

ISSUES FACED BY CONSTRUCTION LABOR DURING COVID-19



FINAL YEAR PROJECT UG-2018

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This is to certify that the Final Year Project

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ABSTRACT

COVID-19 took the world with surprise and changed the world as we see it. Industries collapsed, markets disrupted, transportation systems came to a halt. The pandemic changed the life of every person where it spread and it changed them for good, or worse. Pakistan, an under developing country, was affected by it too. Specially the working class of our country, the labor class. They faced all kinds of challenges and issues during this time: economic issues, health issues, psychological problems, etc. (Arden, M., & Chilcot, J. 2020)

This study is focused on identifying the issues of construction labor (skilled and un-skilled) in Pakistan. The factors that played a key role in their lives during COVID-19 and how these factors made their lives difficult for them and their families. A Survey Questionnaire was developed with the help of these factors which were initially obtained from a detailed literature review. Interviews were conducted of construction labor in the Federal Capital: Islamabad. The labor was asked questions from that survey, and their response was recorded in the form of voice recordings as well. Obtained data was sorted out and comparisons were drawn from this data acquired. This data will help the Government of Pakistan and different Private Sector Companies to provide relief to their workers.

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List of Abbreviations

COVID-19	Coronavirus Disease of 2019
MES	Military Engineering Services
SOR	Schedule of Rates
AEC	Architecture, Engineering & Construction
QTO	Quantity Take-Off
BoQ	Bill of Quantities
GIS	Geographic Information System
CAD	Computer-Aided Design
2D	Two-Dimensional
3D	Three-Dimensional
PDF	Portable Document Format
API	Application Programming Interface
POMI	Principles of Measurement International
NRM2	New Rules of Measurement 2
IFC	Industry Foundation Classes

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INTRODUCTION

1.1 Background

COVID-19 has had a catastrophic impact on all areas of the global economy. The COVID-19 outbreak is having a major impact on the global economy till date. All trading activity had ceased during the peak COVID-19 cases, except for vital and health related products. The construction industry is one of the hardest hit industries due to the implementation of smart lockdowns and complete shutdown of transportation systems. Since most construction sites had to be shut down and no construction activities were being performed during the lockdowns and state emergency situations. In addition to spreading to many countries, the COVID-19 pandemic has created a domino effect in the construction industry, affecting the entire supply chain, especially suppliers, contractors, and workers (Araya, F. 2021). Contractors face financial problems and project delays due to incompetence. Labor class has suffered the most in this industry since they were the ones barely keeping their life together with minimum wage. When COVID-19 hit, downsizing was done by almost every company in every sector. And construction labor class were dismissed the most in this situation since the sites had shut down and no site work was being done. (Amoah, C., Bamfo-Agyei, E., & Simpeh, F. 2021).

So, what was the issue that arose amidst all this? Labor class contributes the most in a developing country like Pakistan, they are the core of our industry, specially the construction industry that thrives on the handwork of these men. In Pakistan where the economy is not stable, it was difficult for the labor class to survive economically. But they did not just suffer due to the dying economy, there were health issues, family issues, productivity issues prevailing from following COVID-19

SOPs, psychological issues, immigration, etc. Most of the labor class working in Islamabad is from different cities of Pakistan: working away from home to finance their families. When COVID-19 came, transportation systems were shutdown and the ones operating choked due to overloading of traffic. Optimum measures are mandatory to be taken to provide relief to the labor class of Pakistan for their survival and inclusivity to keep them in our society.

1.2 Problem Statement

COVID-19 has severely affected the construction industry, especially the daily wage labor working on construction projects. They were sent home when COVID-19 came, they faced immigration issues, financial bankruptcy, mental stress, etc. While the issues of a middle-class person were being broadcasted on every Television, no one cared to investigate the lives of these men (Jafree & Anwar, 2020). What kind of issues did they face? What were their biggest fears during this time: was it the health of their families or the fact that they could lose every little asset they have built so far? Did they find any work worth doing in their hometowns or were they jobless the entire period of COVID-19? How many of them took loans during this time and are still paying off their debts? No research is present in Pakistan that was aimed to find out about the life of a common daily wage construction worker and what changes they went through during and post-COVID-19. (Elhadi & Colleagues, 2022),

1.3 Aims & Objectives

The main objectives of this study are to:

- To identify the problems and challenges faced by labor during covid
- To determine the various challenges faced by labor on construction labor in Pakistan
- To identify, categorize, and explore the issues faced by the construction workers.

1.4 Organization of the Thesis

This thesis is organized in four (4) chapters. Brief description of every chapter is given below:

First chapter provides an insight to what this paper is about, and which industry and audience it is going to be targeting: construction labor. The reason why this paper was needed and what can the reader expect from it

Second chapter gives a detailed literature review of the issues faced by construction labor during COVID-19 in different regions of the world. And how it affected the construction industry as a whole. Different factors will be discussed revolving around the life of a daily wage construction worker.

Third chapter is about the methodology adopted in this study for achieving the research objectives. It focuses on the selection of methods and instruments used, data about the survey and the data analyzing.

Forth chapter describes the findings of the study, descriptive and mathematical analysis performed on the generated results.

Fifth chapter illustrated the major outcomes of the research work, recommendations and suggestions in accordance with the obtained data to suggest “A way Forward”

LITERATURE REVIEW

2.1 General

This chapter is dedicated to the literature review and explains the results and analysis conducted by various researchers regarding the accessibility, transit choices, travel behaviors during COVID-19, economic issues, and other factors that indicate the challenges faced by construction labor during COVID-19 and its aftershocks.

Research studies related to worker behavior on a global setting are being conducted across the world and various theories have been developed which mostly complement each other in one way or the other. The challenges that the workers had to face related to different aspects mostly based on the socio-economic factors, employment choices, transportation issues, health, SOPs implementation, supply chain disruption, etc. (Barker, N., Davis, C. A., López-Peña, P., Mitchell, H., Mobarak, A. M., Naguib, K., Reimão, M. E., Shenoy, A., & Vernot, C. 2020).

The studies that we are going to be reading show different domains of the worker life during COVID-19 and how that life changed when the pandemic came. The affect pf lockdown and its aftershocks on the already fragile working-class sector. Several studies have been conducted in the last couple of decades on this issue, some of which are discussed below.

2.2 Mobility of workers and Transportation issues during COVID-19

Lockdowns were initiated in south when COVID-19 hit in 2020. It created a chaotic situation for the labor class of India who were working away from their cities. Even the government of India did not anticipate such large-scale movement of its migrant labor to their rural areas. More than 450 million people migrated within India when COVID-19 came and major chunk of this was the

working class of country (Azeez E P, A., Negi, D., Rani, A., & A P, S. 2020).. All major transportation sources were put to a pause with a short notice of just four hours. Transportation systems choked due to overloading since there was mass movement going on at that time. And this issue did not just affect the under-developing countries, it was observed almost in every state. Countries like Malaysia, Brazil, United States of America, etc. all were hit by a huge mass transit. (Abraham, R., Basole, A., & Kesar, S. 2021)

A clear change was observed in the travelling behavior of people during this time, especially the seasonal working class: those who used to do part time work during 4-6 months of the year. And they used to work on their lands in rural areas rest of the year. They could not travel due to many reasons: lack of funds, construction sites being non-operational, lack of awareness towards COVID-19 and its vaccination. Since public transport was not operational during the lockdowns, the working class was not able to travel in search of work. (Estupinan, X., & Sharma, M. 2020).

In South Korea, they found that the people were not willing to travel because they feared being infected by the virus. They used their smart card data to acquire information about this behavior. Same is the case in Berlin, New York, Taipei. People started preferring travelling by private means instead of relying on public transport. This did not come as a surprise that high-risk modes of transportation like taxis, trains, buses were not the preferable method to travel during this time. COVID-19 led to a 72% decrease in the usage of public transportation in Chicago. Though it was observed that this decrease was among those who did not have essential jobs: sole bread earned in the house with a family to feed. (Estupinan, X., & Sharma, M. 2020).

2.3 Economic Instability and Household Income Changes

COVID-19 has had a significant effect on the global economy especially the labor market. Some countries were affected more than others in terms of unemployment of labor due to the pandemic.

In the US, almost 15% increase was seen in the unemployment of labor by April 2020 while in Japan it stood at 2.6% only. Findings show that labor workers suffer more than a common man since they are not hired contractually in many parts of the world. They have no social security in terms of wages and alternate work options. This validates the fact that economic stability of a daily wage worker is highly unstable. Labor Force Survey conducted for examining the household changes in Japan covers almost 40 thousand houses. This survey collects information about the status of employment that are in each household. It was observed that the average number of household members with the working status decrease when the first two initial lockdowns were enforced. Though this number then increased six months after the April of 2020 in which people started doing all kinds of work at disposal to earn for the house. Workers in the social sector were seen to have more unemployment than other sectors which was of 5% in April 2020. The reason is because of the nature of work since other sectors were able to achieve work from home. (Farooq, R., & Sultana, A. 2021)

Various studies across Japan suggest that the economic shock of pandemic varied from sector to sector. Among these, daily wage workers took the most hit since they were easy to get rid off without having any social security and contractual obligations. And during this time, if there was one person running the house income, it became difficult to meet the needs of the entire family. Such reliance produced fear in the house since there was no way of knowing how long that income stream would last as there was heavy downsizing in the working class.

2.4 Supply Chain Disruption and Job Uncertainty

The covid-19 pandemic led to nationwide lockdown resulting in an economic recession, a study on US construction sector by Alsharif, A.; Banerjee, S.; Uddin, SMJ.; Albert, A.; Jaselskis, E. Early shows that the downfall of us economy started in February 2020, and it was named as

COVID-19 Recession This resulted in an unparalleled unemployment rate. The employment rate of the construction workers in US increased from 3.8% to 14.7% within 2 months from February 2020. This steep increase meant that more than 23 million labors lost their jobs. Supply chain disruption is one of the most important factors which is responsible for the economic downfall. (Alsharef, A., Banerjee, S., Uddin, S., Albert, A., & Jaselskis, E., 2021)

Zhimin Wang and Zixiao Liu conducted research in China to Identify risks in covid-19 sites specifically in tunneling industry. The research revolved around socio-economic issues, it also identified as the shortage of material and labor as one of the major causes of the construction project failures. This was due to strict COVID policies by Chinese government. The shortage of both construction and COVID prevention materials was due to road blockage. This research was based on 12 tunnels projected carried out in the country. These 12 tunnels were divided into case studies and every case was analyzed based on the factor which affected the project, the most. Shortage of material and labor was identified as the most important factor which was responsible for the project failures in tunnel construction industry. (Wang, Z., Liu, Z., & Liu, J. 2020).

Research carried out by Qi Zhang and Xinxin Zhang in China shows that the per capita income of urban region of the world decreased by 6.13% and the per capita income of rural region decreased by 8.75%. lockdown by the Chinese government affected the mobility of the whole industry sector this resulted in company shutdowns which in turn decreased the demand of labor in the construction market. A survey was conducted by Luo et al LUO Ren-fu et al. *Journal of Integrative Agriculture* 2020, 19(12): 2946–2964 which showed the increase in inequality and uncertainty, the stats collected depicted that 7.1% of the rural households will touch the poverty and the household who escaped the poverty line are 23% likely to fall back during the pandemic. This research

signifies that the economic blow to the world countries was affecting every aspect of national growth and sustainability. (Zhang et al., 2022)

Shinnosuke Kikuchia and Sagiri Kitao used a life cycle model of heterogeneous agents. Their research showed that the impact of covid involved different groups or factions of individuals. The study tells that the unemployment rate of regular labor was almost stagnant from January 2020 to June 2020.

Paper also illustrates the economic issues due to COVID-19 which resulted in decrease in the demand of Labor. Small and medium-sized firms faced occupational hazards due to both material and labor shortages. (Kikuchi, Kitao & Mikoshiba, 2021)

2.5 Psychological issues and Health awareness

COVID-19 pandemic has myriad psychological and mental health implications, the wave of disease lead to serious psychological issues in the community. The lockdown ended the social gathering and this extermination from society caused serious mental issues in the people in all sectors of industry. Social execution results in stress and other psychological disruption indicators. The ostracized labor community had no psychological treatment services, and this resulted in long term affect on the individuals. The study by Ranjana Choudhari also emphasizes on the conditions of labor in India, and more importantly focuses on the psychological issues faced by migrants. It was found that high level of stress, anxiety and fear was induced due to the lockdown and other issues caused by the covid. Abraham, R., Basole, A., & Kesar, S. (2021)

Another research on psychological issues by Ferdinando Toscano and Salvatore Zappalà states that millions of Italians were forced to work from home during the first quarter of 2020 and this instigated them to conduct a survey to better understand the mental condition of workers. The 295

survey responses showed high level of stress and a decreased productivity due to social isolation. (Toscano & Zappalà, 2020)

Health awareness in the construction workers is very acute and the inculcation of information is very difficult in this line of field. The construction firms and health departments are known to promote social narratives and in COVID-19 they were supposed to monitor their employee health statuses, but this was not the case. A study by Catherine Smith cited that health awareness of the departments is very low and the intensity of COVID-19 spread is a complex equation to understand. The deaths and illnesses of the workers is not monitored, and it can result in intensifying the condition of world pandemic. (Smith, 2020)

2.6 Household income change

The Covid-19 transformed the whole world and had major impacts on household income. We investigated how income of individuals were impacted in pre covid, during covid and after covid in our survey. Labor jobs in countries like Pakistan are highly unstable and were easily affected due to covid. Through our survey we found that employs who were living away from their city were affected more, as during lockdowns majority of them couldn't get a job in their own cities. It was also noted during our survey that educated individuals suffered less as compared to uneducated. This trend might be followed in other countries as well. Also, individuals who had a passive income source tend to suffer less in their income. (Estupinan, X., & Sharma, M. 2020).

Methodology

3.1 Background

The methodology applied in this research has been illustrated below in a figure

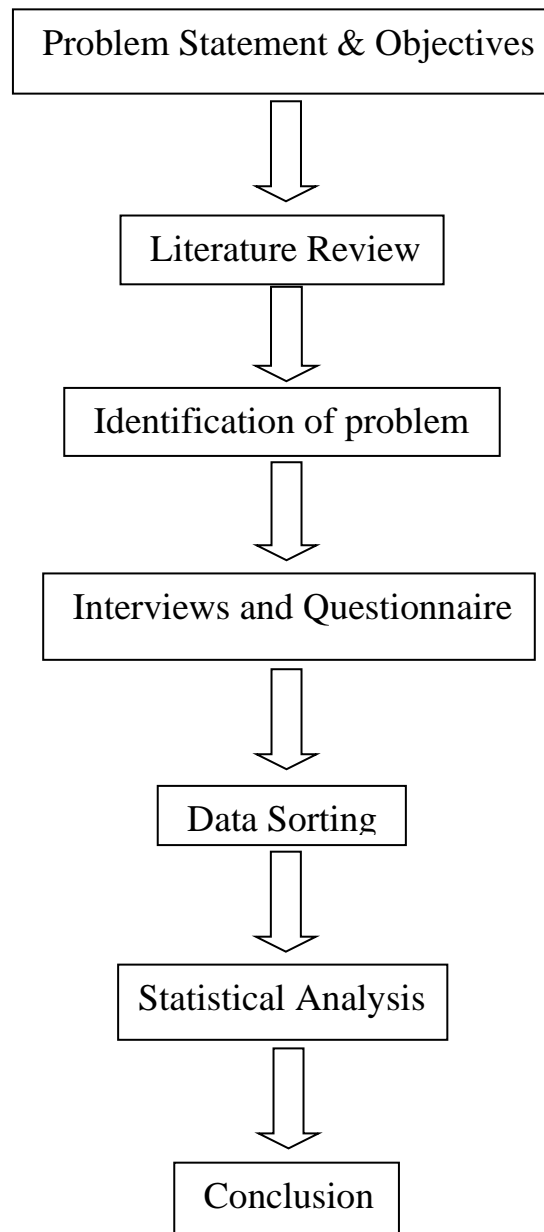


Figure 1: Study Methodology followed

3.1 Interviews

A questionnaire was formulated based on the findings on the literature review. The findings were extracted in the form of different factors like health, COVID-19 awareness, economic stability, etc. These factors were then utilized in making up different questions that are aimed to explore the life of a daily wage construction worker during COVID-19. The questionnaire consists of different parts: the first part is related to general questions about the person. These questions comprise basic information regarding their name, age, education (if any), The second part comprises of questions related to their skill category and skill level. Daily wage workers were placed in unskilled category, helper to a skilled person on filed was placed in the semi-skilled category. The crucial part: economic factors and the number of dependents at home. Whether they had any alternative source of income if they lost their jobs during COVID-19 or not? Were they able to find work in their hometown or not? Questions about the travel routine of daily wage workers since Islamabad has majority of its workers working away from their city. This range of questions determined the migrant or non-migrant nature of our labor in Islamabad. And what kind of challenges they faced if they had to move to their hometowns. Then come the questions about COVID-19 and its effects on their work productivity. Questions about whether they were asked to follow COVID-19 SOPs by their employer or not? Did they ask them to get vaccinated or not? These questions were asked to determine the implementation of COVID-19 SOPs at the ground level: construction sites. Then comes the part where we ask them about the effect of shortage of material on their job. Whether the demand of their skill increased or decreased during this time, were site construction activities delayed due to material shortage. The Questionnaire is attached as Annex-A at the end.

3.2 Data Collection

Google survey form was used to collect data from labor working in different areas of Islamabad including but not limited to Emporium (B17 Sector), Labor Headquarter (D17), Imaraat (G11 Markaz), F-10 Sector, Top-City Islamabad, Mumtaaz City Islamabad, NUST Bhattai Mess-2 Site, etc. More than two hundred responses were collected to gather more reliable information and remain conservative. Interview recordings of these surveys are attested to support the arguments and for more in-depth study of the data collected.

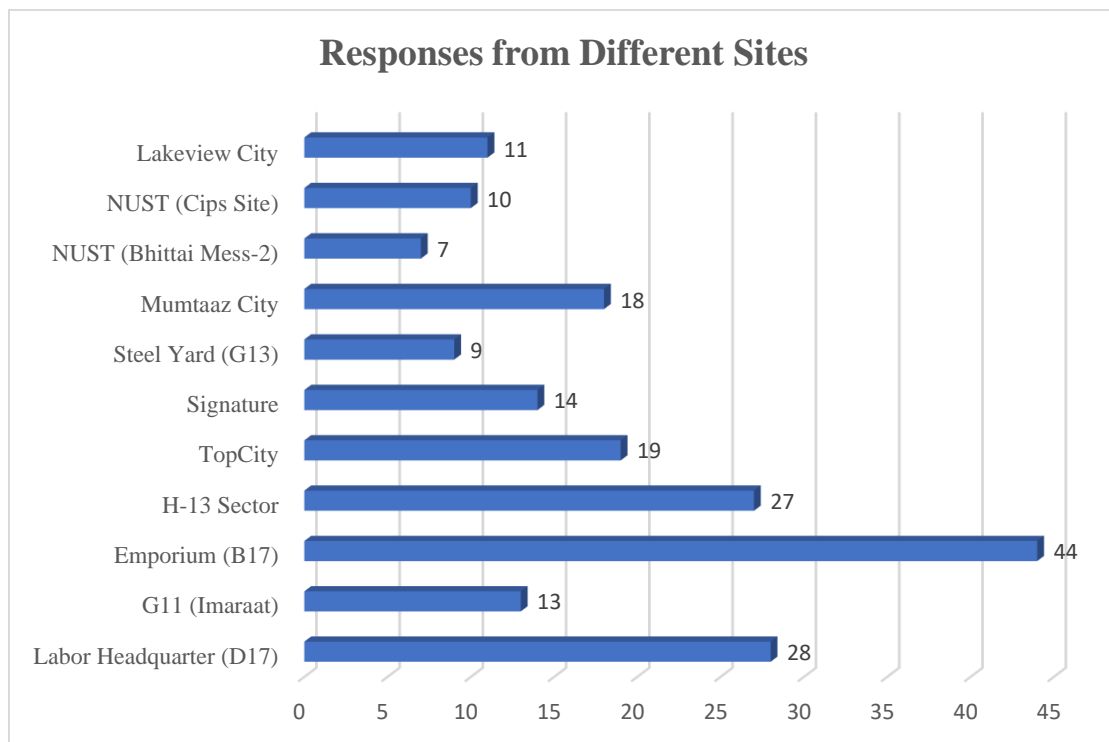


Figure 2: Responses recorded at different locations of Islamabad.

A detailed statistical analysis of the data collected from these sites is done in the next chapter: Results and Analysis. Where an in-depth information will be shared about the stats that were gained through the conduction of this study.

RESULTS AND ANALYSIS

4.1 Obtained Data Representation

This part shows the results obtained from the data collected from the survey. Each question was categorized under specific factor determined from literature review to better analyse the data collected. All the factors are mentioned below which show the results:

4.2 Basic Information

Average Age of the survey responses was 28 years.

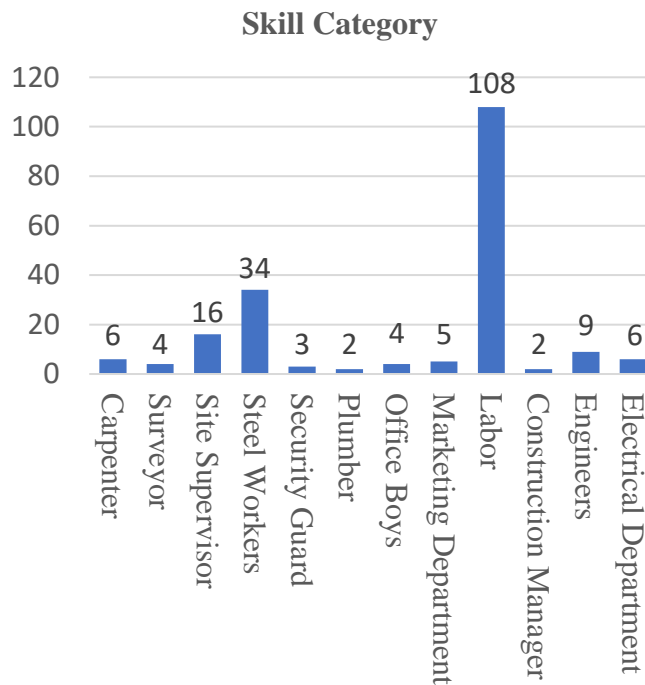


Figure 3: Skill Category of the survey respondents classified by their job title

Figure 3 shows the skills category of the survey respondents through their role and designation. The survey responses show that there is high frequency of the respondents who classify their job title as 'labor'. This is chart is coherent with the onsite operations as there is high number of

working labors there as compared to engineers of other job positions. This chart also depicts that our research is mostly performed on construction sites where onsite operations were carried out.

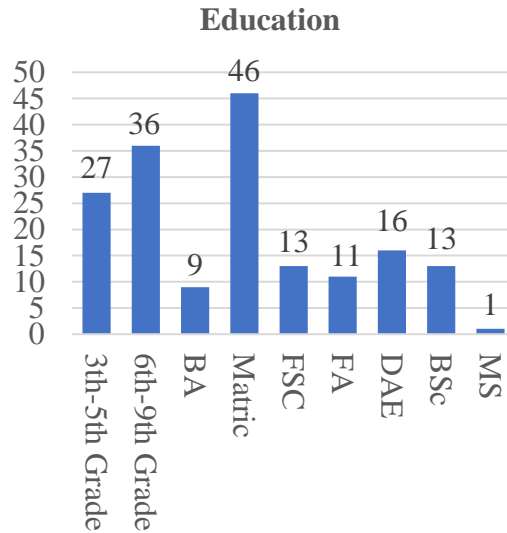


Figure 4: Education of the survey respondents

Figure 4 shows that there is a greater number of responses who were having education not more than matriculation. We categorized the responses with matric and below as Unskilled, FSC to DAE responses was categorized as Semi-Skilled and the respondents who had a BSc and higher level of education were categorized as Skilled Labor.

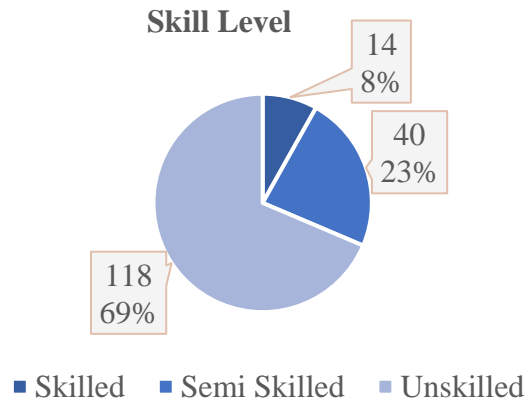


Figure 5: Skill level of the responses

Figure 5 shows that we categorized the skill level into three classes: skilled, semi-skilled and unskilled. The number of unskilled labors on site is higher than the number of semi-skilled and skilled labor, this survey result goes parallel with the norms of available skillset on the site.

4.3 Mobility and Migrant Workforce

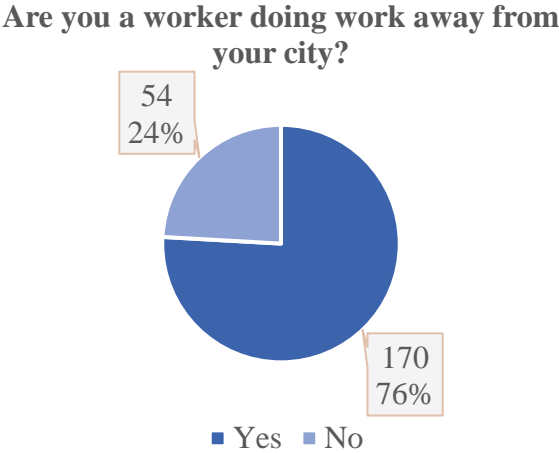


Figure 6: Working away from home city

Figure 6 Gives us an insight of how many workers were migrants and were working away from their city. This survey result shows that 76% of the total interviewees were migrants. It was stated earlier that COVID-19 affected the migrants more during the pandemic this question will lead us to the finding whether COVID-19 affected those workers more or not in the region of Federal territory of Pakistan.

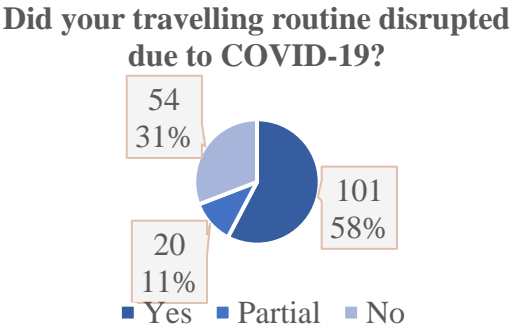


Figure 7: Travel routine disruption faced due to COVID

Figure 7 Travel routine disruption is a major issue which was discussed under the mobility issues 69% of the responses answered with a yes and partial. This means that COVID-19 pandemic led to travel issues. The figure 6 shows that there was a high frequency of migrant workers, so this disruption affected them more.

Were you forced to travel back to your hometown when COVID came?

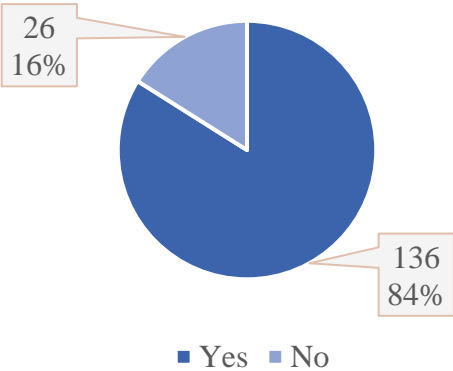


Figure 8: Travelled hometown due to COVID

Emergence of COVID-19 resulted in job loss and forced evacuation of sites, this figure shows us that 84% of the respondents were forced to leave their sites and jobs and travel back to their homes even though Figure 7 showed us that the travel restrictions disrupted the travel routines.

If yes, did you get job in your hometown?

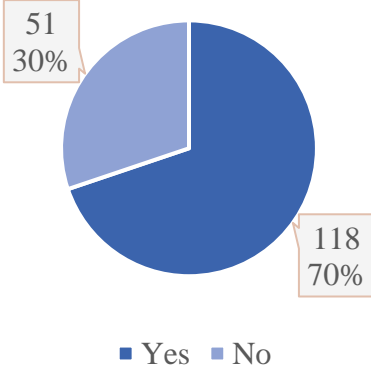


Figure 9: Getting job in hometown after COVID

This figure shows the follow up question which allows us to evaluate the financial status of workers who lost their jobs. A significant number of workers got job in their hometowns but to understand the complexity of financial condition, we need more evidence on this topic. The next questions will allow us to evaluate the job status and if they faced any difficulty in their hometown.

4.4 Wages

Figure 10 shows that there is high frequency of the responses (84%) who have only one source of income this means that there is high level of financial risk of the COVID-19 impact on job. The average income per day was recorded as: 990Rs while the average number of dependants at home recorded were 7.

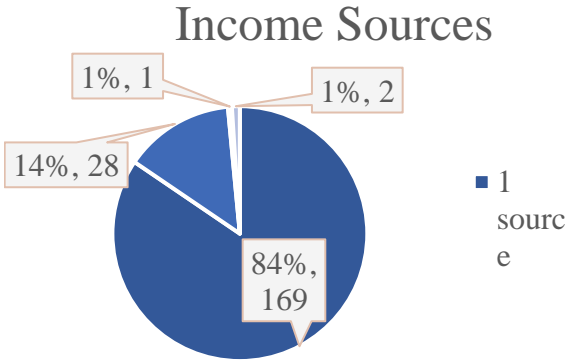


Figure 10: Income sources

4.5 Working Hours

This Figure 11 is a representation of two questions: “How many working hours did you get monthly on average (pre-COVID)?” and “Were your working hours reduced during COVID?” Numerical values of the working hours were compared. 8 hours of work is the mode in pre-Covid time. Most workers lost their jobs and few of them retained but their working hours were not

changed. This comparison shows us that if the workers retained their job, there was no significant difference in the working hours

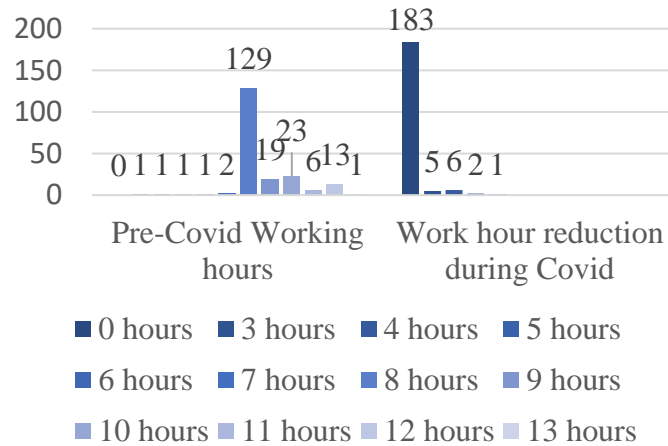


Figure 11: Working hour in Pre and during COVID-19

4.6 Supply and Demand Disruption

Job Issues due to shortage of Material

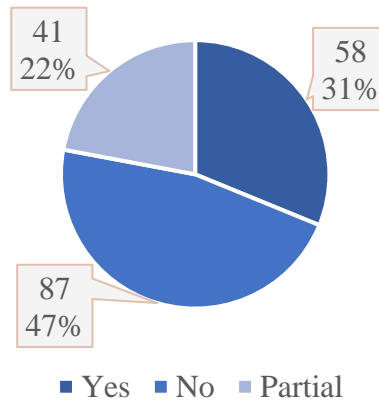


Figure 12: Shortage of Material

The Figure 12 shows that 53% respondents answered that there were shortages of material but a 47% suggested that there were no shortages of material. This does not completely support the

narrative that shortages of material resulted in job issues. Although this can be considered as a supporting factor.

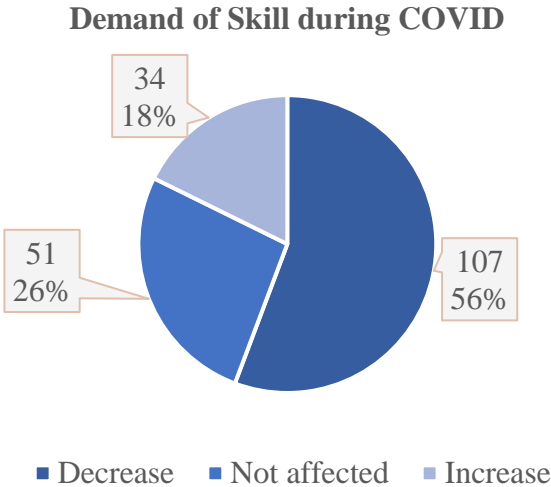


Figure 13: Demand of Skill during COVID

Figure 13 represents that there was a significant decrease in the demand of labour, this is due to site closure and operational barriers in COVID-19. This led to job loss and financial issues, a detailed analysis of financial issues will be covered in the next phase of the survey.

4.7 Financial issues

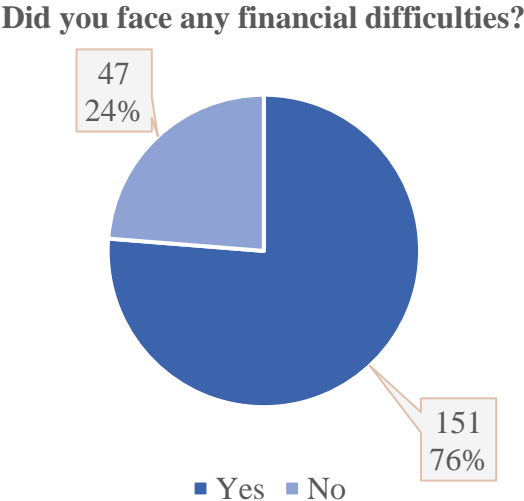


Figure 14: Financial difficulties faced

This question was a direct approach to understand if there were any financial impacts of COVID-19. The Figure 14 shows that 76% respondents faced financial issues during COVID-19. To better investigate their financial condition, we designed questions which target their job certainty and financial awareness.

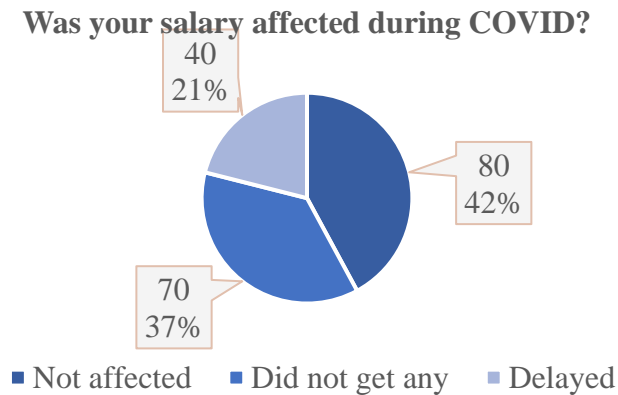


Figure 15: Was your salary affected during COVID-19

Figure 15 shows that the respondents who used to work during COVID-19 faced delayed payments and 37% percent did not got their salaries. This means that 58% respondents faced salary issues. This question is bifurcated into two parts, once an affirmation of delayed salary or joblessness is confirmed, we designed another question to understand the coping techniques opted by the interviewees, if any.

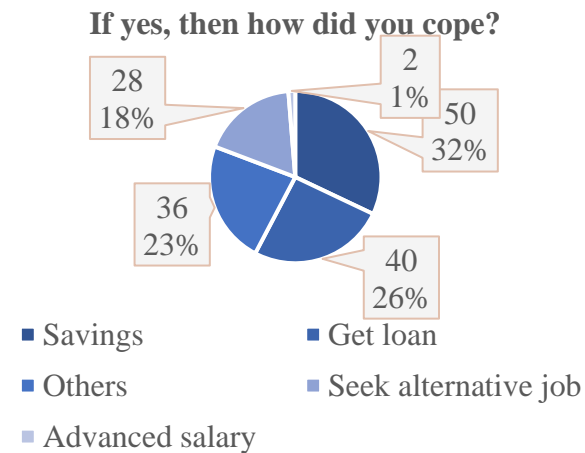


Figure 16: Coping up with Financial Difficulties

Figure 16 shows that the respondents choose multiple options to cope up with the issue of finances, labour used their savings in the lockdown phase of COVID-19 to cope up with the burdens of financial crisis. Few were aware enough to seek for alternative jobs (only 18%). The others segment includes family support, charity, and donations.

4.8 Job Uncertainty

How much were you afraid about losing the job during COVID-19

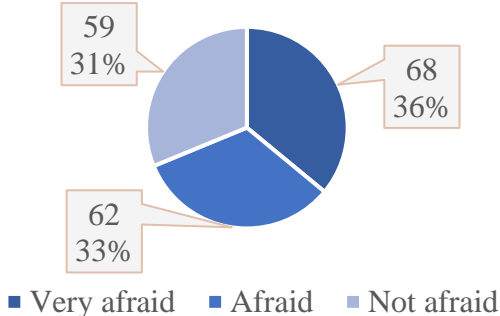


Figure 17: Fear of losing job

Figure 17 represents the psychological state of the workers during the COVID-19 as per their job certainty. The question was categorized in three levels to better understand the level of fear of people working in that time. A sum of 69% was afraid of losing their jobs, this is a significantly high percentage.

Did you lose work in COVID?

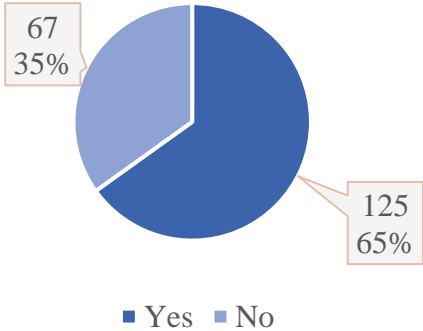


Figure 18: Losing job in COVID-19

Figure shows that 65% respondents lost their job, the previous research goes in line with the results, and we deduce that job uncertainty was a major factor which affected the working class during COVID-19.

Did you shift your line of work during or post Covid?

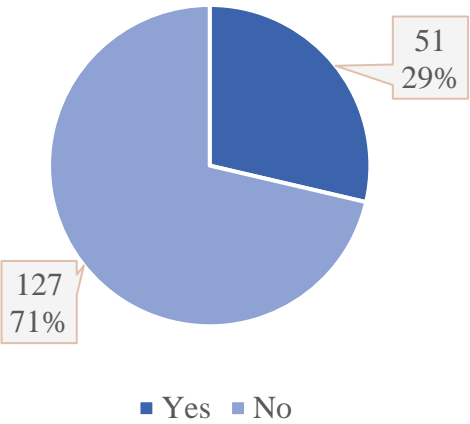


Figure 19: Sifting line of work during or post Covid

Figure represents that most of the workers could not shift their line of work, this may be due to lack of opportunities, or the lack of awareness as deduced in Figure 16 or the lack of appropriate skillset.

Did your Family seek alternative sources of income during COVID

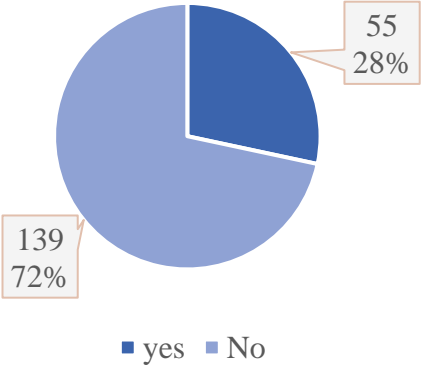


Figure 20: Alternative sources of income during COVID

A supporting question allowed us to reaffirm that lack of financial awareness was the key factor which intensified the turmoil of COVID-19. Figure shows that only 28% labour family sought for alternative sources of income. This shows that the financial literacy of respondents and their families was very low.

4.9 Productivity

Did following COVID SOPs reduce your productivity?

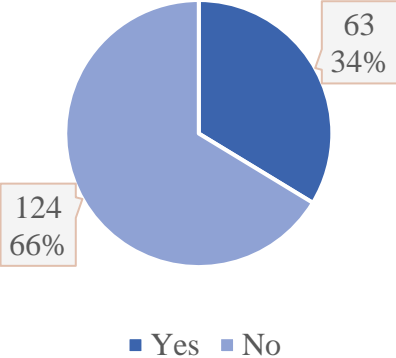


Figure 21: Productivity due to COVID

Figure 21 shows that most respondents faced productivity issues while adhering to the COVID-19 SOPs, this resulted in less work done in the same amount of time which in turn affects the construction industry. Respondents felt uncomfortable while working under the restrictions. Additionally, there are myriad hurdles which were imposed due to the SOPs and COVID-19 restrictions.

Did social isolation affected your productivity?

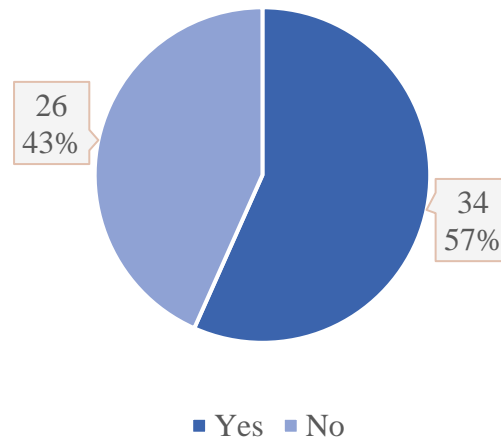


Figure 22: Impact on productivity due to social isolation

Figure 22 shows that we got only 60 responses, this is because the lack of awareness and illiteracy, interviewees could not understand the term “social isolation”. Although we got a fair number of affirmations which means that social isolation affected the productivity negatively.

Did you get COVID?

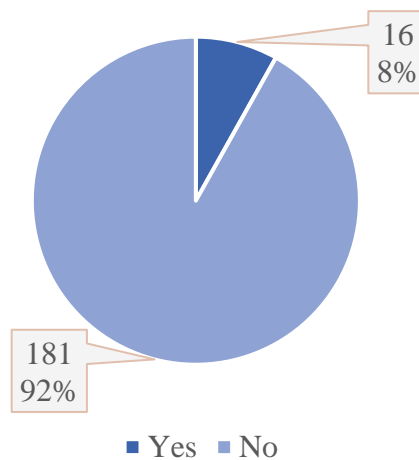


Figure 23: Getting COVID

The Figure 23 shows that very few workers got COVID-19 or were diagnosed from COVID-19. Adding to it, this may be due to lack of awareness of covid symptoms or the lack to testing in that

area. We asked another question to better understand their level of awareness regarding covid symptoms and if they faced any health issues during COVID-19.

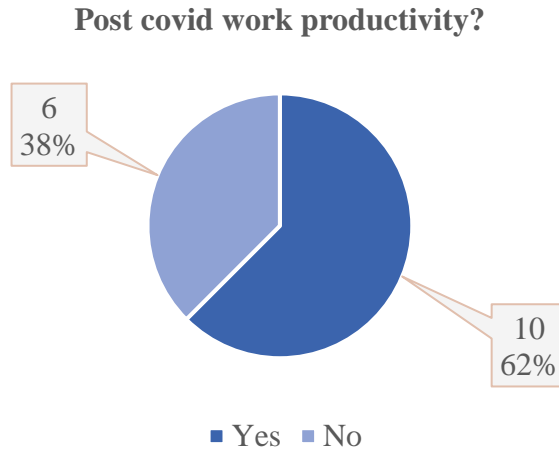


Figure 24: Post Covid work productivity?

This was a supporting question, and the figure depicts that a fair amount (62%) of respondents who were diagnosed with COVID-19 faced productivity issues. Figure 24 shows that the tenure of COVID-19 did affect the productivity of the working class, directly through the disease or through the environment which was created during COVID-19.

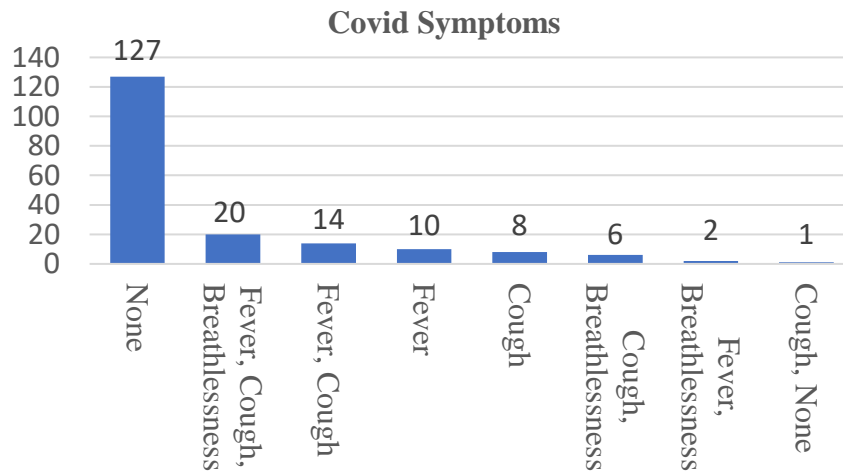


Figure 25: COVID symptoms experienced

Figure 25 shows that most respondents did not face any of the symptoms, but it also shows that a sum of 61 respondents faced symptoms of COVID-19. This supports the deduction that most of the respondents were not literate enough to understand the symptoms of COVID and the health issues related to it.

4.10 Mental Health

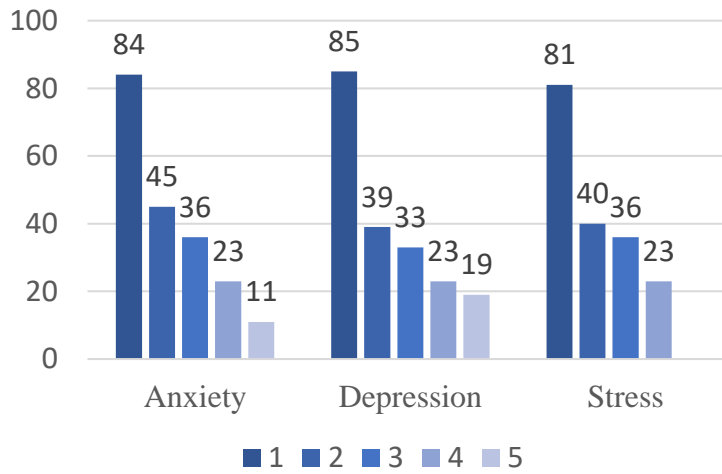


Figure 26: Mental Health Indicators

Mental health awareness and evaluation is a complex task, we categorized mental health into three indicators: Anxiety, Depression and Stress. Mental health indicators were asked from the respondents for them to evaluate the level of mental health issues during the COVID-19. Figure 26 shows that a significant number of respondents faced no or 1 level of each.

4.11 Adherence to COVID-19 SOPs

Figure 27 represents that COVID SOPs were majorly followed in the workplace. 69% of the respondents replied that COVID SOPs were regularly followed in their workplace.

How much did your employer force to adhere to COVID SOPs

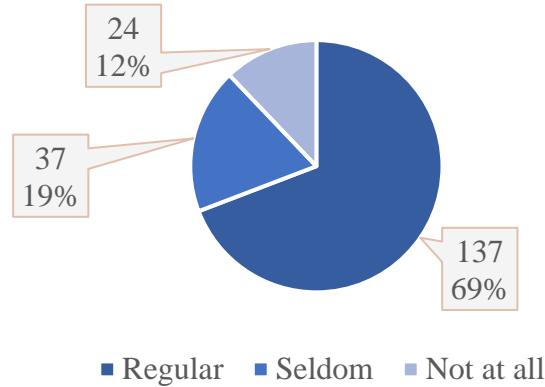


Figure 27: Adhere to COVID SOPs enforced by employer

Figure 28 shows that most of the survey respondents were vaccinated, and their employers adhered to the COVID-19 SOPs. This shows that the literate segment of the construction industry of Federal territory is responsible as they adhered to COVID-19 SOPs, this makes their working environment safe for the workers and adherence to the COVID-19 SOPs will create awareness.

Employer asked for vaccination?

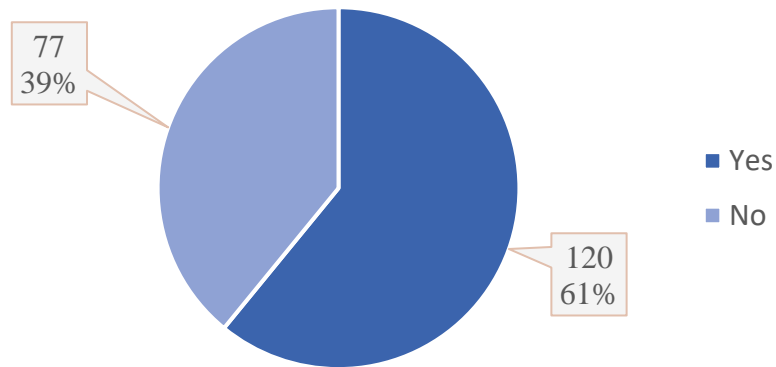


Figure 28: Vaccination status asked by Employer

Conclusion

5.1 The Way Forward

Pandemics and situations like such disasters give us unique opportunity to reevaluate our past methods of dealing with social inequalities. Covid-19 outbreak was also such an opportunity for us. We have shown how families and individuals related to construction industry were affected due to this outbreak. We also assessed wages, household income, SOPs adherence, material shortages, vaccination, mental & physical health, covid symptoms, productivity on the site during and after Covid, social isolation, alternative source of income and job uncertainty. Almost every angle in which pandemic could affect the construction labor was studied thoroughly.

Although social inequalities already existed in our community, pandemic might have boosted and magnified the social disparities. Individuals and families belonging to low-income household suffered tremendously more mentally and financially than people with stable household income. To alleviate these social disparities and for post-pandemic recovery, we advise more public policies to be oriented towards these vulnerable and disenfranchise population.

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Annex-A
Questionnaire