

Employment Components and Ecosystem on Working Poor in an Emerging Economy

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Abstract

As an emerging economy, Uzbekistan is progressing rapidly in economic growth. The progress caused the rising number of working poor and poverty rate. Only a few studies focus on the impact on the working poor, especially in emerging economies. Employment components and ecosystems are critical to ensure a sustainable economy, stability, and growth. Information relating to the working poor is limited, and how the working poor navigate through challenges in employment is still unknown. The objective of the study is to explore the impact of employment and the ecosystem on the working poor in Uzbekistan. A quantitative approach was conducted through a face-to-face survey in fourteen states using simple random sampling. Data collected from 3298 respondents was then analyzed through descriptive analysis and multiple regression to investigate the relationship between variables. The findings revealed that employment components like opportunity, retraining, and income fairness are crucial to the working poor, as well as social infrastructure, taxes, and union support. This study contributes to the literature relating to poverty. The study also offers practical insights into how employment matters relating to the working poor, empowering policymakers and researchers to make informed decisions.

Keywords:

Working Poor;
Employment Components;
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1- Introduction

Economic growth and development are critical factors in the reduction of poverty, as they stimulate increased investment, create employment opportunities, and enhance living standards [1]. Numerous studies have demonstrated that economic growth can lead to significant improvements in poverty levels, although the relationship is complex and influenced by various factors such as income inequality and governance quality [2]. However, increased economic growth and education alleviate poverty [3]. Employment is critical in poverty alleviation, particularly in developing countries with limited traditional employment opportunities. Even though economic growth provides better economic opportunities, it also creates working poverty. Systemic issues exacerbate the situation of working poor individuals, particularly affecting their access to resources and upward mobility. Employment cannot solely be seen as a solution to poverty without addressing job quality, underscoring that better jobs are needed alongside job growth to combat working poverty effectively [4]. Studies have shown that individuals are more likely to be working poor if they have non-standard employment, such as part-time or temporary jobs, associated with an increased risk of in-work poverty [5, 6]. Additionally, the quality of occupation and work years also has a crucial impact on the incidence and severity of poverty

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[4]. Working poverty also rises as the economy progresses towards national goals. Young countries should realize the importance of tackling this issue quickly before it becomes difficult and complex.

The relationship between employment and poverty is complex and influenced by various factors, including the nature of employment, such as low-wage employment, which can perpetuate poverty despite individuals being employed. A previous study has shown that many employed individuals still live in poverty due to insufficient labor income, underscoring the importance of job creation and the quality of jobs available [7]. Additionally, part-time employment and unemployment significantly increase the risk of poverty, particularly for vulnerable groups [8]. Demographic factors also contribute to working poverty. Individuals are more likely to be working poor if they lack multiple earners or other adults in the household, have low education, are single mothers, or have children [9]. Poverty can also indirectly affect employment through its impact on education and can negatively influence education quality and equality, which can affect employment opportunities [10].

Poverty can also directly impact health, further exacerbating employment challenges [11]. This suggests that while employment is essential, employment factors, stability, and ecosystem are equally critical in addressing poverty. It is important to note that the relationship between economic progress and poverty is complex and can be influenced by various factors, such as the level of development, the structure of the economy, and the effectiveness of policies and institutions [12]. It is important to mitigate poverty through employment and re-employment as poor people might exit employment and create a burden to the government [13]. The relationship between employment and ecosystem services is further illustrated by the concept of the employment ecosystem, which encompasses various elements such as individual capabilities, family support, and community resources [14]. By fostering an inclusive employment ecosystem, communities can better leverage local ecosystem services to create sustainable job opportunities. However, challenges remain in effectively monetizing and managing ecosystem services. Zhang et al. (2021) [15] note that while the value of ecosystem services is critical for decision-making, capturing this value can be complex due to the diverse nature of these services and their socio-cultural significance. This complexity necessitates the development of robust frameworks for assessing and integrating ecosystem services into economic and policy decisions, as Peng et al. (2023) highlighted [16].

Many developing countries struggle to understand the factors that influence working poverty, especially from the perspective of employment and the ecosystem. Uzbekistan gained its independence in 1996 and, ever since, has successfully navigated its economy towards growth by focusing on employment to ensure economic stability. According to Babaev & Johnston (2022) [17], poverty is a newly acknowledged issue in 'New Uzbekistan', with the population living below the poverty line accounting for about 12 to 15 per cent, which translates to nearly 4 to 5 million people living on less than 10 to 13 thousand UZS a month. This marks the first time the Uzbek president has openly admitted the existence of poverty in the country. Contributing factors include climate change, uncertain epidemic situations, and conflicts in neighboring countries like Afghanistan [18].

Understanding the components contributing to working poverty is essential for developing effective policies to alleviate this condition. Therefore, exploring and understanding the components of employment and the ecosystem directly influencing the working poor or poverty in young economies is important. The main objective of this paper is to explore the underlying issues of the working poor in Uzbekistan from the perspective of employment components and the ecosystem.

2- Literature Review

Working poverty, employment issues, and ecosystem services are interconnected topics that highlight the complex relationships between economic stability, environmental sustainability, and social equity. Systemic inequalities and the spatial distribution of resources, including access to ecosystem services, exacerbate this phenomenon. Research indicates that urban areas, particularly those with high population density and low income, often experience a mismatch between the supply of ecosystem services and their demand [19]. This lack of access can contribute to poorer health outcomes and lower economic opportunities for residents, perpetuating cycles of poverty. An "employment component" refers to a specific element or aspect within the broader context of employment, such as a particular type of employment contract, benefit, or skill requirement. An "employment ecosystem" is a broader concept that encompasses the entire network of individuals, organizations, and external factors that influence employment relationships and opportunities [20]. The triarchic model of poverty by Phillips (2012) [21] that views poverty as a complex system, influenced by three key factors: social stigma/marginalization, limitations in opportunity structure, and stress. The model examines how poverty, working conditions, and family life influence individuals and families. It suggests that poverty is not solely a result of individual shortcomings, but also involves systemic issues within the workplace and social structure, impacting individuals' well-being. The working poor, despite having jobs, may still experience financial hardship due to low wages, lack of benefits, and other challenges.

Working poor or working poverty refers to employed individuals who still live below the poverty line. According to the International Labor Organization [22], the working poor are defined as those who earn less than \$1.90 a day, adjusted for purchasing power parity [23]. However, this definition can vary by country and context, as different regions have different poverty thresholds.

Working poor is often due to low labor income, insufficient hours, or job instability [22]. Working poverty is a critical issue that intertwines with various employment components, highlighting the complexities of labor market dynamics and their implications for social equity. Factors of working poverty can be influenced by low educational attainment [24], part-time employment [25], low labor income [26], economic inequality [27], labor market condition, lack of benefits and, geographic disparities. One of the primary factors influencing working poverty is the nature of employment itself. Research indicates that non-standard employment, such as part-time or temporary jobs, is significantly associated with an increased risk of in-work poverty. The deregulation of labor markets in the European Union has led to a rise in involuntary part-time and temporary employment, exacerbating job insecurity and limiting access to employer-provided training [28]. This precarious employment situation often results in lower labor income and fewer benefits, contributing to the persistence of working poverty. Moreover, the stability and intensity of work play crucial roles in determining poverty outcomes. Sehnbruch et al. (2024) [29] emphasize the importance of labor market trajectories, noting that insecure short-term employment conditions and low work intensity are significant contributors to in-work poverty across various European countries [30, 31]. Similarly, Filippi et al. (2023) [30] highlight that low work intensity and high job instability are critical micro-determinants of in-work poverty, affecting both objective poverty metrics and subjective perceptions of poverty within households. This suggests that improving job quality and stability is essential for reducing the prevalence of working poverty. The quality of jobs also significantly impacts the likelihood of escaping poverty. Previous research indicates that training and job satisfaction are closely linked to workplace performance and perceived job security, influencing income levels [32]. Dobbins (2023) [33] highlight that poor-quality jobs can undermine health and well-being, perpetuating cycles of in-work poverty and social inequality [34]. Therefore, policies that enhance job quality, such as increasing minimum wage standards and ensuring access to training, are vital for addressing the root causes of working poverty. The employment components should focus on improving work conditions and ensuring that employment leads to sustainable livelihoods; policymakers can effectively combat the issue of working poverty and promote social equity.

Working poverty is a multifaceted issue that intersects with various components of the employment ecosystem, which includes the broader context of labor markets, job quality, and individual circumstances. The employment ecosystem encompasses the job itself and the surrounding factors that influence employment outcomes, such as family support, community resources, and policy frameworks. Understanding this ecosystem is essential for addressing the challenges faced by the working poor. A well-structured employment ecosystem can provide a comprehensive support network that ensures individuals access meaningful employment opportunities and resources necessary for their growth. One of the critical components of the employment ecosystem is the nature of employment itself. Factors like regional infrastructure, taxes, trade unions, labor rights and regulations would impact employment quality and lead to poverty reduction [35].

Moreover, the employment ecosystem is influenced by socioeconomic factors that shape individuals' experiences in the labor market, job performance and stability [36, 37]. This reflects a broader trend where individuals in low-wage jobs often face additional challenges, such as health disparities, which can perpetuate cycles of poverty [33]. The intersection of health and employment is crucial, as poor health can limit job opportunities and lead to premature exits from the workforce, further exacerbating working poverty [38].

Based on the literature review, sixteen hypotheses were developed as shown below:

- H1:** There is a significant relationship between qualification match and working poverty.
- H2:** There is a significant relationship between regional infrastructure and working poverty.
- H3:** There is a significant relationship between years of experience and working poverty.
- H4 :** There is a significant relationship between working conditions and working poverty.
- H5 :** There is a significant relationship between pay fairness and working poverty.
- H6:** There is a significant relationship between labor right and working poverty.
- H7:** There is a significant relationship between taxes and working poverty.
- H8:** There is a significant relationship between trade union and working poverty.
- H9:** There is a significant relationship between qualification match and labor income.
- H10:** There is significant relationship between regional infrastructure and labor income.
- H11:** There is a significant relationship between years of experience and labor income.
- H12:** There is a significant relationship between working conditions and labor income.
- H13:** There is a significant relationship between labor income fairness and labor income.
- H14:** There is a significant relationship between the labor right and labor income.
- H15:** There is a significant relationship between taxes and labor income.
- H16:** There is a significant relationship between labor union and labor income.

3- Method

A quantitative method of survey was adopted for the study. This method is particularly useful for studying complex phenomena such as working poverty and employment ecosystems, as it allows for the collection of standardized information across various demographic groups. The survey questions were prepared on a 5-point Likert scale and included 2 parts: demographic and basic parts. The demographic part consisted of questions relating to the background of respondents, such as education, age, gender, place of residence, and region. In the main part of the questionnaire, questions were focused on the employment components and ecosystems, and the Likert scale was utilized to capture the results. The research population is an economically active population of 14 regions. The sampling technique of this quantitative research is the probability sampling technique, which means that all participants of the research population are given equal opportunity to participate in this research. Simple random sampling was utilized, as it is a straightforward technique, easy to understand and implement, and allows researchers to generalize findings from a sample to the larger population with a high degree of confidence [39]. Simple random sampling is well-suited for quantitative research designs, especially surveys and studies involving homogenous populations where everyone has an equal chance of being selected. It is also effective in situations where the population is uniformly distributed and accessible, allowing for a fair and unbiased sample selection. A total of 3,298 responses were collected, and the data then were analyzed using the SPSS (Statistical Package for the Social Sciences) statistics program for descriptive and multivariate analysis.

4- Results and Discussion

4-1- Demographic Profiling

Table 1 presents the demographic profile of the respondents. In terms of gender, females accounted for 52.2% of the participants, compared to 47.8% males, indicating that more than half of the respondents (1,723 individuals) were female. A large portion of participants (30.9%) were in the 16–30 years age group, while 27.6% belonged to the 41–50 years age category. Most participants held a postgraduate or master's degree (31.4%), whereas 20.3% were undergraduate students. In terms of residence, the majority of respondents lived in cities (62%), while 38% resided in villages. Regarding regional or state distribution, participation was nearly equal, ranging from 6.7% to 7.8%, covering 14 districts or areas.

Table 1. Demographic Profiling (N = 3298)

	Description	Frequency	Percentage
Gender	Male	1575	47.8
	Female	1723	52.2
Age	16 - 30 years old	1018	30.9
	31 - 40 years old	320	9.7
	41 - 50 years old	909	27.6
	51 - 55 years old	386	11.7
	56 - 60 years old	343	10.4
	61 and above	322	9.8
Education Level	basic secondary education (9 years)	628	19.0
	general secondary education / vocational college)	656	19.9
	undergraduate (student)	668	20.3
	higher (bachelor. master)	1036	31.4
	postgraduate (PhD. DSc)	310	9.4
Residence	Village	1253	38.0
	City	2045	62.0
State	Andijan	234	7.1
	Bukhara	236	7.2
	Fargona	239	7.2
	Jizzakh	243	7.4
	Namangan	258	7.8
	Navoi	228	6.9
	Kashkadarya	222	6.7
	Karakalpakstan	263	8.0
	Samarkand	231	7.0
	Syr Darya	231	7.0
	Surkhandarya	234	7.1
	Tashkent_sh	224	6.8
	Tashkent_vil	220	6.7
	Khorezm	235	7.1

In relation to the employment background of participants, most of respondents are working in the public sector (39.2%). The Uzbek public sector is a large employer and a significant part of the country's economy. State-owned enterprises (SOEs) dominate many sectors, influencing overall economic performance. About 25.6% are working in the private sector and 12.8 percents are part-timers. About 11.4% of respondents are having their own business venture and another 11.1 percent are self-employed. The majority are working in the service sector (39.4%). In terms of monthly income, the distribution of income is scattered across the amount of income. About 11.8% are earning between USD150 to USD200 a month. A combination of 27.3% are earning between USD301 – USD400 a month. 12.4% are earning between USD401 to USD450 monthly and 17% are earning below USD150 a month. Most respondents have more than 5 dependents who are unemployed (32.5%). 28.7% have unemployed dependents and 24.8% have 3 people in the household who are unemployed. Table 2 presents the details on the background of working poor in the study.

Table 2. Background of Working Poor

	Description	Frequency	Percentage
Your Occupation	Public sector	1292	39.2
	Informal sector (part-time)	422	12.8
	Business	375	11.4
	Private sector	844	25.6
	Self-Employed	365	11.1
Your Employment Industry	Information Communication	211	6.4
	Business	218	6.6
	Finance & Insurance	202	6.1
	Construction	216	6.5
	Industry	224	6.8
	Trade	218	6.6
	Health Care	223	6.8
	Training	288	8.7
	Transport Store	197	6.0
	Service	1300	39.4
Monthly Income	648000-1296000 Soums (USD50 – 100)	281	8.5
	1296001-1944000 Soums (USD101-150)	281	8.5
	1944001-2592000 Soums (USD151-200)	389	11.8
	2592001-3240000 Soums (USD201-250)	299	9.1
	3240001-3888000 Soums (USD 251- 300)	362	11.0
	3888001-4536000 Soums (USD301-350)	456	13.8
	4536001-5184000 Soums (USD351 - 400)	446	13.5
	5184001-5832000 Soums (USD401-450)	410	12.4
	More than 5832001 Soums (More than USD451)	374	11.3
How many of your dependents are unemployed?	1 Person	219	6.6
	2 People	244	7.4
	3 People	819	24.8
	4 People	945	28.7
	5 People and More	1071	32.5

More than 50% of respondents agreed that a working person with dependents has tendency to be in poverty while another 34.5% disagreed. Another 15.2% of respondents are not sure whether working people with dependents will fall into poverty. Table 3 shows the result of tendency living in poverty based on dependents.

Table 3. Tendency living in poverty based on dependency

N= 3298	YES	NO	Not Sure
Can a working person and their dependents live in poverty?	50.3% (1660)	34.5 % (1138)	15.2 % (500)

4-2- Employment Components

When the respondents were asked to assess the possibility of finding a job corresponding to their professional qualifications in the areas of residence, majority thinks that their opportunity to find the job that match their qualification as very low (22.9%) while another 21.3% felt the possibility is likely. A combination of 40.7% rated the possibility of finding a job suitable to their professional qualifications in the areas of residence as less likely (Table 4).

Table 4. Opportunity to find a job matches professional qualifications

	Frequency	Percentage
Least Likely	755	22.9
Not Likely	660	20.0
Somewhat Likely	683	20.7
Likely	703	21.3
Very Likely	497	15.1

When the respondents were asked to assess the possibility of retraining (upgrading) according to their occupations and qualifications in their areas of residence, 39.7% agreed that they can upgrade their profession or qualification at their area of residence (Table 5).

Table 5. Retraining (upgrading) in qualification and professional job in your area of residence

	Frequency	Percentage
Very Unlikely	719	21.8
Unlikely	826	25.0
Neutral	1309	39.7
Likely	374	11.3
Very Likely	70	2.1

In relation to workplace conditions, the majority thinks the workplace conditions are excellent and another 21.1% regarded it as good while 19.4% voted it as very good as shown in Table 6.

Table 6. Working condition at workplace

	Frequency	Percentage
Poor	595	18.0
Fair	609	18.5
Good	696	21.1
Very Good	641	19.4
Excellent	757	23.0

Refer to Table 7, when respondents were asked to their level of satisfaction of the total labor income paid in accordance with their work, majority (27.9 %) are dissatisfied, 25.1% are satisfied while another 25.2% are not sure.

Table 7. Total labor income paid accordance to work done

	Frequency	Percentage
Very Dissatisfied	523	15.9
Dissatisfied	921	27.9
Neither	831	25.2
Satisfied	828	25.1
Very Satisfied	195	5.9

4-3- Employment Ecosystem

The State of Social Infrastructure:

Most of respondents regarded the state of social infrastructure relating to education, health, culture, communication facilities and transportation in their areas as good (39.7%) while a cumulative of 46.4% regarded the level of infrastructure as poor and fair (Table 8).

Table 8. The State of Social Infrastructure in the residence areas

	Frequency	Percentage
Poor	646	19.6
Fair	885	26.8
Good	1309	39.7
Very Good	374	11.3
Excellent	70	2.1

The Effectiveness of Current Labor Regulations:

Based on result as shown in Table 9, about 21.3% of respondents, which equates to 704 people rated the effectiveness of the current labor regulations as "very poor". Similarly, 21.2% of respondents (699) rated the effectiveness as "below average".

Table 9. The effectiveness of current labor regulations

	Frequency	Percentage
Poor	704	21.3
Below Average	699	21.2
Fair	605	18.3
Above Average	633	19.2
Excellent	657	19.9

The Perception Towards Employment Tax Rates:

In relation to employment tax rates, majority of respondent (41.9%)perceived the rate of current taxes is acceptable and 18.7% regarded the tax rate is average. Table 10 shows the result.

Table 10. The perception towards employment tax rates

	Frequency	Percentage
No Response	66	2.0
Very High	400	12.1
High	332	10.1
Below Average	499	15.1
Average	618	18.7
Acceptable	1383	41.9

The majority of respondents think that the trade union support as far (48.6%) while the perception of the rest are divided between very poor to very good. The trade union supports are relating to the state of protection of their economic and social rights and interests in the workplaces. Table 11 presents the result.

Table 11. The perception of trade unions supports

	Frequency	Percentage
Very Poor	428	13.0
Poor	414	12.6
Fair	1604	48.6
Good	422	12.8
Very Good	430	13.0

Correlation:

Pearson correlation coefficients were calculated to study the relationship between the variables described above in the research methodology. The findings showed mixed results amongst the variables. Working poverty has significant positive relationship to labor income (0.058, $p < 0.001$) and significant negative relationship to taxes (-0.314, $p < 0.001$) and trade union (-0.114, $p < 0.001$). Labor income positively correlated to region infrastructure (0.085, $p < 0.001$), qualification match (0.046, $p < 0.001$), working condition (0.045, $p = 0.010$), pay fairness (0.099, $p < 0.001$). $p < 0.001$ and labor income negatively correlated to trade union (-0.067, $p < 0.001$). Trade union positively correlated to working conditions (0.045, $p = 0.09$); and pay fairness (0.069, $p < 0.001$) and negatively correlated to working poverty (-0.114, $p < 0.001$), training (-0.075, $p < 0.001$), qualification match (-0.055, $p < 0.001$); employment taxes (-0.050, $p = 0.004$). Table 12 presents the results of correlation.

Table 12. Pearson Correlations between variables

		Pearson Correlation										
		1	2	3	4	5	6	7	8	9	10	11
Working Poverty		1										
Training	Pearson Correlation	0.016	1	0.031	0.009	0.018	0.020	0.010	-0.015	-0.003	-0.075**	-0.052**
	Sig (2-tailed)	0.354		0.072	0.613	0.292	0.260	0.576	0.402	0.884	<0.001	0.003
Regional infrastructure	Pearson Correlation	0.026	0.031	1	0.012	0.032	-0.003	0.002	0.009	-0.034	0.001	0.085**
	Sig (2-tailed)	0.137	0.072		0.485	0.070	0.845	0.924	0.620	0.053	0.949	<0.001
Qualification Match	Pearson Correlation	0.026	0.009	0.012	1	-0.018	0.018	0.035*	-0.024	0.027	-0.055**	0.046**
	Sig (2-tailed)	0.130	0.613	0.485		0.311	0.295	0.043	0.177	0.131	0.001	0.008
Years of Experience	Pearson Correlation	0.002	0.018	0.032	-0.018	1	-0.014	0.002	0.015	-0.059**	-0.009	0.003
	Sig (2-tailed)	0.921	0.292	0.070	0.311		0.434	0.904	0.388	<0.001	0.622	0.841
Working Conditions	Pearson Correlation	0.012	0.020	-0.003	0.018	-0.014	1	-0.007	0.011	0.006	0.045**	0.045**
	Sig (2-tailed)	0.493	0.260	0.845	0.295	0.434		0.698	0.526	0.727	0.009	0.010
Pay Fairness	Pearson Correlation	-0.029	0.010	0.002	0.035*	0.002	-0.007	1	0.003	-0.029	0.069**	0.099**
	Sig (2-tailed)	0.101	0.576	0.924	0.043	0.904	0.698		0.869	0.099	<0.001	<0.001
Labor right	Pearson Correlation	0.018	-0.015	0.009	-0.024	0.015	0.011	0.003	1	-0.011	-0.006	0.033
	Sig (2-tailed)	0.298	0.402	0.620	0.177	0.388	0.526	0.869		0.528	0.721	0.057
Taxes	Pearson Correlation	-0.314**	-0.003	-0.034	0.027	-0.059**	0.006	-0.029	-0.011	1	-0.050**	-0.034
	Sig (2-tailed)	<0.001	0.884	0.053	0.131	<0.001	0.727	0.099	0.528		0.004	0.052
Trade Union	Pearson Correlation	-0.114**	-0.075**	0.001	-0.055**	-0.009	0.045**	0.069**	-0.006	-0.050**	1	-0.067**
	Sig (2-tailed)	<0.001	<0.001	0.949	0.001	0.622	0.009	<0.001	0.721	0.004		<0.001
Labor income	Pearson Correlation	0.058**	-0.052**	0.085**	0.046**	0.003	0.045**	0.099**	0.033	-0.034	-0.067**	1
	Sig (2-tailed)	<0.001	0.003	<0.001	0.008	0.841	0.010	<0.001	0.057	0.052	<0.001	

Note: 1 – working poverty; 2 – training; 3 – region infrastructures; 4 – qualification match; 5 – years of experience; 6 – working conditions; 7 – pay fairness; 8 – labor rights; 9 – employment taxes; 10 – trade union protection; 11 – labor income.

Multiple Regression:

Multiple regression tests were performed to determine the utility of a set of predictor variables for predicting an outcome, which is generally some important event or behavior [35]. A multiple regression was conducted with labor income as the dependent variable while training, regional infrastructure, qualification match, years of experience, working conditions, pay fairness, labor rights, taxes and trade union are treated as predictors. Overall, the results showed the utility of the predictive model was significant with $F(9.3222) = 12.066$. $R^2 = 0.181$, $p < 0.001$. The model reaches the statistical significance ($p < 0.001$). All the predictors recorded 18.1% of variance explained in labor income. The results showed that pay fairness, qualification match, working condition, and regional infrastructure were significant positive predictors of labor income ($\beta = 0.104$. $t = 5.972$, $p < 0.001$; $\beta = 0.039$, $t = 2.263$, $p = 0.024$; $\beta = 0.053$. $t = 2.826$, $p = 0.005$ and $\beta = -0.088$. $t = -5.076$. $p < 0.001$) respectively. Training and trade union were negatively significant to labor income ($\beta = -0.061$. $t = -3.512$, $p < 0.001$) and ($\beta = -0.079$. $t = -34.497$, $p < 0.001$). The results showed that other variables were not a significant predictor of labor income. Pay fairness makes the strongest unique contribution to explaining the dependence variable follows by region infrastructure, trade union, working condition and qualifications match.

Table 13 a, b and c show the findings of multiple regression.

Table 13-a. Multiple Regression- Model Information

Model	R	R-squared	Corrected R-squared	It's more than standard
1	0.181 ^a	0.033	0.030	0.79702

a. Predictory: (constant), trade union, region infrastructure, labor right, years of experience, working conditions, pay fairness, qualification match, training, taxes.

Table 13-b. Multiple Regression- ANOVA

Model	Amount squared	st.	Average square	F	Significantly
Regression	68.981	9	7.665	12.066	<.001 ^b
Residual	2046.761	3222	0.635		
Everything	2115.743	3231			

Table 13-c. Multiple Regression

Model	Unstandardized coefficients		Standardized coefficients	t	p-value
	B	Standard error	Beta		
(Constant)	1.865	0.107	-	17.418	0.000
Training	-0.053	0.015	-0.061	-3.512	0.000
Regional infrastructure	0.084	0.017	0.088	5.076	0.000
Qualification match	0.042	0.018	0.039	2.263	0.024
Years of experience	0.003	0.021	0.003	0.151	0.880
Working conditions	0.053	0.019	0.049	2.826	0.005
Pay fairness	0.104	0.017	0.104	5.972	0.000
Labor right	0.034	0.019	0.031	1.782	0.075
Taxes	-0.044	0.023	-0.033	-1.905	0.057
Trade union	-0.077	0.017	-0.079	-4.497	0.000

a. Dependent variable: categorical - labor income

Based on the data analysis results, the hypotheses showed mixed outcomes on the relationship between variables. A significant relationship exists between qualification match and working poverty ($r = -0.055$, $p < 0.001$). Therefore, H1 is supported. There is no significant relationship between regional infrastructure and working poverty ($r = 0.026$, $p = 0.137$). Therefore, H2 is not supported. There is no significant relationship between years of experience and working poverty ($r = 0.02$, $p = 0.921$). H4 is not supported, and there is no significant relationship between working conditions and working poverty ($r = 0.012$, $p = 0.493$). There is also no significant relationship between pay fairness and working poverty ($r = -0.029$, $p = 0.101$). Therefore, H5 is not supported. This is similar to the relationship between labor rights and working poverty ($r = 0.018$, $p = 0.298$). Thus, H6 is not supported. Working poverty has a significant negative relationship with taxes ($r = -0.314$, $p < 0.001$) and trade unions ($r = -0.114$, $p < 0.001$) with H7 and H8 supported.

The result also revealed that there is a significant relationship between qualification match and labor income ($\beta = 0.042$, $t = 2.263$, $p < .05$); thus, H9 is supported, while the relationship between regional infrastructure and labor income also showed a positive significant relationship ($\beta = .084$, $t = 5.076$, $p < .00$), H10 is supported. The finding also revealed that years of experience have no significant relationship to labor income ($\beta = 0.003$, $t = 0.151$, $p = 0.880$). Thus, H11 is not supported. H12 and 13 that relate labor income to working conditions and income fairness are supported ($\beta = 0.053$, $t = 2.826$, $p = .005$ and $\beta = 0.104$, $t = 5.972$, $p < 0.001$). However, there is no relationship between labor rights and labor income ($\beta = 0.034$, $t = 1.782$, $p = 0.075$); H14 is not supported. This is similar to H15, where there is no relationship between taxes and labor income ($\beta = -0.044$, $t = -1.905$, $p = 0.057$). Finally, a reverse significant relationship exists between trade union and labor income at $\beta = -0.077$, $t = -4.497$, $p = 0.000$. Therefore, H16 is supported. Details elaboration of each hypotheses results is presented under Discussion. Table 14 presents the hypothesis results.

Table 14. Hypotheses Testing

	Hypothesis	Result
H1	There is a significant relationship between qualification match and working poverty.	Yes
H2	There is a significant relationship between regional infrastructure and working poverty.	No
H3	There is a significant relationship between years of experience and working poverty (It was not rejected).	No
H4	There is a significant relationship between working conditions and working poverty.	No
H5	There is a significant relationship between pay fairness and working poverty.	No
H6	There is a significant relationship between labor right and working poverty.	No
H7	There is a significant relationship between taxes and working poverty.	Yes
H8	There is a significant relationship between trade union and working poverty.	Yes
H9	There is a significant relationship between qualification match and labor income.	Yes
H10	There is significant relationship between regional infrastructure and labor income.	Yes
H11	There is a significant relationship between years of experience and labor income.	No
H12	There is a significant relationship between working conditions and labor income.	Yes
H13	There is a significant relationship between labor income fairness and labor income.	Yes
H14	There is a significant relationship between the labor right and labor income.	No
H15	There is a significant relationship between taxes and labor income.	No
H16	There is a significant relationship between trade union and labor income.	Yes

Discussion:

It is urgent to address the plight of the working poor, particularly the younger generation (16 – 30 years old) who often have more dependents in the household, leading to financial difficulty. As highlighted by Filandri et al. [40], most young people and women are likely to be in low-paid jobs. While low-income earners are not necessarily poor, the number of dependents and total household income created working poor individuals as those who hold a job but live in households with a total disposable income below 60% of the country's median income [22]. The working poor are struggling to navigate poverty due to a lack of employment opportunities, low income, and lack of opportunity to improve their knowledge and skills are among important employment components [41]. Pohlen (2019) [42] reiterates that low income and the lack of opportunities to meet professionals eventually led to social exclusion among the working poor. The social infrastructure, encompassing education, health, culture, communication facilities, and transportation, plays a pivotal role in shaping the employment ecosystem. The effectiveness of current labor regulations, reasonable employment tax rates, and robust trade union support are crucial for the working poor. A well-developed social infrastructure fosters sustainable economic growth, supporting key areas such as education, health, and transportation. The efficacy of labor regulation is a matter of significant importance, as it has a profound impact on the national labor landscape. To uplift people from poverty, the employment components and ecosystem must be given serious attention and any intervention must be effective to provide change to the community [43].

Further findings showed that labor income is a prominent factor influencing working poverty, as well as taxes and trade union support. Regional infrastructure, job qualification match, working conditions, pay fairness, trade union support, training, and working conditions are important factors that affect the working poor. This is supported by Gazi et al. (2024) [44] in their study in Bangladesh. Working experience, labor rights and taxes do not influence labor income, which is contradicted by a study by Filandri & Struffolino (2018) [45]. In a good quality employment scenario, work experience should be given serious attention in providing high-quality work. This study provides insights into employment components and the ecosystem affecting Uzbekistan's working poor, offering a hopeful path for change. Understanding factors relating to the working poor is critical to lifting them out of poverty. Only decent employment that offers workers a fair wage, appropriate working hours, social protection, job security, and a safe workplace can help achieve sustainable development, particularly the eradication of poverty. Sound, efficient labor market policies are required to maintain the beneficial nature of the relationship between employment and poverty reduction. The results presented in this study advance our knowledge of the employment components and ecology of working poor people, although methodological shortcomings and restrictions. This study offers a preliminary look at the effects of poverty as described by Phillips (2012) [21] using the Triarchic Model of Poverty.

5- Conclusion

This study examines the influence of employment components and ecosystems on the working poor in Uzbekistan. Both employment components and the ecosystem substantially impact the working poor and labor income. Most affected are young adults and women. As the country progresses rapidly, lower-income people are badly affected. Issues like labor income, working conditions, the opportunity for retraining, qualification match, regional infrastructure and years of experience should be given more attention in policy making and development of programs to assist the lower income people. The role of policy and community support within the employment ecosystem is also significant, especially in integrating various stakeholders, including families, employers, and community services, to enhance employment outcomes for vulnerable populations. The ecosystem approach recognizes that improving employment outcomes requires collaboration across multiple sectors, including health care, education, and social Furthermore, working poverty is not uniform and can vary significantly across different demographic groups. Addressing working poverty necessitates a comprehensive understanding of the employment ecosystem, which includes the quality of jobs, health implications, socio-economic factors, and the role of supportive policies, particularly those of the welfare state in Uzbekistan. By recognizing the interconnectedness of these elements, policymakers can develop more effective strategies to alleviate working poverty and promote sustainable employment for all individuals. Addressing working poverty requires a multifaceted approach that considers employment factors, demographic characteristics, and the role of the welfare state, which in Uzbekistan provides various social welfare programs and support. Policies to improve job quality, increase access to education and training, and strengthen social welfare programs can potentially reduce working poverty.

The study has a few limitations. Firstly, the data was collected across the nation for working adults in Uzbekistan regardless of their sectors; thus, the essence of differences in terms of employment components and ecosystems is not reviewed. Secondly, the data was collected based on a limited scope, thus depriving the vast amount of information on the ground, thus the results cannot be generalized. Future studies could explore the main challenges faced by the working poor by sectors and levels. In addition, future research should explore and identify further statistical measurements relating to the working poor such as earnings gaps, measures of income inequality, job quality indicators, relative poverty and structural equation modelling, thus, it is more accurate to disclosed details relating the working poor. This study has shown components and employment ecosystem that affected the working poor in Uzbekistan. These findings benefit theoretical economic and social growth and people's well-being.

6- Declarations

6-1- Author Contributions

Conceptualization, R.N., G.K.A., K.S.P., and G.S.B.; methodology, F.M.K., K.S.P., and G.K.A.; software, F.M.K. and K.S.P.; validation, R.N., A.I., F.M.K., and K.S.P.; formal analysis, F.M.K. and K.S.P.; investigation, K.S.P., F.M.K., and G.K.A.; resources, A.S.S.K.; data curation, G.K.A. and R.S.X.; writing—original draft preparation, R.N., K.S.P., and G.S.B.; writing—review and editing, R.N. and K.S.P.; visualization, R.N. and G.S.B.; supervision, G.K.A.; project administration, A.I. and R.S.X.; funding acquisition, G.K.A., G.S.B., and K.S.P. All authors have read and agreed to the published version of the manuscript.

6-2- Data Availability Statement

The data presented in this study are available on request from the corresponding author.

6-3- Funding

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6-4- Acknowledgements

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6-5- Institutional Review Board Statement

The study was conducted in accordance with the Declaration of Helsinki and approved by the Institutional Review Board (or Ethics Committee) of the Tashkent State University of Economic (IL-542110189/30 April 2024) for studies involving humans.

6-6- Informed Consent Statement

Informed consent was obtained from all subjects involved in the study.

6-7- Conflicts of Interest

The authors declare that there is no conflict of interest regarding the publication of this manuscript. In addition, the ethical issues, including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, and redundancies have been completely observed by the authors.

7- References

- [1] World Bank Group (2025). Poverty. World Bank, Washington, United States. Available online: <https://www.worldbank.org/en/topic/poverty/overview> (accessed on September 2025).
- [2] Amponsah, M., Agbola, F. W., & Mahmood, A. (2023). The relationship between poverty, income inequality and inclusive growth in Sub-Saharan Africa. *Economic Modelling*, 126. doi:10.1016/j.econmod.2023.106415.
- [3] Erlando, A., Riyanto, F. D., & Masakazu, S. (2020). Financial inclusion, economic growth, and poverty alleviation: evidence from eastern Indonesia. *Heliyon*, 6(10), e05235. doi:10.1016/j.heliyon.2020.e05235.
- [4] Affandi, Purwaningsih, Y., Hakim, L., & Mulyaningsih, T. (2025). Interplay between poverty, poverty eradication and sustainable development: A semi-systematic literature review. *Global Transitions*, 7, 1–20. doi:10.1016/j.glt.2024.11.001.
- [5] Heyes, J., & Lewis, P. (2013). Employment protection under fire: Labor market deregulation and employment in the European Union. *Economic and Industrial Democracy*, 35(4), 587–607. doi:10.1177/0143831x13491842.
- [6] Park, Y., & Heshmati, A. (2019). The effects of labor market characteristics on women's poverty in Korea. *Economies*, 7(4), 110. doi:10.3390/economies7040110.
- [7] Feder, J., & Yu, D. (2019). Employed yet poor: low-wage employment and working poverty in South Africa. *Development Southern Africa*, 37(3), 363–381. doi:10.1080/0376835x.2019.1597682.
- [8] Damaske, S., Bratter, J. L., & Frech, A. (2017). Single mother families and employment, race, and poverty in changing economic times. *Social Science Research*, 62, 120–133. doi:10.1016/j.ssresearch.2016.08.008.
- [9] Lu, Y. C., Walker, R., Richard, P., & Younis, M. (2020). Inequalities in poverty and income between single mothers and fathers. *International Journal of Environmental Research and Public Health*, 17(1), 135. doi:10.3390/ijerph17010135.
- [10] Wang, Y. P., & Zhou, X. N. (2020). The year 2020, a milestone in breaking the vicious cycle of poverty and illness in China. *Infectious Diseases of Poverty*, 9(1), 1-8. doi:10.1186/s40249-020-0626-5.
- [11] Parolin, Z., & Lee, E. K. (2022). The Role of Poverty and Racial Discrimination in Exacerbating the Health Consequences of COVID-19. *The Lancet Regional Health - Americas*, 7. doi:10.1016/j.lana.2021.100178.
- [12] Ran, R., Ni, Z., Hua, L., & Li, T. (2022). Does China's poverty alleviation policy improve the quality of the ecological environment in poverty-stricken areas? *Frontiers in Environmental Science*, 10. doi:10.3389/fenvs.2022.1067339.
- [13] Ayoo, C. (2022). *Poverty Reduction Strategies in Developing Countries. Rural Development - Education, Sustainability, Multifunctionality*, IntechOpen, London, United Kingdom. doi:10.5772/intechopen.101472.
- [14] Nicholas, D. (2020). Activity Employment in Autism: Reflections on the Literature and Steps for Moving Forward. *Autism and Developmental Disorders*, 18(3), 5–11. doi:10.17759/autdd.2020180301.
- [15] Zhang, S., Paterson, J. S., & Hujala, T. (2021). Sustaining Forest Ecosystem Services Through Social Enterprises: Motivations and Challenges from a Case Study in Scotland. *Small-Scale Forestry*, 20(4), 627–647. doi:10.1007/s11842-021-09484-7.
- [16] Peng, Y., Welden, N., & Renaud, F. G. (2023). A framework for integrating ecosystem services indicators into vulnerability and risk assessments of deltaic social-ecological systems. *Journal of Environmental Management*, 326. doi:10.1016/j.jenvman.2022.116682.
- [17] Babaev, S., & Johnston, T. (2022). Developing Tourism—the path out of poverty for Uzbekistan. *International Conference on Tourism Research*, 15(1), 578–580. doi:10.34190/ictr.15.1.284.
- [18] ILO. (2021). *World Employment and Social Outlook 2021*. International Labor Organization, Geneva, Switzerland. Available online: https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@dgreports/@dcomm/@publ/documents/publication/wcms_795453.pdf (accessed on September 2025).
- [19] Gong, J., Dai, X., Wang, L., Niu, Z., Cao, Q., & Huang, C. (2023). The Impact of Urbanization on the Supply–Demand Relationship of Ecosystem Services in the Yangtze River Middle Reaches Urban Agglomeration. *Remote Sensing*, 15(19), 4749. doi:10.3390/rs15194749.
- [20] Cedefop. (2024). *Thematic country review on upskilling pathways for low-skilled adults in France: key findings of the second and third research phases and suggestions for future action*. European Centre for the Development of Vocational Training (Cedefop), Thessaloniki, Greece.
- [21] Phillips, T. M. (2012). An Exploration of the Triarchic Model of Poverty. *Journal of Poverty*, 16(2), 220–231. doi:10.1080/10875549.2012.667061.
- [22] ILO (2019). *Poor working conditions are main global employment challenge*. International Labor Organization (ILO), Geneva, Switzerland. Available online: <https://www.ilo.org/resource/news/poor-working-conditions-are-main-global-employment-challenge> (accessed on September 2025).
- [23] McPhearson, T., Hamstead, Z. A., & Kremer, P. (2014). Urban ecosystem services for resilience planning and management in New York City. *Ambio*, 43(4), 502–515. doi:10.1007/s13280-014-0509-8.

- [24] Norton, A., Seddon, N., Agrawal, A., Shakya, C., Kaur, N., & Porras, I. (2020). Harnessing employment-based social assistance programmes to scale up nature-based climate action. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 375(1794). doi:10.1098/rstb.2019.0127.
- [25] Vaalavuo, M., & Sirniö, O. (2022). Jobs against poverty: a fixed-effects analysis on the link between gaining employment and exiting poverty in Europe. *European Societies*, 24(4), 431–462. doi:10.1080/14616696.2022.2088821.
- [26] Bavaro, M., & Raitano, M. (2024). Is working enough to escape poverty? Evidence on low-paid workers in Italy. *Structural Change and Economic Dynamics*, 69, 495–511. doi:10.1016/j.strueco.2024.03.008.
- [27] Newman, B. J. (2022). Economic Inequality, the Working Poor, and Belief in the American Dream. *Public Opinion Quarterly*, 86(4), 944–954. doi:10.1093/poq/nfac043.
- [28] Markefke, T., & Müller-Rehm, R. (2024). Labor market regulation and the cyclicalities of involuntary part-time work. *Journal for Labor Market Research*, 58(1), 5. doi:10.1186/s12651-024-00363-0.
- [29] Sehnbruch, K., Apablaza, M., & Foster, J. (2024). Poor-Quality Employment: Who Is Deprived in Our Labor Markets? *LSE Public Policy Review*, 3(2), 1–16. doi:10.31389/lseppr.104.
- [30] Filippi, S., Salvador Casara, B. G., Pirrone, D., Yerkes, M., & Suitner, C. (2023). Economic inequality increases the number of hours worked and decreases work-life balance perceptions: Longitudinal and experimental evidence. *Royal Society Open Science*, 10(10), 230187. doi:10.1098/rsos.230187.
- [31] Memon, A. H., Khahro, S. H., Memon, N. A., Memon, Z. A., & Mustafa, A. (2023). Relationship between Job Satisfaction and Employee Performance in the Construction Industry of Pakistan. *Sustainability (Switzerland)*, 15(11), 8699. doi:10.3390/su15118699.
- [32] Vanderpool, R. C., Swanberg, J. E., & Chambers, M. D. (2013). A Narrative Review of the Confluence of Breast Cancer and Low-wage Employment and Its Impact on Receipt of Guideline-recommended Treatment. *Global Advances in Health and Medicine*, 2(5), 75–85. doi:10.7453/gahmj.2013.046.
- [33] Dobbins, T. (2023). Why employment relations matter(s) for governance of problems for labor in the real world of work. *Labor and Industry*, 33(4), 473–489. doi:10.1080/10301763.2024.2317185.
- [34] Adamson, M., & Roper, I. (2019). ‘Good’ Jobs and ‘Bad’ Jobs: Contemplating Job Quality in Different Contexts. *Work, Employment and Society*, 33(4), 551–559. doi:10.1177/0950017019855510.
- [35] Alferez Mayer, E., Silva-Peñaherrera, -Michael, Ayala-Garcia, A., Sabastizagal-Vela, I., & G. Benavides, F. (2022). Informal Employment, Working Conditions, and Self-Perceived Health: A Cross-Sectional Study in Urban Working Population in Peru. *Preprints*, 1-9. doi:10.20944/preprints202203.0030.v1.
- [36] Zhenjing, G., Chupradit, S., Ku, K. Y., Nassani, A. A., & Haffar, M. (2022). Impact of Employees’ Workplace Environment on Employees’ Performance: A Multi-Mediation Model. *Frontiers in Public Health*, 10. doi:10.3389/fpubh.2022.890400.
- [37] Pratap, P., Dickson, A., Love, M., Zaroni, J., Donato, C., Flynn, M. A., & Schulte, P. A. (2021). Public health impacts of underemployment and unemployment in the united states: Exploring perceptions, gaps and opportunities. *International Journal of Environmental Research and Public Health*, 18(19), 10021. doi:10.3390/ijerph181910021.
- [38] Runge, K., van Zon, S. K. R., Henkens, K., & Bültmann, U. (2024). Metabolic syndrome and poor self-rated health as risk factors for premature employment exit: a longitudinal study among 55 016 middle-aged and older workers from the Lifelines Cohort Study and Biobank. *European Journal of Public Health*, 34(2), 309–315. doi:10.1093/eurpub/ckad219.
- [39] Ahmed, S. K. (2024). How to choose a sampling technique and determine sample size for research: A simplified guide for researchers. *Oral Oncology Reports*, 12. doi:10.1016/j.oor.2024.100662.
- [40] Filandri, M., Pasqua, S., & Struffolino, E. (2020). Being Working Poor or Feeling Working Poor? The Role of Work Intensity and Job Stability for Subjective Poverty. *Social Indicators Research*, 147(3), 781–803. doi:10.1007/s11205-019-02174-0.
- [41] Rossi, A. (2020). Women, Working Conditions, and Industrial Hubs. *The Oxford Handbook of Industrial Hubs and Economic Development*, 424–437, Oxford University Press, Oxford, United Kingdom. doi:10.1093/oxfordhb/9780198850434.013.22.
- [42] Pohlen, L. (2019). Unemployment and social exclusion. *Journal of Economic Behavior and Organization*, 164, 273–299. doi:10.1016/j.jebo.2019.06.006.
- [43] ILO. (2019). Poor working conditions are main global employment challenge. International Labor Organization (ILO), Geneva, Switzerland. Available online: <https://www.ilo.org/resource/news/poor-working-conditions-are-main-global-employment-challenge> (accessed on September 2025).
- [44] Gazi, M. A. I., Al Masud, A., Yusof, M. F., Islam, M. A., Rahman, M. K., & Wang, Q. (2024). Factors affecting the quality of work life for industrial labor force: empirical evidence from a developing country. *BMC Psychology*, 12(1), 589. doi:10.1186/s40359-024-02073-1.
- [45] Filandri, M., & Struffolino, E. (2019). Individual and household in-work poverty in Europe: understanding the role of labor market characteristics. *European Societies*, 21(1), 130–157. doi:10.1080/14616696.2018.1536800.