amounts are in 2011 dollars.

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

Source: Based on methodology developed by Corey 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).

The Cost of Other Contagious Diseases

The flu is the only contagious disease 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.

With nearly 28.8 million full-time workers providing care to adults aged 50 and older (IWPR calculation from National Alliance for Caregiving and AARP 2009), nearly 1.5 million nursing facility patients at any one time (American Health Care Association n.d.), or roughly 2.7 nursing home admissions per year (IWPR calculation from Mehdizadeh and Applebaum 2003)—78 percent paid for by Medicare or Medicaid (AHCA n.d.)—and average annual per-patient costs of \$58,000 (MetLife 2004), 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.

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

Cost factor	Value	Source
Caregivers of adults aged 50 and older in Massachusetts	696,437	IWPR estimations based on the National Alliance for Caregiving and American Association of Retired Persons 2009, Figure 1.
Average number of caregivers per care recipient	2	IWPR calculation based on Kramarow et al. (1999).
Percent of private workers with no paid leave	34.39%	IWPR analysis of the American Community Survey (ACS) 2009, 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) 2007-2010.
Estimated length of nursing home stay averted with paid sick days	1 day per care recipient	Author's calculation based on Kramarow et al. (1999).
Average cost of one day of nursing home stay, semi-private room	\$180	MetLife (2004), monetary amounts are inflated to 2011 dollars.
Total	\$22,701,495	

Note: Monetary amounts are in 2011 dollars.

Reduced Health Care Expenditures Resulting from Reduced Use of Hospital Emergency Departments

Paid sick days allow workers to take time away from work for medical appointments, rather than waiting until after their work hours, at which point the only way to see a doctor may be to utilize hospital emergency services. Analysis of data from the National Health Interview Survey has shown that workers with paid sick days are less likely than workers without paid sick days to utilize hospital emergency departments, even after accounting for variables such as age, income, education, and health insurance access. It is estimated that a lack of paid sick days 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 annually, 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 Massachusetts, universal access to paid sick days would prevent about 27,450 emergency department visits annually. These prevented visits would result in a health care cost reduction of about \$23.4 million (2011 dollars) annually, of which about \$13.8 million is currently paid by public insurance programs (Miller and Williams 2012).

Other Benefits to Measure when Data Needed Become Available

While data are currently lacking to calculate the economic impact of all the consequences of workers not having adequate paid sick days, 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. They include the following:

1. Additional impacts of presenteeism on employers and workers

a. Health care expenditures for workers who are sick longer because they 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.

b. Cost to employers of scheduling uncertainties

For example, costs resulting from workers calling in sick at the start of their shifts when they knew the previous day they would have to stay home with a sick child.

c. Improved morale and resultant productivity; impacts on co-workers and customers.

Enhanced worker loyalty and job satisfaction related to having adequate paid time off may translate into gains for employers through improved customer relations. In addition, “if ill health results in more accidents or increased errors, all who explicitly or even implicitly interact with unhealthy employees can become less productive” (Greenberg, Finkelstein, and Berndt 1995, 36).

2. Health and health care utilization impacts on family members when workers cannot provide care

Keeping children at home with contagious diseases like the flu can prevent illness and work absences among their schoolmates’ parents. Because “children are more susceptible to influenza, carry and spread the influenza virus over a longer period of time than adults, and are often the first to get the infection in the community” (King 2004), preventing children from being disease vectors in school and child-care settings can significantly reduce workplace absence and productivity effects among adults.

Children have better short- and long-term health outcomes when they are cared for by their parents (Palmer 1993) and hospital stays are shorter when parents are involved in care (Kristensson-Hallstrom, Elander, and Malmfors 1997). With increased flexibility in attending to sick children, paid sick days are likely to reduce treatment costs and overall length of illness.

Heart attack survivors who perceive that they receive adequate tangible 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 paid sick days 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.

3. Other impacts on families when workers cannot take time needed to provide care

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.

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). Paid sick days 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.

4. 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).

5. Reduced expenditures on public assistance

Workers who lose their jobs due to having inadequate paid sick days would be less reliant on public assistance. For instance, 8.7 percent of workers who take an FMLA-type leave and do not receive their full wages during the leave turn to public assistance for support (Cantor et al. 2001, Table A1-4.8).

6. 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.

7. The value of workers and their family members feeling better

Better health improves the quality of life for workers and their families.

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¹The costs and benefits of providing unpaid sick time are likely to differ from the costs and benefits of providing paid sick time. Because IWPR's analysis is dependent on analysis of paid wages, the current analysis considers only workers who would accrue new *paid* sick time, not those who would accrue *unpaid* sick time. It is likely, however, that employers with fewer than five employees will experience some costs of the implementation of the proposed policy, especially in the first year, as well as some benefits relating to reduced turnover and contagion.

²It 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.

³ While it is the clear intent of the paid sick days law that workers have a separate benefit of paid sick days, 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 paid sick days, 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 paid sick days.

⁴ State-level data are not available from the National Health Interview Survey.

⁵ This assumes that work-loss reported in the 2010 NHIS includes own medical needs only, excluding doctor visits. However, due to respondent discretion in interpreting the survey's questions, reported work-loss "because of illness or injury" may include time off work to care for others and for doctor visits, in addition to time for workers' recuperation. To the extent that this occurs, the estimates presented here of days taken under the paid sick days proposal may overestimate actual leave-taking.

⁶ This is consistent with online survey research finding that a substantial share of workers with paid vacation leave does not use their full allotment (35 percent; Expedia.com 2007).

⁷ This 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.

⁸ Other employer-provided benefits such as health insurance and paid holidays are typically costed 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.

⁹ This is the mean of six rates derived from data on three disease outbreaks.

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