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PHASE 2
OF SKILLS ANTICIPATION TOOLS
AND PEER LEARNING PROGRAMME IN CENTRAL ASIA

KAZAKHSTAN

Establishment Skills Survey

TECHNICAL REPORT

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Survey name/Title: Establishment Skills Survey	
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Glossary of acronyms

ATAMEKEN	Kazakh National Chamber of Entrepreneurs
DARYA	Dialogue and action for resourceful youth in Central Asia
EPRD	Office for Economic Policy and Regional Development
ETF	European Training Foundation
ESS	Establishment Skills Survey
EU	European Union
ILO	International Labour Organization
KAZLOGISTICS	Transport Sector Employers' Federation
LLC'S	limited liability companies
MOT	Ministry of Transport
MLSPP	Ministry of Labour and Social Protection of the Population
TVET	Technical Vocational Education and Training
VET	Vocational Education and Training
WDC	Workforce Development Centre

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Executive Summary

The Pilot Establishment Skills Survey (ESS) in Kazakhstan was implemented as part of the EU-funded DARYA project to enhance technical methodologies for assessing sector-specific skills needs. This report documents the design, implementation, and technical processes of the survey, capturing lessons learned to guide future applications. The Pilot ESS was designed to complement existing employer surveys by focusing on detailed insights into skills gaps and recruitment challenges within the rail and road freight subsectors, providing an evidence-based foundation for improving skills development strategies and supporting KazLogistics in advocating for training support for their associations.

The pilot survey design adhered to international best practices and was customized to address the specific dynamics of Kazakhstan's transport sector. The structured questionnaire captured workforce characteristics, skills requirements, and training needs, undergoing rigorous testing to ensure clarity and alignment with sectoral priorities. Collaboration among key stakeholders, including Atameken, KazLogistics and its associations, and the Workforce Development Centre (WDC) under the Ministry of Labour, was essential during the preparation phase. These stakeholders provided valuable technical input, shaped the rationale and scope of the survey, and clarified the roles and responsibilities of all parties involved. Their involvement was critical in aligning the survey objectives with national labour market policies and sector-specific needs.

Fieldwork was conducted over four months, from June to October 2024, using both face-to-face and online interviews to accommodate geographical and logistical constraints. A total of 114 enterprises from the road and rail freight sectors participated in the survey. Some challenges emerged during the implementation phase. Limited resources to support interviewers, low engagement with associations, and logistical constraints hindered participation. Despite these obstacles, KazLogistics demonstrated strong commitment by facilitating outreach efforts, although securing active involvement from some associations and smaller businesses remained difficult.

The pilot survey underscored the critical role of stakeholder coordination and high-level policy engagement in ensuring the success of such initiatives. Securing adequate funding, fostering strategic alignment, and facilitating outreach to associations and businesses are essential for broadening the Establishment Skills Survey's scope and impact for future rounds.

Key Recommendations:

1. **Tailoring Survey Tools for Small Businesses**: Future ESS iterations should adapt the questionnaire to better reflect the informal recruitment practices and workforce dynamics of small enterprises. Simplifying sections on recruitment and workforce development while incorporating qualitative questions could improve participation and data quality.

2. **Strengthening Stakeholder Engagement**: High-level engagement and funding support from policymakers, including the Ministry of Labour and the Ministry of Transport, are essential to enhance collaboration, secure resources, and ensure that ESS findings inform vocational education and training (VET) policies effectively.

In a nutshell, the Pilot ESS represents a foundational part toward establishing a comprehensive framework for skills anticipation in Kazakhstan. By addressing funding constraints, strengthening the engagement of policy makers, and refining survey methodology and tools, the ESS has the potential to

become a powerful instrument for shaping effective VET programmes and aligning skills development with the evolving demands of Kazakhstan's labour market.

1. Introduction

1.1. Background

The Pilot Establishment Skills Survey (ESS) was initiated by KazLogistics as part of the DARYA project[1] and under an ETF collaboration agreement between the Ministry of Labour and Social Protection of the Population and the European Training Foundation (ETF). Funded by the EU, DARYA is the first project in Central Asia dedicated exclusively to vocational education, training, and skills development. Launched in 2022, the project aims to improve employment opportunities for young people in Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. It focuses on fostering future-oriented skills such as green, digital, and entrepreneurial competencies, developing adaptable and regionally recognized qualifications to facilitate labour mobility, and promoting inclusive, flexible teaching methods tailored to diverse learning needs. Within this framework, Module 1, supports various data-gathering tools, including graduate tracer studies, sectoral establishment skills and employer surveys, to strengthen the evidence base for effective and relevant VET programs in the region.

The Pilot Establishment Skills Survey in Kazakhstan was primarily developed to document the survey's design and implementation process and to provide a blueprint for gathering robust evidence on sectoral skills demand. This evidence is intended to inform the development and content of vocational education and training (VET) programs. By identifying current and future skills needs directly from employers, the survey, and its potential scaled-up versions, aims to ensure that vocational training aligns with real-world labour market demands, enhancing the relevance and effectiveness of VET programs in preparing young people for employment. The framework follows international guidelines from ETF, ILO, and Cedefop, supporting active skills anticipation and training systems across partner countries.[2]

The ESS methodology differs significantly from the National Employer Survey regularly conducted by Atameken in collaboration with the Workforce Development Centre. While both collect data on occupational demand, the ESS adopts a sector-specific approach, focusing on skills and competency shortages within an economic sector from both quantitative and qualitative perspectives. It delves into detailed questions about current skills, gaps, and hiring challenges, providing nuanced insights critical for targeted workforce planning and training. In contrast, the National Employer Survey broadly emphasizes quantitative occupational demand, often prioritizing vacancies and job roles over the specific skills required, which may overlook key skill-related challenges.[3]

Thus, the Pilot ESS complements the Employer Survey by focusing on sector-specific skills and recruitment challenges in the rail and road freight transportation sectors. As the transport sector federation, KazLogistics is well-positioned to lead this initiative. Through this survey, KazLogistics gathers crucial information from its member associations and employers to highlight skill gaps, training

1 See: https://www.etf.europa.eu/en/what-we-do/darya-dialogue-and-action-resourceful-youth-central-asia

2 See: https://www.etf.europa.eu/en/publications-and-resources/publications/developing-and-running-establishment-skills-survey-guide

3 ibid

needs, and challenges in the transport sector. The findings provide evidence to advocate for targeted training support from policymakers and to guide the sector skills council in developing market-relevant professional qualification standards. This approach strengthens KazLogistics' role in addressing skill gaps and workforce challenges in rail, road freight transport, and logistics.

1.2. Rationale and purpose

This technical report provides comprehensive documentation of the design and implementation of the Pilot Establishment Skills Survey, including lessons learned and a detailed description of the applied methodology and process. It outlines the challenges and bottlenecks encountered at each stage of the survey and offers targeted recommendations to enhance collaboration mechanisms and improve survey instruments. The report aims to guide future iterations of the survey, ensuring greater accuracy, efficiency, and alignment with the specific needs of the transport sector and existing VET supply.

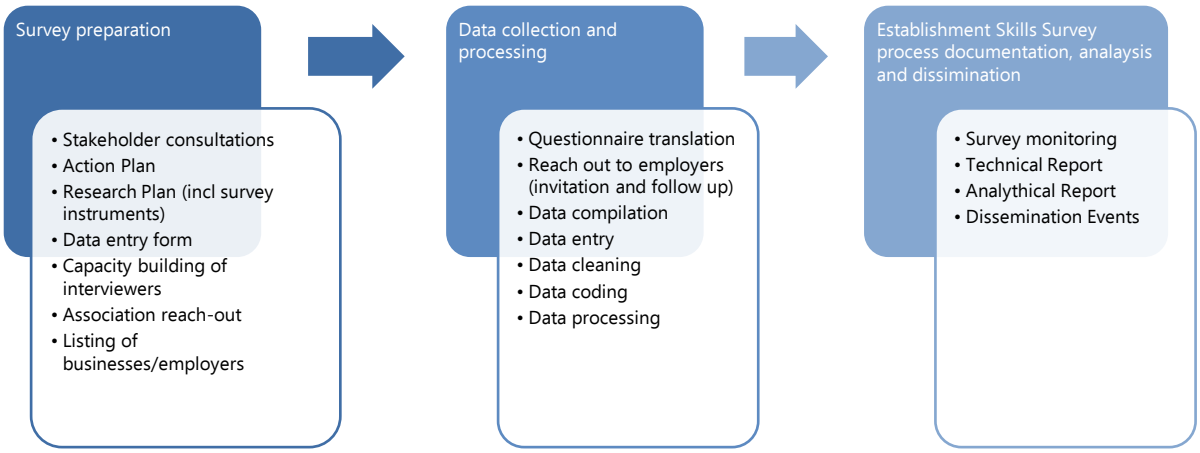
1.3. Structure of the Report

This report is structured as follows: After the Executive Summary, Section 1 covers the background, rationale, and purpose of the report. Section 2 details the survey design, implementation, and adjustments made. Section 3 explains the methodology and recommends further improvements. Section 4 addresses quality assurance measures and highlights the survey limitations. Section 5 provides an overview of the profiles of enterprises participating in the survey. Section 6 concludes with key findings and recommendations.

2. Survey design and implementation process

A three-staged approach was implemented to design and implement the survey, as shown in Figure 1. The overall ESS process spanned over the period from October 2023 to March 2025, with the actual data collection taking place between June and October 2024.

Figure 1 – Establishment Skills Survey Process



Source: Author

2.1. Survey preparation

A working group was established with project support, and stakeholder consultations were conducted with representatives from Atameken, the Workforce Development Centre (WDC) under the Ministry of Labour, and KazLogistics to ensure that the survey's approach was well-informed and that its rationale and objectives were clear to all key stakeholders.

These discussions were particularly necessary and valuable in clarifying the distinctions between the Establishment Skills Survey (ESS) and a traditional employer survey, emphasizing how data from the ESS would uniquely complement findings from surveys conducted by Atameken and the WDC. Initially, Atameken and the WDC were eager to enhance their existing employer survey with project support. After expectations were clarified, each organization provided its perspective and input to the research plan and survey design: Atameken contributed a broad, national-level employer perspective; the WDC shared insights into similar initiatives and alignment with national labour statistics standards; and KazLogistics offered specialized insights into the survey's rationale and the specific skill challenges within the transportation and logistics sector that the survey should bring out. This collaborative feedback was instrumental in defining and refining the survey's design and objectives, ensuring it would meet KazLogistics' needs without duplicating other ongoing activities.

A detailed action plan was developed to outline the survey's timeline, designate responsibilities, and allocate resources for each phase. This structured approach served as a roadmap for managing progress, promoting transparency, and ensuring accountability throughout the survey process. Following this, the working group took responsibility for developing a comprehensive research plan, defining the research objectives, scope, sample size, data collection methods, and survey instruments such as questionnaires and interview guides, with technical support from the ETF. However, it became apparent that while most working group members were highly skilled technical experts, their active participation was hindered by the absence of sufficient incentives and funding. This posed challenges in maintaining consistent engagement and advancing survey activities.

To encourage participation from the logistics and transportation sector, extensive outreach efforts were conducted in collaboration with an ETF technical expert. This outreach targeted relevant associations to increase awareness of the survey's objectives and aid in identifying and listing businesses for potential participation. KazLogistics selected and trained interviewers specifically for this survey, with project support. Training sessions, conducted by the ETF in March 2024, covered essential interviewing techniques, managing sensitive topics, and the effective use of survey instruments. Each survey tool, including the questionnaire and data entry form, underwent rigorous testing and refinement to ensure clarity, relevance, and suitability for the sector's needs. The ETF expert developed a standardized data entry form to promote uniformity in responses, ensuring data quality across the dataset.

KazLogistics management also took proactive steps to engage associations by drafting formal letters requesting their support in reaching out to their members, identifying businesses willing to participate, and sharing contact information for potential respondents.

Despite extensive preparation, several unforeseen challenges arose. Those highlighted areas for improvement in future surveys of this nature. A change in KazLogistics leadership led to a more unstable level of support. Associations also expressed some reluctance to participate in the survey, further complicating listing efforts.

KazLogistics interviewers that were trained with project support, faced significant difficulties due to limited business contacts and a lack of experience in directly reaching out to businesses. The absence of dedicated funding meant there was less incentive for KazLogistics interviewers to conduct extra work. New interviewers, who were part of associations participating in the survey, had to be recruited with support from the KazLogistics research fund.

To encourage participation among selected associations, KazLogistics had to involve its former Director to re-establish connections with associations and encourage their active engagement. Another challenge was that most businesses willing to participate in the survey were concentrated in Almaty, limiting the feasibility of in-person interviews and underscoring the need for logistical adaptations in future survey planning.

2.2. Data collection and processing

Data collection took place over a four-month period, from June to October 2024, primarily through face-to-face interviews conducted via Zoom—a platform familiar to local stakeholders. The data collection phase concluded on October 15, 2024, with 114 completed questionnaires.

KazLogistics faced significant challenges in directly reaching out to employers. The associations that committed to participating in the survey had to recruit their own interviewers to build trust with employers and encourage survey participation. Employers' reluctance was shaped by several sector-specific factors. Many businesses, particularly smaller enterprises, perceived the survey as time-intensive and misaligned with their immediate operational priorities, such as managing tight delivery schedules and limited resources. A notable barrier was the perception that the survey might be associated with regulatory oversight, creating hesitation among businesses unfamiliar with its purpose or benefits.

Additionally, the detailed ESS questionnaire, which required responses on recruitment practices, workforce skills, and training needs, was challenging for smaller enterprises with informal or ad hoc practices in these areas. This often led to concerns about their ability to provide meaningful or accurate information. For some associations and their employers, a lack of understanding about the survey's objectives and value further contributed to low engagement. These challenges underscore the importance of building trust, clearly communicating the practical benefits of the ESS, and tailoring survey tools to align better with the realities of small and medium-sized businesses in the sector.

Despite these difficulties, KazLogistics demonstrated strong commitment and succeeded in collecting the required information within the specified timeline. The data was entered manually into an MS Excel data entry sheet containing both non-numeric string variables and values. With support from the ETF, the data was manually coded according to the coding scheme established during the questionnaire design phase, and job titles were matched manually to the National Occupational Standard Classification from 2017. (Annex 3) This meticulous process included recoding individual responses, checking for inconsistencies, and ensuring alignment with pre-defined categories to maintain data uniformity and accuracy. Errors in the data were corrected carefully without compromising the integrity of the original responses, ensuring the analysis remained accurate and unbiased.

However, some data entered by untrained interviewers contained inaccuracies, necessitating effort to trace, clean, and correct. Furthermore, the Excel data entry format encountered technical issues and became compromised during the process, posing additional challenges for importing the data into STATA. Due to these complications and the manual coding requirements, STATA proved less effective for data cleaning and processing in this context. Instead, MS Excel was used for data preparation and analysis, enabling efficient manual coding of variables and the application of value labels. This approach was crucial for maintaining data quality and integrity throughout the analysis process, ensuring the dataset was well-organized and ready for further analysis in a timely manner.

2.3. Establishment Skills Survey process documentation, analysis and dissemination

To ensure consistent oversight and timely issue resolution throughout the survey process, monthly meetings were held with KazLogistics and the National Facilitator. These meetings served as an essential forum for identifying challenges, tracking survey progress, and implementing necessary adjustments. The regular engagement of key stakeholders helped maintain momentum and ensured that each phase of the survey adhered to the established timeline and quality expectations.

Once data collection was concluded, an extensive set of tables was generated based on the survey results, providing a detailed quantitative foundation for analysis. An analytical report was drafted alongside the technical report. The analytical report provided a descriptive analysis of the data, interpreting findings within the broader context of Kazakhstan's transport sector, labour market and skills development environment. This report emphasized the specific skill gaps and employment challenges identified within the transportation and logistics sector, offering insights into how these findings could inform future vocational education and training (VET) initiatives to support work force development for the sector.

For dissemination, a joint event is planned at the end of February 2025, in coordination with the release of the Tracer Study findings. This collaborative approach aims to maximize the impact and reach of both studies, ensuring that stakeholders across the labour and skills development sectors have access to a comprehensive view of current labour market trends, skill needs, gaps, and potential strategies for workforce development. This dissemination will target key policymakers, transport sector associations, educational institutions, and other key stakeholders, creating a platform for discussion and feedback on the findings and encouraging alignment in future workforce development initiatives.

3. Methodology

3.1. Objectives and scope

The Pilot Establishment Skills Survey focused on fulfilling three main objectives which aims to provide a comprehensive understanding of the current and future skills needs within the rail and road freight transportation sub-sectors.

Objectives/sub-objectives:

Objective 1: Identify recruitment trends and difficulties (skill shortages) in rail and road freight transportation

- Sub-objective 1: Understand the drivers of recruitment challenges in the sector

Objective 2: Identify the proficiency of existing staff to support sector productivity and expansion (skill gaps)

- Sub-objective 2: Identify specific skills (cognitive, socio-emotional, and technical skills) lacking for specific occupations/occupational groups (skills gaps)

Objective 3: Identify the types of skills employers consider most valuable (emerging occupations/skills and training needs)

- Sub-objective 3: Determine the criteria and attributes that employers prioritize when assessing the most valuable skills for the rail and road freight transportation and logistics sector

Scope:

The scope of this survey covers the rail and road freight sub-sectors within the logistics and transportation industry. This includes a focus on the workforce requirements for transportation operations, logistics management, and related occupations such as vehicle maintenance, freight handling, and logistics planning. The survey will examine both current workforce competencies and future skill needs, addressing both short-term recruitment difficulties and long-term workforce planning for these key sub-sectors.

Research questions:

The following research questions guided the analysis of research findings, aiming to explore key aspects of recruitment, skills gaps, and emerging trends in the rail and road freight transportation sector in Kazakhstan:

- Research Question 1: What are the current recruitment trends in the rail and road freight transportation sector in Kazakhstan?
- Research Question 2: What are the primary drivers contributing to recruitment challenges within the sector?
- Research Question 3: What is the overall proficiency level of existing staff in the rail and road freight transportation sector?
- Research Question 4: Which specific cognitive, socio-emotional, and technical skills are lacking among staff, hindering sector productivity and growth?
- Research Question 5: What are the emerging occupations and skills that employers identify as crucial for the rail and road freight transportation sector?
- Research Question 6: How do employers prioritize and evaluate the value of different skills when considering training needs in the sector?

3.2. Target Group

The target population for the Establishment Skills Survey (ESS) included businesses within the rail and road freight transportation sectors in Kazakhstan. The focus was on small to medium-to-large-scale enterprises with at least 10 employees.

The survey involved three major KazLogistics-affiliated associations and some of their member enterprises:

1. Kazakhstan Association of Carriers and Operators of Wagons (Containers) (KazAPO[4])
2. Union of International Road Carriers of the Republic of Kazakhstan (KazATO[5])
3. Association of National Forwarders of the Republic of Kazakhstan (ANEK[6])

4 See: KAZAPO https://kazapo.kz/

5 See: KAZATO https://www.iru.org/membership/members-directory/kazato

6 See: ANEK https://kffanek.kz/about

The Association of Freight Rail Carriers and the National Company 'Kazakhstan Temir Zholy' chose not to participate in the survey due to data privacy concerns.

3.3. Questionnaire

The questionnaire for the Establishment Skills Survey (ESS) was developed according to the best international practices, with the goal of capturing comprehensive data on skills gaps, recruitment challenges, and workforce development needs across the rail and road freight transportation sectors. While the questionnaire was effective in addressing these topics, several challenges were identified during its implementation, highlighting important lessons for future surveys.

The structure of the questionnaire is very robust, following a clear flow from basic business information to more detailed areas such as recruitment, skills gaps, and workforce development. This allowed for consistent and organized data collection, which is essential for comparisons of results if collected over time and between sectors. Additionally, the questionnaire provided a well-rounded view of businesses' skills related challenges, which proved valuable for understanding sectoral needs.

Despite its overall strengths, several challenges emerged when applying the questionnaire, particularly with the large amount of small businesses that participated in the survey. Key challenges included:

1. Many small businesses found certain sections of the questionnaire, particularly those on workforce development and business strategy, less relevant to their operations. Smaller enterprises often lack structured recruitment practices, formal training programs, and established business strategies, making it difficult for them to respond meaningfully to these sections. As a result, some respondents skipped questions or provided vague answers, leading to incomplete data in key areas, such as recruitment.

2. Sections on detailed recruitment practices, wages, and workforce development were perceived as complex by many respondents. Small businesses, which often do not recruit large numbers of staff, found it difficult to answer questions on staff turnover, vacancy numbers by specific occupations, and specific recruitment methods. These businesses typically rely on informal recruitment practices, making the more detailed questions harder to answer in a way that matched their operations.

3. While the questionnaire was translated into Kazakh, some respondents, particularly those in smaller or rural businesses, had difficulty understanding certain terms and phrases. This issue was largely tied to the interviewers' ability to clarify these terms, rather than the translation itself. Some interviewees were unclear about technical terms related to skills development or recruitment, leading to inconsistent or inaccurate responses.

4. Smaller businesses, often with limited resources, were unable to dedicate significant time to complete the survey. This meant that some of the more detailed sections were rushed or left incomplete, further hindering the quality of data in areas such as workforce development and skills gaps.

It is important to recognize that Establishment Skills Surveys (ESS) typically require a level of data granularity and formalization that smaller businesses may not easily provide. Therefore, future ESS, especially if implemented in the service sectors, should include mechanisms to account for the informal structures and practices common in these businesses, while ensuring that the data remains useful for policy and program development.

3.4. Sampling

The Establishment Skills Survey (ESS) initially employed a stratified random sampling method, intending to select 120 businesses from KazLogistics-affiliated companies in the rail and road freight transportation sectors, with 60 businesses from each sector. However, securing participation from associations and businesses proved challenging.

As a result, the sample was adjusted to include only businesses affiliated with the three participating associations: Kazakhstan Association of Carriers and Operators of Wagons (KazAPO), Union of International Road Carriers of the Republic of Kazakhstan (KazATO), and Association of National Forwarders of the Republic of Kazakhstan (ANEK). This adjustment led to a slightly unequal distribution between the road and rail freight sectors, with some businesses participating in both subsectors. Despite this, the sample provided valuable insights into the skills and recruitment challenges faced by businesses in these subsectors.

3.5. Response rates

Ultimately, 114 businesses participated in the survey, slightly falling short of the original target of 120. However, the response rate of 95 percent met the anticipated level, which was considered sufficient given the focus of the survey. The primary objective was not only to gather data but also to test the tools and implementation process, which involved a comprehensive and in-depth questionnaire. The questionnaire was particularly rich, containing numerous qualitative questions designed to capture nuanced insights into the skills needs and recruitment challenges faced by businesses in the sector. These qualitative questions required more detailed responses, which contributed to a lower number of completed interviews. Despite this, the data collected provided valuable insights, making the study a success in achieving its goal of understanding sector-specific challenges while also refining the survey methodology for future use.

3.6. Weighting

Although the research plan initially included the possibility of implementing weighting procedures to address any sector imbalances, these procedures were not applied in this pilot survey. The lack of a comprehensive and up-to-date business registry at KazLogistics, coupled with incomplete and inconsistent member data provided by the participating associations, prevented the effective implementation of accurate weighting. Specifically, the participating associations did not have detailed information on business locations, sub-sectors, or the distribution of business sizes, which are critical for creating a weighted sample that accurately represents the broader population. Consequently, the sample did not fully reflect the proportional distribution across the rail and road freight sectors, nor did it capture the diversity of businesses across different regions. This limitation resulted in some imbalances in the data, particularly in terms of sub-sectoral representation.

Given this, for future surveys, particularly those involving larger sample sizes (exceeding 250 businesses), it is highly recommended to apply a probability-based weighting method. This would involve stratifying the sample more precisely to ensure a more accurate and proportional representation of businesses across different sectors, regions, and sizes. Implementing such a methodology would improve the robustness of the findings, making the survey more reflective of the entire sector and enhancing the reliability of the conclusions drawn from the data.

4. Quality Assurance and Limitations

To ensure the reliability and validity of the Pilot Establishment Skills Survey (ESS), several quality assurance measures were implemented throughout the survey process. Interviewers underwent a comprehensive training program designed to be mindful when engaging with employers and asking questions that may be considered sensitive. The training aimed to standardize the data collection process and ensure consistency in how questions were presented and responses recorded. It also included guidance on the survey's purpose, methodology, and how to handle specific scenarios that might arise when engaging with businesses. This approach was crucial for equipping interviewers to navigate potential challenges, build trust with participants, and gather accurate and meaningful data.

Additionally, a supervisor was assigned to periodically review the quality of interviews, providing checks on the accuracy and consistency of the data entered. This oversight helped mitigate potential issues, ensuring the final dataset was robust.

Despite these efforts, the ESS encountered several challenges, mainly due to organizational and administrative limitations, as well as external factors such as limited engagement from associations, employers, and high-level policymakers, which impacted the overall survey's planning, funding, and implementation.

KazLogistics management underwent changes three times during the survey period, leading to some inconsistencies in survey commitment. The working group, composed of only technical personnel, could have benefited from the involvement of high-level policymakers, who might have provided strategic guidance and ensured associations and employers' commitment to the ESS. Moreover, the Ministry of Labour and its Workforce Development Centre (WDC) had limited incentives to engage actively in the survey's design and implementation.

Furthermore, the Ministry of Transport, a critical stakeholder, was not involved in the process. Their engagement could have contributed to stronger commitment to the survey and ensured that the results were used for policymaking and training advocacy. Similarly, the newly established Sector Skills Council under the National Agency for Professional Qualifications, part of the WDC, could have played a more active role in ensuring the survey design aligned with the broader goals of vocational education and training (VET) standard development. Findings from an ESS typically inform discussions that shape VET standards and curricula.

In Kazakhstan, high-level stakeholder engagement, particularly from senior representatives of the Ministries of Transport and Labour, is essential to build commitment, secure sustainable funding, and foster enduring support for ongoing ESS efforts. Such strategic oversight and advocacy are crucial for maintaining a long-term vision, for aligning ESS goals with national skills development policies, and for promoting stakeholder collaboration. This high-level engagement also helps ensure that ESS findings are fully leveraged in policymaking and VET systems, thereby maximizing the survey's impact and supporting sustainable workforce development investments.

KazLogistics also faced challenges in directly engaging with businesses, as its primary interactions were with associations representing employers. Some associations did not fully grasp the value and purpose of the Pilot Establishment Skills Survey, occasionally misinterpreting it as a government-led assessment of business practices. This limited understanding likely influenced both associations' and employers' willingness to participate, which in turn impacted data quality and survey coverage.

Additionally, KazLogistics found that the scope of work for the survey required more resources and effort than initially anticipated, particularly in areas such as interviewer recruitment, training, and data management. Although four interviewers were trained to conduct the survey, two ultimately did not carry out interviews due to the need for deeper sector knowledge, and challenges in connecting with employers. Associations have opted to recruit their own interviewers. As a result, four interviewers were recruited and funded through the KazLogistics Research Fund, placing additional demands on resources and influencing both data collection and entry efforts.

5. Profile of Establishments surveyed

The Pilot Establishment Skills Survey engaged 114 enterprises from the road and rail freight transport sector, capturing key characteristics of their organizational structure, ownership, legal form, and economic activity. Understanding the profile of these establishments provides valuable context for analyzing and interpreting the sector's skill needs and workforce development challenges that will be addressed in a separate analytical survey report.

Most enterprises surveyed were small, with 98 establishments (86 per cent) employing between 10 and 99 people. Medium-sized enterprises (100 to 249 employees) accounted for 10 establishments (8.8 per cent), while large enterprises (250 or more employees) made up only 6 establishments (5.3 per cent). This distribution indicates that the road and rail freight transport sector is primarily composed of smaller companies, which often face unique challenges related to training resources, skills development, and retention of skilled employees. The high proportion of small enterprises suggests that any sector-wide skills development initiatives may need to consider targeted support for smaller businesses, which may have limited capacity for training and workforce planning compared to larger companies.

Private ownership was overwhelmingly dominant, with 113 of the 114 enterprises surveyed (99.1 per cent) classified as privately owned, and only one enterprise (0.9 per cent) having a mixed ownership structure. There were no state-owned or collective enterprises in the sample, highlighting a sector driven almost entirely by private investment and decision-making. This ownership pattern suggests that engagement with the sector will largely require collaboration with private stakeholders, who may prioritize cost-effective solutions and rapid returns on investment in skills development. Additionally, the lack of public sector ownership may imply limited government influence on workforce policies within these enterprises, underscoring the need for policies that can incentivize private companies to invest in training, upskilling and reskilling.

In terms of legal structure, the survey builds mostly on limited liability companies (LLCs) (101 out of 114, or 88.6 per cent which is a common choice for businesses due to their flexible management structure and limited financial liability for owners. Other legal forms were much less common: only one joint-stock company (0.9 per cent) and one cooperative (0.9 per cent) were surveyed, while 11 enterprises (9.6 per cent) fell under "another form." The prevalence of LLCs suggests that the transport sector favors this structure, likely due to the ease of formation and liability protections it offers. This preference for LLCs could influence the types of incentives and regulations that are most effective in promoting sector-wide workforce development.

The enterprises surveyed were engaged in various types of freight transport, with a notable concentration in road transport. Specifically, half of the sample (57 enterprises, or 50 per cent) were involved in freight transport by road, while 46 enterprises (40.4 per cent) specialized in freight rail transport, and 11 establishments (9.6 per cent) operated in both rail and road transport. This

distribution reflects a strong presence of road transport within the sector, aligning with the high demand for road freight services in regional and domestic logistics. Rail transport, while a little less represented, also constitutes a significant portion of the sector, indicating that both types of transport play crucial roles in Kazakhstan's logistics infrastructure. The presence of multi-modal enterprises (those involved in both rail and road) suggests a growing trend toward integrated transport solutions, which could require a more diversified skill set among employees.

Multi-modal enterprises may require a more versatile workforce capable of managing the logistical, regulatory, and technical demands of both modes of transport.

Table 1. Profile of enterprises participating in the Pilot Establishment Skills Survey in the Road and Rail Freight Transport sector

1.1 Size of the enterprise		
	Number of enterprises	Per cent (%)
Large (250 persons and more)	6	5.3
Medium (100–249 persons)	10	8.8
Small (10–99 persons)	98	86.0
Total	**114**	**100.0**
1.2 Enterprise ownership		
	Number of enterprises	Per cent (%)
State-owned		0.0
Collective		0.0
Private	113	99.1
Mixed	1	0.9
Total	**114**	**100.0**
1.3 Legal form of the enterprise		
	Number of enterprises	Per cent (%)
Limited liability company	101	88.6
Joint-stock company (open or closed)	1	0.9
Cooperative	1	0.9
Another form (write)	11	9.6
Total	**114**	**100.0**
1.4 Enterprise by economic activity		
	Number of enterprises	Per cent (%)
Freight rail transport	46	40.4
Freight transport by road	57	50.0
Both	11	9.6
Total	**114**	**100.0**

Source: Pilot Establishment Skills Survey

6. Conclusion

The survey was effective in capturing the broader workforce challenges within the transportation sector, but the large presence of small businesses, particularly in the road transport sector, created difficulties in gathering meaningful data. Many of these businesses lacked formal recruitment practices, structured training programs, and business strategies, making certain sections of the questionnaire less relevant. As a result, some businesses struggled to provide adequate responses, particularly in areas such as workforce development and detailed recruitment practices.

The questionnaire, while robust and aligned with international best practices, would benefit from modifications to better suit small-scale businesses. Specifically, simplifying questions related to recruitment practices, business strategies, and workforce development would make the survey more relevant to smaller enterprises, which typically rely on informal processes. Including more qualitative questions could also help capture valuable insights that are not easily quantified but are essential for understanding the broader context in which these businesses operate.

The lack of commitment and funding from higher-level policymakers was a key challenge, impacting the survey's overall coordination and support. Stronger engagement from policymakers would be essential to ensure that the survey is adequately resourced and that interviewers with the right connections and knowledge of the sector are recruited.

Another challenge was the recruitment of interviewers. The success of the survey relied on the ability of interviewers to connect with businesses in the sector, especially small businesses, which require interviewers who are familiar with local practices and can establish trust with business owners. Interviewers who were not well-connected or familiar with the specific dynamics of small businesses in the sector faced difficulties, which impacted on the quality of the data collected.

Recommendations for Future Surveys:

1. Policy support, funding, and stakeholder engagement

Strong commitment and funding from key policymakers, including the Ministry of Transport, the Ministry of Labour, and the Workforce Development Centre (WDC), are essential for the successful implementation of future ESS in the transport sector. High-level engagement from senior representatives will align the survey's goals with strategic priorities, ensure necessary funding, and provide continuity across various survey phases and sectors. Clearly communicating the survey's objectives, incentivizing engagement, and involving the sector skills council will also help maximize the use of ESS findings to inform VET standards and evidence-based policy development.

2. Align ESS with Sector Skills Councils work

Future sector-based ESS should be designed to support the newly established Sector Skills Council under the National Agency for Professional Qualifications. This alignment will ensure that survey findings directly contribute to workforce development initiatives, providing accurate, actionable recommendations for addressing skills gaps and supporting skills development policies, programmes and VET curricula.

3. Tailor questionnaire to also be applicable for small businesses

Given the increasing importance of small businesses in Kazakhstan's labour market, future sector-based Establishment Skill Surveys should be adapted to also suit their needs. These businesses often rely on informal processes, so simplifying sections of the questionnaire related to recruitment, workforce training, and business strategy would ensure the survey remains relevant and accessible. A simplified version should focus on core issues such as immediate recruitment challenges and key skills gaps, with a stronger emphasis on qualitative questions to capture rich, context-specific data. This approach would allow for both the breadth of quantitative survey data and the depth of insights needed to understand the unique challenges faced by small enterprises.

In addition to these adjustments, incorporating qualitative case studies alongside quantitative data would expand the methodology, capturing a broader context of the issues faced by small businesses. Such a mixed-method approach would not only complement survey data but also provide a more nuanced understanding of the sector's workforce needs, particularly in areas such as informal recruitment and ad-hoc skills development practices.

By tailoring the survey to the realities of small enterprises, through simplification, the inclusion of more qualitative questions, and better alignment with their practices, the data collected will be more accurate, and the insights derived from it will be more actionable.

4. Recruit experienced Interviewers with sector connections

The quality of data collected depends heavily on the experience of interviewers. Recruiting interviewers who understand the informal recruitment and training practices in small businesses and have established connections in the sector will enhance the reliability of the data. This approach will improve access to businesses, ensure more accurate information is gathered, and provide deeper insights into the challenges facing the transport sector.

5. Adapting to capture rapid labour market changes in various sectors

To keep pace with the rapid changes in the labour market due to technological advancements, automation, and new business models, future ESS surveys should be conducted across a broad range of sectors and business types. This approach will ensure that emerging skill needs are accurately captured, including those related to digitalization, automation, and other technological innovations. By collecting data from diverse industries, the survey can provide a more comprehensive view of the evolving workforce requirements, allowing for the development of policies and training programs that are responsive to these dynamic changes.

By addressing these recommendations, future ESS surveys will be a great tool to provide comprehensive, and actionable evidence to support skills development policies and VET initiatives in various sectors.

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Appendices

Annex 1. Master Dataset Establishment Skills Survey

Annex 2. Applied Coding Scheme for Occupations

Annex 3. National Occupational Standard Classification from 2017