

Article

Decent Work and Regional Economic Development in China

Jie Shen¹, Bingtao Zhang^{2,*}¹Shenzhen Audencia Financial Technology Institute, Shenzhen University, 518060 Shenzhen, Guangdong, China²School of Public Administration, South China University of Technology, 510640 Guangzhou, Guangdong, China*Correspondence: 983854516@qq.com (Bingtao Zhang)

Academic Editor: Simon Jebesen

Submitted: 24 March 2025 Revised: 11 December 2025 Accepted: 31 January 2026 Published: 22 September 2026

Abstract

Using data from the China Family Panel Studies (CFPS), this study evaluates levels of perceived decent work and their association with provincial gross domestic product (GDP) in China. The findings demonstrate an upward trajectory in perceived decent work between 2016 and 2020. Additionally, a positive relationship is found between provincial GDP growth and perceptions of decent work. These results provide valuable insights into the complexities of decent work dynamics within a transitioning economy such as China, thereby enriching scholarly understanding of the determinants influencing individuals' work experiences. Practical implications are discussed.

Keywords: China; decent work; perceived decent work; economic growth**JEL:** J81, J21, R11, O15

1. Introduction

The International Labour Organization (ILO) introduced the concept of decent work in 1999, defining it as “opportunities for everyone to obtain decent and productive work in conditions of freedom, equity, security, and respect for human dignity” (International Labour Organization, 1999). Since its inception, the concept of decent work has garnered considerable scholarly attention. The concept of “decent work” is often used interchangeably with that of “good work” (Hauff and Rastetter, 2021). However, prior research has predominantly relied on small-scale samples, thereby limiting the comprehensive assessment of decent work across broader populations. Moreover, there has been limited research exploring the relationship between macro-level economic indicators and individual perceptions of decent work. Previous studies that juxtaposed levels of decent work against economic rankings often presented conflicting findings concerning the impact of economic development on decent work outcomes. For instance, while Ghai (2003), Bescond et al. (2003), and Bonnet et al. (2003) observed correlations between Gross Domestic Product (GDP) growth and industrialization with levels of decent work, contrasting outcomes were reported by Luo and Yang (2018), who found a misalignment between the economic development levels and the corresponding levels of decent work in different Chinese provinces.

While Duffy et al. (2017) underscored the significance of understanding individual work perceptions and developed a Decent Work Scale (DWS) to capture such nuances, prior research predominantly assessed decent work through macro-level metrics that may not encapsulate individual work experiences. Noteworthy studies by Bescond

et al. (2003), Bonnet et al. (2003), Ghai (2003), Huang and Ke (2011), and Luo et al. (2020) have predominantly operationalized decent work based on factors such as job opportunities, labor market security, work rights, social protection, income security, representation security, and social dialogue. These identified research gaps necessitate further empirical investigations to deepen our understanding of the intricate interplay between economic factors and the individual perceived decent work. To address these limitations, this study utilizes panel data from the China Family Panel Studies (CFPS) to analyze perceived decent work at the provincial level for the years 2016, 2018, and 2020. Moreover, this study investigates the impact of macro-level economies on individual perceptions of decent work. GDP data are extracted from China Statistical Yearbooks. By so doing, this study seeks to uncover the interplay between economic development and the quality of work experience, a critical area of inquiry that has implications for both policy-making and societal well-being. The study's findings offer valuable insights into how economic growth initiatives can be harmonized with efforts aimed at enhancing working experience and safeguarding labor rights.

2. Theoretical Foundations: Economic Development and Decent Work

Economic growth can impact decent work at several levels. At the macro level, economic growth can effectively promote institutional supply-side reforms, prompting governments to improve regulations and ensure that workers operate in safe, oppression-free environments that continuously increase personal income and eliminate discrimination (Bonnet et al., 2003; Rai et al., 2019). Moreover, economic growth can effectively improve union develop-



ment (Selwyn, 2013; Rai et al., 2019), enhancing workers' decision-making power and voting rights (Bonnet et al., 2003). Norbäck and Styhre (2021) point out that workplace bargaining power significantly influences employees' positions on the precarity spectrum within market-mediated professions. At the meso level, economic growth leads to the expansion of enterprise production, which can encourage companies to provide adequate safety protections and create more efficient work environments (Standing, 2003). Economic growth can promote workplace fairness, such as wage equality and welfare equality (Bonnet et al., 2003). At the micro level, economic growth can increase job opportunities and enhance job security for workers (Bonnet et al., 2003).

In specific, the neoclassical school of economics proposed the "Solow Model" and "Okun's Law", asserting that economic growth, employment opportunities, and income exhibit similar trends (Okun, 1962; Solow, 1970; Rawski, 2001). Economic growth drives increased corporate output and market expansion, boosting employment and incomes (Nissim, 2007). During economic development, evolving industrial structures and emerging industries create job opportunities, enhancing labor income (Luo and Wei, 2023). Economic growth also increases national revenue, leading to greater investment in education, improving workforce quality (Huang and Duan, 2022), and optimizing labor allocation, positively affecting employment and compensation (Huang and Duan, 2022). Consequently, workers in more developed economies are generally more satisfied with compensation. For instance, the Four Asian Tigers' rapid economic development has significantly increased per capita income and improved job conditions (Fields, 2003).

Economic growth's impact on workers' hours shows a "threshold" effect, manifesting as an "inverted U-shape" relationship that evolves across stages of development. In early stages, the need for capital accumulation, higher productivity, labor demand, and production scale expansion often result in longer working hours (Wei et al., 2010). Additionally, inadequate laws and low awareness of labor rights blur the distinction between work and leisure time (Xiao et al., 2020; Liu and Chen, 2025). For example, in China, excessive labor utilization with frequent forced overtime is common (Inverardi-Ferri, 2023; Tsai et al., 2016; Yang et al., 2023). The necessity of being available for work outside of regular hours, particularly when compelled to work overtime, impacts employees' psychological wellbeing (Stempel et al., 2022). However, as economies expand, working hours tend to decrease. Technological progress and increased awareness of labor rights enhance work-life balance. Developed countries like the US and UK have shorter working hours compared to developing countries (Bell and Hart, 2023). Overall, economic development is positively related to decent work levels.

Safety incidents worldwide indicate a correlation between production safety and economic development levels.

Developed countries generally have better safety records than developing countries as less developed regions, prioritizing economic output and growth, often neglect workplace safety (Wang, 2006). Within a country, economically undeveloped regions have higher workplace accident rates compared to more developed areas (Antonelli et al., 2024). Economic growth accompanies the gradual improvement of labor laws and regulations, including labor protection and occupational health and safety measures, which enhance workplace safety and reduce accidents. Reimann and Diewald (2025) argue that technological advances, particularly digital work communication, can have a significant impact on employee mental health. Additionally, economic growth increases social resources, helping to reduce competition for resources and easing interpersonal tensions, thus fostering trust and cooperation in the workplace (Monares et al., 2020; Roth, 2022). This, in turn, enhances employees' psychological safety at work.

Economic development drives companies to place greater emphasis on worker welfare and healthcare, enhancing the design and administration of medical insurance systems to protect workers' healthcare rights. From a resource allocation perspective, economic growth accumulates social wealth, enabling governments and enterprises to increase financial expenditures on building and improving healthcare systems (Zhang et al., 2020; Wu et al., 2020). This enhances the coverage and optimization of medical resources, improving healthcare protection for workers (Tackie et al., 2022).

Maslow's hierarchy of needs theory posits that individuals, after meeting basic physiological and safety needs, seek higher-level needs such as belonging and self-actualization (Maslow, 1954). Economic development and increased income help fulfill basic needs like food and housing, providing a foundation for pursuing higher-level needs (Maslow, 1954). As incomes rise, people may focus more on social responsibility, actively engaging in charitable activities, volunteer work, and environmental initiatives to achieve self-worth and social recognition (Hayes, 2001; James and Sharpe, 2007; Gelissen, 2007).

Similarly, businesses recognize the importance of social responsibility as they grow. Corporate social responsibility (CSR) practices not only enhance a company's public image but also form a crucial part of sustainable development strategies (Mitnick et al., 2021). By participating in environmental and charitable activities, companies can boost their reputation and social influence, contributing to overall societal well-being (Bertels and Peloza, 2008; Sánchez-Torné et al., 2020; Shahbaz et al., 2013). Thus, as individuals and companies pursue survival needs, they also emphasize social values and ethical responsibilities, creating a shared value system centered on social responsibility. Consequently, economic growth not only meets material needs but also fosters alignment in values between individuals and businesses.

It is important to note that economic development, if not managed equitably, can lead to regional disparities, including significant urban-rural gaps (Pulles and Schiele, 2013). In China, the promotion of decent work faces multifaceted policy constraints and regional disparities (Xue et al., 2024). At the national level, while the government has implemented strategies such as prioritizing employment and expanding social security coverage to realize common prosperity, significant challenges remain. For example, income inequality persists, with a Gini coefficient reaching 0.465 in 2019 (Zhang, 2023), and urban-rural disparities are particularly pronounced, with urban areas often benefiting more from economic growth than rural areas. Work-life balance issues are also more prevalent in urban settings, where the pace of life and work demands are higher.

Regionally, the enforcement of labor standards and the promotion of decent work vary significantly. Some economically developed regions may offer better labor protection and social security, whereas less developed areas face greater difficulties (Zhang, 2023). Additionally, industrial restructuring has had a differential impact on various regions, with some areas benefiting from new industries and job opportunities while others struggle with the decline of traditional industries. This has further exacerbated regional disparities in decent work conditions.

Furthermore, there are legislative gaps in protecting the rights of workers in new forms of employment, necessitating new legal tools or revisions to existing laws (Zhang, 2023; Zhang et al., 2020; Xue et al., 2024). Consequently, economic growth does not necessarily enhance the overall standard of decent work for society as a whole. Therefore, a more reasonable approach would be to examine how regional economic conditions, including urban-rural disparities and the impact of industrial restructuring, influence the level of decent work for local workers (Egger, 2002; International Labour Organization, 2002; Majid, 2001).

3. Research Method

The data for this study were extracted from the China Family Panel Studies (CFPS), a collaborative effort by the China Social Sciences Research Center at Peking University, the National Population and Family Planning Commission, the National Bureau of Statistics of the People's Republic of China, Shanghai University, Sun Yat-sen University, and Lanzhou University. Conducted biennially since 2008, the CFPS gathers data on employment, working conditions, labor rights, social security, and social dialogue across 25 provinces in China. The CFPS data are crucial for studying economic development and social changes in China (Cheng and Zhou, 2022; Shi, 2023). This study uses data from 2016, 2018, and 2020 because earlier surveys did not collect data on work safety and work hours.

The 2016, 2018, and 2020 iterations of the CFPS incorporate a set of survey items that align with the key dimensions of the DWS. The DWS typically encompasses

five dimensions including workplace safety, remuneration, rest and leisure time, healthcare and value congruence and each dimension consists of five indicators. In the CFPS, respondents are queried about their satisfaction with three critical aspects of decent work: workplace safety, remuneration, and rest and leisure time. These inquiries are structured using a 5-point Likert scale, ranging from 1, indicating "very unsatisfied", to 5, representing "very satisfied". This scale allows for a nuanced assessment of satisfaction levels across these dimensions. Healthcare, another dimension of the DWS, is addressed in the CFPS by inquiring whether respondents have medical insurance provided by their employers. This binary measure is indicated by a value of 1 for those who receive such benefits and 0 for those who do not. Given the unique measurement of healthcare in the CFPS, which diverges from the Likert scale used for other dimensions, and considering the absence of an item pertaining to value congruence within the CFPS dataset, these elements were not included in the primary analysis. Consequently, the analysis concentrated on the average scores of the three dimensions—workplace safety, remuneration, and rest and leisure. This study, which focuses exclusively on the analysis of decent work, encompasses a comprehensive dataset of 44,324 individual observations. The sample is composed of 25,368 male and 18,956 female participants, providing a balanced and diverse representation for examination.

Previous research suggests that demographic variables such as gender, age, education level, health, and marital status significantly influence the perception of decent work (e.g., Shen et al., 2024). Therefore, this study controlled for these demographic variables. After excluding missing values, a total of 42,340 valid samples were obtained. Among these, there were 24,155 males and 18,185 females, with an average age of 42 years. Education was coded as follows: 1 = Illiterate/Semi-illiterate; 2 = Primary School; 3 = Junior Middle School; 4 = High School; 5 = Vocational College; 6 = Bachelor's Degree; 7 = Master's Degree; 8 = Doctoral Degree. The average education level of the sample was 3.183, indicating a relatively low educational attainment.

4. Decent Work in China

On a national scale, the mean perceived levels of decent work have shown a gradual increase, with scores of 3.392 in 2016, 3.606 in 2018, and 3.685 in 2020, reflecting a positive trend in the perception of decent work over the specified period. Fig. 1 vividly captures this temporal progression, offering a visual representation of the upward trajectory of decent work perceptions. To delve deeper into the temporal dynamics and establish a quantitative relationship between the passage of time and the evolution of decent work perceptions, the study employed a simple linear regression analysis. The analysis yielded a statistically significant correlation between the year and the level of perceived decent work, with a correlation coefficient (r) of 0.076 and

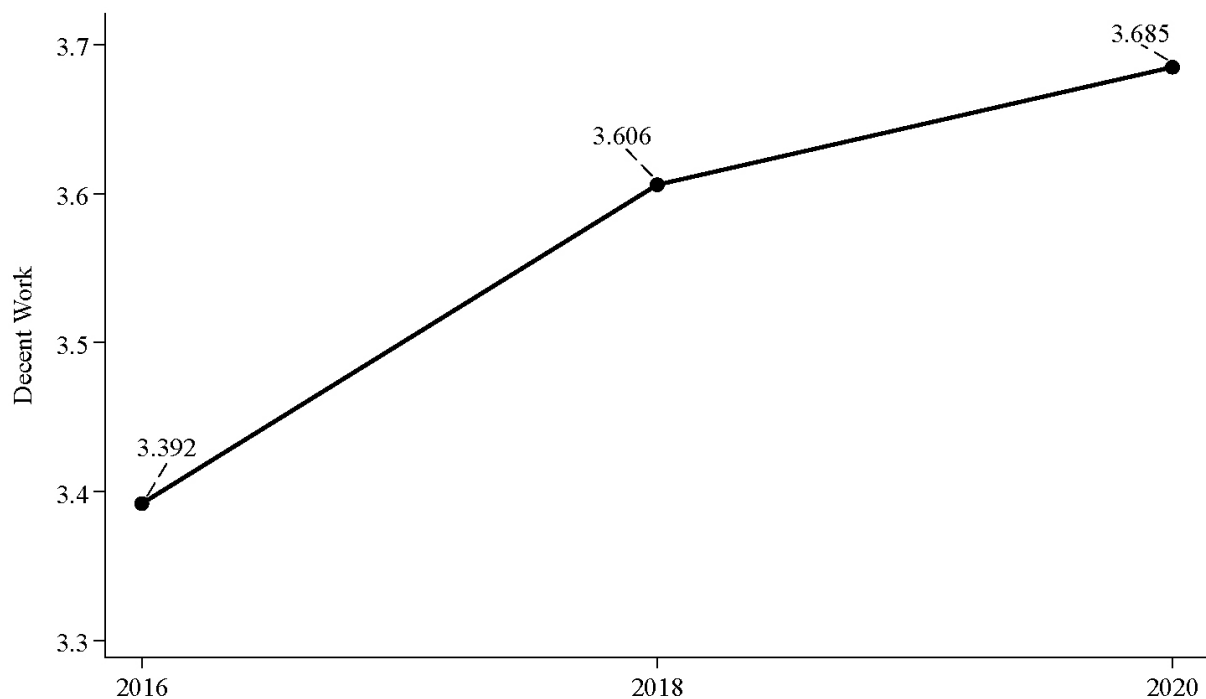


Fig. 1. The decent work trend over the time in China.

a p -value less than 0.001. The confidence interval for decent work also increased with each year (2016, Confidence Interval (CI): [3.3835–3.4015]; 2018, CI: [3.5920–3.6196]; 2020, CI: [3.6703–3.6994]). The lowest value of the confidence interval for the next year is greater than the highest value for the previous year. Given the large sample size for each year, the confidence intervals for the mean level of decent work are extremely narrow. Therefore, it can be reasonably assumed that, at the 95% confidence level, the annual mean of decent work is a reliable estimate of the overall level of decent work among Chinese workers for that year. This finding underscores the existence of a significant positive trend in decent work perceptions as time progresses, suggesting that improvements in decent work are not merely coincidental but are, in fact, a consistent pattern over the years studied. The results of this analysis highlight the importance of considering temporal factors in assessing labor market conditions and societal well-being. The statistically significant upward trend in decent work perceptions over time is a testament to the potential impact of economic, social, and policy interventions aimed at enhancing the quality of work life.

Table 1 presents a comparative analysis of the perceived levels of decent work across various provinces for the years 2016, 2018, and 2020, along with their respective rankings. A discernible upward trajectory is observed in the levels of decent work in most provinces throughout the years under review. It is important to acknowledge the methodology of the CFPS, which involves longitudinal tracking of household samples. It should be noted that not every member of the tracked households participates in the

survey annually, which may introduce some variability in the data. The analysis of the data as depicted in Table 1 reveals several key insights:

(1) Regional disparities: The average perceived levels of decent work among provinces exhibit fluctuating rankings, indicating regional variances in the perceptions of decent work.

(2) Temporal trends: Despite the presence of outliers, the general trend points towards an improvement in decent work levels over time. This is evidenced by the majority of provinces showing an increase in their mean levels of decent work from 2016 to 2020.

(3) Exceptions to the trend: Notable exceptions, such as Ningxia, which has witnessed a decline in the mean levels of decent work, underscore the importance of considering individual provincial circumstances when analyzing overall trends.

These findings highlight the dynamic nature of decent work perceptions and the need for a nuanced understanding of the factors influencing these perceptions at the provincial level. The data in Table 1 provides a valuable snapshot of the evolving landscape of decent work across different regions of China, offering a basis for further investigation into the underlying causes of these observed patterns.

5. The Impact of Economic Development on Decent Work in China

Table 2 presents the means, standard deviations, and correlations of the main variables. As shown in Table 2, economic growth (represented by the natural logarithm of GDP for each province) is positively associated with decent

Table 1. Perceived decent work at the provincial level in China.

Province	2016			2018			2020		
	Mean	N	Ranking	Mean	N	Ranking	Mean	N	Ranking
Tibet	4	2	1	3.667	4	11	4.333	3	1
Chongqing	3.662	217	2	3.804	114	2	3.695	82	13
Ningxia	3.556	3	3	3.500	4	25	3	7	31
Tianjin	3.499	129	4	3.698	105	7	3.88	75	3
Hainan	3.476	7	5	3.708	8	5	3.778	3	6
Jilin	3.472	394	6	3.699	175	6	3.794	167	5
Shandong	3.470	1182	7	3.630	525	15	3.706	580	12
Hunan	3.464	615	8	3.500	359	25	3.645	264	20
Beijing	3.456	152	9	3.776	128	3	3.716	102	11
Shanghai	3.454	1060	10	3.637	756	13	3.768	551	7
Liaoning	3.428	1956	11	3.691	870	9	3.720	712	10
Anhui	3.427	497	12	3.506	263	24	3.632	212	23
Zhejiang	3.420	514	13	3.698	403	7	3.646	290	19
Shaanxi	3.404	489	14	3.489	231	28	3.586	224	26
Jiangsu	3.396	485	15	3.710	280	4	3.654	305	18
Guizhou	3.396	760	16	3.475	250	29	3.631	196	24
Hubei	3.386	329	17	3.553	187	21	3.656	152	17
Henan	3.375	2803	18	3.558	1244	18	3.609	1152	25
Gansu	3.366	3254	19	3.573	1111	17	3.726	1112	9
Inner Mongolia	3.364	11	20	3.667	7	11	3.542	8	28
Sichuan	3.36	1327	21	3.551	468	22	3.667	360	16
Yunnan	3.354	762	22	3.447	249	30	3.454	224	30
Hebei	3.348	1399	23	3.557	643	19	3.676	594	15
Shanxi	3.347	925	24	3.521	438	23	3.680	434	14
Heilongjiang	3.315	510	25	3.631	318	14	3.829	256	4
Fujian	3.315	255	26	3.678	151	10	3.768	112	7
Jiangxi	3.304	492	27	3.326	237	31	3.506	158	29
Guangdong	3.280	1998	28	3.576	1290	16	3.633	1063	22
Xinjiang	3.275	17	29	3.981	36	1	3.58	50	27
Guangxi	3.259	519	30	3.500	166	25	3.644	148	21
Qinghai	3	3	31	3.556	3	20	4	4	2

work ($r = 0.03$, $p < 0.1$), as well as its components including job income ($r = 0.02$, $p < 0.1$), rest ($r = 0.02$, $p < 0.1$), and safety ($r = 0.03$, $p < 0.1$). These correlations provide initial support for the hypothesized positive impact of the economy on decent work.

In this study, provincial GDP data were matched with CFPS individual regional codes using regional administrative codes (where provincial codes in statistical yearbooks match those in CFPS data). Panel fixed effects regression was employed to analyze the data and the results are summarized in Table 3. In the first column of Table 3, the results show that economic growth is positively related to decent work ($r = 0.042$, $p < 0.01$), without controlling for any other variables. After controlling for individual demographic variables (in Model 2, $r = 0.021$, $p < 0.01$) and individual fixed effects (in Model 3, $r = 0.054$, $p < 0.1$), economic growth remains positively related to decent work. Age, health status, education level, and other variables all influence individual perceptions of decent work.

6. Robustness Test

In the CFPS, healthcare is assessed using distinct metrics compared to other aspects of decent work, necessitating a specialized approach for its inclusion in our robustness tests. To address this, we have adopted the entropy weighting method, which is adept at quantifying the level of decent work encompassing healthcare. This method leverages the concept of entropy to gauge the dispersion among various indicators, with higher entropy values signifying a greater degree of dispersion and, consequently, a lower weight assigned to the corresponding indicator. The application of entropy in this context serves to minimize subjective bias and to resolve the issue of information redundancy across multiple indicators, as previously discussed by Liao et al. (2020). Our methodology, executed using StataNow/MP (Version 19.5, StataCorp LLC., Texas, USA) software, involves a series of systematic steps encapsulated in a do-file, which are as follows:

Table 2. Descriptive statistics and correlations of the study variables.

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Gender	0.57	0.50	-									
2. Age	41.89	13.28	0.03***	-								
3. Education	3.18	1.50	0.06***	-0.46***	-							
4. Health	3.15	1.14	0.09***	-0.26***	0.13***	-						
5. Marriage	0.82	0.38	-0.04***	0.37***	-0.18***	-0.10***	-					
6. Decent work	3.51	0.74	-0.04***	0.04***	0.09***	0.15***	-0.02***	-				
7. Compensation	3.27	0.97	0.02***	0.03***	0.05***	0.14***	-0.01	0.76***	-			
8. Rest	3.51	0.98	-0.04***	0.07***	0.06***	0.10***	-0.01**	0.78***	0.38***	-		
9. Safety	3.72	0.90	-0.08***	0.00	0.11***	0.12***	-0.04***	0.76***	0.40***	0.46***	-	
10. Healthcare	0.23	0.42	0.01**	-0.23***	0.45***	0.06***	-0.10***	0.14***	0.11***	0.10***	0.13***	-
11. LnGDP	10.26	0.75	-0.00	-0.03***	0.12***	0.02***	-0.01**	0.03***	0.02***	0.02***	0.03***	0.13***

Note: LnGDP, the natural logarithm of Gross Domestic Product (GDP); SD, standard deviation; ** $p < 0.05$, *** $p < 0.01$.

Table 3. The regression results.

Variables	Model 1	Model 2	Model 3
LnGDP	0.042*** (8.05)	0.021*** (4.09)	0.054* (1.83)
Gender		-0.110*** (-13.72)	-0.019 (-0.11)
Age		0.011*** (32.27)	0.081*** (26.60)
Education		0.075*** (25.17)	0.025* (1.74)
Health		0.106*** (32.97)	0.062*** (10.74)
Marital status		-0.077*** (-7.42)	-0.027 (-0.99)
Individual fixed effect		Controlled for	
Constant	3.059*** (8.05)	2.368*** (41.89)	-0.701*** (-2.65)
R-squared	0.034	0.028	0.086
Observation	42,340	42,340	42,340

Note: LnGDP, the natural logarithm of GDP; * $p < 0.1$, *** $p < 0.01$.

(1) Data standardization: The initial phase involves the normalization of raw data to ensure comparability across different indicators.

(2) Weight determination: Subsequently, we ascertain the weights for each indicator based on their respective contribution to the overall measure of decent work.

(3) Entropy calculation: For each indicator, we calculate the entropy value, which reflects the level of information dispersion.

(4) Weight aggregation: The individual weights are then aggregated to form a composite weight that represents the collective influence of all indicators.

(5) Overall score derivation: Finally, we derive an overall score for decent work, which incorporates healthcare, by integrating the aggregated weights with the standardized data.

The results of this entropy-based analysis, including detailed descriptions and the intercorrelations of the processed data, are comprehensively presented in Table 4, offering a robust and unbiased assessment of the level of decent work within the CFPS dataset. Formula derivations and STATA code of the entropy weighting method are presented in Appendix 1.

Further, given the absence of direct measures of value congruence in our dataset, we used job satisfaction as a proxy, which captures aspects of work likely influenced by value congruence. In the CFPS, respondents reported their job satisfaction on a 5-point Likert scale, ranging from 1 (very unsatisfied) to 5 (very satisfied). We employed panel fixed effects regression to analyze the data. The estimation results of perceived decent work are based on the average

Table 4. Descriptive statistics and correlations of the study variables using the entropy method.

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Gender	0.57	0.50	-									
2. Age	41.89	13.28	0.02***	-								
3. Education	3.18	1.50	0.03***	-0.30***	-							
4. Health	3.15	1.14	0.05***	-0.17***	0.08***	-						
5. Marriage	0.82	0.38	-0.01***	0.16***	-0.08***	-0.04***	-					
6. Decent work entropy	0.28	0.36	0.01***	-0.13***	0.28***	0.09***	-0.05***	-				
7. Adequate compensation	3.27	0.97	0.01***	0.02***	0.03***	0.09***	-0.00	0.32***	-			
8. Free time and rest	3.51	0.98	-0.02***	0.04***	0.04***	0.06***	-0.00**	0.28***	0.24***	-		
9. Safe working conditions	3.72	0.90	-0.04***	0.00	0.07***	0.07***	-0.02***	0.28***	0.25***	0.29***	-	
10. Healthcare	0.23	0.42	0.01***	-0.11***	0.22***	0.03***	-0.03***	0.35***	0.05***	0.04***	0.06***	-
11. LnGDP	10.26	0.75	-0.00	-0.02***	0.08***	0.01***	-0.01**	0.12***	0.01***	0.01***	0.02***	0.06***

Note: value of entropy calculation is between 0 and 1; LnGDP, the natural logarithm of GDP; ** $p < 0.05$, *** $p < 0.01$.

method (Model 1, $r = 0.063$, $p < 0.05$) and entropy calculation (Model 2, $r = 0.111$, $p < 0.01$). The inclusion of this proxy variable changed the effect size, but the positive relationship between economic growth (LnGDP) and perceived decent work remains. The results are summarized in Table 5.

Table 5. The regression results.

Variables	Model 1	Model 2
LnGDP	0.063** (2.21)	0.111*** (7.51)
Gender	-0.052 (-0.33)	0.235*** (2.86)
Age	0.080*** (26.94)	0.078*** (50.20)
Education	0.023* (1.65)	0.038*** (5.27)
Health	0.064*** (11.66)	0.003 (0.91)
Marital status	-0.014 (-0.53)	0.009 (0.69)
Individual fixed effect	Controlled for	Controlled for
Constant	-0.733*** (-2.89)	-4.397*** (-33.24)
R-squared	0.094	0.269
Observation	42,339	42,339

Note: LnGDP, the natural logarithm of GDP; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

The regression analysis results indicate that, after controlling for demographic variables including gender ($r = 0.238$, $p < 0.01$, $t = 2.81$), age ($r = 0.077$, $p < 0.01$, $t = 47.58$),

education ($r = 0.038$, $p < 0.01$, $t = 5.2$), health condition ($r = 0.002$, $p > 0.1$, $t = 0.69$), and marital status ($r = 0.012$, $p > 0.1$, $t = 0.88$), as well as individual fixed effects, the analysis reveals a significant positive relationship between economic growth and entropy decent work ($r = 0.108$, $p < 0.01$, $t = 7.10$; constant: $r = -4.312$, $p < 0.01$, $t = -31.58$; R-squared = 0.249; $n = 42,340$). The overall model performance implies that approximately 24.9% of the variance in entropy decent work can be explained by the variables included in the regression model. These findings suggest that as economic growth increases, there is a corresponding positive impact on entropy decent work, even when accounting for various demographic factors and individual fixed effects.

7. Discussion

The development of the psychology of working theory by Duffy et al. (2016) in 2016 marked a significant shift in the study of decent work, moving away from macro indicators towards individual work experiences (Duffy et al., 2016). Prior to this development, studies that measured decent work at the national level, such as those by Bescond et al. (2003), Bonnet et al. (2003) and Ghai (2003), relied on macro indicators and did not reflect individual perceptions of decent work. The studies by Bonnet et al. (2003) and Ghai (2003) used indicators related to labor conditions, job security, employment opportunities, wage levels, social protection, and social dialogue to assess decent work at the national level (Bonnet et al., 2003; Ghai, 2003). Following the development of the DWS, there has been a growing interest in exploring perceived decent work. Researchers have conducted studies on perceived decent work in various countries, including Australia, China, France, the United States, Portugal, Spain, South Korea, and Switzerland. However, these studies all have involved small populations, limiting their representativeness.

Our study is significant because it explores individual perceptions of decent work and the impact of economic development in China. Our analysis of data from the China Family Panel Studies (CFPS) in 2016, 2018, and 2020 revealed an upward trend in perceived decent work at both the national and provincial levels in China over time. Our study not only fills a crucial gap in the literature but also serves as a springboard for further investigations into this critical aspect of labor dynamics in a nation. Previous research examining the influence of the economy on decent work has been subject to two primary limitations, as outlined in the academic literature. Initially, these investigations commonly utilized macroeconomic indicators to evaluate decent work, failing to capture individual work experiences comprehensively. Examples of such research include the works of Huang and Ke (2011) and Luo et al. (2020). Subsequently, many prior studies were characterized as descriptive in nature, lacking rigorous empirical analyses that could offer more profound insights into the intricate relationship between economic development and decent work. For instance, studies conducted by Bescond et al. (2003), Ghai (2003), and Luo and Yang (2018) were focused on delineating the levels of decent work and economic rankings without engaging in detailed empirical assessments. Hence, it is important to explore how the macro-level economic development on the micro-level individual work experiences. This approach would enable researchers to capture a more holistic understanding of how economic factors impact the quality of work for individuals across different sectors and segments of society.

The existing research landscape has been marked by a notable lacuna in comprehending the intricate relationship between macroeconomic development and the level of individuals' perceptions of decent work. The empirical findings of this research reveal a correlation between economic advancement and the quality of perceived decent work. By elucidating and substantiating this linkage, the study not only contributes to enhancing the current scholarly discourse on the determinants of decent work but also presents novel insights into how economic growth shapes individuals' perspectives on their work environment. By shedding light on these relationships, this research endeavor serves as a valuable addition to the decent work knowledge. Nevertheless, it is important to highlight that, despite the positive relationship between LnGDP and perceived decent work, the coefficient observed in the panel fixed effects regression (Model 3) is relatively small ($r = 0.054$) and only marginally significant ($p < 0.1$). This modest effect size suggests that other, non-economic factors may exert a more substantial influence on individuals' perceptions of decent work. Workplace culture, job security, social support, and labor rights are likely to have a more pronounced impact on how individuals evaluate their work.

Our data clearly demonstrate significant regional variations in the levels of perceived decent work, with some

provinces showing marked improvements over time, while others, such as Ningxia, experienced a decline. These variations highlight the importance of considering regional disparities when interpreting the overall positive correlation between economic growth and perceived decent work. Regional disparities in perceived decent work can be attributed to several factors. Urban areas in China benefit more from economic growth, offering better job opportunities and working conditions, while rural areas lag behind, resulting in lower levels of perceived decent work. Provinces with higher urban populations show better improvements in decent work indicators. Labor standard enforcement varies across regions, with stronger regulations and enforcement mechanisms leading to higher levels of perceived decent work. Regions with weaker enforcement struggle to provide decent working conditions, even with economic growth. Provinces with diversified and advanced industrial structures offer better working conditions and job quality, while those relying on traditional industries face challenges in providing decent work.

8. Practical Implications

This research offers significant implications for policy-making. Firstly, it underscores the practical implications of the positive correlation identified between economic growth and perceived decent work, providing valuable insights into the vital role of economic development in shaping individuals' work experiences. It emphasizes the necessity of prioritizing economic development to enhance working conditions, portraying it as a crucial determinant of overall job satisfaction and well-being, ultimately contributing to societal welfare. In light of these findings, it is imperative for international organizations tasked with evaluating labor conditions to actively support initiatives that promote decent work standards, fostering a conducive environment for workers. By recognizing and addressing these connections, stakeholders can work towards a more equitable, sustainable, and fulfilling working environment for all workforce.

Secondly, at the national level, it is imperative for macro labor policies to undergo meticulous review to align harmoniously with the varying levels of economic development. Key elements such as minimum wage standards, labor protections, working hour regulations, and healthcare provisions need to be tailored to the specific economic landscape, thereby fostering an environment that supports and sustains the well-being of all individuals in the workforce. Notably, in countries undergoing development like China, challenges persist with regards to upholding labor rights, encompassing issues ranging from workplace safety concerns to access to adequate healthcare benefits and compliance with mandated working hour regulations.

Addressing these complexities effectively requires a concerted effort towards reinforcing monitoring and enforcement mechanisms overseen by regulatory bodies. By

ensuring strict adherence to labor laws and safeguarding the legitimate rights and interests of workers, these mechanisms play a crucial role in upholding fair labor practices. The prevalent issue of prolonged involuntary overtime poses a significant risk to employees' work-life equilibrium, blurring the boundary between professional obligations and personal welfare. It is incumbent upon authorities to champion work-life balance by implementing judicious regulations regarding working hours and promoting flexible work arrangements that accommodate the diverse needs of the workforce.

This strategic approach contributes to fostering a harmonious and sustainable socio-economic environment. Ultimately, the study proposes a deliberate alignment between economic development strategies and endeavors aimed at enhancing working conditions and upholding labor rights. By prioritizing economic growth in tandem with the promotion of decent work opportunities, nations can foster an inclusive and prosperous framework that nurtures the well-being and productivity of their workforce. To address regional disparities and enhance decent work quality, we propose targeted policies: Strengthen labor regulations and enforcement in provinces with lower decent work levels, ensuring compliance with labor laws and improving workplace safety. Promote urban-rural integration through investment in rural infrastructure, education, and healthcare, and support rural entrepreneurship. Aid provinces in industrial upgrading and diversification by incentivizing innovation and fostering high-tech and service sectors. Enhance social dialogue and worker participation through worker councils and collective bargaining to improve working conditions and perceptions of decent work.

9. Limitations and Future Research Direction

This study has several critical limitations necessitating scholarly attention in subsequent research endeavors. Initially, the exclusive focus on the direct impact of economic growth on decent work fails to capture the intricate underlying mechanisms potentially at play. Future investigations ought to introduce mechanism variables to illuminate the nuanced pathways through which economic growth shapes decent work outcomes, thereby fostering a more comprehensive understanding of this dynamic relationship. Moreover, the study's restricted emphasis on macro-economic development as a determinant of perceived decent work disregards the pivotal influence of individual-level variables in molding individuals' access to decent work opportunities. Integrating a spectrum of personal elements such as marginalization, economic constraints, work volition, and career adaptability—as recommended in the PWT (Duffy et al., 2016)—within multilevel models alongside macro-economic indicators could yield a more refined analysis of how these variables, along with conceivable boundary factors, intersect to impact perceived decent work.

Furthermore, the study's geographical location in China, characterized by substantial work pressures experienced by workers, underscores the necessity for expanding cross-cultural inquiries to enhance the generalizability of findings. Comparative investigations spanning diverse cultural milieus can illuminate universal dimensions and unique factors influencing the nexus between economic growth and decent work, thereby enriching the scope of analysis. Addressing these outlined limitations through robust academic inquiry and methodological enhancement promises to not only augment the existing discourse on economic growth and decent work but also furnish valuable insights for policymakers, researchers, and practitioners seeking to foster inclusive and sustainable development. By embracing these academic imperatives, the scholarly community can advance knowledge frontiers and chart a course toward more equitable and sustainable socio-economic landscapes.

Finally, the exclusion of the value congruence dimension from the DWS in our analyses represents a critical limitation of our study. In the context of China, where rapid economic development and social transformation are occurring, the importance of value congruence cannot be overstated. Chinese workers, like their counterparts in other rapidly developing economies, are increasingly seeking not just material rewards but also a sense of purpose and alignment with their personal values in their work. This alignment can affect job satisfaction, work engagement, and overall well-being, all of which are integral to the concept of decent work. By excluding the value congruence dimension, our study may underestimate the true complexity and depth of what constitutes decent work for individuals. This exclusion could lead to a partial understanding of the factors that influence workers' perceptions of their work environment. For instance, workers might perceive their jobs as decent not only because of adequate compensation and safe working conditions but also because their work aligns with their personal values and provides a sense of meaning and fulfillment.

10. Conclusion

In conclusion, the study leveraging CFPS data from 2016, 2018 and 2020 identifies a steady growth in the level of perceived decent work and a positive correlation between China's provincial GDP growth and perceived decent work. Theoretically, it underscores the dynamic interplay between economic development and work quality, while practically, it emphasizes the need for policies that harmonize economic growth with decent work standards. This research offers a sharp perspective for policymakers to enhance labor conditions and rights, ensuring that economic prosperity translates into improved work experiences for the Chinese workforce. Looking ahead, the concept of decent work will evolve to encompass new connotations in the era of high-quality development. For instance, the gig

economy will necessitate innovative approaches to social security, ensuring that workers receive adequate protection Hoose and Kramer (2024).

Availability of Data and Materials

All data reported in this paper will be shared by the corresponding author upon reasonable request.

Author Contributions

JS and BZ jointly designed the research study and wrote the manuscript. BZ analysed the data. Both authors contributed to editorial changes in the manuscript. Both authors read and approved the final manuscript. Both authors have participated sufficiently in the work and agreed to be accountable for all aspects of the work.

Acknowledgment

Not applicable.

Funding

This project was supported by Shenzhen University Humanities and Social Sciences High-level Innovation Team Project for Leading Scholars (24LJXZ05), Natural Science Foundation of Guangdong Province (CN) (2024A1515012711), and Research Center for FinTech and Digital-Intelligent Management, Shenzhen University.

Conflicts of Interest

The authors declare no conflicts of interest.

Declaration of AI and AI-Assisted Technologies in the Writing Process

During the preparation of this work, the authors used ChatGPT3.5 to check spelling and grammar. After using this tool, the authors reviewed and edited the content as needed and took full responsibility for the publication's content.

Appendix

Appendix 1. Formula derivations and STATA code of the entropy weighting method.

1. Formula derivations

(1) Construct the original data matrix

Assuming there are n evaluation objects and m evaluation indicators, construct the original data matrix:

$$D = \begin{bmatrix} x_{11} & x_{12} & \cdots & x_{1m} \\ x_{21} & x_{22} & \cdots & x_{2m} \\ \cdots & \cdots & \cdots & \cdots \\ x_{n1} & x_{n2} & \cdots & x_{nm} \end{bmatrix}$$

(2) Standardize various evaluation indicators

$$\text{Positive indicators: } X_{ij}^* = \frac{x_{ij} - x_j^{\min}}{x_j^{\max} - x_j^{\min}}$$

$$\text{Positive indicators: } X_{ij}^* = \frac{x_j^{\max} - x_{ij}}{x_j^{\max} - x_j^{\min}}$$

In addition, the standardization of raw data may result in some extreme values, and when the indicator value is negative, it cannot be directly logarithm or the proportion calculated directly. In such cases, it is necessary to improve the entropy method by shifting the standardized data:

$$C_{ij} = X_{ij} + A$$

where C_{ij} is the standardized value after translation; A is the amplitude of translation.

(3) Determine the weight of each indicator

Calculate the proportion of region i -th in the j -th indicator (P_{ij})

$$P_{ij} = \frac{C_{ij}}{\sum_{i=1}^n C_{ij}}$$

(4) The entropy value of the j -th i -th evaluation indicator calculated (w_j)

$$w_j = -k \sum_{i=1}^n P_{ij} \ln P_{ij}$$

Among them, $k = \frac{1}{\ln n}$, $w_j \geq 0$.

(5) Calculate information entropy redundancy (d_j)

$$d_j = 1 - w_j$$

(6) Calculate the weight of each evaluation indicator (t_j)

$$t_j = \frac{d_j}{\sum_{j=1}^m d_j}$$

(7) Calculate the decent work level of the i -th sample (dw_i)

Assuming a linear correlation between the level of decent work index and various dimensions, for simplicity, it can be assumed that the level of decent work satisfies the following functional relationship:

$$dw_i = \sum_{j=1}^m t_j P_{ij}$$

2. STATA code

drop v1, g v1 = compensation, g v2 = safety, g v3 = rest, g v4 = healthcare, scalar min = r(min), scalar max = r(max), g 'var'_sd = ('var' - min)/(max - min), EEM v1 1 N-year, g decent work = v1_sd × w1 + v2_sd × w2 + v3_sd × w3 + v4_sd × w4

Due to the different sample sizes in different years, the values of N-year in the calculation process are also different. The values for 2016, 2018, and 2020 are 21,924, 10,923, and 9493, respectively.

References

- Antonelli MA, Castaldo A, Forti M, Marrocco A, Salustri A. Workplace accidents, economic determinants and underreporting: An empirical analysis in Italy. *International Journal of Manpower*. 2024; 45: 1555–1572. <https://doi.org/10.1108/IJM-01-2024-0026>
- Bell DNF, Hart RA. The decline of paid overtime working in Britain. *British Journal of Industrial Relations*. 2023; 61: 235–258. <https://doi.org/10.1111/bjir.12697>
- Bertels S, Peloza J. Running just to stand still? Managing CSR reputation in an era of ratcheting expectations. *Corporate Reputation Review*. 2008; 11: 56–72. <https://doi.org/10.1057/crr.2008.1>
- Bescond D, Chataignier A, Mehran F. Seven indicators to measure decent work: An international comparison. *International Labour Review*. 2003; 142: 179–212. <https://doi.org/10.1111/j.1564-913x.2003.tb00258.x>
- Bonnet F, Figueiredo JB, Standing G. A family of decent work indexes. *International Labour Review*. 2003; 142: 213–238. <https://doi.org/10.1111/j.1564-913x.2003.tb00259.x>
- Cheng C, Zhou Y. Wealth accumulation by hypogamy in own and parental education in China. *Journal of Marriage and Family*. 2022; 84: 570–591. <https://doi.org/10.1111/jomf.12805>
- Duffy RD, Allan BA, England JW, Blustein DL, Autin KL, Douglass RP, et al. The development and initial validation of the Decent Work Scale. *Journal of Counseling Psychology*. 2017; 64: 206–221. <https://doi.org/10.1037/cou0000191>
- Duffy RD, Blustein DL, Diemer MA, Autin KL. The Psychology of Working Theory. *Journal of Counseling Psychology*. 2016; 63: 127–148. <https://doi.org/10.1037/cou0000140>
- Egger P. Perspectives: Towards a Policy Framework for Decent Work. *International Labor Review*. 2002; 141: 161–174. <https://doi.org/10.1111/j.1564-913x.2002.tb00234.x>
- Fields GS. Decent work and development policies. *International Labour Review*. 2003; 142: 239–262. <https://doi.org/10.1111/j.1564-913x.2003.tb00260.x>
- Gelissen J. Explaining Popular Support for Environmental Protection: A Multilevel Analysis of 50 Nations. *Environment and Behavior*. 2007; 39: 392–415. <https://doi.org/10.1177/0013916506292014>
- Ghai D. Decent work: Concept and indicators. *International Labour Review*. 2003; 142: 113–145. <https://doi.org/10.1111/j.1564-913x.2003.tb00256.x>
- Hauff S, Rastetter D. Good Work: Eroding and New Standards in a Changing World. *Management Revue*. 2021; 32: 147–151. <https://doi.org/10.5771/0935-9915-2021-3-147>
- Hayes BC. Gender, Scientific Knowledge, and Attitudes toward the Environment: A Cross-National Analysis. *Political Research Quarterly*. 2001; 54: 657–671. <https://doi.org/10.1177/106591290105400309>
- Hoose F, Kramer PF. Stories About Crowdswork—Analysis of the Self-Representation of Crowdswork Platforms on the Internet. *Management Revue*. 2024; 35: 166–193.
- Huang F, Duan CR. From demographic dividend to education and health dividend-based on the 7th population census data. *Population and Development*. 2022; 28: 117–126.
- Huang WD, Ke D. The research on measurement of decent work level in different countries. *Shanghai Journal of Economics*. 2011; 11: 40–48. <https://doi.org/10.19626/j.cnki.cn31-1163/f.2011.11.005>
- International Labour Organization. Globalization and decent work in the Americas. Report of the director-general in fifteenth American regional meeting. Lima. 2002.
- International Labour Organization. Report of the director-general: Decent work. International labour conference, 87th Session, Geneva. 1999. Available at: <https://www.ilo.org/legacy/english/lib/century/sources/sources1999.htm> (Accessed: 1 March 2024).
- Inverardi-Ferri C. Overtime: The Cultural Political Economy of Illicit Labor in the Electronics Industry. *Economic Geography*. 2023; 99: 140–160. <https://doi.org/10.1080/00130095.2022.2142111>
- James RN, Sharpe DL. The Nature and Causes of the U-Shaped Charitable Giving Profile. *Nonprofit and Voluntary Sector Quarterly*. 2007; 36: 218–238. <https://doi.org/10.1177/0899764006295993>
- Liao WM, Yu JJ, Yuan RL. Coupling synergy between poverty alleviation and rural revitalization. *China Population, Resources and Environment*. 2020; 30: 132–142.
- Liu M, Chen Y. Blessing or curse? Recontextualizing ‘996’ in China’s overwork debate. *Critical Discourse Studies*. 2025; 22: 91–107. <https://doi.org/10.1080/17405904.2023.2289448>
- Luo MZ, Wei BH. Back-to-home entrepreneurship, industrial upgrading and farmers income’ growth. *Journal of Zhongnan University of Economics and Law*. 2023; 1: 83–96. <https://doi.org/10.19639/j.cnki.issn1003-5230.2023.0006>
- Luo Y, Wu MD, Zeng XJ. The effect of foreign direct investment on decent work in China: An empirical examination with provinces’ panel data. *Comparative Economic & Social Systems*. 2020; 4: 170–182.
- Luo Y, Yang JJ. Measurement and comparative study on the decent work situation of 31 provinces and cities of China-Based on the panel data from 2006 to 2015. *Journal of South China Normal University (Social Science Edition)*. 2018; 1: 139–145,191.
- Majid N. Economic growth social policy and decent work. In-

- ternational Labour Office: Geneva, Switz. 2001.
- Maslow AH. Motivation and personality (pp. 80–106). Harper and Pow: New York. 1954.
- Mitnick BM, Windsor D, Wood D J. CSR: Undertheorized or essentially contested? *Academy of Management Review*. 2021; 46: 623–629. <https://doi.org/10.5465/amr.2020.0239>
- Monares P, Liu JH, Santibanez R, Bernardin A, Fuenzalida I, Perez-Acle T, et al. Accessing the Role of Trust Profiles for the Economic Growth of Societies: A Stochastic Rule-Based Simulation Using the Prisoner's Dilemma Game. *IEEE Transactions on Computational Social Systems*. 2020; 7: 849–857. <https://doi.org/10.1109/tcss.2020.2992039>
- Nissim BD. Economic growth and its effect on income distribution. *Journal of Economic Studies*. 2007; 34: 42–58. <https://doi.org/10.1108/01443580710717219>
- Norbäck M, Styhre A. On the Precarity-Spectrum: Exploring Different Levels of Precariousness in Market-Mediated Professional Work. *Management Revue*. 2021; 32: 266–295. <https://doi.org/10.5771/0935-9915-2021-3-266>
- Okun AM. Potential GNP: Its measurement and significance. *American Statistical Association: Proceedings of the Business and Economics Statistics Section*. 1962; 7: 98–104.
- Pulles NJ, Schiele H. Social Capital Determinants of Preferential Resource Allocation in Regional Clusters. *Management Revue*. 2013; 24: 96–113. <https://doi.org/10.5771/0935-9915-2013-2-96>
- Rai SM, Brown BD, Ruwanpura KN. SDG 8: Decent work and economic growth – A gendered analysis. *World Development*. 2019; 113: 368–380. <https://doi.org/10.1016/j.worlddev.2018.09.006>
- Rawski TG. What is happening to China's GDP statistics? *China Economic Review*. 2001; 12: 347–354. [https://doi.org/10.1016/s1043-951x\(01\)00062-1](https://doi.org/10.1016/s1043-951x(01)00062-1)
- Reimann M, Diwald M. Algorithmic management and workplace bullying: the relevance of specific employee experiences across work environments. *New Technology, Work and Employment*. 2025; 40: 494–535. <https://doi.org/10.1111/ntwe.12325>
- Roth F. Social Capital, Trust, and Economic Growth. In *Intangible Capital and Growth. Contributions to Economics* (pp. 167–185). Springer: Cham. 2022. https://doi.org/10.1007/978-3-030-86186-5_8
- Selwyn B. Social Upgrading and Labour in Global Production Networks: A Critique and an Alternative Conception. *Competition & Change*. 2013; 17: 75–90. <https://doi.org/10.1179/1024529412z.00000000026>
- Shahbaz M, Hye QMA, Tiwari AK, Leitão NC. Economic growth, energy consumption, financial development, international trade and CO2 emissions in Indonesia. *Renewable and sustainable energy reviews*. 2013; 25: 109–121. <https://doi.org/10.1016/j.rser.2013.04.009>
- Shen J, Zhang B, Huang W. Attaining decent work among Chinese rural migrants: Exploring the roles of psychological ownership and proactive personality within the psychology of working theory. *Journal of Counseling Psychology*. 2024; 71: 126–137. <https://doi.org/10.1037/cou0000713>
- Shi Z. The impact of regional ICT development on job quality of the employee in China. *Telecommunications Policy*. 2023; 47: 102567. <https://doi.org/10.1016/j.telpol.2023.102567>
- Sánchez-Torné I, Morán-Álvarez JC, Pérez-López JA. The importance of corporate social responsibility in achieving high corporate reputation. *Corporate Social Responsibility and Environmental Management*. 2020; 27: 2692–2700. <https://doi.org/10.1002/csr.1993>
- Solow RM. Growth theory: An exposition. Oxford University Press: New York. 1970.
- Standing G. The decent work enterprise: Work security and dynamic efficiency international. International Labour Office: Geneva. 2003.
- Stempel CR, Biemelt J, Dettmers J. Never Off Duty – The Role of Supervisors in the Relationship Between Extended Availability, Subordinate Strain, and Job Performance. *Management Revue*. 2022; 33: 42–58. <https://doi.org/10.5771/0935-9915-2022-1-42>
- Tackie EA, Chen H, Ahakwa I, Atingabili S. Exploring the Dynamic Nexus Among Economic Growth, Industrialization, Medical Technology, and Healthcare Expenditure: A PMG-ARDL Panel Data Analysis on Income-Level Classification Along West African Economies. *Frontiers in Public Health*. 2022; 10: 903399. <https://doi.org/10.3389/fpubh.2022.903399>
- Tsai MC, Nitta M, Kim SW, Wang W. Working Overtime in East Asia: Convergence or Divergence? *Journal of Contemporary Asia*. 2016; 46: 700–722. <https://doi.org/10.1080/00472336.2016.1144778>
- Wang XZ. Report on occupational safety vs economic and social development. China Coal Industry Publishing House Press: Beijing. 2006.
- Wei X, Qu H, Ma E. A Study of the Effects of Leisure Time on China's Economic Growth: A Neoclassic Growth Model. *Tourism Analysis*. 2010; 15: 663–672. <https://doi.org/10.3727/108354210x12904412049857>
- Wu CF, Li F, Hsueh HP, Wang CM, Lin MC, Chang T. A Dynamic Relationship between Environmental Degradation, Healthcare Expenditure and Economic Growth in Wavelet Analysis: Empirical Evidence from Taiwan. *International Journal of Environmental Research and Public Health*. 2020; 17: 1386. <https://doi.org/10.3390/ijerph17041386>
- Xiao C, Silva EA, Zhang C. Nine-nine-six work system and people's movement patterns: Using big data sets to analyse overtime working in Shanghai. *Land Use Policy*. 2020; 90: 104340. <https://doi.org/10.1016/j.landusepol.2019.104340>
- Xue B, Wang L, Jiang Z, Wang X, Zhang N, Feng Y, et al. Factors influencing decent work among psychiatric nurses in China: a cross-sectional study. *BMC Psychiatry*. 2024; 24: 541. <https://doi.org/10.1186/s12888-024-05983-x>
- Yang S, Chen L, Bi X. Overtime work, job autonomy, and employees' subjective well-being: Evidence from China. *Frontiers in Public Health*. 2023; 11: 1077177. <https://doi.org/10.3389/fpubh.2023.1077177>

[3389/fpubh.2023.1077177](#)

Zhang W. Achieving decent work in China: a case study of decent working time [Doctoral dissertation]. Leiden University. 2023.

Zhang X, Gang Z, Dong X. Effects of Government Healthcare Expenditure on Economic Growth Based on Spatial Durbin Model: Evidence from China. *Iranian Journal of Public Health*. 2020; 49: 283–293. <https://doi.org/10.18502/ijph.v49i2.3091>