



Part-time work and health in the United States: The role of state policies

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ABSTRACT

Part-time work is a common work arrangement in the United States that can be precarious, insecure, and lacking opportunities for advancement. In turn, part-time work, especially involuntary part-time work, tends to be associated with worse health outcomes. Although prior research documents heterogeneity in the health consequences of precarious work across countries, we do not know whether state-level institutional contexts shape the association between part-time work and self-rated health in the United States. Using data from the Current Population Survey (2009–2019; $n = 813,077$), the present study examined whether linkages between part-time work and self-rated health are moderated by state-level social policies and contexts. At the population level, we document differences in the prevalence of fair/poor health among part-time workers across states. For instance, 21% of involuntary part-time workers reported fair/poor health in West Virginia compared to 7% of involuntary part-time workers in Massachusetts. Findings also provide evidence that voluntary ($\beta = .51$) and involuntary ($\beta = .57$) part-time work is associated with greater odds of fair/poor health among individuals. Moreover, the association between voluntary part-time work and self-rated health is weaker for individuals living in states with higher amounts for maximum unemployment insurance, higher minimum wage, and lower income inequality. State-level policies did not moderate the association between involuntary part-time work and health. The present study points to the need to mitigate the health consequences of part-time work with social policies that enhance the health of workers.

Part-time work is common in the United States, consistently comprising nearly 20% of workers for the past three decades (Dunn, 2018; Kalleberg, 2000). While workers may choose to maintain a part-time status due to family or health obligations (i.e., voluntary part-time work), some workers would prefer full-time work but confront a lack of demand for full-time workers (i.e., involuntary part-time work). The prevalence of part-time work is concerning because it can be insecure, stigmatizing, lacking social benefits, and have little opportunity for promotions and advancement (Epstein, Seron, Oglensky, & Sauté, 1999; Kalleberg, 2018). In this sense, part-time work, especially when it is involuntary, is a form of precarious work – work that is insecure, unstable, and uncertain (e.g., Kalleberg, 2018) – that can be detrimental for workers. Indeed, part-time workers, particularly those in involuntary or contract positions, often experience worse mental health (Kim, Muntaner, Khang, Paek, & Cho, 2006; Santin, Cohidon, Goldberg, & Imbernon, 2009), worse self-rated health (Kim, Khang, Muntaner, Chun, & Cho, 2008), and higher rates of smoking and drinking (Rosenthal, Carroll-Scott, Earnshaw, Santilli, & Ickovics, 2012) compared to full-time workers. The health consequences of part-time work, however,

likely depend on the institutional context. For instance, prior comparative research documents that country-level differences in social policies, regulatory protections, and labor rights differentially affect the health of workers in insecure or unstable positions (Barlow, Reeves, McKee, & Stuckler, 2019; Kalleberg, 2018; Kim et al., 2012). Although prior research demonstrates heterogeneity in the effects of part-time work across countries, we lack understanding of how state-level institutional contexts in the United States impact the health consequences of part-time work.

The present study, therefore, uses data from the Current Population Survey (2009–2019) to examine how the association between part-time work and self-rated health varies across state-level institutional contexts in the United States. Social and economic policies vary considerably across states in ways that differentially affect the health and longevity of residents (Montez, 2017, 2020). That is, some states invest in their citizens' health by implementing policies that promote access to medical care, improve economic well-being, discourage risky health behaviors, and protect civil rights, whereas other states lack generous social policies, and their citizens consequently experience worse health and live

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shorter lives (Montez et al., 2020; Montez & Farina, 2021). Guided by the stress process model (Pearlin et al., 1981; Pearlin, Schieman, Fazio, & Meersman, 2005) and a socioecological framework of health (Montez, 2020), we suggest that state policies and contexts can ameliorate the adverse health outcomes of part-time work. We ask two specific research questions: 1) Do disparities in self-rated health by part-time work status vary across states? 2) At the individual level, how do state institutional contexts weaken or exacerbate the association between part-time work and self-rated health?

Addressing these questions is important in light of a steady rise in precarious work (Fullerton & Wallace, 2007; Kalleberg, 2018) alongside declining population health for non-elderly populations (Grol-Prokopczyk, 2017; Martin & Schoeni, 2014; Masters, Tilstra, & Simon, 2018; Zajacova & Montez, 2018). Moreover, involuntary part-time work is increasingly common in the United States and often spikes during recessions (Canon, Kudlyak, Luo, & Reed, 2014; Valletta & van der List, 2015). As such, the recent recession stemming from the COVID-19 pandemic could result in another spike in the prevalence of involuntary part-time work, with consequences for population health. The present study contributes to prior research on work and health by considering how state contexts in the United States may shape the health consequences of part-time work. By examining specific state-level policies, we aim to improve understanding of how state policies protect or harm the health of citizens who are working in part-time positions. We suggest that state-level social policies, or the lack thereof, have the potential to make certain work arrangements more precarious and health-harming for workers.

1. Background

The standard employment relationship – the employment contract of the post-World War II era defined by stable employment and long-term job security – is increasingly uncommon (Kalleberg, 2018; Katz & Krueger, 2016). Instead, nonstandard work arrangements such as part-time work are becoming more normative in the United States. Part-time work is relatively common in the United States, with 17–20% of workers in part-time positions in recent years (Dunn, 2018; Valletta & van der List, 2015). Although most part-time workers are considered voluntary – involuntary part-time workers comprise only 3–4% of all workers (Valletta & van der List, 2015) – measures of the prevalence of involuntary part-time work may underestimate the true proportion of involuntary part-time workers. That is, workers who forego full-time employment due to constraints related to childcare availability or family obligations are categorized as voluntary part-time workers by the U. S. Bureau of Labor Statistics, even though these workers may prefer full-time work. Regardless, trends in involuntary part-time work are concerning with a steady rise over the 21st century, including higher than predicted rates since the Great Recession (Canon et al., 2014; Valletta & van der List, 2015). Some scholars note that employers use part-time workers to avoid the labor costs associated with providing health insurance, especially after passage of the Affordable Care Act which mandated employer-provided health insurance to full-time employees (Even & Macpherson, 2019; Houseman, 2001). Indeed, Even and Macpherson (2019) find that one third of the involuntary part time labor force in 2015 was attributed to the implementation of the Affordable Care Act mandate. Taken together, the increasingly large share of part-time workers in the United States points to the need to understand the health and well-being of these workers.

Part-time work, especially involuntary part-time work, can be a precarious, nonstandard work arrangement (e.g., Kalleberg, 2018; Peckham, Fujishiro, Hajat, Flaherty, & Seixas, 2019). Because of this precarity, part-time workers often experience worse health compared to full-time workers (Dooley, Prause, & Ham-Rowbottom, 2000; Kim et al., 2006; Mousteri, Daly, & Delaney, 2020; Rodriguez, 2002; Rosenthal et al., 2012; Santin et al., 2009). However, the association between part-time work and health is complex and not fully understood. For

example, prior research often finds that involuntary, but not voluntary, part-time workers report more depressive symptoms (Santin et al., 2009), worse self-concept (Friedland & Price, 2003), and worse self-rated health (Rodriguez, 2002) compared to full-time workers. As such, we consider the health outcomes of voluntary and involuntary part-time workers separately in the present study. Moreover, understandings of the health consequences of precarious work can be compromised when studies cannot account for selection issues, such as the selection of unhealthy workers into part-time work. However, longitudinal studies that account for baseline health status and document changes in work and health prospectively find support for the adverse effects of involuntary part-time work on psychological distress (Dooley et al., 2000; Mousteri et al., 2020), self-concept (Friedland & Price, 2003), and self-rated health (Rodriguez, 2002).

Part-time work likely undermines health for several reasons. First, part-time work typically lacks adequate economic and social benefits and may involve material deprivation that compromises mental and physical health (Benach, Vives, Tarafa, Delclos, & Muntaner, 2016; Peckham et al., 2019; Scott-Marshall & Tompa, 2011). For example, involuntary part-time workers earn about 20% less than full-time workers and about 10% less than voluntary part-time workers (Canon et al., 2014). Second, unpredictability in work hours is common in part-time jobs (Gerstel & Clawson, 2018; Lambert, Fugiel, & Henly, 2014; McCrate, 2012) and can be particularly disruptive for workers. Third, the insecurity and instability stemming from part-time work, especially involuntary part-time work, has the potential to be stressful for workers, and stress responses can undermine health. For example, involuntary part-time workers report more depressive symptoms compared to workers in full-time positions (Kim et al., 2006; Mousteri et al., 2020; Santin et al., 2009) and these psychological responses likely undermine health over time. Moreover, individuals often respond to stress with health-harming behaviors (Umberson, Liu, & Reczek, 2008). One study found that part-time workers were more likely to report cigarette smoking and alcohol consumption compared to full-time workers, and stress significantly mediated these associations (Rosenthal et al., 2012). Moreover, stress can have significant consequences for health when one stressor (e.g., involuntary part-time work) gives rise to additional stressors over time (e.g., economic hardship, family conflict) – a process of stress proliferation (Pearlin, Menaghan, Lieberman, & Mullan, 1981). Taken together, these intersecting stress responses, low wages, and lack of social benefits likely take a cumulative toll on health.

On the other hand, some scholars note that (voluntary) part-time work may confer benefits that improve health and well-being. For example, if part-time jobs provide more schedule flexibility to workers, that flexibility can improve life satisfaction, happiness, and well-being (e.g., Carlson, Grzywacz, & Kacmar, 2010; Golden, Henly, & Lambert, 2013; Kim, Henly, Golden, & Lambert, 2020), perhaps because flexibility can be an important resource to reduce work-family conflict and stress (e.g., Beham, Präg, & Drobnič, 2012; Carlson et al., 2010). High quality part-time work may also be a good form of employment for groups with lower levels of labor force participation, such as women with young children (Fagan, Norman, Smith, & Menéndez, 2014). However, it is unclear whether the benefits of part-time work can offset the many shortcomings of part-time work. Even the benefits of workplace flexibility are debated, as flexibility often transfers risk from employers to workers (e.g., Lambert, 2008) or results in the blurring of work and family boundaries to the disadvantage of women more than men (e.g., Kim et al., 2020). Moreover, part-time work can be especially detrimental when organizations and governments lack policies to improve the quality and security of part-time work.

While prior research documents robust associations of part-time work with numerous health outcomes, we do not know how the health consequences of part-time work vary across state-level institutional contexts in the United States. Kalleberg (2018) argues that the consequences of nonstandard work are often amplified in the United States because of a deficiency of policies that support unemployed and

precariously employed workers. This perspective aligns with Beckfield et al., 2015 institutional theory of health inequalities, which argues that the welfare state is an institutional arrangement that distributes health. Taken together, these frameworks suggest that the health consequences of precarious work are likely contingent on the policy environment. Indeed, scholars note that the health consequences of work contracts, work quality, and unemployment often differ across countries based on the institutional environment (Barlow et al., 2019; Bartoll, Cortes, & Artazcoz, 2014; Kalleberg, 2018; Kim et al., 2012). For example, part-time workers in Scandinavian welfare states report similar health when compared with their permanent, full-time counterparts (Kim et al., 2012). While prior research considers the implications of country-level differences in institutional contexts, we apply this conceptual framework to the state level, suggesting that the institutional context will shape experiences of part-time work – a consideration that has not been addressed in prior research.

The health consequences of part-time work may differ across states in the United States because of vastly different policy contexts. Due to the deregulation of industries, devolution of power from the federal government to states, and state preemption laws, social and economic policies vary considerably across states in ways that differentially affect health (Montez, 2017; Montez et al., 2020). Additionally, increased political polarization leads to clustering of social welfare policies across states and growing geographic inequities in health and mortality (e.g., Montez et al., 2020; Montez & Farina, 2021). Although an emerging body of research documents variation in health across the United States, less is known about how state-level policies exacerbate or ameliorate the health consequences of work-related experiences. The present study aims to understand the importance of state policies for the health of part-time workers.

We hypothesize that specific state-level policies have the potential to weaken adverse health responses to part-time work. For example, working in a part-time position may require increased reliance on existing social safety nets if a part-time contract does not include health insurance or contributes to financial insecurity due to inadequate wages. As a result, state-level policies that provide tangible benefits to workers may reduce the adverse health outcomes that tend to accompany part-time work. Part-time work, then, may have less deleterious effects on health for workers living in a state with generous social policies compared to workers who live in states with limited social protections. Indeed, recent research finds that the mental health consequences of the loss of employment income are weaker for adults living in states with more supportive policies related to Medicaid and unemployment insurance (Donnelly & Farina, 2021). By harnessing the massive state-level variation in the U.S., the present study will begin to identify state contexts that weaken or exacerbate the health consequences of part-time work.

Moreover, previous research suggests that state contexts are especially important for the health of adults with less education, and to some extent women (Montez et al., 2017, 2019). That is, adults with limited financial resources will experience better health in states that offer more supportive policies and require less reliance on individual resources. Because adults with less education and women are more likely to work in part-time jobs (Canon et al., 2014; Dunn, 2018; Pech, Klainot-Hess, & Norris, 2020), state policies may be especially salient for part-time workers. Taken together, part-time work may be more detrimental for the health of adults living in states with the least supportive social policies compared to adults in states with more supportive political environments. The present study uses nationally representative data to answer two specific research questions:

- 1) Do disparities in self-rated health by part-time work status vary across states?
- 2) At the individual level, how do state institutional contexts weaken or exacerbate the association between part-time work and self-rated health?

2. Method

2.1. Data

The present study relies on data from the 2009 to 2019 waves of the Annual Social and Economic Supplement (ASEC) of the Current Population Survey (CPS), provided by IPUMS-CPS (Flood, King, Rodgers, Ruggles, & Warren, 2020). The CPS is a nationally representative, monthly survey of U.S. households fielded by the U.S. Census Bureau and the Bureau of Labor Statistics. The ASEC is a supplement administered annually (usually every March) that collects more detailed data from respondents, including measures of health. The dataset includes measures of labor force status, sociodemographic characteristics, health, and state of residence. We merged the CPS data with data on state-level institutional contexts (below).

In these data, state-specific sample sizes range from 9,546 (Mississippi) to 79,977 respondents (California). Therefore, the ASEC-CPS provides sufficiently large samples to analyze self-rated health and employment across states. Because we focus on state-level policies, we exclude respondents living in the District of Columbia. Given our focus on employment, the total sample ($n = 813,077$) is restricted to working adults between the ages of 18 and 65. Thus, we exclude respondents who are out of the labor force or unemployed.

2.2. Measures

2.2.1. Self-rated health

The ASEC-CPS collects data on respondents' self-rated health. To measure the general health of respondents, the survey asks, "Would you say your health in general is excellent, very good, good, fair, or poor." Original response options were coded from 1 (excellent) to 5 (poor). In line with prior research (e.g., Goessling, 2007; Liu & Hummer, 2008; Martin, Schoeni, Freedman, & Andreski, 2007), we created a dichotomous variable by collapsing the five categories such that fair or poor health (coded as 1) is assessed relative to excellent, very good, or good (coded as 0).

2.2.2. Part-time work status

The CPS collects data on employment status, including whether respondents are out of the labor force, unemployed, working part-time for economic reasons (i.e., involuntary), working part-time for non-economic reasons (i.e., voluntary), or working full-time. We examined a three-category measure: employed full-time or usually full-time (coded 0), voluntary part-time (coded 1), and involuntary part-time (coded 2). We determined voluntary vs. involuntary part-time work based on the U.S. Bureau of Labor Statistics' definition: voluntary workers are those who are working part-time hours for non-economic reasons such as childcare problems, family obligations, or their health status; involuntary part-time workers are those who stated they worked part-time because they could not find full-time employment due to economic conditions or because of slack working conditions.

2.2.3. State-level policy context

We focus on myriad social, economic, and health policies and contexts that vary at the state level. The policies in the present study are assessed in 2014 – the approximate midpoint of the analytic sample. Policies include whether a state expanded Medicaid eligibility under the Affordable Care Act (1 = yes; Kaiser Family Foundation, 2020), the state's weekly maximum amount of unemployment insurance (ranging \$221-\$679), the state's maximum number of weeks that workers could collect unemployment insurance (range 12–30 weeks; Department of Labor, n.d.), the state minimum wage (ranging from \$7.25 to \$9.50), and whether a state had passed right-to-work legislation (1 = yes). We also utilize state Gini coefficients from 2014 (ranging from 41.75 to 52.24) as a measure of income inequality within a state.

Part-time and full-time workers generally have similar eligibility for

social safety net policies (e.g., Medicaid, unemployment insurance). Eligibility for unemployment insurance, which varies across states, is based on earnings and hours worked, but not on part-time vs. full-time status. For Medicaid, some states require a minimum of 20 hours of work per week, although many people qualify for exemptions from these requirements and, at the time of writing, many of these work requirements are being rescinded or challenged in courts (Kaiser Family Foundation, 2021). As such, differential eligibility for these programs based on part-time work status is likely minimal.

2.2.4. Covariates

Models account for individual sociodemographic characteristics that are commonly associated with employment status and health. Covariates include age (in years), gender (1 = female), race/ethnicity (non-Hispanic White (reference), non-Hispanic Black, Hispanic, "other" race/ethnicity), and educational attainment (less than high school diploma (reference), high school diploma, some college, bachelor's degree and higher). Models also account for two characteristics of the state's macroeconomic environment that may be related to part-time work status and health (assessed in 2014): state unemployment rate (Bureau of Labor Statistics, n.d.) and gross state product per capita (Bureau of Economic Analysis, n.d.).

2.3. Analytic approach

We first examined disparities in self-rated health by part-time work status in each state by estimating logistic regression models predicting poor self-rated health, accounting for state of residence, age, and gender. From this model, we estimated the predicted probabilities of fair/poor health by part-time work status in each state (Fig. 1).

Next, we tested for variation in the association between part-time work and self-rated health by state-level institutional context. We estimate a series of multilevel random effects logistic regression models, with individuals (level 1) nested within states (level 2). We include a random effect for state residency as a way to account for omitted variables describing the states. One benefit of the random effect model is that we can include state-level predictors in the model, which is not possible in a fixed effects approach. Indeed, this is the preferred

approach when there is interest in the effects of state-level predictors. Moreover, because the present study uses 50 groups (i.e., states), we exceed the recommended minimum number of groups needed for the multilevel model framework (Bryan & Jenkins, 2016). A likelihood ratio test confirmed that the random intercept model was a better fit than a random slope model. The first model includes part-time work and covariates to test the association between part-time work and self-rated health regardless of institutional context. In each of the subsequent six models, we separately add a state-level measure and the interaction of that measure with part-time work. We include the state-level measures in separate models to avoid issues of multicollinearity; this approach aligns with prior comparative research on country-level policies (e.g., Andersson, Garcia, & Glass, 2021; Carr & Chung, 2014). All analyses were conducted using Stata 15.1.

3. Results

3.1. Descriptive results

Table 1 presents the descriptive results for the analytic sample by work status (full-time, voluntary part-time, and involuntary part-time). Overall, about 6% of working adults report fair or poor self-rated health, but the prevalence of fair/poor health varies based on part-time work status. Only 5.6% of full-time workers reported fair or poor health compared to 9.4% of voluntary part-time workers and 10.9% of involuntary part-time workers. Compared to full-time workers, voluntary part-time workers are more likely to be female, non-Hispanic White, and have a high school diploma. Involuntary part-time workers, on the other hand, are more likely to be Hispanic or non-Hispanic Black and less likely to have a bachelor's degree or more.

Table 1 also presents information on the state-level measures of interest. About half of the sample lived in a state that expanded eligibility for Medicaid by 2014, the average maximum amount of unemployment insurance was \$462 for an average of 24 weeks in 2014, and about half of the sample lived in a state with right-to-work legislation in 2014. Moreover, the average state minimum wage was \$7.78 – only slightly higher than the federal minimum wage of \$7.25. Notably, these state-level measures are similar across employment status.

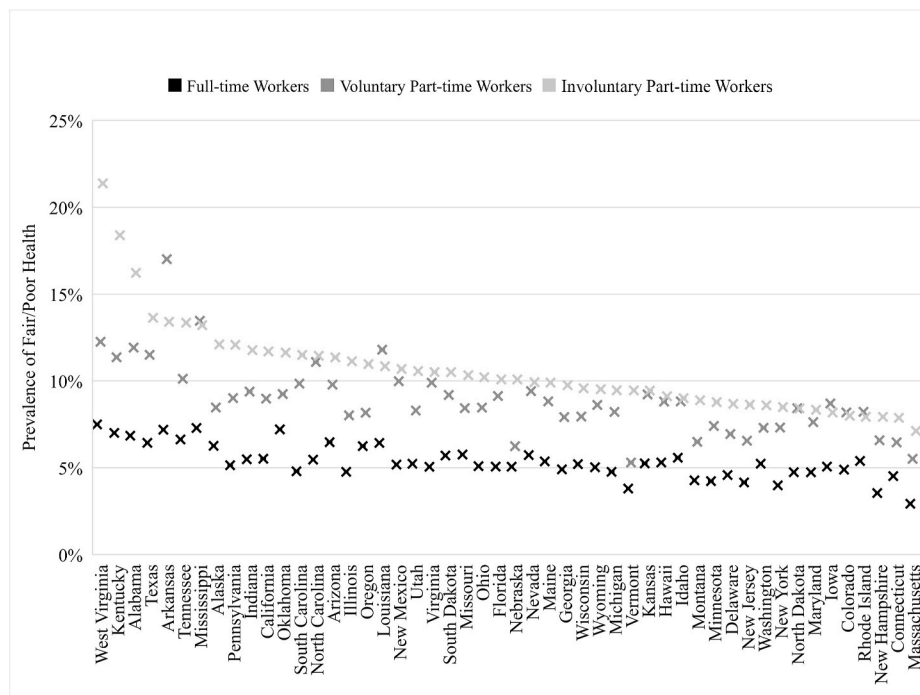


Fig. 1. Predicted prevalence of fair/poor health in each state by part-time work status (Current Population Survey; 2010-2019).

Table 1
Descriptive information of analytic sample (Current Population Survey; 2009–2019).

	Overall		Full-time		Voluntary Part-time		Involuntary Part-time	
	Mean/%	(S.D.)	Mean/%	(S.D.)	Mean/%	(S.D.)	Mean/%	(S.D.)
Poor Health (self-rated)	6.26%		5.61%		9.36%		10.87%	
Female	48.15%		44.18%		78.31%		50.17%	
Race/ethnicity								
Non-Hispanic White	64.31%		64.22%		70.58%		51.14%	
Hispanic	16.93%		16.72%		13.63%		28.66%	
Non-Hispanic Black	9.75%		9.94%		7.47%		11.58%	
“Other” race/ethnicity	9.01%		9.12%		8.31%		8.61%	
Educational Attainment								
Less than High School	7.97%		7.36%		7.67%		19.73%	
High School Diploma/GED	26.57%		26.33%		25.13%		34.37%	
Some College	16.61%		16.31%		18.62%		17.56%	
Bachelor’s Degree or Higher	48.85%		50.00%		48.58%		28.35%	
Age	43.51	(10.77)	43.47	(10.61)	44.30	(11.74)	42.32	(11.00)
Medicaid Expansion	52.93%		52.52%		54.52%		56.90%	
Maximum Weekly Unemployment Insurance Amount (in hundreds; 2014)	4.62	(1.26)	4.61	(1.26)	4.71	(1.28)	4.63	(1.26)
Maximum Unemployment Insurance Duration (in weeks; 2014)	24.43	(3.92)	24.41	(3.94)	24.63	(3.71)	24.42	(4.00)
State Gini Coefficient (2014)	46.8	(2.0)	46.8	(2.0)	46.6	(2.1)	46.9	(2.0)
States with Right to Work Legislation (2014)	48.21%		48.80%		45.47%		43.71%	
State Minimum Wage (in dollars; 2014)	7.78	(0.64)	7.77	(0.63)	7.80	(0.64)	7.88	(0.68)
State Unemployment Rate (2014)	5.90	(1.24)	5.90	(1.24)	5.84	(1.26)	6.09	(1.23)
Gross State Product Per Capita (in ten-thousands; 2014)	4.91	(0.84)	4.91	(0.84)	4.91	(0.84)	4.92	(0.81)

Note. S.D.: standard deviation.

3.2. Self-rated health by part-time work status across states

We first examined the distribution of self-rated health by part-time work status in each state. Fig. 1 shows the predicted prevalence of fair or poor health based on logistic regression models including part-time work, state of residence, age, and gender. Fig. 1 shows that, in almost every state, involuntary part-time workers have the highest prevalence of fair/poor health, followed by voluntary part-time workers and full-time workers. However, the prevalence of fair/poor health ranged from 21% in West Virginia to 7% in Massachusetts. Variation was somewhat less noticeable among workers in voluntary part-time work, ranging from 17% in Arkansas and 13% in Mississippi to 5% in Vermont and Massachusetts. Self-rated health was relatively consistent across states for full-time workers, only ranging from 7% to 3%. Overall, Fig. 1 shows that self-rated health varies considerably depending on part-time work status and workers’ state of residence.

3.3. Part-time work and state-level contexts

We next examined whether the association between part-time work and fair/poor self-rated health depends on the state-level policy context. To do so, we tested the interaction of part-time work with several state-level measures (Table 2). In Model 1 of Table 2, we first regressed fair/poor health on part-time work, net of covariates, to examine the main effect of part-time work status before accounting for state institutional contexts. Model 1 shows that voluntary part-time workers have 67% greater odds of reporting fair/poor health compared to full-time workers (coef: 0.51, $p < .001$). Similarly, involuntary part-time workers have 77% greater odds of fair/poor health compared to full-time workers (coef: 0.57, $p < .001$).

Models 2 through 7 (Table 2) each include a state-level variable and an interaction of part-time work with the state-level variable. Findings indicate that the association between voluntary part-time work and fair/poor self-rated health is weaker if respondents live in a state that offers a greater amount of weekly unemployment insurance (Model 3, $p < .05$) and more weeks of unemployment insurance (Model 4, $p < .05$), has lower levels of inequality (Model 5, $p < .05$), does not have right-to-work legislation (Model 6, $p < .10$), and has higher minimum wage (Model 7, $p < .05$). Only state-level Medicaid expansion did not moderate the association between voluntary part-time work and fair/poor self-rated health. The magnitude of the interaction term varies depending on the

specific policy or context, and we find larger effect sizes for the maximum amount of unemployment insurance, the state minimum wage, and state-level income inequality. For example, the effect of voluntary part-time work on fair/poor health decreases by 0.03 for each \$100 increase in unemployment insurance ($p < .05$) and by 0.05 for each \$1 increase in state minimum wage ($p < .05$), and the effect increases by 0.02 for each 1-point increase in income inequality ($p < .05$).

When examining whether the association between involuntary part-time work and fair/poor health is moderated by state-level policies and contexts, Table 2 shows that none of the interactions with involuntary part-time work are statistically significant. We confirmed that results were not influenced by outlier states, following the recommendations of Van der Meer, Grotenhuis, and Pelzer (2010). Overall, Table 2 suggests that state institutional contexts can weaken the association of voluntary, but not involuntary, part-time work with self-rated health.

4. Discussion

Part-time work – a common form of employment in the United States – can be a measure of precarious work, especially when it is involuntary (Epstein et al., 1999; Kalleberg, 2018). Indeed, the present study aids in contextualizing involuntary part-time work as a tenable quality of precarious work. Perhaps because part-time work is often characterized by insecurity, a lack of social benefits, and limited opportunities for advancement, part-time workers experience worse health than full-time workers (Kim et al., 2006, 2008; Santin et al., 2009). Prior research documents variability in the health consequences of precarious work across countries (Kalleberg, 2018; Kim et al., 2012), but we do not know whether state-level institutional contexts shape the association between part-time work and self-rated health in the United States. Using data from the Current Population Survey (2009–2019), the present study examined whether state-level policies and contexts weakened the association between part-time work and self-rated health. We highlight three main themes from the findings.

The first theme considers the adverse health consequences of part-time work. In line with prior research, we find that workers in part-time work, especially involuntary part-time work, have greater odds of fair/poor health compared to full-time workers. The adverse health consequences associated with part-time work may emerge because part-time workers earn less (Canon et al., 2014), experience worse mental health (Kim et al., 2006; Mousteri et al., 2020; Santin et al., 2009), and

Table 2
Multilevel logistic regression models predicting self-rated health for U.S. adults aged 18–65, Current Population Survey (N = 813,077).

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Voluntary Part-time	0.51*** (0.01)	0.52*** (0.02)	0.63*** (0.06)	0.70*** (0.08)	-0.25 (0.30)	0.49*** (0.02)	0.86*** (0.16)
Involuntary Part-time	0.57*** (0.02)	0.56*** (0.03)	0.53*** (0.08)	0.56*** (0.11)	0.50 (0.42)	0.58*** (0.02)	0.53** (0.20)
State Policies							
Medicaid Expansion		-0.01 (0.04)					
Voluntary Part-time*Medicaid Expansion		-0.02 (0.03)					
Involuntary Part-time*Medicaid Expansion		0.02 (0.04)					
Max Unemployment Insurance (in hundreds)			-0.02 (0.02)				
Voluntary Part-time*Max Unemployment Insurance (in hundreds)			-0.03* (0.01)				
Involuntary Part-time*Max Unemployment Insurance (in hundreds)			0.01 (0.02)				
Weeks of Unemployment				-0.01 (0.01)			
Voluntary Part-time*Weeks of Unemployment				-0.01* (0.00)			
Involuntary Part-time*Weeks of Unemployment				0.00 (0.00)			
State Gini Coefficient					-0.01 (0.01)		
Voluntary Part-time* State Gini Coefficient					.02* (0.01)		
Involuntary Part-time* State Gini Coefficient					.002 (0.01)		
Right to Work Legislation						0.12** (0.04)	
Voluntary Part-time*Right to Work Legislation						0.05+ (0.03)	
Involuntary Part-time*Right to Work Legislation						-0.02 (0.04)	
State Minimum Wage							-0.06 (0.04)
Voluntary Part-time*State Minimum Wage							-0.05* (0.02)
Involuntary Part-time*State Minimum Wage							0.01 (0.03)
Covariates							
Age	0.03*** (0.00)	0.03*** (0.00)	0.03*** (0.00)	0.03*** (0.00)	0.03*** (0.00)	0.03*** (0.00)	0.03*** (0.00)
Female	0.09*** (0.01)	0.09*** (0.01)	0.09*** (0.01)	0.09*** (0.01)	0.09*** (0.01)	0.09*** (0.01)	0.09*** (0.01)
Non-Hispanic Black (ref: Non-Hispanic White)	0.41*** (0.02)	0.41*** (0.02)	0.41*** (0.02)	0.42*** (0.02)	0.42*** (0.02)	0.41*** (0.02)	0.41*** (0.02)
Hispanic (ref: Non-Hispanic White)	0.19*** (0.01)	0.19*** (0.01)	0.19*** (0.01)	0.19*** (0.01)	0.19*** (0.01)	0.19*** (0.01)	0.19*** (0.01)
“Other” race/ethnicity (ref: Non-Hispanic White)	0.27*** (0.02)	0.27*** (0.02)	0.27*** (0.02)	0.27*** (0.02)	0.27*** (0.02)	0.27*** (0.02)	0.27*** (0.02)
High School Diploma (ref: LTHS)	-0.38*** (0.02)	-0.38*** (0.02)	-0.38*** (0.02)	-0.38*** (0.02)	-0.38*** (0.02)	-0.38*** (0.02)	-0.38*** (0.02)
Some College (ref: LTHS)	-0.48*** (0.02)	-0.48*** (0.02)	-0.48*** (0.02)	-0.48*** (0.02)	-0.48*** (0.02)	-0.48*** (0.02)	-0.48*** (0.02)
College Degree (ref: LTHS)	-0.94*** (0.02)	-0.94*** (0.02)	-0.95*** (0.02)	-0.95*** (0.02)	-0.95*** (0.02)	-0.95*** (0.02)	-0.95*** (0.02)
State Unemployment Rate	0.00 (0.02)	0.00 (0.02)	0.00 (0.02)	0.00 (0.02)	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)
Gross State Product Per Capita (in ten-thousands)	0.08*** (0.02)	-0.08** (0.03)	-0.07** (0.03)	-0.09*** (0.02)	-0.08*** (0.02)	-0.05* (0.02)	-0.07** (0.03)
Dummy Variable for Year	✓	✓	✓	✓	✓	✓	✓
State Intercept Variance	0.02*** (0.00)	0.02*** (0.00)	0.02*** (0.00)	0.02*** (0.00)	0.02*** (0.00)	0.02*** (0.00)	0.02*** (0.00)
Constant	-3.53*** (0.17)	-3.55*** (0.17)	-3.51*** (0.17)	-3.71*** (0.00)	-2.93*** (0.54)	-3.82*** (0.19)	-3.23*** (0.29)

Note. Standard errors in parentheses; *** p < .001, ** p < .01, * p < .05, + p < .10.

report more stress (Rosenthal et al., 2012) compared to full-time workers. Moreover, stress tends to proliferate across domains of life and over time (Pearlin et al., 1981) such that the stress from part-time work could undermine multiple aspects of life. Our findings suggest that some of the proposed benefits of part-time work, such as the

flexibility to balance work and family demands, do not seem to translate into health benefits. Moreover, while voluntary part-time workers may choose part-time work due to their health status, the high rate of fair/poor self-rated health among involuntary part-time workers is concerning and deserves attention.

Second, we find striking differences in the prevalence of fair/poor health among part-time workers across states. An emerging body of research documents how social and economic policies vary considerably across states in the United States, leading to stark differences in health outcomes and life expectancy (Montez, 2017; Montez et al., 2020). To our knowledge, no previous studies have examined disparities in self-rated health by part-time work status across states. The present study shows higher rates of fair/poor health among involuntary part-time workers in West Virginia or Kentucky, for example, compared to involuntary part-time workers in Connecticut or Massachusetts. This state-level variation in health among involuntary workers could be due to myriad factors within states such as the economic conditions, rurality, primary industries, and the institutional environment. Recent research, however, identifies state-level policies related to social and economic well-being as crucial determinants of health (Montez et al., 2020; Montez & Farina, 2021). We emphasize that variation in health among part-time workers points to the need to understand how state-level policies and contexts contribute to adverse health experiences of part-time workers.

Finally, the present study attends to the importance of state-level institutional contexts for work-related experiences and health. Although prior research finds that the lack of social safety nets contributes to worse health and shorter lives of citizens (e.g., Montez et al., 2020), there remains a dearth of research on whether state-level policies and contexts exacerbate or weaken stressful work experiences. One recent study found that some state-level policies reduced the mental health consequences of unemployment during the COVID-19 pandemic (Donnelly & Farina, 2021). We build on this research by showing that the adverse health consequences of voluntary part-time work are weaker when workers live in states with more supportive social policies, such as generous unemployment insurance, higher minimum wage, and lower income inequality. Because many voluntary part-time workers are employed part-time due to a lack of childcare or the inability to retire, supportive social policies may be helpful for these kinds of part-time workers. For example, the benefits of higher unemployment insurance and minimum wage may provide tangible benefits for part-time workers and reduce the stress associated with part-time work. While these workers are labeled as voluntary by the U.S. Bureau of Labor Statistics, that designation can be misleading if their part-time status is a result of non-economic, demand-side factors. This may be one reason why social policies provide health benefits for voluntary part-time workers. Another explanation is that state contexts are especially important for the health of adults with less education and, to some extent, women (Montez et al., 2017, 2019), and part-time workers are more likely to be women and to have lower levels of educational attainment (Canon et al., 2014; Dunn, 2018; Pech et al., 2020). Thus, the demographic composition of workers and the circumstances of part-time work may explain why some state-level policies reduce the adverse health consequences of part-time work.

However, we find that state-level social policies do not weaken the association between involuntary part-time work and fair/poor health. This surprising finding points to the need for future research to investigate why state-level policies may be beneficial for voluntary, but not involuntary, part-time workers. One possibility is that because involuntary part-time workers are in a more precarious position (e.g., Kal-leberg, 2018) and receive lower wages (Canon et al., 2014) than voluntary part-time workers, they may require more targeted interventions to improve health. For example, perhaps individual-level factors like personal income, health insurance, psychological distress, and stress exposure should be considered in addition to the broader policy environment. Differences in state-level minimum wage, for example, may not be enough to overcome stagnant, low wages among involuntary part-time workers. Moreover, the policies examined in the present study likely do not address the stress and despair that stem from wanting full-time work but being unable to find it. Involuntary part-time workers may be more likely to benefit from living in states that invest in

the creation of full-time jobs that provide security, stability, opportunity for advancement, and a living wage.

Another consideration is the racial inequality in work, wherein involuntary part-time workers are more likely to be Hispanic or non-Hispanic Black compared to full-time and voluntary part-time workers. Racial inequalities in work and health are the result of systemic racism in the United States, and the policies examined in the present study cannot unravel or weaken the consequences of that racism. As a starting point, future research could consider whether state-level policies related to civil rights, immigration, environmental racism, housing, and criminal justice – areas that disproportionately burden people of color – shape the health consequences of involuntary part-time work.

This study takes an important first step in understanding how the institutional state environment moderates the association between part-time work status and fair/poor self-rated health. However, limitations should be noted. First, because of the cross-sectional study, we cannot determine causal order. For example, it is possible that some adults choose voluntary part-time work due to their health conditions. However, this is not the case for involuntary part-time workers who do not choose to work part-time and are thus unlikely to select into involuntary part-time work for health reasons. It is also possible that unobserved individual characteristics may lead to self-sorting into voluntary part-time work and more pessimistic reporting of self-rated health. Again, this is less likely for involuntary part-time workers who do not select into part-time work but are forced into it due to labor market conditions. Future research should aim to understand specific mechanisms linking involuntary part-time work to poor health outcomes and should harness longitudinal data to examine changes in part-time work and health prospectively. Second, the CPS does not ask respondents extensive questions about mental and physical health, so we are unable to investigate whether patterns would be similar for outcomes such as depressive symptoms, chronic conditions, and cognitive health. Because of the lack of questions on mental health, we cannot explain whether psychological distress acts as a mediator and explains some of the health consequences of part-time work. Finally, because a small percentage of workers report fair/poor health and involuntary part-time work is the least common work status, analyses related to involuntary part-time workers may suffer from a lack of statistical power. Moreover, consideration of cell sizes prevents an exploration of heterogeneity within part-time workers by race/ethnicity, gender, or educational attainment – an area for future research.

The prevalence of part-time work necessitates a careful examination of the role of the institutional environment in shaping the health outcomes of workers. Moreover, because the share of involuntary part-time workers tends to increase sharply during recessions (Canon et al., 2014; Kudlyak, 2019; Valletta & van der List, 2015), we will likely see an increase in involuntary part-time work due to the COVID-19 pandemic and ensuing recession. A spike in part-time work due to COVID-19 could, then, have long-lasting effects for population health. The present study points to the need to mitigate the health consequences of part-time work with social policies that enhance the health of workers.

Ethical statement

The Current Population Survey (CPS) data collection has been approved by the Office of Management and Budget (OMB Number 0607–0049). All participants provide informed consent for the voluntary survey.

Author statement

Donnelly: Conceptualization, Writing – original draft, Writing – review & editing. Schoenbachler: Formal analysis, Writing – review & editing.

Declarations of interest

None.

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