

Awareness and use of (emergency) sick leave: US employees' unaddressed sick leave needs in a global pandemic

Journal Article**Author(s):**

Jelliffe, Emma; Pangburn, Paul; [Pichler, Stefan](#) ; Ziebarth, Nicolas R.

Publication date:

2021-07-20

Permanent link:

<https://doi.org/10.3929/ethz-b-000497745>

Rights / license:

[Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International](#)

Originally published in:

Proceedings of the National Academy of Sciences of the United States of America 118(29), <https://doi.org/10.1073/pnas.2107670118>



Awareness and use of (emergency) sick leave: US employees' unaddressed sick leave needs in a global pandemic

Emma Jelliffe^a, Paul Pangburn^a, Stefan Pichler^b, and Nicolas R. Ziebarth^{a,1}

^aDepartment of Policy Analysis and Management, Cornell University, Ithaca, NY 14853; and ^bDepartment of Management, Technology, and Economics, ETH Zurich, 8092 Zurich, Switzerland

Edited by Douglas S. Massey, Princeton University, Princeton, NJ, and approved June 3, 2021 (received for review April 26, 2021)

We study US sick leave use and unaddressed sick leave needs in the midst of the global severe acute respiratory syndrome coronavirus type 2 (SARS COV 2) pandemic based on a representative survey. More than half of all US employees are unaware of the new emergency sick leave options provided by the federal Families First Coronavirus Response Act (FFCRA). Awareness and take-up rates are significantly higher among Asian Americans and lower among the foreign-born. About 8 million employees used emergency sick leave in the first 6 to 8 mo. Nevertheless, the share of employees who needed but could not take paid sick leave tripled in the pandemic; unaddressed sick leave needs total 15 million employees per month and are 69% higher among women. Our findings show that access to paid sick leave significantly reduces unaddressed sick leave needs. We conclude that given the fragmented US sick leave landscape, to address the strong increase in unaddressed sick leave needs during the pandemic, federal FFCRA response was not adequate.

sick leave | presenteeism | unmet leave needs | infections | work conditions

In March of 2020 Congress passed the first federal sick leave provision in the history of the United States (1). The Families First Coronavirus Response Act (FFCRA) provides up to 2 wk of paid sick leave and family leave for COVID-19-related reasons for employees in firms with fewer than 500 employees (2). While estimates vary, about 60 million employees could use up to 2 wk of taxpayer-funded sick leave by the end of 2020. Extended through 30 March 2021, this one-time provision has now expired. However, the American Rescue Plan Act of 2021 renewed employer and employee eligibility for an additional 10 d of paid sick leave through 30 September 2021 (3).

This research studies awareness and take-up of FFCRA emergency sick leave in the general population. We also study how the share of employees who needed but could not take sick leave changed over time and during the pandemic. Further, we study who was at the highest risk of unaddressed sick leave needs. The United States is one of the few developed countries without universal sick leave coverage; working sick is an ongoing problem reinforcing the spread of COVID-19 (4–6). In line with previous studies, we show that access to paid sick leave reduces unaddressed sick leave needs (7–9).

Results

Fig. 1 shows predictors of sick leave access (Fig. 1, *Upper Left*), emergency sick leave awareness (Fig. 1, *Upper Right*), emergency sick leave take-up (Fig. 1, *Lower Left*), and unaddressed sick leave needs (Fig. 1, *Lower Right*) from a multivariate regression model. The circles represent point estimates and the horizontal lines 95% confidence intervals of a linear probability model (LPM) estimation of four binary outcomes on sociodemographic and labor market variables.

Fig. 1, *Upper Left* shows that US-born employees and those who self-identify as Asian have about 20 percentage points higher access rates to paid sick leave, whereas part-time employees have lower access rates.* The baseline rate was 75% in 2020. The same

pattern emerges when studying awareness of the emergency sick leave provision[†]: Asians show significantly higher awareness and those in part-time jobs and the foreign-born lower awareness. Average awareness rates lie around 45%, illustrating that the majority of employees have not heard of COVID-19 emergency sick leave.

Despite low awareness, 5.4% of all employees indicate having used federal emergency sick leave since April 2020. Applying this share to all 150 million US employees,[‡] around 8 million employees used FFCRA emergency sick leave in the first 6 to 8 mo. The finding is in line with research showing that gaining access to emergency sick leave reduced infection rates by about 15,000 per day in April and May (8). Fig. 1, *Lower Left* shows that Asians and US-born employees have taken up emergency sick leave at significantly higher rates.

Fig. 1, *Lower Right* shows predictors of unaddressed sick leave needs. Asians, US-born, and college graduates have lower rates, while women have a 6.6 percentage points higher unaddressed need for paid sick leave. This estimate is statistically significant at the 8% level and in line with findings of women being at elevated risk of working sick (5). As the baseline rate of unaddressed sick leave needs is 10.4%, women have a 69% higher risk of unaddressed sick leave needs. Note that the predictors of unaddressed sick leave needs correlate negatively with sick leave coverage (Fig. 1, *Upper Left*), suggesting a possible causal link.

We pool the representative Cornell National Social Survey 2020 (CNSS20) with the 2011 and 2017/2018 Leave Module of the representative American Time Use Survey (ATUS-Leave) to study changes in sick leave access and unaddressed sick leave needs over time. Since 2011, sick leave coverage has increased significantly from 64 to 75% in 2020 (10). The share of employees with unaddressed sick leave needs remained stable from 2011 to 2018.[§] During the pandemic, however, the share of employees with unaddressed sick leave needs tripled to about 10%, or 15 million employees per month.[¶]

Author contributions: E.J., P.P., S.P., and N.R.Z. designed research, performed research, analyzed data, and wrote the paper.

The authors declare no competing interest.

This open access article is distributed under [Creative Commons Attribution-NonCommercial-NoDerivatives License 4.0 \(CC BY-NC-ND\)](https://creativecommons.org/licenses/by-nc-nd/4.0/).

¹To whom correspondence may be addressed. Email: nrz2@cornell.edu.

Published July 12, 2021.

*In administrative and survey data, race is routinely self-reported. It is very unlikely that possible racial misreporting is correlated with our outcome, which could create biases in our regression models.

[†]"Have you ever heard of the bipartisan federal emergency sick leave law which allows employees to take sick leave for reasons related to the coronavirus?"

[‡]See https://www.bls.gov/news.release/archives/empsit_12042020.htm, retrieved 13 April 2021.

[§]In 2011, unaddressed needs were elicited for the past week, and later surveys for the past month.

[¶]"During the past 30 days, was there any time when you were sick and needed to take off from work but could not or did not?"

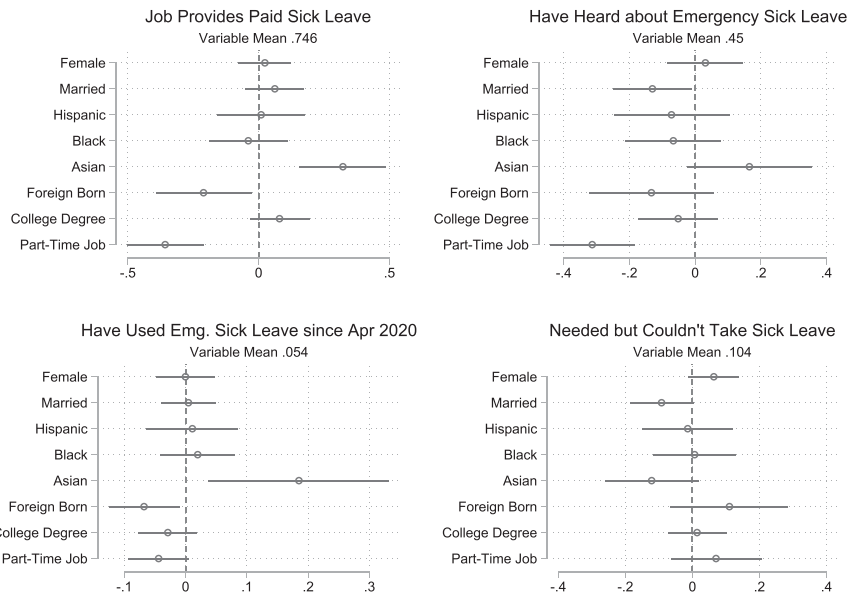


Fig. 1. Predictors of sick leave access, emergency sick leave knowledge and take-up, and unaddressed sick leave needs. The figure shows four multivariate LPM regressions of the outcome in the subtitles on the predictor variables displayed in each panel; horizontal lines represent 95% statistical confidence intervals. All regressions are weighted to ensure national representativeness.

Next, we use the pooled sample and an instrumental variable (IV) strategy to instrument access to paid sick leave using state fixed effects. States have significant leeway in how they communicate and implement federal regulation and enacted state-level sick pay mandates. If the (untestable) identifying assumptions—the instrument must be a strong predictor of coverage (“first stage”) and the effect on outcomes should only operate through the coverage effect—are met, the estimates yield the causal impact of sick leave access on unaddressed sick leave needs. The hypothesized relationship is negative. Columns 1 and 2 of Table 1 show that access to paid sick leave significantly reduces unaddressed sick leave needs by 17 to 19 percentage points.

Discussion

Although access to paid sick leave has increased from 64 to 75% from 2011 to 2020, it is far from universal in the United States. Employees in the low-wage and service sector and part-time employees have significantly lower coverage rates (10). Access to sick

leave induces take-up and reduces flu and COVID-19 infection rates (6–9).

This research studies awareness and take-up of the first federal US sick leave provision amid the COVID-19 pandemic. Fewer than half of all employees are aware of the law, suggesting much room for outreach effort. Awareness and take-up rates are significantly higher among Asians and lower among the foreign-born. An estimated 8 million used FFCRA emergency sick leave between April and December of 2020.

Nevertheless, the share of unaddressed sick leave needs tripled in the pandemic to 15 million employees per month, suggesting inadequate access and generosity of paid sick leave among American employees. Women and the foreign-born are at significantly elevated risk of working sick, and women’s risk is 69% higher than men’s. This is consistent with analyses according to which the government’s safety net response to the pandemic was inadequate (11). Government-provided or -facilitated access to paid sick leave has the potential to significantly reduce unaddressed sick leave needs, reduce infection rates, and improve population health.

Table 1. Access to paid sick leave and unaddressed sick leave needs

	Needed but could not take sick leave		Job provides paid sick leave (first stage)	
	(1)	(2)	(3)	(4)
Job provides paid sick leave (instrumented variable)	−0.167*	−0.185**		
	[0.0829]	[0.0838]		
Female	0.0297***	0.0291***	0.0131	0.0119
	[0.00889]	[0.00870]	[0.0127]	[0.0127]
Age	0.00108	0.00187	0.0120***	0.0128***
	[0.00217]	[0.00219]	[0.00304]	[0.00303]
Age squared	−0.0000121	−0.0000231	−0.000115***	−0.000126***
	[0.0000224]	[0.0000229]	[0.0000339]	[0.0000338]
Constant	0.127**	0.0966*	0.379***	0.319***
	[0.0526]	[0.0476]	[0.0780]	[0.0777]
N	14,812	14,812	14,812	14,812

Robust SEs in brackets. * $P < 0.10$, ** $P < 0.05$, *** $P < 0.01$. Instruments for columns 3 and 4 are 50 state fixed effects. The first-stage F values are 61.43 in column 3 and 60.91 in column 4. Regressions also control for variables shown in Fig. 1 and year fixed effects (even columns).

Materials and Methods

Designed after ATUS-Leave (12), through the Cornell Institute for Social and Economic Research, we fielded a nationally representative survey from 6 October to 7 December 2020, using a telephone survey with dual frame random digit dial and cell phone sampling (13). We restrict the analysis to current employees ($n = 371$).

Our first approach focuses on CNSS20 and runs multivariate LPMs (14) to identify significant predictors of four outcome measures. Using ATUS-Leave pooled with CNSS20 we study unaddressed sick leave needs before and during the pandemic.

Our second approach uses an IV strategy (14) to estimate the effect of paid sick leave on unaddressed leave needs. We instrument access using variation

across states in the implementation of both state-level sick pay mandates and the federal FFCRA provisions. We weight all models to ensure national representativeness (15). Users may access the data, protocols, and code by contacting the corresponding author. CNSS20 obtained Institutional Review Board approval from Cornell University (1402004459).

Data Availability. Survey data have been deposited in the Cornell Institute for Social and Economic Research (<https://archive.ciser.cornell.edu/studies/2854>).

ACKNOWLEDGMENTS. We gratefully acknowledge support from the Cornell Center for the Study of Inequality and the Center for Equitable Growth.

1. US House of Representatives, Bill 6201, Families First Coronavirus Response Act, 116th Congress (2019-2020). <https://www.congress.gov/bill/116th-congress/house-bill/6201>. Accessed 7 March 2021.
2. US Department of Labor, Families First Coronavirus Response Act: Employer paid leave requirements. <https://www.dol.gov/agencies/whd/pandemic/ffcra-employer-paid-leave>. Accessed 7 March 2021.
3. Congressional Budget Office, Payroll tax credit for COVID-19 sick and family leave, Congressional Research Service, updated 1 April 2021. <https://www.everycrsreport.com/reports/R4611739.html>. Accessed 13 April 2021.
4. J. Heymann *et al.*, Protecting health during COVID-19 and beyond: A global examination of paid sick leave design in 193 countries. *Glob. Public Health* **15**, 925–934 (2020).
5. P. Susser, N. R. Ziebarth, Profiling the US sick leave landscape: Presenteeism among females. *Health Serv. Res.* **51**, 2305–2317 (2016).
6. OECD, Paid sick leave to protect income, health and jobs through the COVID-19 crisis. https://read.oecd-ilibrary.org/view/?ref=134_134797-9iq8w1fnju&title=Paid-sick-leave-to-protect-income-health-and-jobs-through-the-COVID-19-crisis. Accessed 13 April 2021.
7. K. Piper, A. Youk, A. E. James III, S. Kumar, Paid sick days and stay-at-home behavior for influenza. *PLoS One* **12**, e0170698 (2017).
8. S. Pichler, K. Wen, N. R. Ziebarth, COVID-19 emergency sick leave has helped flatten the curve in the United States. *Health Aff. (Millwood)* **39**, 2197–2204 (2020).
9. S. Pichler, K. Wen, N. R. Ziebarth, Positive health externalities of mandating paid sick leave. *J. Policy Anal. Manage.*, 10.1002/pam.22284 (2021).
10. C. Maclean, S. Pichler, N. R. Ziebarth, “Mandated sick pay: Coverage, utilization and welfare effects” (NBER Working Paper No. 26832, National Bureau of Economic Research, Cambridge, MA, 2020).
11. R. A. Moffitt, J. P. Ziliak, COVID-19 and the US safety net. *Fisc. Stud.* **41**, 515–548 (2020).
12. Bureau of Labor Statistics, American Time Use Survey user’s guide: Understanding ATUS 2003 to 2019. <https://www.bls.gov/tus/atususersguide.pdf>. Accessed 13 April 2021.
13. The Survey Research Institute of Cornell University, Data from “Cornell National Social Survey.” <https://sri.cornell.edu/sri/polls/cnss.cfm>. Deposited 18 December 2020.
14. P. Deb, E. C. Norton, W. G. Manning, *Health Econometrics Using Stata* (Stata Press, ed. 1, 2017).
15. G. Solon, S. Haider, J. M. Wooldridge, What are we weighting for? *J. Hum. Resour.* **50**, 301–316 (2015).