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ARTICLE

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Persistent Vulnerabilities in the World of Work and Contemporary Capitalism: Some Reflections on India

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Abstract
The onslaught of COVID-19 has been catastrophic for India's world of work. While it was a bolt out of the blue, its impacts on employment need to be located in the context of a long-term and ongoing structural crisis of (un) employment and systemic vulnerabilities (and subsequent burgeoning of 'labour reserves') that have tended to worsen during the neo-liberal regime. Using the various EUS and subsequent PLFS rounds for roughly the last two decades, the paper seeks to highlight selected aspects of the vulnerabilities and inequities that have plagued India's world of work. These include participation rates, vulnerable employment, composition of workforce and access to certain aspects of decent work such as social security, paid leaves, and written contract. An important issue that the paper investigates is 'income-vulnerability' of the employed at the present juncture. Further, inequities across gender and social groups have also been assessed as regards these variables using the most recent data.

Keywords World of Work · Neo-liberalism · Labour in India · Vulnerability · Relative surplus population (RSP)

1 Introduction

It hardly needs emphasis that generating and ensuring access to employment ought to be an essential component of any decent development paradigm; of course, this pertains to both quantity and quality. However, the gradual ascendancy of neo-liberalism since the 1970s and its rise to global dominance particularly in the past four decades

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has resulted in profound implications for the world of work and workers' well-being across the globe. While there have been substantial increases in wealth and labour productivity globally during this period, it has also been marked by considerable unevenness across the world; furthermore, both in the global North and the South, economic growth has been plagued with low labour absorption and increased precarity of working conditions as reflected in diminished work, perverse wages, weakening social security, and high level of 'vulnerable employment', etc. As of 2019, prior to the Coronavirus pandemic, the global unemployment rates were already high and stood at 5.4% despite decent rates of growth of GDP. Coupled with high rates of labour under-utlilization, the employment crisis had already been severe. High wage inequality, inadequate coverage of social security, has further, resulted in persistent challenges for the workers. Of the total global population, about 53.1% were *not covered* by any social protection benefits (World Social Protection Report 2020–22).

Viewed through the lens of Marxian political economy, these labour market outcomes represent persistence of 'labour reserves', or to use Marx's preferred expression, 'Relative Surplus Population' (RSP). While different analytical frameworks treat 'labour reserves' differently, the Marxian model visualizes them, in sharp contrast to either the mainstream or heterodox approaches, as a *permanent* and *intrinsic feature* of competitive capitalism. The mainstream perspectives can hardly explain the persistence of unemployment or under-employment in a well-functioning market system while a whole gamut of heterodox theories view 'surplus labour' as only transitory in nature. Within Marxian political economy, existence of 'labour reserves' as a perennial feature and its continuous exacerbation are inevitable outcomes of *spontaneous capitalism* (Jha et al 2017; Jha and Yeros 2021; Patnaik 2019b) driven by the powerful inherent tendencies of incessant accumulation.

During the current phase of neo-liberal capitalism, a jobless/job-loss growth poses a huge challenge everywhere in the world; India is no exception. The rate of growth of GDP in India for the past four decades, before the pandemic, has been significant by any standard, averaging around 6% per annum. However, this period has also been marked by a secular decline in employment elasticity of output, which even turned negative in some years between 2011–2012 and 2017–2018. Against this backdrop, the paper primarily delves into the current employment and unemployment challenges in India, focusing on select aspects of inequities and vulnerabilities. The structure of the paper is as follows: Section 2 briefly flags some key theoretical concerns and sketches an analytical framework to engage with long-term structural vulnerabilities under the neo-liberal regime. Section 3 provides an overview of the persistent challenges in India's world of work focusing on the recent period preceding the pandemic. Section 4 examines a few aspects of the vulnerabilities and inequities across social groups and gender—participation rates, composition of workforce, wages, and occupational distribution at the current juncture. One particular issue we have tried to highlight is that of 'income-vulnerability' among the employed across different categories and social groups with respect to wages. Section 5 closes the paper with a couple of very brief concluding remarks.

2 World of Work and Contemporary Capitalism: An Analytical Sketch

The gradual ascendancy of neo-liberalism since the 1970s, and its rise to global dominance particularly in the past four decades, has resulted in profound implications for the world of work and workers' well-being across the globe. Viewed through the political economy perspective, the emergence and ascendancy of neo-liberalism can be viewed as the third phase in the 'long march of combined and uneven global capitalism'. At the highest level of generality, this period was preceded by the *laissez- faire* capitalism in the Centre coupled with colonialism/imperialism in the Periphery (first phase) and a comparatively regulated capitalism (second phase) including in the newly de-colonized countries largely after World War II (Jha et al. 2017), along with the emergence of the Soviet bloc. This broad shift since the 1970s, to neoliberal capitalism, and dramatic restructuring of the socialist countries, was largely rooted in the philosophy of market's supposed supremacy in achieving efficient economic outcomes. For this paper, we focus on this current phase of global capitalism.

The hegemony of neo-liberalism essentially marks a return to "spontaneous capitalism"; a system driven by its own immanent tendencies and laws of motion in pursuit of incessant accumulation. One of the most powerful laws of motion, of significance for labour reserves, is what Marx labelled as the 'Absolute General law of Capitalist Accumulation'; the core of which is captured in the following quotation:

> The greater the social wealth, the functioning capital, the extent and energy of its growth, and, therefore, also the absolute mass of the proletariat and the productiveness 8 its labour, the greater is the industrial reserve army. The same causes which develop the expansive power of capital, develop also the labour power at its disposal. The relative mass of the industrial reserve army increases therefore with the potential energy of wealth. But the greater this reserve army in proportion to the active labour army, the greater is the mass of a consolidated surplus population, whose misery is in inverse ratio to its torment of labour. The more extensive, finally, the lazarus layers of the working class, and the industrial reserve army, the greater is official pauperism. *This is the absolute general law of capitalist accumulation*. Like all other laws, it is modified in its working by many circumstances, the analysis of which does not concern us here. (Marx 1976; 798; emphasis added).

This is to say that the continuous development of productive forces under capitalism organically results in a strong tendency towards labour repulsion; an aspect that cannot be assumed to be temporary but rather a permanent feature of such a system. For reasons of space, we refrain from a detailed discussion of the Marxian political economy framework, but it has been discussed elsewhere (Jha et al. 2017).

Constructing even a broad overarching sketch of the current phase of global capitalism is an arduous task. This is because neoliberalism has manifested itself through the years, in several forms and varieties both temporally and spatially, contingent upon country specific dialectics, history, 'domestic contestations and, of course, the designs and power of imperialism' (Jha and Yeros 2021). There is a huge body of literature pertaining to these processes specific to the various countries. The crucial point to underscore here is that despite the different manifestations of neo-liberalism across time and space, the core philosophy has been very simple: "leave the economy to the market; it knows and does the best for it", as enshrined in the 'Washington Consensus', to use the label made famous by the economist John Williamson. The 'manufactured consensus' sought by capital and its ideologues with active support from the States across the globe, led to near-universal acceptance and glorification of the presumed 'righteous' principles of economic policies—privatization, deregulation, liberalization in trade and finance, to mention a few. With this broad understanding, we highlight select features of neoliberal capitalism, which are crucial for our understanding of the persistent (un)employment challenges at the global level.

One of the central features of neoliberal capitalism has been the gradual doing away with the 'regulatory shackles' on capital since 1970s stemming from the perceived crisis of profitability. Two key features pertaining to the reorganization of global economic and political power, intrinsically related to the de-regulation of capital need to be flagged here. First, there has been a reconfiguration of power heavily loaded in favour of capital in general vis-à-vis labour, citizens, the nation States, etc. Second, reconfiguration of class power within 'capital in general' has been in favour of 'finance capital'. In its essence, this finance capital is not primarily dependent on production for profits/accumulation but on 'accumulation through circulation and speculation' representing in its extreme form, an irrepressible 'casino capitalism', which is at loggerheads with 'real economy'. As pointed out by Sweezy (1994, p. 8): "Traditionally financial expansion has gone hand in hand with prosperity in the real economy. Is it really possible that this is no longer true, that now in the late twentieth century the opposite is more nearly the case; in other words, that financial expansion feeds not on a healthy real economy but a stagnant one? The answer to this question, I think, is yes, it is possible, and it has been happening. And I will add that I am quite convinced that the *inverted relation between the financial and the real is the key to understanding new trends in the world economy* (italics added)".

This phenomenon can be witnessed by the observed decline in the share of manufacturing industries among the top 100 MNEs and a simultaneous rise of financial and digital MNEs (UNCTAD 2018). Furthermore, new finance also adversely impacts the real economy via the State by substantially curtailing economic policy space particularly in the global South resulting in compression of public expenditures and investments in general. This, in turn, has disastrous consequences for the world of work largely through employment contraction (Jha and Yeros 2021).The development objectives of the 'sovereign' nations have been relegated to a backseat with the States across the world subjugating themselves to the whims and fancies of finance capital which is hyper mobile and particularly averse to government expenditure (Patnaik 2005, 2014, 2016). The new forms of primitive accumulation stemming from financialization, along with older forms, are broadly reflected in flexible labour arrangements, enhanced processes of semi- proletarianization and deepening informality that have become a norm around the world, particularly in the global South.

The second major feature that we wish to underscore here is the significant relocation of production, across sectors, from advanced capitalist nations to a few developing ones, and increased reliance for procurement of the former on the latter; in short, there has been a 'decentering' of production. The trans-nationalisation of economic activities as global commodity chains/supply chains/value chains/production networks (GCCs/GSCs/GVCs/GPNs) have been discussed elsewhere in detail (Jha and Chakraborty 2014). The point to stress here is that the ascendancy of the trans-nationalisation of capital from the North to the South, achieved both through direct investment (FDI), and through engagement of domestic players without any FDI (i.e. by engaging them as suppliers), has resulted in 'de-segmentation' of world economy (Jha 2019; Patnaik and Patnaik 2019) and loosening of "the traditionally enforced pattern of international division of labour" (to use Patnaik's expression). Thus, accelerated trans-nationalization of economic activities during the neo-liberal regime led to substantial dilution of the traditional segmentation of economic activities and the related division of labour; select countries in the global South emerged as leading hubs for specific economic activities. For instance, during the 1990s and the first decades of the present century India became the 'back office' of the world while China, the global 'manufacturing workshop'.

The increased engagement of the Metropolitan countries with the Periphery ought not to be reduced to the current fashionable 'explanation' in much of the literature i.e. the 'global labour arbitrage'; rather, it has to be situated in the context of imperialism and shifts in global accumulation strategies in which '*labour-nature-regulation arbitrage'*(Jha and Yeros 2021) plays a major role. In addition to labour, there are huge cost differences (hence, possibilities of arbitrage) between the North and the South, emanating from other variables such as land, natural resources, industrial safety norms and environmental regulations. This has come to pass due to various historical reasons (which we do not discuss here). It is essential to point out that not only are the overall regulatory regimes vis-à-vis capital in the global South much weaker than the North but the difference between the two has increased even more during contemporary capitalism as countries in the South struggle to attract and retain the highly loose internationally mobile capital by diluting their own regulatory regimes, which has resulted in a 'virtual race to the bottom'. The reorganization of production is intrinsically connected to the de-regulation of capital which changed the 'dynamics of the capital-labour-state 'compacts' (Jha and Yeros 2021) resulting in relative 'de-segmentation' of the world economy. These processes have led to profound adverse impact on labour utilization, labour reserves, conditions of work, wages, etc. not only in the global South but also in the global North.[1]

Further, there has been a visible compression of the wage share in the output of most countries (Suwandi 2019). In the South, partly due to large relative surplus population, wages have largely remained at subsistence level; in the North, the threat of mobility of capital has forced upon the workers a relatively vulnerable regime.

[1] For a typical (i.e. median income) full-time male worker (that can be considered the most privileged), the real median income stagnated between 1968 and 2010 (Stiglitz 2013).

This has enormous implications for the world of work through two important channels. First, added to the fact that wages are under constant pressure due to the de-segmentation discussed above, the inherent tendencies of capitalism emanating from fierce competition result in increasing organic composition of capital through technological changes and incessant search (and use) of capital intensive methods of production. While on one hand, labour productivity increases, on the other, labour absorption suffers, resulting in a in ‘globalization of labour reserves’. Second, the compression of wages results in curtailment of aggregate demand. This is because the corresponding higher share of surplus, tips the scales away from the ‘consumption goods sector’, in favour of the ‘capital goods sector’ (Marx’s first and second department) resulting in lowering of effective demand and an inevitable ‘crisis of realization and reproduction’. The wage squeeze, hence, leads to the curtailment of economic activity; in its extreme, it culminates into stagnation or even recession posing huge employment challenges.

Another major feature to flag here is the rapid advancements in technology, or to use Marx’s expression, dramatic developments within ‘productive forces’, in the recent decades. The Third Industrial revolution that arrived roughly in the 1970s on the back of massive improvements in structure, processes, speed of information, computing, and processing, etc. led to major restructuring of labour processes across economies and increases in the share of employment in the services sector, much of it, precarious and vulnerable. Driven by fantastic progress made by technology in areas of artificial intelligence, robotics, automation, deep machine learning and big data, the ongoing Fourth Industrial revolution, is expected to have huge implications for the world of work as the nature of work, jobs, location of work, etc. are witnessing significant changes.

There is a huge literature on various dimensions of these recent industrial revolutions, but for reasons of space, we do not get into a detailed discussion here. Nevertheless, some key issues relevant to the future of work need to be mentioned here. First, while the actual impact of technological disruptions on employment remain to be seen and there are several studies providing contradictory estimates (ILO 2019), the point remains that the present fast-paced expansion of ‘productive forces’ is largely labour-saving and capital-intensive in nature. This is likely to worsen labour absorption, albeit differently across different regions. Frey and Osborne (2017) argued that 47% of the total US employment is at high risk of being computerized “relatively soon” (in one or two decades). According to Carbonero et al (2020), global employment declined by 5% between 2005 and 14 due to a 24% increase in number of robots. The impact was estimated to be low in developed countries, an employment decline of 0.43%, compared to 11% in emerging economies. However, there are other studies which reported a positive or a neutral impact on employment (Graetz and Michaels 2018; De Backer et al. 2018).

Nevertheless, two issues are of importance with respect to increased use of robots (particularly in MNEs) for emerging economies. First, employment in emerging economies is likely to contract directly because robots are primarily used in manufacturing which is an important source of employment in these countries. Additionally, given the nature of Industry IV, it is expected reduce the employment of low-skilled service workers (high in emerging economies) and cause mass unemployment (Min et al 2019). Second, as argued previously, the ‘de-centering’ of production to select countries in the South has been an important source of employment, however less or vulnerable. But with Industry IV, robots could reverse this trend in off-shoring such that robotization in developed countries may negatively affect employment in emerging countries (Carbonero et al 2020). This is to say, both through effects taking place within countries as well as through the global supply value systems, the adverse impact of robots on employment is likely to concentrate in emerging countries (Acemoglu and Restrepo 2020). Thus, the argument that substantial labour displacement may occur with such technological advances cannot be a 'misplaced' one because the present phase of technological disruptions represents a sharp departure from the past.

Furthermore, the quality of employment as regards the new possibilities that emerge with technological advancement and digitisation is also an important issue. For instance, with Industry IV, there has been a sharp increase in online digital labour platforms. Work on these primarily resembles several long-standing 'sweatshop' work arrangements; only "with a digital tool, serving as an intermediary" (Berg, et al., 2018). The nature of such digital platform work lies on a spectrum of informal and non-standard work that has been a dominant feature of labour markets in 'developing' countries. Hence, it continues to represent, "the dominance of insecure, informal work with no employment benefits" (ILO 2019). This is to say, even if new jobs are created (at least in medium and long-term), the issue remains about how the digital platforms can be regulated to provide decent work (Berg et al. 2018). Given these concerns, the world of work is to be understood not only through technological changes but also by associated social and political contestations; however, it is difficult to predict accurately how these processes will unfold in the future.

The aforementioned features of contemporary capitalism, along with many others which we have not discussed here for reasons of space, also contribute to an expansion and intensification of the multiple channels of primitive accumulation under the current phase of 'spontaneous capitalism'. Driven by the immanent tendencies and laws of motion, there has been aggravation of the underlying processes of 'accumulation through dispossession' (Harvey) and 'accumulation through encroachment' (Patnaik 2005) in general, along with a "deepening of super- exploitation by the offloading of the costs of social reproduction unto the expanding of labour reserves themselves, and unto women and the most oppressed social layers in particular" (Jha and Yeros 2019). These have resulted in profound implications for the world of work (i.e. growing labour reserves, poor work conditions, etc.) everywhere but more so in the global South.

Although we do not wish to provide a detailed snapshot of the global scenario during the neo-liberal regime here, it is important to flag a couple of aspects before moving on to India. ILO provides several indicators which underscore the structural vulnerability. One such indicator is the composite rate of labour under-utilization or LU4 (ILO 2018b). It can be considered a decent proxy for RSP as it includes time-related underemployment rate,[2] potential labour force rate[3] along with the

[2] Persons in employment whose working time is insufficient in relation to alternative employment situations in which they are willing and available to engage.

[3] Persons not in employment who express an interest in it but for whom existing conditions limit their active job search and/or their availability.

unemployment rate. As per ILOSTAT, LU4 (for 15 + age group) averaged around 13.3% between 2005 and 2019; the average rate being 15.2% for women relative to 12% among men. The North–South divide is also evident from the fact that LU4 has remained very high LU4 in Africa, Latin America and the Caribbean as well as Northern, Southern and Western Europe (> 18% during 2005–2019) vis-à-vis North America (8.2%), Asia and the Pacific (10.6%), and more recently Eastern Europe (10.4%).

The second indicator is the 'vulnerable employment', defined by ILO as the sum of contributing family workers and own-account workers as a percentage of total employment. These employment categories are indicative of vulnerability because such workers are less likely to have formal arrangement, access to decent work and adequate social security (ILO, 2018a). As per the World Development Indicators, although the share of vulnerable employment has declined across the globe since 1996, it continues to account for a large share of the total employment. In 2019, 43.6% of the total employed were engaged in vulnerable employment. Substantial North–South differences were also evident. The share of vulnerable employment was very low in North America (4.6%), Europe and Central Asia (13.8%) compared to greater than 70% in South Asia and Sub-Saharan Africa.

3 Structural and Conjunctural Vulnerabilities in India's World of Work

The sudden contraction of GDP by 23.9% in the first quarter of 2020–2021, resulting from one of the most stringent lockdowns in the world between 24 March 2020 and 31 May 2020 led to devastating implications for the world of work in India. The monthly unemployment rate shot up by 15 percentage points between April-March 2020 (CMIE). With the revival of GDP, unemployment rates have since reduced but have remained high; 8.1% in February 2022. A more disconcerting effect has been the decline in the labour force participation rate suggesting a discouraged worker effect (Roychowdhary et al. 2022). The average LFPR fell from 42.5% in 2019–2020 to 35.6% in April 2020 (CMIE). As of April-Mar 2021, it still stood below the pre-COVID levels (Vyas 2021).

It is pertinent to remember here that the Indian economy was already slowing down before the pandemic. Between 2015 and 2019, the rate of growth of GDP halved (ILO 2020). Infact, all major correlates of economic performance—net export in real terms, investment ratios, credit growth, index of industrial production, consumption demand, etc, either stagnated or declined between 2014–2015 and 2019–2020 (Jha and Kumar 2020). Another significant marker had been the substantial decline, by 9%, in per capita real consumption expenditure in rural India between 2011–2012 and 2017–2018; the decline being recorded for each decile of the population, albeit at different rates (Jha et al. 2020).

The world of work had already been under severe strain during the neo-liberal regime with persistent worsening of labour absorption in the economy despite respectable rate of growth of GDP, averaging at about 6% per annum since the introduction of NEP (New Economic Policy) in 1991. The past three decades have been marked by a secular decline in employment elasticity of output (Jha and Sikdar

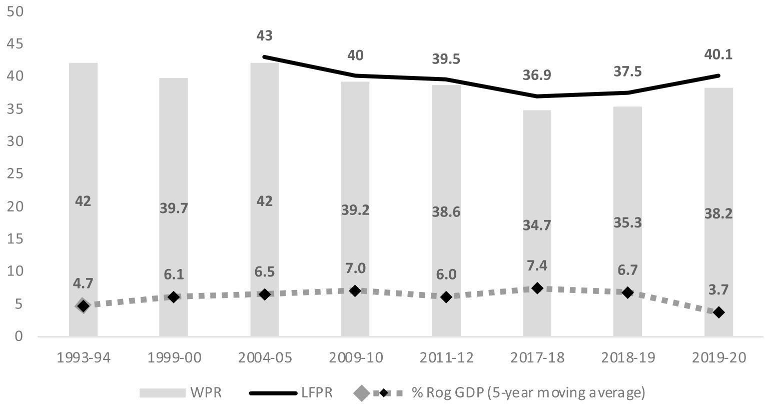

Fig. 1 WPR, LFPR and 5-year moving aberage of rate growth of GDP, 1993–1994 to 2019–2020. *Source*: WPR and LFPR –EUS and PLFS reports. Data on rate of growth of GDP has been obtained from the World bank estimates

2020). It declined substantially between 2004–2005 and 2011–2012 indicating a "jobless" growth regime. Further, between 2011–2012 and 2017–2018, despite positive output growth, it became negative leading to a "jobloss growth" (Kannan and Raveendran 2019). At a sectoral level, the growth of employment (log changes) had remained low and even turned negative in several sectors during the past three decades as per RBI-KLEMS data. This has been discussed in an earlier work for the period 1981–1982 to 2017–2018 (Jha and Sikdar 2020). The most recent data available for the year 2018–2019, also confirms a similar trend.

The grim employment situation is also evident from the growing discordance between the rate of growth of GDP and the Worker-Population Ratio (WPR). Even with rising rates of growth of GDP (5-year moving average), WPR stagnated until 2004–2005 and declined thereafter until 2017–2018 (Fig. 1). Though marginal improvements were observed in 2018–2019 and 2019–2020, both WPR and LFPR remained below the 2004–2005 levels. There has been a debate about the comparability of the quinquennial Employment and Unemployment Survey (EUS) available until 2011–2012 and the Periodic Labour Force Survey (PLFS), undertaken annually since 2017–2018, due to methodological differences (Press release 2020; Kaushal 2019). However, as argued by former Chief Statistician Pronab Sen, the change in methodology does not affect comparability of national-level or state-level estimates, except for cases involving stratification by education level (Agarwal and Srivas 2019; Patnaik 2019a) upon using the first visit (Jajoria and Jatav 2020).

(Note: Rog: rate of growth) Correspondingly, the unemployment rate (usual status) in the country rose throughout the reform period for both men and women and across rural–urban areas but more so in urban areas and among urban women. As per usual status, the rural unemployment rates in 1993–1994 stood at 1.4% and 0.9% for men and women, respectively. They increased to 4.5% and 2.6%, respectively, in 2019–2020. In the urban areas, the rates had declined between 2004–2005 to

2011–2012 for both sexes but rose sharply thereafter to 8.9% for females and 6.4% for males.

The inability of the economy to absorb new additions to the working age population reflects underlying structural inadequacies to utilize the opportunities presented by demographic dividend. During the reform period, the structural transformation in the country manifested in a manner that the tertiary sector's contribution to incremental growth in GDP increased. The sector's share in the incremental growth of GDP rose from 49% in 1991 to 72% by 2017; over the same period, the share of industry remained stagnant, while that of the primary sector declined sharply (Jha 2019). However, changes in the sectoral contribution of GDP did not pass-through to the sectoral employment trends; in particular, the drastic decline in Agriculture's contribution to GDP since 1991 did not entail a commensurate decrease in employment in this sector (Jha and Kumar 2020). Agriculture and allied activities continue to be the largest source of employment, with roughly 45.6% (61.5% in rural areas) of those employed being engaged in the sector in 2019–2020. Thus, the rising contribution of services did not translate into any substantial labour absorption. The employment situation was further exacerbated by compression of public investment and other macro-economic policies under the neo-liberal regime that limited employment expansion prospects (Jha 2016; Patnaik 2011).

Thus, it is our contention, that even though the COVID-19 led crisis was like a bolt from the blue, its debilitating impact on employment needs to be located in the context of a long-term and ongoing structural crisis of (un) employment, and systemic vulnerabilities that have persisted during the neo-liberal regime. Addressing the long-term structural vulnerabilities in the Indian labour market provides a huge canvas; engaging with all its aspects in detail presents a herculean challenge. For this paper, however, we assess vulnerability in employment through select markers during the reform period. We rely on labour statistics provided by EUS (until 2011–2012) and the first visit of 3 the PLFS surveys. Usual status has been used for all employment statistics. For wages, estimates have been drawn based on current weekly status. Average per day wages for self-employed and regular-wage/salaried workers (RWS) have been calculated by dividing by 30.We have also examined all the markers across rural–urban areas and by gender. However, for reasons of space, limited figures have been presented in this paper.

The first marker to highlight is that of 'vulnerable employment'. In India, it declined during the reform period, from 83.6% in 1996–2000 to 75% between 2016–2019 (World Development Indicators). However, a very high share of those employed (73.8%) continued to be engaged in vulnerable employment in 2019. This is in sharp contrast to 43.6% at the global level, only 8.8% for high-income countries and less than 50% in China (Fig. 2). Furthermore, the share of vulnerable employment among females was about 2 percentage points higher than that of males in India. Although this share for women has declined faster than that of men from 90.7% in 1996–2000 to 77% in 2016–2019, it could, in part, be attributed to the sharp fall in the female LFPR (discussed later).

We argue that a more appropriate measure of vulnerable employment would be self-employed as well as casual workers; the categories being more susceptible to loss of income/job with sudden shocks, lack of decent work and social security.

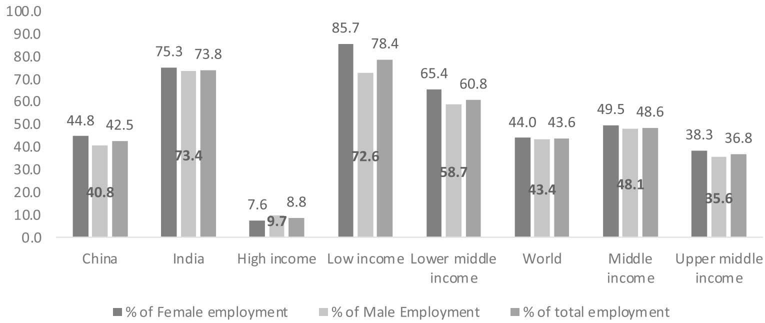

Fig. 2 Share of vulnerable employment (in%) by sex in 2019. *Source*: World Development Indicators. Retrieved on 7/02/2022

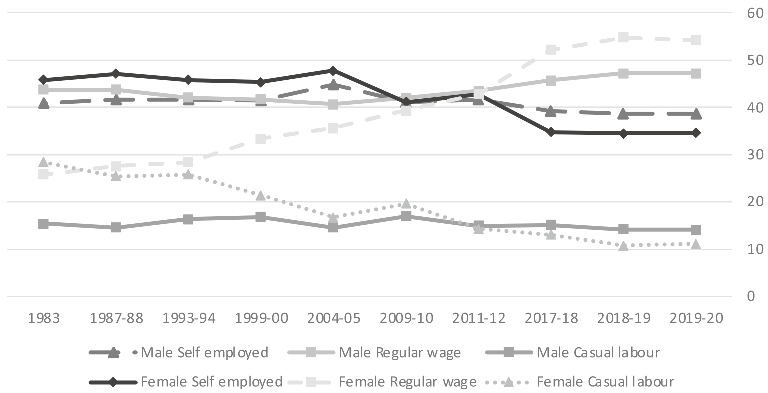

Fig. 3 Share of various employment categories in total employment across gender in urban areas between 1983 and 2019–2020

These categories presently dominate the workforce in India. In 2019–2020, 53.5% and 23.6% of the total employed were self-employed and casual labour, respectively, compared to only 22.9% regular wage/salaried workers (RWS). However, since 1983 there has been a secular increase in the share of RWS workers among both males and females and in both rural and urban areas; albeit the increase has been sharper in urban areas and particularly among women (Figs. 3, 4). This has been accompanied by a fall in the share of casual labour during the same period, yet again much more sharply in urban areas. Self-employment continued to account for the lion's share of total employment among both men and women in rural areas. In urban areas, however, there has been a decline since 2004–2005; since 2011–2012 bulk of the employment has been RWS. This suggests, possibly, a decreasing vulnerability during the neo-liberal regime.

However, two concerns need to be flagged here. First, the increase in RWS employment has been dominated by work arrangements of a contractual nature, i.e. short-term, or fixed-term contracts (Rani and Sen 2018) and lack of aspects of decent work (discussed later). Second, a disproportionate share of the RWS employment

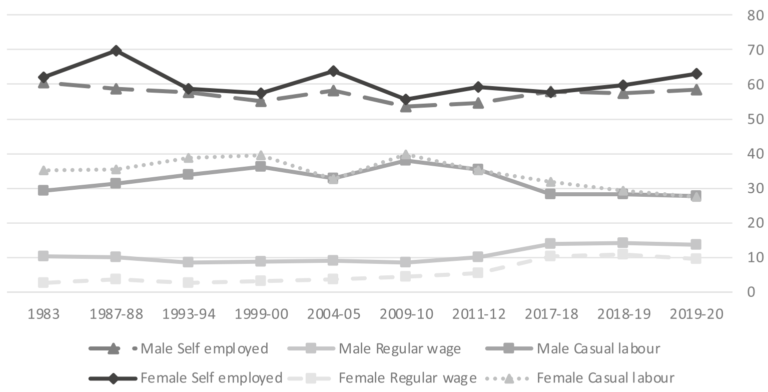

Fig. 4 Share of various employment categories in total employment across gender in rural areas between 1983 and 2019–2020. *Source*: EUS and PLFS reports

has been in the tertiary sector across rural–urban areas (Fig. 5). Employment in the tertiary sector has been associated with higher vulnerability. For women, the share was 80.7% in 2019–2020 vis-a-vis 65.4% among men (the gap being higher in urban areas), which points towards the particular vulnerabilities of female employment. A disaggregated analysis reveals that within the tertiary sector, RWS women were largely concentrated in 'Other services' (64.8%). For men, on the other hand, 'Other services' accounted for 34.7% of the total regular wage employment.

The second marker to underscore here is that even among the traditionally presumed 'secure' occupational category of RWS workers, the employment has largely remained vulnerable as identified by other aspects such as social security, paid leaves and presence of written contracts.

Between 2004–2005 and 2019–2020, more than 50% of RWS were not eligible for any social security benefits[4], although the proportion declined marginally between 2011–2012 and 2017–2018, to 49.6%, increasing again to 54.2% in 2019–2020. Moreover, throughout the period, a higher proportion women (in both rural and urban areas) did not have access to any of the social security benefits (Fig. 6).

Moreover, the proportion of RWS workers who did not have a written contract or were not eligible for paid leaves increased between 2004–2005 and 2019–2020 for both males and females (Fig. 7) and across rural and urban areas. However, since 2017–2018, there has been a marginal decline; all the figures still stand above their 2004–2005 levels. In 2019–2020, 67.3% of the RWS did not have written contracts and more than 50% did not have paid leaves. An interesting point to note here is that a higher share of RWS men relative to women was found to not have written contracts or paid leaves in both rural and urban areas.

[4] Social security benefits include provident fund (PF)/pension, gratuity, healthcare and maternity benefits.

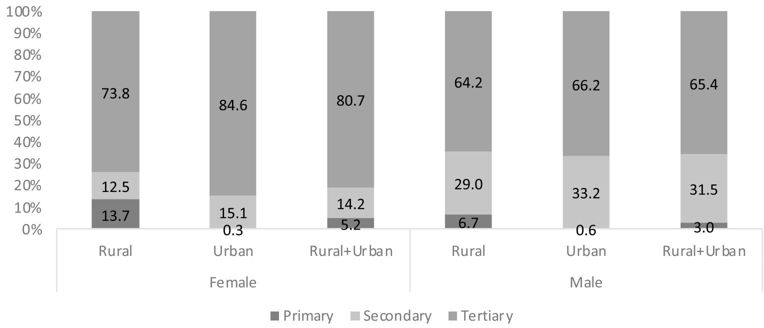

Fig. 5 Percentage share of RWS workers across broad-industries, 2019–2020. *Source*: Authors' calculations based on PLFS

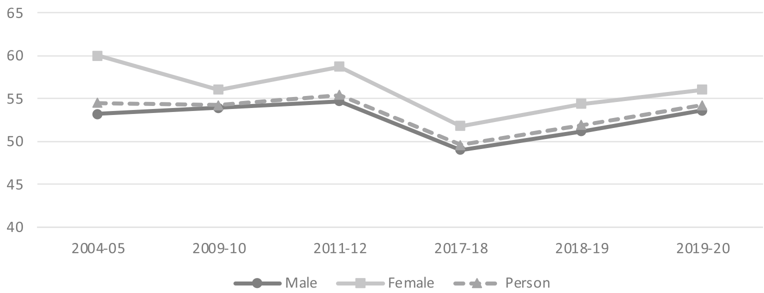

Fig. 6 Percentage of RWS with no social security by sex, 2004–2005 to 2019–2020. *Source*: EUS and PLFS reports

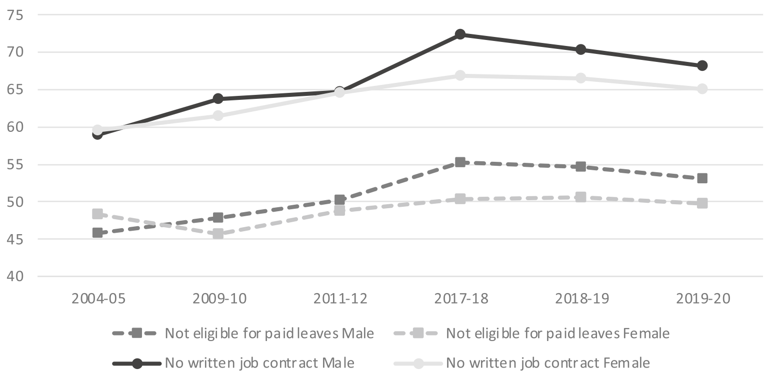

Fig. 7 Percentage of RWS workers without written contract and paid leaves by sex, 2004–2005 to 2019–2020. *Source*: EUS and PLFS reports

Along the three axes, the proportions also vary across states. In 2019–2020, more than 60% of the RWS in Jharkhand, Rajasthan, Punjab, Gujarat, Chhattisgarh, Andhra Pradesh, UP did not have any social security. More than 80% of the RWS in

Punjab, Rajasthan and Gujarat did not have written contracts; the share was highest in Gujarat (89.9%). Furthermore, the highest percentage of RWS workers with no paid leaves was observed in Haryana (71.8%) followed by more than 60% in Rajasthan, Punjab, MP and Gujarat.

The third marker pertains to wages, and we underscore three important points. Firstly, between 1993–1994 and 2011–2012, the real average daily wages almost doubled (India Wage Report 2018). The Working Poverty Rates. i.e. the percentage of employed persons (15 + age group) living in poverty (below the international poverty line of US$1.90 per day in PPP), also declined for both males and females between 2000 and 2021 (ILOSTAT). However, movements across different categories of workers were uneven. For instance, in the organized manufacturing sector, the average real wage of workers largely stagnated between mid-1990s and 2007–2008 (Chandrasekhar 2011). Further, absolute wages have remained seriously inadequate among large sections of the population. Even in 2021, as per ILOSTAT 7.6% of workers were classified as working poor in India relative to only 2.9% in Asia and Pacific, 3.4% in Nepal and 0.2% in Sri Lanka and China.

Secondly, there has been a continuous squeeze of the wage share and a corresponding increase in the profit share during the neo-liberal regime; indicative of surplus extraction by the capitalists and the underlying power of capital. The wage-to-profit ratio in the "Organized" sector declined from 1.41 in 1991–1992 to 0.32 in 2016–2017. The other emoluments to the profit ratio also experienced a simultaneous decline from 0.44 to 0.11 during the same period (Jha and Kumar 2020). Moreover, Chandrasekhar and Ghosh (2018) had also shown that wages in the industrial factory sector during the reform period have not kept pace with the steep rise in labour productivity resulting in a medium-term decline in the labour share in net value added; the share fell from 25.6% in 1990–1991 to only 10.6% in 2007–2008.

The third aspect relates to minimum wages. In any developing country with a huge informal economy like India, an *effective* minimum wage set at an *adequate* level is an essential tool for reducing vulnerability by protecting the low-paid workers via strengthening of their bargaining power through a 'lighthouse effect'(Satpathy and Malick 2020). The current national minimum wage set at Rs 178 has been absurdly low; neither capturing a minimal basket of the current needs, nor legally defensible. The wage is nearly half the minimum wage proposed for unskilled workers by the labour ministry's Expert Committee on determining the Methodology for fixing the National Minimum Wage (2019); this was pegged at Rs 375 per day, at 2018 prices with an additional "city compensatory allowance" for urban workers. On the other hand, the 15th Indian Labour Conference's (ICL 1957) 'needs-based framework' has a much broader coverage (WPC 2019), which was also upheld by the 1992 Supreme court judgment (Workmen vs. Reptakos*).* It expanded the notion to include "children's education, medical care, recreation, and provisions for marriage, old age, etc. Based on the Reptakos ruling, the 7th pay commission recommended a minimum wage of Rs 600 per day. More recently, SC in October 2019, ruled to revise the present minimum wage in Delhi to Rs 14,842 per month and an additional DA, bringing the figure to about 15,000 per month, or Rs 500 per day for an unskilled worker (Kumar and Kuchik 2019). Despite varying recommendations and the ruling by the apex court in the country, the continuous rigidity in keeping the minimum wage low,

Fig. 8 Percentage of workers with average earning below specific benchmark income per day by employment categories, 2019–2020. *Source*: Authors' calculations based on PLFS

undoubtedly reflects the underlying subjugation of the State to the brazen neo-liberal squeeze of workers within the current regime.

Considering these benchmarks, namely, the current minimum wage (Rs 178), proposed minimum wage (Rs 375) and the recent SC ruling in Delhi (Rs 500), we estimate proportions of 'income-vulnerable' workers,[5].i.e. those falling below the threshold among the total employed (Fig. 8). In 2019–2020, 34.4% of the workers earned a per day wage of less than Rs 178; the proportion being 2.7 times higher for self-employed vis-à-vis other categories. Further, as high as 72% earned less than the proposed minimum wage; the share was more than 50% among RWS. If one considers the Rs 500 per day benchmark, the income-based vulnerability among the employed grows to 80.9%; in case of casual labour, the figure was estimated to be as high as 92.4%.[6]

There was also considerable variation across states (*Annexure 1*). More than 50% of the workers in Chhattisgarh and Himachal Pradesh earned less than the current minimum wage. This is in sharp contrast to less than 17% in Bihar, Haryana and Delhi. As regards the proposed minimum wage, more than 80% of the workers earned less than Rs 375 per day in Chhattisgarh and Jharkhand, MP, Odisha, West Bengal and UP, while only 32% in Delhi and 45% in Kerala earned less than Rs 375 per day. Against Rs 500 benchmark, it was observed that 90% or more workers in Bihar, Jharkhand, West Bengal, Odisha and UP, MP and Chhattisgarh were identified as income-unemployed/vulnerable; the share being the lowest in Kerala at 55.3%. Of course, explanations of inter-state differences require much more substantive analysis, which we cannot take up in this paper.

Another aspect of India's world of work we wish to highlight here is the considerable segmentation across caste and gender lines. Ghosh (2019) had argued that the

[5] It may be noted that our notion is similar to what Patnaik has categorized as "income unemployed" (Patnaik, 2019b)

[6] We also estimated the average of the income-vulnerable in the first 3 quarters of the PLFS (2019–2020) to remove the impact of the first lockdown (April–june 2020). The percentage share of workers earning less than the various benchmarks has largely remained similar. For instance, 80.8 per cent earned less than Rs 500.

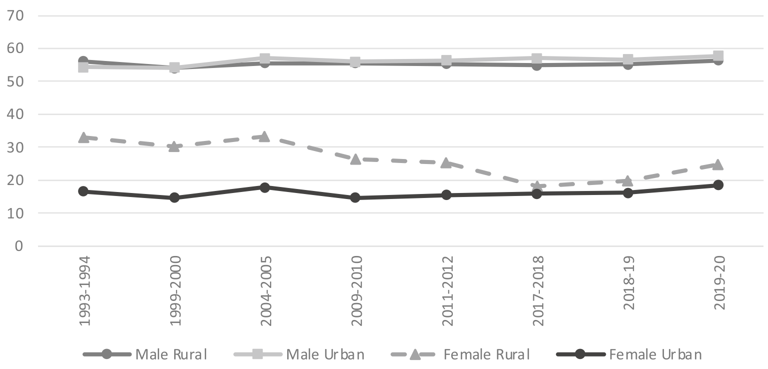

Fig. 9 LFPRs (by usual status) by sex, 1993–1994 to 2019–2020. *Source*: NSSO and PLFS Annual reports

development trajectory during the neo-liberal regime has been one of reducing production costs and facilitating surplus extraction by accentuating or at least perpetuating caste and gender-based inequities. These underlying particular vulnerabilities and inequities of the socially disadvantaged groups (women and SCs/STs), led them to bear a disproportionate brunt of the crisis as the pandemic hit along the lines of pre-existing vulnerabilities (Deshpande and Ramachandran 2020; Roychoudhary 2022). Select additional aspects of inequities across gender and social groups at the current juncture have been discussed in the next section.

4 Select Aspects of Labour Market Inequities and Vulnerabilities

4.1 Among Women

India has persistently been ranked poorly as per the WEF's gender gap index; the ranking in 2021 was 140 (out of 156 countries). Within the subindex pertaining to economic participation and opportunity, the ranking was even worse (151). In addition to some aspects of gender-based inequity highlighted in the previous section, this section assesses inequities along the axes of participation rates, wages, and occupational distribution.

The Female labour force participation rates (FLFPRs) in India have been one of the lowest in the world (Roy and Mukhopadhyay 2019). Not only have the FLFPRs in both rural and urban areas (more so in urban areas) remained substantially lower than men (Fig. 9), but they have also largely deteriorated during the neo-liberal regime, although there have been marginal improvements since 2018–2019. Furthermore, the FLFPRs also vary significantly across states; the rate was lowest in Bihar at only 6% in 2019–2020. The low LFPRs imply that a major chunk of the population has been excluded from productive activities. Of course, there are issues pertaining to the contemporary definition of work which does not include unpaid care work; we do not discuss those here.

Fig. 10 Average per day wage across various employment categories by gender, 2019–2020. *Source*: Authors' calculation based on PLFS

Scholars have discussed several demand and supply side factors for the low and declining FLPRs—cultural constraints, lower returns from work for women, U-shaped association between income and FLPRs, regulatory burden, decline in farm jobs in rural areas, increase in enrollment in educational institutions, etc. (Chaudhary and Verick 2014; Roy and Mukhopadhyay 2019). We refrain from a detailed discussion regarding these but do wish to underscore that one of the key reasons for the low FLPRs has been a disproportionately high burden of care work and domestic duties on women compared to men. In 2019–2020, 51.1% of the women outside the labour force attended to domestic duties (relative to only 1.9% men) and 31% (64.3% of men) attended educational institutions.

Gender based inequities also manifest as lower remuneration for women vis-à-vis men. During the reform period, the average wages among women have increased faster than men resulting in a decline in the gender wage gap from 48 to 34% between 1993–1994 and 2011–2012 (Misra 2019); the gender wage gap also reduced across states, industries as well as occupations (India Wage report 2018). Yet, the gap has remained significant by international standards. Studies have further shown that the gender wage gap cannot be attributed to the differences in productive characteristics ("endowment effect") solely but to a large extent to the "discrimination effect" (India Wage report 2018). As of 2019–2020, the raw gender wage gap, defined as the difference between male and female wage/income, is evident across all employment categories as well as between rural and urban areas (Fig. 10); albeit the gap is substantially higher in urban areas for all employment categories. The gap was highest among self-employed but lowest among casual labour.

Taking all employment categories together, it was observed that the raw gender wage gap was relatively low in Delhi and Haryana and among the BIMARU states (except Rajasthan) while it was the highest in Himachal Pradesh (Fig. 11*)*.

Furthermore, a higher income vulnerability is evident among women relative to men in 2019–2020 in all employment categories (Table 1). 65.5% of women earned less than the current minimum wage relative to only 23.5% men; the gap being the highest among self-employed. This could be because 62.2% of self-employed

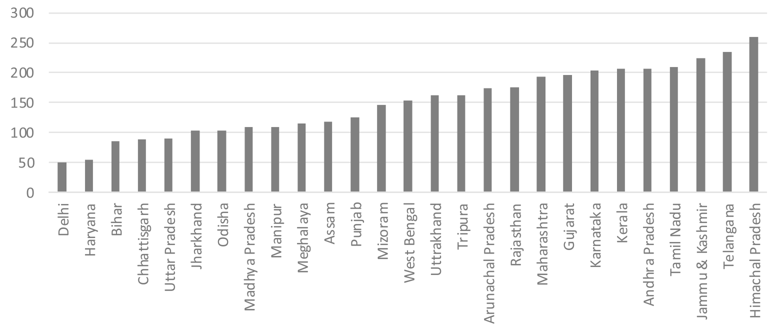

Fig. 11 Raw gender wage gap across states, 2019–2020. *Source*: Authors' calculations based on PLFS

Table 1 Percentage share of 'income-vulnerable', 2019–2020

	Below Rs 178		Below Rs 375		Below Rs 500	
	Female	Male	Female	Male	Female	Male
Casual labour	43.7	9.0	97.0	73.3	99.2	89.9
Regular	34.6	12.3	66.9	47.9	71.8	59.5
Self Employed	86.7	34.3	96.6	70.4	97.7	79.7
Total	65.5	23.5	90.0	65.5	92.2	76.9

Source: Authors' calculations based on PLFS

women (and 35% of total employed females) were engaged as unpaid family workers relative to only 16.2% among self-employed men (or 8.5% of total male employment). Further, when the benchmark of Rs 375 is considered, the share rises to 90% among women, while among men, it was 65%.

Another persistent disadvantage faced by women in India's world of work has been high gender-based occupational segregation (Duraisamy and Duraisamy 2014) resulting in disproportionate concentration of women in agricultural activities and in low -paying occupations relative to the males. While 57.3% of women worked as Market Oriented Skilled Agricultural and Fishery Workers and Agricultural, Fishery and Related Labourers, the corresponding share among men was only 37.7% (Fig. 12). In contrast, a relatively small proportion of women were in the top 3 occupations (from the left).

It is important to note that women's concentration has been high vis-à-vis men in specific occupations– Life Science and Health professionals, Teaching Professionals and Personal and Protective Service Workers. This is in line with the observed gender-stereotyping of occupations so that women tend to concentrate in activities that resemble their presumed characteristics particularly care giving and protective roles (Anker 1998). However, even in these health and education sectors, where public sector presence is large, women in rural areas, more often than not disproportionately occupy positions such as para-teachers, auxiliary midwives or AASHA workers; such positions are primarily irregularly paid and informal (Roy and Mukhopadhyay 2019).

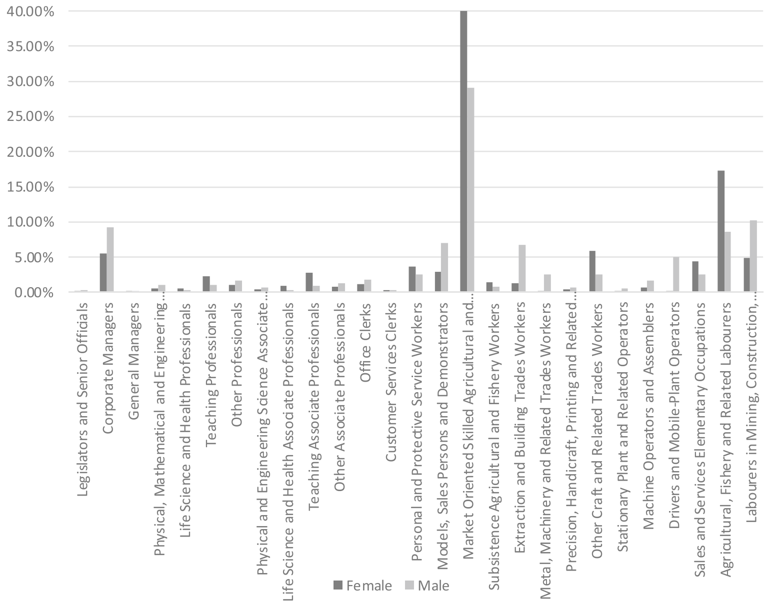

Fig. 12 Occupational distribution (as per usual status) by gender, 2019–2020. *Source*: Authors' calculations based on PLFS

4.2 Across social groups

India's social geography has been a strong determinant of India's economic geography and the caste location of workers serves as an important variable in determining the labour market outcomes. Within the social hierarchy, the Scheduled Castes (SCs) and the Scheduled Tribes (STs) lie at the bottom (we focus on these two here), and are placed below the Other backward castes (OBCs); "Others" constitute the socially-advantaged group. This section flags some key aspects of inequities (and vulnerabilities) among those employed along select axes – employment category, wages, income-vulnerability, and occupational distribution.

The first aspect of inequities to highlight here is the over-representation of SCs and STs (relative to their corresponding shares in total employment) compared to the socially-advantaged groups among the vulnerable employment of casual labour and their under-representation among RWS. As shown in Fig. 13, in 2019–2020, out of the total casual labour, 34.3% were SCs (their share in total employment being 20%) and 13.2% STs (constituting 10.6% of overall employment). On the other hand, the representation of "Others" was lower than their representation in total employment, only 13.2% compared to 25.4% in total employment. In sharp contrast, the representation of SCs (18.4%) and STs (6.3%) in RWS was lower than that in total employment while among "Others", significantly higher (36.5%). This pattern was observed across both rural and urban areas and for both men and women.

Even among RWS workers, the vulnerable nature of employment for socially disadvantaged groups is evident. In 2019–2020, SCs had the highest percentage of

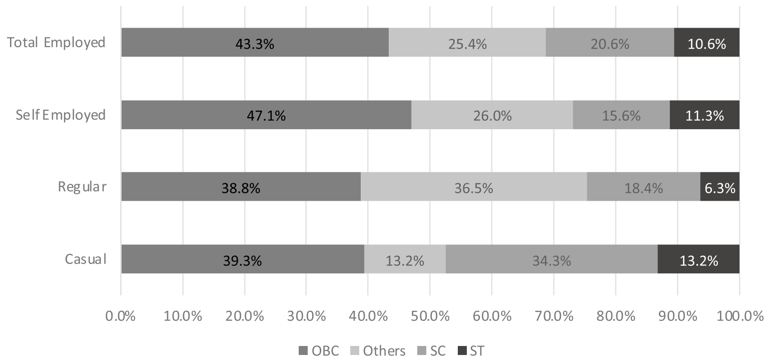

Fig. 13 Representation of social groups within categories of employment by usual status, 2019–2020. *Source*: Authors' calculations based on PLFS

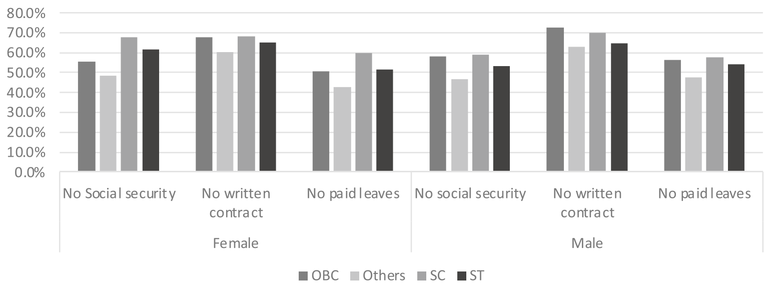

Fig. 14 Share of RWS with *no* social security, paid leaves or written contracts across social groups, 2019–2020. *Source*: Authors' calculations based on PLFS

RWS who were not eligible for any of the social security provisions (61.3%), paid leaves (58%) and had no written contracts (69.5%) relative to "Others" who had the lowest share across these variables. Similar trend was observed for both men and women (Fig. 14).

Secondly, there is also evidence of high caste-based occupational segregation indicated by the concentration of groups belonging to lower social hierarchy at the bottom of occupational hierarchy. As per the latest survey, 36.8% of SCs and 28.1% of STs were employed in elementary occupations (the highest within these being Agricultural, Fishery and Related Labourers) while elementary occupations accounted for only 13.8% of employment among "Others". In contrast, among top 3 occupations (from the left), the largest concentration was among "Others" (27.2%) while among SCs and STs only 10.9% and 7.2% of the respective social groups were employed in these occupations (Fig. 15).

The inequalities in wage also reflect the underlying caste hierarchy. Studies have also shown that wage inequality for STs and SCs have remained largely the same during the reform period between 1993–1994 and 2011–2012; the wage discrimination, however, against STs and SCs has worsened (Duraisamy and Duraisamy 2017) contributing to their vulnerability even further. In 2019–2020 SCs and STs were

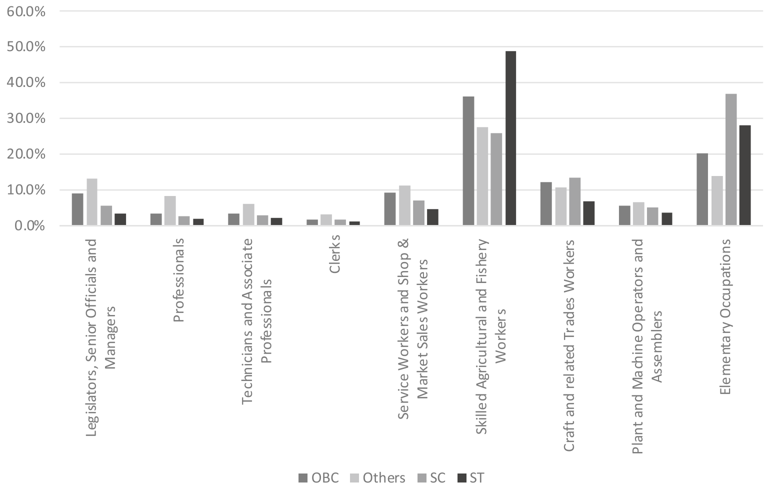

Fig. 15 Distribution across occupations (NCO-1 digit) for each social group (%), 2019–2020. *Source*: Authors' calculations based on PLFS

Table 2 Average income across social groups and gender, 2019–2020

	OBC	Others	SC	ST	All
Regular/salaried employees (past calendar month)					
Male	15,949	21,578	14,982	16,773	17,931
Female	12,367	18,809	8950	11,852	13,843
Person	15,125	20,950	13,276	15,325	16,938
Self-employed (past 30 days)					
Male	10,955	14,596	9284	8315	11,508
Female	4933	6825	4498	5028	5395
Person	10,050	13,434	8504	7790	10,573
Casual labour (Average per day)					
Male	340.1	325.8	313.5	262.6	319.0
Female	202.1	197.8	208.4	181.5	200.2
Person	301.6	299.0	287.0	236.9	287.4

Source: Authors' calculations based on PLFS

amongst the two lowest earning social groups while "Others" was the highest earning for both men and women, except in case of female casual labour (Table 2)

The vulnerabilities of these groups can also be observed from the fact that 48.4% of STs and 32.7% of SCs earned on an average less than Rs 178 per day vis-à-vis 29% among "Others". With the benchmark of Rs 375, 60.4% of "Others" earned less than Rs 375 per day relative to 78.6% of SCs and 85.5% of STs. Further, for the benchmark of Rs 500, the income vulnerabilities of these two groups becomes even more pressing; 88.2% of SCs and 91% of STs per cent of these groups earned below Rs 500 per day. The corresponding figure for "Others" was 69.3%. The pattern was visible across all employment categories (Table 3) and across both men and women.

Table 3 Percentage of income-vulnerable across social groups, PLFS, 2019–2020

Social Group	Casual Labour			RWS			Self employed			All		
	< 178	< 375	< 500	< 178	< 375	< 500	< 178	< 375	< 500	< 178	< 375	< 500
OBC	16.6	75.4	89.4	17.4	55.0	65.8	47.7	77.7	85.5	35.1	72.4	82.0
Others	16.3	74.9	92.4	13.9	42.8	52.2	41.0	68.4	75.3	29.2	60.4	69.3
SC	16.3	81.7	93.9	24.2	64.1	74.1	51.1	83.6	90.6	32.7	78.6	88.2
ST	29.7	90.9	97.3	23.5	60.2	67.9	65.0	89.5	94.0	48.4	85.5	91.0

Source: Authors' calculations based on PLFS

There are various facets of discrimination and vulnerabilities among SCs and STs and attempts have been made to map these by various studies in terms of access to land, education, etc. Some of our own work confirms this. However, we do not get into a detailed econometric engagement with these for this paper as it would be an exercise unto itself.

5 Concluding Remarks

The return to ‘spontaneous capitalism’ with the ascendancy of neo-liberal regime since the 1970s and even more so since the 1990s has resulted in profound implications for the world of work across the globe. Growing global labour reserves (concentrated in the global south) coupled with the tendencies to aggravate or preserve the vulnerabilities among workers to facilitate surplus extraction have been the major underlying processes. The rise in the power of finance capital not only vis-à-vis other constituents, especially labour, but also vis-à-vis the capital in production, is resulting in substantial pressure on aggregate underutilization of labour.

In India, the dissonance between GDP and employment and the fall in employment elasticity across several industries has contributed to a jobless, and more recently a jobloss, growth scenario. These have presented severe (un)employment challenges for the country coupled with accentuated or, to say the least, persistent high vulnerability among workers, particularly among those belonging to socially disadvantaged groups—women, SCs and STs. It is our contention that given the high precariousness of the world of work in India, any exogenous shock can be expected to have catastrophic implications for the workers in the country. Thus, even if the lockdown had not been as stringent, the pandemic would have resulted in massive socio-economic setbacks for them.

While the economy seems to be out of the worst of the pandemic-induced crisis, it is also essential to point out that COVID-19 has added to the existing structural vulnerabilities, impacts of which may further contribute to employment challenges in India and in global south in general. Two important aspects may be flagged here which we have not discussed in the paper. First, the pandemic wreaked havoc on the global supply value systems. This has now resulted in renewed discussions on re-shoring in some industries (for instance, auto industry) in an attempt to establish smaller supply value systems that could be more resilient to global external shocks (Piparsania 2020). A relocation of capital then may result in substantial employment losses for India. Second, the marginalized and disadvantaged sections (SCs, STs and women) bore a disproportionate brunt of the pandemic, which is likely to exacerbate their vulnerabilities. It is thus of utmost importance to acknowledge and address the underlying structural inequities and vulnerabilities in India’s world of work at the present juncture, as part of any significant effort to address the ongoing long-term employment crisis in the country.

Appendix 1: Percentage Share of Workers Earning Less than Rs 178, Rs 375 and Rs 500 Per Day Across States, 2019–2020

State name	Below 178			Below 375			Below 500		
	Female	Male	Total	Female	Male	Total	Female	Male	Total
Andhra Pradesh	50.3	14.6	26.4	93.9	49.6	64.2	96.3	70.8	79.3
Arunachal Pradesh	56.0	19.1	27.1	78.7	50.0	56.2	81.1	61.5	65.8
Assam	59.8	21.4	27.5	86.2	67.2	70.2	89.1	79.9	81.4
Bihar	56.1	11.5	16.8	93.9	74.7	77.0	94.9	89.0	89.7
Chandigarh	29.5	8.6	13.0	52.5	41.7	44.0	58.2	54.9	55.6
Chhattisgarh	85.2	41.6	56.5	95.7	82.7	87.2	96.4	88.1	90.9
Delhi	23.3	10.3	12.3	45.7	29.6	32.1	53.1	43.6	45.1
Gujarat	65.3	23.5	34.8	91.7	60.1	68.7	94.6	70.4	76.9
Haryana	35.9	10.8	14.6	69.8	42.3	46.5	79.2	65.6	67.7
Himachal Pradesh	80.3	32.5	53.8	93.1	68.3	79.4	94.2	78.7	85.6
Jammu & Kashmir	72.3	14.4	30.6	86.2	38.3	51.7	89.3	57.9	66.7
Jharkhand	83.7	37.6	49.7	96.5	83.3	86.8	97.7	89.0	91.3
Karnataka	58.5	19.6	30.7	85.7	51.2	61.0	89.0	65.3	72.1
Kerala	38.8	15.0	22.2	73.7	33.5	45.7	79.8	44.6	55.3
Madhya Pradesh	75.8	37.3	47.5	96.0	81.9	85.7	96.5	87.4	89.9
Maharashtra	65.7	20.5	35.0	86.9	61.3	69.5	88.8	70.9	76.6
Manipur	40.6	10.5	19.4	74.4	49.0	56.5	79.3	63.9	68.5
Meghalaya	70.9	20.3	39.3	91.3	66.9	76.1	92.2	79.4	84.2
Mizoram	49.0	17.8	28.2	73.8	43.3	53.5	76.2	54.3	61.6
Nagaland	67.8	24.3	38.7	78.1	57.3	64.2	80.6	67.9	72.1
Odisha	74.0	32.6	43.8	95.4	80.4	84.5	96.0	87.8	90.0
Punjab	53.4	17.8	25.4	79.8	61.4	65.3	83.0	71.3	73.8
Rajasthan	77.4	26.6	42.1	94.9	67.0	75.5	95.9	78.8	84.0
Sikkim	53.4	26.9	37.3	80.1	58.0	66.6	84.9	69.1	75.3
Tamil Nadu	53.8	11.2	25.8	86.6	42.2	57.4	90.0	62.7	72.1
Telangana	53.0	14.5	28.6	91.2	50.2	65.2	94.9	66.1	76.6
Tripura	68.0	16.1	28.4	91.7	70.9	75.8	94.3	83.5	86.0
Uttar Pradesh	79.3	34.0	42.0	94.7	80.2	82.8	95.7	87.4	88.8
Uttarakhand	70.6	23.7	37.9	91.2	62.4	71.1	93.3	72.6	78.9
West Bengal	78.3	26.5	38.2	94.4	80.7	83.8	95.3	88.5	90.0
Total	65.5	23.5	34.4	90.0	65.5	71.9	92.2	76.9	80.9

Source: Authors' calculations based on PLFS

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References

Acemoglu, D., and P. Restrepo. 2020. Robots and jobs: Evidence from US labor markets. *Journal of Political Economy* 128(6): 2188–2244.

Agarwal K. & Srivas A. 2019. *Pronab Sen on Why 2017–18 Jobs Data Are Comparable With Previous Years*. *The Wire*.

Anker, R. 1998. *Gender and jobs: Sex segregation of occupations in the world*. International Labour Organization.

Berg, J., Furrer, M., Harmon, E., Rani, U., & Silberman, M. S. 2018. Digital labour platforms and the future of work. *Towards Decent Work in the Online World. Rapport de l'OIT*.ILO.

Carbonero, F., Ernst, E., & Weber, E. 2020. Robots worldwide: The impact of automation on employment and trade. IAB-Discussion Paper, No. 7/2020.

Chandrasekhar, C.P. 2011. India's New, High-Growth Trajectory: Implications for demand, technology and employment. *The Indian Journal of Labour Economics* 54(1): 31–49.

Chandrashekhar and Ghosh 2018. Industrial employment: Jobs go up but wages don't. Hindu Business line.

Chaudhary, R., and S. Verick. 2014. *Female labour force participation in India and beyond*. New Delhi: ILO.

De Backer, K., DeStefano, T., Menon, C., Suh, J.R. 2018. Industrial robotics and the global organisation of production. OECD Science, Technology and Industry Working Papers.

Deshpande, A., & Ramachandran, R. 2020. *Is Covid-19" The Great Leveler"? The Critical Role of Social Identity in Lockdown-induced Job Losses* (No. 622). GLO discussion paper.

Duraisamy, M., and P. Duraisamy. 2014. *Occupation segregation, wage, job discrimination against women across all social groups in the Indian labour market 1983–2012*. Madras Institute of Development Studies.

Duraisamy, P., and M. Duraisamy. 2017. Social identity and wage discrimination in the Indian labour market. *Economic and Political Weekly* 52(4): 51–60.

Frey, C.B., and M.A. Osborne. 2017. The future of employment: How susceptible are jobs to computerisation? *Technological Forecasting and Social Change* 114: 254–280.

Ghosh, J. 2019. The Uses and Abuses of Inequality. *Journal of Human Development and Capabilities* 20(2): 181–196. https://doi.org/10.1080/19452829.2019.1574282.

Graetz, G., and G. Michaels. 2018. Robots at work. *Review of Economics and Statistics* 100(5): 753–768.

ILO. 2018a.Paid Employment vs vulnerable employment.

ILO. 2018b. *Avoiding unemployment is not enough: An analysis of other forms of labour underutilisation*. ILOSTAT: Spotlight on Work Statistics.

ILO. 2019. *Preparing for the future of work: National policy responses in ASEAN +6*.

ILO. 2020. Rapid Assessment of the Impact of the COVID-19 Crisis on Employment.

India Wage Report. 2018. ILO.

Jajoria, D., and M. Jatav. 2020. Is periodic labour force survey, 2017–18 comparable with employment-unemployment survey, 2011–12? *Economic and Political Weekly* 55(3): 12–16.

Jha, P. 2016. *Oxford India short introductions: Labour in contemporary India*. Oxford University Press.

Jha, P. 2019. Prospects for labour and contemporary capitalism: An assessment with reference to India. *The Indian Journal of Labour Economics* 62(3): 319–340.

Jha, P., and M. Kumar. 2020. Labour in India and the COVID-19 Pandemic. *The Indian Economic Journal* 68(3): 417–437.

Jha, P., and P. Yeros. 2019. Global Agricultural Value Systems and the South: Some Critical Issues at the Current Juncture. *Agrarian South: Journal of Political Economy* 8(1–2): 14–29.

Jha, P., S. Verma, and M. Kumar. 2020. Contours of food security challenges in neo-liberal India. In *Food security and international relations: Critical perspectives from the Global South*, ed. T. Lima and A. Costantino. Ibidem-Verlag.

Jha, P. and Chakraborty, A. 2014. *Post Fordism, Global Production Networks and Implications for Labour.* Delhi : ISID Working Paper172, July 2014.
Jha, P., & Sikdar, S. 2020. Contemporary Capitalism and Employment Challenges: Some Reflections on India. In *Development Challenges of India After Twenty-Five Years of Economic Reforms: Inequality, Labour, Employment and Migration, edited by N.K. Mishra* (pp. 157–181).
Jha, P., & Yeros, P. 2021. Labour Questions in the South: Back to the Drawing Board, Yet Again. In *Labour Questions in the Global South edited by Praveen Jha, Walter Chambati and Lyn Ossome* (pp. 19–48).
Jha, P., Moyo, S., & Yeros, P. 2017. Capitalism and "Labour Reserves": A note. In *Interpreting the world to change it: Essays for Prabhat Patnaik* (pp. 205–207). edited by C.P. Chandrasekhar and Jayati Ghosh.
Kannan, K.P., and G. Raveendran. 2019. From Jobless to Job-loss. *Growth* 44: 7.
Kaushal, N. 2019. *Why we can't compare PLFS and EUS data on unemployment*. Economic Times.
Kumar & Kuchik. 2019. *The broken promise of decent and fair wages*. The Hindu.
Min, J., Y. Kim, S. Lee, T.W. Jang, I. Kim, and J. Song. 2019. The fourth industrial revolution and its impact on occupational health and safety, worker's compensation and labor conditions. *Safety and Health at Work* 10(4): 400–408.
Misra, S.S. 2019. *Not getting their dues.* The State of Employment in India. Oxfam India
Patnaik, U. 2011. Two decades of neo-liberal reforms in India: The worsening employment situation. *People's Democracy* 35(34): 17–26.
Patnaik, P. 2014. Imperialism and the agrarian question. *Agrarian South: Journal of Political Economy* 3(1): 1–15.
Patnaik, P. 2016. Globalisation, inequality and economic crisis. *Studies in People's History* 3(1): 71–81.
Patnaik, P. 2019a. *The dramatic increase in the unemployment rate*. Deshabhimani.
Patnaik, P. 2019b. Contemporary Capitalism and the World of Work. *Agrarian South: Journal of Political Economy* 8(1–2): 303–316.
Patnaik, U., and P. Patnaik. 2019. Neoliberal capitalism at a dead end. *Monthly Review* 71(3): 20–31.
Patnaik, P. 2005. *The Economics of the New Phase of Imperialism.* http://www.networkideas.org/featart/aug2005/Economics_New_Phase.pdf, 2005.
Piparsania, V. 2020. *Opinion: Covid-19 impact on global auto industry - Need for more resilient supply chains.*ET Auto.
Press release. 2020. PLFS Annual Report (2018–19). MOSPI. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1629366
Rani, U., and R. Sen. 2018. Economic growth and the role of labour market institutions in India. In *Industrial relations in emerging economies: The quest for inclusive development*, ed. S. Hayter and C.H. Lee. Geneva: Edward Elgar Publishing, International Labour Office.
Report of the Expert Committee on Determining the Methodology for Fixing the National Minimum Wage. 2019. Ministry of Labour and Employment. GOI.
Roy, S.N. & and Mukhopadhyay, P. 2019. *A deep dive into female labour force participation.* Mind The Gap: The State of Employment in India. Oxfam India.
Roychowdhury, A., M. Bose, and S.D. Roy. 2022. The great Indian lockdown 1.0: exploring the labour market dynamics, Canadian Journal of Development Studies /. *Revue Canadienne D'études Du Développement*. https://doi.org/10.1080/02255189.2022.2038093.
Satpathy, A., and B.K. Malick. 2020. *When even the minimum wage is not enough*. The Statesman.
Stiglitz, J. 2013. *The Price of Inequality: How Today's Divided Society Endangers Our Future*. UK: Penguin.
Suwandi, I. 2019. *Value Chains: The New Economic Imperialism*. New York: Monthly Review Press.
Sweezy, P.M. 1994. The triumph of financial capital. *Monthly Review* 46(2): 1–11.
UNCTAD. 2018. *World Investment Report 2018*. Geneva: United Nations Council for Trade and Development.
Vyas, M. 2021. *Covid leaves a lasting impact*. Berlin: CMIE.
Working Peoples' Charter. 2019. *Craftily Written Labour Codes Exclude Millions, Pay Little Heed to Equality*. The Wire.