Impact Analysis of COVID-19 on Employment: A Case Study of California

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Abstract:

The COVID-19 pandemic has profoundly disrupted labor markets worldwide, exacerbating pre-existing socioeconomic disparities. This study examines the impact of the pandemic on employment in California. It focuses on industry-specific vulnerabilities and demographic inequalities. Using comparative longitudinal data from state and federal sources, this essay analyzes employment trends before and after the outbreak, highlighting the disproportionate losses in low-wage, high-contact sectors such as hospitality, retail, and healthcare. Results indicate that unemployment peaked at 16.4% in April 2020, with severe impacts on women, minority groups, and less-educated workers. Remote work emerged as a protective factor for high-income earners, while structural barriers limited access to unemployment benefits for vulnerable populations. The study concludes that targeted policy recommendations, such as expanded insurance coverage, retraining programs, and childcare support are essential to foster an equitable recovery. These findings contribute to a deeper understanding of crisis-induced labor market inequality and offer practical pathways for building a more resilient and inclusive workforce.

Keywords: COVID-19, Employment, California.

1. Introduction

The Covid-19 pandemic in 2020 has caused California's economy to come to a sudden halt. The face-to-face industries such as the catering, tourism and retail sectors have been hit hardest. The public sector has also made large-scale layoffs due to fiscal austerity. The job market has suffered an unprecedented shock. Meanwhile, remote work has become a "moat" for white-collar and high-tech industries, but it has pushed low-wage, minority, young and female workers into a more vulnerable position - they are not only

unable to work from home, but also lack sufficient unemployment insurance to replace their income, facing dual pressures on family finances and mental health [1]. The pandemic has not only exposed California's economy's heavy reliance on consumption and tourism, but also highlighted the deep-seated inequality in the labor market and the gaps in the social security system, leaving behind heavy tasks for subsequent recovery and structural reform [2]. This essay comparatively analyse the employment conditions in California before and after the outbreak of the epidemic. This research not only deepens the

theoretical understanding of how crises amplify structural inequality, but also provides practical reform paths for building a more resilient, fair and inclusive labor market in reality.

2. Analysis of the Employment Situation Before the COVID-19

This article selects the period from the end of December 2019 to February 2020 as the employment profile before the outbreak of the epidemic. At the period, from a macro perspective, the total labor force was around 20000,000 [3]. The employment-to-population ratio was 61.1%, the unemployment rate was 3.9%, which was the lowest since 2000 [3]. According to the data from BLS QCEW, the number of non-farm jobs was 17.5 million.

2.1 . Industry Structure

From the perspective of industry structure, in the final year before the COVID-19 outbreak, California's labor market was at its cyclical peak. According to the Bureau of Labor Statistics' Quarterly Census of Employment and Wages, the state supported 17.5 million non-farm jobs in the 2019 annual average [4]. The single largest segment was Professional and Business Services. The employed workers accounted for 15.6 percent [3]. Close behind was Government, with 15.0 percent proportion. Retail Trade was the third-largest sector, providing 1.925 million jobs that was 11.0 percent [5]. The leisure and Hospitality, a sector that would later be devastated by the pandemic's shutdown orders, was already sizable, with 2.05 million workers and 11.7 percent [5]. Other key industries rounded out the base. Healthcare and Social Assistance employed roughly 13.9 percent of the workforce, Manufacturing employed 7.6 percent, Construction employed 5.7 percent, and Information employed 3.2 percent [3].

2.2 . Demographic Characteristics

From the demographic characteristics of the Pre-Pandemic Labor Force in 2019, before the outbreak of the epidemic, the workforce in California was highly diverse in terms of ethnicity, education and sector distribution. In terms of ethnicity, 38% of the workforce were Latino, 36% were non-Latino whites, 15% were Asian, and 6% were black. In terms of education level, 38% of the workers had only a high school education or less, 32% had a bachelor's degree or higher, and the remaining had some college courses or an associate's degree [6]. The reason why these structures are important is that they determine the vulnerability under the impact of the pandemic. Minority groups and low-educated workers account for an excessively high proportion in industries that heavily rely on face-to-face communication, such as leisure and hospitality, retail and

personal services [6]. Meanwhile, the public sector which is a department that has always provided the last resort employment security for marginalized groups - still has approximately 340,000 fewer positions than the number that should have been based on population growth projections. This gap stems from the fiscal austerity policies after the 2008 financial crisis, meaning that when California entered the pandemic, its departments that were supposed to undertake public health, education and security functions already had a structural shortage of positions [3]. Moreover, from the aspect of income and security, median household income in the state was $86,165 per year. The maximum weekly unemployment insurance payment was $450 [3].

3. Analysis of Employment Situations After COVID-19

Under the impact of Covid-19, this essay chooses the data from February to June in 2020 to study the unemployment rate. The COVID-19 shock pulled consumer spending downward across every industry, pushing the economy into recession and triggering widespread layoffs that reached far beyond hourly staff to include salaried professionals [4]. Overall, the unemployment rate soared during the COVID-19. In June 2020, the unemployment rate in California reached nearly 15% [7]. At the peak of pandemic, which was in April 2020, the unemployment rate in California once hit 16.4%, which was one of the highest levels in history [7]. In March and April 2020, California lost over 2.6 million jobs. Although there was a recovery in the following two months, with some jobs being added by June, 2020, the number of jobs was still nearly 10% lower than before the pandemic, which exceeded the maximum decline during the 2008 financial crisis [8].

3.1 . Industry Imbalance

In terms of the impact of industry, the impact on industries is uneven. The accommodation and catering industry were the most severely affected, with over half of the employees applying for unemployment benefits, accounting for approximately 18% of all applications [4]. The retail industry followed closely, with almost half of the employees applying for unemployment benefits also, accounting for approximately 14% of all applications [4]. Next, the healthcare and social assistance industry was the third most affected sector. The applying unemployment rate in the sector in California was around 30%, accounting for 13% of the total unemployment applications [4]. Then came the arts, entertainment, and leisure industries, as well as the administrative support and manufacturing industries, which also experienced significant influence. The reasons are quite a few. First, these sectors employ

disproportionate shares of women, people of color, and low-wages workers, who were less likely to have remote work options or savings to cushion job loss [1]. Second, these sectors rely on in-person interaction, which was directly curtailed by lockdowns, social distancing, and fear of contagion [4]. Moreover, many businesses in Accommodation, food services, and retail trade were regarded non-essential and forced to close or operate at reduced capacity [4]. For the medical industry, although it was a crucial sector during the pandemic, due to the suspension of non-urgent medical services and the need for medical workers to be isolated due to infection or quarantine, a large number of medical practitioners had experienced short-term unemployment or reduced working hours, and thus had applied for unemployment benefits [3].

3.2 . The Unemployed Population Shows a Degree of Differentiation

From the perspective of the unemployed population, first, there were significant income layer differences. For the original low-income group, they had a 76% chance of losing their jobs after the pandemic [3]. Besides, State welfare was only $340 per week for them, which was insufficient to cover their basic expenses [9]. Therefore, they were more likely to prone to repeated unemployment. On the other hand, for the original high-income group, they only had a 20% chance of losing their jobs after the outbreak of COVID-10 [4]. They were less affected by the pandemic and had a stronger buffering capacity, so they recovered more quickly. Moreover, during the pandemic in California, the educational attainment gap was also quite significant. 70% of those with a high school education or less applied for unemployment benefits, which was much higher than that of those with a graduate degree [4]. Among young people, almost 60% applied for unemployment benefits, which was the highest proportion among all age groups [10].

4. Contrastive Analysis

By comparing before and after the pandemic, it reveals that vulnerability of the California job market was not evenly distributed. Low-wage service industries and marginalized groups had borne an disproportionate share of the impact. After the outbreak of the epidemic in February 2020, it had a significant effect on the total employment. Before the epidemic, the total employment during the period from 2019 to the beginning of 2020 was steadily increasing. However, after the epidemic, the total employment plunged for 2.6 million, then only recovered a little in the following months. Before the epidemic, the industry

concentration was mainly in the service sector. But after the epidemic, the low-wage service sector was the most severely affected. The unemployment rates in the catering, retail and healthcare industries reached 55.8%, 45.2% and 29.4% respectively during the COVID-19 [4]. At the same time, the rate of remote work also increased significantly after the epidemic.

By comparing the profiles of the unemployed, it could be known that those with low educational attainment, women, Latinos and African Americans were the groups with the highest unemployment rates. Among the less educated population, the unemployment rate before the pandemic averaged 9% [1]. 48% of them applied to Unemployment Insurance after the outbreak of COVID-19, which indicated that the society needs targeted retraining for them [1]. Table 1 demonstrates that 70.7% high school workers applied UI claims. By contrast, only 8.2% graduate degree employees made applications for UI claims. For the women in California, before the pandemic, the unemployment rate for women was approximately 5% [11]. After the pandemic, 55% of women applied for UI [1]. As shown in Table 1, 45% of female workers in the labor force in Feb-2020 applied UI claims. This may indicate that the lack of childcare services is the main factor contributing to the extremely high unemployment rate among women in USA. Also, the unemployment rate for Latinos and African Americans before the pandemic was an average of 5.5%. After the COVID-19, the proportion of them applying for UI was also very high. Among them, Latinos suffered more than half of their income loss. This indicates that language and technological barriers have exacerbated inequality. In terms of unemployment benefits, before the pandemic, the average weekly UI payment was $339 [4]. After the pandemic, the maximum amount of federal subsidies reached $939 per week [4]. The impact of the epidemic was not uniform but was exacerbated by four axes: ethnicity, education, gender, and geography These axes magnified the existing inequalities. Firstly, Latinos and non-whites faced the double blow of unemployment and poverty, which merely increased the wealth gap in California, the United States. Secondly, women and those with low educational attainment also became the hardest-hit areas of inequality. The probability of food insecurity for those without a high school diploma was four times that of those with a bachelor's degree [10]. At the same time, the probability of housing and financial insecurity for women was significantly higher than that for men. Moreover, geographical and language barriers made it more difficult for disadvantaged communities to receive relief, including low-income groups, Latinos, and rural counties, which had the lowest proportion of receiving UI [2].

Table 1: UI claims in California, by demographics, cumulative March 15, 2020-July 11, 2020

	Demographic category	Total since March 15th	Workers in the labor force in Feb-2020	Total claims as % of group labor force
Gender	Female	3966672	8824000	45.0%
	Male	3780511	10605000	35.6%
Ethnicity	White	2523852	7506246	33.6%
	Hispanic	3780511	10605000	35.6%
	Asian	1223578	3035206	40.3%
	Black	513990	1038524	49.5%
Age	16-24	1329582	2272000	58.5%
	25-44	3592195	9083000	39.5%
	45-64	2420510	6923000	35.0%
	65-85	389392	1151000	33.8%
Education	<high school degree	618011	2283877	27.1%
	High school degree	3037043	4295053	70.7%
	Associate' degree	1749276	5075283	34.5%
	Bachelor' s degree	815533	4927569	16.6%
	Graduate degree	232385	2848218	8.2%

Source: California Policy Lab, Series Report: California Unemployment Insurance Claims During the COVID-19 Pandemic, July 2, 2020, and CA EDD data.

5. Suggestions

In light of the profound and uneven impacts of COVID-19 pandemic on California labor market, a multifaceted and targeted policy response is urgently needed to foster a more resilient and equitable recovery. In terms of suggestions, the most essential one is to increase the coverage and accessibility of unemployment insurance. A significant portion of low-wage, informal, and immigrant workers were excluded from federal relief programs due to eligibility criteria, administrative complexities, or a lack of awareness [2]. This is particularly true for many Latino workers. The participation rate of them is even lower because they face additional language barriers and digital divides that hinder their ability to navigate the application process [5]. To solve the problem, UI system needs to be more inclusive. Therefore, providing more access to languages and digital platforms could offer more options which could be user-friendly and accessible. Moreover, achieving diversity in identity, allowing more people to apply is crucial. For instance, expanding eligibility to cover part-time and undocumented workers to create a stronger safety net for the most vulnerable. Secondly, targeted support needs to be provided toward the hardest-hit sectors and demographics. For industries that have been severely impacted such as catering and retail administration, free digital and free skills training could be provided by government and community partnerships [11]. These initiatives should focus on building skills for the post-epidemic economy, particularly in growing digital and green sectors, thereby assisting employees transition into a more sustainable and stable employment [11]. For women who have been severely affected by the pandemic, emergency childcare funds and flexible working legislation could be established by government to help them [11]. Since the dramatic unemployment of female was largely driven by childcare disruptions. Additionally, more remote working is possibly be promoted. Finally, broader structural reforms are necessary to address inequality. The federal and state governments could consider to increase the weekly UI wage replacement rate permanently and set a minimum guarantee line to narrow the gap between the rich and the poor. To mitigate the educational disparities, which were a major predictor of job losses, the government may could alleviate the burden of student's loans or provide one-time tuition waivers for low-income graduates who already have student loan debts [1]. In this method, it could increase the enrollment rate. By adopting these comprehensive suggestions, California could begin to rectify the imbalance exposed by the pandemic and build a more fair and inclusive labor market for all its residents.

6. Conclusion

This study provides an analysis of the impact of the COVID-19 pandemic on employment in California. It reveals profound and uneven disruptions across sectors and demographic groups. The results show that the pan-

demic-triggered economic shutdown led to unprecedented job losses, with the unemployment rate peaking at 16.4% in April 2020. Low-wage, high-contact industries—including hospitality, retail, and healthcare suffered the most severe declines, accounting for over half of all unemployment claims in California. Furthermore, inequalities that existed before were markedly exacerbated. For example, workers with lower educational attainment, women, and some minorities experienced disproportionately higher levels of job displacement. Remote work, while serving as an effective buffer for high-income and white-collar employees, remained largely inaccessible to vulnerable groups due to occupational and technological constraints. The inadequate coverage and accessibility of unemployment insurance further intensified financial insecurity among those most affected. These findings lead to the conclusion that structural vulnerabilities within California's labor market significantly amplified the socio-economic shock of the pandemic, and that recovery efforts must directly address these disparities to avoid long-term inequity. The implications of this research extend beyond immediate policy responses, highlighting the critical need for a more resilient and inclusive social safety net. The findings underscore the importance of adapting unemployment insurance systems to encompass informal, part-time, and immigrant workers. At the same time, suggesting that targeted retraining programs in digital and green skills could facilitate smoother transitions for displaced workers. Additionally, the stark gendered impact of the pandemic—driven largely by childcare disruptions may emphasize the necessity of implementing supportive care policies and flexible work legislation to ensure women's sustained participation in the labor force.

This study has some limitations. First, it mainly uses short-term data. Longer-term data would help us see how the job market really recovers over time. Second, the research focuses mostly on quantitative numbers. Adding interviews or surveys could help us understand workers' real experiences and challenges. Future studies should include more groups of people, especially those who are often left out, like undocumented workers or people in rural areas. It would also be useful to compare California with other states to see which policies work best. Another good idea is to study the long-term effects of remote work on inequality and mental health. Finally, researchers should look more closely at how training programs actually help people learn new skills and find new jobs. This would help the government and organizations create better support systems for workers in future crises.

References

[1] Ong, J., & Mar, D. (2020). At-Risk Workers of Covid-19 by Neighborhood in the San Francisco Bay Area. eScholarship. University of California.

[2] Petrosky-Nadeau, Nicolas, and Robert G. Valletta. (2020). Unemployment Paths in a Pandemic Economy. FRB San Francisco Working Paper 2020-18.

[3] Allegretto, S. A., & Liedtke, B. (2020). Workers and the COVID-19 recession: Trends in UI claims & benefits, jobs, and unemployment [Research brief]. Center on Wage and Employment Dynamics and Center for Labor Research and Education, University of California, Berkeley.

[4] Antipova, A. (2021). Analysis of the COVID-19 impacts on employment and unemployment across the multi-dimensional social disadvantaged areas. Social Sciences & Humanities Open, 4, 100224.

[5] Bell, A., Hedin, T. J., Mannino, P., Moghadam, R., Romer, C., Schnorr, G., & von Wachter, T. (2022). Increasing equity and improving measurement in the U.S. unemployment system: 10 key insights from the COVID-19 pandemic. California Policy Lab.

[6] Meghana Aruru Ph.D., MBA, B.Pharm Associate Director a, Hoai-An Truong PharmD, MPH, FAPhA, FNAP Professor of Pharmacy Practice and Administration, Director of Public Health b, & Suzanne Clark Ph.D., B.Pharm. Associate Professor of Pharmacology, Co-Director, Center for Teaching and Learning c. (2020). Pharmacy emergency preparedness and response (pepr): a proposed framework for expanding pharmacy professionals' roles and contributions to emergency preparedness and response during the Covid-19 pandemic and beyond - sciencedirect. Research in Social and Administrative Pharmacy.

[7] Ronaghi, M., & Scorsone, E. (2023). The impact of governance on poverty and unemployment control before and after the 2020 COVID outbreak in the United States. Regional and Sectoral Economic Studies, 23(2).

[8] Falk, G., Carter, J. A., Nicchitta, I. A., Nyhof, E. C., & Romero, P. D. (2020). Unemployment rates during the COVID-19 pandemic. Congressional Research Service.

[9] Thebault, R., Tran, A. B., & Williams, J. (2020). The COVID-19 recession is affecting low-income workers the most. The Washington Post.

[10] Perry, B. L., Aronson, B., & Pescosolido, B. A. (2021). Pandemic precarity: COVID-19, inequality, and social welfare. Journal of Health and Social Behavior, 62(2), 131-148.

[11] Blustein, D. L., Duffy, R., Ferreira, J. A., Cohen-Scali, V., Cinamon, R. G., & Allan, B. A. (2020). Unemployment in the time of COVID-19: A research agenda. Journal of Vocational Behavior, 119, 103436.