NEXT-GEN CAREER-UP
Institute for Leadership and Public Policy

Youth and Labor Market Trends

INDEX REPORT

REPUBLIC OF NORTH MACEDONIA 2026

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Analysis of student, employer, and university professor perceptions on the transition from higher education to the labor market in North Macedonia

A comparative and multidimensional analysis of youth employability, skills, internships, and education–labor market alignment

Prepared by
Prof. Dr. Besa Arifi
South East European University

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Executive summary

This report presents the **Youth and Labor Market Trends Index Report**, developed within the framework of the **Next-Gen Career-Up** initiative implemented by the **Institute for Leadership and Public Policy**, with the support of the **Embassy of the Kingdom of the Netherlands in North Macedonia**. The report examines the transition from higher education to employment in North Macedonia by analyzing the perceptions of three key groups: university students, employers and university professors.

The report is based on **251 valid questionnaire responses**, including **164 students**, **34 employers** and **53 university professors**. By combining these three perspectives, the report provides a comparative and multidimensional picture of youth employability, labor market expectations and the structural conditions that shape the transition from university to work. The Index does not focus only on whether young people possess certain skills or whether employers hire young workers. It also captures the broader conditions that influence employability, including education–labor market alignment, practical learning, internship quality, employer cooperation, career services, digital readiness, fairness, inclusion and institutional support.

The findings show that the transition from university to employment is a **shared responsibility**. Youth employability cannot be reduced to the individual readiness of graduates or to the quality of university education alone. It is shaped by the interaction between universities, employers, public institutions, Career Centers, internship systems, youth support programs and the wider socio-economic environment. Students, employers and professors all recognize that stronger coordination is needed in order to create more practical, fair and effective pathways from education to employment.

Students generally express a relatively positive view of their education and future prospects. Many students consider their study programs relevant to labor market needs and feel relatively prepared for employment. However, their optimism is cautious. Students repeatedly emphasize the need for more practical learning, better internships, stronger links with employers, more visible career guidance and fairer access to employment. Their responses show that young people understand that graduation alone is not enough; the transition to employment also requires experience, support, information, networks and opportunities to demonstrate their abilities.

Employers provide a more cautious assessment of graduate readiness. Many employers perceive young graduates as only partially prepared for work, especially in relation to practical experience, technical knowledge, applied skills and work-related competencies. At the same time, employers also recognize that they have a role to play in improving youth employability. Their responses point to the importance of internships, mentoring, cooperation with universities, clearer communication of skills needs and institutional support measures such as wage subsidies, internship support and digital/AI training support.

University professors add an important academic and institutional perspective. They recognize the value of higher education, but also identify the need for more responsive curricula, stronger practical learning infrastructure, better internship coordination, more systematic employer consultation and greater investment in digital transformation. Their responses show that universities are aware of the pressure to adapt to changing labor market needs, but that this adaptation requires institutional capacity, resources and structured cooperation with external actors.

Across all three questionnaires, **practical experience emerges as the strongest and most consistent finding**. It appears as a missing competency, a recruitment challenge, an educational priority, an internship concern and a key recommendation. Students need more opportunities to apply knowledge before graduation; employers need graduates who can function more effectively in real workplace settings; and professors recognize that practical learning must become more central to higher education. This confirms that practical learning should be treated as a core element of university quality and graduate employability, not as an additional or secondary activity.

The report also shows that internships are highly valued, but uneven in quality and accessibility. Students, employers and professors all emphasize the importance of internships, but they also identify problems related to limited opportunities, weak coordination, insufficient mentoring, lack of funding and unclear learning outcomes. Internships can function as effective bridges between education and employment only when they are meaningful, structured, supervised and accessible to students from different socio-economic backgrounds.

Another central finding is the persistence of a **skills mismatch** between higher education outcomes and labor market expectations. The mismatch is not only about technical skills. It also concerns the ability to apply knowledge in practice, communicate effectively, solve problems, work in teams, adapt to change and demonstrate responsibility. The findings show that employability depends on a combination of theoretical knowledge, practical experience, technical and professional competence, digital skills and transversal skills.

Digital transformation and artificial intelligence are becoming increasingly important for youth employability. Students, employers and professors all recognize the growing relevance of digital skills, AI/data literacy and the use of digital workplace tools. However, digital readiness cannot be left only to individual student initiative. It requires investment in curricula, laboratories, staff development, digital learning infrastructure, practical training and ethical awareness. Future employability will depend not only on whether young people can use technology, but also on whether universities and employers can prepare them to use it critically, responsibly and productively.

The findings also show that youth employability is strongly connected to fairness, inclusion and institutional trust. Students and professors express concern about personal connections, unequal opportunities, socio-economic barriers, rural background, disability, financial difficulties, stress and career insecurity. These concerns show that employability is not only a technical issue of skills and qualifications. Even well-prepared graduates may face difficulties if access to employment is perceived as unfair, non-transparent or dependent on informal networks. A credible youth employment system therefore requires both better preparation and stronger trust in equal access to opportunity.

The report concludes that improving the transition from higher education to employment requires coordinated action. Universities should strengthen practical learning, curriculum responsiveness, internship coordination, digital readiness and career support. Employers should offer more structured internships, participate in mentoring and curriculum feedback, communicate their skills needs more clearly and promote fair recruitment practices. Public institutions should support youth employability through funding, incentives, labor market information systems, inclusion measures and stronger cooperation mechanisms. Career Centers should become more visible, proactive and connected to students, employers

and alumni. Students and youth support programs should focus on building both technical and transversal skills, confidence, career awareness and access to practical opportunities.

Future annual editions of the Youth and Labor Market Trends Index should continue to monitor the transition from university to employment through the three-perspective model of students, employers and university professors. The Index should track changes over time in education–labor market alignment, skills and competencies, practical experience, internship quality, university–employer cooperation, digital transformation, fairness, inclusion, institutional support and confidence in employment opportunities. In this way, the Index can serve not only as a research product, but also as a practical tool for policy dialogue, institutional improvement and evidence-based reform.

Overall, the report shows that the transition from higher education to employment in North Macedonia is marked by cautious optimism, but also by clear structural challenges. Students want more practical, fairer and better-supported pathways into employment. Employers need graduates who are better prepared for real workplace demands. Professors recognize the importance of reforming curricula, strengthening practical learning and improving institutional cooperation. The central message of the report is that youth employability requires a coordinated, practical and inclusive response across the entire education–labor market ecosystem.

1. Introduction

The transition from university to employment is one of the most important challenges facing young people in North Macedonia. For many students and recent graduates, completing higher education does not automatically lead to stable, meaningful or fair employment. At the same time, employers often report difficulties in finding young workers with the practical experience, technical knowledge, digital skills and work-related competencies required in the labor market. This creates a gap between the expectations of young people, the capacities of higher education institutions and the needs of employers.

This report examines that gap through the Youth and Labor Market Trends Index, developed within the framework of the Next-Gen Career-Up initiative implemented by the Institute for Leadership and Public Policy, with the support of the Embassy of the Kingdom of the Netherlands in North Macedonia. The purpose of the report is to provide a structured analysis of youth employability, labor market expectations and the transition from higher education to work, based on the perspectives of students, employers and university professors.

The report is based on the understanding that youth employability is not only an individual issue. It does not depend only on the motivation, skills or qualifications of young people. It is also shaped by the quality of study programs, access to practical learning, the availability and quality of internships, university–employer cooperation, career guidance, institutional support, digital transformation, socio-economic conditions and perceptions of fairness in the labor market. For this reason, the report treats the transition from university to employment as a shared responsibility involving universities, employers, public institutions, Career Centers, students and youth support programs.

The Youth and Labor Market Trends Index provides an analytical framework for examining these issues in a comparative and multidimensional way. Rather than focusing only on whether young people are employed or unemployed, the Index captures the broader conditions that influence their path toward employment. These include education–labor market alignment, skills development, practical experience, internship quality, employer demand, future-readiness, digital and AI-related skills, fairness, inclusion and institutional support.

The report relies on three questionnaires designed for the purposes of this study: one for university students, one for employers and one for university professors. This three-perspective approach makes it possible to compare how different actors understand the same transition process. Students provide insight into their own preparedness, expectations, barriers and support needs. Employers provide information about recruitment practices, skills demand, internships and the readiness of young graduates. Professors provide an academic and institutional perspective on curricula, practical learning, cooperation with employers and the capacity of universities to respond to labor market change.

The importance of this approach lies in the fact that the transition from higher education to employment cannot be fully understood from one perspective alone. Students may feel prepared, while employers may identify important skills gaps. Universities may offer internships, while students may experience them as insufficiently structured or inaccessible. Employers may need young workers, but recruitment practices may still be perceived as unfair or dependent on informal networks. By bringing these perspectives together, the report provides a more complete picture of the strengths and weaknesses of the current transition system.

The broader context of the report is also shaped by important changes in the labor market. Digital transformation, artificial intelligence, remote and hybrid work, changing employer expectations and the growing importance of transversal skills are influencing how young people prepare for employment. At the same time, socio-economic barriers, limited access to professional networks, uneven internship opportunities and concerns about fairness continue to affect young people's confidence in the domestic labor market. These challenges are particularly important in a country where youth retention, skills development and the prevention of brain drain remain closely connected to the quality of employment opportunities.

The report therefore has both analytical and practical relevance. Analytically, it identifies key patterns in the perceptions of students, employers and professors. Practically, it provides recommendations for universities, employers, public institutions, Career Centers, students and future editions of the Index. Its aim is not only to describe existing challenges, but also to support evidence-based dialogue and practical reforms that can improve the transition from university to employment.

The structure of the report follows this logic. After the introduction, the report presents a brief review of relevant literature on youth employability, skills mismatch, work-integrated learning, digital transformation and labor market transition. It then explains the methodology of the study and presents the results of the three questionnaires. The report continues with a comparative analysis of the findings, followed by key findings, conclusions and recommendations. Together, these sections provide a comprehensive overview of the education–labor market ecosystem and the measures needed to make youth employability in North Macedonia more practical, inclusive, fair and responsive to future labor market needs.

2. Brief literature review

2.1 Youth employability and school-to-work transition

Youth employability is increasingly understood as a multidimensional concept that goes beyond the narrow ability to obtain a first job after graduation. It includes the development of knowledge, skills, work-related attitudes, confidence, adaptability, professional identity, access to networks and the capacity to navigate uncertain and changing labor market conditions. In this sense, the transition from higher education to employment is not a single event, but a process shaped by individual capacities, institutional support, employer expectations and the broader socio-economic environment.

The literature on school-to-work transition emphasizes that young people's labor market outcomes depend not only on formal qualifications, but also on non-cognitive and transversal skills such as agency, self-efficacy, openness to experience, adaptability and confidence. In a study on school-to-work transition and young people who are *not in education, employment or training* (NEET), Ripamonti (2023) highlights the importance of non-cognitive skills in helping young people manage uncertainty and avoid prolonged exclusion from education, employment or training. The study also notes that transition difficulties may have long-term consequences, including unemployment scarring and mental health effects, which makes early and structured support particularly important (Ripamonti, 2023).

This broader understanding of employability is important for the present study because the survey results do not only measure whether students expect to find a job. They also examine students' perceptions of preparedness, confidence, practical experience, career insecurity, access to internships, use of career services and perceived fairness in employment. These dimensions correspond to the contemporary view that youth employability is produced through interaction between students, universities, employers and public institutions, rather than by individual effort alone.

In the Western Balkan context, the transition from university to employment is particularly important because graduate employability is shaped by structural constraints, inequality of opportunity, migration pressures and the quality of institutional coordination between higher education, employers and public institutions. Drishti, Kopliku, Lesha and Hasmujaj (2026) examine university-to-work transitions in Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia and Serbia, showing that demographic and socio-economic circumstances, including gender, family socio-economic status and rural origin, influence both the time needed to obtain a first job and the quality of early career outcomes. This regional evidence is directly relevant to the present report, especially because students in the survey identified financial difficulties, rural background, lack of personal or professional connections, stress and uncertainty as important barriers in the transition from university to employment (Drishti et al., 2026).

2.2 Skills mismatch and higher education–labor market alignment

A central theme in the literature on graduate employability is the mismatch between the skills developed through higher education and the skills required by employers. Skills mismatch does not necessarily mean that students lack education. Rather, it often means that the knowledge and competencies acquired during university studies are not sufficiently aligned with the practical, technical, digital and interpersonal requirements of contemporary workplaces.

Okolie, Nwosu and Mlanga (2019) examine how higher education institutions can respond more effectively to labour market demands. Their study starts from the concern that many graduates are perceived by employers as lacking relevant employability skills and explores what the labour market expects from higher education institutions in terms of graduate preparation. This corresponds closely with the logic of the present report, which compares the perceptions of students, employers and professors in order to identify where education–labour market alignment exists and where important gaps remain (Okolie et al., 2019).

The literature also shows that higher education–labor market alignment requires more than occasional curriculum reform. It requires continuous dialogue between universities, employers, professional bodies and public institutions. Employer expectations may change rapidly due to digitalization, changing organizational models, sectoral transformation and the emergence of new forms of work. For this reason, graduate employability should be understood as a shared institutional responsibility. Employers cannot expect ready-made graduates without cooperating with universities, and universities cannot prepare students effectively without structured feedback from the labor market.

The work-readiness literature also points to the importance of reconciling different stakeholder perspectives. Winterton and Turner (2019) argue that preparing graduates for work readiness requires coordinated action by universities, employers and policy actors, rather than isolated efforts by higher education institutions alone. This approach is especially relevant to the present study because the three questionnaires were designed precisely to compare the views of students, employers and professors, and to identify where their perceptions converge or diverge in relation to graduate preparation, skills needs and labour market expectations (Winterton & Turner, 2019).

The empirical logic of this study is therefore supported by the literature: the transition from university to employment cannot be properly understood through only one perspective. Students may assess their own preparedness positively, while employers may identify practical or technical gaps, and professors may observe structural limitations within study programs. A comparative approach makes it possible to identify the areas where these perspectives converge and where they diverge.

2.3 Internships, practical learning and career services

Internships and practical learning are among the most frequently discussed mechanisms for improving employability. The literature on work-based and work-integrated learning shows that students benefit from opportunities to apply knowledge in real or simulated professional contexts, develop professional habits, build networks and understand workplace expectations before graduation.

Work-based and work-integrated learning literature emphasizes that graduate employability can be strengthened when academic learning is systematically connected with practical workplace experience. Barr (2024) argues that structured approaches to work-based learning can help higher education institutions improve graduate employability by linking study programs more closely with real professional contexts. Similarly, Ferns, Rowe and Zegwaard (2021) present work-integrated learning as an important mechanism for developing graduate capacity and preparing students for a changing and sustainable future workforce. These approaches are directly relevant to the present study because students, employers and professors all identify practical experience and internships as central to improving the transition from university to employment (Barr, 2024; Ferns et al., 2021).

Internships should not be treated as merely formal requirements. When they are well designed, they can function as bridges between academic learning and employment. They can help students develop confidence, apply knowledge, acquire professional habits, receive mentoring and demonstrate their capacities to potential employers. However, if internships are unpaid, poorly supervised, unrelated to the field of study or only symbolic, they may fail to improve employability and may reproduce inequality, especially for students who cannot afford unpaid work.

Career services are another important mechanism for supporting the transition from higher education to employment. Andrewartha and Harvey (2017) argue that university career services play an important role in improving student employability through activities such as career education, interview preparation, résumé development and access to employment opportunities. Their study also emphasizes that students from equity groups may underuse career services, even though they could benefit significantly from them. This is particularly relevant to the present study because the student survey showed limited use and visibility of university Career Centers, while students at the same time identified career guidance, mentoring and better information about employment opportunities as important forms of support in the transition from university to work (Andrewartha & Harvey, 2017).

The literature therefore suggests that higher education institutions should not limit employability support to classroom instruction. They need structured career services, internship coordination, employer networks, mentoring systems, labor market information, alumni links and targeted support for students who face additional barriers. In this sense, employability is both an academic and institutional function.

2.4 AI, digital transformation and future skills

Digital transformation and artificial intelligence are changing the meaning of employability. Employers increasingly expect graduates to be able to use digital tools, analyze data, adapt to new technologies and work in environments where AI-supported processes are becoming more common. However, the literature also emphasizes that future skills are not only technical. They include critical thinking, creativity, communication, ethical reasoning, adaptability, ambiguity tolerance and the ability to act responsibly in complex and uncertain contexts.

The future skills literature emphasizes that higher education institutions need to prepare students for increasingly complex, uncertain and digitally transformed work environments. Ehlers and Eigbrecht (2024) argue that universities have a responsibility to promote future-oriented competencies if they are to remain relevant for contemporary and future societies. Future skills are therefore not limited to technical knowledge, but include the capacity to apply knowledge in new situations, deal with ambiguity, respond to complexity and act effectively in contexts where future problems cannot be fully predicted in advance (Ehlers & Eigbrecht, 2024).

This argument is highly relevant to the present study. Students, employers and professors all recognized the growing importance of AI, data literacy and digital skills, although with different levels of emphasis. Students and employers especially emphasized advanced digital skills and AI/data literacy, while professors also pointed to the need for investment in digital laboratories, AI and digital transformation training, staff training and practical learning infrastructure.

The literature on AI and graduate employability further supports this direction. Jaiswal, Kuzminykh and Modgil (2025) emphasize the need to reduce the skills gap between higher education and the AI sector by aligning academic training more closely with labour market needs in areas such as AI, digital tools and emerging technology-related competencies. Similarly, Sozon, Roengtam and Yin (2026) argue that AI and globalization are reshaping graduate employability by intensifying skills mismatches, increasing demand for digital literacy and adaptability, and requiring higher education institutions to align curricula with industry needs, strengthen industry partnerships and modernize career services. These findings are directly relevant to the present study, where students, employers and professors all identify AI/data literacy, digital skills and practical exposure to changing workplace technologies as important dimensions of future employability (Jaiswal et al., 2025; Sozon et al., 2026).

At the same time, a legal and ethical dimension must be added to the discussion of AI. AI-based recruitment, digital platforms and automated decision-making may improve efficiency, but they may also create risks related to discrimination, opacity, privacy and unequal access. For this reason, digital transformation should be integrated into employability strategies in a way that combines technical skills with critical, ethical and legal awareness.

2.5 Remote and hybrid work and changing employment expectations

Remote and hybrid work have become increasingly relevant for graduate employability, especially after the COVID-19 pandemic accelerated the movement of work from traditional office settings to home-based and digitally mediated environments. Remote and hybrid work can create flexibility, expand access to opportunities and allow some young people to participate in labor markets beyond their immediate location. However, such forms of work also create challenges, particularly for early-career employees who need mentoring, social learning, professional visibility and integration into workplace culture.

The literature on remote and hybrid work shows that changing work arrangements are now part of the broader employability agenda. Felstead (2022) examines the development of remote working, including its different forms and its implications for people management, work organization and quality of working life. Hislop (2026) further addresses the evolution of hybrid and remote work by focusing on issues such as employee wellbeing, workplace community, isolation and the transformation of office-based jobs. These perspectives suggest that remote and hybrid work can create new opportunities for flexibility and access to employment, but they also require careful institutional and managerial design, especially for young graduates who need mentoring, workplace socialization and opportunities to develop professional networks (Felstead, 2022; Hislop, 2026).

For young graduates, remote work can be both an opportunity and a risk. On the one hand, it can make work more flexible and accessible, especially for students from smaller towns or regions with fewer local opportunities. On the other hand, it may reduce informal learning, mentoring and networking, which are crucial during the early stages of professional development. This is why the present study includes remote and hybrid work as a relevant but carefully interpreted dimension of employability. Students' openness to remote and hybrid work should therefore be read together with their strong demand for practical experience, mentoring and employer contact.

Remote and hybrid work also have a legal dimension. They raise questions about working time, availability, occupational health and safety, data protection, monitoring, the right to disconnect and work-life balance. Although this report does not conduct a detailed legal analysis of remote work regulation, it treats remote and hybrid work as part of the wider institutional environment that shapes youth employability.

2.6 Socio-economic barriers, career insecurity and wellbeing

A growing number of authors emphasize that youth employability is strongly influenced by socio-economic conditions. Financial difficulties, lack of social support, rural origin, disability, family background, lack of networks and the need to work while studying may all affect students' ability to participate in internships, career exploration, additional training and professional networking.

Socio-economic conditions also shape how young people perceive their employment prospects. Kirazci (2026) examines the relationship between economic constraints, perceived employability and students' expectations of future decent work. The study shows that economic constraints can negatively affect both perceived employability and expectations of decent work, while social support may reduce some of these negative effects. This supports the argument that employability is not only a matter of skills, qualifications or motivation, but also of resources, confidence, social support and access to opportunity (Kirazci, 2026).

Career insecurity is also closely connected to young people's wellbeing. Klug (2020) examines the consequences of job insecurity among young labour market entrants and its relationship with mental health, job satisfaction and life satisfaction. This literature is relevant to the present study because many student respondents identified stress and uncertainty about the future as important difficulties in the transition from university to employment. The findings therefore suggest that youth employability policies should also consider the psychological and wellbeing dimensions of labour market transition, not only formal employment outcomes (Klug, 2020).

Evidence from the Western Balkans further confirms the importance of socio-economic barriers. Drishti et al. (2026) show that university-to-work transitions in the region are shaped by inequality of opportunity, and that graduates from urban and higher socio-economic backgrounds tend to transition into employment more quickly and report better job quality. This finding is directly relevant to the present study, where students identified barriers affecting young people from rural areas, low-income families, students with disabilities and students without personal or professional connections. It reinforces the conclusion that employability should be understood as both a skills issue and an inclusion issue (Drishti et al., 2026).

These findings suggest that employability policies should not focus only on skills training. They should also address unequal access to internships, financial barriers, lack of networks, stress, uncertainty and career insecurity. In practical terms, this means that career services, internship programs, mentoring and public support measures should be designed with inclusion in mind.

2.7 Legal and institutional perspective on youth employability

From a legal and institutional perspective, youth employability should not be understood only as an economic or educational issue. It is also connected to the constitutional and legal framework that regulates the right to work, equal access to employment, non-discrimination, protection at work, higher education, internships, youth participation, data protection and institutional support for labor market participation.

Article 32 of the Constitution of the Republic of North Macedonia provides the normative starting point by guaranteeing the right to work, free choice of employment, protection at work and material assistance during temporary unemployment. It also establishes that every job is open to all under equal conditions and that employees have the right to appropriate remuneration, rest and legal protection of their employment rights (Constitution of the Republic of North Macedonia, 1991, art. 32). This principle is directly relevant to the present study because the survey findings show strong concerns among students and professors regarding fairness, merit-based employment and equal access to employment opportunities.

The Law on Labor Relations provides the general framework for employment relations, including the rights and obligations arising from employment, working conditions, protection at work and equality in employment relations (Law on Labor Relations, 2005). This law is relevant because youth employability should not be treated merely as entry into any job, but as entry into legally protected, fair and decent employment. In this sense, the transition from university to work should be assessed not only by whether young people find employment, but also by whether employment is stable, protected and based on equal treatment.

The Law on Employment and Insurance in Case of Unemployment is also relevant because it regulates employment, unemployment insurance, labor market services and institutional support for unemployed persons and other jobseekers (Law on Employment and Insurance in Case of Unemployment, 1997). This legal framework is important for the present report because students, employers and professors all identify the need for stronger labor market information, career guidance, mentoring, cooperation with employment services and institutional support in the transition from university to employment.

The Law on Higher Education is relevant to the role of universities in preparing students for professional and social life. It provides the legal framework for higher education institutions, study programs, quality assurance and the broader public function of higher education (Law on Higher Education, 2018). In the context of this study, the law is important because the survey findings show that universities are expected to strengthen practical learning, internships, digital skills, career services and cooperation with employers, while still preserving their academic mission.

The anti-discrimination framework is central to the equality and inclusion dimension of employability. The Law on Prevention and Protection against Discrimination prohibits discrimination on broad grounds and provides the legal basis for equal treatment in different areas of social life, including education and employment-related contexts (Law on Prevention and Protection against Discrimination, 2020). This is directly relevant to the survey findings concerning students from low-income families, students from rural areas, students with disabilities, students without personal or professional connections and students facing unequal access to internships or employment opportunities.

The Law on Internship is particularly important because internships are one of the strongest findings in all three surveys. This law provides the legal basis for understanding internships not only as educational opportunities, but also as regulated transition mechanisms between education and work (Law on

Internship, 2019). Since students, employers and professors all emphasized internships, the legal-policy question is whether internships are accessible, mentored, structured, transparent and connected to real learning outcomes, rather than being merely formal or symbolic arrangements.

The Law on Youth Participation and Youth Policies is also relevant because it frames young people as active participants in policy-making processes, rather than only as passive beneficiaries of public measures (Law on Youth Participation and Youth Policies, 2020). This is important because youth employability policies should be developed not only for young people, but also with young people. The student questionnaire in this study contributes to that participatory approach by documenting students' own perceptions of barriers, expectations and support needs.

Finally, the Law on Personal Data Protection is relevant to AI-based recruitment, digital employment platforms, automated processing of candidate data and online job matching (Law on Personal Data Protection, 2020). As AI and digital tools become more important for employability, legal safeguards concerning privacy, transparency, non-discrimination and accountability become increasingly relevant. This is particularly important in the context of future skills and digital transformation, where employability increasingly depends on both digital competence and protection from unfair or opaque digital practices.

The legal and institutional perspective therefore strengthens the main argument of this report: improving the transition from university to employment requires not only better skills, but also fair rules, transparent institutions, inclusive policies, regulated internships, protected data, non-discriminatory recruitment and effective public support mechanisms.

2.8 North Macedonia and Western Balkan higher education context

The context of North Macedonia and the Western Balkans is important because graduate employability is shaped not only by individual skills, but also by broader patterns of economic development, innovation capacity, entrepreneurship, migration, institutional quality and cooperation between higher education institutions and employers. In this sense, the transition from university to employment should be understood as part of a wider regional challenge involving skills development, youth retention, brain drain, knowledge transfer and the creation of meaningful employment opportunities for young people.

The regional entrepreneurship and innovation literature is useful for understanding the economic environment into which graduates are expected to enter. Ramadani, Abazi-Alili, Dana, Rexhepi and Ibraimi (2017) examine knowledge spillovers and innovation in Balkan countries and show that innovation activity and knowledge transfer are linked to firm performance. This is relevant to youth employability because a labour market capable of absorbing educated graduates depends not only on the supply of skills, but also on firms' capacity to innovate, use knowledge and create higher-quality jobs.

A similar argument appears in the literature on open innovation. Abazi-Alili, Hashi, Rexhepi, Ramadani and Kallmuenzer (2024) examine open innovation determinants and firm performance in Central and South-Eastern Europe. Their work supports the view that cooperation, knowledge exchange and innovation ecosystems matter for firm competitiveness. This argument is also supported by Rexhepi, Hisrich and Ramadani (2019), who frame open innovation and entrepreneurship as connected processes that can contribute to enterprise growth and competitive advantage. For the present study, this helps frame

university–employer cooperation not only as a mechanism for internships and job placement, but also as part of a wider knowledge-based development agenda.

The entrepreneurship literature on the Balkans also provides useful regional background for understanding graduate employability. Ramadani and Schneider (2013) frame entrepreneurship and small business development as important dimensions of economic development in the region, addressing issues such as innovation, institutional support, female entrepreneurship, migrant entrepreneurship and the conditions for small business growth across Balkan countries. This is relevant to the present study because entrepreneurship may represent one possible employment pathway for young graduates, but also because entrepreneurial ecosystems require skills, institutional support, access to networks and stronger cooperation between education, business and public institutions.

In a related regional context, Palalić, Dana and Ramadani (2018) examine entrepreneurship in the former Yugoslav countries, with particular attention to institutional constraints, business environment challenges and the prospects for entrepreneurial development. Within that volume, Ramadani, Rexhepi, Dana, Gërguri-Rashiti and Ratten (2018) provide a specific analysis of entrepreneurship in Macedonia, highlighting the role of entrepreneurship and small business development in the country's economic environment. These issues are relevant for North Macedonia because graduate employability depends not only on the availability of graduates with appropriate skills, but also on the capacity of the economy to generate quality employment, support new businesses, encourage innovation and create transparent pathways for professional advancement.

The digital transformation dimension can also be connected to scholarship on digital competencies. Jashari, Fetaji, Nussbaumer and Gütl (2021) propose a model for assessing digital competencies based on the DigComp proficiency levels. Their work is relevant to the present study because students, employers and professors all recognize digital skills, AI/data literacy and the use of digital tools as increasingly important for employability. It also supports the argument that digital competence should be assessed and developed systematically, rather than treated as an assumed or informal ability that students acquire on their own.

More directly related to youth employment and migration in North Macedonia, Zulfiu Alili, King and Gëdeshi (2022) examine the potential migration of educated youth and the risk of brain drain. Based on survey data from university students in North Macedonia, their study shows that intended emigration is linked to students' educational status, future study plans, family migration history and broader labour market conditions. This is highly relevant to the present report because the student survey also identifies uncertainty, limited opportunities, lack of practical experience and concerns about fairness as important elements of the transition from university to work. Sulejman and Andovska-Dina (2026) further connect youth employment challenges with job satisfaction, perceived opportunities and emigration intentions, showing that many young people would prefer to remain in North Macedonia if stable and adequately paid employment in their field were available. Together, these studies show that youth employability is closely connected to migration pressures, labour market confidence and the quality of opportunities available to young graduates.

Youth migration and labour market perceptions are also addressed by Bajrami Ollogu and Xhelili (2025), who examine migration intentions, job preparedness, labour market perceptions and structural challenges among university-aged young people in North Macedonia. Their report shows that youth migration cannot be separated from young people's confidence in domestic employment opportunities, perceptions of job

quality and expectations about whether they can build a stable professional future in the country. This is directly relevant to the present study, where students also identify stress, uncertainty, perceived unfairness, limited opportunities and the need for stronger institutional support as important elements of the transition from university to employment. Taken together with other evidence on educated youth migration from North Macedonia, this literature suggests that improving youth employability is also connected to youth retention, confidence in institutions and the creation of fair and meaningful career opportunities.

Taken together, these sources help situate the present study within the broader North Macedonian and Western Balkan context. They show that youth employability cannot be reduced to individual student skills. It is connected to innovation, entrepreneurship, firm capacity, digital transformation, institutional cooperation, labour market opportunity, migration pressures and perceptions of fairness. This supports the central argument of the report: improving the transition from university to employment requires coordinated action by universities, employers, public institutions and other labour market actors.

2.9 Implications for the present study

The reviewed literature supports the design and analytical logic of the present study in several ways. First, it confirms that youth employability and school-to-work transition are multidimensional processes shaped by skills, confidence, social support, institutions and labor market structures. Second, it confirms that skills mismatch and higher education–labor market alignment should be studied from multiple perspectives, including students, employers and professors. Third, it shows that internships, practical learning, mentoring and career services are central mechanisms for improving graduate employability. Fourth, it demonstrates that AI, digital transformation and remote/hybrid work are increasingly relevant to future employability. Fifth, it highlights the importance of socio-economic barriers, career insecurity and wellbeing. Finally, the legal and institutional framework of North Macedonia shows that youth employability is also connected to constitutional principles, equal access to employment, non-discrimination, regulated internships, youth participation, data protection and institutional responsibility.

This literature review supports the three-perspective design of the study. By combining student, employer and professor questionnaires, the report brings together the supply-side experience of young people, labour market demand and recruitment expectations, and the academic-institutional perspective of higher education. This enables a more balanced and policy-relevant analysis of the transition from university to employment in North Macedonia.

3. Methodology

3.1 Research design

This study is based on a structured questionnaire-based research design aimed at examining the relationship between university education, youth skills, employer expectations and labor market needs in North Macedonia. The research was designed to capture three complementary perspectives: university students as current and future participants in the labor market; employers as representatives of labor market demand; and university professors as representatives of the higher education system.

The study relies on the systematic analysis of responses collected through three questionnaires developed specifically for the purposes of the Youth and Labor Market Trends Index. This design allows the report to combine comparable quantitative findings with qualitative insights from open-ended responses, and to present the views of the three respondent groups in a structured and analytically consistent way.

The questionnaires reflect the main analytical dimensions of the Index, including education–labor market alignment, skills development, employment readiness, internships and practical learning, university–employer cooperation, future labor market trends, artificial intelligence and digital transformation, remote and hybrid work, socio-economic barriers, career insecurity and institutional support for youth employability.

3.2 Research instruments

Three separate questionnaires were developed and administered: a questionnaire for university students, a questionnaire for employers, and a questionnaire for university professors. Each questionnaire contained 30 questions and followed a parallel structure in order to enable comparison across the three groups. The instruments included closed-ended questions, multiple-choice questions, Likert-scale statements, and one final open-ended question.

The student questionnaire focused on the educational profile of students, perceptions of the relevance of study programs, self-assessment of skills, employment status, job and internship search, preferred employment sectors, internship participation, future skills, remote and hybrid work, perceived fairness of access to employment, socio-economic and career-related barriers, and familiarity with university career services.

The employer questionnaire focused on organization profile, recruitment of young people, skills and competencies required when hiring, perceived preparedness of young graduates, fields of study most needed in the labor market, education-labor market alignment, cooperation with universities, internship provision, future hiring expectations, future skills, and forms of institutional support needed to facilitate youth employment.

The professor questionnaire focused on academic profile, perceptions of study program relevance, student preparedness, strengths and weaknesses in student competencies, curriculum updating, employer consultation during program development, university-employer cooperation, internships and practical learning, future labor market trends, and institutional support for improving youth employability.

3.3 Sample and target groups

The research covered three respondent groups and was implemented through questionnaires provided in Albanian and Macedonian. The final analytical sample consists of 251 valid responses: 164 university students, 34 employers, and 53 university professors. Equivalent answer categories from the Albanian and Macedonian versions of the questionnaires were harmonized for the purposes of analysis.

The student and professor questionnaires included respondents from the main universities covered by the study, including South East European University, the State University of Tetova, Mother Teresa University in Skopje, and other institutions. The employer questionnaire included organizations of different types, sizes, sectors and locations, allowing the analysis to capture a range of labor market perspectives.

The sample should be understood as a targeted and exploratory sample rather than a statistically representative national sample. Its purpose is not to produce national estimates, but to identify relevant patterns, perceptions and gaps that can inform the Youth and Labor Market Trends Index and provide a basis for policy discussion and further annual monitoring.

Table 3.1. Final analytical sample

Target group	Number of valid responses	Share of sample
University students	164	65.3%
Employers	34	13.5%
University professors	53	21.1%
Total	251	100.0%

3.4 Data collection

Data were collected through online questionnaires during June, July and August 2026. The questionnaires were provided in Albanian and Macedonian to ensure accessible participation for the target respondent groups. After collection, the responses were reviewed, cleaned and harmonized for analytical purposes. Equivalent answer categories from the two language versions were merged, while open-ended responses were reviewed in their original language and analyzed thematically.

This process enabled a standardized and comparable analysis of the views of students, employers and university professors, while also preserving the qualitative insights provided by respondents. Although the sample sizes differ between the three groups, the data are suitable for identifying relevant patterns and comparing perspectives on the transition from higher education to employment.

3.5 Data processing and analysis

The collected data were processed through descriptive statistical analysis and thematic interpretation of open-ended responses. Closed-ended and multiple-choice questions were analyzed by identifying

frequencies, percentages, and dominant patterns across respondent groups. Likert-scale questions were analyzed through collapsed categories: disagree or strongly disagree, neutral, and agree or strongly agree.

Multiple-choice questions were treated as multi-response variables, meaning that one respondent could select more than one answer. Therefore, the analysis of these questions focuses on the frequency with which each option was selected, rather than on mutually exclusive percentages. For this reason, percentages for multiple-choice questions do not necessarily add up to 100%.

Open-ended responses were reviewed qualitatively and coded thematically. The coding was non-exclusive, meaning that one response could contain more than one theme. This approach allows the analysis to capture the complexity of respondent views, especially on issues such as practical experience, university-employer cooperation, fairness, career guidance, and the need for institutional support.

3.6 Comparative analytical approach

The central methodological value of this study lies in the comparison of three perspectives. The student questionnaire captures how young people perceive their own skills, expectations, opportunities, and barriers. The employer questionnaire captures what the labor market expects from young graduates and what difficulties employers face in recruitment and internship provision. The professor questionnaire captures the academic perspective on curriculum relevance, student preparedness, practical learning, and institutional cooperation with employers.

This triangulated structure makes it possible to identify areas of convergence and divergence. The study can compare whether students' self-assessed skills correspond to competencies prioritized by employers, whether professors' assessment of student preparedness corresponds to employer evaluation of graduates, and whether all three groups identify internships and practical learning as central mechanisms for improving the transition from university to employment.

The comparative approach is particularly important for the Youth and Labor Market Trends Index because the Index is intended not only to describe the situation of young people, but also to monitor the relationship between education, employability, and labor market demand over time.

3.7 Ethical considerations

The questionnaires included an informed consent component explaining the purpose of the research, the voluntary nature of participation, and the anonymous and aggregated use of data. Respondents were informed that no individual person, company, organization, or institution would be identified in the report without prior consent.

The data analysis is based on aggregated responses. Personal identification data are not used in the study. Where a respondent did not provide consent to participate, that response was excluded from the analytical sample in accordance with ethical research standards.

3.8 Limitations of the study

The study has several methodological limitations that should be taken into account when interpreting the findings.

First, the sample was designed as a targeted and exploratory sample rather than as a statistically representative national sample of all students, employers or university professors in North Macedonia.

Second, the employer sample is smaller than the student and professor samples, which means that employer findings should be interpreted carefully and primarily as indicative of trends, perceptions and institutional experiences.

Third, the research relies on self-reported responses, which may reflect respondents' personal experiences, institutional contexts and subjective evaluations. For this reason, the findings should be understood as a structured overview of perceptions and reported experiences rather than as a direct measurement of labour market outcomes. At the same time, the inclusion of open-ended responses provides useful qualitative insight into the concerns, expectations and recommendations of the three respondent groups.

Despite these limitations, the three-questionnaire design provides a strong basis for identifying relevant patterns, comparing perspectives and formulating practical recommendations. It offers a coherent foundation for the Youth and Labor Market Trends Index by combining the views of students, employers and university professors in a structured and comparable manner.

4. Analysis of student questionnaire results

This section presents the results of the student questionnaire. The analysis is based on 164 valid student responses, of which 151 were collected through the Albanian-language version of the questionnaire and 13 through the Macedonian-language version. Equivalent answer categories from both language versions were harmonized for the purposes of analysis.

Unless otherwise stated, percentages are calculated from the total number of student respondents (N = 164). For multiple-choice questions, respondents could select more than one answer; therefore, percentages indicate the share of respondents who selected each option and do not add up to 100%.

4.1 Student profile

The student sample includes respondents from several universities, with the largest groups coming from South East European University and the State University of Tetova. The sample is predominantly composed of Bachelor students, which is relevant because most respondents are either preparing to enter the labor market or are in the early stages of developing their professional orientation.

Table 4.1. Profile of student respondents

Category	Number	Percentage
University		
South East European University	75	45.7%
State University of Tetova	62	37.8%
Mother Teresa University in Skopje	3	1.8%
Other universities	24	14.6%
Level of studies		
Bachelor studies	148	90.2%
Master studies	16	9.8%
Main fields of study		
Law / legal studies	63	38.4%
Languages, Culture and Communication	43	26.2%
Business / Economics	20	12.2%
IT / Computer Science	15	9.1%
Education / Teaching	6	3.7%
Social Sciences	5	3.0%
Medical / Health Sciences	4	2.4%
Engineering / Technical Sciences	4	2.4%
Humanities	3	1.8%
Arts / Media	1	0.6%

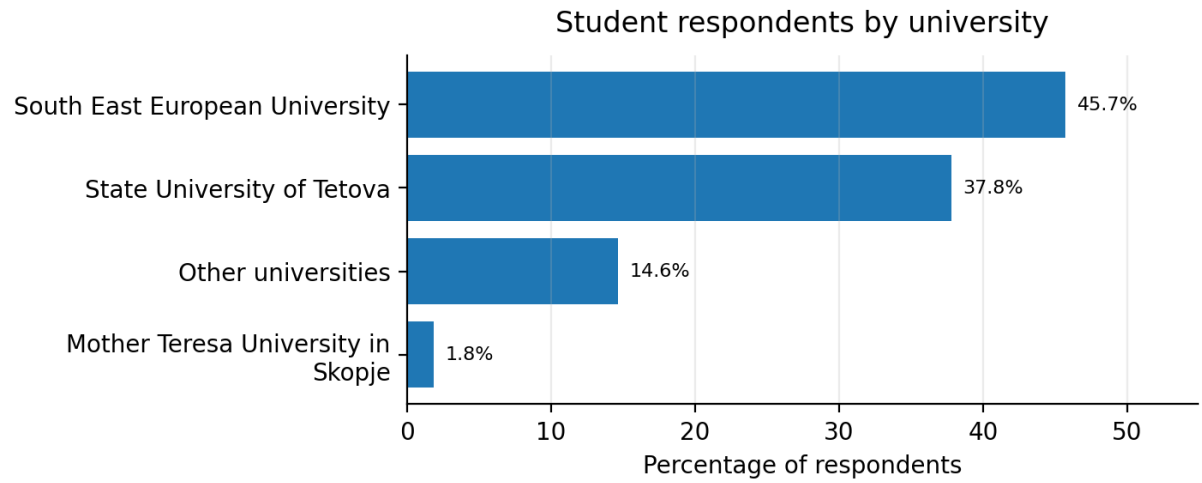


Figure 4.1. Student respondents by university

4.2 Education-labor market alignment

Students generally perceive their study programs as connected to labor market needs, although the level of perceived connection varies. Around two thirds of students gave a positive assessment: 57 respondents (34.8%) stated that their study program is very connected to labor market needs, while 53 respondents (32.3%) considered it mostly connected.

At the same time, 43 respondents (26.2%) stated that their study program is only partially connected, while 11 respondents (6.7%) assessed the connection as weak or non-existent. A similar pattern appears in relation to employment preparation: 121 respondents (73.8%) stated that university education prepares them very well or well for employment, while 27 respondents (16.5%) answered that preparation is only partial and 16 respondents (9.8%) assessed it as weak, insufficient, or mixed.

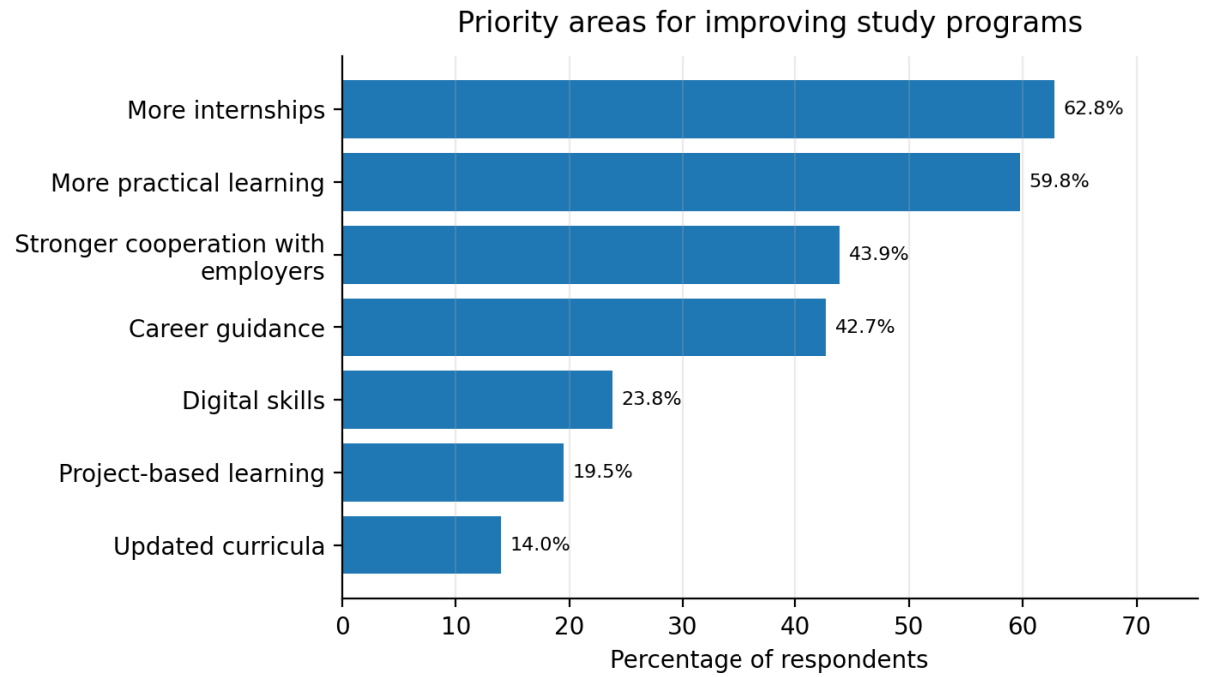
Table 4.2. Education-labor market alignment and employment preparation

Indicator	Main result
Study program very or mostly connected to labor market needs	110 / 164, or 67.1%
Study program partially connected	43 / 164, or 26.2%
Study program weakly or not connected	11 / 164, or 6.7%
Indicator	**Main result**
University education prepares students very well or well for employment	121 / 164, or 73.8%
University education prepares students only partially	27 / 164, or 16.5%
University education prepares students poorly, not at all, or with mixed assessment	16 / 164, or 9.8%

When asked which aspects of education are most useful for future employment, students most often selected practical exercises (98 respondents, or 59.8%), communication and presentation skills (69 respondents, or 42.1%), and theoretical knowledge (62 respondents, or 37.8%). This shows that students

do not reject theoretical knowledge, but associate employability most strongly with practical application and transferable skills.

The same logic appears in the areas students believe universities should improve most. More internships, more practical learning, stronger cooperation with employers, and career guidance were the four strongest priorities.



Multiple-choice question; percentages do not add up to 100%.

Figure 4.2. Priority areas for improving study programs

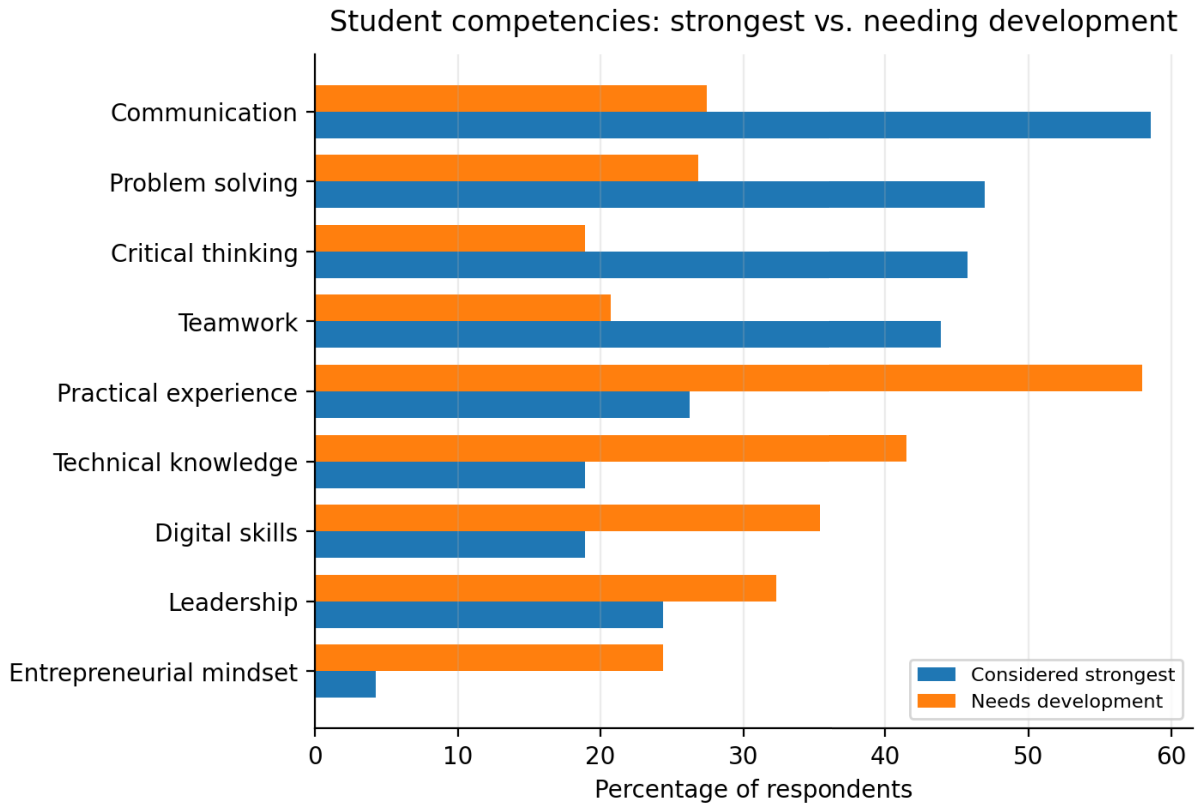
4.3 Skills and competencies

The results show a clear distinction between the skills students feel they already possess and the skills they believe they still need to develop. Students most frequently identified communication as one of their strongest competencies, followed by problem solving, critical thinking, teamwork, adaptability, responsibility and work ethic, and foreign languages.

However, when asked which competencies they still need to develop, students most frequently selected practical experience, technical knowledge, digital skills, and leadership. This contrast is one of the key findings of the student questionnaire: students feel relatively confident about several transferable skills, but recognize a lack of practical, technical, and digital preparation.

Table 4.3. Student self-assessment of competencies

Competency	Considered strongest	Needs further development
Communication	96 / 58.5%	45 / 27.4%
Problem solving	77 / 47.0%	44 / 26.8%
Critical thinking	75 / 45.7%	31 / 18.9%
Teamwork	72 / 43.9%	34 / 20.7%
Adaptability	65 / 39.6%	30 / 18.3%
Responsibility / work ethic	59 / 36.0%	22 / 13.4%
Foreign languages	55 / 33.5%	39 / 23.8%
Practical experience	43 / 26.2%	95 / 57.9%
Technical knowledge	31 / 18.9%	68 / 41.5%
Digital skills	31 / 18.9%	58 / 35.4%
Leadership	40 / 24.4%	53 / 32.3%
Entrepreneurial mindset	7 / 4.3%	40 / 24.4%



Multiple-choice question; selected key competencies.

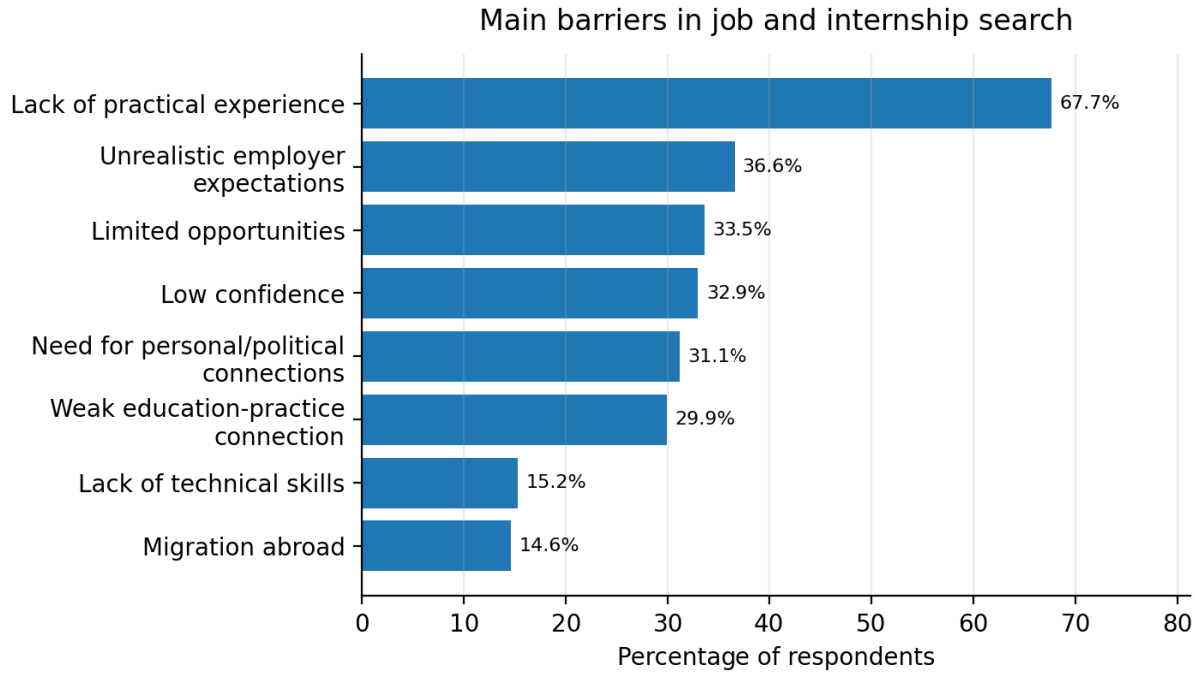
Figure 4.3. Strongest competencies compared with competencies needing development

4.4 Employment status, job search and career expectations

The majority of respondents were not employed at the time of the survey. A total of 104 respondents (63.4%) stated that they were unemployed. At the same time, more than half of respondents had already searched for a job or internship during the previous 12 months: 90 respondents (54.9%) answered that they had searched for such opportunities.

Students mostly relied on online job platforms, personal or family contacts, and social media when searching for jobs or internships. The university Career Center was selected by only 11 respondents, suggesting limited use of institutional career support.

The main challenges students face when searching for employment or internships confirm the central importance of practical experience. Lack of practical experience was selected by 111 respondents (67.7%). Other important barriers included unrealistic employer expectations, limited opportunities, low confidence, the need for personal or political connections, and a weak connection between education and practice.



Multiple-choice question; percentages do not add up to 100%.

Figure 4.4. Main barriers in job and internship search

Students expressed diverse career aspirations. The most preferred sectors after graduation were education (61 respondents, or 37.2%), public administration (52 respondents, or 31.7%), private companies (50 respondents, or 30.5%), and legal or justice professions (49 respondents, or 29.9%). This partly reflects the disciplinary composition of the sample.

Regarding optimism about finding suitable employment in North Macedonia after graduation, the results show a mixed but not entirely negative outlook. A total of 77 respondents (47.0%) were optimistic or very optimistic, 60 respondents (36.6%) were neutral, and 27 respondents (16.5%) were pessimistic or very pessimistic.

4.5 Internships and transition support

Internships are one of the strongest themes across the student questionnaire. A total of 52 respondents (31.7%) had completed a voluntary internship, while 27 respondents (16.5%) had completed a mandatory internship. However, 65 respondents (39.6%) had not participated in an internship, and 20 respondents (12.2%) were currently looking for one.

Among respondents who provided information about internship organization, unpaid internships were much more common than paid internships. Unpaid internships were selected by 69 respondents (42.1% of the total sample), while only 12 respondents (7.3%) reported paid internships. A mentor was assigned in only 23 cases (14.0%).

Despite these limitations, internships were generally assessed positively by students who had experience with them. A total of 87 respondents assessed internships as useful or very useful. When respondents for whom the question was not applicable are excluded, this means that approximately 79.8% of students with relevant internship experience assessed it positively.

Table 4.4. Internship participation, usefulness and barriers

Indicator	Main result
Completed a voluntary internship	52 / 164, or 31.7%
Completed a mandatory internship	27 / 164, or 16.5%
Did not participate in an internship	65 / 164, or 39.6%
Currently looking for an internship	20 / 164, or 12.2%
Indicator	**Main result**
Internship assessed as useful or very useful	87 respondents; approximately 79.8% of relevant responses
Indicator	**Main result**
Limited internship opportunities	95 / 164, or 57.9%
Weak university-employer cooperation	64 / 164, or 39.0%
Lack of information about internships	52 / 164, or 31.7%

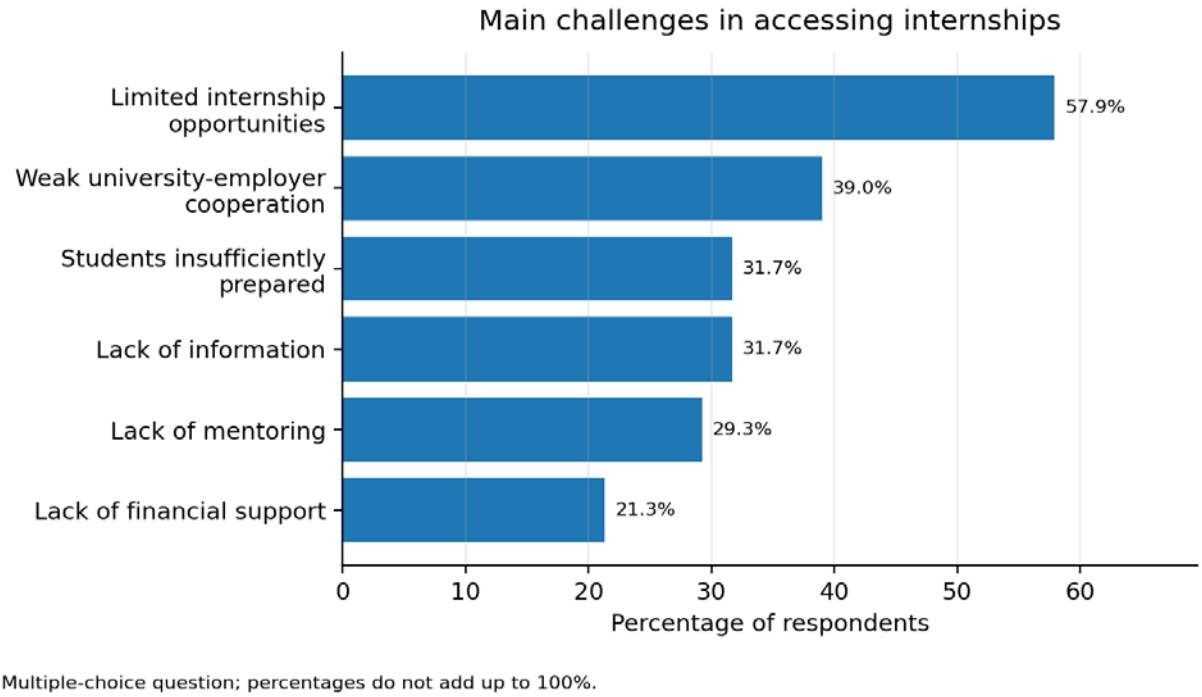
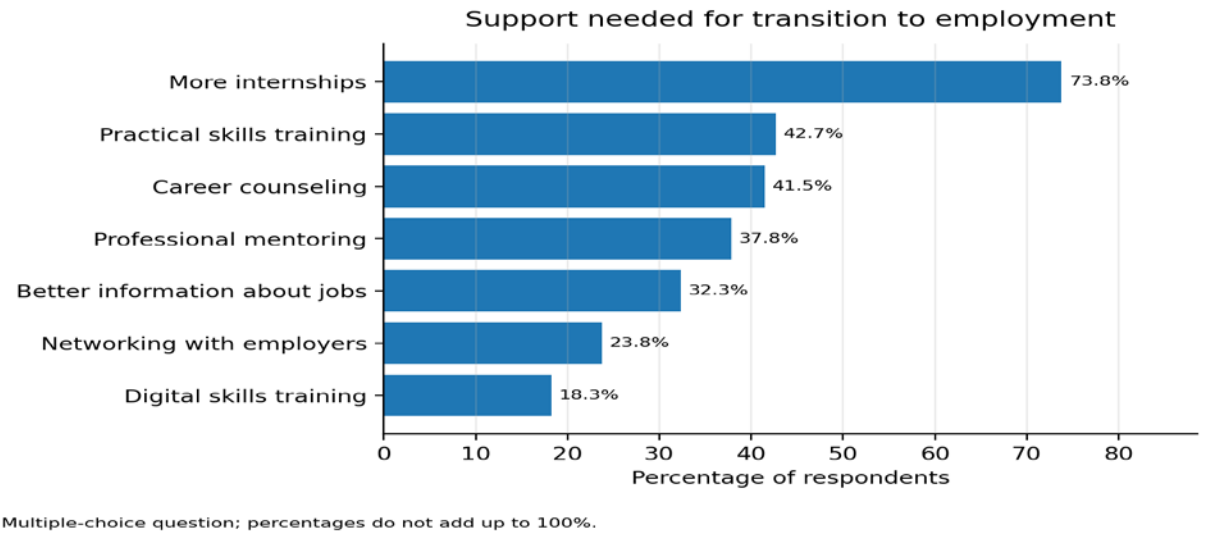


Figure 4.5. Main barriers in accessing internships

When asked what kind of support would most improve the transition from university to employment, students again placed internships first. Other important forms of support included practical skills training, career counseling, professional mentoring, better information about jobs, and networking with employers.



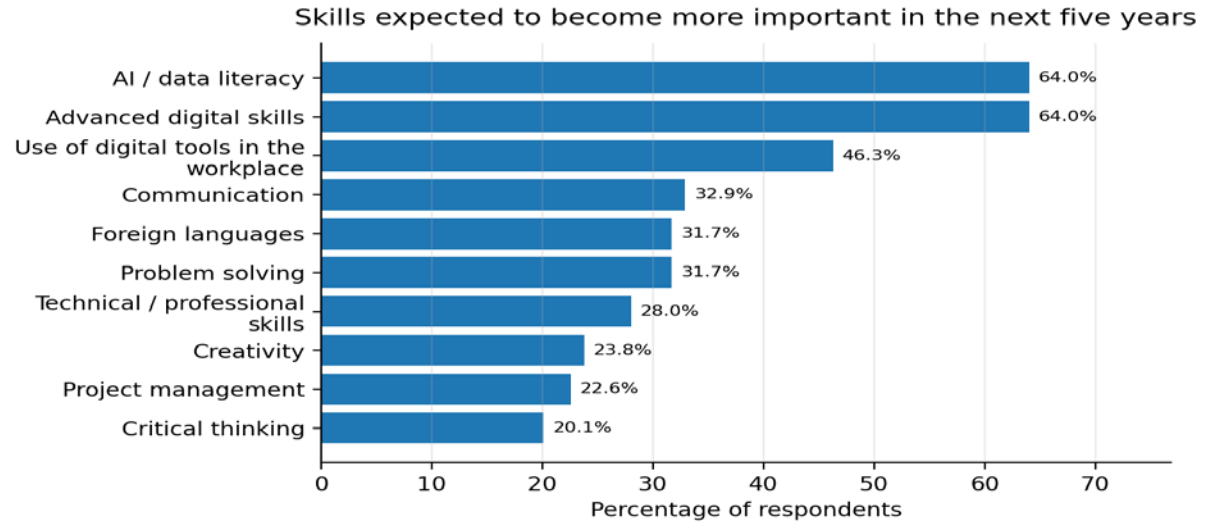
Multiple-choice question; percentages do not add up to 100%.

Figure 4.6. Support needed for transition to employment

4.6 Future labor market trends, AI and remote/hybrid work

Students strongly associate future employment opportunities with IT / Computer Science, Business / Economics, Law, Engineering, and Health Sciences. IT / Computer Science was selected by 109 respondents (66.5%), making it the most frequently identified field expected to offer strong employment opportunities in the next five years.

The importance of digital transformation is even more visible in students' assessment of future skills. Advanced digital skills and AI / data literacy were each selected by 105 respondents (64.0%). The ability to use digital tools in the workplace was selected by 76 respondents (46.3%). These results show that students clearly recognize the growing relevance of AI, digital transformation, and digital workplace tools for future employability.



Multiple-choice question; percentages do not add up to 100%.

Figure 4.7. Future skills and digital transformation

Students were also asked how they perceive remote or hybrid work as part of their future career. A total of 65 respondents (39.6%) stated that they prefer remote or hybrid work, but only for some types of jobs. Another 24 respondents (14.6%) strongly prefer remote or hybrid work. This means that more than half of respondents show openness toward remote or hybrid work arrangements. However, 52 respondents (31.7%) remained neutral, while 14 respondents (8.5%) preferred mainly on-site work.

4.7 Fairness, inclusion and socio-economic barriers

The student responses show a strong perception that access to employment is not fully fair or equal. In response to the statement that young people have fair access to employment, 114 respondents (69.5%) disagreed or strongly disagreed. Only 11 respondents (6.7%) agreed or strongly agreed.

Students were more divided on whether employment depends mainly on skills and competencies. By contrast, there was stronger agreement that practical experience matters more than formal education and very strong agreement that universities should cooperate more closely with employers.

Table 4.5. Agreement with key labor market statements

Statement	Disagree	Neutral	Agree
Young people have fair access to employment	114 / 69.5%	39 / 23.8%	11 / 6.7%
Employment depends mainly on skills and competencies	60 / 36.6%	51 / 31.1%	53 / 32.3%
Practical experience matters more than formal education	18 / 11.0%	53 / 32.3%	93 / 56.7%
Universities should cooperate more closely with employers	10 / 6.1%	23 / 14.0%	131 / 79.9%

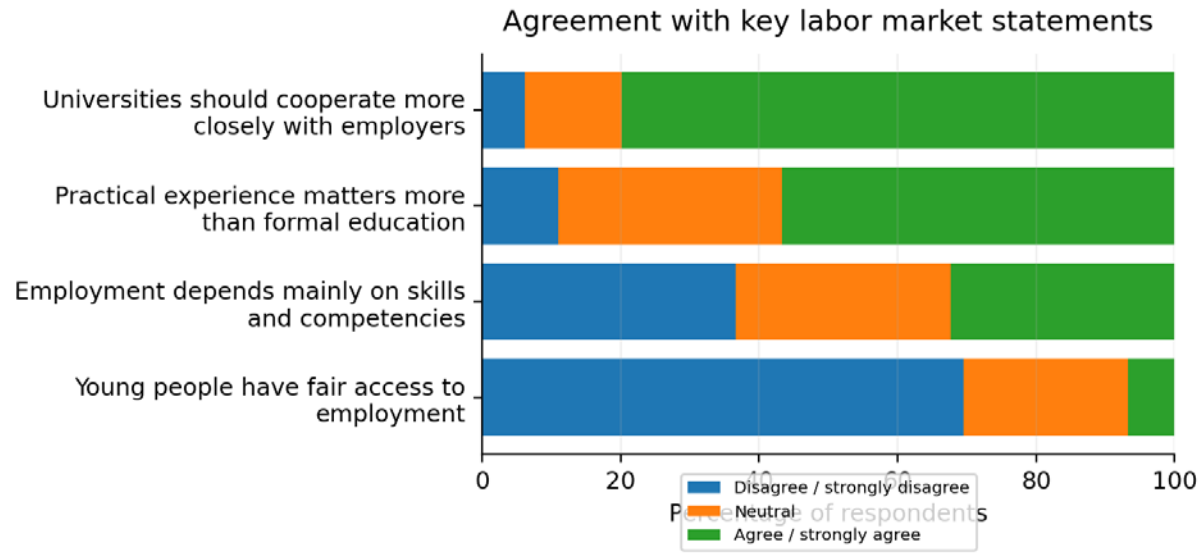
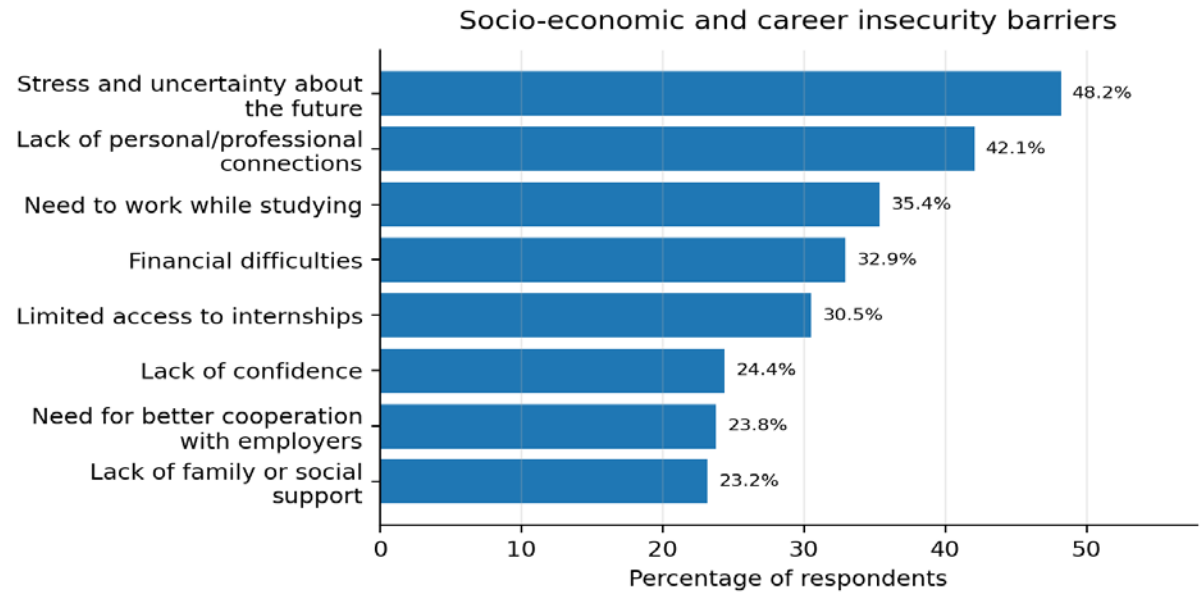


Figure 4.8. Agreement with key labor market statements

The inclusion dimension also shows that students perceive employment access as affected by social position, networks, disability, income, and geography. Students without personal or professional connections were selected as a group facing additional barriers by 84 respondents (51.2%). This was followed by students with disabilities, students from low-income families, students from rural areas, and students with limited access to internships.

The questionnaire also asked students what factors make the transition from university to employment more difficult. The most frequently selected factor was stress and uncertainty about the future, followed by lack of personal or professional connections, the need to work while studying, financial difficulties, and limited access to internships.



Multiple-choice question; percentages do not add up to 100%.

Figure 4.9. Socio-economic and career insecurity barriers

Finally, the results show that university career services are not sufficiently visible or widely used. Only 16 respondents (9.8%) stated that they were familiar with the Career Center or career services and had used them. A total of 73 respondents (44.5%) were familiar with such services but had not used them, while 75 respondents (45.7%) were not familiar with them.

4.8 Final student reflections and key findings

The final open-ended question asked students to identify the most important change needed to improve the transition from university to employment. A total of 157 valid open-ended answers were reviewed thematically. The themes were coded as non-exclusive, meaning that one response could contain more than one theme.

The strongest theme was the need for more internships, practical work and real work experience. This appeared in 90 responses, or 57.3% of valid open-ended responses. Students repeatedly emphasized that university education should include more opportunities to apply knowledge in real professional settings. Many responses pointed to the need for internships that are better organized, more accessible, more closely connected to study programs and more useful for future employment.

The second major theme was improvement of skills, curricula and study programs. This appeared in 44 responses, or 28.0%. Students referred to the need for more practical subjects, updated curricula, digital skills, professional competencies and learning methods that are more closely connected to labor market needs. These responses show that students do not reject the value of university education, but expect it to become more practical, modern and responsive to employment realities.

The third major theme was fairer and more merit-based employment, also appearing in 44 responses, or 28.0%. Students expressed concern that access to employment is often influenced by personal connections, political affiliation or unequal opportunities. This theme is important because it shows that the transition from university to employment is not perceived only as a matter of skills, but also as a matter of fairness, transparency and institutional trust.

Stronger university-employer cooperation appeared in 34 responses, or 21.7%. Students emphasized that universities and employers should communicate more actively, organize more joint activities, create internship and employment pathways, and provide students with clearer information about labor market expectations. Career guidance, mentoring and better information appeared in 12 responses, or 7.6%, but this theme should still be considered important because it also appears strongly in other parts of the student questionnaire.

Table 4.6. Main themes from open-ended student responses

Theme	Number of responses	Share of valid open responses
More internships, practical work and real work experience	90	57.3%
Skills, curricula and study program improvement	44	28.0%
Fairer and more merit-based employment	44	28.0%
Stronger university-employer cooperation	34	21.7%
Career guidance, mentoring and information	12	7.6%

Overall, the student questionnaire reveals that students generally see their study programs as relevant to labor market needs, but they also believe that this relevance must be strengthened through more practical learning, better internships, stronger employer cooperation and more visible career support. Practical experience is the strongest recurring issue across the survey: it appears as a useful educational element, a missing competency, a barrier to employment, an internship challenge and the main form of support requested by students.

The findings also show that students recognize the growing importance of AI, digital skills and digital workplace tools. They are generally open to remote and hybrid work, although mostly depending on the type of job and sector. At the same time, students express significant concern about fairness and inclusion in access to employment, especially in relation to personal connections, socio-economic background, disability, rural residence, stress and career insecurity.

The overall picture is therefore one of cautious optimism combined with a clear demand for a more practical, structured, inclusive and labor market-oriented transition from university to employment.

Source: Student questionnaire, N = 164.

4.9 Analytical implications for the Index

The student findings define the student dimension of the Youth and Labor Market Trends Index. This dimension is not limited to general perceptions of employability; it also captures the quality of students' transition experience, including preparedness, practical exposure, access to internships, career support, digital readiness and perceptions of fairness.

The first student-related sub-dimension is perceived education–labor market alignment. This includes the extent to which students consider their study programs connected to labor market needs, whether they feel prepared for employment and which parts of university education they consider most useful for future work.

The second sub-dimension is skills confidence and perceived skills gaps. The student data show that students identify communication, problem solving, critical thinking and teamwork as important strengths, while practical experience, technical knowledge, digital skills and leadership appear as areas requiring further development. This dimension captures how students assess their own employability and where they identify the greatest need for additional support.

The third sub-dimension is access to practical learning and career support. The findings show that students strongly value internships, practical work, mentoring, career counseling and better information about employment opportunities. For the Index, this means that internships are assessed not only through their existence, but also through their accessibility, usefulness, mentoring quality and connection to real employment pathways.

Finally, the student findings show that fairness, inclusion and career security are essential elements of youth employability. Students' concerns about personal connections, socio-economic barriers, rural background, disability, stress and uncertainty show that the transition from university to employment is shaped not only by skills, but also by trust, opportunity and institutional support. These issues form a core part of the broader youth employment environment captured by the Index.

5. Analysis of employer questionnaire results

This section presents the results of the employer questionnaire. The analysis is based on 34 valid employer responses, of which 25 were collected through the Albanian-language version of the questionnaire and 9 through the Macedonian-language version. Equivalent answer categories from both language versions were harmonized for the purposes of analysis.

The employer questionnaire provides the labor market demand-side perspective of the study. While the sample is smaller than the student sample, it offers important insight into recruitment practices, skills needs, perceived preparedness of young graduates, university-employer cooperation, internship opportunities, and the support measures employers consider necessary for improving youth employment.

Unless otherwise stated, percentages are calculated from the total number of respondents in the relevant group. For multiple-choice questions, respondents could select more than one answer; therefore, percentages show the share of respondents who selected each option and do not necessarily add up to 100%.

5.1 Employer profile

The employer sample includes private companies, civil society organizations, public institutions, and educational institutions. Private companies form the largest group, representing 55.9% of respondents. A significant share also comes from non-governmental and civil society organizations, which represent 32.4% of the sample. This composition suggests that the employer perspective captured in the survey reflects both the private sector and the broader institutional and civic environment in which young people seek employment opportunities.

Most responding organizations are small. A total of 26 respondents, or 76.5%, reported having between 1 and 9 employees. This is important for interpretation, because smaller organizations may have different recruitment capacities, internship structures, and mentoring resources compared to larger employers. Their perspective is nevertheless valuable, because small organizations are often important entry points for young people in local labor markets.

The sectoral composition of respondents is diverse. Business and services and education are the two most represented sectors, followed by civil society and project-based organizations, construction and engineering, industry and manufacturing, information technology, finance, and public administration. This variety gives the survey a useful cross-sectoral perspective, even though the sample remains exploratory rather than representative.

Table 5.1. Profile of employer respondents

Indicator	Number	Percentage
Private company	19	55.9%
NGO / civil society organization	11	32.4%
Public institution	2	5.9%
Educational institution	2	5.9%

Indicator	Number	Percentage
1-9 employees	26	76.5%
10-49 employees	3	8.8%
50-249 employees	4	11.8%
250+ employees	1	2.9%

5.2 Recruitment of young people and main recruitment challenges

Most responding employers reported that they had employed young people aged 18-29 during the previous 12 months. A total of 26 respondents, or 76.5%, clearly answered that they had employed young people, while 6 respondents, or 17.6%, answered that they had not. One response was uncertain and one was mixed or ambiguous.

The number of young people employed by responding organizations was generally low. A total of 26 respondents reported employing 1-2 young people, while only one respondent reported employing more than 10. This finding is consistent with the structure of the sample, which is dominated by small organizations. It also suggests that youth employment often happens through small-scale recruitment rather than large hiring cycles.

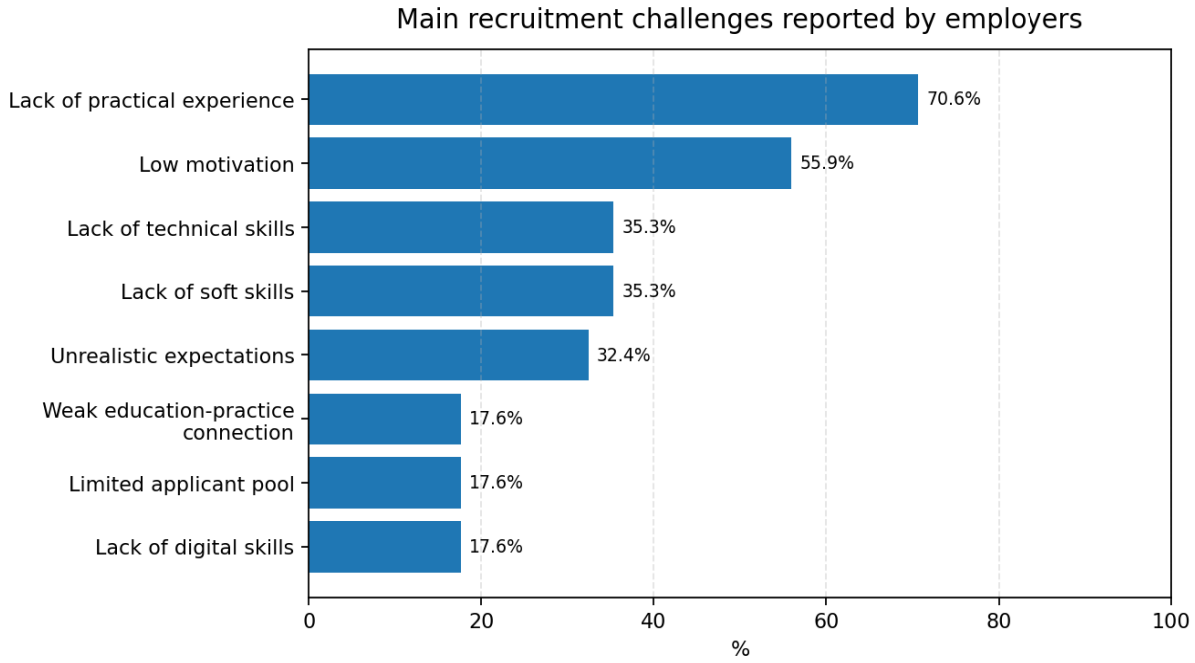
Employers reported significant difficulty in finding suitable young candidates. No employer selected 'easy' or 'very easy.' A total of 11 respondents, or 32.4%, stated that finding suitable young candidates is very difficult, while 10 respondents, or 29.4%, considered it difficult. The remaining 13 respondents, or 38.2%, assessed the process as moderately difficult.

Table 5.2. Recruitment of young people and recruitment difficulty

Indicator	Main result
Clearly employed young people aged 18-29 in the last 12 months	26 / 34, or 76.5%
Did not employ young people aged 18-29 in the last 12 months	6 / 34, or 17.6%
Indicator	**Main result**
Employed 1-2 young people	26 / 34, or 76.5%
Indicator	**Main result**
Assessed recruitment as difficult or very difficult	21 / 34, or 61.8%
Assessed recruitment as moderately difficult	13 / 34, or 38.2%

The most common areas in which employers hire young people are administration, sales and customer service, internship or trainee roles, IT/digital positions, and technical or engineering roles. These areas combine both general entry-level functions and more specialized positions, which suggests that employers need young people both for administrative support and for sector-specific tasks.

The main recruitment challenges identified by employers confirm the importance of practical experience and work readiness. The most frequently selected challenge was lack of practical experience, selected by 24 employers, or 70.6%. This was followed by low motivation, lack of technical skills, lack of soft skills, and unrealistic expectations. These findings show that employers do not see recruitment difficulties only as a lack of candidates, but also as a problem of preparedness, motivation, and workplace readiness.



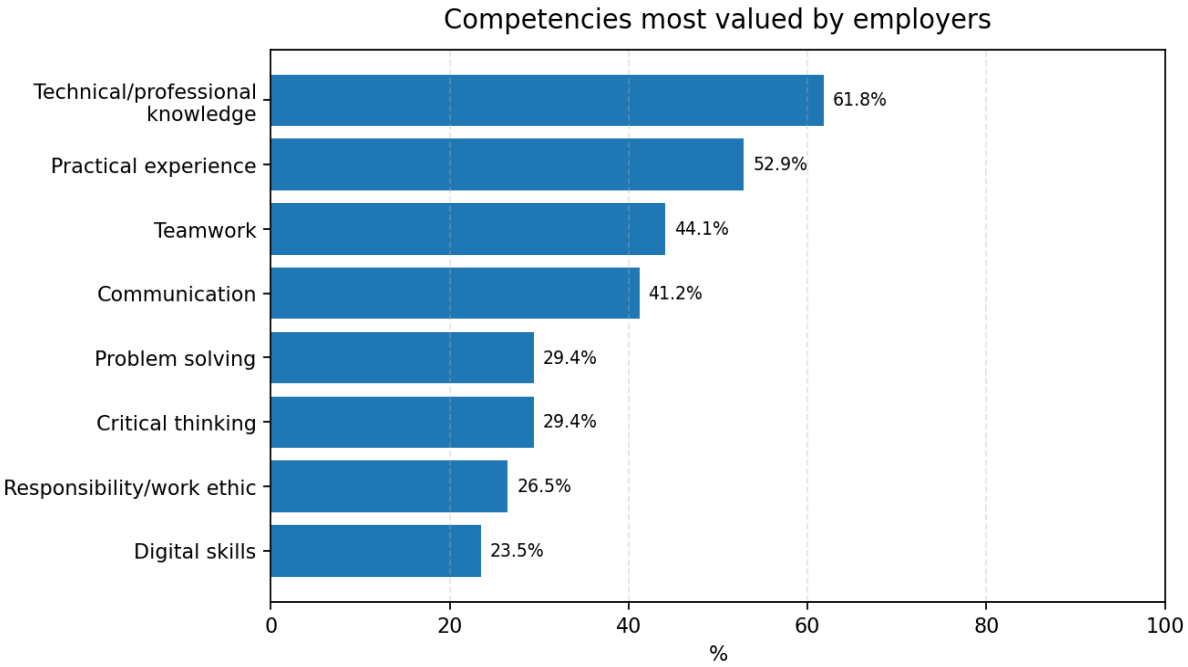
Multiple-choice question; percentages do not add up to 100%

Figure 5.1. Main recruitment challenges

5.3 Skills needs and preparedness of young graduates

Employers were asked which competencies are most important when hiring young employees. The most frequently selected competency was technical or professional knowledge, selected by 21 respondents, or 61.8%. Practical experience followed closely, selected by 18 respondents, or 52.9%. Teamwork and communication were also among the most important competencies, followed by problem solving, critical thinking, responsibility and work ethic, adaptability, and digital skills.

This result is important because it shows that employers are not looking only for formal qualifications. They expect a combination of professional knowledge, practical exposure, communication, teamwork, responsibility, and problem solving. In this respect, employer expectations are broad and combine technical, practical, and transferable competencies.



Multiple-choice question; percentages do not add up to 100%

Figure 5.2. Competencies most valued by employers

Employers' assessment of young graduates' preparedness is more cautious than students' self-assessment. Only 8 employers, or 23.5%, assessed young graduates as very well or well prepared. The largest group, 18 respondents or 52.9%, assessed young graduates as only partially prepared. Another 8 respondents, or 23.5%, assessed them as poorly prepared.

A similar pattern appears in relation to the alignment of university education with labor market needs. Only 7 respondents, or 20.6%, considered university education very or mostly aligned with labor market needs. Almost half of respondents assessed it as partially aligned, while nearly one third assessed it as weakly aligned or not aligned. This is one of the most important findings of the employer survey: from the demand-side perspective, the education-labor market link remains insufficiently strong.

Table 5.3. Employer assessment of graduate preparedness and education-labor market alignment

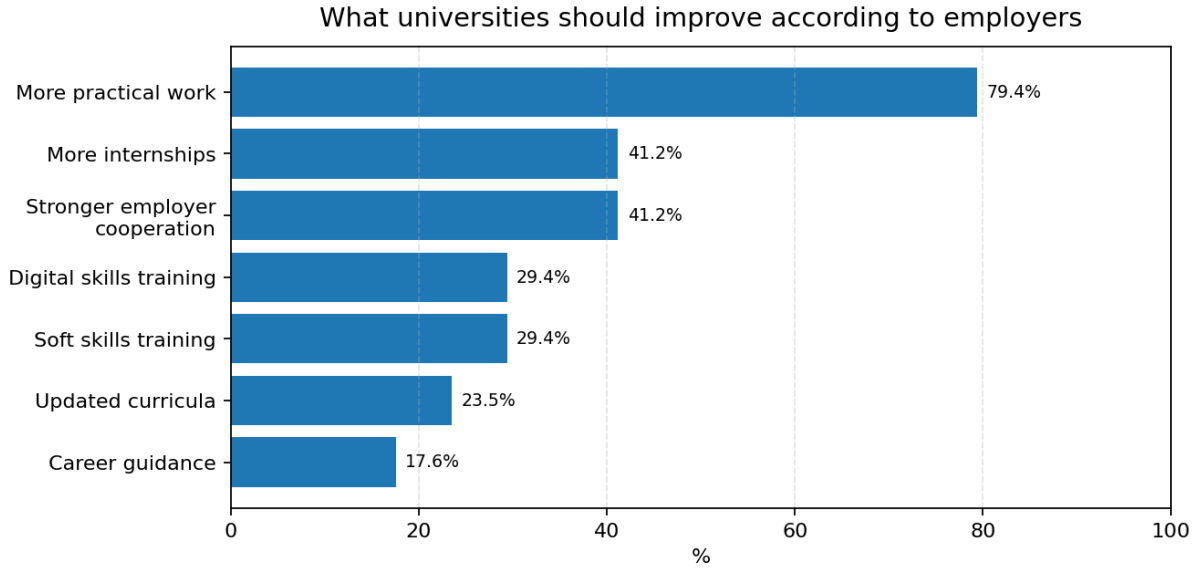
Indicator	Number	Percentage
Young graduates very well or well prepared	8	23.5%
Young graduates partially prepared	18	52.9%
Young graduates poorly prepared	8	23.5%
Indicator	**Number**	**Percentage**
University education very or mostly aligned with labor market needs	7	20.6%
University education partially aligned	16	47.1%
University education weakly or not aligned	11	32.4%

5.4 What universities should improve

Employers were asked what universities should improve in order to better prepare students for employment. The strongest response was more practical work, selected by 27 respondents, or 79.4%. This was the most dominant result in this part of the survey and confirms the central importance of practical learning.

More internships and stronger employer cooperation were each selected by 14 respondents, or 41.2%. Digital skills training and soft skills training were each selected by 10 respondents, or 29.4%. Updated curricula were selected by 8 respondents, or 23.5%. These results show that employers expect universities to preserve academic knowledge while strengthening work-based and skills-oriented elements.

This finding strongly corresponds with the student responses. Both students and employers identify practical work and internships as the most important missing elements in the transition from university to employment. Employers, however, place even stronger emphasis on work readiness and the need for students to develop practical habits, workplace discipline, and skills that can be applied immediately.



Multiple-choice question; percentages do not add up to 100%

Figure 5.3. What universities should improve according to employers

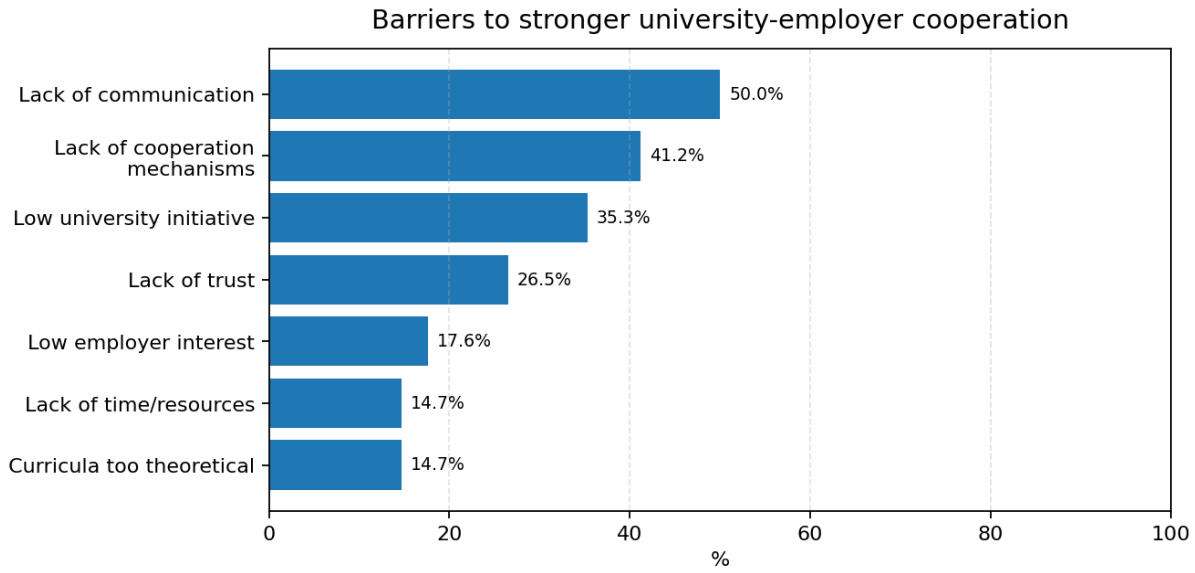
5.5 University-employer cooperation

The survey shows that many employers already have some form of cooperation with universities, but this cooperation appears uneven and insufficiently structured. A total of 12 respondents, or 35.3%, stated that they cooperate with universities regularly, while 13 respondents, or 38.2%, cooperate occasionally. This means that 73.5% of employers have at least some cooperation with universities.

However, 6 respondents, or 17.6%, do not cooperate with universities, while 3 respondents, or 8.8%, stated that they are interested but have not yet started cooperation. This indicates that there is room to expand and formalize cooperation mechanisms.

The main barriers to stronger cooperation were lack of communication, lack of cooperation mechanisms, low university initiative, lack of trust, low employer interest, lack of time or resources, theoretical curricula, and administrative barriers. These barriers indicate that cooperation cannot depend only on personal contacts or occasional activities; it needs clearer institutional channels and stable mechanisms.

The most common forms of cooperation currently reported were internship programs and career fairs, followed by joint projects, mentorship programs, guest lectures, student visits, and recruitment cooperation. At the same time, some employers reported no current form of cooperation. A more structured model would require regular communication, internship agreements, employer participation in curriculum review, and stronger involvement of Career Centers.



Multiple-choice question; percentages do not add up to 100%

Figure 5.4. Barriers to stronger university-employer cooperation

5.6 Internships and transition mechanisms

Employers generally offer internships, but mostly on an occasional basis. A total of 11 respondents, or 32.4%, stated that they offer internships regularly, while 19 respondents, or 55.9%, offer them occasionally. This means that 88.2% of responding employers offer internships at least occasionally.

However, the structure of internships remains uneven. Paid internships were selected by 13 respondents, while mixed compensation was selected by 12 respondents. Unpaid internships were selected by 6 respondents. A mentor was assigned in only 8 responses, or 23.5% of the total sample, suggesting that mentoring is not yet sufficiently institutionalized.

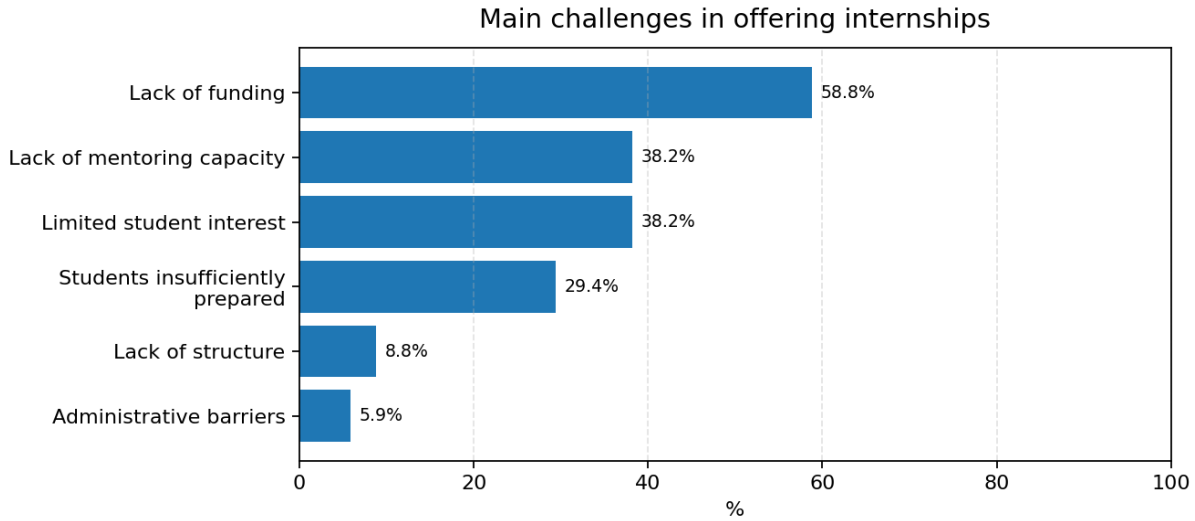
Internships lead to employment at least often or very often according to 18 respondents, or 52.9%. Another 8 respondents said internships sometimes lead to employment, while 8 said they rarely lead to employment. This indicates that internships can function as a bridge to employment, but their impact depends heavily on structure, mentoring, duration, and employer capacity.

Table 5.4. Internship provision and internship outcomes

Indicator	Main result
Employers offering internships regularly	11 / 34, or 32.4%
Employers offering internships occasionally	19 / 34, or 55.9%
Employers offering internships regularly or occasionally	30 / 34, or 88.2%
Paid internships selected	13 / 34, or 38.2%
Mixed compensation selected	12 / 34, or 35.3%
Mentor assigned	8 / 34, or 23.5%
Internships lead to employment often or very often	18 / 34, or 52.9%

The main challenge in offering internships was lack of funding, selected by 20 respondents, or 58.8%. Lack of mentoring capacity and limited student interest were each selected by 13 respondents, or 38.2%. Students being insufficiently prepared was selected by 10 respondents, or 29.4%. These results show that employers may be willing to offer internships, but they need support to make them meaningful and sustainable.

Employers also identified the main benefits of internships. The most frequently selected benefit was identifying future employees, selected by 21 respondents, or 61.8%. Supporting youth development was selected by 20 respondents, or 58.8%. These findings are important because they show that internships are not only useful for students, but also valuable for employers as recruitment and talent-development mechanisms.



Multiple-choice question; percentages do not add up to 100%

Figure 5.5. Main challenges in offering internships

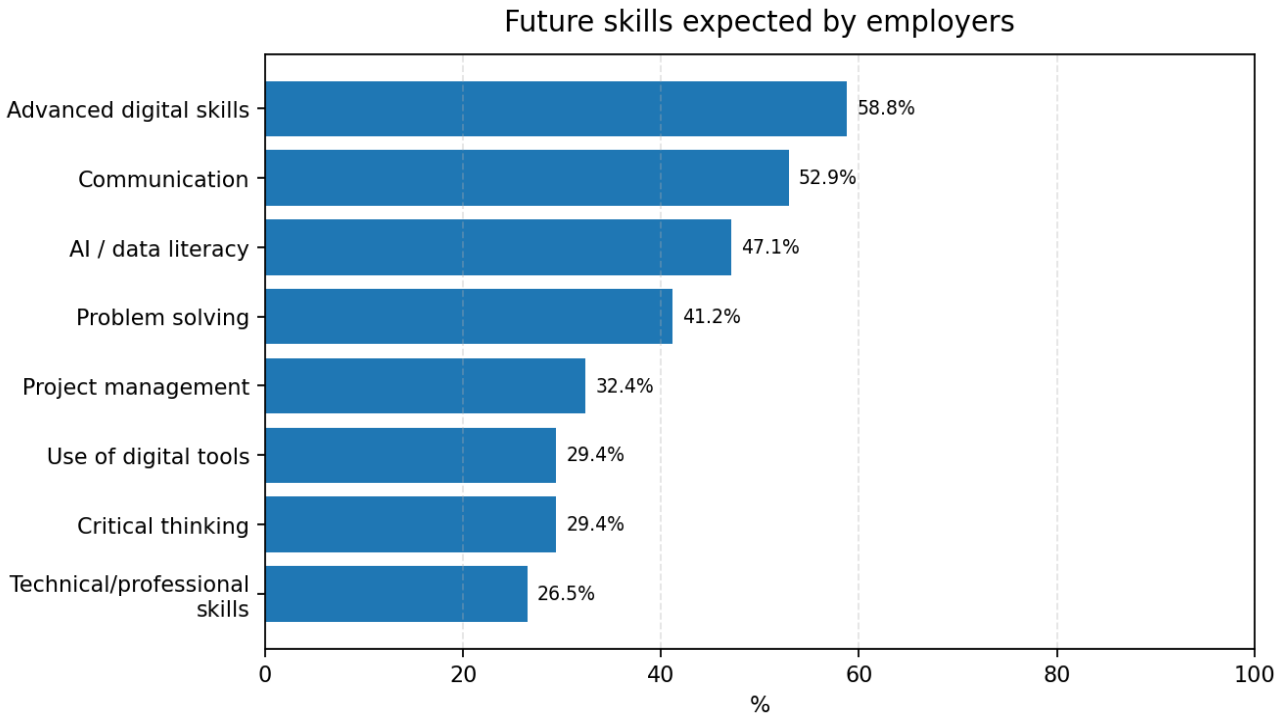
5.7 Future labor market trends, digital transformation and policy support

Half of the employers surveyed expect to hire young employees in the next 12 months. A total of 17 respondents, or 50.0%, answered 'yes,' while 14 respondents, or 41.2%, answered 'maybe.' Only 3 respondents, or 8.8%, answered 'no.' This suggests that there is potential demand for young workers, but some employers remain cautious.

The employer questionnaire also confirms the growing importance of digital transformation. The most frequently selected future skill was advanced digital skills, selected by 20 respondents, or 58.8%. Communication was selected by 18 respondents, while AI and data literacy was selected by 16 respondents. Problem solving, project management, digital workplace tools, critical thinking, technical skills, and adaptability were also identified.

The employer data provide strong evidence on the importance of digital and AI-related skills. However, the employer dataset available for analysis does not contain a separate and consistently analyzable variable on work model preferences. Therefore, this section analyzes employer expectations regarding future skills and hiring areas, while remote and hybrid work are discussed more cautiously in the comparative section.

Employers were also asked what support would help them hire and retain more young people. Wage subsidies were selected by 24 respondents, or 70.6%, making this the strongest policy support measure. Mentorship support, internship support, tax incentives, digital/AI training support, and training vouchers were also selected. These results suggest that employers see youth employment not only as a matter of willingness to hire, but also as a matter of financial capacity, structured mentoring, and institutional support.



Multiple-choice question; percentages do not add up to 100%

Figure 5.6. Skills expected to become more important in the next five years

Table 5.5. Support measures that would help employers hire and retain young people

Indicator	Number	Percentage
Wage subsidies	24	70.6%
Mentorship support	16	47.1%
Internship support	15	44.1%
Tax incentives	11	32.4%
Digital / AI training support	10	29.4%
Training vouchers	9	26.5%
Better cooperation with universities	5	14.7%
Simplified procedures	3	8.8%

5.8 Fairness, practical experience and university-employer cooperation

The employer responses to the Likert-scale statements show a mixed perception of fairness in access to employment. Regarding the statement that young people have fair access to employment, responses were almost evenly distributed: 11 respondents disagreed, 12 were neutral, and 11 agreed. This suggests that employers do not share a single clear view on whether access to employment is fair.

Employers were more positive about the role of skills and competencies. A total of 17 respondents, or 50.0%, agreed or strongly agreed that employment depends mainly on skills and competencies. However, 10 respondents remained neutral and 7 disagreed, which suggests that other factors may also influence hiring outcomes.

The strongest agreement appeared in relation to practical experience and university-employer cooperation. A total of 21 respondents, or 61.8%, agreed or strongly agreed that practical experience matters more than formal education. Even more strongly, 24 respondents, or 70.6%, agreed or strongly agreed that universities should cooperate more closely with employers.

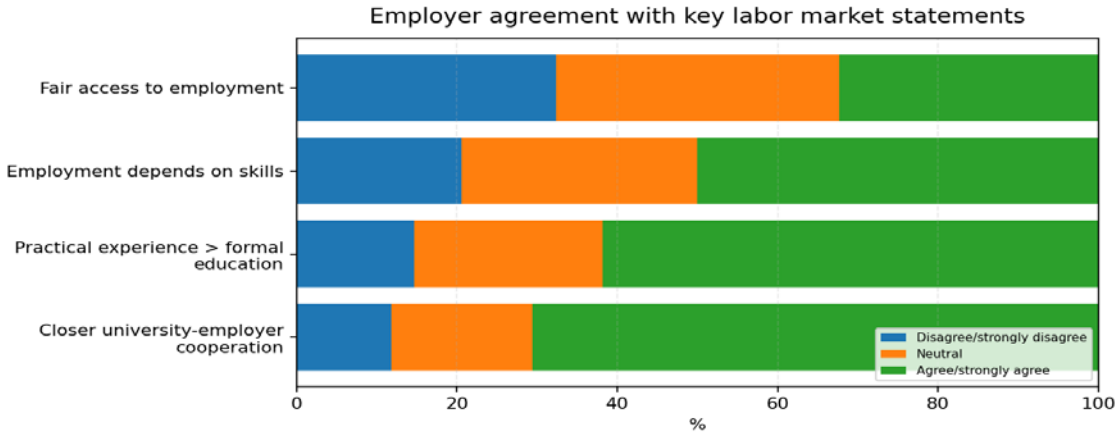


Figure 5.7. Employer agreement with key labor market statements

5.9 Final employer reflections and key findings

The final open-ended question asked employers to identify the most important change needed to improve the transition from university to employment. A total of 32 valid open-ended responses were reviewed thematically. The themes were coded as non-exclusive, meaning that one response could contain more than one theme.

The strongest theme was the need for more internships, practical work, and real work experience. This appeared in 23 responses, or 71.9% of valid open-ended responses. Employers repeatedly emphasized that practical work should not be symbolic or formal, but should function as real workplace exposure. Several responses pointed to the need for internships that are integrated into curricula, organized during studies, and linked to real learning outcomes.

The second major theme was stronger cooperation between universities, employers, civil society organizations, and public institutions. This appeared in 13 responses, or 40.6%. Employers referred to the need for more structured communication, stronger links with the private sector, and cooperation that would lead to real opportunities for students, including projects, mentoring, and employment pathways.

The third theme was better alignment of curricula with labor market needs, appearing in 8 responses, or 25.0%. Employers emphasized that study programs should reflect the real needs of the market and should be updated to include practical, digital, and professional competencies. Skills development also appeared as an important theme, including digital, AI-related, technical, and soft skills.

Table 5.6. Main themes from open-ended employer responses

Theme	Number	Percentage
More internships, practical work and real work experience	23	71.9%
Stronger university-employer / CSO cooperation	13	40.6%
Better alignment of curricula with labor market needs	8	25.0%
Skills development, including digital, AI, technical and soft skills	7	21.9%
Career guidance, mentoring and smoother integration	4	12.5%
Funding, subsidies or institutional support	3	9.4%
Motivation and mindset of young people	2	6.2%

Overall, the employer questionnaire reveals that employers need graduates who are more practically prepared, more motivated, and better equipped with technical, digital, and transferable skills. The employer perspective strongly confirms the need for a more structured transition system between higher education and employment, built around practical learning, employer cooperation, skills development, mentoring, and targeted institutional support.

5.10 Analytical implications for the Index

The employer findings define the demand-side dimension of the Youth and Labor Market Trends Index. This dimension is not limited to whether employers hire young people; it also captures the quality of recruitment conditions, the difficulty of finding suitable candidates and the extent to which employers perceive graduates as ready for work.

The first employer-related sub-dimension is recruitment capacity and demand for young workers. This includes whether employers hired young people in the previous year, the number of young employees hired, the areas in which young people are employed and employers' expectations for hiring young people in the next 12 months. These indicators show the extent to which employers are able and willing to absorb young workers into the labour market.

The second sub-dimension is skills demand and perceived skills gaps. The employer data show that technical knowledge, practical experience, teamwork, communication, problem solving and digital skills are central to employability. This dimension captures how employer expectations change over time and where the most important gaps between graduate preparation and workplace requirements are located.

The third sub-dimension is internship capacity and internship quality. The findings show that many employers offer internships, but mentoring, funding, structure and transition to employment remain uneven. For the Index, the quality of internships is therefore as important as their availability. This dimension captures whether internships function as meaningful learning and employment pathways, rather than only as formal or temporary placements.

Finally, the employer findings show that institutional support is an essential part of the youth employment ecosystem. Wage subsidies, mentorship support, internship support, tax incentives and digital/AI training support are relevant not only as policy measures, but also as indicators of the conditions under which employers are able to hire, train and retain young people. In this way, the employer dimension of the Index connects labour market demand with practical preparation, institutional support and the broader capacity of the economy to create quality employment opportunities for young graduates.

6. Analysis of university professor questionnaire results

This section presents the results of the university professor questionnaire. The analysis is based on 53 valid responses, of which 52 were collected through the Albanian-language version of the questionnaire and 1 through the Macedonian-language version. Equivalent answer categories from both language versions were harmonized for the purposes of analysis.

The professor questionnaire provides the academic and institutional perspective of the study. It is particularly important because professors are directly involved in curriculum implementation, teaching, student preparation, practical learning, and, in many cases, cooperation with employers. Their responses therefore help assess how higher education institutions perceive their own role in preparing young people for employment.

Unless otherwise stated, percentages are calculated from the total number of respondents in the relevant group. For multiple-choice questions, respondents could select more than one answer; therefore, percentages show the share of respondents who selected each option and do not necessarily add up to 100%.

6.1 Academic profile of respondents

The professor sample is concentrated mainly at the State University of Tetova, which accounts for 49 respondents, or 92.5% of the sample. South East European University accounts for 3 responses, while Mother Teresa University in Skopje accounts for 1 response. This composition should be kept in mind when interpreting the results, because the professor's perspective is strongly shaped by the institutional context of the State University of Tetova.

The sample includes different academic positions and levels of experience. Assistant professors represent the largest group, followed by full professors, associate professors, teaching assistants, lecturers, and a small number of respondents who selected other categories. In terms of experience, most respondents have substantial teaching experience: 41.5% reported 11-20 years of experience, while 22.6% reported more than 20 years.

Table 6.1. Profile of professor respondents

Indicator	Number	Percentage
State University of Tetova	49	92.5%
South East European University	3	5.7%
Mother Teresa University in Skopje	1	1.9%

Indicator	Number	Percentage
Assistant professor	15	28.3%
Full professor	11	20.8%
Associate professor	11	20.8%
Teaching assistant	10	18.9%
Lecturer	3	5.7%
Other / student	3	5.7%

Indicator	Number	Percentage
Less than 5 years	10	18.9%
5-10 years	9	17.0%
11-20 years	22	41.5%
More than 20 years	12	22.6%

In terms of academic fields, the largest group of respondents comes from Languages, Culture and Communication, followed by Humanities, Law, Medical Sciences, Natural Sciences, and several smaller fields. This disciplinary composition means that the professor responses provide useful insight into several academic areas, but should not be interpreted as equally representing all faculties or all fields of study.

Table 6.2. Main academic fields represented

Indicator	Number	Percentage
Languages, Culture and Communication	18	34.0%
Humanities	9	17.0%
Law	8	15.1%
Medical Sciences / Medicine	5	9.4%
Natural Sciences / Mathematics	4	7.5%
Business / Economics	2	3.8%
Other fields	7	13.2%

6.2 Education-labor market alignment and student preparedness

Professor responses show a moderately positive but cautious assessment of the alignment between university study programs and labor market needs. A total of 25 respondents, or 47.2%, assessed study programs as very or mostly aligned with labor market needs. Another 21 respondents, or 39.6%, assessed them as only partially aligned. Seven respondents, or 13.2%, assessed them as weakly aligned or not aligned.

This suggests that professors generally recognize a certain degree of relevance in existing study programs, but they also identify a significant need for improvement. The high share of 'partially aligned' responses is important because it indicates that the link between university education and the labor market is present, but not sufficiently strong or systematic.

A similar pattern appears in the assessment of how well university education prepares students for employment. A total of 38 respondents, or 71.7%, stated that university education prepares students very well or well. However, when asked specifically about the preparedness of young graduates for the labor market, professors were more cautious: only 35.8% assessed young graduates as very well or well prepared, while the majority assessed them as partially prepared.

Table 6.3. Professor assessment of alignment and student preparedness

Indicator	Main result
Study programs very or mostly aligned with labor market needs	25 / 53, or 47.2%
Study programs partially aligned	21 / 53, or 39.6%
Study programs weakly or not aligned	7 / 53, or 13.2%
University education prepares students very well or well for employment	38 / 53, or 71.7%
University education prepares students only partially	12 / 53, or 22.6%
Young graduates very well or well prepared for the labor market	19 / 53, or 35.8%
Young graduates partially prepared for the labor market	30 / 53, or 56.6%

Professors were also asked which aspects of university education contribute most to students' employability. Practical exercises were the most frequently selected option, followed by digital skills, communication and presentation skills, research and analytical skills, foreign languages, theoretical knowledge, critical thinking, internships, problem solving, and teamwork. This confirms that professors also connect employability with the practical and transferable dimensions of education.

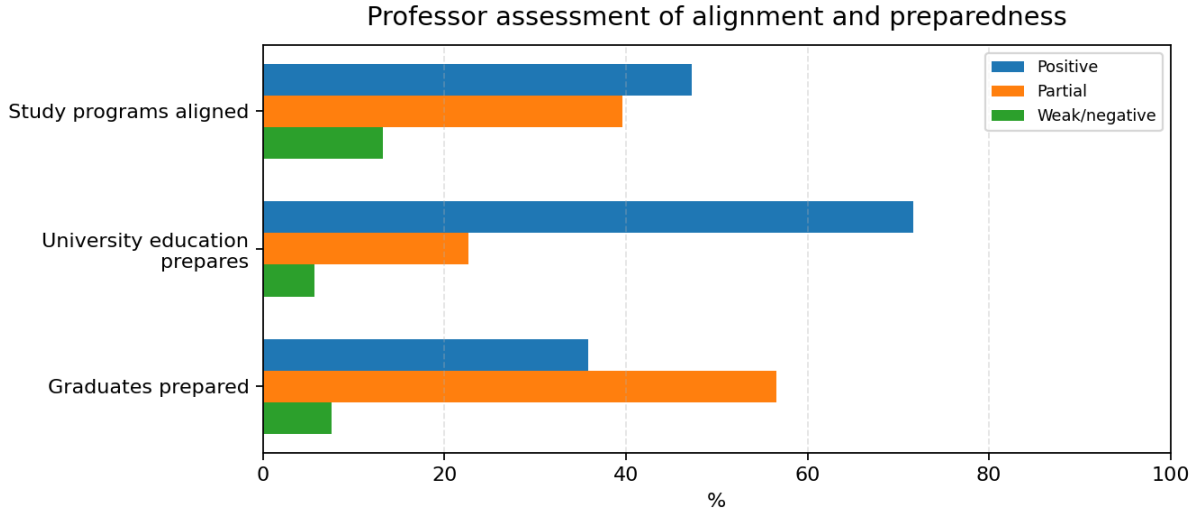


Figure 6.1. Professor assessment of alignment and preparedness

6.3 Student skills and competencies

Professors were asked to identify the competencies they consider strongest among students. The most frequently selected competency was foreign languages, followed by digital skills, practical experience, creativity and innovation, and critical thinking. This suggests that professors perceive students as having certain strengths, especially in communication across languages and in some digital capacities.

However, when professors were asked which competencies need the most improvement, the leading answer was again practical experience, selected by 56.6%. Creativity and innovation, critical thinking, responsibility and work ethic, teamwork, leadership, communication, technical knowledge, entrepreneurial mindset, digital skills, and problem solving were also identified as areas needing development.

This comparison shows that professors do not view the skills gap only as a technical issue. They also emphasize professional responsibility, critical thinking, creativity, leadership, and practical maturity. These are competencies that are difficult to develop through theoretical teaching alone and require active, practice-based, and project-based learning.

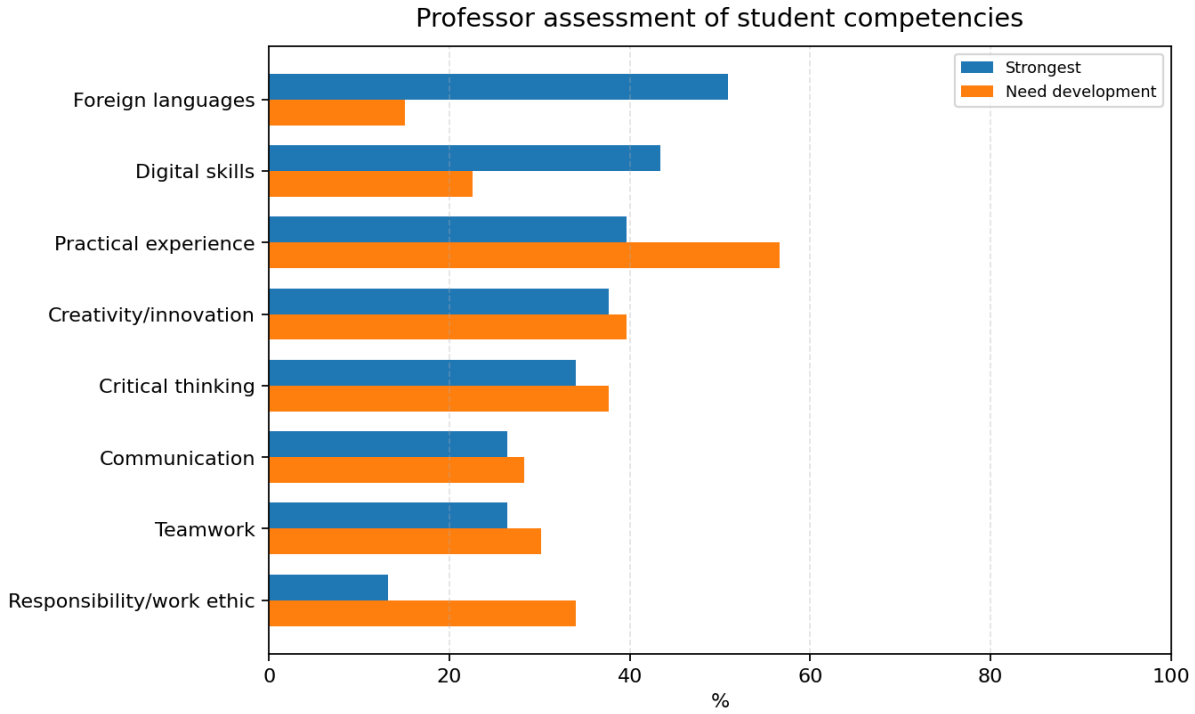


Figure 6.2. Professor assessment of student competencies

6.4 Curriculum relevance and university-employer cooperation

Professors were asked how often curricula in their field are updated to reflect changes in the labor market or professional environment. A total of 13 respondents, or 24.5%, stated that curricula are updated regularly. Most respondents, 28 or 52.8%, stated that curricula are updated occasionally. Another 12 respondents, or 22.6%, stated that curricula are rarely updated or never updated.

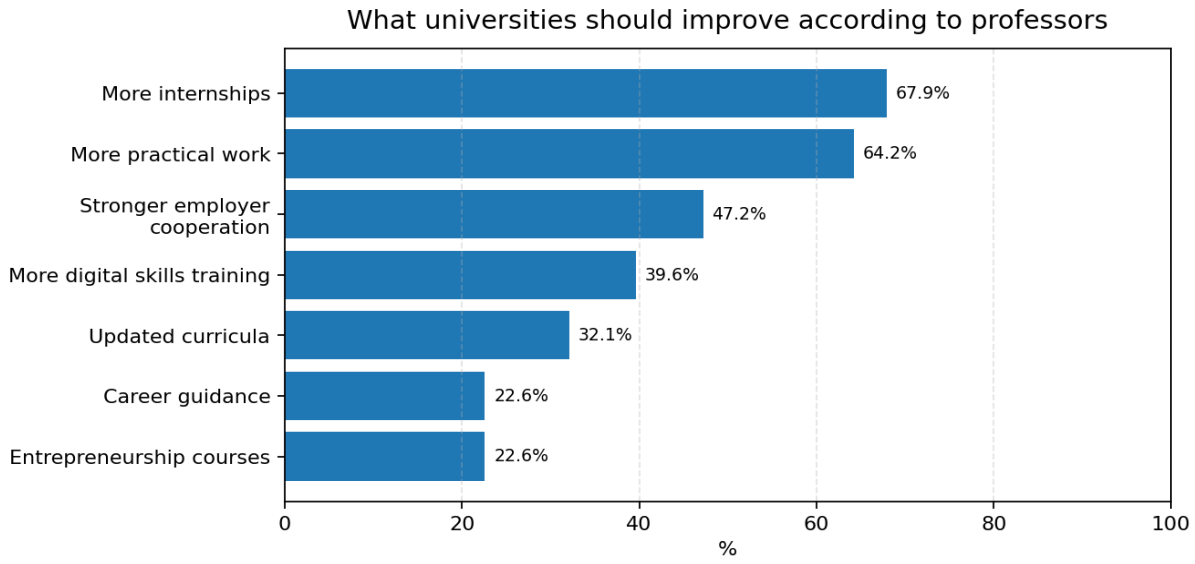
Employer consultation during curriculum revision appears less systematic. A total of 15 respondents, or 28.3%, stated that employers or professional bodies are consulted often or very often. Another 18 respondents, or 34.0%, stated that they are consulted sometimes. However, 19 respondents, or 35.8%, stated that employers are consulted rarely or never.

These results suggest that curriculum change exists, but it is not always strongly connected to systematic employer consultation. This is a key institutional issue, because curricula cannot fully respond to labor market needs if feedback from employers, professional bodies, and sectoral actors is not integrated in a structured way.

Table 6.4. Curriculum updates and employer consultation

Indicator	Main result
Curricula updated regularly	13 / 53, or 24.5%
Curricula updated occasionally	28 / 53, or 52.8%
Curricula updated rarely or never	12 / 53, or 22.6%
Employers consulted often or very often	15 / 53, or 28.3%
Employers consulted sometimes	18 / 53, or 34.0%
Employers consulted rarely or never	19 / 53, or 35.8%

Professors were also asked what universities should improve in order to strengthen labor market relevance. The strongest answers were more internships, more practical work, stronger employer cooperation, more digital skills training, updated curricula, career guidance, entrepreneurship courses, and project-based learning. This confirms the need for both curricular and pedagogical reform.



Multiple-choice question; percentages do not add up to 100%

Figure 6.3. What universities should improve according to professors

6.5 Internships and practical learning

The professor questionnaire confirms the importance of internships and practical learning. A total of 28 respondents, or 52.8%, stated that internships are mandatory in their field, while 17 respondents, or 32.1%, stated that they are optional. Six respondents, or 11.3%, stated that internships are not part of the study programs in their field.

Professors overwhelmingly consider internships useful for improving student employability. A total of 36 respondents, or 67.9%, assessed internships as very useful, while 12 respondents, or 22.6%, assessed them as useful. This means that 90.6% of professor respondents assessed internships positively.

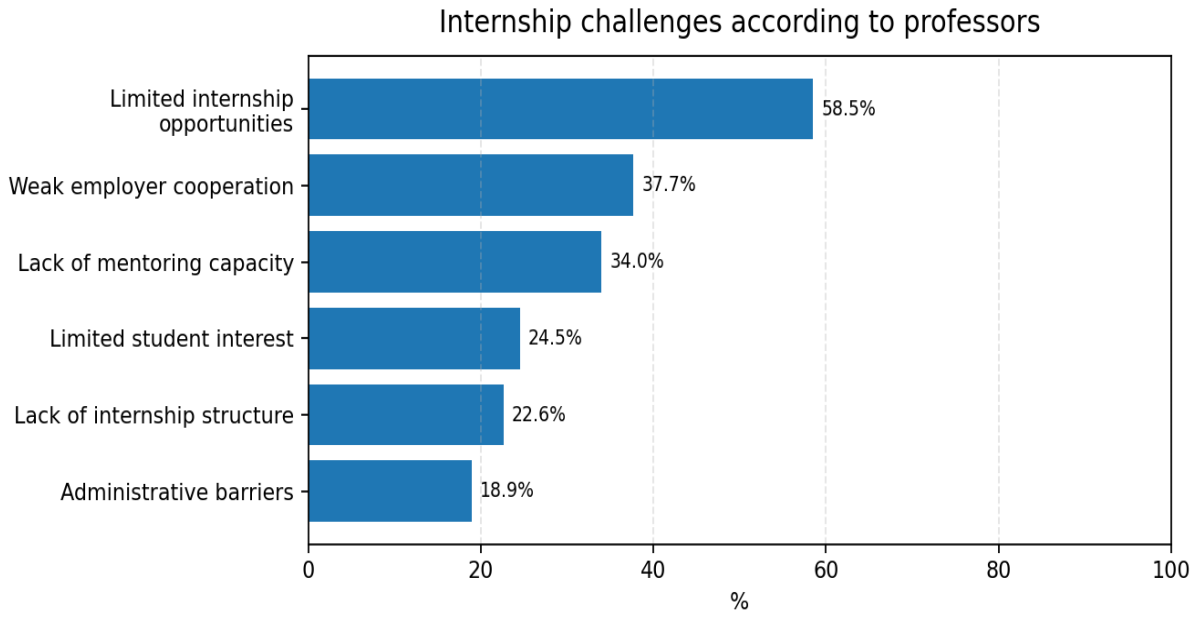
Table 6.5. Internships and practical learning

Indicator	Main result
Internships are mandatory	28 / 53, or 52.8%
Internships are optional	17 / 53, or 32.1%
Internships are not part of the study program	6 / 53, or 11.3%
Internships assessed as very useful	36 / 53, or 67.9%
Internships assessed as useful	12 / 53, or 22.6%
Internships assessed as useful or very useful	48 / 53, or 90.6%

Despite this positive assessment, the organization of internships appears to remain uneven. The most frequently selected internship characteristic was unpaid internship, selected by 52.8%. A mentor was assigned according to 35.8% of respondents. Paid internships and mixed compensation were reported far less frequently.

The main challenges related to internships were limited internship opportunities, weak cooperation with employers, lack of mentoring capacity, limited student interest, lack of internship structure, administrative barriers, students being insufficiently prepared, and internships not related to the field of study.

Professors also identified the main benefits of internships. The most frequently selected benefit was connecting theory with practice, followed by improving employability and increasing student motivation. This confirms that professors do not view internships only as an employment instrument, but also as an educational method that helps students understand the practical relevance of what they learn.



Multiple-choice question; percentages do not add up to 100%

Figure 6.4. Main internship challenges according to professors

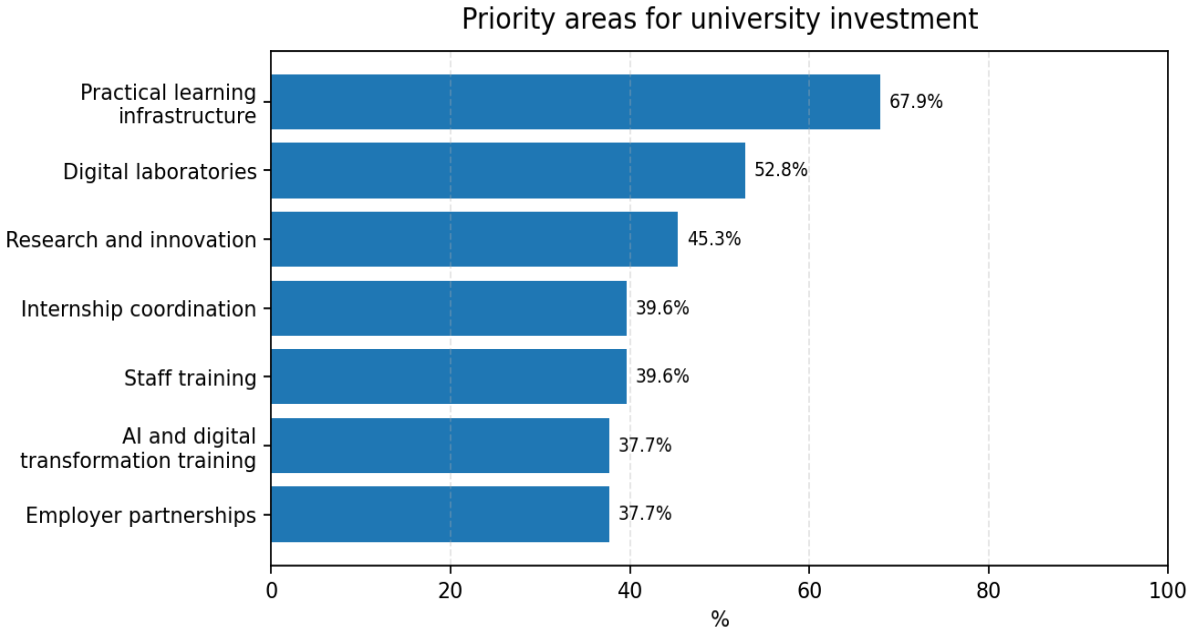
6.6 Future labor market trends, AI and institutional investment

Professors were asked which sectors they believe will offer the best employment opportunities for young people in the next five years. The results show a strong emphasis on IT and the digital economy, selected by 84.9% of respondents. Healthcare was selected by 60.4%, while engineering and technical sectors, business and finance, education, research and innovation, manufacturing, the green economy, and international organizations were also identified.

The future skills question also points to digital transformation. AI and data literacy was selected by 45.3%, making it the most frequently selected future skill among professors. Advanced digital skills and the use of digital tools in the workplace were also identified, although less frequently than in the student and employer questionnaires.

Professors were also asked where universities should prioritize investment to improve employability. The leading answer was practical learning infrastructure, selected by 67.9%. Digital laboratories, research and innovation, internship coordination, staff training, AI and digital transformation training, employer partnerships, career services, student wellbeing and career confidence support, alumni networks, and preparation for remote/hybrid work were also selected.

This finding is very useful for the recommendations section. It shows that professors see employability improvement not only as a curriculum issue, but also as an investment issue. Universities need practical learning spaces, digital laboratories, stronger internship coordination, staff training, AI-related training, and employer partnerships if they are to respond more effectively to labor market changes.



Multiple-choice question; percentages do not add up to 100%

Figure 6.5. Priority areas for university investment

6.7 Fairness, institutional support and transition barriers

The professor responses to the Likert-scale statements show a critical perception of fairness and merit-based employment. In relation to the statement that young people have fair access to employment, 66.0% disagreed or strongly disagreed. Only 3.8% agreed. This is very similar to the student perspective and confirms that concerns about fairness are not limited to students.

Professors were also skeptical of the statement that employment depends mainly on skills and competencies. A total of 62.3% disagreed or strongly disagreed, while only 5.7% agreed. This suggests that many professors believe that labor market access is affected by factors beyond skills and qualifications, including informal networks, institutional weaknesses, or non-merit-based practices.

At the same time, professors showed stronger agreement that practical experience matters more than formal education and very strong agreement that universities should cooperate more closely with employers. These findings reinforce the importance of practical learning and institutional cooperation.

Professors were also asked what kind of support would most improve youth employability and the transition from university to work. The strongest response was more public funding for internship programs, selected by 79.2%. Incentives for employers to hire young graduates and better cooperation with employment agencies were also strongly supported.

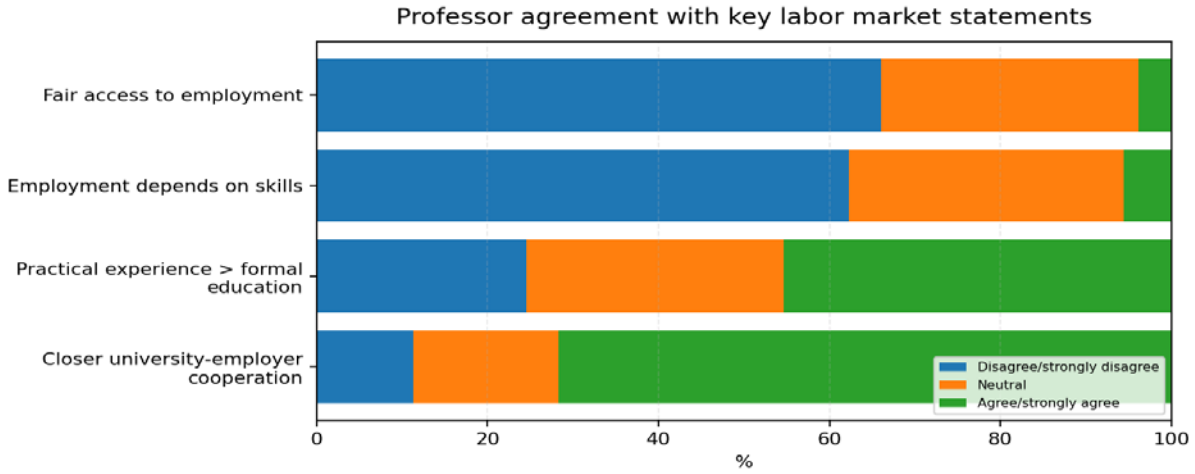


Figure 6.6. Professor agreement with key labor market statements

Table 6.6. Support measures identified by professors

Indicator	Number	Percentage
More public funding for internships	42	79.2%
Incentives for employers to hire young graduates	28	52.8%
Better cooperation with employment agencies	27	50.9%
Support for university Career Centers	13	24.5%
Better labor market information systems	12	22.6%
Career counseling services	11	20.8%
Training vouchers for young people	9	17.0%
Support for students facing financial/social barriers	7	13.2%
Mental wellbeing and career insecurity support	7	13.2%

6.8 Final professor reflections and key findings

The final open-ended question asked professors to identify the most important change needed to improve the transition from university to employment. A total of 51 substantive open-ended responses were reviewed thematically. The themes were coded as non-exclusive, meaning that one response could contain more than one theme.

The strongest theme was the need for more practical work, internships, and real workplace experience. This appeared in 29 responses. Professors repeatedly emphasized that students need structured practical learning, professional practice, real projects, and opportunities to connect theoretical knowledge with workplace realities.

The second major theme was stronger cooperation between universities, employers, public institutions, and the private sector. This appeared in 24 responses. Professors described cooperation as necessary for creating internship opportunities, improving employment pathways, connecting students with real employers, and helping universities understand labor market needs more clearly.

The third theme was curriculum and study program alignment with labor market needs, appearing in 15 responses. Professors referred to the need for continuous curriculum updates, better adaptation to local and international labor market trends, stronger professional profiling, and more relevant study programs. Another important theme was career guidance, mentoring, training, and student support.

A smaller but important group of responses referred to fairness, meritocracy, and the reduction of nepotism, political influence, or non-merit-based practices. These responses should be interpreted as perceptions expressed by respondents, not as verified factual findings. However, they are relevant because they correspond to the quantitative finding that many professors do not believe young people have fair access to employment.

Table 6.7. Main themes from open-ended professor responses

Theme	Number	Percentage
More practical work, internships and real workplace experience	29	56.9%
Stronger university-employer / institutional cooperation	24	47.1%
Curriculum and study program alignment with labor market needs	15	29.4%
Career guidance, mentoring, training and student support	15	29.4%
Fairer, more merit-based employment and reduced nepotism/politicization	8	15.7%
Digital, innovation and international trend orientation	5	9.8%

Overall, the professor questionnaire shows that the transition from university to employment requires not only better student preparation, but also institutional reform, stronger partnerships, more practical learning infrastructure, and a more merit-based and inclusive labor market environment.

6.9 Analytical implications for the Index

The professors' findings define the academic and institutional dimension of the Youth and Labor Market Trends Index. They show that the role of universities is captured not only through the existence of study programs, but through the extent to which those programs are updated, practice-oriented, connected to employers and supported by adequate institutional infrastructure.

The first academic sub-dimension is curriculum responsiveness. This dimension includes the frequency of curriculum updates, the extent of employer consultation and the perceived alignment between study programs and labor market needs. These indicators are important because curriculum relevance cannot be assumed; it must be periodically assessed in relation to changing labor market expectations.

The second sub-dimension is practical learning infrastructure and internship coordination. Professor responses show that internships are considered highly useful, but their implementation depends on available placements, mentoring capacity, institutional coordination and cooperation with employers. This dimension therefore captures both the presence of practical learning opportunities and the conditions that determine their quality.

The third sub-dimension is the future-readiness of universities. This includes investment in digital laboratories, AI and digital transformation training, staff development, research and innovation, and preparation for new forms of work. These indicators are important because employability is changing rapidly and cannot be addressed only through traditional curricula.

Finally, the professor findings show that fairness, meritocracy and student support are part of the broader employability framework. While universities cannot fully control labor market practices, they can strengthen career services, mentoring, information systems and support for students facing financial, social or psychological barriers. In this way, the professor dimension of the Index connects academic reform with institutional responsibility and the broader conditions that shape students' transition from higher education to employment.

7. Comparative analysis of student, employer and professor responses

This section compares the findings from the three questionnaires: students, employers, and university professors. The purpose of the comparative analysis is to identify areas of convergence and divergence between the supply side of the labor market, represented by students; the demand side, represented by employers; and the academic and institutional side, represented by university professors.

The comparative analysis is based on 251 valid responses: 164 students, 34 employers, and 53 university professors. While the size of the three samples differs, the questionnaires were designed with several harmonized questions and thematic areas, which makes it possible to compare perceptions on education-labor market alignment, graduate preparedness, skills gaps, internships, university-employer cooperation, future labor market trends, fairness, and transition barriers.

7.1 Education-labor market alignment and graduate preparedness

One of the clearest findings of the comparative analysis is that students evaluate the connection between university education and the labor market more positively than employers and professors. Among students, 67.1% stated that their study program is very or mostly connected to labor market needs. Among professors, 47.2% assessed study programs as very or mostly aligned with labor market needs. Employers were the most critical: only 20.6% assessed university education as very or mostly aligned with labor market needs.

A similar difference appears in the assessment of preparedness for employment. Among students, 73.8% stated that university education prepares them very well or well for employment. However, only 23.5% of employers assessed young graduates as very well or well prepared. Professors were also cautious: 35.8% assessed young graduates as very well or well prepared, while the majority considered them only partially prepared.

This difference is analytically important. It suggests that students may perceive their education as useful and relevant, but employers and professors are more aware of the gap between academic preparation and actual workplace expectations. The strongest mismatch is therefore not necessarily in students' general appreciation of their education, but in the translation of that education into practical workplace readiness.

Table 7.1. Comparative assessment of education-labor market alignment and graduate preparedness

Indicator	Students	Employers	Professors
Education/study programs very or mostly aligned with labor market needs	67.1%	20.6%	47.2%
Young graduates/students assessed as very well or well prepared for employment	73.8%	23.5%	35.8%
Young graduates/students assessed as partially prepared	16.5%	52.9%	56.6%

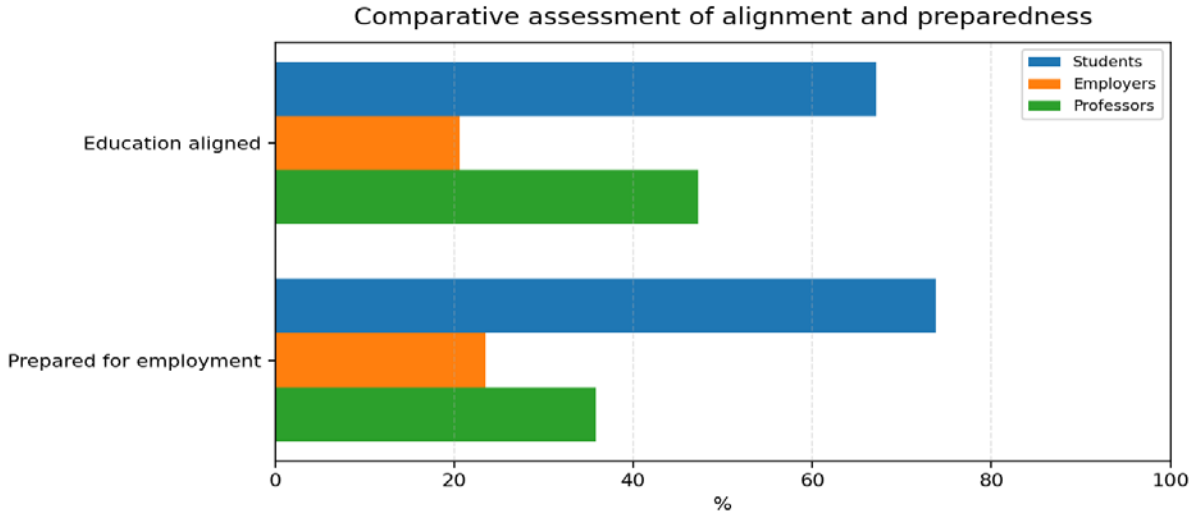


Figure 7.1. Comparative assessment of alignment and preparedness

7.2 Practical experience as the central skills gap

Across all three questionnaires, practical experience appears as the most consistent and strongest finding. Students identify lack of practical experience as the main barrier when searching for employment or internships. Employers identify lack of practical experience as the main recruitment challenge. Professors identify practical experience as the competency students most need to develop further.

This convergence is highly significant. It shows that practical experience is not only a student concern, not only an employer complaint, and not only an academic observation. It is a shared diagnosis across all three groups. This finding should therefore be treated as one of the core conclusions of the study and one of the central indicators of the Youth and Labor Market Trends Index.

Table 7.2. Practical experience as a shared concern

Group	Indicator	Percentage
Students	Lack of practical experience as a barrier in job/internship search	67.7%
Employers	Lack of practical experience as a recruitment challenge	70.6%
Professors	Practical experience as a competency needing further development	56.6%

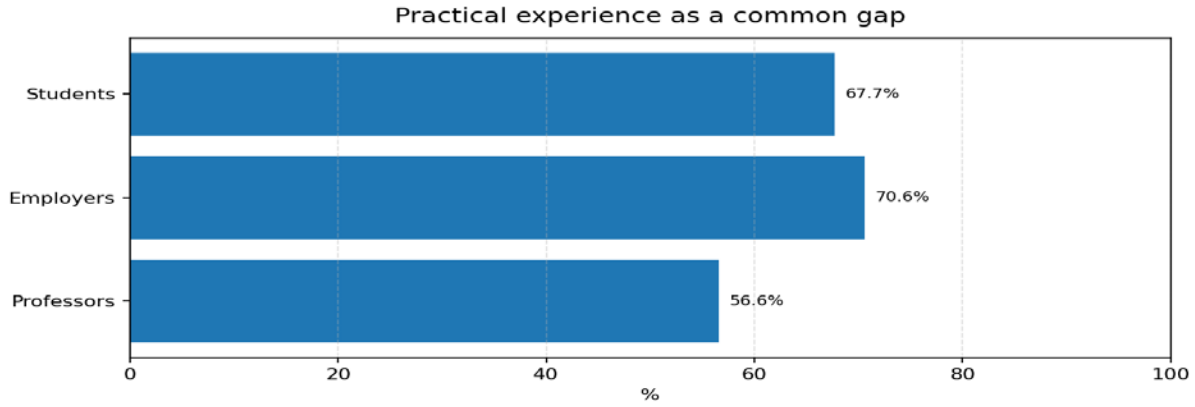


Figure 7.2. Practical experience as a common gap

7.3 Skills and competencies: similarities and differences

The three respondent groups agree that employability requires a combination of technical, practical, digital, and transferable skills. However, they emphasize these skills differently.

Students tend to assess themselves more strongly in relation to communication, problem solving, critical thinking, teamwork, and adaptability. Employers place the strongest emphasis on technical and professional knowledge, practical experience, teamwork, communication, problem solving, and critical thinking. Professors identify foreign languages, digital skills, practical experience, creativity, and critical thinking as important student strengths, while also emphasizing that students need further development in practical experience, creativity, critical thinking, responsibility, teamwork, leadership, and communication.

The comparison shows that students feel confident about transferable skills, while employers still expect stronger technical knowledge and practical readiness. Professors occupy an intermediate position: they recognize some student strengths, but also identify deeper developmental needs related to professional maturity and the application of knowledge.

This comparison points to an important policy message: employability should not be reduced to one category of skills. A modern transition system should combine professional knowledge, practical experience, digital competence, communication, teamwork, problem solving, and critical thinking.

7.4 What universities should improve

All three groups agree that universities should strengthen the practical and labor market-oriented dimension of study programs. Students, employers, and professors all identified practical learning, internships, and stronger cooperation with employers as priority areas.

Students most frequently selected more internships, more practical learning, stronger cooperation with employers, and career guidance. Employers emphasized more practical work above all, followed by internships, employer cooperation, digital skills, soft skills, and updated curricula. Professors strongly emphasized more internships, practical work, employer cooperation, digital skills training, and curriculum updates.

The shared message is clear: universities are expected to remain academically strong, but they must also become more practical, more responsive, and more connected to real working environments. The comparative results also show that students place stronger emphasis on career guidance than employers and professors, indicating that students need direct support in navigating the labor market.

Table 7.3. Priority areas for improving university education

Area for improvement	Students	Employers	Professors
More internships	62.8%	41.2%	67.9%
More practical work / practical learning	59.8%	79.4%	64.2%
Stronger cooperation with employers	43.9%	41.2%	47.2%
Digital skills training	23.8%	29.4%	39.6%
Updated curricula	14.0%	23.5%	32.1%
Career guidance	42.7%	17.6%	22.6%

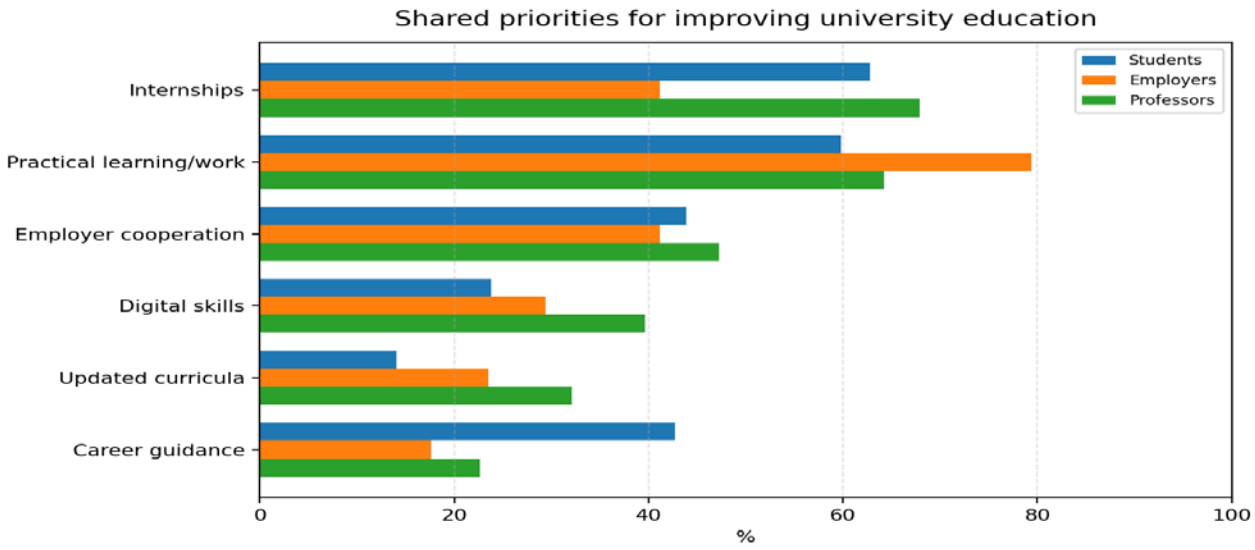


Figure 7.3. Shared priorities for improving university education

7.5 Internships as the main transition mechanism

Internships are one of the strongest common themes across all three surveys. Students see internships as essential for gaining experience and improving employability. Employers see internships as a way to identify future employees and support youth development. Professors see internships as a way to connect theory with practice and improve student readiness for employment.

Among students, 48.2% had completed either a voluntary or mandatory internship, while 39.6% had not participated in an internship. Among employers, 88.2% stated that they offer internships either regularly or occasionally. Among professors, 84.9% stated that internships are mandatory or optional in their fields, and 90.6% assessed internships as useful or very useful for student employability.

At first sight, these results appear positive: many employers offer internships, and professors report that internships exist in many study programs. However, the student data show that a large share of students still do not access internships. This suggests that the problem is not only whether internships exist, but whether they are accessible, structured, mentored, relevant to the field of study, and connected to real employment pathways.

The main internship barriers also overlap across the three groups. Students and professors both identify limited internship opportunities and weak university-employer cooperation as major problems. Employers emphasize lack of funding and lack of mentoring capacity. All three groups point, directly or indirectly, to the need for better structured internship systems.

7.6 University-employer cooperation

University-employer cooperation is another point of strong convergence. Students, employers, and professors all agree that stronger cooperation is necessary. In the Likert-scale statements, 79.9% of students, 70.6% of employers, and 71.7% of professors agreed or strongly agreed that universities should cooperate more closely with employers.

This is one of the strongest shared findings of the entire study. It shows that the need for cooperation is recognized by all three sides. However, the surveys also show that cooperation remains uneven and insufficiently institutionalized.

Among employers, 73.5% reported regular or occasional cooperation with universities. Among professors, 81.1% reported regular or occasional cooperation between their faculty or program and employers. These figures suggest that cooperation does exist. However, both employers and professors identified barriers, including lack of communication, lack of cooperation mechanisms, low university initiative, low employer interest, limited resources, administrative barriers, and lack of trust.

The comparison suggests that the problem is not only the absence of cooperation, but the quality and structure of cooperation. Occasional cooperation through career fairs, guest lectures, or individual internship arrangements is useful, but it is not enough. The findings point to the need for more systematic institutional partnerships, including curriculum consultation, structured internships, joint projects, mentoring, student visits, recruitment cooperation, and labor market feedback mechanisms.

7.7 Future labor market trends, AI and digital transformation

All three groups recognize the importance of digital transformation, although with different intensity. Students and employers strongly emphasize AI, data literacy, advanced digital skills, and the use of digital tools in the workplace. Professors also identify AI and data literacy as important, while additionally emphasizing the need for investment in digital laboratories, AI and digital transformation training, and practical learning infrastructure.

Among students, AI/data literacy and advanced digital skills were each selected by 64.0% of respondents as skills that will become more important in the next five years. Among employers, advanced digital skills were selected by 58.8%, while AI/data literacy was selected by 47.1%. Among professors, AI/data literacy was selected by 45.3%.

Students were also asked about remote and hybrid work. More than half showed openness to remote or hybrid work arrangements, although mostly depending on the type of job. Professors were asked about university investment priorities, and 9.4% selected preparation for remote or hybrid work. The employer dataset does not contain a separate consistently analyzable variable on work model preferences, so remote and hybrid work should be discussed cautiously in the comparative section.

The overall finding is that AI and digital transformation are no longer marginal issues. They are central to the future employability agenda and should be integrated into curricula, practical training, career guidance, and university-employer cooperation.

Table 7.4. Future digital and AI-related skills

Skill	Students	Employers	Professors
AI / data literacy	64.0%	47.1%	45.3%
Advanced digital skills	64.0%	58.8%	24.5%
Use of digital tools in the workplace	46.3%	29.4%	13.2%

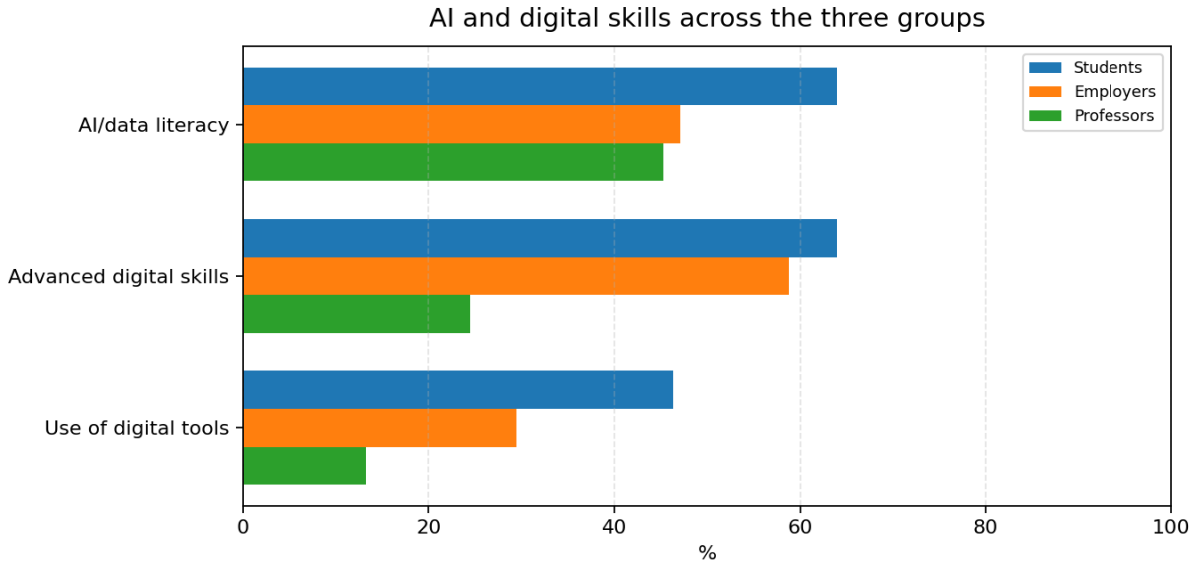


Figure 7.4. AI and digital skills across the three groups

7.8 Fairness, meritocracy and socio-economic barriers

The fairness dimension reveals one of the most critical findings of the study. Students and professors express strong skepticism about whether young people have fair access to employment. Among students, 69.5% disagreed or strongly disagreed that young people have fair access to employment. Among professors, 66.0% disagreed or strongly disagreed. Employers were more divided, with roughly one third disagreeing, one third neutral, and one third agreeing.

There is also a major difference in perceptions of whether employment depends mainly on skills and competencies. Employers were the most positive, with 50.0% agreeing or strongly agreeing. Students were divided, while professors were the most skeptical: only 5.7% agreed, while 62.3% disagreed or strongly disagreed.

The contrast between employers and the other two groups is important. Employers are more likely to believe that employment depends on skills, while students and professors are more likely to perceive structural barriers, unequal access, and non-merit-based factors. This does not mean that one group is necessarily right and another wrong; rather, it shows that different actors experience the labor market from different positions.

Students also identified specific groups as facing additional barriers, including students without personal or professional connections, students with disabilities, students from low-income families, students from rural areas, and students with limited access to internships. These findings suggest that employability should not be understood only as a technical issue of skills; it is also affected by socio-economic background, access to networks, mental wellbeing, confidence, financial pressure, and perceptions of fairness.

Table 7.5. Fair access and merit-based employment

Statement	Students agree	Employers agree	Professors agree
Young people have fair access to employment	6.7%	32.4%	3.8%
Employment depends mainly on skills and competencies	32.3%	50.0%	5.7%
Practical experience matters more than formal education	56.7%	61.8%	45.3%
Universities should cooperate more closely with employers	79.9%	70.6%	71.7%

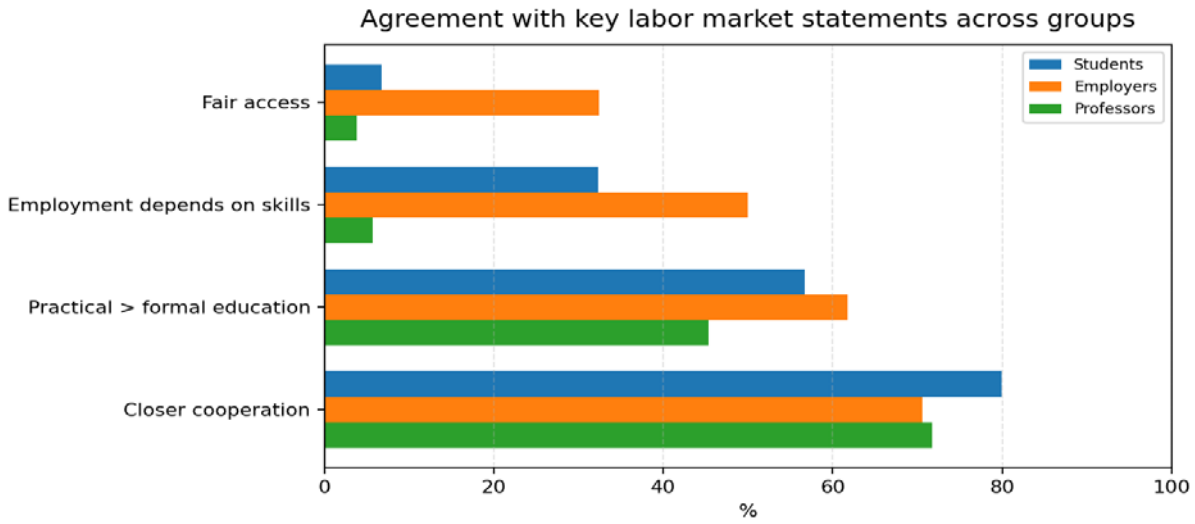


Figure 7.5. Agreement with key labor market statements across groups

7.9 Institutional support and policy needs

The three questionnaires point toward a shared need for stronger institutional support. Students primarily ask for more internships, practical skills training, career counseling, mentoring, better information, and networking with employers. Employers ask for wage subsidies, mentoring support, internship support, tax incentives, and digital/AI training support. Professors ask for public funding for internships, incentives for employers to hire young graduates, better cooperation with employment agencies, support for university Career Centers, and better labor market information systems.

Although each group emphasizes different forms of support, the results are complementary rather than contradictory. Students need access and guidance. Employers need incentives and capacity to train and mentor young people. Universities need resources, coordination mechanisms, and stronger institutional partnerships.

This comparison supports the recommendation that youth employability policies should combine university-based support, employer incentives, internship funding, career services, mentoring, and labor market information. A fragmented approach would not be sufficient, because the transition problem is shared by all actors.

7.10 Comparative analysis of open-ended responses

The open-ended responses provide important qualitative depth and strongly reinforce the quantitative findings. Across all three groups, the dominant theme is the need for more practical work, internships, and real workplace experience. This theme appeared in 57.3% of valid student open-ended responses, 71.9% of valid employer responses, and 56.9% of substantive professor responses.

This convergence is particularly important because it is not produced only by closed-ended options. Respondents independently emphasized the same issue in their own words. Students often expressed the need for practical experience before graduation and for internships that are meaningful rather than symbolic. Employers emphasized that young people should be exposed to real work environments earlier and more systematically. Professors emphasized the need to connect theory with practice through continuous, structured, and relevant practical learning.

The second major theme across the three groups is stronger cooperation between universities and employers. This appeared in 21.7% of student responses, 40.6% of employer responses, and 47.1% of professor responses. Employers and professors emphasized this theme more strongly than students, which is understandable because they are more directly involved in institutional cooperation.

Curriculum and skills improvement also appeared across all three groups. Students referred to the need for better curricula, skills-based teaching, and more relevant study programs. Employers emphasized alignment of curricula with labor market needs and the development of practical, digital, AI-related, technical, and soft skills. Professors emphasized curriculum updates, professional profiling, and adaptation to labor market trends.

Table 7.6. Main themes from open-ended responses across the three groups

Theme	Students	Employers	Professors
More internships, practical work and real workplace experience	57.3%	71.9%	56.9%
Stronger university-employer / institutional cooperation	21.7%	40.6%	47.1%
Skills, curricula and study program improvement	28.0%	25.0%	29.4%
Fairer and more merit-based employment	28.0%	Less prominent	15.7%
Career guidance, mentoring and information	7.6%	12.5%	29.4%
Digital, AI and future trend orientation	Mainly in closed answers	21.9%	9.8%

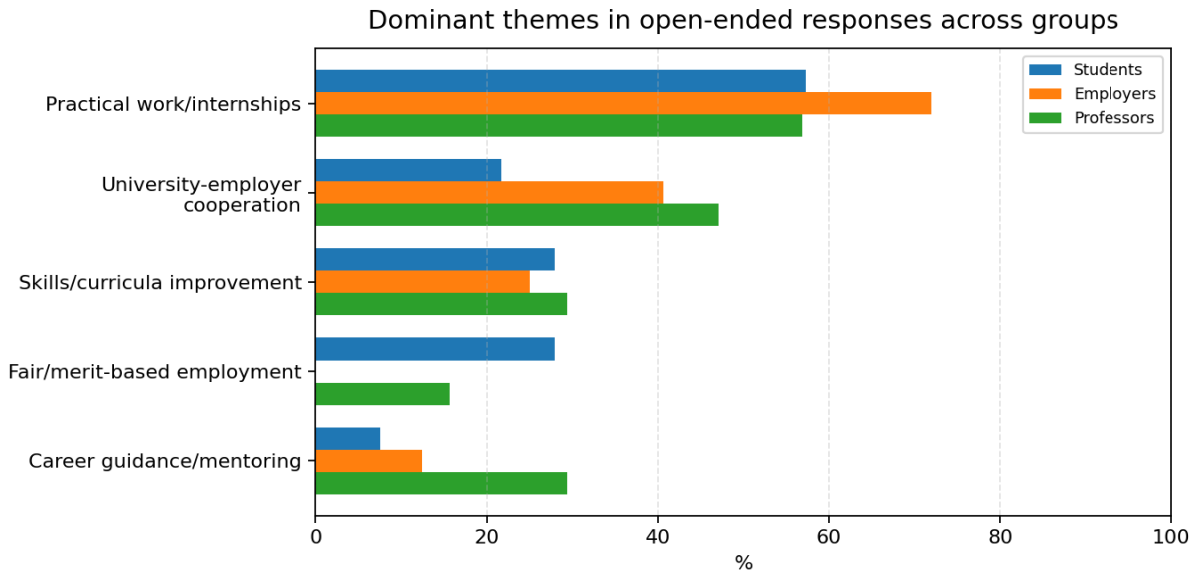


Figure 7.6. Dominant themes in open-ended responses across groups

Fairer and more merit-based employment appeared especially in student and professor responses. Employers mentioned this theme less frequently, which is consistent with the quantitative finding that employers were more likely than students and professors to agree that employment depends mainly on skills. Career guidance, mentoring, and information also appeared as a shared theme, particularly among professors and students.

7.11 Overall comparative findings

The comparative analysis produces several key findings.

First, there is a clear perception gap between students and employers. Students tend to assess their education and preparation more positively, while employers are more critical of graduate readiness and the alignment between university education and labor market needs. Professors are positioned between these two perspectives.

Second, practical experience is the strongest shared concern across all groups. It appears as a barrier for students, a recruitment challenge for employers, and a competency gap according to professors. This makes practical experience the central analytical finding of the study.

Third, internships are widely recognized as the main bridge between university and employment. However, the data show that internships are not yet sufficiently accessible, structured, mentored, financially supported, or connected to real employment pathways.

Fourth, all three groups agree that universities and employers need to cooperate more closely. Cooperation exists, but it is often occasional, fragmented, or event-based. A more systematic model is needed.

Fifth, AI, digital transformation, and digital workplace tools are recognized as increasingly important for employability.

Sixth, fairness and inclusion are major concerns, especially among students and professors.

Finally, the three perspectives point toward complementary forms of support: students need access and guidance, employers need incentives and mentoring capacity, and universities need stronger partnerships and institutional coordination.

Taken together, the comparative analysis shows that the transition from university to employment in North Macedonia should be understood as a shared institutional responsibility. Improving youth employability requires coordinated action by universities, employers, public institutions, employment agencies, civil society organizations, and students themselves.

7.12 Implications for the Youth and Labor Market Trends Index

The comparative findings define the main analytical structure of the Youth and Labor Market Trends Index. Rather than reducing youth employability to a single score or one-dimensional measure, the Index is organized around several interrelated dimensions that together explain the transition from university to employment. The findings show that this transition is shaped by education, practical experience, employer demand, internships, digital transformation, institutional support and fairness.

The first core dimension is education–labor market alignment. This dimension captures how students, employers and professors assess the relevance of study programs, the preparedness of graduates and the responsiveness of curricula to labour market change.

The second core dimension is skills and competencies. This dimension includes technical and professional skills, transferable skills, digital skills and AI-related competencies. The comparative findings show that different actors emphasize different skills, which means that the Index captures both students' self-assessed competencies and the perceptions of employers and professors regarding graduate preparedness.

The third core dimension is practical experience and internships. This is the strongest shared finding across all three questionnaires and therefore represents a central element of the Index. It includes internship availability, internship participation, mentoring, funding, relevance to the field of study and transition from internship to employment.

The fourth dimension is university–employer cooperation. The data show broad agreement that cooperation is necessary, but also indicate that cooperation often remains fragmented or insufficiently structured. This dimension therefore captures both the existence and the quality of cooperation, including communication mechanisms, joint projects, internship partnerships and curriculum feedback.

The fifth dimension is future-readiness. This dimension includes AI, digital transformation, digital tools and preparation for changing forms of work, including remote and hybrid work. It reflects the extent to which students, employers and professors perceive young people and higher education institutions as prepared for future labour market demands.

The sixth dimension is fairness and inclusion. This dimension captures socio-economic barriers, access to networks, career insecurity, perceived fairness in employment, support for vulnerable groups of students and broader concerns about equal access to opportunity.

Taken together, these dimensions allow the Index to function both as an analytical tool and as a policy-relevant monitoring framework. The Index does not only identify whether young people are employed or employable; it also helps explain why the transition from university to employment is difficult, where the main gaps are located and where institutional intervention is most needed.

Table 7.7. Analytical dimensions for the Index

Index dimension	Possible indicators
Education-labor market alignment	Relevance of study programs, graduate preparedness, curriculum responsiveness
Skills and competencies	Technical, practical, digital, AI-related and transferable skills
Practical experience and internships	Internship access, quality, mentoring, funding and employment pathways
University-employer cooperation	Formal cooperation, communication mechanisms, joint projects and curriculum feedback
Future-readiness	AI, digital transformation, digital tools and new forms of work
Fairness and inclusion	Socio-economic barriers, career insecurity, access to networks and support services

8. Key findings

This section presents a consolidated overview of the most important findings from the three questionnaires. The findings are based on 251 valid responses: 164 students, 34 employers and 53 university professors. Taken together, the three surveys provide a comparative picture of how young people, employers and academic staff understand the transition from higher education to employment in North Macedonia.

- The transition from university to employment is a shared responsibility

One of the clearest findings of the study is that the transition from university to employment cannot be understood as the responsibility of students alone. Students, employers and professors all point to the need for stronger coordination between higher education institutions, employers, public institutions and other labor market actors. This confirms that youth employability is shaped not only by individual skills and motivation, but also by the quality of institutional support, practical learning opportunities, employer engagement and public policy measures.

- Students are relatively positive about their education, but employers and professors are more cautious

Students generally assess the relevance of their study programs and their preparedness for employment more positively than employers and professors do. Most students consider their study programs to be connected to labor market needs and many feel relatively prepared for employment. However, employers are more cautious and often describe graduates as only partially prepared for work. Professors also recognize the value of university education, but identify important gaps in practical preparation, curriculum responsiveness and employer consultation. This difference shows that perceived preparedness and labor market readiness are not always the same.

- Practical experience is the strongest cross-cutting finding

Practical experience is the most consistent and repeated finding across all three questionnaires. Students identify lack of practical experience as a major barrier to employment and request more internships and practical learning opportunities. Employers identify lack of practical experience as one of the main difficulties when recruiting young workers. Professors also recognize practical experience as one of the key areas requiring further development. This finding strongly suggests that practical learning should be treated as a central component of employability, not as an additional or secondary element of university education.

- Internships are important, but their quality and structure need improvement

All three respondent groups emphasize the importance of internships. However, the findings show that internships should not be understood only in terms of availability. Their quality, structure, mentoring, accessibility and connection to real learning outcomes are equally important. Students want internships that are better organized and more useful for employment. Employers see internships as a way to identify and develop future employees, but also point to challenges such as funding and mentoring capacity. Professors consider internships highly useful, but identify limited opportunities, weak employer cooperation and lack of structured mentoring as important obstacles.

- Skills mismatch remains a central challenge

The findings confirm the existence of a skills mismatch between higher education outcomes and labor market expectations. Students identify communication, problem solving, critical thinking and teamwork as important strengths, but also recognize gaps in practical experience, technical knowledge, digital skills and leadership. Employers place strong emphasis on technical and professional knowledge, practical experience, teamwork, communication and problem solving. Professors also identify practical experience, critical thinking, creativity and responsibility as areas that require further development. The results show that employability depends on a combination of technical, digital, practical and transversal skills.

- Digital skills, AI literacy and future skills are becoming essential

Students, employers and professors all recognize the growing importance of digital transformation, artificial intelligence and future-oriented skills. Students and employers particularly emphasize advanced digital skills, AI/data literacy and the use of digital workplace tools. Professors also point to the need for investment in digital laboratories, AI and digital transformation training, staff training and practical learning infrastructure. This finding suggests that digital readiness should become a core element of employability policies and higher education development.

- Remote and hybrid work are relevant, but should be interpreted carefully

The student findings show openness toward remote and hybrid work, but mostly depending on the type of job and sector. This indicates that young people see flexibility as an opportunity, but not as a universal replacement for workplace-based learning and professional integration. In the context of early career development, remote and hybrid work should be considered together with the need for mentoring, socialization, professional visibility and practical workplace experience.

- University–employer cooperation is strongly supported, but needs to become more structured

All three respondent groups support stronger cooperation between universities and employers. Students want clearer connections between study programs and labor market expectations. Employers call for more structured communication, joint projects, internship programs and collaboration with universities. Professors also recognize the importance of employer cooperation, but indicate that consultation with employers is not always systematic. The findings suggest that cooperation should move from occasional activities toward more regular, institutionalized and outcome-oriented partnerships.

- Career services and mentoring need greater visibility and impact

Students identify career guidance, mentoring and better information about employment opportunities as important forms of support, while the use and visibility of career services remain limited. Employers and professors also point to mentoring and smoother integration into work as important elements of the transition process. This finding suggests that university Career Centers should be strengthened and made more visible, proactive and connected to employers, alumni and labor market information.

- Fairness, inclusion and trust are central to youth employability

A major finding of the study is that students and professors express strong concerns about fairness and equal access to employment. Students identify personal connections, socio-economic background, rural residence, disability, financial difficulties, stress and lack of support as important barriers. Professors also express concern about the extent to which employment depends on skills and merit. These findings show that youth employability is not only a technical issue of skills and qualifications, but also a question of fairness, transparency, inclusion and institutional trust.

- Youth employment is connected to migration pressures and confidence in the future

The findings indicate that limited opportunities, uncertainty, perceived unfairness and lack of confidence in the labor market may contribute to migration pressures among young people. Although the questionnaires do not measure migration directly as the central topic, the findings are consistent with broader concerns about youth retention and the ability of the domestic labor market to offer meaningful career opportunities. Improving youth employability is therefore also relevant for reducing brain drain and strengthening young people's confidence in building a professional future in North Macedonia.

- Institutional support is necessary for a stronger youth employment ecosystem

Employers, students and professors all identify the need for stronger institutional support. Students request more internships, practical skills training, career counseling and mentoring. Employers point to wage subsidies, internship support, mentoring support, tax incentives and digital/AI training support. Professors emphasize public funding for internships, incentives for employers, stronger cooperation with employment agencies and better career services. These findings show that youth employability requires a coordinated ecosystem of support, rather than isolated measures.

- The Index captures both skills and transition conditions

The findings show that the Youth and Labor Market Trends Index is not limited to measuring whether young people possess certain skills or whether employers hire young workers. It also captures the broader conditions that shape the transition from university to employment. These include education–labor market alignment, practical learning, internship quality, employer cooperation, career services, digital readiness, fairness, inclusion, institutional support and young people's confidence in future employment opportunities.

By combining these dimensions, the Index provides a more complete picture of youth employability. It treats employability not only as an individual characteristic of young people, but also as the result of an education–labor market ecosystem shaped by universities, employers, public institutions and wider socio-economic conditions. This makes the Index useful both as an analytical tool for the present report and as a basis for future annual monitoring of youth and labor market trends in North Macedonia.

Overall, the three surveys show that the transition from higher education to employment in North Macedonia is marked by cautious optimism, but also by clear structural challenges. Students want more practical, fairer and better-supported pathways into employment. Employers need graduates who are better prepared for real workplace demands. Professors recognize the importance of reforming curricula, strengthening practical learning and improving institutional cooperation. The central finding of the study is therefore that youth employability requires coordinated, practical and inclusive action across the entire education–labor market ecosystem.

9. Conclusions

The findings of this study show that the transition from university to employment in North Macedonia is a complex process shaped by education, labor market demand, institutional coordination, practical experience, social conditions and perceptions of fairness. The three questionnaires reveal that students, employers and university professors do not view this transition in exactly the same way, but their responses converge around several important issues. The most important conclusion is that youth employability cannot be reduced to the individual readiness of graduates. It is produced through the interaction between universities, employers, public institutions, career services, internship systems and the wider socio-economic environment.

The empirical findings are consistent with the literature reviewed in this report, which understands youth employability as a multidimensional process rather than a narrow question of obtaining a first job. The literature emphasizes that employability is shaped by skills, confidence, practical experience, institutional support, employer engagement, socio-economic conditions and access to fair opportunities. The findings from the three questionnaires confirm this broader understanding. Students, employers and professors all show that the transition from university to employment depends not only on individual effort or formal qualifications, but also on the quality of the education–labor market ecosystem in which young people attempt to build their careers.

Students generally express a certain level of confidence in their education and future employment prospects. Many consider their study programs relevant to labor market needs and believe that university education provides an important foundation for future work. However, this optimism is cautious rather than unconditional. Students repeatedly point to the need for more practical learning, better internships, stronger links with employers, more visible career guidance and fairer access to employment. Their responses show that young people do not simply expect employment to follow automatically from graduation; they understand that the transition to work requires experience, networks, institutional support and opportunities to demonstrate their abilities.

Employers provide a more cautious assessment of graduate readiness. Their responses show that many young graduates are perceived as only partially prepared for work, especially in relation to practical experience, technical knowledge, work habits and applied skills. At the same time, employers do not place the responsibility only on universities or students. Many recognize the importance of internships, mentoring, cooperation with universities and institutional support measures. This indicates that the labor market itself must play a more active role in creating structured entry pathways for young people. Employers are not only users of graduate skills; they are also potential partners in developing them.

The professor questionnaire adds an important academic and institutional perspective. Professors recognize the value of higher education, but they also identify the need for more responsive curricula, stronger practical learning infrastructure, better internship coordination, more systematic employer consultation and greater investment in digital transformation. Their responses show that universities are aware of the pressure to adapt to changing labor market expectations, but also that this adaptation requires institutional capacity, resources and structured cooperation. Universities cannot respond effectively to labor market change through isolated curriculum updates alone; they need sustainable mechanisms for cooperation, feedback, practical learning and student support.

Across all three questionnaires, practical experience emerges as the strongest and most consistent finding. It appears as a missing competency, a recruitment challenge, an educational priority, an internship concern and a key recommendation. This confirms that the transition from university to employment depends heavily on whether students have opportunities to apply knowledge in real or realistic professional contexts before graduation. Practical learning should therefore be understood as a core part of higher education quality and graduate employability, not as a secondary activity added at the end of studies.

The conclusions also correspond to the literature on work-based and work-integrated learning, which emphasizes the importance of connecting academic knowledge with real professional contexts. In the present study, this connection appears as one of the most urgent priorities. Practical learning, internships, mentoring and employer cooperation are not peripheral issues; they are the mechanisms through which students can transform academic knowledge into employability. This confirms that universities and employers need to move from occasional cooperation toward structured and continuous partnerships.

The findings also show that internships occupy a central but uneven position in the transition system. Students, employers and professors all value internships, but they also point to problems of access, structure, mentoring, funding and relevance. Internships can serve as effective bridges between education and work only when they are meaningful, supervised, connected to learning outcomes and accessible to students from different backgrounds. If internships remain informal, unpaid, poorly mentored or weakly connected to study programs, they may reinforce inequalities rather than reduce them.

Another important conclusion is that skills mismatch remains a central structural challenge. The study does not suggest that graduates lack education, but rather that the relationship between academic learning and workplace requirements needs to be strengthened. Employability increasingly requires a combination of theoretical knowledge, technical and professional competence, digital skills, communication, teamwork, problem solving, adaptability and responsibility. The mismatch is therefore not only about specific technical skills, but also about the ability to transfer knowledge into practice and respond to changing professional environments.

Digital transformation and artificial intelligence add a new dimension to this challenge. Students, employers and professors all recognize that digital skills, AI/data literacy and the use of digital tools are becoming increasingly important. However, digital readiness cannot be left to individual student initiative. It requires systematic investment in curricula, laboratories, staff development, practical training and ethical awareness. The findings suggest that future employability will depend not only on whether young people can use technology, but also on whether universities and employers can prepare them to use it critically, responsibly and productively.

The study also shows that the transition from university to employment is affected by fairness, inclusion and institutional trust. Students and professors express strong concerns about personal connections, unequal opportunities, socio-economic barriers, rural background, disability, financial difficulties and career insecurity. These concerns are important because they show that employability is not only a matter of skills and qualifications. Even well-prepared graduates may face difficulties if access to employment is perceived as unfair, non-transparent or dependent on informal networks. A credible youth employment system therefore requires both better preparation and stronger trust in equal access to opportunity.

The literature review also shows that employability must be understood in relation to future skills, digital transformation, fairness and institutional responsibility. The survey findings support this argument. AI literacy, digital skills and adaptability are increasingly important, but they must be accompanied by ethical

awareness, inclusive access, career support and transparent employment pathways. In this sense, the transition from university to employment is not only a pedagogical or economic issue; it is also a social and institutional question linked to equality, trust, youth retention and the credibility of public and private institutions.

The findings further suggest that youth employability is connected to broader migration pressures. Limited opportunities, uncertainty, low confidence in the labor market and perceptions of unfairness can weaken young people's belief that they can build a meaningful professional future in North Macedonia. While the study does not treat migration as its central topic, the results clearly indicate that improving the transition from university to employment is also relevant for youth retention and for reducing the risk of brain drain. A labor market that offers practical, fair and meaningful opportunities is essential for keeping young people engaged in the country's future.

Overall, the study reveals a labor market transition system that contains important strengths, but also clear structural weaknesses. Students show motivation and cautious optimism. Employers demonstrate demand for young workers, but also identify important skills and readiness gaps. Professors recognize the need for academic adaptation and institutional cooperation. The challenge is therefore not the absence of awareness, but the need to transform that awareness into coordinated action.

The central conclusion of the report is that the transition from higher education to employment in North Macedonia must be treated as a shared ecosystem. Universities need to strengthen practical learning, curriculum responsiveness, digital readiness and career support. Employers need to participate more actively in internships, mentoring, curriculum feedback and entry-level employment pathways. Public institutions need to support this transition through funding, incentives, labor market information, inclusion measures and stronger cooperation mechanisms. Only through such coordinated action can youth employability become more practical, fair, inclusive and responsive to the changing needs of the labor market.

10. Recommendations

The findings of this report show that improving the transition from university to employment in North Macedonia requires coordinated action across the education–labor market ecosystem. The recommendations below are organized by key stakeholder groups and are based on the combined findings from the student, employer and professor questionnaires.

10.1 Recommendations for universities

Universities should strengthen practical learning as a core part of study programs. This does not mean reducing the importance of theoretical knowledge, but connecting it more systematically with professional application. Study programs should include more practical exercises, case studies, project-based learning, simulations, clinical teaching models, fieldwork and cooperation with employers.

Universities should review curricula more regularly in consultation with employers, alumni, professional associations and public institutions. Curriculum responsiveness should become a continuous process rather than an occasional reform. Particular attention should be given to practical experience, digital skills, AI/data literacy, communication, problem solving, teamwork and professional responsibility.

Universities should develop stronger institutional mechanisms for internships. Internship opportunities should be better coordinated, clearly connected to learning outcomes, supervised by mentors and integrated into study programs where appropriate. Universities should also ensure that internships are accessible to students from different socio-economic backgrounds.

Universities should strengthen their cooperation with employers through formal partnerships, advisory boards, joint projects, guest lectures, student visits, internship agreements, research cooperation and curriculum feedback mechanisms. Cooperation should become more structured, regular and outcome-oriented.

Universities should invest in digital readiness. This includes digital laboratories, AI and digital transformation training, staff development, updated teaching methods and responsible use of digital tools in learning and assessment. Digital transformation should be treated both as a technical and ethical issue.

10.2 Recommendations for employers

Employers should play a more active role in the transition from university to employment. They should not only expect graduates to be ready for work, but should participate in developing practical skills through internships, mentoring, workplace exposure and cooperation with universities.

Employers should offer more structured internships with clear tasks, supervision, feedback and learning outcomes. Internships should provide real exposure to the workplace and should not be treated as symbolic or purely administrative arrangements. Where possible, internships should be paid or supported in ways that make them accessible to students from different backgrounds.

Employers should communicate their skills needs more clearly to universities. This can be done through regular consultation, participation in curriculum advisory processes, career fairs, guest lectures, mentoring programs and joint projects with students and academic staff.

Employers should support entry-level employment pathways for young graduates. This may include trainee programs, graduate schemes, mentorship during the first year of employment and gradual integration into professional responsibilities.

Employers should also promote fair and transparent recruitment practices. Selection procedures should be based on skills, merit and clearly communicated criteria. This is important for strengthening young people's trust in the labor market and reducing perceptions of unfairness or dependence on personal connections.

10.3 Recommendations for public institutions

Public institutions should treat youth employability as a coordinated policy priority involving education, labor, economic development, digital transformation and social inclusion. The transition from university to employment should not be addressed through isolated measures, but through an integrated youth employment ecosystem.

Public institutions should support internships through funding, incentives and clear quality standards. Public support should encourage employers to offer meaningful internships, provide mentoring and create pathways from internships to employment.

Employment measures for young people should include wage subsidies, internship support, mentoring support, training vouchers, digital and AI skills programs, and incentives for employers who hire and retain young graduates. These measures should be transparent, accessible and regularly evaluated.

Public institutions should strengthen labor market information systems. Students, universities and employers need reliable information about employment trends, skills needs, emerging sectors and future labor market opportunities. Such information should be made available in a form that is useful for curriculum planning, career guidance and youth employment policy.

Public institutions should also address fairness and inclusion. Special attention should be given to students and young people from low-income families, rural areas, persons with disabilities and those without access to professional networks. Youth employability policies should include both skills development and equal access to opportunity.

10.4 Recommendations for Career Centers

University Career Centers should become more visible, proactive and better connected to students, employers and alumni. The findings show that many students need career guidance, mentoring and information about employment opportunities, while the use and visibility of career services remain limited.

Career Centers should provide structured services throughout the student lifecycle, not only near graduation. These services should include career counseling, CV and interview preparation, internship

information, job-search support, mentoring, employer presentations, alumni networking and guidance on digital professional profiles.

Career Centers should collect and share labor market information with faculties and students. They can play an important role in identifying employer needs, tracking graduate destinations and informing curriculum discussions.

Career Centers should also coordinate internship opportunities more actively. They can help connect students with employers, support internship placement processes, monitor internship quality and collect feedback from students and host organizations.

Career Centers should develop targeted support for students who face additional barriers, including financial difficulties, lack of networks, rural background, disability, stress and career insecurity. Career support should be understood as both an employability measure and an inclusion measure.

10.5 Recommendations for students and youth support programs

Students should be encouraged to take an active role in building their employability during their studies. This includes participating in internships, practical projects, volunteering, student organizations, training programs, career counseling and networking opportunities.

Youth support programs should help students develop both technical and transversal skills. Particular attention should be given to communication, problem solving, critical thinking, teamwork, responsibility, leadership, digital skills, AI/data literacy and adaptability.

Students should be supported in understanding labor market expectations early in their studies. Youth programs, universities and Career Centers should provide information about sectors in demand, skills required by employers, internship opportunities and realistic employment pathways.

Youth support programs should also address confidence, stress and career insecurity. The transition from university to employment is not only a technical process of matching skills with jobs; it also involves uncertainty, motivation, wellbeing and trust in future opportunities.

Programs targeting young people should pay special attention to inclusion. Students from rural areas, low-income families, students with disabilities and those without personal or professional networks may need additional support to access internships, mentoring, training and employment opportunities.

10.6 Recommendations for future annual editions of the Index

Future annual editions of the Youth and Labor Market Trends Index should continue to monitor the transition from university to employment through the three-perspective model: students, employers and university professors. This comparative structure is one of the main strengths of the Index because it captures both supply-side, demand-side and academic-institutional perspectives.

The Index should continue to monitor several core dimensions: education–labor market alignment, skills and competencies, practical experience and internships, university–employer cooperation, future-

readiness, digital transformation, fairness, inclusion, institutional support and confidence in employment opportunities.

Future editions should aim to expand the number and diversity of respondents, especially employers. A larger employer sample would make it possible to compare trends by sector, size of organization, region and type of employer.

The Index should also track changes over time. Repeating key questions annually would make it possible to identify whether practical learning improves, whether employer expectations change, whether digital skills become more important, whether career services become more visible and whether perceptions of fairness improve.

Future editions could also include more detailed sectoral analysis. Particular attention should be given to sectors expected to grow, such as IT and digital services, business and finance, law, education, healthcare, engineering, public administration, green economy and project-based work.

Finally, the Index should be used not only as a research product, but also as a policy and dialogue tool. Its findings should be discussed with universities, employers, students, public institutions, Career Centers and youth organizations in order to support practical reforms and improve the transition from higher education to employment in North Macedonia.

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Annexes

Annex 1. Questionnaire for university students

Youth and Labor Market Trends Index Survey

Questionnaire for university students

Introductory note / informed consent

Dear student,

This questionnaire is part of the Youth and Labor Market Trends Index Report, developed within the framework of the Next-Gen Career-Up initiative. The purpose of the research is to better understand students' skills, career expectations, employment experiences, and perceptions of the connection between university education and the labor market in North Macedonia.

Participation is voluntary and anonymous. The information collected will be used exclusively for research purposes and analyzed only in aggregated form.

Consent to participate:

☐ I agree to participate in this survey and understand that my responses will be used anonymously for research purposes.

☐ I do not agree to participate in this survey.

Instruction: The survey will appear if you choose "I agree."

Section A. Student profile

1. At which university are you currently enrolled?

☐ South East European University

☐ State University of Tetova

☐ Mother Teresa University in Skopje

☐ Other: _____

2. Level of studies

☐ Bachelor studies

☐ Master studies

☐ Doctoral studies

3. Year of study

☐ First year

☐ Second year

☐ Third year

☐ Fourth year

☐ Fifth year / integrated studies

☐ Master - first year

☐ Master - second year

☐ PhD student

4. Field of study

☐ Law

☐ Social Sciences / Public Administration / Political Science

☐ Languages, Cultures and Communication

☐ Humanities

☐ Business / Economics

☐ IT / Computer Science

☐ Engineering / Technical Sciences

☐ Medical Sciences / Medicine

☐ Health Sciences / Healthcare

☐ Natural Sciences / Mathematics

☐ Education / Teaching

☐ Arts / Media / Communication

☐ Other: _____

5. Municipality / place of residence

_____

Section B. Education and skills

6. To what extent is your study program connected to labor market needs?

☐ Very connected

☐ Mostly connected

☐ Partially connected

☐ Weakly connected

☐ Not connected

7. How well does your university education prepare you for employment?

☐ Very well

☐ Well

☐ Partially

☐ Poorly

☐ Not at all

8. Which aspects of your education are most useful for future employment?

Select up to 3.

☐ Theoretical knowledge

☐ Practical exercises

☐ Research and analytical skills

☐ Communication and presentation

☐ Digital skills

☐ Foreign languages

☐ Critical thinking

☐ Problem solving

☐ Teamwork

☐ Internships / practical work

☐ Other: _____

9. What should universities improve most?

Select up to 3.

☐ More practical learning

☐ More internships

☐ Stronger employer cooperation

☐ Updated curricula

☐ Digital skills

☐ Soft skills

☐ Career guidance

☐ Entrepreneurship

☐ Project-based learning

☐ Other: _____

10. Which competencies do you consider strongest in yourself?

Select up to 5.

☐ Technical knowledge

☐ Practical experience

☐ Communication

☐ Teamwork

☐ Problem solving

☐ Critical thinking

☐ Digital skills

☐ Foreign languages

☐ Adaptability

☐ Responsibility/work ethic

☐ Leadership

☐ Creativity

☐ Entrepreneurial mindset

11. Which competencies do you still need to develop most?

Select up to 5.

☐ Technical knowledge

☐ Practical experience

☐ Communication

☐ Teamwork

☐ Problem solving

☐ Critical thinking

☐ Digital skills

☐ Foreign languages

☐ Adaptability

☐ Responsibility/work ethic

☐ Leadership

☐ Creativity

☐ Entrepreneurial mindset

Section C. Employment experience and career expectations

12. What is your current employment status?

☐ Not employed

☐ Employed full-time

☐ Employed part-time

☐ Freelance / occasional work

☐ Self-employed

☐ Intern

☐ Volunteer

☐ Other: _____

13. Have you searched for a job or internship during the last 12 months?

☐ Yes

☐ No

14. If yes, how did you search for opportunities?

Multiple answers allowed.

☐ Online job platforms

☐ Social media

☐ University Career Center

☐ Personal contacts / family / friends

☐ Direct contact with companies/institutions

☐ Employment Agency

☐ Career fairs

☐ Professors / academic staff

☐ Other: _____

15. What are the main challenges students face when searching for a job or internship?

Select up to 3.

☐ Lack of practical experience

☐ Lack of technical skills

☐ Lack of soft skills

☐ Lack of digital skills

☐ Low confidence

☐ Unrealistic employer expectations

☐ Limited opportunities

☐ Weak education-practice connection

☐ Need for personal/political connections

☐ Migration abroad

☐ Other: _____

16. In which sector would you prefer to work after graduation?

Select up to 3.

☐ Public administration

☐ Education

☐ Healthcare

☐ Legal profession / judiciary / advocacy

☐ Private companies

☐ Finance

☐ IT / Digital

☐ Engineering / Technical sector

☐ International organizations

☐ Civil society / NGOs

☐ Research / academia

☐ Entrepreneurship / own business

☐ Other: _____

17. How optimistic are you about finding suitable employment in North Macedonia after graduation?

☐ Very optimistic

☐ Optimistic

☐ Neutral

☐ Pessimistic

☐ Very pessimistic

Section D. Internships and transition mechanisms

18. Have you participated in an internship during your studies?

☐ Yes, mandatory

☐ Yes, voluntary

☐ No

☐ I am currently looking for one

19. If yes, how was the internship organized?

Multiple answers allowed.

☐ Paid

☐ Unpaid

☐ Mixed compensation

☐ Mentor assigned

☐ Duration under 3 months

☐ Duration over 3 months

☐ Not applicable

20. How useful was the internship for your professional development?

☐ Very useful

☐ Useful

☐ Partially useful

☐ Not very useful

☐ Not useful

☐ Not applicable

21. What is the biggest challenge in accessing internships?

Select up to 3.

☐ Limited internship opportunities

☐ Lack of information

☐ Lack of mentoring

☐ Weak university-employer cooperation

☐ Students insufficiently prepared

☐ Administrative barriers

☐ Internships not related to field of study

☐ Lack of financial support

☐ Other: _____

22. What support would most improve students' transition from university to employment?

Select up to 3.

☐ More internships

☐ Career counseling

☐ Mentorship by professionals

☐ Practical skills training

☐ Digital skills training

☐ Soft skills training

☐ Entrepreneurship support

☐ Better information about jobs

☐ Networking with employers

☐ Other: _____

Section E. Future labor market trends

23. Which fields of study do you believe will offer the best employment opportunities in the next five years?

Select up to 3.

☐ Business / Economics

☐ IT / Computer Science

☐ Engineering

☐ Health Sciences

☐ Education

☐ Social Sciences

☐ Natural Sciences

☐ Law

☐ Arts / Media

☐ Other: _____

24. Which skills will become more important in the next five years?

Select up to 5.

☐ Advanced digital skills

☐ AI / data literacy

☐ Ability to use digital tools in the workplace

☐ Communication

☐ Critical thinking

☐ Problem solving

☐ Adaptability

☐ Foreign languages

☐ Project management

☐ Entrepreneurship

☐ Creativity

☐ Technical/vocational skills

25. How do you perceive remote or hybrid work as part of your future career?

☐ I strongly prefer remote or hybrid work

☐ I prefer it, but only for some jobs

☐ I am neutral

☐ I prefer mostly on-site work

☐ I do not know

Section F. Inclusion and policy support

26. Please indicate your level of agreement.

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Young people have fair access to employment.	☐	☐	☐	☐	☐
Employment depends mainly on skills.	☐	☐	☐	☐	☐
Practical experience matters more than formal education.	☐	☐	☐	☐	☐
Universities should cooperate more closely with employers.	☐	☐	☐	☐	☐

27. Which groups of students may face additional employment barriers?

Multiple answers allowed.

☐ Students from rural areas

☐ Students from low-income families

☐ Women

☐ Students from minority communities

☐ Students with disabilities

☐ Students without personal/professional connections

☐ Students with limited access to internships

☐ Other: _____

28. What factors make the transition from university to employment more difficult for young people?

Select up to 3.

☐ Financial difficulties

☐ Lack of family or social support

☐ Need to work while studying

☐ Stress or uncertainty about the future

☐ Lack of confidence

☐ Limited access to internships

☐ Lack of personal/professional connections

☐ Better university career services are needed

☐ Better cooperation with employers is needed

☐ Other: _____

29. Are you familiar with your university's Career Center / career services?

☐ Yes, and I have used them

☐ Yes, but I have not used them

☐ No

Section G. Final reflection

30. In one sentence: What is the most important change needed to improve the transition from university to employment?

_____

Annex 2. Questionnaire for Employers

Youth and Labor Market Trends Index Survey

Questionnaire for Employers

Introductory Note / Informed Consent

Dear respondent,

This questionnaire is part of the Youth and Labor Market Trends Index Report, developed within the framework of the Next-Gen Career-Up initiative. The purpose of the research is to better understand labor market needs, employer expectations, recruitment challenges, and the alignment between university education and employment opportunities for young people in North Macedonia.

The questionnaire is intended for companies, institutions, organizations, and other employers. The collected data will help identify skills gaps, employment trends, internship opportunities, and areas where cooperation between employers, universities, and public institutions can be improved.

Participation is voluntary. The information collected will be used exclusively for research purposes and will be analyzed only in aggregated form. No individual company, institution, organization, or respondent will be identified in the report without prior consent.

Consent to participate:

☐ I agree to participate in this survey and understand that my responses will be used anonymously for research purposes.

☐ I do not agree to participate in this survey.

Instruction: *The survey will appear if you choose "I agree,".*

Section A. Employer Profile

1. Type of organization

☐ Private company

☐ Public institution

☐ NGO / Civil society

☐ Educational institution

☐ International organization

☐ Other: _____

2. Organization size

☐ 1–9 employees

☐ 10–49 employees

☐ 50–249 employees

☐ 250+

3. Main sector of activity

☐ Business / Services

☐ IT / Digital

☐ Industry / Manufacturing

☐ Construction / Engineering

☐ Public administration

☐ Education

☐ Healthcare

☐ Finance

☐ Tourism

☐ Agriculture

☐ Other: _____

4. Municipality

5. Respondent position

☐ Owner / Founder

☐ Director / Manager

☐ HR Officer

☐ Department Manager

☐ Other: _____

Section B. Recruitment and Skills Needs

6. Has your organization employed young people (18–29) during the last 12 months?

☐ Yes

☐ No

If YES:

7. Approximately how many?

☐ 1–2

☐ 3–5

☐ 6–10

☐ More than 10

8. In which areas do you most often employ young people? (Select up to 3)

☐ Administration

☐ Sales / Customer service

☐ Technical / Engineering

☐ IT / Digital

☐ Finance

☐ Marketing

☐ Education

☐ Healthcare

☐ Internship / Trainee roles

☐ Other

9. How difficult is it to find suitable young candidates?

☐ Very difficult

☐ Difficult

☐ Moderate

☐ Easy

☐ Very easy

10. What are the main recruitment challenges? (Select up to 3)

☐ Lack of practical experience

☐ Lack of technical skills

☐ Lack of soft skills

☐ Lack of digital skills

☐ Low motivation

☐ Unrealistic expectations

☐ Limited applicant pool

☐ Weak education–practice connection

☐ Migration abroad

☐ Other

11. Which competencies matter most when hiring young employees?

(Select up to 5)

☐ Technical knowledge

☐ Practical experience

☐ Communication

☐ Teamwork

☐ Problem solving

☐ Critical thinking

☐ Digital skills

☐ Foreign languages

☐ Adaptability

☐ Responsibility/work ethic

☐ Leadership

☐ Creativity

☐ Entrepreneurial mindset

12. Overall, how prepared are young graduates for the labor market?

☐ Very well prepared

☐ Well prepared

☐ Partially prepared

☐ Poorly prepared

☐ Not prepared at all

13. Which study fields are currently most needed in your organization? (Select up to 3)

☐ Business / Economics

☐ IT / Computer Science

☐ Engineering

☐ Health Sciences

☐ Education

☐ Social Sciences

☐ Natural Sciences

☐ Law

☐ Arts / Media

☐ Other

14. What level of education do you usually require for young employees?

☐ Secondary education

☐ Vocational education

☐ Bachelor degree

☐ Master degree

☐ Doctoral degree

☐ Depends on the position

☐ Skills and experience are more important than formal education

Section C. Education–Labor Market Alignment

15. To what extent is university education aligned with labor market needs?

☐ Very aligned

☐ Mostly aligned

☐ Partially aligned

☐ Weakly aligned

☐ Not aligned

16. What should universities improve most? (Select up to 3)

☐ More practical learning

☐ More internships

☐ Stronger employer cooperation

☐ Updated curricula

☐ Digital skills

☐ Soft skills

☐ Career guidance

☐ Entrepreneurship

☐ Project-based learning

☐ Other

17. Does your organization currently cooperate with universities?

☐ Yes regularly

☐ Occasionally

☐ No

☐ Interested but not yet

18. What prevents stronger cooperation? (Select up to 3)

☐ Lack of communication

☐ Lack of mechanisms

☐ Lack of resources

☐ Administrative barriers

☐ Low employer interest

☐ Low university initiative

☐ Curricula too theoretical

☐ Lack of trust

☐ Other

19. What forms of cooperation does your organization currently have with universities?

(Multiple answers allowed)

☐ Internship programs

☐ Guest lectures

☐ Career fairs

☐ Joint projects

☐ Research cooperation

☐ Curriculum consultation

☐ Mentorship programs

☐ Recruitment cooperation

☐ Student visits

☐ None

Section D. Internships and Transition Mechanisms

20. Does your organization offer internships?

☐ Regularly

☐ Occasionally

☐ No

☐ Planning to

21. If yes, how are internships usually organized?

☐ Paid

☐ Unpaid

☐ Mixed compensation

☐ Mentor assigned

☐ Duration under 3 months

☐ Duration over 3 months

(Multiple answers allowed)

22. How often do internships lead to employment?

☐ Very often

☐ Often

☐ Sometimes

☐ Rarely

☐ Never

23. What is the biggest challenge in offering internships?

(Select up to 3)

☐ Lack of mentoring capacity

☐ Lack of funding

☐ Students insufficiently prepared

☐ Administrative barriers

☐ Limited student interest

☐ Lack of structure

☐ Other

24. What is the main benefit of internship programs for your organization?

(Select up to 2)

☐ Identifying future employees

☐ Supporting youth development

☐ New ideas and perspectives

☐ Stronger university cooperation

☐ Visibility among students

☐ Corporate social responsibility

☐ No significant benefit

☐ Other

Section E. Future Labor Market Trends

25. Do you expect to hire young employees in the next 12 months?

☐ Yes

☐ No

☐ Maybe

26. Which skills will become more important in the next five years? (Select up to 5)

☐ Advanced digital skills

☐ AI / data literacy

☐ Ability to use digital tools in the workplace

☐ Communication

☐ Critical thinking

☐ Problem solving

☐ Adaptability

☐ Foreign languages

☐ Project management

☐ Entrepreneurship

☐ Creativity

☐ Technical/vocational skills

Section F. Inclusion and Policy Support

27. Please indicate your level of agreement

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Young people have fair access to employment.	☐	☐	☐	☐	☐
Employment depends mainly on skills.	☐	☐	☐	☐	☐
Practical experience matters more than formal education.	☐	☐	☐	☐	☐
Universities should cooperate more closely with employers.	☐	☐	☐	☐	☐

28. What support would help employers hire and retain more young people? (Select up to 3)

☐ Wage subsidies

☐ Tax incentives

☐ Internship support

☐ Mentorship support

☐ Training vouchers

☐ Support for digital/AI-related training

☐ Simplified procedures

☐ Better cooperation with universities

☐ Better cooperation with employment services

☐ Support for young employees' wellbeing and career adaptation

☐ Other: _____

29. In which areas do you expect to hire young employees in the next 12 months, and what work model is most likely?

(Multiple answers allowed)

☐ Administration

☐ Sales / Customer service

☐ IT / Digital

☐ Engineering / Technical

☐ Finance

☐ Marketing

☐ Healthcare

☐ Education

☐ Research / Analysis

☐ Skilled trades

☐ Other: _____

Section G. Final Reflection

30. In one sentence:

What is the most important change needed to improve the transition from university to employment?

Annex 3. Questionnaire for university professors

Youth and Labor Market Trends Index Survey

Questionnaire for university professors

Introductory note / informed consent

Dear Professor,

This questionnaire is part of the Youth and Labor Market Trends Index Report, developed within the framework of the Next-Gen Career-Up initiative. The purpose of the research is to better understand the relationship between university education, student competencies, and labor market needs in North Macedonia.

Participation is voluntary. The information collected will be used exclusively for research purposes and analyzed only in aggregated form. No individual respondent or institution will be identified in the report without prior consent.

Consent to participate:

☐ I agree to participate in this survey and understand that my responses will be used anonymously for research purposes.

☐ I do not agree to participate in this survey.

Instruction: The survey will appear if you choose "I agree."

Section A. Academic profile

1. At which university do you currently teach?

☐ South East European University

☐ State University of Tetova

☐ Mother Teresa University in Skopje

☐ Other: _____

2. Academic title / position

☐ Teaching assistant

☐ Assistant professor

☐ Associate professor

☐ Full professor

☐ Lecturer

☐ Researcher

☐ Other: _____

3. Field of teaching / academic discipline

☐ Law

☐ Social Sciences / Public Administration / Political Science

☐ Languages, Cultures and Communication

☐ Humanities

☐ Business / Economics

☐ IT / Computer Science

☐ Engineering / Technical Sciences

☐ Medical Sciences / Medicine

☐ Health Sciences / Healthcare

☐ Natural Sciences / Mathematics

☐ Education / Teaching

☐ Arts / Media / Communication

☐ Other: _____

4. Years of teaching experience in higher education

☐ Less than 5 years

☐ 5-10 years

☐ 11-20 years

☐ More than 20 years

5. Level of studies in which you mainly teach

☐ Bachelor studies

☐ Master studies

☐ Doctoral studies

☐ Multiple levels

Section B. Education and skills

6. To what extent are university study programs aligned with labor market needs?

☐ Very aligned

☐ Mostly aligned

☐ Partially aligned

☐ Weakly aligned

☐ Not aligned

7. How well does university education prepare students for employment?

☐ Very well

☐ Well

☐ Partially

☐ Poorly

☐ Not at all

8. Which aspects of university education contribute most to students' employability?

Select up to 3.

☐ Theoretical knowledge

☐ Practical exercises

☐ Research and analytical skills

☐ Communication and presentation

☐ Digital skills

☐ Foreign languages

☐ Critical thinking

☐ Problem solving

☐ Teamwork

☐ Internships / practical work

☐ Other: _____

9. What should universities improve most?

Select up to 3.

☐ More practical learning

☐ More internships

☐ Stronger employer cooperation

☐ Updated curricula

☐ Digital skills

☐ Soft skills

☐ Career guidance

☐ Entrepreneurship

☐ Project-based learning

☐ Other: _____

10. Which competencies are strongest among students?

Select up to 5.

☐ Technical knowledge

☐ Practical experience

☐ Communication

☐ Teamwork

☐ Problem solving

☐ Critical thinking

☐ Digital skills

☐ Foreign languages

☐ Adaptability

☐ Responsibility/work ethic

☐ Leadership

☐ Creativity

☐ Entrepreneurial mindset

11. Which competencies need the most improvement among students?

Select up to 5.

☐ Technical knowledge

☐ Practical experience

☐ Communication

☐ Teamwork

☐ Problem solving

☐ Critical thinking

☐ Digital skills

☐ Foreign languages

☐ Adaptability

☐ Responsibility/work ethic

☐ Leadership

☐ Creativity

☐ Entrepreneurial mindset

12. Overall, how prepared are young graduates for the labor market?

☐ Very well prepared

☐ Well prepared

☐ Partially prepared

☐ Poorly prepared

☐ Not prepared at all

13. Which study fields do you believe are currently most needed in the labor market?

Select up to 3.

☐ Business / Economics

☐ IT / Computer Science

☐ Engineering

☐ Health Sciences

☐ Education

☐ Social Sciences

☐ Natural Sciences

☐ Law

☐ Arts / Media

☐ Other

14. How often are curricula in your field updated to reflect labor market or professional changes?

☐ Regularly

☐ Occasionally

☐ Rarely

☐ Never

☐ I do not know

Section C. Education-labor market alignment

15. To what extent are employers or professional bodies consulted when study programs are revised?

☐ Very often

☐ Often

☐ Sometimes

☐ Rarely

☐ Never

☐ I do not know

16. What should universities improve most to strengthen labor market relevance?

Select up to 3.

☐ More practical learning

☐ More internships

☐ Stronger employer cooperation

☐ Updated curricula

☐ Digital skills

☐ Soft skills

☐ Career guidance

☐ Entrepreneurship

☐ Project-based learning

☐ Other

17. Does your faculty/program currently cooperate with employers?

☐ Yes regularly

☐ Occasionally

☐ No

☐ Interested but not yet

18. What prevents stronger cooperation between universities and employers?

Select up to 3.

☐ Lack of communication

☐ Lack of mechanisms

☐ Lack of resources

☐ Administrative barriers

☐ Low employer interest

☐ Low university initiative

☐ Curricula too theoretical

☐ Lack of trust

☐ Other

19. What forms of cooperation currently exist?

Multiple answers allowed.

☐ Internship programs

☐ Guest lectures

☐ Career fairs

☐ Joint projects

☐ Research cooperation

☐ Curriculum consultation

☐ Mentorship programs

☐ Recruitment cooperation

☐ Student visits

☐ None

Section D. Internships and transition mechanisms

20. Are internships part of the study programs in your field?

☐ Yes, mandatory

☐ Yes, optional

☐ No

☐ I do not know

21. How are internships usually organized?

Multiple answers allowed.

☐ Paid

☐ Unpaid

☐ Mixed compensation

☐ Mentor assigned

☐ Duration under 3 months

☐ Duration over 3 months

☐ Not applicable

22. How useful are internships for improving students' employability?

☐ Very useful

☐ Useful

☐ Partially useful

☐ Not very useful

☐ Not useful

23. What are the main challenges related to internships?

Select up to 3.

☐ Limited internship opportunities

☐ Lack of mentoring capacity

☐ Students insufficiently prepared

☐ Administrative barriers

☐ Limited student interest

☐ Lack of structure

☐ Weak employer cooperation

☐ Internships not related to field of study

☐ Other

24. What is the main benefit of internships for students and universities?

Select up to 2.

☐ Improving employability

☐ Connecting theory with practice

☐ Building professional networks

☐ Strengthening university-employer cooperation

☐ Increasing student motivation

☐ Supporting career orientation

☐ No significant benefit

☐ Other

Section E. Future labor market trends

25. Which sectors will offer the best employment opportunities for young people in the next five years?

Select up to 3.

☐ IT and digital economy

☐ Healthcare

☐ Education

☐ Business and finance

☐ Engineering and technical sectors

☐ Manufacturing and industry

☐ Public administration

☐ Legal services

☐ Tourism and hospitality

☐ Green economy / sustainability

☐ Entrepreneurship and startups

☐ International organizations and projects

☐ Research and innovation

☐ Other

26. Which skills will become more important in the next five years?

Select up to 5.

☐ Advanced digital skills

☐ AI / data literacy

☐ Ability to use digital tools in the workplace

☐ Communication

☐ Critical thinking

☐ Problem solving

☐ Adaptability

☐ Foreign languages

☐ Project management

☐ Entrepreneurship

☐ Creativity

☐ Technical/vocational skills

Section F. Inclusion and policy support

27. Please indicate your level of agreement.

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Young people have fair access to employment.	☐	☐	☐	☐	☐
Employment depends mainly on skills.	☐	☐	☐	☐	☐
Practical experience matters more than formal education.	☐	☐	☐	☐	☐
Universities should cooperate more closely with employers.	☐	☐	☐	☐	☐

28. What support would most improve youth employability and the transition from university to work?

Select up to 3.

☐ More public funding for internships

☐ Incentives for employers to hire young graduates

☐ Better cooperation between universities and employment agencies

☐ Career counseling services

☐ Support for university Career Centers

☐ Entrepreneurship/startup support

☐ Training vouchers for young people

☐ Better labor market information systems

☐ Support for students facing financial or social barriers

☐ Support for mental wellbeing and career insecurity

☐ Other: _____

29. In which areas should universities prioritize investment to improve employability?

Multiple answers allowed.

☐ Practical learning infrastructure

☐ Digital laboratories

☐ AI and digital transformation training

☐ Career services

☐ Internship coordination

☐ Research and innovation

☐ Entrepreneurship centers

☐ Alumni networks

☐ Staff training

☐ Employer partnerships

☐ Preparation for remote/hybrid work

☐ Student wellbeing and career confidence support

☐ Other: _____

Section G. Final reflection

30. In one sentence: What is the most important change needed to improve the transition from university to employment?

_____



NEXT-GEN CAREER-UP
Institute for Leadership and Public Policy

Youth and Labor Market Trends

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