

Cost-Benefit Analysis of a 3/5 Paid Sick Leave Proposal for Missouri: Summary



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September 2022



Missouri Foundation
for Health

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This summary is an excerpt from *Research on Paid Leave in Missouri (2022)*, outlining the costs and benefits of a 3/5 paid sick leave mandate. A 3/5 mandate would require small employers (those with less than 15 employees) to offer three days of paid leave and large employers (those with 15+ employees) to offer at least five days of paid sick leave to all employees. Click [here](#) to read the full report and see the full list of citations.

- The analysis indicates that while employers bear costs associated with paid sick leave mandates, cost-savings (benefits) also accrue through workplace improvements (e.g., reduced absenteeism, reduced health care costs due to employee influenza, reduced workers' compensation).
- Cost-savings also accrue to society through spillover effects including reduced flu prevalence among the population, fewer emergency room (ER) visits from delayed care, and low economic productivity associated with sick workers.
- Cost estimates to employers and society include the actual cost of covering paid sick leave and paid leave related to domestic violence, state administration and enforcement costs, and employer administration and compliance costs.
- Based on the cost-savings and cost estimates, the 3/5 scenario will generate net society-wide benefits in the amount of \$774,114,665 (cost-savings = \$1,262,338,602; costs = \$488,223,937) and employer-specific net benefits of \$3,987,514 (cost-savings = \$491,122,334; costs = \$487,134,820).

Background

Past research demonstrates favorable health and economic outcomes for workers with access to paid sick leave compared to workers without access. This brief summarizes findings from a cost-benefit analysis of one hypothetical statewide paid sick leave program for workers employed in Missouri. The cost-benefit analysis utilized the [U.S. Department of Labor Microsimulation Model on Worker Leave \(Worker PLUS\)](#) to estimate the society-wide and employer costs and benefits of a hypothetical paid sick leave program. Cost-benefit analysis of two additional hypothetical policy scenarios are presented in the full report (*Research on Paid Leave in Missouri, 2022*).

Approach to Cost-Benefit Analysis

The cost-benefit analysis reported below takes advantage of the new generation of research on paid leave by comparing outcomes under conditions of the presence or the absence of paid sick leave mandates. This research indicates that while employers bear costs associated with paid sick leave mandates, cost-savings (i.e., benefits) also accrue through workplace improvements. Cost-savings can

also accrue to society through spillover effects, for instance, by reducing flu prevalence among the population. Accordingly, the cost-benefit analysis conducted distinguishes between society-wide cost-benefits and employer cost-benefits.

Based on findings from research about paid sick leave mandates and Worker PLUS, we examined the following factors to estimate the **society-wide** and **employer benefits** of a paid sick leave mandate: worker absenteeism, presenteeism, and retention, workplace health, workers' compensation, worker emergency room utilization, and nursing home workplace conditions. The **society-wide** and **employer costs** estimated include the overall cost of new days of paid leave under the 3/5 policy scenario, the inclusion of addressing the health and legal issues related to domestic violence as a reason for paid leave, state government program administration and enforcement, and employer program administration and compliance.

To the extent possible, figures presented are from the year 2018 to align with the data used in Worker PLUS; all monetary amounts presented reflect 2018 dollars.

Population of Interest

The population of interest includes private-sector workers employed in Missouri of all wage rates, part-time and full-time workers, and all employer sizes, including workers who commute across state lines to work in Missouri. Those working for federal, state, and local government employers and self-employed workers are excluded.

Paid Sick Leave Policy Scenarios

Using existing state and local paid leave programs to inform hypothetical policies, we examined a paid leave mandate scenario referred to as "3/5." In the 3/5 scenario, small employers (those with less than 15 employees) are required to offer three days of paid leave and large employers (those with 15+ employees) are required to offer at least five days of paid sick leave to all employees. Cost-benefit analysis of two additional hypothetical policy scenarios (0/3 and 5/7; described below in Table 1) are presented in the full report.

Across all scenarios, the term *paid leave* reflects the terminology common across similar state and local policies. For this report, we focus specifically on **short-term paid leave** that is used for a variety of reasons, including the overall need for leave; need for leave for own-health reasons; and need for leave for an ill spouse, ill dependent, child bonding, and parental leave.

Worker PLUS Model

For extensive methodological detail about our utilization of Worker PLUS for the cost-benefit analysis, see the full report.

Summary of Cost-Benefit Analysis for a 3/5 Paid Leave Mandate in Missouri

As shown in Table 2, based on the cost-savings (i.e., benefits) and cost estimates examined, the 3/5 paid sick leave mandate would generate net society-wide and employer benefits.

The **society-wide** net benefits presented in Table 2 reflect the aggregate costs and benefits of the mandate, including those paid or earned by employers, workers, governments, and other third parties, such as nursing home residents. The **employer** net benefits in Table 2 reflect only the costs and benefits of the program accrued by employers.

Cost-Benefit Analysis Assumptions and Limitations

For an in-depth discussion of the assumptions and limitations of this cost-benefit analysis, please see the full report (click [here](#)).

Table 2: Summary of 3/5 Scenario Cost-Benefit Analysis		
	Society-Wide	Employer-Specific
Cost-Savings	3/5 Scenario	3/5 Scenario
a) Reduced absenteeism	\$325,363,241	\$325,363,241
b) Improved presenteeism	\$74,177,210	\$74,177,210
c) Reduction in turnover	\$37,185,520	\$37,185,520
d) Society-wide reduction in economic burden of influenza	\$762, 889,056	-
e) Employer reduction health care costs for employee flu	-	\$33,983,197
f) Reduction in workers' compensation costs ^a	\$47,418,231	\$20,200,166
g) Reduced ER visits	\$11,565,428	-
h) Improved nursing home care ^b	\$3,739,916	\$213,000
Costs	3/5 Scenario	3/5 Scenario
i) Paid sick leave	\$436,336,530	\$436,336,530
j) Paid domestic violence leave	\$37,566,933	\$37,566,933
k) State admin and enforcement	\$1,089,117	-
l) Employer admin and compliance	\$13,231,357	\$13,231,357
	Society-Wide Summary	Employer-Specific Summary
	3/5 Scenario	3/5 Scenario
Total cost-savings	\$1,262,338,602	\$491,122,334
Total costs	\$488,223,937	\$487,134,820
Net cost-benefit (cost-savings minus costs)	\$774,114,665	\$3,987,514

Note. Totals from component tables are rounded to the nearest dollar for the Summary.

^a Workers' Compensation: 42.6% of the reduction in workers compensation costs is credited to the employer only

^b Nursing Home: Employer uses reduction in violations and fines only

Predicted Benefits of a 3/5 Paid Leave Mandate in Missouri

a) Reduced Absenteeism

Reduced overall absenteeism is likely to occur if the mandate allows workers with contagious illnesses to stay home and, as a result, fewer illnesses occur for workers who would have also acquired the illness. Stearns and White (2018) conducted a study of absenteeism after paid sick leave mandates went into effect in Washington D.C. and Connecticut and found an 18% decrease in illness-related absenteeism; the current estimated cost is \$1,807,573,562 resulting in a *cost-savings* of **\$325,363,241**.¹

b) Employee Presenteeism

Presenteeism represents when employees are present, but unable to fully function due to illness². Sick workers tend to be less productive than healthy workers. A result of a 17% decline in overall productivity was found in a 2012 survey asking workers about their own productivity and presenteeism due to illness over a three-month period.³ To calculate the cost adjustment, we multiplied the loss of productivity (17%) by the cost of new days of sick leave under each proposed policy scenario. The resulting estimated *cost-savings* is **\$74,177,210** for the 3/5 mandate.

c) Reduced Turnover

Workers with access to paid sick leave are better able to address their own health needs and those of their family members without risking termination. A 2021 study looked at the effect of a paid leave mandate on turnover in Seattle and found a 4.7% reduction in turnover for employees making less than \$15 an hour in small firms (a workplace with four to 50 employees).⁴ To calculate the reduction in employer costs due to reduced turnover, we multiplied the payroll for Missouri employees who earn less than \$15.00 per hour at private firms with between four and 50 employees (\$3,697,108,788) by the cost of turnover (21.4%) by the reduction in turnover from paid sick leave access (4.7%). The resulting estimated *cost-savings* is **\$37,185,520**

d) Society-Wide Reduction in Economic Burden of Illness

A 2021 study that utilized C.D.C. Weekly U.S. Influenza Surveillance Report data indicated that city level mandates for paid sick leave reduced influenza like illnesses by 28% in ten states, including the District of Columbia.⁵ A 2018 study found that the median prevalence of flu cases from 2010 to 2016 was 8.3%.⁶ A more recent estimate of the annual economic burden of influenza in the United States found that costs per case are, on average, \$5,333, including health care costs and some indirect costs. Using the Missouri population (6,154,913) we calculated an estimated *society-wide cost-savings* of **\$762,889,056**.

e) Employer Reduction in Health Care Costs of Influenza Among Employees

Some employers pay a portion of their workers' health care costs. These costs will be reduced if paid sick leave results in fewer flu cases. A 2013 study estimated that the flu-related health care costs were \$454 per case, borne by employers through employer-sponsored healthcare plans.⁷ Using the same baseline flu prevalence and reduction after a hypothetical mandate goes into effect, we calculated the number of prevented cases of the flu among the 52.3% of Missourians with employer-sponsored health care plans.⁸ The resulting estimated *employer cost-savings* are **\$33,983,197**.

f) Reduced Workers' Compensation Costs

Workers with paid sick leave provided through a mandate are less frequently injured on the job than similar workers without paid sick leave.⁹ In 2018, workers employed in Missouri were paid \$967,719,000 in workers' compensation payments.¹⁰ Using the most conservative rate of decline in injuries from the Connecticut study (4.9%) we estimated the *society-wide cost-savings* from reduced workers' compensation payments to be **\$47,418,231**.

Employers also bear a share of the costs associated with workers' compensation payments through deductibles and direct payments for self-insured employers. According to Murphy et al, in 2018 these costs accounted for 42.6% of national workers' compensation benefits. On this basis, the 42.6% share of the reduction in workers' compensation costs calculated is credited as *employer cost-savings* in the estimated amount of **\$20,200,166**.

g) Reduction in Emergency Room Visits

According to a 2021 study of New York City's mandate, paid sick leave is associated with fewer trips to the emergency room among employed Medicaid participants between 40 and 60 years of age.¹¹ According to the Medical Expenditure Panel Survey (MEPS), the average cost of emergency department care is \$1,060 in 2018 dollars. The average cost of an office-based physician visit was \$281, indicating \$779 per-visit cost-savings from utilizing primary care settings for approximately 2,474,100 ER visits in Missouri in 2018 is a *society-wide cost-savings* of **\$11,565,428**.¹²

h) Improved Conditions in Nursing Homes

Improved quality of care in nursing homes associated with the introduction of paid leave programs may lead to a reduction in severe regulatory violations, as noted by Datta (2021). Investigative reporting by ProPublica calculates that nursing homes in the state of Missouri incurred \$8.52 million in fines over the course of three years based on reports obtained through the Freedom of Information Act.¹³ With a 7.5% reduction in nursing home violations due to paid sick leave policies, the *employer cost-savings* will be **\$213,000** per year.¹⁴

In nursing home workplaces without paid sick leave, residents may be especially vulnerable. A recent working paper from Michigan State University reported that paid sick leave mandates were associated with improvements in several indicators of nursing home quality, including a reduction in pressure ulcers, and fewer patients on psychotropic medications.¹⁵ According to Pappas (2008), medical care costs for pressure ulcer care and psychotropic drug administration are \$3,171 and \$1,712 respectively.¹⁶ With an estimated 12% reduction in pressure ulcer occurrence for the Missouri nursing population of 36,755, the estimated *society-wide cost-savings* is **\$1,538,325**.¹⁷ A 2010 study found that 63.2% of nursing home residents received psychotropic drugs annually, and an estimated 5% lower share of residents taking such medications in facilities with paid sick leave for workers results in the estimated *society-wide cost-savings* of **\$1,988,590**.¹⁸ The *total society-wide cost savings* (reduced pressure ulcers, reduced psychotropic drug administration and the above reduced nursing home violations of \$213,000) for improved nursing home care is **\$3,739,916**.

Costs of a 3/5 Paid Leave Mandate in Missouri

i) Cost of Paid Leave

The costs of paid leave simulated by the Worker PLUS model represent the wages paid by employers due to new, short-term leave-utilization by employees. Worker PLUS uses the 2018 American Community Survey (ACS) and 2018 Family and Medical Leave Act (FMLA) survey responses to predict leave-utilization under defined program conditions. The outputs of the model estimate the *additional* costs of new leave-utilization for employer payrolls. Our policy scenario focuses on Missouri private sector employers. Without a mandate, Missouri private sector employers currently pay an estimated \$3,215,321,829 in benefits for paid leave. Under the hypothetical 3/5 paid leave mandate, an additional 565,754 individuals will use an average of 4.78 days of paid leave, resulting in *employer costs* of an additional **\$436,336,530** in wages to cover short-term paid leave utilization.

j) Cost of Paid Leave to Address Domestic Violence-Related Issues

The National Intimate Partner and Sexual Violence Survey, conducted in 2010 by the Centers for Disease Control and Prevention, found that 6.8% of men and 18% of women had experienced intimate partner violence in the previous year.¹⁹ According to the same report, about 7.7% of female and 3.6% of male victims in the United States had used at least one day off work as a result of intimate partner violence in the previous year. Assuming that the rate of leave will double,²⁰ under the 3/5 policy scenario, the average paid benefit for a new leave-user is \$162 per day. According to Worker Plus, 2,929,867 workers in Missouri will be eligible for paid leave under a 3/5 mandate with 48.33% being female and 51.67% male. Under the 3/5 mandate, this calculation results in *employer costs* of **\$37,566,933**.

k) State Government Administrative Costs

The costs of administration and enforcement of a paid sick leave mandate in Missouri have been estimated in two reports prepared by the Department of Labor and Industrial Relations (DOLIR) to the state auditor. These reports estimated the costs to the state associated with enforcing mandates proposed in ballot language submitted by the labor-rights organization Jobs with Justice. In order to produce a conservative analysis, we relied on the estimate provided by the Missouri DOLIR and utilized the highest value of the three years for which the *state estimated* (i.e., *society-wide only*) costs are **\$1,089,117** in 2018 dollars.²¹

l) Employer Administrative Costs

Some employers will incur new administrative costs associated with the law based on the need to track the hours of paid leave their employees have earned and used. We use an estimate of the \$86 per-employer administration cost of the Families First Coronavirus Response Act (FFCRA) paid leave published by the U.S. Department of Labor's Bureau of Wages and Prices.²² The estimate of Missouri employers with 15 or more employees in 2018 is 55,883, therefore the *employer costs* for the 3/5 mandate are **\$13,231,357**.

References - Click [here](#) to read the full report and see the full list of citations.

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- ¹ Stearns, J., & White, C. (2018). Can paid sick leave mandates reduce leave-taking?. *Labour Economics*, 51, 227-246.
- ² Hemp, P. (2004, October). *Presenteeism – At work, but out of it*. The Harvard Business Review <https://hbr.org/2004/10/presenteeism-at-work-but-out-of-it>.
- ³ Robertson, I., Leach, D., Doerner, N., & Smeed, M. (2012). Poor health but not absent: Prevalence, predictors, and outcomes of presenteeism. *Journal of Occupational and Environmental Medicine*, 54(11), 1344-1349.
- ⁴ Wething, H. (2021). *Does paid sick leave affect job turnover?*. Washington Center for Equitable Growth. <https://equitablegrowth.org/working-papers/does-paid-sick-leave-affect-job-turnover/>.
- ⁵ Pichler, S., Wen, K., & Ziebarth, N. R. (2021). Positive health externalities of mandating paid sick leave. *Journal of Policy Analysis and Management*, 40(3), 715-743.
- ⁶ Tokars, J. I., Olsen, S. J., & Reed, C. (2018). Seasonal incidence of symptomatic influenza in the United States. *Clinical Infectious Diseases*, 66(10), 1511-1518.
- ⁷ Karve, S., Misurski, D., Meier, G., & Davis, K. L. (2013). Employer-incurred health care costs and productivity losses associated with influenza. *Human Vaccines & Immunotherapeutics*, 9(4), 841-857.
- ⁸ Kaiser Family Health Foundation. (2018). *Health Insurance Coverage of the Total Population*. <https://kff.org/other/state-indicator/total-population/?activeTab=map¤tTimeframe=1&selectedDistributions=employer&sortModel=%7B%22colld%22:%22Location%22,%22sort%22:%22asc%22%7D> accessed June, 2022.
- ⁹ Hawkins, D., & Zhu, J. (2019). Decline in the rate of occupational injuries and illnesses following the implementation of a paid sick leave law in Connecticut. *American Journal of Industrial Medicine*, 62(10), 859-873. <https://onlinelibrary-wiley-com.proxy.mul.missouri.edu/doi/10.1002/ajim.23028>.
- ¹⁰ National Safety Council. (2022). *Work-related incidence rate trends*. <https://web.archive.org/save/https://injuryfacts.nsc.org/work/industry-incidence-rates/work-related-incident-rate-trends/> accessed January 31, 2022.
- ¹¹ Ko, H., & Glied, S. A. (2021, May). Associations between a New York City paid sick leave mandate and health care utilization among medicaid beneficiaries in New York City and New York state. In *JAMA Health Forum* (Vol. 2, No. 5, pp. e210342-e210342). *American Medical Association*. https://www.researchgate.net/publication/351360059_Associations_Between_a_New_York_City_Paid_Sick_Leave_Mandate_and_Health_Care_Utilization_Among_Medicaid_Beneficiaries_in_New_York_City_and_New_York_State/link/6093ef97a6fdccaebd0ebd29/download
- ¹² Machlin, S. R., & Mitchell, E. M. (2018). Statistical brief # 517: Expenses for office-based physician visits by specialty and insurance type, 2016. *Agency for Healthcare Research and Quality*. https://meps.ahrq.gov/data_files/publications/st517/stat517.shtml.
- ¹³ Propublic (2021) Nursing home inspect. Accessed from <https://projects.propublica.org/nursing-homes/state/MO>. Accessed on March 24, 2022.
- ¹⁴ Datta, P. (2021). The impact of mandated paid sick leave laws on the long-term care industry. https://priyankardatta.net/uploads/Datta_JMP.pdf
- ¹⁵ Datta, P. (2021). The impact of mandated paid sick leave laws on the long-term care industry. https://priyankardatta.net/uploads/Datta_JMP.pdf
- ¹⁶ Pappas, S. H. (2008). The cost of nurse-sensitive adverse events. *JONA: The Journal of Nursing Administration*, 38(5), 230-236.
- ¹⁷ Park-Lee, E., & Caffrey, C. (2009, February). Pressure ulcers among nursing home residents; United States, 2004. *NCHS Data Brief*. <https://www-C.D.C.-gov.proxy.mul.missouri.edu/nchs/products/databriefs/db14.htm>.
- ¹⁸ Bhattacharjee, S., Karkare, S. U., Kamble, P., & Aparasu, R. R. (2010). Datapoints: Psychotropic drug utilization among elderly nursing home residents in the United States. *Psychiatric Services*, 61(7), 655-655. <https://ps.psychiatryonline.org/doi/10.1176/ps.2010.61.7.655>; Medicaid and CHIP Payment and Access Commission. (2015). Use of Psychotropic Medications among Medicaid Beneficiaries. In *Report to Congress on Medicaid and CHIP*. Accessed <https://www.macpac.gov/publication/june-2015-report-to-congress-on-medicaid-and-chip/> March 24, 2022.

¹⁹ Smith, S. G., Basile, K. C., Gilbert, L. K., Merrick, M. T., Patel, N., Walling, M., & Jain, A. (2017). national intimate partner and sexual violence survey (NISVS): 2010-2012 state report.

<https://web.archive.org/save/https://www.C.D.C.gov/violenceprevention/pdf/NISVS-StateReportBook.pdf>.

²⁰ Stanford, J. (2016). Economic aspects of paid domestic violence leave provisions. *Australia Policy Institute*.

https://web.archive.org/save/https://australiainstitute.org.au/wp-content/uploads/2020/12/Economic_Aspects_Domestic_Violence_Leave.pdf.

²¹ Congress, U. S. (2021). An overview of the economic outlook: 2021 to 2031. *Congressional Budget Office*.

²² Paid Leave Under the Families First Coronavirus Response Act; 85 FR 19326, March 2 2020.