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PLANNING AND DEVELOPMENT DEPARTMENT, GOVERNMENT OF KHYBER PAKHTUNKHWA

Estimating Wage Loss across Various Households Income Groups in Khyber Pakhtunkhwa

"Where the Shoe Pinches and How Much"

1. Introduction and Methodology of Computation

In this document, we estimate wage loss over fifteen days across various income groups under complete lockdown in Khyber Pakhtunkhwa. To do so, we utilised the Household Integrated Income and Consumption Survey (HIICS) data for the year 2015-16. Since, the lockdown effect might not be homogenous across the households; we formed income quintiles of households with respect to average monthly income to trace the heterogeneous impact of lockdown on the wage loss. We formed five quintiles; each containing 20% of the population. The households that fall in the first (Q1), second (Q2), and third quintiles (Q3) are considered vulnerable and poor, therefore, they remain more susceptible to any shock.

This claim is supported by the literature (for instance Cheema, and Sial, 2012)[1], which includes the first three quintiles to estimate the poverty line. Furthermore, the Bureau of Statistics (BoS) report (2016) suggests that each of the next quintiles contains 20% of better off population.[2] Hence, we assume that wages in these first three quintiles have decreased by 50%, 40%, and 30%, respectively. The assumptions regarding the fall in wages are supported by the studies related to COVID-19 across various regions, which claim that amid lockdown, the wages of various income groups have fallen between 50 and 30 percent.[3]

The fall in wages occurs because the low-income groups are involved in jobs that require higher physical efforts than the high-income individuals. For instance, low-income workers tend to be in occupations that are more machine-dependent and less ICT-enabled; this makes them less flexible to

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[1] https://www.researchgate.net/profile/Reem_Al_Khasawneh/publication/281766840_The_role_and_importance_of_audit_in_the_intellectual_property_rights_to_support_the_economy_in_the_hashemite_kingdom_of_Jordan/links/5b34d4d40f7e9b0df5d38930/The-role-and-importance-of-audit-in-the-intellectual-property-rights-to-support-the-economy-in-the-hashemite-kingdom-of-Jordan.pdf#page=95

[2] http://www.pbs.gov.pk/sites/default/files/pslm/publications/hies15-16/write%20up%2015-16-HIES-final.pdf

[3] For detail see also https://tbsnews.net/panorama/covid-19-impact-low-income-communities-stare-grim-reality-80410; https://www.brookings.edu/blog/future-development/2020/05/06/turning-back-the-poverty-clock-how-will-covid-19-impact-the-worlds-poorest-people/

work outside the market.[4]However, the households in the fourth (Q4) and fifth quintile (Q5) are relatively affluent and can adjust better to any economic shock; therefore we have assume that their income decrease by 20%, and 15%, respectively. Additionally, to adjust the data for the current period, we have adjusted the income of all households by an average annual inflation rate of 8%. We sum the whole discussion in the following tables and figures.

2. Analysis

Table 2.1: Average Wage Loss across Various Income Groups (PKR) / Per Month

Quintiles	Mean Wage before Lockdown (Adjusted for Inflation)	Mean Wage After 50% fall	Mean Wage After 40% fall	Mean Wage After 30% fall	Mean Wage After 20% fall	Mean Wage After 15% fall
First	17,330	8,665				
Second	26,748		16,049			
Third	35,665			24,966		
Fourth	52,554				42,043	
Fifth	114,075					96,964

Proposed Compensation Package of the Government of Khyber Pakhtunkhwa and its Impact on Wage Loss

Table 1 depicts the average wage of a household before and after the lockdown in each quintile. In the following table 2, we estimate the total wage loss, total proposed compensation planned by the Government of Khyber Pakhtunkhwa, and the total wage loss after proposed compensation for each quintile. The compensation effect is introduced in the analysis since the Government of Khyber Pakhtunkhwa has announced a package of PKR 5,000 for the 2.1 million households that will be distributed through the 'Ehsaas Programme' and will cover the households in the first three quintiles.[5,6]

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[4]https://www.sciencedaily.com/releases/2020/04/200430191258.htm

[5] It is important to note that households in the first three quintiles are considered lower income households. Whereas, through the Ehsaas Programme, the government usually target the poor section of the society. Therefore, we assume that support fund of the Government of Khyber Pakhtunkhwa will be equally distributed among the first three quintiles of households. For detail see also https://tribune.com.pk/story/2185977/1-live-team-chinese-doctors-arrive-pakistan-today/ and https://www.app.com.pk/no-shortage-of-food-in-kp-1-9mn-families-to-benefit-from-cm-relief-package-ajmal-wazir/
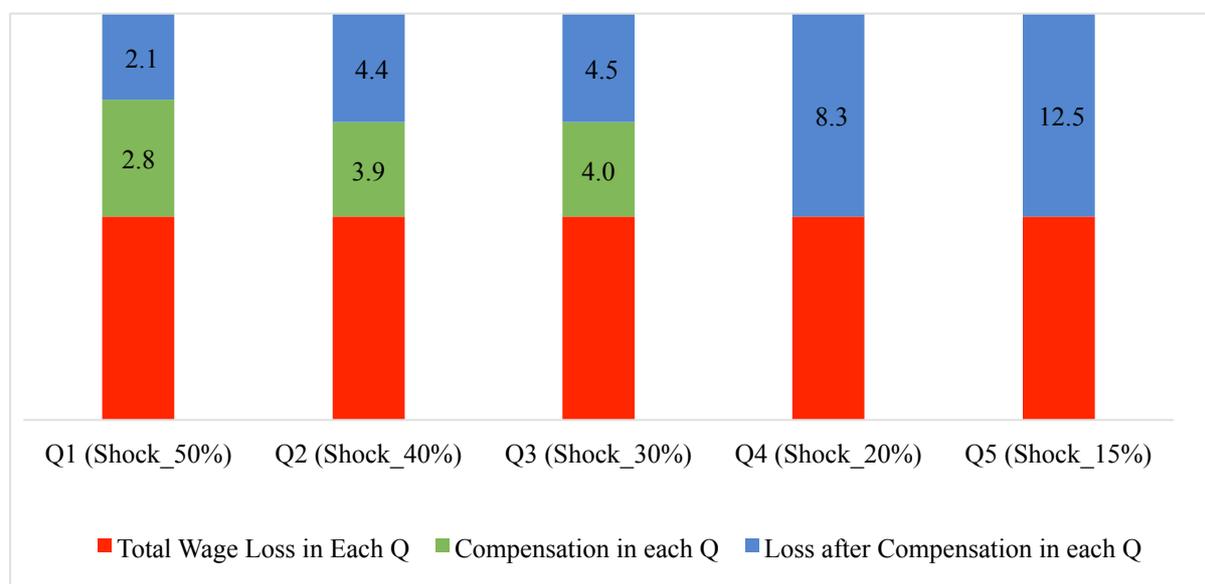
[6] To lower the cost of lockdown for poor, the federal government has also announced to distribute PKR 112,160.83 million among the 9,220,763 households across the country. For detail see also, https://www.pass.gov.pk/ecs/uct_all.html

Table 2.2: Total Wage Loss & Total Wage after Proposed Compensation (PKR, Billions)

Quintiles	Number of Households	Total Wage	Wage Loss	Proposed Compensation	Wage Loss After Proposed Compensation
First	566,220	9.81	4.9	2.8	2.1
Second	780,793	20.88	8.4	3.9	4.4
Third	796,148	28.4	8.5	4	4.5
Fourth	792,605	41.6	8.3	0	8.3
Fifth	730,580	83.4	12.5	0	12.5

Table 2 suggests the aggregate figures, however, the average wage loss for each household in Q1, Q2, Q3, Q4, and Q5 are 8,665, 10,699, 10,699, 10,511, and 17,111, respectively. This fall in average monthly income will obviously affect their consumption pattern. The Household Integrated Economic Survey (HIES) data suggests that Q1, Q2, and Q3 spend 90.83%, 89.71%, and 88.96%, while Q4 and Q5 spend 88.22% and 86.82% on major food items, respectively. Hence, due to the wage fall the lower quintiles will suffer the most in terms of welfare loss.

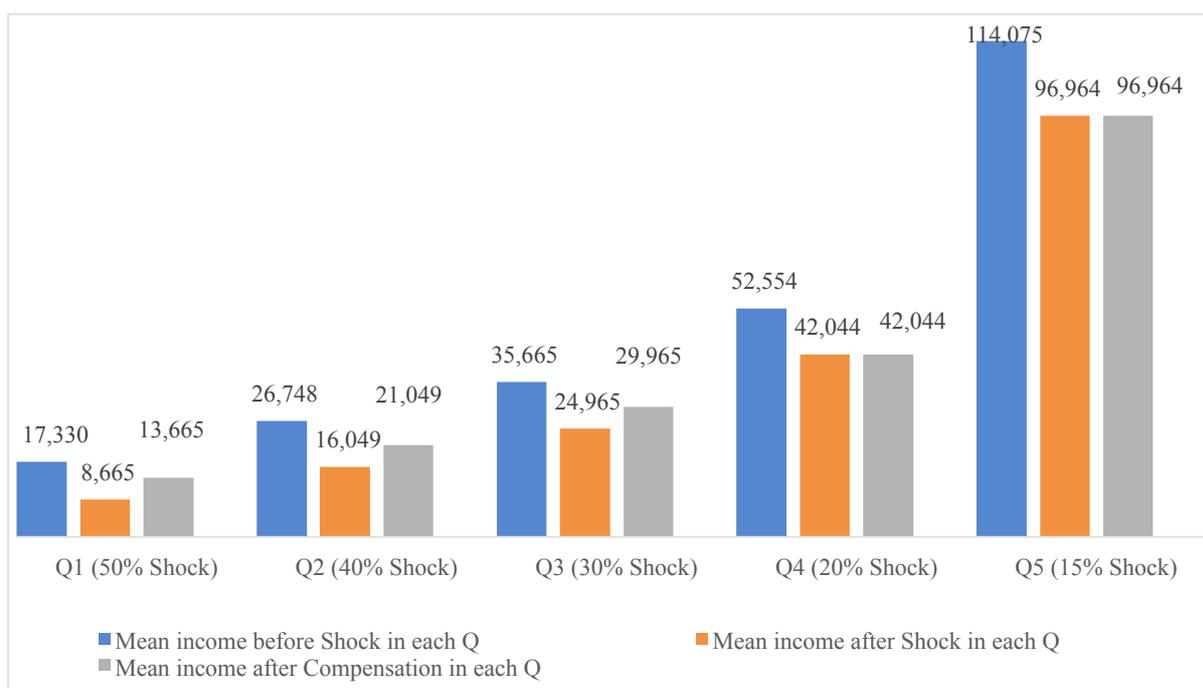**Figure 2.1: Total Wage Loss & Total Wage after Proposed Compensation (PKR, Billions)[7]**

Table 2.3: Mean Wage before and after Proposed Compensation (PKR)

Quintiles	Mean Employment Income before Shock	Mean Employment Income after Shock	Mean Employment Income after Compensation	% Remains uncompensated
First	17,330	8,665	13,665	42%
Second	26,748	16,049	21,049	53%
Third	35,665	24,965	29,965	53%
Fourth	52,554	42,044	42,044	100%
Fifth	114,075	96,964	96,964	100%

Figure 2.2: Mean Wage before and after Proposed Compensation (PKR)

3. Implications

This policy brief provides an estimate of the total wage loss for the various income groups in Khyber Pakhtunkhwa during the 15 days of complete lockdown. We estimate that PKR 42.6 billion was the wage loss during that period, which is about 23% of the total wages in the Khyber Pakhtunkhwa. Similarly, in terms of provincial GDP loss, it is almost 3.2% of the GDP.[8] It is important to note that the results presented here are based on the assumption that a complete and uniformly applicable

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[8]We use the Bureau of Statistics GDP figure of PKR 1335 Billion.

lockdown took place all across the province.[9] Secondly, we have evaluated the announced compensation package by the Government of Khyber Pakhtunkhwa (yet to be implemented) to provide 21.1 million households PKR 5,000 support per family. We estimate that this would compensate 58% of wage loss for quintile 1 and 47% compensation of wage loss for quintile 2 and quintile 3. The key policy questions for the Government of Khyber Pakhtunkhwa are the following:

- Estimate wage loss per month under the "smart lockdown"
- How much fiscal space is available to compensate quintile 1, 2 and 3 and for how long?
- What support (fiscal and other) should be accorded to businesses / SMEs resulting in decrease in wage losses for quintile 4 and 5.

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[9]As mentioned the findings are based on the uniform lockdown policy across the urban and rural regions. For detail see also http://www.thewaterchannel.tv/thewaterblog/630-lockdowns-in-rural-pakistan-what-to-do;https://www.thenews.com.pk/magazine/money-matters/650176-bitter-ruralities;https://gulfnews.com/world/asia/pakistan/covid-19-rural-sindh-more-receptive-to-social-distancing-than-urban-areas-1.70894065; https://tribune.com.pk/story/2203024/1-lockdown-deprives-workers-livelihood/