

Minimum Wages and the Health of Immigrants' Children

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Abstract

States are increasingly resorting to raising the minimum wage to boost the earnings of those at the bottom of the income distribution. In this paper, we examine the effects of minimum wage increases on the health of immigrants' children. Their parents are disproportionately represented in minimum wage jobs and are a growing part of the U.S. labor force. Using a difference-in-differences identification strategy and data from the National Health Interview Survey from 2000 - 2015, we examine whether children of low-educated immigrants experience any changes in their health when the minimum wage increases. We find no evidence that this is the case despite a number of robustness checks.

Immigrants comprise 13.5 percent of the US population and nearly 45 percent are of Hispanic or Latino origin. Children of immigrants are one of the fastest growing segments of the US population, accounting for 1 in 4 children in the US, and are overwhelmingly US citizens.¹

Immigrants' children are disproportionately represented among the poor as their parents are more likely to lack a high school diploma and earn minimum wages as compared to the children of native-born parents.² The rhetoric regarding minimum wage increases is that they can cure many social problems (e.g. Desmond, 2019 and Van Dam, 2019). This media attention is based, in part, on an increasing amount of academic research on the effects of minimum wages on health-related outcomes (e.g. Averett et al., 2018, 2019; Horn et al., 2017; Lenhart, 2017). Yet, we know surprisingly little about their potential effects on the health of minimum wage earners' children (one exception is Wehby et al. (2020) who show a positive effect of minimum wages on birthweights; relatedly, Regmi (2020) examines the effect of minimum wages on children's cognitive ability), although the impact of child health on later life outcomes has been well documented (e.g. Currie and Rossin-Slater, 2015). In addition, as Perreira and Pedroza (2019, p.156) write, one way to view immigrants is that they are "Americans in waiting" with the

¹ Data from the Migration Policy Institute.

² http://www.nccp.org/media/releases/release_1.html.

potential to contribute to economic growth by joining the labor force. Our interest here is on the effect of minimum wages on the health of immigrant children.³

How Does the Minimum Wage Work?

Immigrants earn higher wages after minimum wage increases (Orrenius and Zavodny, 2008; Churchill and Sabia, 2019) and a large literature demonstrates that family income affects children's health (e.g., Case et al., 2002). However, little is known about the mechanisms through which minimum wages affect children's health. Hill and Romich (2018) trace out three pathways of influence from minimum wage changes to health: income increases, changes in parental time and routines, and changing parental stress and parenting practices. For example, if parents are working more they may feel additional stress and children may need to spend additional time in child care. When parents' time with children falls and parental stress increases, parenting styles can change which could lead to adverse health issues with children that include illness and injury, effects on child's cognitive development and behaviors. Yet, when family income goes up, parents have access to higher quality food, housing, child care and medical care. As Lehigh (2016) notes, higher wages can improve psychological well-being and job satisfaction, increase the opportunity cost of engaging in unhealthy habits, and expand the ability to delay gratification. Schmit et al. (2014) point out the importance of a comprehensive set of labor policies including the minimum wage as being essential for supporting working parents and their children. They note in particular the importance of stable child care arrangements to support children's development.

³ We focus on health outcomes and not access to care due to the complexity surrounding the eligibility of immigrants for public health insurance programs and the possibility that parents may adjust their labor supply to maintain eligibility.

Partially due to the complex mechanisms through which increases in minimum wage affect children's health, the number of studies focusing on this effect is small and no attention has been given to children of immigrants. Our study will contribute to this literature and provide the first empirical evidence on the effects of minimum wages on the health of children of minimum wage-earning immigrants.

Data and Estimation

To examine the effect of minimum wages on the health of immigrant children, we use a difference-in-differences identification strategy and data from the nationally representative National Health Interview Survey (NHIS) from 2000-2015 to examine the effects of minimum wage increases (collected from the January edition of the Monthly Labor Review) on the health of the children of low-educated working immigrants. We calculate the real minimum wage as the greater of the state minimum wage (if one exists) or the federal minimum wage deflated by CPI-U (1982-1984). We show the time-series variation in the mean and median minimum wage for the US as well as state-level variation over time in appendix figures 1 and 2.

To identify immigrants' children (ages 0 -17), we use the nativity status of their household head.⁴ We focus on children living in households where the head --- who has a high school diploma or less and thus is most likely to earn the minimum wage --- is employed, to distinguish the potential dis-employment effects of minimum wage increases on health.⁵

We use several measures of child health: parental report of child self-rated health as an overall measure of health and the incidence of headaches, diarrhea, ear infections and colds that

⁴ For over 90 percent of the children in our sample, the household head is their parent. In the majority of the remaining cases, the head is a grandparent. We thus refer to the head as a parent.

⁵ We test whether minimum wages affect the probability of being in our sample by regressing the probability of sample inclusion on the minimum wage and our covariates. We find no evidence of conditional on positive (COP) bias.

can be affected by childcare, housing quality and parental stress. Finally, we include use of the emergency room on the assumption that as incomes increase these visits may decrease.

Following the literature (e.g., Horn et al., 2017; Averett et al., 2018), we estimate the following equation:

$$(1) \quad y_{ist} = \alpha + \gamma_1 MW_{st} + \gamma_2 Z_{it} + \gamma_3 X_{st} + \theta_s + \tau_t + \varepsilon_{ist}$$

where y_{ist} refers to the health outcomes for child i , residing in state s at year t ; MW_{st} is the minimum wage; Z_{it} are individual controls; X_{st} are state-specific time-varying economic and policy controls that may be correlated with minimum wages and health. θ_s and τ_t are state and year fixed-effects and ε_{ist} is an error term.⁶

Results

Calculated sample means by parental nativity status shown in table 1 indicate differences in children's health outcomes and demographics. The majority of the children in the sample are US citizens.

Table 2 presents the results from estimating equation 1 and shows no effect of the minimum wage on any of our health outcomes.⁷ We further 1) run a DDD model to difference out unobserved state and year effects which could affect both minimum wages and the health of immigrants' children with highly-educated immigrants serving as the third difference, 2) add a control for health insurance, 3) use the ratio of the minimum wage to the state's average wage to better capture the purchasing power of the minimum wage, 4) limit our sample to families where both parents are low-educated, 5) limit our sample to children of Hispanic parents⁸ to test

⁶ The state-level control variables are listed in appendix table 1 with their means.

⁷ An appendix provides a summary of all the results discussed in this section that are not shown.

⁸ This group is often thought of as likely unauthorized according to Amuedo-Dorantes and Bansak (2012).

whether the results are stronger for Hispanic parents as they are particularly likely to earn minimum wages and 6) use the lagged minimum wage to capture health changes that may evolve over time.⁹ The results are consistent across specifications/samples.

This null effect could be possible if increases in minimum wages actually improve the health of immigrants' children and parents with children in poor health migrate to higher minimum wages states thus diluting the effects of a positive relationship between the minimum wage and health. To test this possibility, we regress the share of low-educated working immigrants in a state on the lag of the minimum wage and our full set of covariates and find no support for this hypothesis.¹⁰

There are few scattered significant results in our regressions (Table 2 and appendix tables), so we conduct a Bonferroni-style test (Bland, 2015). The result of this test indicates that we cannot reject the null hypothesis that the few significant results occur by chance given the large sample size and the large number of regressions.

Conclusion

Policy makers, the popular press and even consulting firms have called for higher minimum wages touting the positive effects of increased minimum wages on health. However, economic research has not consistently drawn this same conclusion. Aside from fairly convincing evidence that higher minimum wages reduce smoking, the evidence about the effect of higher minimum wages on health outcomes seems inconsistent at best (Lehigh et al. 2019). Our analysis contributes to the literature that finds limited or no effects of increasing the

⁹ We also test the robustness of our estimates by 1) dropping some state-level controls which could potentially be affected by the minimum wage, 2) creating a health index of last 5 health outcomes, 3) dropping states with samples of less than 50, and 4) dropping the four states with the largest immigrant populations. We find no effects in these specifications which are available from the authors upon request.

¹⁰ These results are also in our appendix.

minimum wage on health and examines a previously unexamined population. Raising the minimum wage may be good policy for a variety of reasons, but expecting it to improve immigrant children's health appears to be asking too much.

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Table 1: Weighted Sample Means, Outcome variables and Child level variables, Low-educated parents by nativity status

	Parent native		Parent foreign born		Parent naturalized		Parent noncitizen	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
<i>Health outcomes variables:</i>								
Health is very good/excellent	.809	(.003)	.741	(.005)	.775	(.007)	.725	(.006)
Health is fair/poor	.018	(.001)	.023	(.001)	.017	(.002)	.026	(.002)
# of times in ER past year	.147	(.003)	.109	(.003)	.093	(.005)	.117	(.004)
Had three or more ear infections	.060	(.002)	.048	(.002)	.039	(.003)	.052	(.003)
Frequent or severe headaches	.069	(.002)	.045	(.002)	.042	(.003)	.046	(.003)
Had frequent diarrhea last year	.014	(.001)	.011	(.001)	.008	(.001)	.013	(.001)
Had a cold last two weeks	.173	(.003)	.137	(.003)	.127	(.006)	.143	(.004)
Had stomach problems/diarrhea last two weeks	.056	(.002)	.041	(.002)	.040	(.003)	.042	(.002)
<i>Child control variables</i>								
Age years	8.94	(.032)	8.609	(.037)	9.348	(.065)	8.252	(.044)
Household head married	.606	(.004)	.701	(.005)	.748	(.008)	.679	(.006)
Family size	4.375	(.017)	5.027	(.023)	4.919	(.037)	5.079	(.027)
Male	.509	(.002)	.514	(.003)	.518	(.006)	.511	(.003)
Black	.199	(.005)	.065	(.003)	.099	(.006)	.047	(.003)
Hispanic	.146	(.003)	.779	(.006)	.611	(.010)	.860	(.005)
Citizen	.998	(.000)	.858	(.003)	.968	(.002)	.805	(.003)
Sample Size	55363		34409		10451		23958	

Notes: Nativity status refers to the household head, who is usually a parent.

Table 2: Effects of minimum wages on child health

Parent nativity		Health=1 if exc/vg	Health=1 if fair/poor	# times ER last year	had 3 or more ear infections	frequent or severe headaches	had freq diarrhea last year	had a cold past two weeks	stomach prblm/diarrhea past two weeks
Native N=55363	Real min. wage	-0.0180	0.00288	-0.0200	-0.0147	0.00571	-0.00268	0.0312	0.000557
		(-0.91)	(0.50)	(-1.14)	(-1.25)	(0.38)	(-0.54)	(1.59)	(0.05)
Foreign born N=34409	Real min. wage	-0.0384	0.0108	0.0210	0.0156	0.0134	-0.00637	0.0261	0.0102
		(-1.29)	(1.01)	(1.00)	(1.15)	(0.80)	(-1.10)	(1.20)	(0.76)
Naturalized N=10451	Real min. wage	-0.0110	0.00963	0.0415	-0.0130	0.0231	0.00275	0.00669	0.00787
		(-0.22)	(0.57)	(1.24)	(-0.61)	(0.90)	(0.38)	(0.17)	(0.35)
Non-citizen N=23958	Real min. wage	-0.0594	0.0110	0.0153	0.0330*	0.0113	-0.0108	0.0407	0.0105
		(-1.62)	(0.80)	(0.56)	(2.03)	(0.54)	(-1.34)	(1.50)	(0.65)

t statistics in parentheses. All models include full set of covariates and state and year fixed effects. All models are estimated using OLS and Stata's svy program to account for complex survey design. *** p<0.001, ** p<0.01, * p<0.05. Observations refer to the full unweighted sample size. Actual observations may vary by outcome.