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SKILL-BIASED CHANGE OR STRUCTURAL STAGNATION?
TRENDS POST-PANDEMIC LABOR MARKET TRENDS IN GEORGIA

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INTRODUCTION

Georgia's post-pandemic recovery has been marked by strong macroeconomic performance, with real GDP surpassing pre-pandemic trends and labor market indicators showing notable improvement. However, this research note examines whether this recovery reflects genuine structural transformation or masks deeper challenges of labor market polarization. Drawing on labor force survey data and a novel skill-level decomposition of employment based on occupational task content, the study finds that recent employment growth has been disproportionately concentrated in low-skill service sectors, while the share of medium-skill jobs is declining and high-skill job creation remains limited. A decomposition analysis reveals that the expansion of low-skilled employment is primarily driven by sectoral reallocation rather than changes of skills composition within sectors. The findings point to an increasingly polarized labor market, raising concerns about the sustainability and inclusiveness of Georgia's growth model. The note concludes that without targeted efforts to support skill development, productivity upgrading, and inclusive labor market participation, Georgia risks entrenching structural stagnation beneath a surface of rapid economic expansion.

SKILL-BIASED CHANGE OR STRUCTURAL STAGNATION? POST-PANDEMIC LABOR MARKET TRENDS IN GEORGIA

Following recent crisis, Georgia's economy has displayed impressive resilience and regained growth momentum. After a sharp contraction of approximately 6.8% in real GDP during the pandemic-induced downturn in 2020, the country experienced a strong rebound. Growth surged above 10% in 2021 and remained robust through 2022 and 2023, making Georgia one of the region's fastest-recovering economies. This resurgence was primarily driven by buoyant household consumption, heightened external demand, and extraordinary inflows of remittances and capital.

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By 2023, output had not only recovered pandemic losses but significantly outpaced pre-pandemic levels. Georgia's real GDP returned to a growth path that exceeded its prior trend, prompting upward revisions to potential output estimates. Notably, the output gap, which had been sharply negative in 2020, turned positive by 2023, suggesting that real output exceeded potential as the recovery solidified (Figure 1).

Figure 1. Output Growth, Output Gap, and Potential Output in Georgia (2017–2024)
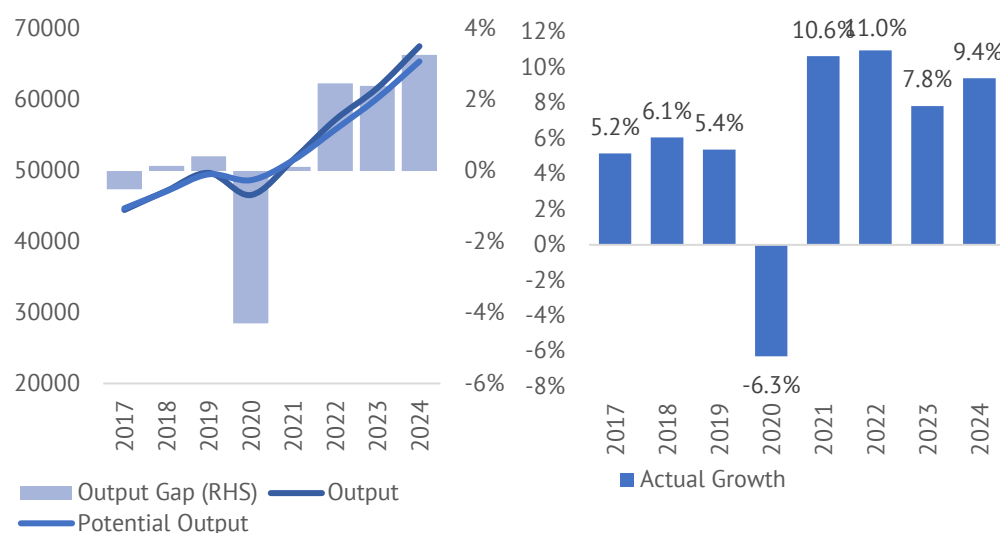
Source: GeoStat, Author's Calculations

The recent growth surge was closely tied to geopolitical developments, particularly the Russia's war in Ukraine, which started in February 2022. A dramatic surge in remittances from Russia — largely driven by Russian migrants transferring funds to support their own consumption and investment activities — rose by 403% to $2.1 billion in 2022 (NBG), providing a substantial boost to domestic demand. Simultaneously, an influx of Russian migrants and capital contributed to a surge in business registrations (over 30,000 firms, according to Geostat) and labor force participation, with nearly 115,000 individuals relocating to Georgia between 2022 and 2023. These inflows spurred investment and fueled growth in service sectors. Re-exports, especially of vehicles and machinery, also accelerated markedly — increasing 6.6-fold from 2019 to 2024 — with Russia, Armenia, Kazakhstan, and Kyrgyzstan becoming major destinations, boosting transport and logistics.

Alongside these developments, pandemic-era fiscal stimulus provided vital support to aggregate demand, and its gradual tapering in subsequent years was executed without destabilizing the economy.

Yet, beneath the surface of this headline growth, important structural questions emerge. Economic expansions rooted in short-term drivers — such as consumption booms, remittance inflows, or re-exports — may not yield durable gains in productivity or living standards. If growth is not accompanied by deeper structural change — including labor reallocation toward higher-productivity sectors and broadly shared income gains — it may fail to reduce inequality or ensure long-term resilience.

Moreover, Georgia's dependence on volatile external factors such as remittances (which accounted for 17.5% of GDP in 2022 and 13.5% in 2023, per NBG and Geostat) and commodity prices exposes the economy to significant vulnerability. Sustaining rapid growth in the absence of these inflows would likely require more substantive reforms and diversification.

Consequently, a deeper evaluation is needed to determine whether the economy is transitioning toward a more inclusive and productivity-driven model. The central question this analysis investigates is whether Georgia's growth is translating into a reallocation of employment toward higher-skilled, higher-productivity activities — a hallmark of genuine structural transformation.

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LABOR MARKET DYNAMICS IN GEORGIA: RECOVERY AND STRUCTURAL CHALLENGES

A closer examination of labor market trends in Georgia is vital for evaluating the quality and equity of the country's recent economic developments. From 2017 to 2023, overall employment followed a generally positive trajectory, despite a sharp decline in 2020 during the COVID-19 crisis. The number of employed individuals dropped significantly in 2020 and 2021, but a steady recovery followed, with employment levels even reaching around 1.4 million by 2024 (Figure 2).

**Figure 2.** Employment and Unemployment Trends in Georgia (2017–2024)
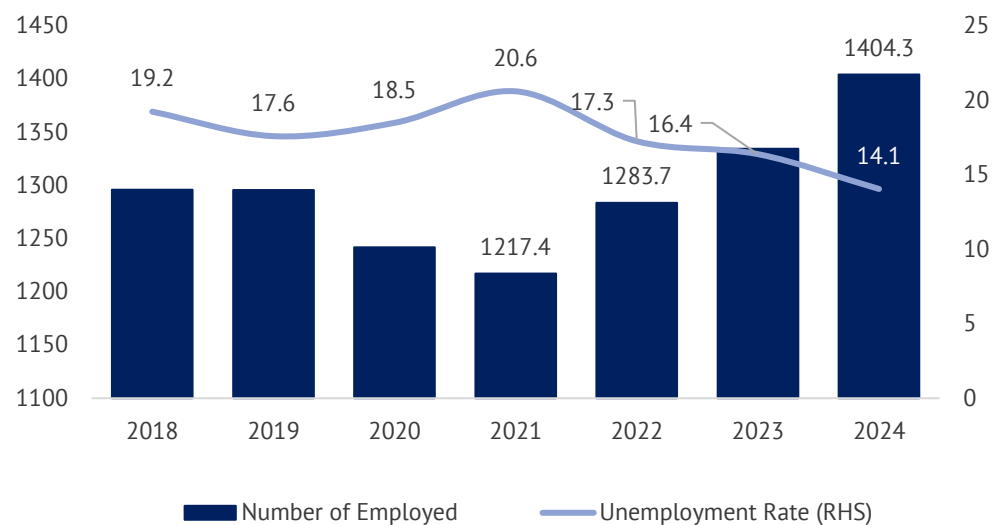
Source: Geostat, Author's Calculations

The unemployment rate, which had remained stubbornly high — fluctuating between 17% and 20% in the years prior to the pandemic — began a steady decline from 2021, falling to approximately 14% by 2023 (Figure 02). This suggests that the post-pandemic economic expansion translated into meaningful job creation.

Alongside the recovery in employment and decline in unemployment, wage developments have shown clear signs of improvement. After a period of stagnation in both nominal and real wages between 2018 and 2020, wage growth accelerated sharply from 2021 onward. Average nominal wages increased rapidly, and real

wages — adjusted for inflation — also recorded positive growth for the first time in several years (Figure 3).

Figure 3. Nominal and Real Wage Dynamics in Georgia (2017–2024)

Number of Employeed, ths   Average Nominal Wage, % YoY (RHS)
Average Real Wage, % YoY (RHS)
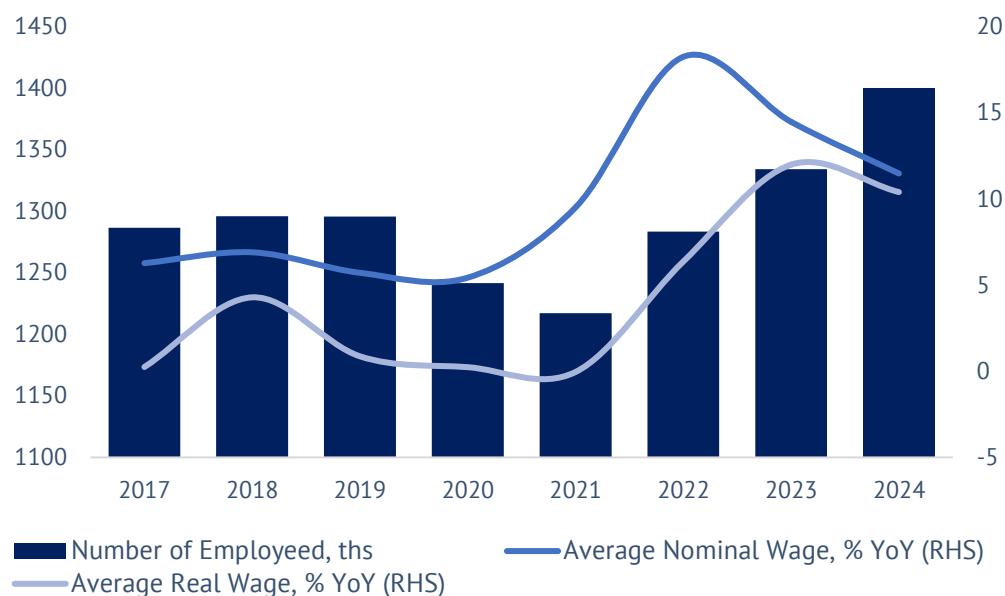
Despite these positive developments, significant underlying issues persist. Much of the new employment has been concentrated in low and mid-productivity service sectors, which tend to offer limited upward mobility. Informality continues to be widespread — particularly in agriculture and small-scale service activities — and a substantial share of the workforce remains underutilized. As of 2024, the broader measure of labor underutilization, including underemployment and discouraged workers, stood at 28.8%. In addition, the labour force participation rate remained at a relatively low level of 54.8% in 2024 (GeoStat).

Understanding labour market dynamics begins with examining the sectoral contributions to employment growth. Prior to the pandemic, employment growth was heavily influenced by a decline in agricultural employment. The agriculture, forestry, and fishing sector registered the most persistent and pronounced negative contribution to employment, indicating a steady movement of labor out of rural and subsistence-based activities[1]. This structural outflow, coincided with

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[1] Georgia's Growth Dilemma: Structural Transformation, Inequality, and the Future of Inclusive Development

gains in construction, wholesale and retail trade, transport and storage, and accommodation and food services suggesting a partial absorption of displaced labor into more urban and semi-formal sectors.

The 2020 COVID-19 crisis produced sectorally asymmetric effects, disrupting labour markets and output in varying degrees across industries. Due to their reliance on in-person services and high labour intensity, accommodation and food services saw a pronounced contraction in employment during the pandemic shock. Construction and industry also registered significant slowdowns. However, wholesale and retail trade remained surprisingly resilient during this period, continuing to contribute positively to employment even at the height of the crisis. This resilience likely reflects the essential role of retail services and the sector's swift adaptation of distribution channels in response to lockdown-related disruptions.

Since 2021, the employment landscape has shifted once more, this time towards a broad-based recovery across sectors (figure 4). Sectors such as construction and wholesale and retail trade emerged as primary engines of job creation, consistently posting strong contributions to employment. The construction sector, in particular, expanded steadily, possibly driven by public infrastructure projects and private real estate developments following the pandemic-induced halt.

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Figure 4. Sectoral Contributions to Employment Growth in Georgia (2018–2024)

Legend:
- Agriculture, forestry and fishing
- Human health and social work activities
- Industry
- Transportation and storage
- Construction
- Education
- Information and communication
- Accommodation and food service activities
- Wholesale and retail trade
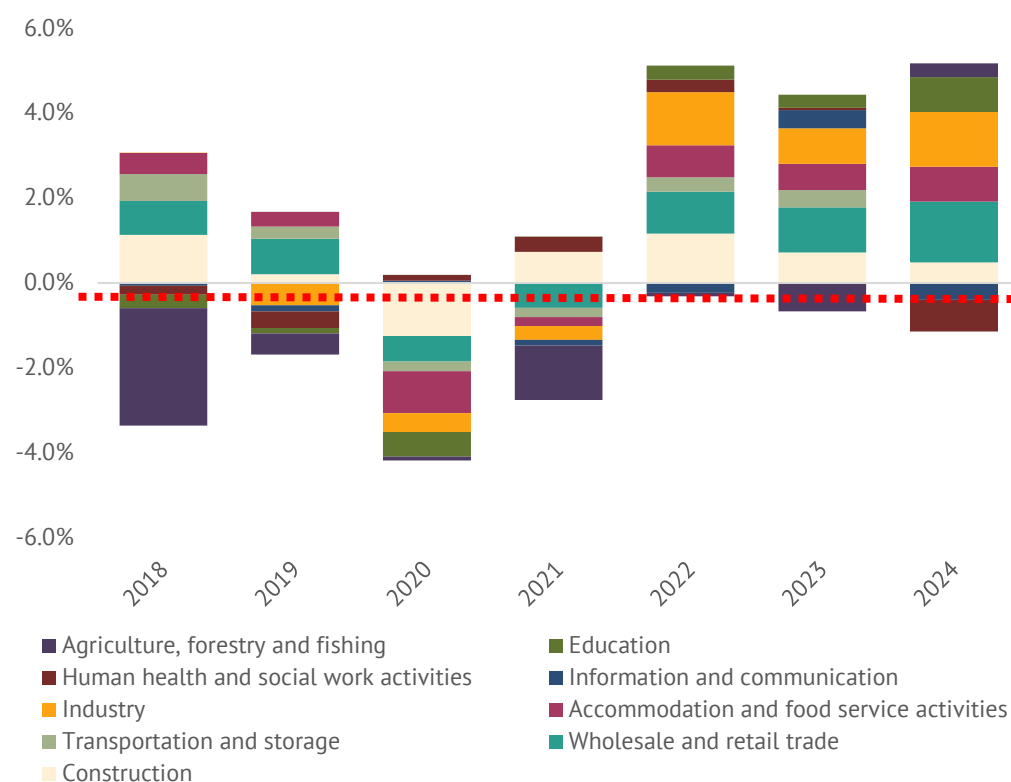
Meanwhile, industry began to show more robust employment gains in 2022 and 2023, suggesting a modest revival in domestic production and perhaps early signs of industrial upgrading. Accommodation and food services rebounded strongly as tourism and hospitality reopened, although their overall weight in the employment structure remained volatile. Transportation and storage also increased their mark in the labor market, likely linked to the rising importance of logistics in Georgia's evolving trade patterns and re-export dynamics.

Despite some growth in sectors like information and communication, their contribution to aggregate employment remained relatively limited, highlighting the challenges of expanding higher-productivity or knowledge-intensive employment at scale. This pattern underscores the structural characteristics of

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Georgia's labour market, where most employment gains remain concentrated in relatively low-productivity service sectors[2].

POLARIZATION AND SKILL SHIFTS IN GEORGIA'S LABOR MARKET

While employment and wage indicators have improved in aggregate terms, these headline gains do not fully capture the evolving nature of labor demand in Georgia. Beneath the surface, the economy is undergoing a deeper transformation in the types of skills it requires — reflecting shifts toward more knowledge-intensive, higher-value-added activities in some sectors, while others remain rooted in low-skill, low-productivity employment. To evaluate whether recent labor market developments signal true structural progress, it is essential to assess how employment is being reallocated across skill levels. Are workers moving into higher-skilled, better-paying roles across sectors, or are changes occurring primarily within sectors through upskilling and productivity enhancements?

To address these questions, it is essential to analyze the distribution of employment across different skill levels and to examine trends in labour market polarization.

According to the framework developed by Autor (2010) and Goos & Manning (2007), occupations can be classified along a skill spectrum. Low-skill occupations are primarily composed of routine manual and cognitive tasks, typically involving repetitive procedures and limited task complexity. Medium-skill jobs feature more balanced task profiles or represent transitional roles with moderate levels of complexity. In contrast, high-skill occupations are characterized by a high concentration of non-routine analytic and interactive tasks, requiring advanced problem-solving, critical thinking, and communication skills (see annex for skill level classification methodology).

Figure 05 highlights a notable transformation in the skill structure of employment in Georgia over the 2020–2024 period. The share of low-skilled employment grew

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[2] [Georgia's Growth Dilemma: Structural Transformation, Inequality, and the Future of Inclusive Development](#)

steadily from 29% in 2020 to 34% in 2024, indicating that job creation has become increasingly concentrated in occupations typically associated with routine tasks, limited training, and lower wages.

Figure 5. Skill level decomposition 2020 – 2024
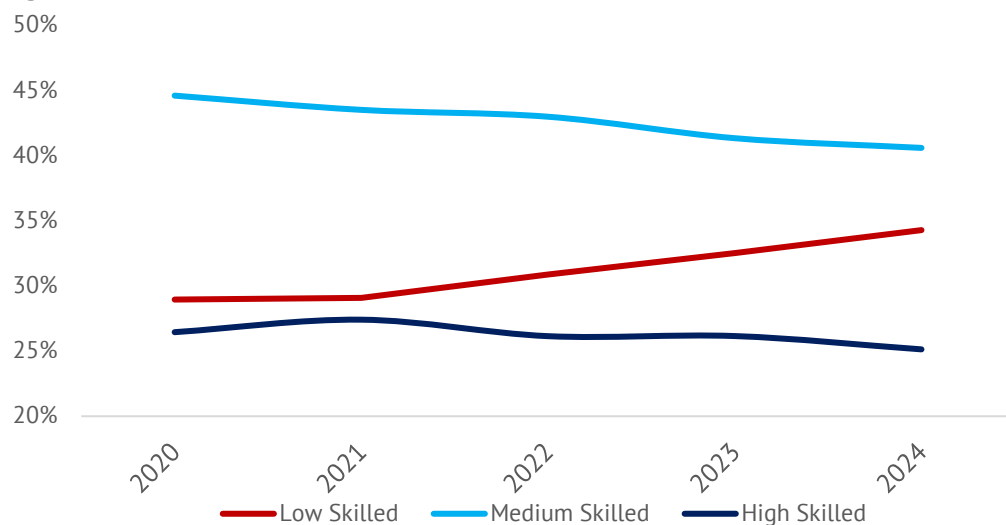
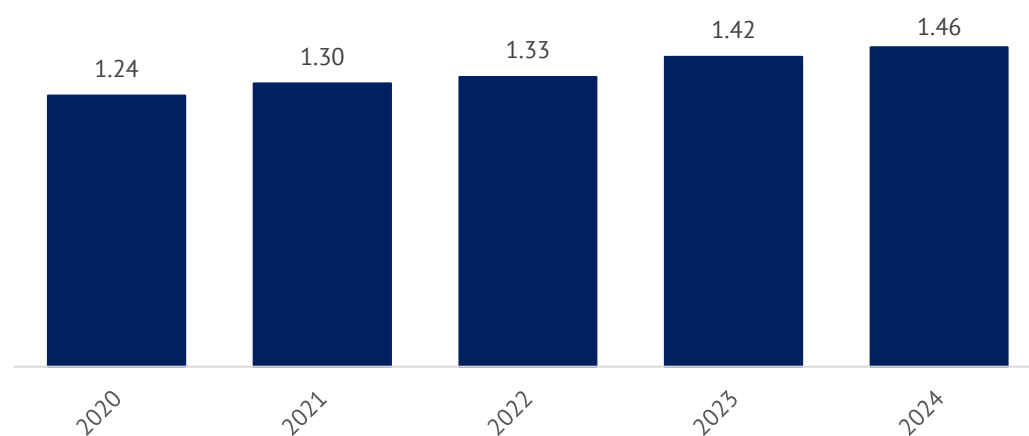Source: Geostat, Author's Calculations

Meanwhile, medium-skilled employment — historically the core of the Georgian workforce — declined from 45% to 41% over the same period. This contraction suggests a gradual erosion of middle-tier occupations, echoing international trends in labor market polarization and automation-driven change.

High-skilled employment remained relatively stable, fluctuating only slightly from 26% to 27% during 2020–2021 before slipping back to 25% by 2024. This stagnation implies that the generation of high-value, knowledge-intensive jobs has not kept pace with broader economic expansion. Together, these patterns signal a polarization of Georgia's labor market — marked by an expanding base of low-skill jobs and a shrinking middle.

It is notable that employment increased across all three skill categories; however, the fastest growth occurred in low-skilled occupations, while medium-skilled jobs experienced the slowest expansion — a pattern that explains the observed shifts in employment shares.

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Figure 6 illustrates a steady increase in Georgia's labor market polarization index between 2020 and 2024, rising from 1.24 to 1.46. This upward trend signals a widening divide in employment shares between low- and high-skill occupations, at the expense of medium-skill jobs. The polarization index captures the extent to which labor demand is shifting away from routine, middle-tier occupations — such as clerical and certain craft jobs — toward either high-skill professional roles or low-skill service and elementary occupations.

Figure 6. Labor market polarization Index 2020–2024

Source: GeoStat, Author's Calculations

Labor market polarization poses serious challenges for inclusive development. The decline of middle-skill jobs reduces opportunities for upward mobility and limits the role of the middle class as a stabilizing force in the economy. At the same time, the expansion of low-skilled employment — often informal, poorly paid, and lacking social protections — undermines job quality and deepens income inequality. Without parallel growth in high-skill employment and investment in skills upgrading, the gains from economic growth risk becoming concentrated among a small share of workers. As emphasized in the literature, persistent polarization can weaken long-term productivity growth, reduce the effectiveness of labor market institutions, and contribute to economic fragmentation (Acemoglu & Autor, 2011; World Bank, 2019; OECD, 2017).

SKILL-BASED EMPLOYMENT SHIFTS: INSIGHTS FROM WITHIN- AND BETWEEN-SECTOR EFFECTS

The following section decomposes employment growth into within, and between-sector effects coupled with skill-level-based analysis, providing insights into the underlying mechanisms driving skill reallocation in Georgia's evolving economy.

Within-sector effects reflect changes in the composition of employment by skill level that occur inside individual sectors. These shifts may result from technological adoption, improved management practices, or workforce upskilling — leading to a reallocation of tasks and roles without altering the overall sectoral structure of the economy.

By contrast, between-sector effects capture changes in the overall skill composition of employment that result from labour moving across sectors. When workers shift from sectors dominated by low-skilled jobs into sectors with a higher share of medium- or high-skilled occupations, the aggregate skill profile of the economy improves. This reallocation is often associated with structural transformation, even if the skill composition within each individual sector remains unchanged.

In addition to within-sector and between-sector effects, interaction effects capture situations where both sectoral reallocation and within-sector changes occur simultaneously and reinforce one another. In other words, they reflect how shifts in employment across sectors interact with evolving skill structures within those sectors. For example, if workers move from a low-productivity sector such as low-skilled services into a sector like information and communication — which is already undergoing internal upskilling — the interaction effect will capture this compounding influence: not only is labour shifting to a more skill-intensive sector, but that sector is also becoming more skill-demanding internally.

The transformation of Georgia's labour market between 2021 and 2024 reflects a combination of technological upgrading within sectors and structural reallocation across sectors, each carrying distinct implications for workers across skill levels. A

decomposition of employment changes by skill group into within-sector, between-sector, and interaction effects reveals that the expansion of low-skilled jobs has been predominantly driven by between-sector effects — namely, a compositional shift in employment away from agriculture and into labor-intensive service sectors such as construction, accommodation, and wholesale and retail trade. These sectors consistently demonstrate high or rising concentrations of low-skilled employment, with the share of low-skilled workers in construction[3] increasing from 63.5% in 2020 to 68.9% in 2024. Similarly, the transportation and storage[4] sector continue to exhibit a strong low-skill bias, with over 75% of its workforce classified as low-skilled by 2024.

As shown in Figure 07, the within-sector component for low-skilled labour is positive but considerably smaller than the between-sector effect, indicating that the rise in low-skilled employment is driven by both an increasing share of low-skilled workers within individual sectors and a broader structural shift toward sectors that are predominantly low-skilled.

[3] Globally, construction remains highly labor-intensive, with a large share of tasks being routine or manual (e.g., physical work, basic equipment handling). Studies such as Goos, Manning, and Salomons (2009) and Autor (2010) often classify construction as a sector with a high concentration of low- and medium-skilled employment.

[4] This sector is also considered routine-intensive, relying on operational and manual tasks (e.g., driving, handling goods, logistics tasks), which explains its persistent low-skill bias. Automation is beginning to affect parts of the sector, but in Georgia, the prevalence of low-tech logistics and informal jobs keeps the share of low-skilled workers high.

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Figure 7. Decomposition of Employment Growth by Skill Level: Within-, Between-, and Interaction Effects, 2024 relative to 2021

■ Interaction
■ Between (structural shifts from agriculture to services)
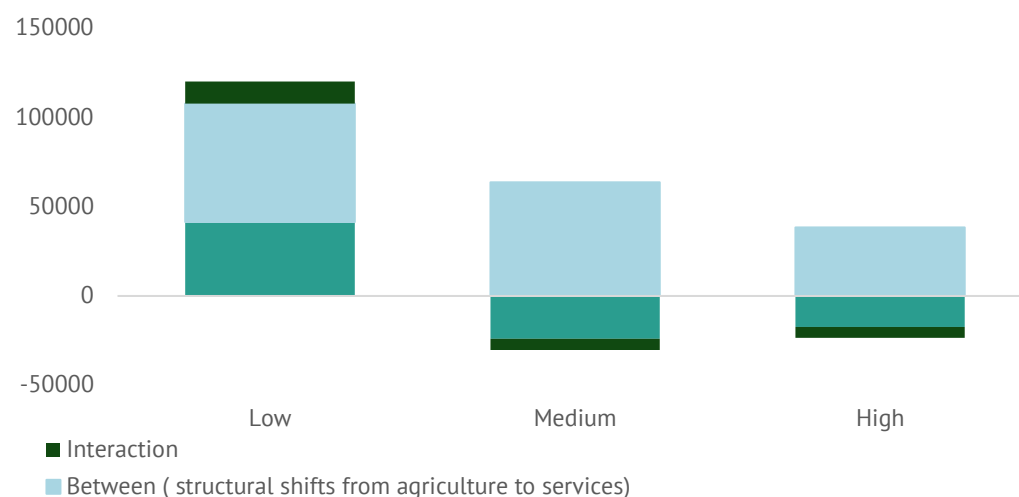
Source: GeoStat, Author's Calculations

The story is reversed for medium-skilled workers. While structural reallocation (between effect) has also been important, much of the medium-skill employment adjustment is negative within sectors, particularly those undergoing automation or efficiency gains. Sectors such as manufacturing and public administration show stable or rising medium-skill intensity (see Table 01 in annex), but the overall net gain in medium-skill jobs remains modest. This pattern signals displacement pressures, with medium-skilled workers potentially squeezed between expanding low-skill service roles and high-skill professional jobs.

High-skilled employment, meanwhile, followed a similar pattern, albeit on a smaller scale. Growth for this group was primarily driven by between-sector reallocation, particularly toward skill-intensive sectors such as information and communication, education, and professional and scientific activities. These sectors consistently maintained a high concentration of skilled workers — often exceeding 70–80% — and attracted labour from lower-productivity areas like agriculture and basic services. In contrast, within-sector effects for high-skilled employment remained negative, suggesting that internal upskilling within sectors did not significantly contribute to overall high-skill job growth during this period.

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Yet, even for high-skilled labor, the overall employment expansion has been more moderate in magnitude compared to low-skilled jobs. This suggests that while the demand for advanced skills is increasing, the scale of high-skill job creation remains limited relative to the broader structural transition.

Taken together, these dynamics highlight a segmented pattern of labor market transformation: low-skilled jobs are expanding through sectoral shifts, medium-skilled roles face pressure from technological change, and high-skilled employment is growing selectively, primarily within productive and knowledge-intensive sectors.

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CONCLUSION

Georgia's post-pandemic recovery has been marked by strong macroeconomic performance, but the underlying structure of labor market dynamics reveals more complex and uneven patterns of transformation. While aggregate indicators such as GDP, employment, and wages have improved, the quality and composition of employment growth point to a polarized and segmented labor market.

The decomposition of employment by skill level demonstrates a clear trend toward labor market polarization. Low-skilled employment has expanded significantly, primarily driven by structural shifts into service sectors with limited productivity gains. Medium-skilled occupations, once the backbone of the workforce, are shrinking — both as a share of total employment and within sectors undergoing technological change. High-skilled employment has seen modest growth, concentrated in a few productive, knowledge-intensive sectors.

This shift in the skill structure of employment suggests that Georgia's current growth trajectory is not yet underpinned by a broad-based transition toward high-productivity, inclusive labor market development. The increasing reliance on low-skilled service jobs and the limited scale of high-skill job creation raises questions about the sustainability and equity of recent economic gains.

Furthermore, the labor market polarization index and skill decomposition results collectively indicate that recent employment growth is shaped more by sectoral reallocation than by internal upskilling or innovation. These dynamics underline the need for closer scrutiny of Georgia's evolving economic model — not only in terms of how many jobs are created, but also what types of jobs, in which sectors, and for whom.

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ANNEX

SKILL LEVEL CLASSIFICATION METHODOLOGY

To assess the skill structure of Georgia's labor force using Labor Force Survey (LFS) microdata, we adopted a two-stage methodology grounded in recent empirical research on occupational task content.

Stage 1: Task Content Assignment Based on ISCO-08 Occupations. This stage relied on the study "Measuring the Routine and Non-Routine Task Content of 427 Four-Digit ISCO-08 Occupations" by Mihaylov and Tijdens (2019). This paper provides detailed estimates of the relative task content across five distinct dimensions for each ISCO-08 4-digit occupational code:

- Routine cognitive (RC),
- Routine manual (RM),
- Non-routine analytic (NRA),
- Non-routine interactive (NRI),
- Non-routine manual (NRM).

The authors constructed these measures by translating U.S. O*NET task descriptors into the European ISCO framework using the European Working Conditions Survey and other harmonized datasets. As a result, each occupation receives a task-share vector reflecting the extent to which it relies on different types of tasks.

Stage 2: Skill Level Classification Based on Task Intensity and Difficulty

In the second step, we translated these five-dimensional task profiles into a scalar skill classification. Building on the approach used in Goos, Manning, and Salomons (2009), and Autor, Levy, and Murnane (2003), we weighted each task type by its relative complexity and learning curve. Routine manual tasks were considered the least skill-intensive, while non-routine analytic tasks were the most skill-intensive.

A weighted average score was calculated for each ISCO code, and based on the distribution of these scores, we applied thresholds to assign a final skill level classification:

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- **Low skill**: occupations dominated by routine manual and routine cognitive tasks;
- **Medium skill**: occupations with balanced task profiles or transitional levels of task complexity;
- **High skill**: occupations with high shares of non-routine analytic and interactive tasks.

This composite measure allowed for a consistent and literature-aligned classification of all occupations into skill categories, enabling aggregation of employment by skill levels across years and sectors.

LABOR MARKET POLARIZATION

The labor market polarization index is constructed to measure the extent to which employment shifts away from medium-skilled occupations toward both low- and high-skilled jobs. Following the approach proposed by Goos, Manning, and Salomons (2009), the index is defined as the ratio of the combined employment shares of low- and high-skilled occupations to the share of medium-skilled occupations:

$$\text{Polarization Index:} \quad \frac{\text{Employment Share}_{Low-Skilled} - \text{Employment Share}_{High-Skilled}}{\text{Employment Share}_{Medium-Skilled}}$$

An increasing value of the index indicates a rising degree of polarization — i.e., a hollowing out of middle-skill jobs and a growing concentration of employment at the two ends of the skill spectrum.

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Table 1. Decomposition of Employment share by Skill Level

High Skill Labor Share by Sector (2020–2024)

Sector	2020	2021	2022	2023	2024
Agriculture, forestry	1.0	0.8	1.0	0.8	0.8
Mining and quarrying	31.2	28.6	24.3	22.3	15.0
Manufacturing	17.4	16.0	18.2	15.4	13.6
Electricity, gas	41.7	51.2	54.6	49.3	51.5
Water supply	13.9	18.1	13.0	10.5	9.8
Construction	18.1	17.0	16.4	15.4	14.3
Wholesale and retail	10.4	11.7	13.1	13.1	12.4
Transportation and storage	12.2	13.1	12.8	13.0	9.3
Accommodation and food	13.6	17.0	11.4	12.5	14.4
Information and communication	54.7	59.2	59.2	56.6	60.7
Financial and insurance	33.6	37.4	35.3	32.4	30.6
Real estate activities	33.9	30.2	31.0	27.0	23.9
Professional, scientific	75.7	76.2	71.5	80.0	80.0
Administrative and support	14.2	17.9	8.5	11.0	8.4
Public administration	47.2	46.0	43.8	44.1	47.4
Education	80.4	80.0	76.0	77.8	77.3
Human health and social	42.5	44.2	45.0	49.6	45.5
Arts, entertainment	46.8	51.6	47.6	45.7	47.4
Other service activities	26.3	22.5	17.4	12.9	12.7
Activities of households	0.0	0.0	0.0	0.0	0.0
Activities of extra-territorial	68.0	39.5	50.3	47.7	58.1

Year

High Skill Share (%)

Source: GeoStat, Author's Calculations

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