




**How to cite this paper:** Aghajanyan, S., Vardanyan, T., Badalyan, M., Karapetyan, L., Matevosyan E. (2025). Forecast of Labor Demand in Armenia by Educational Levels and Administrative Units: Analysis of Fieldwork. *Messenger of ASUE*, 1(79), 5-22.

DOI:10.52174/1829-0280\_2025.1-5

**Received:** 24.01.2025. **Revision:** 05.02.2025. **Accepted:** 23.05.2025.


## SUSANNA AGHAJANYAN

*Senior Lecturer of the Department of International Economic Relations at the Armenian State University of Economics, PhD in Economics*

 <https://orcid.org/0000-0002-5469-3995>

## TATEVIK VARDANYAN

*Senior Lecturer of the Department of International Economic Relations at the Armenian State University of Economics, PhD in Economics*

 <https://orcid.org/0000-0001-6488-2717>


## MERI BADALYAN

*Associate Professor, Dean of the Faculty of Accounting and Auditing at the Armenian State University of Economics, PhD in Economics*

 <https://orcid.org/0000-0002-7128-1968>


## LUSINE KARAPETYAN

*Associate Professor of the Department of Business Administration at the Armenian State University of Economics, PhD in Economics*

 <https://orcid.org/0000-0002-3894-4803>

## ELIZA MATEVOSYAN

*Master's Student of "Public Administration" at the Armenian State University of Economics*

 <https://orcid.org/0009-0004-5887-0225>

## FORECAST OF LABOR DEMAND IN ARMENIA BY EDUCATIONAL LEVELS AND ADMINISTRATIVE UNITS: ANALYSIS OF FIELDWORK

*This study explores labor demand forecasting in Armenia, emphasizing educational levels and administrative units during the 2024–2029 Utilizing data from surveys conducted with 7,270 organizations across public and private sectors, the research*

*uncovers critical trends, mismatches, and projections in the labor market. The findings reveal significant regional disparities in workforce requirements, with Yerevan exhibiting a higher demand for tertiary-educated professionals compared to rural areas. The study also highlights the private sector's preference for technical and vocational skills, while demand for workers with lower educational attainment is diminishing.*

*Key insights from the research demonstrate the structural challenges of Armenia's labor market, including imbalances between supply and demand for skilled labor across regions and sectors. The results underscore the need for targeted policies to address these discrepancies, including reforms in education and workforce development. By aligning the education system with market needs and reducing territorial inequalities, the study provides actionable recommendations to support Armenia's socio-economic development. This comprehensive analysis contributes to improving labor market planning, fostering employment growth, and ensuring equitable economic progress across all regions.*

**Keywords:** *Armenia, labor demand, forecasting, education levels, administrative units, labor market trends, mismatches*

JEL: J21, J23, R23

DOI: 10.52174/1829-0280\_2025.1-5

**INTRODUCTION.** In recent years, the Armenian labor market has faced several structural and operational challenges that have a significant impact on the country's socio-economic development. One of the primary issues is the mismatch between supply and demand for labor, which is evident in the notable imbalance between supply and demand at both the educational level and across various sectors of the economy. This situation hinders the economic development of the country and ensures the efficiency of the labor market. In this context, a thorough assessment of the demand for labor, especially in accordance with the administrative units of the Republic of Armenia and the levels of education, becomes key and relevant, requiring a systematic and data-based approach. The results of the work are aimed not only at identifying current trends in the labor market, but also at predicting the development prospects based on the analysis of the results of field work. As part of the study, the main purpose of the analysis is to identify projected changes in labor demand in Armenia by administrative units and levels of education for 2024-2029. The results of field work allow not only to get an idea of the expectations and immediate requirements of employers, but also to predict the main directions of economic and social development.

The Armenian labor market faces notable challenges stemming from ongoing structural mismatches between the workforce supply and employers' needs, underscoring the importance of accurate demand forecasting. This study addresses these issues by surveying a broad range of public and private organizations, thereby revealing sector- and region-specific labor gaps. While the current findings rely heavily on descriptive statistics, highlighting trends such as the concentration of tertiary-educated workers in urban centers and diminished

demand for lower levels of education, they also serve as a foundation for more sophisticated predictive modeling. Crucially, the analysis contributes to existing labor market forecasting literature by illuminating the multifaceted nature of Armenia's labor supply and demand imbalances and by suggesting targeted policy responses such as refining educational curricula and tailoring regional workforce initiatives. In doing so, the research not only bridges a gap in local evidence-based policymaking but also sets the stage for future studies to build more robust, model-driven forecasts aimed at shaping Armenia's labor market policies in a sustainable, data-informed manner.

**LITERATURE REVIEW.** The right quality and quantity of human capital are one of the key conditions for ensuring the full realization and development of any country's economic potential. The lack of an optimal number of employees in the labor market can lead to an excess or shortage of labor, which will lead to inefficient use of labor resources, increased costs, and productivity problems. Determining the optimal number of labor resources and forecasting it involves the use of a number of methods. From this point of view, to collect primary research data, it is important to use the survey method for field work. A hypothesis is formed that corresponds to the goal, and the data are obtained through the questionnaire. The longer the workforce planning period, the higher the level of certainty in forecasting the number and quality of employees available to the organization.

Planning an effective workforce in organizations requires the following: identifying the actions needed to achieve the organization's goals, identifying the types and quantities of human resource skills needed to accomplish these specific actions, assessing the differences between existing and required skills at present, developing strategies to bridge the gaps between the workforce available today and the workforce necessary to achieve the goals of the organization (Pam, 2013).

At the same time, it should be noted that forecasting the necessary demand for labor is important not only from the point of view of developing strategic plans for organizations, but also from the point of view of improving the efficiency of the overall economic system, which ensures the availability of appropriate personnel and contributes to the sustainable socio-economic development of the country.

These include the application of modern economic theory and the use of large amounts of relevant economic data, a comprehensive and systematic approach, as well as the possibility of periodic updates at an affordable price. However, many expert researchers sometimes do not want to use official forecasts, preferring instead more informal methods. Nevertheless, the fact that some experts prefer to use unofficial but primary information obtained on their initiative and approach does not mean that official forecasts lose their importance

or are not a reliable basis for correctly determining the ways of economic development of the state.

These methods and approaches are often more flexible and allow one to quickly respond to changing economic conditions and make decisions based on new information. It is worth noting that there are many professional analyses and studies related to assessing and forecasting labor demand. The authors of the article "Labor Market: Trends, Problems, Forecast, and Solutions" studied the labor markets of the European Union and Ukraine, highlighting the differences in their adaptation and challenges. The authors note the impact of the COVID-19 pandemic and the Russian-Ukrainian war, which have accelerated current trends such as digitization, automation, and remote work. There is a significant workforce redistribution between sectors, a growing demand for qualified professionals, and the growing importance of continuous skill development and flexibility (Yaroshenko et al., 2024).

This study provides valuable observations on changes in the labor market and the factors determining employment dynamics, providing a comparative basis for forecasting labor demand in Armenia. Another analysis discusses the problems and methodologies of forecasting the labor market, with an emphasis on gaps and replacement of educational programs within professions. The authors distinguish between active and passive replacement processes, studying their impact on labor demand and forecasting accuracy. The study highlights that ignoring the demand for replacements leads to extremely negative forecasts for highly educated people. The article highlights the importance of including substitution dynamics in labor market models, especially for analyzing the distribution of labor demand by education levels and administrative units (Cörvers et al., 2005).

The study "Best practices in forecasting labor market demand in Europe" presented methodologies and systems for forecasting labor market demand developed by European countries. It highlights the importance of applying integrated approaches by combining quantitative models such as macroeconomic and sectoral analysis, and qualitative methods through surveys and expert discussions (Arendt et al., 2012). The study highlights the need to include replacement and expansion demand in demand forecasting in the context of data access and system consistency issues. This comprehensive study is also valuable in the context of forecasting labor demand in Armenia, especially for analyzing the distribution of demand in the labor market by education levels and administrative units.

The article "Labor Market Forecasting, Reliability and Workforce Development" discusses methods and reliability of labor market forecasting using the Monash general equilibrium model. The authors emphasize the importance of these assessments to align educational and training institutions with the future requirements of the industry. The study examines the accuracy of the predictions of the Monash model over the years and examines criticisms of its reliability

(Meagher et al., 2011). The article argues that official labor market forecasts are crucial for the development of the workforce and provide an essential basis for analyzing labor demand by skill level and area, which is important for such an analysis in Armenia.

In the framework of the article “Forecasting future demands: What we can and cannot know”, the authors explore the problems of forecasting demand in the labor market in the context of vocational education and retraining (VET). The authors highlight the limitations of traditional forecasting models such as MONASH, highlighting the difficulties of predicting the demand for skills at detailed levels of education and professions. The article highlights the dynamic nature of the labor market, where skills needs are driven by technological progress, with economic growth and global changes. The authors advocate adapting VET systems to general trends that can overcome uncertainty and meet the changing demands of employers (Richardson et al., 2007).

Albizu Echevarria et al. (2023) highlight that traditional national-level labor market forecasts often fail to capture regional disparities or directly link to the supply of Initial Vocational Education and Training (IVET). Their study addresses this gap by adapting Cedefop’s EU-wide labor market projections to Spain’s autonomous communities, estimating future job opportunities by sector and mapping them to IVET fields of study. The authors find pronounced “horizontal mismatches” in certain sectors, most notably construction, indicating that local VET systems must better align program offerings with specific regional labor market demands.

Sarycheva and Shvetsov (2015) present a statistical framework for evaluating labor demand and supply using panel data regression models. Focusing on the Mari El Republic, they analyze key macroeconomic factors (e.g., wages, production output, investment) to assess structural mismatches in the local labor market. Their findings highlight how demographic trends, sector-specific dynamics, and wage-setting practices jointly influence employment levels, leading to both shortages and mismatches. The authors emphasize that this panel-data-based approach can be adapted for broader socio-economic analyses and forecasting in various regional contexts.

Vankevich et al. (2023) explore how digitalization and resulting precarious employment affect the pursuit of sustainable economic development, using Belarus as a case study. By analyzing 15 million online vacancies (2013–2023) and applying AI-based forecasting (XGBoost), they illustrate seasonal patterns and trends in labor demand across different regions. Their findings underscore the need to broaden sustainable development indicators by incorporating vacancy data, especially as rapid technological shifts exacerbate skill mismatches. The authors advocate integrating official and online data sources through a national Labor Market Information System and employing AI-based models to promote

balanced labor supply and demand, thereby supporting decent work and sustainable growth.

"Skill Demand Forecasts: Annexes", prepared by the World Bank, is a comprehensive study of approaches to forecasting labor market trends and skill requirements in various settings and sectors. It describes the cases of Tanzania and the Netherlands, demonstrating the use of quantitative models and industry methodologies to predict labor needs. The research highlights the need to collect extensive data, including economic trends and industrial needs, including replacement demand and technological progress (World Bank, 2015). This study represents significant progress in the creation and application of labor market forecasting tools, offering valuable information for assessing demand in the educational and regional labor market in Armenia.

Barseghyan et al. (2021) provide a comprehensive look at how COVID-19 restrictions and related economic disruptions affected Armenia's labor market. Drawing on two nationwide online surveys, the study identifies a marked increase in job losses (often attributed to the pandemic), a decline in household income, and evolving workplace practices such as remote work. Survey results show that employees in sectors unable to transition to work-from-home arrangements were disproportionately affected, highlighting the importance of digital adaptability and policy support in mitigating pandemic-induced labor shocks.

The 2023 labor market report by staff.am analyzes Armenia's post-pandemic employment landscape, emphasizing the continuing digitalization trend, shifts in candidate skill requirements, and rising interest in remote or hybrid work models. The study highlights growing job opportunities in information technology, banking/finance, and service industries, alongside intensified competition for qualified professionals. Additionally, the report underlines the importance of corporate upskilling initiatives to mitigate skill gaps and sustain Armenia's evolving, tech-driven labor environment.

The 2022 baseline study on Armenia's labor market, undertaken by Enterprise Incubator Foundation, Armenian National Agrarian University, Armenian Assembly of America (HoA), and CIVITTA Armenia with USAID funding, analyzes skill mismatches and workforce gaps across three focal sectors: agriculture/food processing, ICT/high-tech, and hospitality. Drawing on quantitative surveys (students, parents, recent graduates, and employers) plus qualitative interviews, the report finds a pronounced shortage of qualified labor, misalignment between formal education and industry needs, and underutilized female and youth potential. Employers in all three sectors cite difficulty recruiting adequately skilled workers, while graduates often lack both "soft" skills (e.g., collaboration, problem-solving) and practical experience. The study underscores that more robust collaboration between businesses and educational institutions, alongside improved career guidance for students, is critical to narrowing Armenia's workforce gaps and supporting inclusive economic development.

**RESEARCH METHODOLOGY.** To evaluate labor demand in Armenia by educational level and administrative division, this study employed a fieldwork-based methodology centered on a large-scale employer survey. The primary sampling frame was derived from the database of organizations (both public and private) registered with the RA Statistical Committee. Probabilistic sampling was employed to ensure that each organization had an equal chance of inclusion. To determine the required sample size, a social sampling calculator was used, setting the confidence interval at 5% and the confidence level at 95%. This approach yielded a target sample enabling statistical representativeness across Armenia's main economic sectors. In total, 7,270 organizations participated in the survey, representing approximately 11% of registered entities. Such a sample size enhances the robustness of the findings while minimizing sampling error.

Pre-designed online questionnaires were distributed to organizations spanning banking, finance, accounting, manufacturing, tourism services, and other major industries. These sectors were chosen to capture a cross-section of Armenia's economy. Although a precise overall response rate could not be fully calculated due to varying channels of survey distribution, multiple follow-up reminders were issued to increase participation and reduce non-response bias.

Despite these efforts, self-selection bias remains possible, as organizations more interested in labor forecasting or facing acute hiring challenges may have been likelier to respond.

The questionnaire gathered information on current staffing levels, projected hiring needs (to 2029), educational requirements, and skill gaps. Employers were asked to provide numeric estimates for expected employee increases (by percentage) and to detail the desired education levels (e.g., tertiary/postgraduate, secondary specialized, vocational, and general or lower).

To benchmark the survey results, official statistics from the RA Statistical Committee were used for cross-validation, particularly in comparing the distribution of employees by administrative division and education level.

While the study primarily draws on employer expectations to gauge future labor demand, it does not rely on advanced time-series or econometric modeling. This choice of method offers timely insights into immediate employer needs but may be influenced by subjective forecasts. To enhance comparability and credibility, the employer-reported projections were contrasted against macro-level indicators (e.g., the total number of registered employees, sectoral employment shares). This complementary use of official data helps to contextualize the subjectivity inherent in survey-based forecasts.

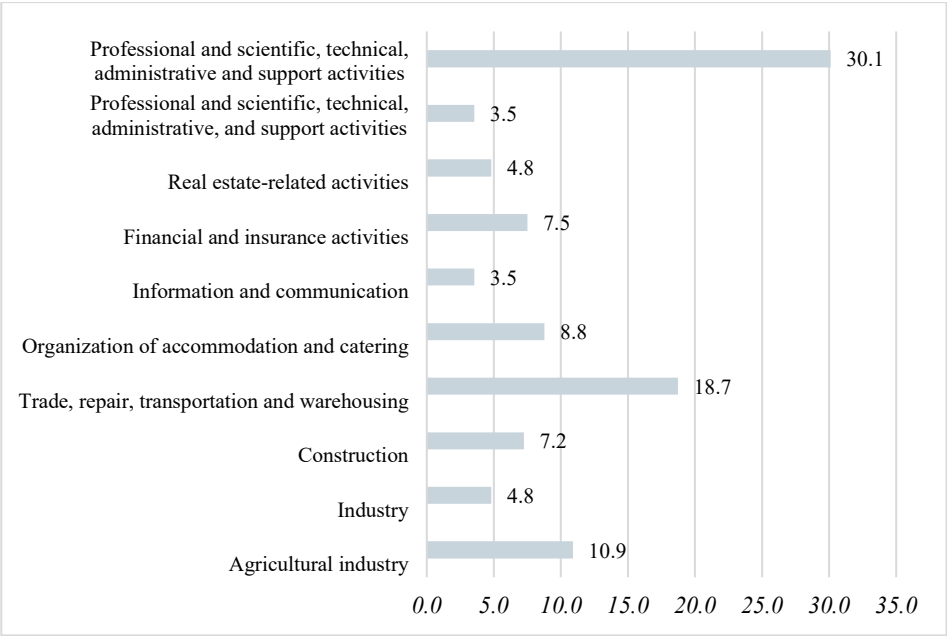
Relying on employers' stated intentions may not always translate into actual hiring trends, particularly in an uncertain economic climate. Although the sample is large, respondents might disproportionately represent sectors or organizations more attuned to labor forecasting, potentially skewing results. The study largely focuses on formal sector organizations, leaving Armenia's sizeable informal



labor market less examined. Despite these constraints, this survey-based methodology provides extensive, up-to-date information on employer needs across multiple regions and sectors. The findings thus offer a valuable snapshot of current trends and potential labor market developments, laying the groundwork for more advanced quantitative forecasts and targeted policymaking in the future.

**FINDINGS.** 7,270 public and private sector organizations participated in the field work. According to the RA Statistical Committee, in July 2024, the number of organizations registered in Armenia amounted to 69,536, which is 11% of the organizations involved in field work (information base of the RA Statistical Committee).

This makes it possible to extend the main results of the assessment of labor demand based on field work to the trends existing in Armenia. At the same time, 30.1% of organizations carry out activities in public administration, education, healthcare, and social services, 18.7% of organizations in trade, repair, transport, and warehousing, and 10.9% of organizations in agriculture and other fields. The distribution of organizations involved in field work by sector is shown in Figure 1.



Source: Field work conducted by the authors

**Figure 1.** Share of organizations involved in field work, by the field of activity (%)

28.3% of the 7,270 respondent organizations that took part in the survey, or 2,057, operate in Yerevan. The next largest number of participants is the Shirak region, where 10.5% of the organizations that took part in the survey operate, followed by Lori and Kotayk regions, with 8.4% each. At the same time, the smallest number of organizations that participated in the survey were registered



in the regions of Vayots Dzor (2.5%), Ararat, and Tavush (5.7% each). It is noteworthy that about 18% of the organizations that took part in the survey, or 1,309 organizations, operate in the same way as in Yerevan, just like in any other region of Armenia.

To realize the forecast of labor demand in Armenia, first of all, it is necessary to analyze the current demand for labor in organizations involved in field work by education levels and administrative-territorial units, which involves analyzing the relevant information provided by organizations involved in field work as of December 2023.

At the same time, it is also noteworthy to make comparisons based on data from the Statistical Committee of the Republic of Armenia and organizations involved in field work number of employees. Thus, according to the RA Statistical Committee, in December 2023, the number of employees registered in both state and non-state organizations operating in Armenia amounted to 741,572 people (information base of the RA Statistical Committee). The number of employees of organizations involved in field work at the end of 2023 amounted to 195,431 people. This represents 26.4% of the data available in the Statistical Committee of the Republic of Armenia. In general, as the analysis of the data available in Table 1 shows, 74.2% of employees registered in organizations that participated in field work, or 145,039 employees from Yerevan, 4.9% or 9578 employees from Kotayk, etc.

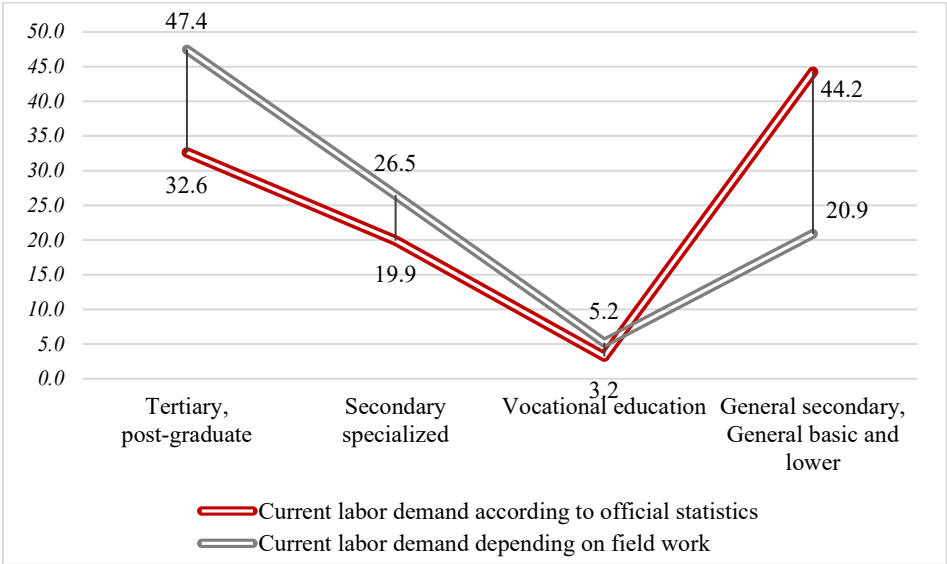
**Table 1**  
*The current demand for labor and its share in the administrative units of the Republic of Armenia, according to official statistics and field work results*

|              | According to the RA Statistical Committee |       | According to fieldwork data |       |
|--------------|---|-------|-----------------------------|-------|
|              | Current demand for labor                  | Share | Current demand for labor    | Share |
| Yerevan      | 521318                                    | 70.3  | 145039                      | 74.2  |
| Aragatsotn   | 12470                                     | 1.7   | 2933                        | 1.5   |
| Ararat       | 27285                                     | 3.7   | 5473                        | 2.8   |
| Armavir      | 26085                                     | 3.5   | 6060                        | 3.1   |
| Gegharkunik  | 17249                                     | 2.3   | 4547                        | 2.3   |
| Lori         | 28316                                     | 3.8   | 5278                        | 2.7   |
| Kotayk       | 38995                                     | 5.3   | 9578                        | 4.9   |
| Shirak       | 25609                                     | 3.5   | 6750                        | 3.5   |
| Syunik       | 24010                                     | 3.2   | 5473                        | 2.8   |
| Vayots Dzor  | 6820                                      | 0.9   | 1368                        | 0.7   |
| Tavush       | 13414                                     | 1.8   | 2932                        | 1.5   |
| <b>Total</b> | <b>741571</b>                             |       | <b>195431</b>               |       |

**Source:** The RA Statistical Committee and field work conducted by the authors

As part of the study, a comparative analysis was conducted between the number of employees according to the RA Statistical Committee and the number of employees based on the results of field work at individual levels of education. Thus, it turned out that, according to official statistics of the Republic of Armenia,

32.6% of the current demand for labor (in this case, the number of employed) had tertiary and postgraduate education. At the same time, according to the results of fieldwork, it was revealed that 47.4% of employees of organizations, or 92,724 people, had tertiary and postgraduate education.



Source: The RA Statistical Committee and field work conducted by the authors

**Figure 2.** The share of current labor demand by education level, with official statistics and field work results

According to official statistics, 19.9% of the current need for labor had secondary specialized education, and according to the results of field work, 26.5%, or 51,737 people. According to official statistics, 3.2% of the current workforce should have vocational education, and 5.2%, or 10,160 people, according to the results of field work. And 44.2% of the current demand for labor had general secondary, general basic, and lower education, according to official statistics, and 20.9%, or 40,811 people, according to field data.

In Yerevan, 52% of the employees, or 75,420 employees, had higher and postgraduate education. It is noteworthy that in the regions close to Yerevan, the proportion of employees with higher and postgraduate education is also high. For example, in the Kotayk region, 4502 people or 47% had higher or postgraduate education, in the Armavir region - 2606 people or 41%, etc. On the other hand, the rates of employees with higher and postgraduate education are quite low in the regions of Vayots Dzor (260 people or 19%), Gegharkunik (955 people or 21%), and Syunik (1314 people or 24%).

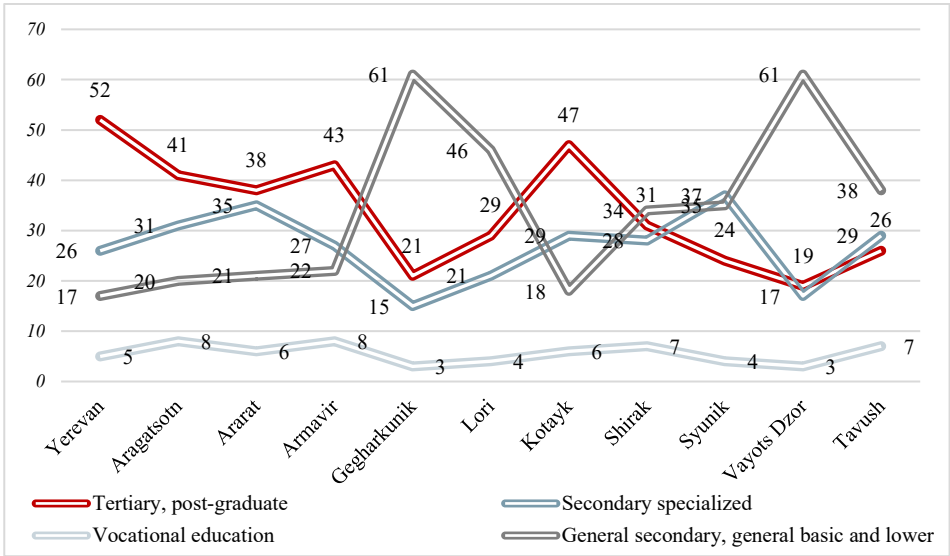


Source: Field work conducted by the authors

**Figure 3.** Current labor demand in organizations according to educational levels and administrative units of the Republic of Armenia

Employees with secondary specialized education accounted for 26% of the total number of employees in Yerevan, or 37,710 people. The marzes with the largest share in terms of the number of workers with secondary vocational education based on the results of field work are Syunik (2,025 people or 37%), Ararat (1,916 people or 35%), and Aragatsotn (909 people or 31%) regions. On the other hand, the smallest number of workers with secondary vocational

education was registered in Gegharkunik (682 people or 15%), in the provinces of Vayots Dzor (233 people or 17%) and Lori (1108 people or 21%). Most of the workers with secondary/basic general and low levels of education are registered in Vayots Dzor and Gegharkunik provinces – 61% each, or 834 employees and 2774 employees, respectively. On the other hand, Yerevan (24,657 people or 17%), Kotayk (1,724 people or 18%), and Aragatsotn (587 people or 20%) have the least number of employees with secondary/basic general and low levels of education.

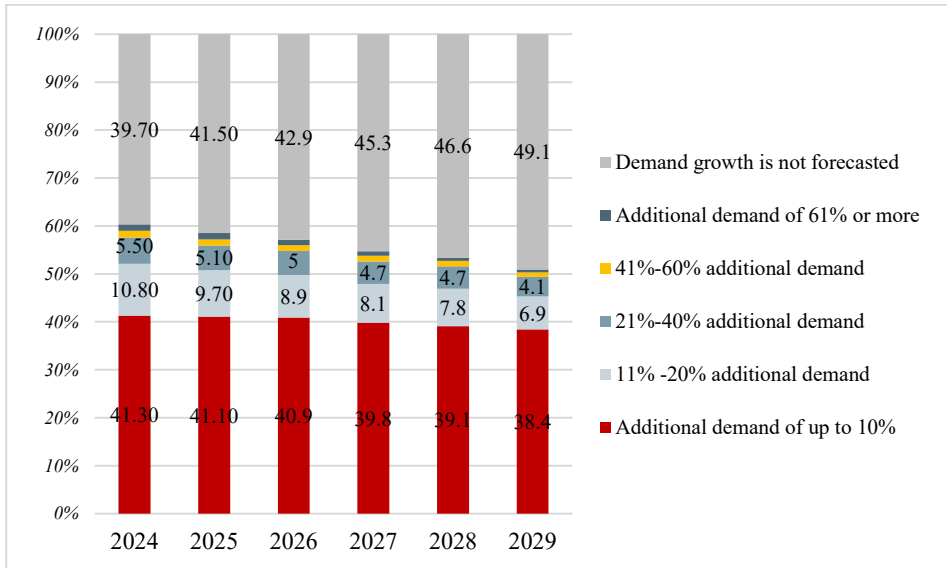


Source: Field work conducted by the authors.

**Figure 4.** The share of current demand for labor in organizations by the level of education in the administrative-territorial units of the Republic of Armenia

Thus, there was a clear imbalance in the distribution of levels of education concerning administrative-territorial entities. The number of employees with higher and postgraduate education in Yerevan is significantly higher, which indicates the centralized labor market of the capital, where there is a demand for highly qualified specialists. In other regions, in particular in Vayots Dzor and Gegharkunik, the proportion of workers with a low level of education is significantly higher, which indicates a regional disparity in demand for educational level and economic activity.

To assess the projected demand for labor in organizations in the field, the respondent organizations provided information on the extent to which they plan to increase demand. It turned out that, according to Chart 6, in 2024-2029, an increase in labor demand of 10% was planned in an average of 40.1% of organizations. At the same time, it is noteworthy that the share of organizations that predicted an increase in demand for labor to 10% in 2029 decreased compared to 2024, amounting to 38.4% or 2,792 organizations.

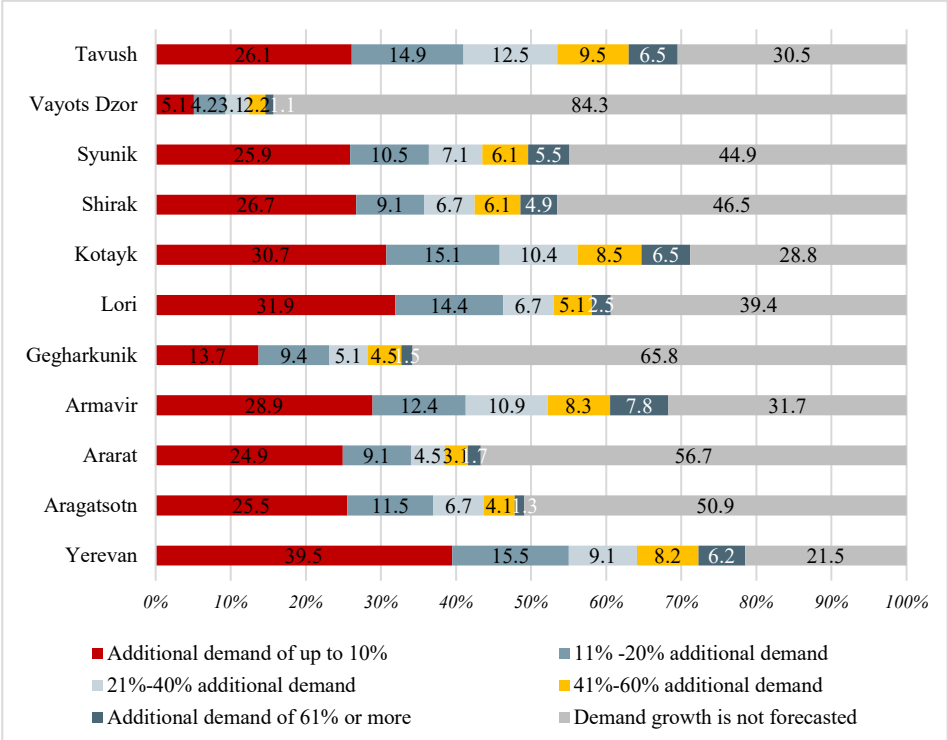


Source: Field work conducted by the authors.

**Figure 5.** *Forecasted demand for labor in organizations based on field work data for 2024-2029 (%)*

On the other hand, additional demand of 61% or more was forecast on average for only 71 organizations, additional demand of 41% -60% on average for 86 organizations, additional demand of 21% -40% on average for 353 organizations, and additional demand of 11% -20% in 632 organizations. It is also noteworthy that the growth in demand for 2024-2029, observed on average in 44.2% of organizations, was not predicted. At the same time, the analysis of the situation with private organizations involved in field work has changed dramatically. Like this, as for the 5,082 private organizations, in 2024-2029, an average of 61.1% of organizations predicted additional demand of up to 10% in 2024-2029, while 13.2% did not predict demand. This suggests that in the case of public sector structures, labor demand scenarios are more pessimistic than in the private sector.

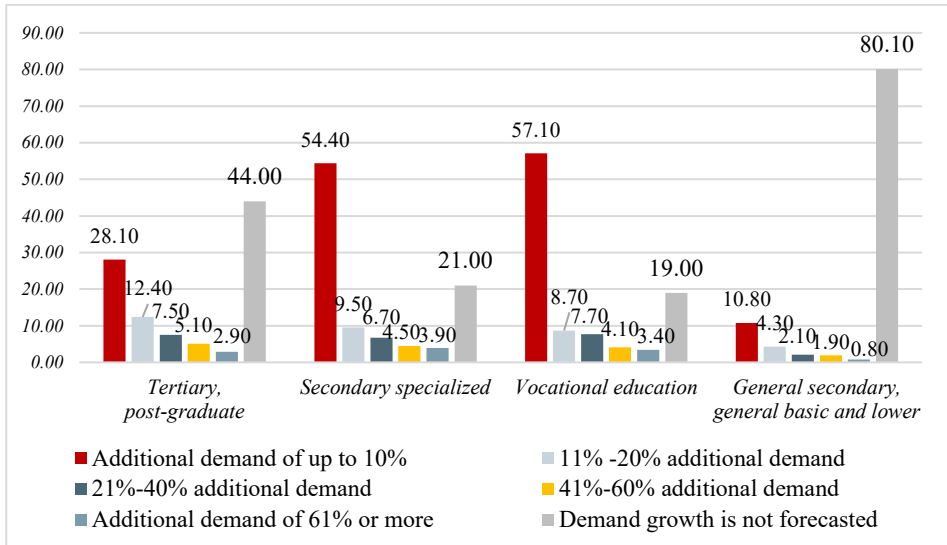
According to the forecast, the analysis of labor demand in the administrative units of the Republic of Armenia shows that additional labor demand of up to 10% for the period under review was predicted in Yerevan, then in Lori (31.9%) and Kotayk (30.7%) regions. In particular, there are 84.3% of organizations in the Vayots Dzor region did not forecast demand growth for 2024-2029.



Source: Field work conducted by the authors.

**Figure 6.** *Projected demand for labor in private organizations according to field work data in accordance with the administrative-territorial units of the Republic of Armenia*

According to field research data, the projected demand for labor in private organizations, depending on the level of education for the next 5 years, shows that for people with tertiary, post-graduate education, 44% of private organizations do not predict an increase in labor demand, and for 28.1%, demand is projected to increase to 10%. 21% and 19% of organizations do not predict an increase in demand for employees with an average secondary specialized and vocational education, respectively. On the other hand, 54.4% of organizations predicted additional demand for employees with an average secondary specialized education level of up to 10%, and 57.1% of organizations predicted additional demand for employees with a vocational education level. For general secondary, general basic, and lower education, 80.1% of organizations do not predict an increase in demand for labor, and 10.8% predict an increase in demand by 10%. It turns out that private organizations expect a greater demand for workers with an average secondary specialized and vocational education.



Source: Field work conducted by the authors

**Figure 7.** According to field research data, the projected increase in labor demand in private organizations depends on the level of education at the moment

An analysis of the fieldwork data shows that the growth in demand for labor with tertiary, post-graduate education is mainly expected in the field of information technology, financial services, and professional, scientific fields. The growth in demand for labor with secondary specialized education is most expected in the fields of information and communications, real estate, as well as housing and catering. The growth in demand for labor with vocational education is most expected in the areas of trade, repair, transport and warehousing, accommodation and catering, as well as real estate. The growth in demand for labor with a general secondary, general basic, and lower education is most expected in agriculture, construction, industry, and trade, while in the fields of information and communications, financial services, and professional activities, demand growth is not predicted.

The forecast of labor demand by administrative units and education levels of the Republic of Armenia shows that in Yerevan and to some extent in Syunik and Kotayk, private organizations expect an increase in demand for labor with tertiary, post-graduate education, while in other regions, this demand is low. Only 41.4% of private organizations in Yerevan do not predict an increase in demand for labor with secondary specialized and vocational education in the next five years. In Yerevan, private organizations are more likely to expect an increase in demand for labor with secondary specialized and vocational education, while in the regions, this demand is much lower.

**CONCLUSIONS.** Forecasts of labor demand growth in Armenian organizations from 2024 to 2029 indicate that while a modest share of organizations predict small-scale expansions (up to 10%), very few foresee larger increases (over 11%).



Notably, nearly half of the surveyed organizations (44.2%) do not plan any hiring growth at all, suggesting a generally weak labor market outlook—possibly tied to ongoing economic uncertainty, limited investment, and demographic challenges.

Significant regional disparities also emerge. Yerevan is projected to see the highest labor demand increases (up to 10%), whereas Lori and Kotayk are expected to experience comparatively limited growth. By contrast, Vayots Dzor faces particularly low hiring projections (84.3% of organizations do not plan to increase staff), a result that may reflect deeper structural problems, such as a lack of industrial diversification, insufficient infrastructure investment, and continued out-migration.

When examined by the education level, the data reveal that demand for tertiary- and postgraduate-educated workers remains relatively confined to Yerevan and fields like information technology, financial services, and research-oriented activities. Beyond the capital, demand for highly educated labor is weak, reflecting persistent economic centralization. Conversely, there is an ongoing need for technical and professional skills in many private-sector settings, suggesting that secondary specialized and vocational education could be better aligned with the skill requirements of local industries. However, the typically low hiring expectations among a large share of organizations, particularly those outside Yerevan, underscore broader systemic barriers, including limited industrial expansion and outflow of skilled workers.

While the study's findings highlight the need for educational reforms, a more targeted approach is warranted. Possible directions include:

- ✓ **Modernizing Technical and Vocational Programs:** Aligning curricula with emerging industrial practices (e.g., automation, advanced manufacturing, and digital technologies) can help equip graduates with in-demand skills.
- ✓ **Enhancing University–Industry Collaboration:** Internship programs, research partnerships, and mentorship initiatives can foster practical skill development, making higher education more responsive to regional and sector-specific labor needs.
- ✓ **Decentralizing Educational Infrastructure:** Establishing specialized training centers and technology hubs outside Yerevan may mitigate regional imbalances by encouraging local economic activity and retaining talent.

Moreover, trends such as automation, remote work, and changing industry structures, these factors are increasingly relevant to Armenia's labor market trajectory. Incorporating these dynamics into future forecasts through deeper macroeconomic and technological analyses would offer more nuanced insights into long-term workforce requirements. Such exploration could illuminate whether certain regions or industries might see a boost from remote opportunities or automation-led efficiency gains.

In sum, the current projections underscore the need for both economic and educational strategies that address regional inequities and future skill demands. By targeting reforms in technical/vocational training, incentivizing regional development, and remaining cognizant of evolving technological trends, Armenia can better position its workforce to meet the challenges and opportunities of the coming decade.

## References

1. Albizu Echevarria, M., Gamboa, J. P., Moso Díez, M., & Monaca-Soto, A. (2023). A regional forecasting tool to estimate the horizontal mismatch between VET supply and labour market demand 2022–2030. In C. Nägele, N. Kersh, & B. E. Stalder (Eds.), *Trends in vocational education and training research (Vol. VI): Proceedings of the European Conference on Educational Research (ECER), Vocational Education and Training Network (VETNET)* (pp. 8–16). <https://doi.org/10.5281/zenodo.8208319>
2. Arendt, L., Ulrichs, M., Dupuy, A., Helmrich, R., Koucký, J., Lepič, M., Maier, T., Tiainen, P., Wilson, R., & Zika, G. (2012). *Best practices in forecasting labour demand in Europe*. Retrieved from [http://www.strediskovzdelavacipolitiky.info/download/2012\\_Best%20practices%20in%20forecasting%20labour%20demand%20in%20Europe.pdf](http://www.strediskovzdelavacipolitiky.info/download/2012_Best%20practices%20in%20forecasting%20labour%20demand%20in%20Europe.pdf)
3. Barseghyan, G. (2021). *The impact of the coronavirus pandemic on the labor market in Armenia*. AUA & Manoogian Simone Research Fund. <https://msrf.aua.am/wp-content/uploads/2023/08/THE-IMPACT-OF-THE-CORONAVIRUS-PANDEMIC-ON-THE-LABOR-MARKET-IN-ARMENIA-IN-ENGLISH.pdf>
4. Cörvers, F., & Heijke, H. (2005). *Forecasting the labour market by occupation and education: Some key issues*. Research Centre for Education and the Labour Market (ROA), Maastricht University.
5. Enterprise Incubator Foundation, Armenian National Agrarian University, Armenian Assembly of America (HoA), & CIVITTA Armenia. (2022). *Mapping baseline study: Skill mismatches and workforce gaps in Armenia's labor market*. USAID.
6. Meagher, G. A., & Pang, F. (2011). *Labour market forecasting, reliability, and workforce development*. Centre of Policy Studies, Monash University. General Paper No. G-225. ISBN 978-1-921654-32-9. Retrieved from <https://www.copsmodels.com/ftp/workpaper/g-225.pdf>
7. Richardson, S., & Tan, Y. (2007). *Forecasting future demands: What we can and cannot know*. National Centre for Vocational Education Research (NCVER). ISBN 978-1-921170-68-3. Retrieved from <https://files.eric.ed.gov/fulltext/ED499706.pdf>
8. Sarycheva, T. V., & Shvetsov, M. N. (2015). Statistical approaches to the evaluation of the demand and supply at the labour market based on panel data. *Review of European Studies*, 7(8), 356–367. <https://doi.org/10.5539/res.v7n8p356>

9. Statistical Committee of the Republic of Armenia. (2024). *Statistical database*. Retrieved September 3, 2024, from <https://armstat.am/en/?nid=964>
10. Statistical Committee of the Republic of Armenia. (2024). *Statistical database*. Retrieved September 3, 2024, from <https://statbank.armstat.am/pxweb/en/ArmStatBank/?rxid=9ba7b0d1-2ff8-40fa-a309-fae01ea885bb>
11. staff.am. (2023). *Annual labor market overview: Armenia 2023*. staffmedia. <https://staff.am/staffmedia/labor-market-2024/>
12. Vankevich, A., Kalinouskaya, I., Zaitsava, V., & Alyakseeva, A. (2023). Theoretical and methodological approaches to analysis and forecasting of the labour market within the framework of sustainable development. *E3S Web of Conferences*, 451, 05019. <https://doi.org/10.1051/e3sconf/202345105019>
13. World Bank Global Practice. (2015). *Skills demand forecasts: Annexes*. Prepared by the World Bank Global Practice for Education (Eastern and Southern Africa) with contributions from the World Bank Global Practice for Trade and Competitiveness and the World Bank Cross-Cutting Solutions Area on Jobs.
14. Wurim Pam, B. (2013). *Demand forecasting and the determination of employee requirements in Nigerian public organisations*. Plateau State, Nigeria. Retrieved from <https://www.researchgate.net/publication>
15. Yaroshenko, O. M., Anisimova, H. V., Sliusar, A. M., Zhygalkin, I. P., & Kotova, L. V. (2024). Current labor market in the EU and Ukraine: Trends, problems, forecasting and solutions. *Salud, Ciencia y Tecnología – Serie de Conferencias*, 3, Article 1130. <https://doi.org/10.56294/sctconf2024.1130>