Skills Gaps and Development in the Occupied Palestinian Territory

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Table of Contents

List of Tables

List of Figures

List of Boxes

List of Annexes

List of Acronyms

AFD:	Agence Francaise de Development
AWRAD:	Arab World for Research and Development
BA:	Bachelor of Arts
BDC:	Business Development Centre
BEEPS:	Business Environment and Enterprise Performance Survey
BPC:	Business Plan Competition
BTI:	Business and Technology Incubator
CBO:	Community-Based Organisation
CRDP:	Community Resilience and Development Program
CV:	Curriculum Vitae
DFID:	Department for International Development
EU:	European Union
FAO:	Food and Agriculture Organisation of the United Nations
FDI:	Foreign Direct Investment
GDP:	Gross Domestic Product
GER:	Gross Enrolment Rate
GERA:	Global Entrepreneurship Research Association
GIZ:	Deutsche Gesellschaft für Internationale Zusammenarbeit
ICT:	Information and Communication Technology
ILO:	International Labour Organisation
ISO:	International Organisation for Standardization
IT:	Information Technology
IUG:	Islamic University of Gaza
LLL:	Lifelong Learning
LPM:	Linear Probability Model
MA:	Master of Arts
MAS:	Palestine Economic Policy Research Institute
MENA:	Middle East and North Africa
MoE:	Ministry of Education
MoEHE:	Ministry of Education and Higher Education
MoL:	Ministry of Labour
MoTA:	Ministry of Tourism and Antiquities
MSME:	Micro, Small and Medium-Size Enterprises
MTIT:	Ministry of Telecommunications and Information Technology
NSFI:	National Skill Forecasting Initiative
NGO:	Non-Governmental Organisation
NIS:	New Israeli Shekel
OECD:	Organisation of Economic Co-operation and Development
OPIC:	Overseas Private Investment Corporation
PA:	Palestinian Authority
PARC:	Agricultural Development Association
PCBS:	Palestinian Central Bureau of Statistics
PhD:	Doctor of Philosophy
PICTI:	Palestinian Information and Communications Technology Incubator
PVTD:	Productivity and Vocational Training Department
R&D:	Research and Development
RASIT:	Royal Academy of Science International Trust
SIDA:	Swedish International Development Agency
SME:	Small and Medium-Sized Enterprises
TEA:	Total Early-Stage Entrepreneurial Activity
TIMSS:	Trends in International Mathematics and Science
TVET:	Technical and Vocational Education and Training
UK:	United Kingdom
UN:	United Nations
UNCTAD:	United Nations Conference on Trade and Development
UNDP:	United Nations Development Program
UNESCO:	United Nations Educational, Social and Cultural Organisation
UNRWA:	United Nations Relief and Works Agency
US:	United States
USAID:	United States Agency for International Development
USD:	United States Dollar
VET:	Vocational Education and Training
VTC:	Vocational Training Corporation

Executive Summary

Introduction and Methodology: CARE International (CARE), with funding from the Department for International Development (DFID), has been implementing a research project about Skills Gaps and Development in the Occupied Palestinian Territory. The current economic environment is constricted by a variety of obstacles, most notably the policies and restrictions of the Israeli occupation, a poor enabling environment, defined by weak infrastructure and burdensome regulations, inability to compete with regional economies and an environment obstructive to small and medium business start-ups. As such, this research aims to identify skills gaps among employees and entrepreneurs, with specific focus devoted to Palestinian youth and women, in relation to the demands of the domestic job market, as perceived by the private sector. A central goal for all actors is the development of domestic capacity by providing vital skills to workers and entrepreneurs. Simultaneously, this research is designed to counter existing perspectives, predicated on assisting Palestinian transition from education to employment, with little attention paid to skills development.

To assist in achieving these goals, Arab World for Research and Development (AWRAD) worked with CARE to perform a comprehensive assessment of the current state of skills gaps, with an emphasis on the dual supply and demand factors influencing such gaps. The central objectives of the research are listed as follows:

- Identify skills and competencies gaps in the Palestinian labour market;
- Benchmark Palestine's skill development system to allow for early identification mechanisms and methods and provide best practices and lessons learned against regional performance;
- Identify constraints to and opportunities for skills development within the current skills development system, responding to the root causes. Specific attention devoted to higher value-added skills, better quality and more innovative goods and services and better performing enterprises;
- Provide customised, actionable and prioritised options and recommendations for key Palestinian stakeholders on how to optimise and develop skill quality in the near, medium and long-term in support of national strategies.

To accomplish the goals of the research, a mixed methods approach was adopted, built around literature and desk review, survey questionnaires, focus groups and in-depth, semi-structured interviews while also leveraging CARE's local and global expertise. Survey questionnaires were customised for distribution among three key stakeholders: (1) private sector employers, (2) employees and graduates and (3) education suppliers. Guidelines for interviews and focus groups were similarly customised and the desk and literature reviews consulted all relevant sources from national strategies to analytical studies. The research and project were designed to follow a six-step plan, explained as follows:

1. Secondary research;
2. Primary research;
3. Validation of methodology;
4. Composition of the final report;
5. Validation of results and recommendations;
6. Convening of national conferences to disseminate and discuss findings and their implications on the work of stakeholders.

Main Findings: The research revealed a variety of significant results, critical to understanding the contemporary skills and circumstances of the Palestinian labour market. On the most fundamental level, all stakeholders acknowledge the existence of, and are highly concerned with, the **presence of a skills gap**. The vast majority of business owners state that they have varying degrees of difficulty filling job vacancies, and many continue to say they place greater faith in the skills of old staff, indicating the problem is growing. This has forced the majority of firms to hire employees who do not meet the minimum requirements for the job. This is also reflected in the perspectives of employees and graduates. Many are sceptical that their current host of skills will allow them to find work. Perhaps most distressing is the **disconnect** that exists across different stakeholders. While employers are highly doubtful that new graduates have the skills necessary to be hired or find work, educational institutions express higher confidence that their instruction is beneficial in providing the necessary skills.

The Labour Market: A variety of factors were identified that could explain the presence of a skills gap in the labour market. The first are the limited possibilities available to job seekers, with all stakeholders listing **unemployment** as a severe problem. Stakeholders are similarly critical of the existing connections between the private sector (employers) and the skills suppliers (educational institutions). Most identify the **harmonisation** of these two groups as weak, going on to identify a shortage of policies and guidance at the national level as a chief catalyst. This sentiment is

further expressed in the belief that employers and educational institutions do not actively encourage their own **joint programming**. Among employers who do believe such joint programming is available, only a small minority believe it is **intensive**, with slightly more believing it produces positive effects. These sentiments can be reflected in the limited provision of career counselling centres provided by educational institutions. A majority of graduates say they received no **career counselling** in the course of their education, and only half of educational institutions believe they have such offices.

Employment: Employers and educational institutions do agree, however, that the greatest impediment to limited employability is the **absence of practical skills** among applicants. Respondents across all stakeholder groups tie this to the dysfunctional relationship between the private sector and educational institutions. In addition to these structural impediments, a variety of multi-faceted factors are perceived as limiting. All stakeholders consider nepotism the chief factor in limiting employment, followed by **inability to access outside markets**, **education gaps** in specialisations, limited mobility, and gaps in **on-the-job-training**. Social factors were also recognised as significant. There is recognition that women often face institutional **discrimination**, reported most strongly by women themselves. This is identified in secondary research as largely being a product of patriarchal norms. Women are expected to seek education, training and employment in traditional sectors, such as services and teaching, as well as accept pay at lower levels than their equally educated or qualified male counterparts. Qualitative findings confirm the restrictive presence of patriarchy as female respondents cite being turned away for matters as basic as their dress. While discrimination of youth is not a systemic obstacle, discrimination against those with disabilities is particularly pronounced.

Training: The **capacity of the private sector** to provide skills was also documented in the research. An auspicious observation is that the majority of firms say they need only six months to train a new employee, though this may be more indicative of small size than strong training. Possible evidence for this is confirmed in the fact that **few firms have provided training** for employees, with fewer still acknowledging they have an allocated budget for human resource development. Once again, **discrepancies in perceptions** were recorded when comparing the answers of firms with those of educational institutions. Unfortunately, graduates and employees do not appear to be filling the gaps created by the private sector and educational institutions. A plurality of these respondents say they are **not actively seeking training** to enhance their employment opportunities, with even fewer reporting they use the Internet to develop their skills. Reluctance to seek outside training was caused by a variety of factors, including lack of knowledge, scepticism of quality and discrimination/nepotism in selection processes.

New Providers: New providers, such as business development centres, incubators and centres of excellence, offer a variety of programs in training and business skills to help equip current and potential employees. However, **awareness of these offerings remains low** among those with the greatest potential to benefit, graduates and employees. Among those who have participated, **results are fairly positive**, indicating a strong foundation for expansion.

Entrepreneurship: Special focus was devoted to **entrepreneurship**, as this provides encouraging opportunities for economic growth and employment of Palestinians in a demand-driven context. Though only a small minority of respondents say they currently own their own business, a far higher amount reflect their ambitions to do so, along with high confidence that such an endeavour will succeed. Respondents gave a variety of reasons for wishing to do so, some believed their education (often vocational) suited them for such a course, others believe it is a fruitful alternative to a constricted labour market and some final voices stating it was simply a personal goal. Reluctance was similarly observed, however, often for structural reasons. Many respondents believed they would have **difficulty accessing credit**, others believed their **skills were not sufficient**, with many more in Area C and East Jerusalem saying they faced too many **unique geographical obstacles** to be successful.

Needed Skills: All stakeholders believe that it is difficult, to varying degrees, to fill job vacancies with the required technical or personal skills. Both employers and graduates believe it is more difficult to find the necessary technical skills than personal ones, but not by pronounced margins. Currently, private sector firms express concern in finding the necessary **technical skills**, but greater concern in finding the needed **personal and organisational skills**. Specifically, employers believe that skills in the field of their respective industry, oral communication, technology and marketing using social media are the most urgently needed technical skills. Among personal skills, employers' identify communication and interpersonal effectiveness, work ethics, customer oriented skills, integrity and transparency and adaptability as most urgent.

Gaps in Skills: Critical to the success of this research is the identification of **gaps in skills**, and the current data reveals many interesting results. The most dramatic gap between employers' demand and graduates' perceived supply

is in **skills in the field of the respective industry**. The second largest gap is in the field of marketing using social media and business writing, as well as written communication. Across all technical skills the gap between the needs of employers and availability of skills is larger among graduates than employees, begging the **question of causality** in the relationship between skills and employment. Similar results are observed when measuring gaps in personal skills. The largest gaps exist in **customer-oriented skills and communication** and interpersonal effectiveness. Once again, the gap between employers and graduates is larger than the gap between employers and employees. It is significant to note that though employers say technical skills constitute basic needs for them, the largest gaps appear in evaluations of personal skills. While gaps refer to the difference between employers' perceptions of importance and employees' and graduates' perceptions of availability, needs refer to employers' direct perceptions of need in their firm/industry. Skills such as research and development, critical and analytical thinking and gender awareness all receive very low scores, perhaps indicating lack of awareness among employers and their importance to the growth of their enterprises.

Geography: In addition to collecting aggregate data on skills gaps, the research also undertook relevant disaggregation to reveal important trends across region, economic sector, gender, and other relevant perspectives. **East Jerusalem** businesses report the greatest difficulty in filling vacancies, while **Area C** employees and graduates report the greatest difficulty in finding work. Familiarity with new providers, and positive evaluations of their skills are lowest in East Jerusalem. While entrepreneurship exists to a small degree among the **West Bank and Gaza**, it is almost non-existent in Area C and East Jerusalem. It is relevant to note that this research did not occur in a vacuum, and in the course of this assignment the recent **Gaza War** erupted. The destruction caused to Gaza's infrastructure, its educational institutions and people will have tangible impacts on the labour market, likely increasing unemployment and limiting the capacities of private firms.

Economic Sector: Among all economic sectors (ICT, tourism, agriculture/agribusiness, industry/manufacturing, construction and other services) all sectors, except ICT, identify skills in their respective industries as their most pressing need. Only **ICT employers** say that new technology is the most pressing need, indicating the competence of their workforce compared to other sectors. This is logical as ICT employers state they provide training and allocate budgets for human resource development at greater rates.

Business Size: Important trends also emerge when viewing results by size of business. **Small (1-9 employees) and medium-size (10-49 employees)** enterprises (SMEs) display very similar responses, in stark contrast to the responses of **large firms (50 or more employees).** This is troubling as it may indicate stratification is occurring in the private sector, with large monopolies dominating the national arena, and small and medium counterparts filling in local gaps, leading to an erosion of economic mobility.

Gender: When assessing results by gender, **males show more confidence** in their skills, and more drive in finding employment opportunities. In contrast, **females are seeking self-improvement** at greater rates than males, and logically report greater knowledge of new providers, a promising sign. There are a variety of explanations for this finding. Women may be seeking additional training to make themselves more competitive in the labour market, as they recognise they face additional obstacles solely as a result of gender discrimination. It may also be that women are seeking to gain skills that were denied to them in their education, as they were steered into traditional courses, departments and institutions, preventing them from gaining skills and competencies for pursuing employment. **The gender gap** is starkest in entrepreneurship, where males report owning personal business at noticeably greater rates. Secondary research confirms that women face additional obstacles in the course of setting up businesses, such as receiving loans or registering for licensing.

Level of Education: **Significant results emerge when disaggregating by level of education, as it appears that education is not positively correlated with skill compatibility to private sector needs**. It is alarming that 2-year college graduates boast the highest confidence when evaluating their skills, while those who hold BA degrees or higher are far more modest.

Recommendations: Accounting for this wealth of data, a series of recommendations were prepared to guide interventions in the coming future. Recommendations were targeted to specific stakeholders with recognised comparative advantage and divided into short, medium and long-term. The first addresses the severity of the problem of skills gaps, particularly **raising the profile of the issue** among all stakeholders, encouraging buy-in among sceptical employers and promoting inclusion among education institutions. This includes **expanding career counselling** centers, organizing national conferences and development of strategies, as well as establishing **longer-**

term mechanisms for dialogue and exchange of information. Others include targeting potential employees and job seekers themselves, through the promotion of **self-learning methods** and social media. The research suggests the creation of **an online portal** that can provide audio-visual instruction on skills necessary to enter the labour market, such as CV composition and interviewing. Additionally**, best practices** from the region should be examined and integrated, as both Egypt and Jordan have been more successful in the design of self-paced courses on skills development.

■ ***Regional Circumstances:*** Recommendations have also been specifically tailored to region and actor. There is a clear need for **greater offerings to Palestinians in Area C**, and efforts should be pursued to increase their presence, such as the allocation of seats, subsidisation of transportation, or bringing training to their communities through existing actors in the area. **In East Jerusalem**, mechanisms for dialogue should be created, empowered or coordinated to link businesses with the PA and the rest of the Palestinian private sector. All the while, emphasis should be placed on removing stigma and discrimination against youth, women and the disabled through trainings and initiatives sensitive to their needs.

■ ***Stakeholders:*** Recommendations have been developed for all significant stakeholders. **The government** has a clear role to play in providing national direction and policies, which include fostering career counselling at schools, developing curricula that are relevant and standardising certificates and job descriptions. Simultaneously, **the private sector** has a role to play in promoting capacity building (especially in SMEs), encouraging formalisation, devoting greater attention to human resource development and evaluating initiatives that are providing training relevant to their needs. Recommendations for the private sector also include publicising successful models in skills development, raising awareness of new providers, and establishing joint dialogue with relevant partners inside and outside the private sector. **Educational institutions** should take decisive steps to control admissions to prevent erosion of quality education, as well as improving the educational capacity of career counselling and encouraging more positive perceptions of TVET among the community. Extra-curricular activities should be provided to link skills with the private sector, while successful teaching methods built on real-life experiences should be shared, coupled with development of courses on self-enhancement and entrepreneurship. **New providers** should work to enhance existing high-quality centres, and develop more programs and opportunities for youth and women. These efforts should be accomplished through dialogue with traditional educational institutions, to prevent isolation and fragmentation.

■ ***Soft and Technical Skills:*** Furthermore, it is central to **develop a unified vision** for the development of soft skills, in tandem with technical ones. This will include empowering schools and families with the knowledge and resources necessary to promote the development of skills such as work ethic and self-esteem. Changing values is an arduous and protean undertaking and will require unified action by government ministries, educational institutions and NGOS, ideally working under a national strategy. Efforts should be made to include **soft skills promotion with technical skill instruction** so students can understand the real-world benefit. Similarly, efforts to promote entrepreneurship should be expanded. These include developing strategies to promote lifelong learning, and expanding access to credit to women, youth, and those in East Jerusalem and Area C. The national bureaucracy should be simplified to ease start-up creation, and awareness raising campaigns, building on successful models at home and abroad, should be developed.

■ ***Forward Thinking and Value-Added:*** In order to adopt a **forward thinking attitude** towards skill development a **National Skill Forecasting Initiative** should be launched, intended to create a Palestinian model that projects the needed skills in the near future. This can be built on the existing European models, anticipating labour market needs through data on sector, occupation, qualification level, and other relevant demographics. Attention must also be devoted to the issue of value-added enterprises and their contribution to skills development. This includes launching initiatives to make **Palestinian businesses more competitive**, beginning with a national conference to develop micro and macroeconomic strategies, particularly the identification of sectors that have immediate potential for improvement and greater inclusion in global markets. In addition to the sectors, the most important skills, as determined by the market, must also be targeted, including: skills in the relevant industries, innovation and entrepreneurship, ability to recognise opportunities, and many others. Particularly pertinent to success is the combination of these skills with efforts to enhance private sector competitiveness and strategic, tactical and operational discussions should be guided by the reality that skills and competitiveness are two sides of the same coin, not isolated priorities.

Possible solutions include linking economic subsectors together in projects utilising their comparative advantage, and the adoption of ISO standards for a greater number of Palestinian industries. Finally, efforts should be undertaken to address data insufficiency and exchange. National indicators should be developed to track and measure skills gaps

through proxy indicators, ideally linked to the Labour Force Survey. A mechanism to consolidate existing data and research, dealing specifically with skills gaps, should be empowered or created.

Concluding Remarks: Overall, the research conducted by AWRAD and CARE indicates challenges to be addressed, foundations to be built upon and paths to be taken in pursuit of a more skilled, entrepreneurial and competitive labour market. It can be stated with certainty that skills gaps are a pressing problem in contemporary Palestine, identified by employers, employees, graduates and educators alike. This has been fuelled by an unfortunate disconnect between actors on the demand side and the supply side, and greater communication and guidance must be promoted and provided to shrink this gap. Many economic sectors identify the fundamental skills in their industry as the most pressing technical concern, and women and the disabled identify clear limitations to their full inclusion. Yet, for all these difficulties, the soil for a competitive and skilled workforce is fertile. Palestinians express interest in entrepreneurship and confidence in such endeavours, career counselling, a critical bridge between educators, students and the market, can be expanded and improved and some economic sectors display great potential for growth and international expansion. The labour market is an ecosystem, not merely the sum of its parts, and it is critical for all its actors to identify their roles, their comparative advantage, their relationship with their counterparts and feasible steps they can take in coordination to begin moving forward on the issue of skills gaps.

Chapter One

Introduction, Methodology and Context

1. Introduction

1.1 Study goals

CARE International, with funding from the Department for International Development (DFID), is implementing a research project about Skills Gaps and Development in the Occupied Palestinian Territory. The research is designed to identify skills gaps among employees and entrepreneurs, with specific focus devoted to Palestinian youth and women, in relation to the demands of the domestic job market, primarily the private sector. This research endeavours, as a central goal for all actors, to provide vital skills to workers and entrepreneurs, in an effort to develop domestic capacity. The project is also designed to counter existing perspectives predicated on assisting Palestinians transition from education to employment, with little attention paid to skills development.

The need for development of strong entrepreneurial skills in contemporary Palestine is particularly pressing. The contemporary economic environment is constricted by a variety of obstacles, most notably the policies and restrictions of the Israeli occupation, a poor enabling environment, defined by weak infrastructure and burdensome regulations, inability to compete with regional economics, such as Jordan and Egypt, and a private sector obstructive to business start-ups. These difficulties fall hardest on Palestinians who are already disempowered by prevailing circumstances, namely youth, women, the poor and those living in marginalised areas (Area C, East Jerusalem, the Gaza Strip, the Jordan Valley and other locations). Even educated Palestinians find themselves shut out of economic opportunity, forcing many to accept menial work far beneath their capacity, while others opt to look abroad, leading to a national brain drain. In this environment, a new focus on skills as they relate to employability and entrepreneurship is vital.

In order to fine tune interventions, develop strategies and allocate resources with the greatest impact it is first necessary to determine the most pressing gaps. As such, Arab World for Research and Development (AWRAD) was contracted by CARE to perform a comprehensive assessment of skills gaps for the private sector, as the demand side, in Palestine. The work was defined by an emphasis on the supply and demand side, targeting of all relevant stakeholder groups and a mixed-methods approach to gathering data through survey questionnaires, focus groups and interviews. Finally, AWRAD's and CARE's experts were careful to consult relevant contextual documents, most notably the *Labour Sector Strategy,* the *National Employment Strategy,* and the *TVET Strategy*, to ensure recommendations are grounded in ongoing efforts and encourage greater stakeholder buy-in.

Guided by this methodology and concerns, the research has taken meticulous care to ensure that this report provides not only the highest quality data and relevant exposition, but that analysis and recommendations are actionable, ultimately feeding into the long and short-term goals of relevant actors and stakeholders. As such, the following report will address all central objectives, namely:

1. Identify skills and competencies gaps in the Palestinian labour market;
2. Benchmark Palestine's skill development system, early identification mechanisms and methods, best practices and lessons learned against regional performance (Jordan, Egypt);
3. Identify the constraints to and opportunities for skills development within the current skills development system, responding to the root causes. Specific attention will be devoted to higher-value added skills, better quality/more innovative goods and services and better performing enterprises;
4. Provide customised, actionable and prioritised options and recommendations for key Palestinian stakeholders (including Ministry of Education and Higher Education [MoEHE], Ministry of Labour [MoL], Ministry of Education [MoE], Ministry of Tourism and Antiquities [MoTA], Palestinian Federation of Industries, private sector, donors, entrepreneurship and employment enabling organisations) on how to optimise and develop skill quality in the near, medium and long-term, in support of national strategies.

1.2 Methodology

The study adopted a mixed-methods approach for its methodology. Quantitative data and qualitative data were gathered through literature and desk review, survey questionnaires, focus groups and in-depth semi-structured

interviews. The mix of tools and information sources allowed for a thorough and rich harvest of data. Cross-checking of data gathered across multiple sources of information was conducted, providing mapping and listing of what exists on the demand and supply sides and identification of gaps and challenges and maximising the reliability and validity of data obtained. Our methodology was predicated upon a clear division of chronological phases, guiding perspectives to ensure that research remained focused.

To ensure the greatest accuracy when gathering data on the root causes of skills gaps and the gap between supply and demand, data collection tools were designed to focus on three central stakeholders: private sector employers, employees/graduates and education suppliers (universities, colleges, Technical Vocational Education and Training [TVET] centres, and 'New Providers'[1]). Each respondent was provided with a customised questionnaire, specifically calibrated to measure supply or demand in skills from their unique perspective. Similar measures were devoted to the composition of focus group and interview guidelines.

Additionally, the research has been adhering to a six-stage plan to analyse the study. The first step was conducting secondary research, defined by an identification of the types and levels of skills currently existing, as well as the types of higher value skills needed for more competitive businesses and products. Also investigated were prospects for sustainable and inclusive growth, particularly catalysts for successful entrepreneurship. To assist in this process, regional practices and models were benchmarked to provide context and success stories.

Following the conducting of secondary research, the research team embarked on the primary research stage of the project. In this stage, qualitative and quantitative research was carried out to gather evidence-based data on skills gaps, according to the perspectives and experiences of relevant stakeholders. Survey tools focused on skills lacking among employees/entrepreneurs, constraints and opportunities in the skills development system, the nature of the enabling environment, capacities and strategies of existing training providers and coordination and alignment with demand at local and regional levels.

The third step was the development of a stakeholder framework and process for validation. This was conducted to validate methodology, findings per stakeholder, as well as trigger and gauge the level of buy-in and understanding among key partners and actors. This was a critical step for the preparation of this report, ensuring that reported findings and subsequent recommendations are grounded in reality.

The fourth step constituted the composition of this analytical report. Working in cooperation with CARE's, AWRAD's research team authored a report, exploring the evidence for the existence of skills gaps in the Palestinian labor market, the severity of the problem, the level of skills possessed by Palestinian employees and graduates and the needs of the private sector and other pertinent issues. Data from all three stakeholders was triangulated, along with qualitative data from in-depth interviews and focus groups. At the close of data analysis, a section on recommendations was composed, tailored for each stakeholder group and informed by international best practices.

The fifth step was the validation of data and recommendations. Two focus groups were convened, in the West Bank and Gaza, to present preliminary findings and garner feedback on their accuracy. Participants constituted key stakeholders including ministry officials, representatives of the private sector, representatives of educational institutions and many others. In total, 17 participants were present in the West Bank validation workshop and 14 in the Gaza validation workshop.

The sixth and final step of the project was the convening of two national conferences to discuss results. In Ramallah and Gaza City, AWRAD and CARE hosted a conference attended by hundreds of Palestinians from relevant ministries, trade unions, educational institutions and other significant sectors. In the course of both conferences, the most pertinent findings from the research were presented through PowerPoint presentations and those in attendance were given the opportunity to ask questions. The conferences closed with a final presentation of recommendations to implement the main findings of the research.

1 New providers are defined as organisations that provide training and services to businesses and individuals separate from the existing educational and TVET sectors. These include business incubators and accelerators, pre-incubation centres, and business development centres. A detailed review of these organisations is conducted later in the research.

1.3 Research design and tools

Sampling:

The research team developed a comprehensive sample to account for all major stakeholder groups, informed by a review of secondary sources and the knowledge of team experts. The sample size was developed to be sufficient to allow for a high level of generalization for the skills system, private sector employers and for future development of government policies and strategies. The sampling procedures for each separate stakeholder group, within the quantitative portion of primary research, are included below, along with footnotes to relevant annexes. Our samples are self-weighing, independent and representative of each respective group.

- Owner Management and Entrepreneur Survey: The sample design for management was grounded on the figures of the Palestinian Central Bureau of Statistics (PCBS).The research team utilised data on economic establishments, exclusively in the private sector. The final sample was selected and distributed proportional to the distribution within the various districts, as well as by type, size of establishment and sector. In total, 500 face-to-face interviews with owners, managers, and entrepreneurs of private sector establishments were conducted. Questionnaires were distributed geographically in accordance with the number of establishments per governorate in the sectors of manufacturing, ICT, agriculture/agribusiness, and tourism.
- Recent Graduates and Employees Survey: The study utilised 1,200 face-to-face interviews with employees and new graduates (employed and unemployed). The first half of the sample constituted employees. For this survey, employees were defined as Palestinians who have been employed for less than three years. The sample was designed to be reflective of both gender and current employment practices.
  Recent graduates comprised the other half of the sample for this survey. They were targeted through the traditional household methods, in which a field researcher was provided with lists of sampling units for the different communities across the West Bank and Gaza. Designed proportional to the size of governorates, this sample was representative of all regions (West Bank, East Jerusalem, Area C, and Gaza Strip), districts, residential patterns (cities, villages, refugee camps) and gender.
- Universities, Educational Vocational Institutions, Training and New Providers (Suppliers): The sample for this survey was based on a mapping of the supply system. Approximately 300 institutions were determined to fit the criteria and 150 interviews were conducted with representatives. The mapping sorted suppliers into three categories: (1) universities and colleges, (2) vocational/training institutions and (3) new providers. Please refer to Annex (5) for the distribution sample.

In-depth Interviews:

In addition to the three questionnaires distributed, the team conducted 15 in-depth, semi-structured interviews with key experts and stakeholders in the labour market and skills development sector. These individuals were drawn from the governmental sector, as well as the non-governmental sector and the private sector. These interviews were conducted along a set of guidelines designed to focus on key issues relevant to the research. They were also crafted to be complementary to all quantitative data gathered, so as to ensure future triangulation in data analysis.

Focus Groups:

Finally, the research team organised 24 focus groups and validation workshops across the West Bank and Gaza to provide further qualitative data. The groups were held with key representatives of the private sector, business development centres/incubators, vocational training institutes, young entrepreneurs, university graduates (employed and unemployed) and continuing education institutions. In addition to these focus groups, the research utilised additional discussions in East Jerusalem and Area C and with important marginalised groups, such as women and youth. Similar to the in-depth interviews, the team of researchers prepared a series of guiding questions for dialogue facilitation. These guidelines adhered to the central research questions, were customised for each stakeholder group and developed for the highest possibility of triangulation. Additionally, a validation workshop was convened in Ramallah on December 10 to review the data and conclusions with relevant experts. Please refer to Annex (3) for focus group breakdown.

2. Theoretical Background[2]

There is a widespread consensus among economic scholars and experts that skills are key to economic growth. **Countries that succeeded in enhancing human capital have performed relatively well in almost all development aspects.**[3] In this **sense, many economists regard education provision as a public good that warrants public investment.**[4] Yet, some argue that benefits drawn from education should not lead governments to subsidise education with no respect to quality concerns.[5]

With the increase in global competition and rapid technological change, several reports have documented a rising trend of job-skill mismatch. This phenomenon is often linked to a number of economic adversities, including rising unemployment, lower productivity, and job dissatisfaction. Imperatively, devising policies that facilitate proper skill match is now considered a prerequisite to overcome these challenges.[6] Researchers commonly identify different types of skill mismatch. One is referred to as over-education, which describes a situation in which an individual is employed in a job that requires a lower level of education. Buchel and Pollmann-Schult (2001)[7] suggest that over-education might be attributed to the decision making of individuals and workers. They emphasise that the choice between unemployment and limited work might cause over-education. Also, employers might choose to hire over-educated workers to deal with the rising demand for skilled employees.

Existing literature shows that skill mismatch is a widespread phenomenon, mainly in transitional countries. Generally, skill mismatch appears to severely affect firms in Eastern European countries. The Business Environment and Enterprise Performance Survey (BEEPS)[8] demonstrates that about 20 percent of sampled firms in Ukraine and Moldova, among other transitional countries, perceive inadequate education as a major problem to their businesses. Moreover, Brixiova et al (2009)[9] show that the skills mismatch in Central Europe slowed the labour transition from the low to the high productivity sector, hampering economic growth.

Another type of skill mismatch, which falls under the scope of this research, is called skill shortage. This refers to a demand shortage for specific skills. Researchers tend to assume that skill shortage is often caused by underinvestment in training. For example, Booth and Snower (1996)[10] suggest that individuals may under-invest due to perceived high training cost and uncertain economic returns. Also, Neugart and Schomann (2002) suggest that information gaps and inadequate structured education might be contributing factors. Additionally, in the UK, Haskel and Martin (2001)[11] argue that skill shortage is related to education deficiency, which failed to keep pace with skill biased-technological change. A closely related concept to skill shortage is **skill gap**. It refers to the situation when workers' skill level, mainly in terms of knowledge and ability, is below those that are desired by employers. Certain authors have identified that a common skill gap type appears more significantly in soft skills, such as communication, entrepreneurial attitude, problem solving and team work (Masson and Fetsi 2008).[12] Although the authors are diagnosing the Balkan regions,

2 The following section is informed by a background paper prepared by Dr. Bilal Fallah, who served as a Research Advisor in the course of the project.

3 See: Barro, R (1991) "Economic Growth in a Cross Section of Countries". Quarterly Journal of Economics, 106: 407-443. Bassanini, A. and Scarpetta, S. (2001) "The Driving Forces of Economic Growth: Panel Data Evidence from the OECD Countries. OECD Economic Studies No.33. OECD Paris. Lucas, RE (1988) "On the Mechanism of Economic Development". Journal of Monetary Economics, 22: 3- 42.

4 Moretti, E. (2004). Estimating the social return to higher education: evidence from longitudinal and repeated cross-sectional data. Journal of econometrics,121(1), 175-212.

5 Neugart, M., & Schömann, K. (2002). "Employment Outlooks: Why forecast the labour market and for whom? (No. FS I 02-206). Discussion paper// Wissenschaftszentrum Berlin für Sozialforschung, Forschungsschwerpunkt: Arbeitsmarkt und Beschäftigung, Abteilung: Arbeitsmarktpolitik und Beschäftigung.

6 Cedefop (2010) "The Skill Matching Challenge- Analyzing Skill Mismatch and Policy Implications". *Luxembourg: Publications Office.*

7 Buchel, F. and Pollmann-Schult, M (2001) "Overeducation and Skill Endowment: the Role of School Achievement and Vocational Training Quality". IZA (Discussion Paper No. 337).

8 BEEPS survey collect data from 21000 firms in 29 transition countries.

9 Brixiova, Z., Li, W. and Yousef, T (2009) "Skill Shortages and Labor Market Outcomes in Central Europe". *Economic Systems*, 33: 45-59.

10 Booth, A and Snower, D (1996) "Acquiring Skills: Market Failures, their Symptoms and Policy Responses". *Cambridge: University Press*.

11 Haskel, J. and Martin, C (2001) "Technology, Wages and Skill Shortages: Evidence from UK Micro Data". *Oxford Economic Papers*, 53: 642-658.

12 Masson, J. R. and Fetsi, A. (2007) "Human Capital and Education Reforms in the Western Balkans", in Fetsi, A. (ed), Labour Markets in the Western Balkans: Challenges for the Future. Office for Official Publications of the European Communities, Luxembourg, pp. 71-110.

one expects that their results hold validity outside of their geographical region, especially in countries with similar economic composition. Like other types of skill mismatch, skills gaps seem to be affecting several countries. The World Bank Enterprise Survey (2002-2010) provides estimates regarding the extent to which firms in more than 125 countries perceive skill gap as a hindrance to their business operation. The data shows that a skill gap is prevalent in economies that witness rapid restructuring and technological change, including several countries in Latin American and Eastern Europe.[13] The same report indicates that roughly 24 percent of firms in Middle Eastern and North African countries indicate that they face a major or very severe skill gap.

To identify the potential causes of a skills gap, researchers have investigated underinvestment in training and deficient education systems[14]. Others have emphasised the role of poor human and resource practices by firms, such as lack of staff training and labour retention. These deficiencies might arise as a result of factors related to uncertainty induced by economic restructuring and a poor investment climate. Therefore, some argue that reducing skill gap is in the hands of businesses, which can be accomplished by providing workers with proper training and incentives to upgrade their skills (See Cedefop 2010).[15]

Economists have often linked skills gaps to a loss in productivity and reduction in competitiveness.[16] Using data from the UK, Haskel and Martin (1996)[17] suggest that productivity growth was reduced by 0.4 percentage points during the 1983-1999 period. Consistently, Nickell and Nicoltsas (1997)[18] illustrate that a permanent increase of 10 percent in skill shortage decreases investment and R&D temporarily by 4 percent. Other researchers highlighted that economies with greater levels of skill shortage, as well as a failure of coordination between firms and workers, may converge to a sustained low skill equilibrium and consequently to a lower growth rate. In addition, a number of studies provide descriptive analysis that relate skill gap to lower performance of firms. For example, the UK National Employment Survey (2003) indicates that over a fifth of employers who report facing a skill gap encounter a delay in introducing new products, and a third linked skill gap to deficiencies in introducing new work practices.[19] Furthermore, Harris et al (2006)[20] utilise data for UK manufacturing plants and prove that productivity is lower in plants that experience skill gap.

Evidence from the US also highlights the losses firms face in light of the skill gap. A 2011 study surveying manufacturing companies showcased that 51 percent of respondents indicate that the lack of sufficiently skilled production personnel and supporting team member significantly impacts their high production and quality levels.[21] In terms of impact on company revenues, a 2014 CareerBuilder study[22] indicates that of employers surveyed, 54 percent currently have open positions for which they cannot find candidates with the requisite level of skill, and 35 percent of all employers have positions that stay open for 12 weeks or longer. It is estimated that, on average, a US company loses more than 14,000 USD for every job that stays vacant for three months or longer, while one in six companies loses 25,000 USD or more. From the standpoint of the employees themselves, workers with a skill deficit have been estimated to earn 6 percent less in wages, and express significant levels of job dissatisfaction.[23] A more recent study modelling skill mismatches in the Norwegian labour market in 2012 also illustrates that mismatches between the skills supplied by college graduates and skills demanded by hiring industries is one of the main reasons and an "important mechanism behind persistent career loss from graduating in recessions."[24]

13 Schwalje, Wes. (2011). "The Prevalence and Impact of Skills Gaps on Latin America and the Caribbean," *MPRA Paper 30247, University Library of Munich, Germany*.

14 Bartlett, W (2013) "Skill Mismatch, Education Systems, and Labour Markets in EU Neighborhood Policy Countries". WP5/20 Search Working Paper.

15 Cedefop (2010) "The Skill Matching Challenge- Analyzing Skill Mismatch and Policy Implications". *Luxembourg: Publications Office*.

16 Ibid.

17 Haskel, J. and Martin, C (2001) "Technology, Wages and Skill Shortages: Evidence from UK Micro Data". *Oxford Economic Papers*, 53: 642-658.

18 Nickell, S., & Nicolitsas, D. (1996). Does innovation encourage investment in fixed capital? (No. dp0309). Centre for Economic Performance, LSE.

19 Tether, B., Mina, A., Consoli, D., & Gagliardi, D. (2005). A Literature Review on Skills and Innovation. How Does Successful Innovation Impact on the Demand for Skills and How Do Skills Drive Innovation?.

20 Harris, RQ,. Li, QC, and Robinson C (2006) "The Productivity Impact of Skills in English Manufacturing, 2001: Evidence from Plant Level Matched Data. *Working Paper*.

21 Morrison, T., Maciejewski, B., Giffi, C., DeRocco, E. S., McNelly, J., & Carrick, G. (2011). Boiling point?: The skills gap in US manufacturing.

22 CareerBuilder (2014). "The Shocking Truth about the Skills Gap."

23 Allen, J., & Van der Velden, R. (2001). Educational mismatches versus skill mismatches: effects on wages, job satisfaction, and on-the-job search. Oxford economic papers, 53(3), 434-452.

24 Liu, K., Salvanes, K. G., & Sørensen, E. Ø. (2012). Good skills in bad times: Cyclical skill mismatch and the long-term effects of graduating in a recession.

A recurring theme from the above discussed literature is the following: First, a skills mismatch is the general term used to describe the phenomenon where there exists a misalignment between the level of skill demanded by employers, and that supplied by individuals. This includes cases of over-education, where the worker is over qualified for the job at hand, and cases of a skill shortage, where companies face a demand shortage for specific skills. From this latter definition derives the focus on a skill gap, which refers to the situation when workers' skill level, mainly in terms of knowledge and ability, is below those that are desired by employers. The consequences of a skill gap have been shown in different countries and environments to be linked to losses in productivity, decreases in production quality from the perspective of employers, as well as lower wages and job dissatisfaction on the part of employees.

3. Skills Gaps and the Local Context

The aim of this section is to provide an overview of the state of the Palestinian economy, focusing on the characteristics of the Palestinian labour market and highlighting areas where skills gaps arise, and address their implications. These include imbalances between the demand and the supply side and the different demographic and socioeconomic characteristics of workers. This includes analysis of various sectors, including ICT, agriculture, manufacturing and tourism, in addition to key issues (e.g., work in Israel and the settlements). This section also highlights the prevalence of skills gaps in the education and TVET sectors, and examines entrepreneurship in Palestine, notably its ability to provide skills and possible impacts on the severity of skills gaps. Whenever possible, the analysis was disaggregated by gender, and attempted to distinguish the unique ways in which the issues examined affect males and females differently.

3.1 The economic context and the Palestinian labour market

In all areas, the Palestinian economy can be described as less developed. In 2013, real GDP[25] amounted to 11.9 billion USD. During the past two decades, since the establishment of the Palestinian Authority, real GDP has grown at an annual average rate of 3.5 percent, little above the annual population growth rate. By the end of 2013, real GDP per capita stood at 2,855 USD.[26] The poor performance of the Palestinian economy can be largely attributed to the long-standing constraints that Israel has imposed, including restricting access to Area C and restricting movement of people and goods. The effect of these constraints is further exacerbated with the chronic fiscal policy that severely affected public services, political uncertainty, and overdependence on international aid (UNCTAD 2014). With a stagnating economy, it is not surprising that the Palestinian labour market continues to lose ground. This is apparent when examining labour force participation and unemployment rates, the latter of which is among the highest in the world. In 2013, labour force participation rate amounted to a low of 43.6 percent. In fact, the participation rate has lingered around 40 percent throughout the 1995-2013 period. The low participation rate in Palestine is mainly caused by the inactive enrolment of females. Since 1995, female labour force participation rate, though growing slowly, has not exceeded 18 percent. On the other hand, the participation rate for males amounted to 69.3 percent in 2013, with a stable pattern over the same period.

Differences in labour force participation rate are also observed when considering other demographic aspects, mainly age and years of education; participation for both males and females is lowest among the youngest (15-24 years) and oldest (above 55 years) cohorts. As for education, the results show labour force participation is highest (44 percent) for highly-educated females (those with more than 12 years of education). The same trend also applies for males, though participation differences across their education groups are small, except for illiterates. Regarding the unemployment rate, it amounted to 23.4 percent by the end of 2013. At the national level, the data shows stark unemployment differences between the West Bank (18.4 percent) and the Gaza Strip (28 percent), and is severely affected by political conditions, peaking during the Second Intifada as violence intensified and Israel almost completely blocked the access to its labour market. Consequently, the unemployment rate has risen to a high of 40 percent in 2008, but has fallen down since. It is worth noting the 'tunnel economy' in Gaza also acts as a source of informal employment for the Gaza workforce. The recent War on Gaza, which witnessed a wide scale of destruction and demolition of employment locations and infrastructure, along with the destruction and closing of many of the tunnels by Israel and Egypt, however, has exacerbated the unemployment situation.

The poor performance of the Palestinian economy seems to disproportionately affect young individuals. Table (1) shows that, regardless of gender, the unemployment rate is highest for the 15-24 age group. Still, when distinguishing between males and females, the picture becomes more nuanced. While unemployment rates are negatively correlated with the level of educations for males (i.e., higher educated males face lower levels of unemployment), the opposite is true for females; higher educated females seem to face higher levels of unemployment compared to their lower

25 The GDP estimate excludes economic activities in East Jerusalem due to Israeli restrictions that prevent data collection.

26 GDP data are from the *Economic and Social Monitor*, volume 36, 2014. MAS, Palestine.

educated counterparts. The discrepancy in unemployment rates between males and females could be due to a number of reasons, although a detailed analysis of this phenomenon is outside the scope of this research, we attempt to offer theories that might explain these figures. The first reason could be skill demand differences. With the exception of the public sector, which employs about 28 percent of females, the demand for large sections of females might be limited to less-skilled occupations. This could be due to patriarchal notions by employers that favour skilled men over women. Another explanation for this phenomenon could be that highly educated females enter the job market and go through the job search, while low educated females are more likely to possibly get married and start families earlier and end up becoming housewives, and hence exit the labour force and disappear from unemployment figures.

Table (1): Unemployment rate in 2013 (differences across sex, age, and education)

Age	Both Sexes	Female	Males	Years of Education	Both Sexes	Female	Male
15-24	41.0	64.7	36.9	**0**	13.0	2.8	25.3
25-34	25.2	48.0	18.1	**1 to 6**	19.8	2.8	22.6
35-44	12.1	13.1	11.9	**7 to 9**	21.7	6.4	23
45-54	12.1	5.3	13.6	**10 to 12**	21.0	14.7	21.5
55-64	13.9	0.6	12.8	**13 +**	27.9	47	16.4
Total	23.4	35.0	20.6	**Total**	23.4	35	20.6

Source: PCBS, Annual Report for the Labour Force Survey (2013).

Worryingly, **enhancing access to education seems to not be coupled with improving the quality of education**. **Based on international comparative assessment (Trends in International Mathematics and Science-TIMSS),**[27] **Palestinian students tend to perform poor in mathematics and science even compared to other neighbouring MENA countries**. In the same vein, an assessment of the workforce development in Palestine reveals that the education system faces several challenges, including lack of quality assurance, weak incentive-based performance, and limited involvement of employers to address skill constraints, which will be investigated further in this research.

Compounded with the factors impeding economic development, especially for women and youth, there are a variety of exclusive economic factors that present obstacles to skill development among Palestinians. One of these is the erosion of productive capacity (defined as value-added per worker) that has occurred in the past years. A large portion of this is driven by the creation of the economic micro-climates which decrease competition, a key factor in boosting productive capacity. As a result, firms operating in East Jerusalem, the West Bank and Gaza, display dramatic stratification. East Jerusalem firms have **triple the productive capacity** of their counterparts in the West Bank and **16 times as much as those in Gaza**.[28] Similarly distressing is the apparent stratification in firms, when disaggregated by size. The average small or medium-size firm has an **average labour productivity of 10,000 USD**, while the **average large firm has an average of 30,000 USD**.[29] This indicates the monopolization and domination of the marketplace by large firms, which are becoming the only ones capable of competing on the national or international level. In contrast, small and medium firms are relegated to their local markets as a result of being unable to compete. This is a dangerous development for skills acquisition, as it limits the opportunities accrue skills to among the smaller pool of enterprises, which make up 89 percent of all enterprises in Palestine.[30]

Economic misfortune and difficulties are fostered by PA's growing deficit in the face of the unsustainable expansion of the public sector, a development spurred by the shrinking opportunity in the private sector. From 1998 to 2009, the growth of public sector share of employment jumped from 17 to 26 percent mirroring the share of public sector services in GDP, which increased from 19 to 30 percent.[31] However, the failure of the private sector to expand accordingly, as a result of systemic restrictions and inadequacies, robs the public sector of the "potential to generate sustainable

27 Seehttp://nces.ed.gov/timss/.

28 World Bank (2014). "West Bank and Gaza Investment Climate Assessment: Fragmentation and Uncertainty."

29 Ibid.

30 World Bank (2014). "West Bank and Gaza Investment Climate: Fragmentation and Uncertainty". Report No: AUS2122.

31 Ibid.

growth and revenues to continue the provision of those services over the medium and long term."[32] As a result, the PA is forced to accommodate a public sector that is bloated and unsustainable, paying salaries and providing services it can ill afford. **Most dangerous of all is the incompatibility between the skills necessary for success in the public sector and private sector**.[33] This effectively confines a significant portion of the workforce to an ailing sector, limiting opportunities for broader skill development and the resulting economic growth.

The heavy dependence on donor aid has been one of the major factors in explaining the expansion of the public sector. As Israeli restrictions have suffocated the Palestinian private sector and economy, the PA has been forced to turn abroad, requesting assistance from donor states to prevent further deterioration. By 2010, the PA was receiving 1.15 billion USD in support, which most donors perceived as "temporary measures to help the new PA government deal with crisis."[34] This skewed the economy towards non-tradable production, **at the expense of industry, agriculture and tourism**. Worst of all, the majority of donor aid does not go to investment in the public sector, but rather to "wages and salaries", which were roughly "1.6 billion USD in 2010."[35] However, as donor support has waned in recent years, as a result of changes in government policy, the PA has been forced to ameliorate the deficit and continue payment of salaries by increased borrowing.

32 Ibid.

33 Ibid.

34 World Bank (2012). "Towards Economic Sustainability of a Future Palestinian State: Promoting Private Sector Growth."

35 Ibid.

Box (1): Skills regarding work in Israel and the settlements

The high levels of unemployment in the oPT and the difference in wages between the Palestinian and Israeli labour markets have led to a constant influx of Palestinian workers into Israel and the settlements. Examining the PCBS Labour Force Survey of 2013, around 12 percent of the workers sampled indicated that they work in Israel and/or the settlements. In Area C, according to the UNDP, MOPAD and Birzeit Community Assessment Report[36] which surveyed 100 communities with a total population of around 24,000, for residents from 24 communities, work in Israel or Israeli settlements was reported as the main source of income. Figures cited by an Association for Civil Rights in Israel report[37], referring to a report by the Palestinian Authority Jerusalem Unit in 2010 estimated that 35 percent of Palestinian Jerusalemites work in Israel and the settlements. While the average daily wage is higher for workers employed in Israel, Palestinian employment in Israel is limited to low-skill jobs in agriculture, construction, and manual labour in manufacturing and has been documented in 1980s[38] and into the early 2000s[39]. This trend seems to have continued to this day, as an EU and a KavLaOved report indicates that as of 2012, "some 58 percent of the permits [for Palestinians working in Israeli] are designated for construction work, some 35 percent for agriculture and some 7 percent for industry and services"[40] Furthermore, evidence suggests that the continuing influx of immigrants and foreign guest workers into Israel might lower nominal wages earned by Palestinian workers. Using a micro-dataset on the Palestinian labour force combined with time-series data on foreign workers in Israel for 1999-2003 period, Aranki and Daoud[41] show that while foreign workers in Israel do not affect the Palestinian employment levels, "an increase in the number of foreign workers in Israel tends to reduce Israeli wages paid to Palestinian workers from the Gaza Strip". The above sources seem to indicate the Palestinian employment in Israel and the settlements is largely limited by workers of lower skills. However, it remains worth examining whether workers in Israel are rewarded with higher wages in relation to a higher education level, which presumably implies a higher skill level. Using data from the PCBS Labour Force Survey of 2013, we separated domestic and Israel and settlement work, disaggregated by gender and education level, in order to examine the effect of an increase in the level of education – and presumably skill – on the daily wage earned. We found that domestically, both males and females experience an increasing return to education in terms of the average daily wage. However, while the average daily wage is larger in Israel and the settlements compared to domestic wages across all education categories, the variance of average daily wage of men across education categories is very small compared to women's[42]. There is also very little difference in wages across different education categories when considering a total of both genders. The conclusions to be drawn from this analysis indicates that Palestinians working in Israel are largely low skilled workers, and that wages in Israel do not seem to increase in correspondence to an increase in the levels of education/skill.

3.2 Skills gaps and the social context for women and youth

A variety of social factors also pose impediments to the development of a skilled Palestinian workforce and the expansion of the Palestinian economy. One of the most pronounced of these obstacles is the patriarchal structure and norms present in contemporary Palestinian society. Despite constituting half of the total population, Palestinian women and girls are distinctly underrepresented in the workforce, comprising roughly 17 percent of all formal employees.[43] The true rate of female participation is suspected to be slightly higher, though these women's work is informal, depriving them of legal protection and work benefits. Women are often forced to accept work at lower wages than men, as this is considered socially acceptable. In other instances, women hoping to start a business frequently need a male companion, in the form of a husband, brother or father, to serve as an informal sponsor for the processing of necessary applications and protocols.[44] Furthermore, a significant portion of business owners subscribe to the

36 UNDP, MOPAD, Birzeit Center for Continuing Education.(2013) "FINAL REPORT: Assessment of the Current Situation and of the Development Priorities of 100 Communities in Area C" Community Resilience and Development Programme for Area C and East Jerusalem (CRDP) report.

37 Alyan, Nisreen and Sela, Norit and Pomerantz, Michal (2012).*Policies of Neglect in East Jerusalem: The Policies that created 78% Poverty Rates and a Frail Job Market.*The Association for Civil Rights in Israel.

38 Kleiman, E. (1992). The flow of labor services from the West Bank and Gaza to Israel. Department of Economics Working Paper No. 260. Hebrew University, Jerusalem.

39 Daoud, Y. (2005). Gender gap in returns to schooling in Palestine. Economics of Education Review, 24(6), 633-649.

40 KavLaOved& EU. (2012). "Employment of Palestinians in Israel and the Settlements Restrictive Policies and Abuse of Rights".

41 Aranki, T. N., &Daoud, Y. (2010)."Competition, substitution, or discretion: an analysis of Palestinian and foreign guest workers in the Israeli labor market"*Journal of Population Economics*, 23(4), 1275-1300.

42 It is worth noting that one should not read too much into the average wage figures for women due to the very small number of women working in Israel and the settlements. Out of the total of 105,586 individuals sampled by the PCBS in the Labor Force Survey, only 40 women indicated that they work in Israel and/or the settlements.

43 Ibid.

44 Al-Botmeh, Samiah (2013). "Barriers to Female Labour Market Participation and Entrepreneurship in the Occupied Palestinian Territory."

belief that running a firm composed of both male and female employees is more costly and time consuming than one composed exclusively of male workers. While some cite women's domestic responsibilities and difficulty in travel, others simply believe that a mixed gender workforce simply creates troubles in and of itself.[45]

These adverse circumstances that inhibit women's participation and advancement in the labour force are the product of social stigma, not deficiencies in women's skills or education. In reality, women are more represented in higher education than men. However, despite higher rates of enrolment, women face a unique set of obstacles. One of the most pressing is the societal norm that women's education should be geared to conform with stereotypical gender roles. As a result, women are overrepresented in health care, teaching, arts and humanities and life sciences, while underrepresented in fields such as engineering, physics and other hard sciences.[46] Most distressing of all is that higher education has been shown to be a non-factor in women's future employment. A study conducted by the Royal Academy of Science International Trust (RASIT) determined that, in 2010, 33.8 percent of women with 13 or more years of schooling were unemployed, compared to 1.2 percent of women with no schooling.[47] This trend is indicative of the power of patriarchy in Palestinian society, as highly educated women are not desired as employees and face other difficult obstacles in starting their own businesses. As a result, many highly educated women are forced to accept work well beneath their capacity that conforms to gender stereotypes. The most common of these are the agricultural and service sector; in 2011 the former accounted for 22.2 percent of women's employment, while the latter accounted for 59.7 percent.[48] Other women may opt for early marriages, circumstances that may similarly force them to adopt maternal and domestic roles.

High fertility rates among Palestinian women are another social factor impacting workforce participation. Though fertility rates have fallen in the past ten years, they remain among the highest in the world. In 2010, the crude birth rate in Palestine was 32.8 per 1,000, converting to 4.6 per women.[49] This is distinctly higher than all neighbouring countries, most notably Egypt, Jordan and Lebanon. Large families frequently force women to adopt more maternal and domestic roles that limit their chances to participate in the workforce. Additionally, many young women leave the workforce after the birth of their first child to adopt a new role as a mother. While some progress has been made in emphasizing the role fathers play in childcare and childrearing, these domestic responsibilities are still viewed primarily as a woman's role.[50]

High fertility rates also impact the participation of youth in labour markets. As a result of these high rates, the Palestinian population is one of the youngest in the world, with 51 percent of citizens under 18 years old.[51] In addition, youth (ages 15-29) comprise 53 percent of the total population over the age of 15, more specifically, the population in, or desiring to enter, the labour force.[52] As a result of previously mentioned factors, the Palestinian economy has not been able to expand sufficiently to accommodate these new entrants. This has led to high unemployment among youth, 30 percent in the West Bank and 52 percent in Gaza.[53] Youth unemployment in Gaza is particularly volatile as the political circumstances affecting the welfare of the territory are in constant flux, with the continuous destruction of infrastructure and harsh restrictions on imports and exports. The exclusion of such a large portion of youth from the labour market is a significant threat to the development of a skilled workforce. Young Palestinians unable to find work will frequently emigrate abroad, where greater opportunity exists, removing their skills from the local economy, or be forced to weather unemployment until they find work, depriving them of early opportunities to develop skills. The average unemployment time for both the West Bank and Gaza was 11 months, a significant period that delays the prospects of youth to become skilled workers.[54]

45 Ibid.

46 RASIT (2010). "Women and Education in Palestine: Is Education Improving the Status of Women."

47 Ibid.

48 Al-Botmeh, Samiah (2013). "Barriers to Female Labour Market Participation and Entrepreneurship in the Occupied Palestinian Territory.

49 Ibid.

50 Ibid.

51 IMF (2012). "West Bank and Gaza: Labor Market Trends, Growth and Unemployment."

52 Ibid.

53 Ibid.

54 Ibid.

3.3 Higher education and the skills gaps

When considering the Palestinian labour market, one of the groups of major suppliers of labour are the Palestinian institutions of higher education. The existence of skills gaps – and also the size – is dependent on both the number of Palestinians entering the labour market through these educational institutions, and also the quality of education these new graduates possess. This section of the study examines Palestinian institutions of higher education, while highlighting different indicators of the quality of higher education, in an attempt to glean information regarding the possible reasons for the existence, and the extent, to which a skill gap plagues the Palestinian labour market.

3.3.1 Quality of Higher Education

A large array of previous reports has concluded that the quality of higher education in Palestine has declined over the past two decades. The Palestinian Higher Education Financing Strategy (2002) explains that universities tried to limit expenditure per student, without trying to preserve quality. Hashweh et al[55] also show that the private sector found higher education to lack in quality and relevance. Furthermore, the Ministry of Education and Higher Education's (MoEHE) Palestine Education Development Strategic Plan 2011-2013[56] indicates that the quality of education at all levels, and the status of non-formal education need further significant attention, efforts and resources. One of the main difficulties in trying to force through many of the changes proposed by these documents is due to the centralised structure of most traditional universities. As a result of this structure, the faculty as a body has limited control over issues such as budget control, academic goals, and institutional development despite the fact that the system permits participation in academic and college councils. Therefore "They [universities] are… tightly and centrally governed by their administration. Faculty participation in identifying and mobilizing sources of financial support is almost nonexistent."[57]

The rise in enrolment rates:

A review of the current status of enrolment in Palestinian higher education reveals basic facts that might help illustrate the existence and size of the skill gap. Low levels of enrolment in general – or in specific fields – may help explain why some businesses face difficulties in finding qualified individuals. On the other hand, high levels of enrolment – and by extension graduation – whether overall or in specific fields will oversaturate the market, and decrease the chances of graduates to obtain employment to begin with. A comparison of Tertiary Gross Enrolment Rates (GER) in tertiary education among different countries and classification groups has Palestine comparing favourably to neighbouring countries.[58] While enrolment in higher education does not seem to be a problem, the other side of the coin is worth addressing, is the seemingly uncontrolled rates of growth in higher education. To accommodate the high and increasing enrolment rates, Palestinian universities have grown very rapidly and are still increasing their intake of new students and student bodies and expanding their programs. Hence, enrolment rates at the tertiary level have built-in increases, which will continue for some time to come (Rehan, 2007). Such high enrolment, and consequently, graduation rates leads to an oversaturated market of graduates, which reflects negatively on employment opportunities and the nominal wages of these graduates. While traditional universities do enrol more students compared to community colleges and open universities, it is worth noting that the open education sector in Palestine is only composed of one university (Al-Quds Open University). Recently, the Ministry of Education and Higher Education (MOEHE) has published data on the distribution of students in the Palestinian higher education sector. The data further illustrates that Palestinian universities are put under increasing pressures due to the fact that the trend of expanding enrolment levels does not seem to be slowing down. This high growth of enrolments directly translates to a large number of graduates entering the workforce, which in turn lowers the overall returns to education on the market across all skill levels. Using micro data from the Labour Force Surveys, Angrist examines returns to schooling in Palestine and shows that "the decline in returns to schooling for Palestinians is consistent with the notion that the returns to schooling in the [Palestinian] territories were determined largely by the forces of supply and demand in a segmented market for skilled labour."[59] While this study is two decades old, the fact that enrolment rates have risen sharply since its publication exacerbates the problem.

55 Hashweh, M. Z., Hashweh, M., & Berryman, S. E. (2003). An Assessment of Higher Education Needs in the West Bank and Gaza. United States Agency for International Development.

56 MoEHE. "Education Sector and Cross-Sector Strategy: 2011-2013".

57 Abu-Lughod, I. A. (2000). Palestinian higher education: National identity, liberation, and globalization. boundary 2, 27(1), 75-95.

58 Palestine's GER is 49%, compared to Jordan and Lebanon's 46% and Egypt's 30%.

59 Angrist, J. D. (1996). Short-run demand for Palestinian labor. Journal of Labor Economics, 425-453.

University faculty:

Vast amounts of research have been conducted on the benefits of a low student-teacher ratio and its effect on the quality of education. Palestinian universities do not need convincing of the merits of having a low student teacher ratio, but the challenge in this sense comes from the inability of the universities to have free control of class size under the strenuous financial conditions they face. Palestinian universities suffer from a lack of reliable and sustained public funding. The PA has budget issues, in particular after 2000, when there was a strong economic downfall driven by unemployment and a consequent tax revenue decline. At the same time enrolment has risen at a constant rate.

For most institutions, the funding at hand to cover the deficits in their budgets is less than the actual value of the deficit. The sources of funding for these institutions are usually limited to indirect government help or subsidies, fundraising and borrowing by the institutions themselves to account for operational costs and international donations. On the other end of the spectrum, there has been very little control over the substantial increases in levels of student growth. This growth is due to national demographic factors, such as increases in the rates of attendance at the school level and the consequent increase in the number of high school graduates at a rate greater than that of population increase, social pressures on institutions to expand and institutional rivalry (Rehan, 2000).

In general, universities have raised their fees over the years, but it has not been sufficiently successful to reduce their deficit by a significant margin. The unit cost per teacher is 'sticky,' as it is mostly comprised of the teachers' salaries, which have to remain in line with the economic level in the country. Therefore, most universities' attempts at decreasing this unit cost have been through decreasing the support staff-faculty ratio or through reducing non-salary costs. One has to take care with such policies, because while such cost reduction measures will improve efficiency, they will also have an adverse effect on teaching quality and by association the ability of universities to build student skills. In particular, in order to decrease the expenditures per student, universities have tried to increase the student-teacher ratio[60] and the student-administrative staff ratio and have decreased the salaries for academic and administrative staff. Naturally, this has led to higher education institutions not being able to keep up with such high enrolment values. Perhaps this is most clearly reflected in the increase of student/teacher ratios over the years to levels that are far higher than the rest of the world, which is shown in Table (2) below, indicating a decline in the general quality of higher education.

Table (2): Student teacher ratios in Palestinian universities, university colleges and community colleges (1998 – 2013)[61]

Category	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2010	2011	2012	2013
Universities and University Colleges															
Students	52427	60846	66050	75579	83408	98439	113417	129137	139138	158132	167984	185011	201389	205120	201308
Teachers	2213	2791	2904	3638	3474	3384	3688	3731	4610	3147	4527	5557	6402	6625	6641
Student/ Teacher	23.69	21.80	22.74	20.77	24.01	29.09	30.75	34.61	30.18	50.25	37.11	33.29	31.46	30.96	30.31
Community Colleges															
Students	4299	5436	5157	4964	5313	5892	8511	9002	11135	11241	12972	11614	12584	12087	12273
Teachers	305	447	486	476	573	563	370	459	667	663	547	881	459	345	427
Student/ Teacher	14.10	12.16	10.61	10.43	9.27	10.47	23.00	19.61	16.69	16.95	23.71	13.18	27.42	35.05	28.74

Source: Palestinian Central Bureau of Statistics (PCBS)[62].

60 There is a great variance in terms of students-teacher ratios across different programs and sometimes the differences are not justifiable. There probably could be a more efficient use of teaching staff that also could affect quality of education.

61 The 2008/2009 academic year was omitted from the table as there was no available data for the year 2009 primarily due to the heavy Israeli siege on the Gaza Strip.

62 Universities and university college's data include students and graduates of intermediate diploma, bachelor and graduates studies in universities and university colleges. Full and part time and Academic Teaching Staff only.

The situation regarding student-teacher ratio is becoming dire. A UNESCO Institute for Statistics calculated a projection for the overall levels of student teacher ratios (not just exclusive to higher education), and found that Palestine will continue to face a teacher shortage until 2023, primarily due to the growing school-age population.

Moreover, 2011 UNESCO Institute for Statistics figures show that student-teacher ratios in tertiary education in Palestine compare poorly to other countries in the same Lower Middle Income classification, as well as other regional countries, which range from 10-25, compared to Palestine's ratio of 30 students per teacher. Another indicator of the quality of higher education regarding universities is the percentages of both PhD and MA level faculty in each institution type. In this regard, traditional universities fare the best, as their teaching faculty is almost evenly split between MA and PhD levels. Community colleges and university colleges hold a similar number of PhD level faculty, at around 47 percent and 43 percent, respectively, but have a small amount of faculty holding MA degrees, indicating that a significant section of the teaching faculty holds a degree below the MA level. On the other end of the scale is the open university, where around 70 percent of their teaching faculty holds an MA degree with only close to 30 percent holding a PhD degree.

3.3.2 Gender, Socioeconomic, and Regional Equity in Higher Education

Students of higher education in Palestinian universities face equity problems in terms of socioeconomic status, gender, and region of residence. In general, poorer students are less likely to achieve levels of higher education, and females seem less likely to be enrolled in specific fields.

A simple glance at the Palestinian Expenditure and Consumption Survey done by the PCBS reveals that households who are in the "better-off" category allocated 4.0 percent of their total consumption to education in 2010, as opposed to the 2.2 percent allocated by households in the "worse-off" category. While education here is meant to signify consumption of primary secondary and tertiary education, public schooling during the primary and secondary stages is free, and only incurs small registration fees. Private schools can be expensive, but the MoEHE reveals that as of 2010, only 8 percent of Palestinian students in the primary and secondary stages were enrolled in private schools. Hence, the bulk of the education item in the survey signifies spending on higher education. It is therefore safe to assume that lower consumption quintiles participate less in higher education compared to those who are better-off.

This rationale has been echoed in the past by Hashweh et al. The authors show that a higher share of graduates from universities come from households in the upper range of the consumption distribution (fourth and fifth quintiles), which shows that children from households that are better off have more access to higher education. In a survey prepared by the same authors, the universities seemed unaware of this equity problem. "None of the universities positively discriminated in their admission policies to accept more students with low socioeconomic status, while 20 percent of the colleges affirmed such policies."[63] Moreover, while many universities in the authors' survey expressed that they do not positively discriminate in their admission policies, they did provide some access to loans and scholarships on a need basis.

When examining World Bank statistics, one can see that gender inequity is not an issue within the Palestinian higher education system in regards to gross enrolment levels, as Palestine compares favourably with other local countries and world averages. In fact, Palestine seems to have a significantly larger population of females attending tertiary education institutes than males.

However, a few issues are worth mentioning here. First, although the aggregate level of gender inequity does not seem to be a concern in the Palestinian higher education institutes, female Palestinian students enrol disproportionately in education and non-scientific fields. Moreover, without detailed testing, we cannot rule out an interaction between socioeconomic inequity and gender inequity. For example, we cannot rule out the possibility that "worse-off" families would rather enrol their male child in higher education as opposed to the female, or even that "better-off" families would allow for male children to participate in higher education abroad disproportionately to females.

Data from the Labour Force Survey conducted by the PCBS shows that employed males average slightly higher in years of education compared to unemployed males, which suggests that more education is likely to increase employment prospects. However, with women the situation is the opposite. Using survey data from the PCBS, one

63 Hashweh, M. Z., Hashweh, M., & Berryman, S. E. (2003). An Assessment of Higher Education Needs in the West Bank and Gaza. United States Agency for International Development.

can see that over the past ten years, female unemployment is higher than male unemployment levels. Moreover, females have significantly lower unemployment rates compared to men at the primary education level, but have much higher unemployment levels than males for the secondary and tertiary levels.

3.4 Skills gaps in TVET sector

The following section endeavours to explore the reality of the TVET sector from a supply side perspective. It will inform the gap analysis through the exploration of significant circumstances inherent in the TVET sector, namely what skills are acquired, as well as their relevance, who the major providers of TVET are, the coordination between TVET programs and institutions and the labour market and the coordination between TVET programs and institutions with the government and each other, among many other factors.

Currently, the TVET sector remains small and underutilised. In 2011, of the 76,409 male and female students enrolled in eleventh grade, only 2.3 percent opted to join vocational education,[64] the vast majority of whom chose to pursue industrial education, reflective of an assumed utility in the labour market and also the amount of industrial institutions across Palestine. Despite admitted difficulties in finding work in their specialisation following graduation, most TVET graduates are distributed in "services, trade, industry and construction," demonstrating a sufficient degree of relevance.[65] One of the most promising characteristics of Palestine's expanding TVET sector is the ability to promote and facilitate entrepreneurship among students. Among male TVET graduates, 14.2 percent are employers or self-employed, compared to the national rate of 10.3 percent; the figures are even more distinct among women, where 14.2 percent of female graduates identified as an employer or self-employed compared to the national rate of 2.2 percent.[66] Rates of general labour force participation are also higher than the national average among TVET graduates.

There are however numerous problems plaguing the TVET sector as a whole. TVET management remains divided among a variety of government agencies, and while on paper, the Higher Council of TVET is responsible for "implementing the National TVET Strategy, coordination with the different training providers and relevant stakeholders and proposing regulations, procedures and standards,"[67] political obstacles and the difficulties inherent in the sector have frequently impeded this body from fulfilling its mandate, and, in some cases, from even convening. Moreover, as a unified strategy or administrative body is not sufficiently empowered, TVET centres must rely on the resources of the governorate in which they operate, outside funds from donors and aid agencies, and what their local community can provide. Under this severe lack of financial resources, TVET centres cannot provide adequate facilities, and instruction is restricted to classroom environments, with students gaining little more than theoretical knowledge. The absence of qualified teachers also contributes to the inability of TVET centres to provide modern equipment, as a centre may have the funds necessary to purchase the needed technology, but no faculty with the knowledge of how to use it. Consequently, graduating students often enter the labour market under-skilled in their specialisation, or without a sufficiently broad repertoire to attract the attention of employers.[68] The most popular TVET programs, such as construction, automotive repair, and electronics, require hands-on training with modern equipment. However, many TVET programs are not equipped with the necessary equipment rendering students unfit for the modern labour market. This is the result of a variety of factors. First, many TVET centres cannot afford to purchase or maintain modern equipment or provide trained instructors.[69] Second, the restrictions of the Israeli occupation often delay or outright prevent centres from obtaining modern equipment, particularly advanced machinery and electronics.[70]

One of the most pressing factors is the absence of protocols to validate curricula and consequently skills of graduates. Currently, there is no accreditation process in place, which strips TVET alumni of the necessary legitimacy to find employment after graduation. Additionally, it restricts TVET graduates from admission into tertiary education

64 Federation of Palestinian Chambers of Commerce, Industry and Agriculture; Palestinian National Authority Ministry of Education and Higher Education (MOEHE); (2012). "Belgian Agency for Development.Qualitative and Quantitative Training Needs Assessment Study for Qualified Workforce within the Basic Work Levels,"

65 Ibid.

66 Hilal, Ranad. (2009) "Impact of (VET) offered to girls and women in Palestine on employment".

67 UNESCO-UNEVOC (2012). "*Palestine: TVET Country Profile*".

68 Ibid.

69 Ibid.

70 Ibid.

institutions. Presently, no universities in Palestine "acknowledge any courses from vocational or technical colleges."[71] Another drawback consistently hampering TVET is the persistent social stigma associated with it. A central reason for this is that TVET has no comparative advantage. At present the system is "overshadowed by basic school education and higher education," necessitating curricula more relevant to the labour market.[72] Compounding this is the societal impression that TVET is not a practical or respectable choice. Students and families overwhelmingly prefer to pursue higher education at the university level. Some go further and insist that TVET is "a substandard approach to education and training and more suited to those students who have performed poorly in an academic school context."[73] These reservations are not unfounded; a 2006 PCBS survey of employed TVET graduates concluded that, on average, these employees receive a monthly wage under 100 NIS, an amount considered "extremely low according to the standards of living in Palestine."[74] It is not a surprise that almost no comparative advantage, paired with a social stigma, has kept TVET enrolment and graduation numbers to only a fraction of their intended size.

Matching between supply and demand is at the core of achieving growth and development, and setting policies that harmonise with the labour market needs in a way that achieves an efficient match is of high importance to Palestine and of course other countries. One important actor in imbuing workers with the necessary skills to meet the labour market demand is the technical and vocational education and training (TVET) sector. International organisations have also long touted the benefits of a strong TVET sector. UNESCO sees TVET as a tool for supporting the development of a wide range of capabilities that individuals and their communities will benefit from.[75] On the other hand, the World Bank sees TVET as an important tool in bridging the skill gap, and recommends that policymakers establish comprehensive governance structures and a regulatory framework that "maintains a dynamic balance between skills supply and demand, as well as design financially sustainable and socially equitable programs."[76]

TVET institutions in Palestine seek to train and graduate professionals that are needed in the current labour market. In fact, the National Strategy for Education and Vocational Training in Palestine outlined the need for institutes to establish a match between their outputs and the market demands and needs, expressing the overall objective to establish a unified educational and vocational training system connected to stakeholders.[77] However, it is also important to determine how graduates of Palestinian TVET institutes fare in the labour market, and the ability – or lack thereof – of TVET institutes to address that skill gap. In a recent needs assessment study of training[78] data showed that while a large number of institutes show willingness to provide services to their graduates[79] a smaller number actually do provide these services currently. These rates also vary significantly with respect to the type of services provided.

Another important issue of note regarding the skill gap in relation to the TVET sector is the types of skills that are demanded by employers. The Belgian Project needs assessment report[80] sheds some light on this, as it states that graduates of TVET institutes indicated that "life skills" is the first factor that helped them find a job, while 86 percent of the employers consider "Arabic reading and writing skills" is the highest basic required skill in the labour force. While graduates feel that their life skills were the main determinant in obtaining the job, the fact that employers favoured reading and writing skills seem to indicate that technical skills are the main category of skill demanded in the labour

71 Alzaroo, Sarah (2009) "The Compatibility of the Palestinian Vocational Secondary Education with the Labour market".

72 USAID (2011)."Gap Analysis Report for the League of Vocational Education and Training Association, Palestine" *(VET-NGO League)*.

73 Federation of Palestinian Chambers of Commerce, Industry and Agriculture; Palestinian National Authority Ministry of Education and Higher Education (MOEHE); Belgian Agency for Development.Qualitative and Quantitative Training Needs Assessment Study for Qualified Workforce within the Basic Work Levels, (2011.)

74 This study obviously predates the passage of the Palestinian minimum wage law, which fixed the minimum wage at 1,450 NIS per month. This may have influenced the average wage of TVET graduates, though it is impossible to state with confidence in the absence of further study.

75 Tikly, L. (2013). Reconceptualizing TVET and development: a human capability and social justice approach. *UNESCO-UNEVOC Revisiting global trends in TVET: Reflections on theory and practice, 1.*

76 World Bank. (2011). "Learning for All: Investing in People's Knowledge and Skills to Promote Development." *World Bank Group Education Strategy* 2020.

77 The Ministry of Education and Higher Education and the Palestinian Ministry of Labor.(2010). "The Strategy of education, vocational and technical training (VET) in Palestine."

78 The Belgian Project – Suporting (TVET) in Palestine. (2011) "Qualitative and Quantitative Training Needs Assessment Study for the Qualified Workforce Within the Basic Work Levels".

79 Defined as: linking with the labour market, follow-up after graduation, upgrading courses, consultation and assistance for organisations, sending interns and apprentices to the labour market.

80 ibid.

market of TVET graduates. This seems to be corroborated by a subsequent VET labour market survey[81] - conducted by the same authors mentioned above - which indicates that 21 percent of enterprises surveyed indicated a lack of quality trained professionals, with the highest incidence of a skill gap relating to "technology and profession related skills." Considering this with the previous evidence presented, it shows that the labour market seeks technical skills among prospective employees, while the largest shortage of skills is among technical ones.

Regarding the demand for females in the TVET sector, reports show that employers exhibit a highly patriarchal attitude towards the employment of females. The same needs assessment study cited above[82] surveyed employers on their reasons for their willingness and unwillingness to employ females. The reasons mentioned by those who do not wish to employ females state "working environment and conditions," "lack of experience," and "social responsibility of women" as their reasons. On the other hand, while those who do express willingness to employ women state reasons such as "distinguished skills related to preciseness, commitment and desire to develop," other reasons such as "increased ability in sales, marketing, and customer service," and "acceptance of lower payments," are strikingly discriminatory towards female TVET graduates.

One question that arises when evaluating the value of training courses is whether we can detect a quantifiable impact related to the attendance of such courses. To this end, Box (2) presents a model, developed by the AWRAD research team, which attempts to quantify the effect of training courses attended by individuals in the labour force regarding the effects on employment.

Box (2): Effect of attending training courses on probability of employment[83]

In the PCBS labor force survey, there exists a question that asks participants whether they have attended a vocational training course.[84] Stemming from the availability of such data, we were interested in examining whether attending such a course, holding all else constant, affects an individual's chances of gaining employment. To this end, we have devised a Linear Probability Model (LPM) in an attempt to capture this relationship. A Linear Probability Model is a special case of a binomial regression model where the observed variable for each dependent observation takes values that are either 0 or 1 (in our case, this represents employed or unemployed). For a full discussion of the methodology and construction of the model, in addition to the representation of regression coefficients and significance levels, please refer to Annex [4]. The results of the LPM provide us with highly useful information. First, the model shows that on average, a person who has taken the training course was 12.13 percent more likely to be employed, taking into account gender, level of education, age and industry. A female in the sample, even while controlling for education and industry, was 13.88 percent less likely to be employed and a female who has taken the training course was 9.23 percent less likely to be employed compared to males of who attended the same course. Increases in the level of schooling corresponded to increases in the probability of being employed; for example, in comparison to a person who is illiterate, a person with an elementary level of education was 5.14 percent more likely to be employed, while a person with a bachelor's (or master's) degree was 27.25 percent (or 46.38 percent) more likely to be employed. Regarding industry, the omitted condition in this model was work in the agriculture sector. A coefficient of 0.2498 on the manufacturing variable means that an individual working in manufacturing, while controlling for all the other factors present in the model, was 24.98 percent more likely to be employed compared to an individual working in the agriculture industry. Workers in the industries of construction, commerce hotels and restaurants, and transport storage and communications also faced higher probabilities of employment compared to workers in the agriculture sector. Interestingly though, the model shows that on average, taking into account gender, level of education, and all the other variables in the model, a worker in the services sector was 29.42 percent less likely to be employed than a worker in the agriculture sector. One explanation could be that the services sector is by far the largest sector in the Palestinian economy, and thus faces stiffer competition for employment.

3.5 Entrepreneurship

Promoting entrepreneurship as a driver of economic growth has been a hot research topic and one of the priorities for most international agencies. The World Bank has an investment portfolio of 18.7 billion USD linked to innovation

81 MOEHE, The Belgian Development Cooperation, Federation of Palestinian Chambers of Commerce, Industry & Agriculture. (2013). "Labour Market Survey: Training Needs and VET Relevance Gaps' Analysis."

82 ibid.

83 For a full discussion of the methodology and construction of the model, in addition to the representation of regression coefficients and significance levels, please refer to annex (4).

84 Verbatim text of the question states "Training course attendance (such as training course that managed by ministry of labour, Qalandia institute)".

and entrepreneurship over the past 10 years[85], while UN Secretary-General Ban Ki-moon at Thematic Debate on Entrepreneurship for Development on June 2013 called on all parties to "support youth entrepreneurship, self-employment and youth-led businesses."[86] In Palestine, where unemployment rates are among the highest in the world, the role of entrepreneurship as a tool of skill building becomes more imperative. When examining entrepreneurial intent – defined as the percentage of 18-64 population (individuals involved in any stage of entrepreneurial activity excluded) who intend to start a business within three years as calculated by the Global Entrepreneurship Research Association (GERA), Palestine scores a respectable 31.9 percent. However, these figures only represent the intent to start a business and thus are highly susceptible to selectivity and self-promotion. It then becomes useful to examine Total Early-Stage Entrepreneurial Activity (TEA), defined as the percentage of 18-64 population who are either a nascent[87] entrepreneur or owner-manager of a new business. In this case, Palestine scores a lower 10.1 percent as calculated by and presented by the Global Entrepreneurship Research Association (GERA).

When examining entrepreneurship in Palestine in terms of gender, it becomes apparent that the Total Early-Stage Entrepreneurial Activity (TEA) for males exceeds that of females. Data available from GERA show that in 2009, the percentage of 18-64 males in Palestine who are either a nascent entrepreneur or owner-manager of a new business was 13.6 percent, compared to only 3.4 percent among females. This gap increased over the years, as despite initial improvement in female TEA rates, they regressed to their previous 2012 levels, where the percentage of 18-64 females in Palestine who are either a nascent entrepreneur or owner-manager of a new business was 3.4 percent for females, compared to 16 percent for males.

In a review of twenty-six documents assessing attributes of entrepreneurs or the learning outcomes of entrepreneurship education programs[88], published between 2000 and 2012[89], Hashweh identified 15 core competencies and skills as intended learning outcomes for entrepreneurship education programs. The following Table (3) is taken from that study.

Table (3): Entrepreneurship skills/competencies identified by frequency

Rank	Learning outcome	Percent	Rank	Learning outcome	Percent
1	Innovation	69.2	**14**	Perseverance	30.8
2	Management	69.2	**15**	Critical and analytical thinking	26.9
3	Creativity	61.5	**16**	Autonomy	23.1
4	Risk taking	61.5	**17**	Literacy	19.2
5	Communication	50.0	**18**	Self-awareness	15.4
6	Initiative	46.2	**19**	Knowledge about career opportunities and business	15.4
7	Confidence, self-efficacy	42.3	**20**	Networking	15.4
8	Persuasion and negotiation	42.3	**21**	Decision making	15.4
9	Recognizing opportunities	38.5	**22**	Motivation	15.4
10	Team work	38.5	**23**	Leadership	15.4
11	Problem solving	34.6	**24**	Tolerance of uncertainty	11.5
12	Planning	34.6	**25**	Numeracy	11.5
13	Marketing	30.8			

Source: Hashweh, Maher. (2012). "Entrepreneurship Education in the Occupied Palestinian Territory: An Exploratory Study".

85 World Bank (2014). World Bank Group Support for Innovation and Entrepreneurship: An Independent Evaluation.

86 UN News Centre. 26/06/2013. "*UN officials highlight key role of entrepreneurs in addressing development issues*." Available at: <http://www.un.org/apps/news/story.asp?NewsID=45276>.

87 A nascent entrepreneur is defined as one actively involved in setting up a business they will own or co-own; this business has not paid salaries, wages, or any other payments to the owners for more than three months.

88 Review included research articles, policy papers, and contributions to policy and academic conferences.

89 Hashweh, Maher. (2012). "Entrepreneurship Education in the Occupied Palestinian Territory: An Exploratory Study" *Palestine Economic Policy Research Institute (MAS).*

It is worth noting however, that these core skills are a representation of opinions of entrepreneurs and experts on entrepreneurships, and according to the author "few studies showed that persons who acquire these attributes actually become entrepreneurs."[90] While this means that one should be careful in believing the above ranking of skills are set in stone (for example, that creativity is more important than initiative), it does represent a consensus reached by research articles, policy papers, and contributions to policy and academic conferences over the set of skills that need to exist to foster entrepreneurship. An interesting point of observation regarding the above table is that with the exception of "management," the top 11 ranked skills pertain to what was termed soft skills in this research. The importance of soft skills highlighted here mirrors the analysis of the TVET sector, which also favoured these types of skills, and is corroborated by our survey results. One therefore expects that enacting policies that focus on building the capacity of soft skills human capital for the Palestinian labour market will increase the incidence of entrepreneurship. This is easier said than done however, especially when considering developing countries and more so when considering the fragmented market conditions of Palestine. Given the examples of Malaysia, Rwanda and Mozambique who have taken successful steps in this regard, an UNCTAD[91] report suggests a starting point would be to **incorporate entrepreneurship education into the overall poverty reduction strategy**. The report goes on to state that: "Given the high rates of necessity entrepreneurship in developing countries (informal and micro-entrepreneurial activity), it is important to establish policies which can not only help transition successful necessity entrepreneurs (often with low levels of formal education) into opportunity entrepreneurs (with social and basic business skills necessary to run their own small business), but also encourage more high-growth-oriented entrepreneurs. This often means that coordination on entrepreneurship education policy between ministries within a country is critical."

3.6 The ICT sector

The Information and Communications Technology (ICT) sector plays a crucial role in fostering development in many countries and is touted as a sector primed for higher levels of growth in Palestine. This has been emphasised as a key sector in the 2014-2016 National Strategy of Telecommunications and Information Technology put forth by the Ministry of Telecommunications and Information Technology (MTIT). The focus on the ICT sector as an engine of growth is not a new concept, and has been a topic of significant focus worldwide. The World Economic Forum in 2009 was direct in promoting technological growth: "new technologies will not only continue to fuel growth but if harnessed, such advancements will also enable a digital revolution that can uplift parts of the world hitherto not reached by the agricultural and industrial revolutions."[92] A demand-side market analysis of ICT products and services in Palestine needs to begin with an examination of technological penetration and consumption to provide an accurate picture of the potential for growth in the ICT sector.

While indicators show that there has been large growth in ICT sector penetration, a better indicator is that which is presented in Table (4) below, which reflects the purpose of Internet use and allows us to glean information as to the extent of the Internet contribution to economic activities at the household level.

90 ibid.

91 United Nations Trade and Development Board Investment, Enterprise and Development (UNCTAD).(2011). "Entrepreneurship education, innovation and capacity-building in developing countries".*Geneva: UN*.

92 World Economic Forum, (2009). ICT for Economic Growth: A Dynamic Ecosystem Driving The Global Recovery, 2009 World Economic Forum Annual Meeting Report.

Table (4): Percentage of persons 10 years and over in the Palestinian Territory who use the Internet by purpose of use, 2011

Purpose of Use	Percentage	Purpose of Use	Percentage
Work	18.2	Scientific Issues	72.6
Financial and Bank Services	4.9	Updating of Programs and Internet Issues	31.8
Dealing with Governmental Organisations	10.3	Women and Family Issues	29.4
E-Commerce	3.4	Chatting	33.0
Acquisition	85.7	Spiritual Issues	52.8
Communication	69.1	News and Political Issues	49.8
Education	49.3	Health Issues	47.9
Entertainment	79.3	Other	3.0

Source: PCBS Main Findings of Household Survey on ICT, 2011.

Looking at the above table, it becomes clear that the **majority of Internet use does not have economic value added**. Fewer than 20 percent of those surveyed are using the Internet for work purposes, less than 5 percent for both financial services and e-commerce, and almost 80 percent are using the Internet for entertainment purposes. The same survey also shows that computer use is mostly limited to social purposes. One statistic from the above table of note is that only 3.4 percent of users use the Internet for e-commerce purposes. This pales in comparison with neighbouring countries such as Jordan, where "in the 12 months between September 2009 and September 2010, e-commerce transactions totalled 192million USD, with over 15 percent of Internet users engaged in e-commerce, while the entirety of IT sector sales in Palestinian was estimated in 2009 to be approximately 250million USD."[93]

While governments are usually responsible for the ICT kick-start, the development of the ICT sector is generally a private sector led process, with attempts to instantly digest innovations in technologies and communications occurring in the international markets. Although it is difficult to accurately gauge the size of the ICT sector due to fragmentation, the private sector in ICT has been cited to have a market size of around 500 million USD and around 250 companies, contributing to around 10-12 percent of the country's GDP[94], showing that the ICT sector is no longer anonymous at the country level. It is worth noting however, that of the 5,000 employees employed in the ICT private sector, 3,000 are employed at Paltel. The Paltel group makes up 29 percent of Palestine's GNP and accounts for 50 percent of the worth of the Palestine Securities Exchange and the condition of the private sector is the de facto condition of Paltel."[95] Paltel and its subsidiaries[96] have been on an upward trajectory of growth, and are likely to continue to achieve high rates of annual growth and revenue due to their quasi-monopolization of the market. However, there exists an inevitability of reaching an end to the economies of scale and a limit of growth in the consumer market for basic technologies once a certain level of penetration has been reached. "Once telecom technology allows for certain degree of access, availability and, thus, penetration, sector-wide progression tends in other directions towards long-term targets in software and hardware development, R&D, innovation and technological entrepreneurship."[97]

In relation to the demands for skill sets, the above tables show that while the ICT sector has enjoyed large growth levels in terms of penetration in the past 10 years, the sector is still in its infancy, and the potential for further growth remains ample. Under this scenario, the demand for technological technical skills from recent graduates becomes all the more important - as was already highlighted in the TVET section previously – in concurrence with the fact that employers looking for TVET graduates observe the highest incidence of a skill gap relating to technology and profession-related skills. Possible recommendations in light of this evidence would be to focus on generating adequate technology skill sets for graduates, with a possible slant towards technological entrepreneurship, as it is both in high demand in the current labour market, and is projected to be valuable in light of the continued growth of the ICT sector.

93 Tucker, Tremaine (2012). "THE ICT SECTOR IN PALESTINE Current State and Potentials."*Palestine Economic Policy Research Institute (MAS).*

94 PITA, Expotech 2014. Available at: <http://expotech.ps/2014/palestinian-ict-sector/>.

95 Tucker, Tremaine (2012). "THE ICT SECTOR IN PALESTINE Current State and Potentials."*Palestine Economic Policy Research Institute (MAS).*

96 PALTEL's subsidiaries are: Jawwal, Paltel, Hadara, Palmedia, Reach, Hulul.

97 ibid.

3.7 The agriculture sector

Agriculture provides a key role in the Palestinian economy and the food security situation, and at times serves as a last resort for people who have lost their employment due to Israeli measures. However, Israel's import and access restrictions consistently smother the agriculture sector and further add to rising food insecurity. Employment in the agriculture sector forms a small 5 percent of the total labour force employment. It is worth noting however, that the agriculture sector is largely informal, and is therefore under-represented in official employment statistics. FAO estimates that the agriculture sector provides work for 305,250 individuals – as of 2011 – and represents "more than 39 percent of those working in informal sectors and supporting a significant proportion of Palestinian families who cultivate their lands for livelihood."[98]

The contribution of women in agriculture is even less recognised. Work of women largely involves "chore" work, and they rarely have control over agricultural revenue streams and "despite [major agricultural] contribution, an estimated 40 percent of rural Palestinian women at working age carry out unpaid work, which means that their production is not comprehensively covered in the Gross Domestic Product (GDP)."[99] When comparing the characteristics of the labourers in the agriculture sector compared to the rest of the industries, marked differences are observed. Using the PCBS Labour Force Survey, the research constructed a mean and median comparison of average daily wage, age, and years of schooling between workers participating in and outside of the agriculture sector. In terms of gender, the FAO information, mentioned previously, is corroborated by our analysis, as there is only a 35 percent female participation rate in the agriculture sector compared to the rest of industries. While average years of schooling between agriculture and non-agriculture workers is similar, age differences also seem to be significant, especially when considering the median age; 36 for agricultural workers compared to 25 for non-agricultural workers. Average daily wage (NIS) also exhibits large difference, as, among the workers sampled, the average daily wage in non-agricultural industries is 67.5 percent higher than the wages of those in agriculture.

In order to shrink this gap, an increase in the skills of agricultural labourers is crucial, both in bridging the skills gap and in increasing the productivity of the sector as a whole. In a capacity building project initiated by FAO, some of the key skills identified that need attention are practical agricultural skills, and agribusiness and marketing skills.[100] The importance of such skills are corroborated by other research as well, as CARE International and some of its largest national partners believe that some of the key missing skills in the agriculture/agribusiness are business oriented skills, signifying the high potential and need for addressing farming as a business. According to CARE, there is a gap in business oriented skills not only at the farmer level only but also throughout the market system and its actors, including agriculture CBOs and cooperatives, NGOs that support the sector and others. For female farmers, it is mostly the same. However, to mitigate social culture and norms, it was evident from CARE's gender in agriculture research, which reached out to about a 1,000 female and male farmers, it is more 'empowering' for women to work in groups to mitigate and deal with social norms and culture where the value of cooperation (team work) skills becomes key.[101] Negotiation is another important skill improve women's agency that was identified according to CARE's and OECD sources to.[102]

In brief, business oriented skills (marketing, business attitude, and negotiation, among others) are crucial, and demonstrate a greater need for business and investment skills among farmers and members of the sector. The lack of these skills undermines the entire value-chain, and tapping into opportunities by providing training is crucial to harvesting untapped potential not yet realised due to the poor entrepreneurial aptitude.

3.8 The tourism sector

Tourism, in the best of scenarios, comprises an instant source of capital inflow, which can act as a source of valuable recovery and foreign exchange revenues. In addition to providing a source of revenue the World Bank identifies

98 FAO (2011). "Palestinian Women's Associations and Agricultural Value Chains" *Case Study Series # 2.*

99 ibid.

100 ibid.

101 CARE International (2012). "A Gender Analysis of Assistance to Small Farmers, Breeders and Households in West Bank and Gaza" CARE International in the West Bank & Gaza.

102 Ibid.

the tourism sector as "a great way of generating foreign currency, improving a country's roads and public works, and creating jobs in rural areas, where tourists like to go."[103] Carolyn Cain, a consultant in the Tourism Unit of the International Finance Corporation (IFC), the private sector arm of the World Bank, estimates that "for every hotel room, one to two jobs are created; a 300-room hotel equals 600 jobs."[104]

The tourism sector in Palestine is of significant importance to the economy, mostly because the combined variety of religious, historical and natural sites is a significant comparative advantage, and has the potential to appeal to a wide variety of people with different ethnic, cultural and religious backgrounds. However, the current economic situation in Palestine and the limitations imposed by the Israeli government has hampered the growth and development of this profitable sector.

That is not to say that there are no internal difficulties and inefficiencies that need to be overcome. First, demand is largely seasonal and low-skilled workers are most preferred for menial and manual labour. The absence of a unified National Tourism Strategy inhibits sector growth through cooperation, while workers only staying on for season opportunities prevents the development of important personal skills relevant to other industries and sectors. High-skilled Palestinians who discover that the sector is much smaller than reported are more likely to go abroad to find work Additionally, the data used by employers is derived from the PCBS and tourism police and frequently lacks accuracy, prohibiting effective harmonization between the supply side and demand side of the labour market.

Despite these shortcomings, focus on building the capacity and sustainability of the tourism sector remains crucial, as the sector has great resiliency and capabilities of rebounding, especially with focus on building skills that increase competitiveness and add value to employers in the sector. The Ministry of Tourism's (National Development Plan 2011 - 2013), issued several years after the Second Intifada, detailed how "the tourism sector witnessed a rapid recovery that reached 1.3 million visitors in 2008, 2.6 million in 2009, and 4.6 million in 2010."[105] Development of skills that are needed by employers would increase the competitiveness of this sector and allow for contributions to positively impact the country's GDP and possibly limit the dependence on external financing.

3.9 The manufacturing sector

The quality of the industrial sector in Palestine has advanced significantly throughout the years, as the percentage contribution of this sector to total GDP has increased from 8 percent in the mid-eighties to 17 percent in the late-nineties, then dropped during the first years of the Intifada and approached nearly 16 percent in recent years."[106] However, this trend seems to be declining, as according to the 2013 figures by the Palestinian Labour Force Survey, conducted by the PCBS, about 4 percent of the total Palestinian workforce is working in manufacturing. This includes: stone and marble, textiles and garments, food processing, engineering and metallurgical industries, chemical industries, pharmaceuticals and veterinary, construction industries, handicrafts, paper and printing, furniture, leather and shoes, and plastics. In fact, the World Bank determined that "the share of exports in the Palestinian economy has also been in steady decline since 1994, dropping to 7 percent in 2011, one of the lowest in the world. Moreover, Palestinian exports are concentrated in low value-added goods and services, the majority of which is exported to Israel."[107]

While the PA has attempted to create comprehensive legal frameworks in order to facilitate the establishment of businesses, investment and trade, which in turn will provide benefits to the manufacturing sector (see the Law of Industrial Free Zones issued in 1998 and the Investment Promotion Act of 1998), there are still many difficulties facing the sector. Palestinian industry lacks natural resources and imports most of the needed raw materials, as well as the necessary manufacturing and industrial equipment, often at high costs. Moreover, the manufacturing sector activities concentrate largely on non-durable consumer goods, and rely heavily on imported intermediate goods.[108]

103 World Bank News and Broadcasts: "World Bank Revisits Role of Tourism in Development" available at: < http://go.worldbank.org/EL8JROPY90>.

104 ibid.

105 ICC Palestine, Fredrich Nauman Stiftung (2013). "Palestine Tourism Sector".

106 USAID (2009). "The Current Status of Industrial Sector in Palestine."

107 World Bank Press Release. (March, 2013). "Palestinian Economy is Losing Long-Term Competitiveness". Available at < http://www.worldbank.org/en/news/press-release/2013/03/11/palestinian-economy-losing-long-term-competitiveness>.

108 Makhool, Basim (2003). "Role of the Palestinian Industrial Sector in Employment: An Econometric Investigation" *Journal of the Islamic University of Gaza, 11:2. Pp25-38*.

Palestinian industry itself is mostly formed by small-scale family owned businesses, and firms are small both in size and capital. Small-scale enterprises in Palestine form about 89 percent of total enterprises, a number that dwarfs many other countries with similar GDPs and neighbouring countries as well. In addition to internal sector difficulties, Israeli policies have severely hampered the sector's growth, and "the most effective [obstacle to] establishment of new firms or expansion of existing firms has been the regulatory regimes, particularly denial of licenses."[109]

The development of the necessary technical skills needed by the employers in the manufacturing sector, as well the necessary personal and practicable skills that allow employees to add value and increase the competitiveness of the sector should be a focus going forward. The analysis section of this research shows that skills in the field of industry is needed by the majority of employers, and hence the focus on quality training and instruction for workers aiming to enter the manufacturing sector would go a long way in helping to alleviate the problems that are present in manufacturing.

3.10 Business incubators and accelerators

3.10.1 The State of Incubators and Accelerators

Incubators are business organisations that assist start-up businesses through the provision of capital, training, advice and other tools "for the purpose of nurturing young firms, new products and technologies."[110] These are particularly relevant for entrepreneurs and SMEs looking to integrate modern technology into their business model or entering into a technologically modern field, like ICT. Entrepreneurial endeavours in their early stages are looking to minimise failures, while at the same time obtaining cost-effective operational services and access to qualified assistance and proven business development models. This is particularly relevant in Palestine where young entrepreneurs often do not have the requisite skills necessary to succeed in the labour market. As such, incubators in Palestine "play a distinctive and key role," by "filling knowledge gaps...with a set of shared services and facilitate their access to external information."[111]

Business incubators are a relatively new development in the Palestinian economy. The first incubator, the Palestinian Information and Communications Technology Incubator (PICTI), was established in 2003, offering services to entrepreneurs with ICT business concepts. Another notable pre-incubation centre is the Business and Technology Incubator (BTI), a unit at the Islamic University of Gaza (IUG), established by a grant from the World Bank's infoDev program. BTI services to young entrepreneurs include the crafting of "promotion and marketing strategies," as well as identifying and supporting entrepreneurs with IT leanings. There are litanies of other incubators that exist in Palestine offering unique services, some dedicated entirely to women.

It is important however, to draw a distinction between pre-incubation centres and incubators. Pre-incubation centres remain largely linked with educational institutions, while having little connection with the labour market or firms. Examples of such centres are Birzeit University's Najjad Zeenni IT Centre of Excellence, the Islamic University of Gaza's BTI (mentioned above), An-Najah University's Information Technology Incubator, and Hebron University's Centre of Excellence in Teaching. On the other hand, incubators are standalone organisations not tied to universities, such as startmeup (an institution offering academic courses in entrepreneurship), the above mentioned Palestinian Information and Communications Technology Incubator (PICTI), and Leaders Organisation (Palestinian House in Silicon Valley), which offer a Digital Entrepreneurship Program and a Socioeconomic Program.

Business accelerators also offer significant opportunities for the development of entrepreneurs and a more modern marketplace. Though similar to business incubators in services offered and results anticipated, accelerators differ in a few critical components. First, accelerators operate on a shortened timetable, providing resources and structure with the goal of rapidly developing a firm for integration into the marketplace. Secondly, while incubators often provide advice in a flexible structure, accelerators' structure is more rigid and predetermined. Accelerators must protect their initial seed investment and maximise opportunities for profit, consequently preferring to rely on their years of industry expertise, and usually work on a shortened schedule, intending to prepare aspiring firms for a major milestone, like

109 ibid.

110 Dahleez, Khalid Abed (2009)." The Role of Business Incubators in Developing Entrepreneurship and Creating New Business Start-ups in Gaza Strip".

111 Ibid.

market entry, thus focusing on predetermined steps, like attracting investors. Finally, incubators may request a small fee for services or no fee at all, while accelerators request a share of a firm's equity in exchange for start-up seed money. For this reason, while incubators are often linked to educational institutions, such as BTI and IUG, accelerators are more frequently independent firms themselves.

Currently, there is only one business accelerator in Palestine, Fast Forward, established in 2013 under the administration of Leaders Organisation and with the support of the Welfare Association and OPIC Fund for International Development.[112] Notable partnerships include Mercy Corps, USAID, Intel and Palestine for a New Beginning. Start-up companies selected by Fast Forward are given a seed investment of 20,000 USD and entered into a 120-day program that includes "project-based mentorship from a seasoned pool of knowledgeable entrepreneurs, prime office space and office resources, a network of expert business advisors, and a library of educational materials."[113] In its brief period of operation, Fast Forward has provided resources and start-up capital to a variety of new Palestinian firms that have registered successes.

3.10.2 Weaknesses and Problems Facing Incubators & Accelerators

In light of the existence of such centres, it is essential to account for the problems and difficulties inherent in the current state of Palestinian incubators. While the existence of pre-incubation centres is useful for the university student, the majority of these pre-incubation centres are "totally founded and operated by universities in the West Bank and Gaza."[114] As a result, these incubators provide only training courses for university students, with lessons informed primarily by international best practices but not local circumstances.

As for the incubator sector as a whole, **another central weakness is the absence of a unified national strategy**. The majority of Palestinian incubators were established either by local initiative and capital or supported by international actors who provided the necessary financing and other resources. Both PICTI and BTI were established with the assistance of the World Bank, specifically the infoDev program. As a result, national government bodies and incubators have operated largely in parallel of one another, with coordination largely absent or incidental. This is reflected most notably in the absence of a national association for incubators/business development centres[115], leading most incubators to operate independently of one another and **without a unified accreditation/quality framework processes or vision**. Pre-incubators are most likely to cooperate with the educational institution to which they are linked with many "urging policy makers at the Palestinian MoEHE to develop a business model to enable universities to operate and develop business models."[116] Currently, there are no strategies or policies for organizing the relation between academic institutions and the private sector, which inevitably creates issues of irrelevance and skill mismatch. Moreover, the limited number of incubators that exist are predominantly based in Ramallah, which leaves all others regions with less access to centres that might be able to foster skills development. Moreover, most of the incubators and accelerators focus on IT and virtual industries, and while the ICT sector as whole is exhibiting growth, this leaves the agriculture, manufacturing and tourism sectors with very few services catered to their need. Additionally, the existing capacity of incubators and BDCs is limited compared to the size of potential entrepreneurs, which calls for new and more feasible ways to scale capacity so as to be able to service a much higher number of entrepreneurs.

A variety of other factors, unique to Palestine, also play a role in limiting the reach of incubators and, ultimately, the graduates and businesses created. The first is the absence of the sufficient legal framework necessary to encourage entrepreneurship. At present, Palestine does not have a domestic or international intellectual property rights law. Consequently, many potential entrepreneurs are reluctant to enter the marketplace and apply their creativity to the development of a new and innovative product as there are no legal protocols to protect them from copyright infringement. Additionally, sectors with the greatest potential for entrepreneurial development often have the greatest difficulty attracting specialised Palestinians. A 2009 study of business pre-incubators and students at the Islamic University of Gaza concluded that of all students enrolled in four fields (engineering, commerce, commerce English

112 Fastforward.leaders.ps. *AboutFastForward Accelerator*, 2014.

113 Ibid.

114 Dahleez, Khalid Abed (2009)." The Role of Business Incubators in Developing Entrepreneurship and Creating New Business Start-ups in Gaza Strip".

115 The distinction between incubators and business development centres is NOT always clear in Palestine and some actors use the two concepts interchangeably.

116 Ibid.

and IT), only 7.4 percent of those in the IT sector were "entrepreneurially inclined," a stark comparison to the 44 percent of engineering students and 34 percent of commerce ones.[117] This is an alarming figure for a variety of reasons. First, business incubators do not provide technical instruction in a certain field like a TVET institution, something IT students already possess, but rather help construct business models, something commerce students already possess. This reveals that the system is quite backwards, as IT students, who have the most to gain from business advice and assistance, are not taking up the opportunity. The cause of this is most likely the aforementioned financial insecurities many Palestinians fear are inherent in starting a small business, and IT students, who are aware they can find a steady, high paying job, are more likely to find employment in an existing IT firm than start their own. Another obstacle is compounded by the absence of a national association or strategy that can help organise training sessions, codify and encourage best practices, identify sector policy and decision makers and promote coordination between isolated incubators and the labour market.

3.10.3 Gender and Incubators/BDCs

Presently, women face a variety of obstacles to entrepreneurial ambitions and as a result the amount of female entrepreneurs and students/graduates of business incubators is relatively small. This is the result of a variety of factors. First, entrepreneurship is seen as "a male domain with a weak culture of female entrepreneurship," and young women lack meaningful role models or success stories that can challenge existing stereotypes about women's role as labourers.[118] Second, many women are deterred from pursuing entrepreneurial ambitions because of apprehensions about the process of licensing and regulations. Though Palestine does not suffer from endemic corruption, Palestinians, both male and female, indicate that it is important to have a *wasta*, or connection to accelerate or even initiate the process of obtaining a license, leasing property for business, applying for loans and a variety of other factors necessary to starting a business. Men are more likely to have these connections than women, and many women say that to obtain a license or apply for other necessary business components they must do so through a husband, brother or other male relation in order to be perceived as legitimate and receive their services in a timely fashion.[119]

In spite of these difficulties, there have been several notable successes in recent years related to women and business incubators. One of the most prominent has been the Business Development Centre (BDC) for Women, established by the Business Women Forum-Palestine. The BDC aims to "encourage women's entrepreneurship, increase the number of MSMEs owned by women, enable women to better access local and international market opportunities, and facilitate the transition of informal enterprises to formal status."[120] The BDC is noted for programs such as the project, "Young Women Entrepreneurs Leading Role," an initiative geared to make young women financially independent by building their capacity to draft business plans and launch their own SMEs.[121] Through this program, the BDC launched "The Business Plan Competition (BPC) Programme" to benefit 80 young female entrepreneurs. The BPC conducted four training sessions on developing business plans, convened an advanced training for women with developed business plans, and finally held a competition to select the 13 best plans for future assistance. These and many other programs aimed to empower female entrepreneurs have been credited for their success and BDC programs have been cited as "best practices in encouraging entrepreneurship and building the capacities of women entrepreneurs."[122]

PICTI has also been noted for its work in promoting entrepreneurship among women. One of the advantages of PICTI is its inclusion of pre-incubation programs, which are particularly beneficial for women. In the inception period, women face the greatest obstacles, as many lack the technical knowledge to develop business plans, compounded by the omnipresent social pushback. As a result the pre-incubation program is critical in developing "necessary practical experience, training and technical skill sets to meet the needs of incubator clients."[123]

117 Ibid.

118 OECD(2013). "Analysis of Business Development Service Provision and Incubation for Women's Entrepreneurship in the MENA Region".

119 Ibid.

120 Ibid.

121 Ibid.

122 Ibid.

123 Ibid.

Chapter Two

Gap Analysis Based on Primary Research

1. Introduction

This is an analysis of the results of the primary research, which was completed through quantitative and qualitative methods. The chapter provides analysis of the results of the survey among new graduates, employees, owners of businesses, and representatives of educational/vocational institutions. The first section provides overall and comparative quantitative and qualitative results of the research among all targeted groups. The second section provides disaggregation of results by region, sector, and size of business, sex, education, specialisation and type of work experience. This chapter assesses the seriousness of the skills gaps issue in the Palestinian context and provides evidence-based data to measure that. Closely related, the chapter provides an analysis of the factors that contribute to both limited employability and skills gaps. These factors are viewed as external and internal with a focus on the political economy as well as social and cultural ones. In addition, the analysis provides insights on the role of the government, private sector, educational institutions and providers of services in the fields of incubators, business development centres, human resource development agencies, business accelerators and centres of excellence. The issue of entrepreneurship is also investigated as it relates to the issue of skills gaps and enhancement. The chapter proposes a measurement of (skills gaps) based on comparing the needs of employers and assessment of skills among employees and graduates. This original proposition allows for a credible ranking of priorities in terms of necessary development of skills. Finally, the chapter provides the most salient conclusions relating to the results of the primary data on the issue of skills gaps[124].

124 A detailed presentation of conclusions on all the research questions, based on all sources of data, is provided in Chapter Three: Conclusions and Recommendations.

2. Overall analysis of results

2.1 Seriousness of the skills gaps issue

The results of the research confirm the relevance of the issue of study. All involved stakeholders are highly concerned with the issue of skills gaps and believe that serious efforts must be implemented to bridge such gaps. In addition, the study provides a number of indicators that verify the seriousness of the problem within the Palestinian context. This section provides evidence on these indicators.

a) Realisation that a skills gap is a serious problem

- The majority of business owners believe that it is hard to fill job vacancies in their companies. 80 percent of business owners believe that it is (very hard), (hard) or (somewhat hard) to fill vacancies. In contrast, 20 percent believe that a skills gap is (not hard) or (not hard at all).
- 85 percent of business owners believe that the skills gap in their sector is (highly severe), (severe) or (somewhat severe). Only 11 percent believe that it is not severe.
- The majority of business owners indicate that the problem of (skills gap) is growing, which is worrisome. The results show that the majority of them have greater faith in the skills of older employees (58 percent) than newer employees[125] (11 percent). A third of business owners believe that there are no differences in the level of skills when comparing the two groups.
- The findings illustrate a gap in perception among employers, potential employees and representatives of educational institutions. While a majority of employers do not express much faith in the skills of graduates, 50 percent of graduates believe that their current skills will allow them to find a proper job. Another 42 percent of them believe that they have the skills (to some extent). In contrast, 8 percent do not believe that they have the skills to find a proper job. Representatives of educational institutions agree that the skills of their graduates will allow them to find proper jobs (32 percent to a large extent and 59 percent to some extent).

Qualitative data from all sources confirmed the widespread concern with (skills gaps). The vast majority of interviewed stakeholders and participants in focus groups emphasised the presence of a severe skills gap. This gap is considered to be at the core of the economic problem:

> "*The price we pay as a society and private sector for the presence of a skills gap is high; the schools and universities spend so much money and other resources to move students through the educational system. Much of what they get within the educational system is wasted*." (Economic Expert, West Bank)

> "*We need to allocate a bulk of our resources to train new graduates to become productive in our business; it takes us at least two years to do that; we should not have to do much of that when the educational system is responsible for these graduates for about 20 years*." (Human Resource Specialist, West Bank Company)

The skills gap is present in all fields and regions, and at all levels of responsibility within the private sector:

> "*All sectors are influenced by the skills gap; our companies cannot find the skills they need in all fields and regions*." (Representative of Chambers of Commerce, Gaza)

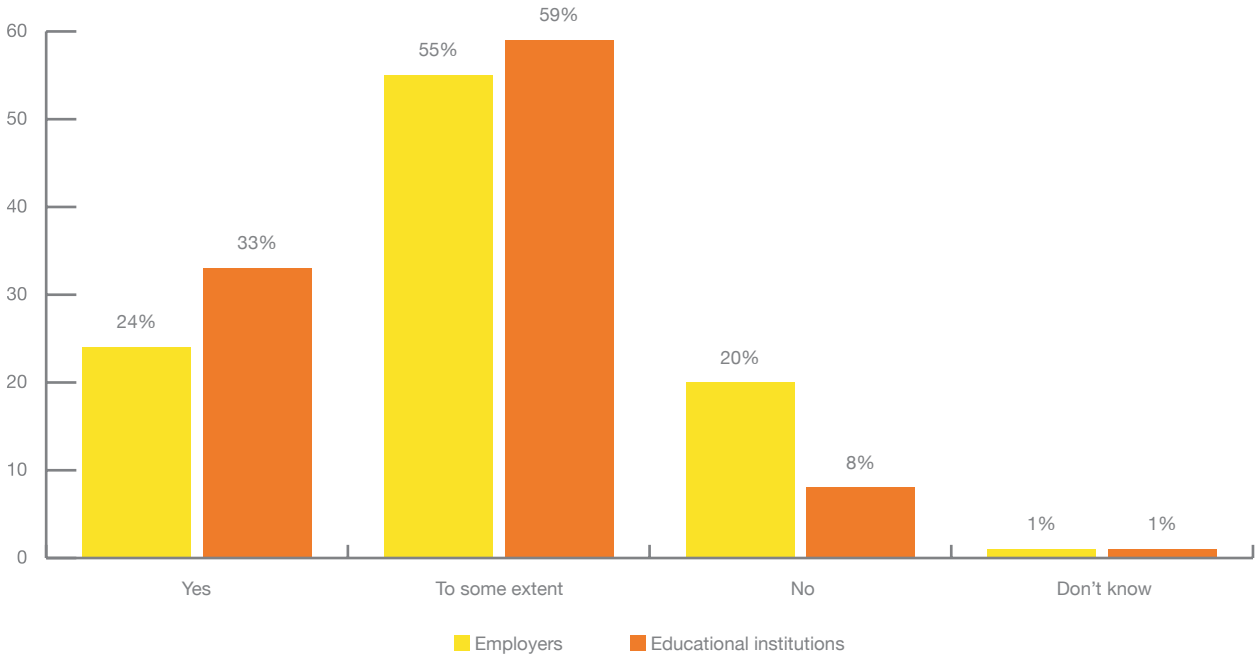
b) Additional evidence of the presence of a skills gap

- 54 percent of business owners report that they have hired persons who do not meet all the stated requirements for a job. Among them, 10 percent did so (in several occasions), 28 percent did so (in some occasions) and 15 percent (in limited occasions). In contrast, 45 percent state that they have never hired anyone who does not meet the minimum requirements.

125 Older employees were defined as (employees with 5 years of experience or more) and newer employees as (employees with less than 5 years of experience).

- The majority of business owners (72 percent) state that they have 50 percent or less of the skills that they need for their business. Among them, 20 percent state that they have less than 10 percent; another 26 percent state that they have between 10-30 percent of the skills needed and 26 percent state they have between 31-50 percent of their needs. Only 24 percent state that they have the needed skills.
- 20 percent of business owners do not believe that the current skills of graduates will allow them to find a proper job in the sector they are involved in. As much as 55 percent believe that the chances that new graduates will find a job with their current skills are (limited). Only 24 percent disagree and believe that the current skills are sufficient to allow graduates to find jobs.

Figure (1): Do you believe that the current skills of new graduates will allow them to find a proper job?



- Closely related is the tendency of new graduates and employees (70 percent) to apply for jobs that do not align with their specialisation or skills. This percentage is slightly higher among employees (75 percent) than new graduates (65 percent) indicating that working outside of one's specialisation is an eventuality for most graduates.
- Only 8 percent of representatives of educational institutes do not believe that the current skills of graduates will allow them to find a proper job in the sector they are involved in. As much as 59 percent believe that the chances that new graduates find a job with their current skills are (limited). 33 percent disagree and believe that the current skills are sufficient to allow graduates to find jobs.

Employers, in many cases, had to compromise their requirements to find an employee; many of them believe that the supply market is limited; hence, they need to fill job vacancies with applicants who have potential for development:

> *"In many cases, I had to settle for applicants who do not meet the skill requirements; I had to think that if I give them a chance, they might improve; I provide them with coaching and on-the-job training; but that does not always work."* (Employer, West Bank)

This is also related to the fact that the most qualified find jobs outside of the country or with high-paying international/ regional employers:

> *"We cannot compete with the salaries provided outside of Palestine or by big outside contractors; they get the best and we must settle for less qualified applicants; many work with Israeli employers because they give higher pay."* (Employer, East Jerusalem)

Graduates and employees also work hard to submit applications to obtain jobs in the very limited market:

> *"When I applied for jobs in my specialisation, I found that my education has very little to do with the skills needed; I kept hearing that I am not qualified; so I had to look for jobs in all other fields knowing that my opportunities are even more limited."* (Unemployed Graduate, Gaza)

> *"The only way for me to get a job is to look into ads in all fields; finally I was able to convince my employer that I am versatile and I could give him what he needs."* (Employee, West Bank)

> *"I gave up looking for jobs in my specialisation; now I am working in a field that has nothing to do with my education; now I consider education as just general knowledge."* (Employee, Gaza)

> *"I knew that my major in college is irrelevant, so I did not even look; now I work in an Israeli business as a labourer; I am satisfied with the pay."* (Employee, East Jerusalem)

The above analysis provides evidence that all stakeholders agree that Palestinian society is facing a serious issue that must be addressed -namely - skills gaps and enhancement. The severity of the problem is felt in all sectors and regions and is evident through a number of indicators: companies are frequently hiring persons who do not meet the job requirements and they evaluate the level of skills of their present employees as less than adequate. All stakeholders are concerned about the level of skills among new graduates, hence, their limited ability to find jobs in general or in their field of specialisation in particular.

While concern is common among all groups, the results show a gap in perceptions of important aspects under investigation. For example, while educational institutions believe that their instruction is helpful in providing the needed skills, and graduates feel that they possess the skills on a general level, employers feel that they are not finding the needed skills among job market entrants. This implies another gap relating to the weak awareness, dialogue and harmonization between the stakeholders. In addition, this raises the question of awareness of the needed skills among educational institutions and graduates. It also illustrates the weak articulation of needs by the private sector and the weak communication of these needs to educational institutions and graduates. All of these gaps in perceptions are evident in other, data described later in the report.

2.2 Impediments to employability and contributors to skills gaps

The following section is an assessment of the role of the different factors that influence skills gaps and limit employability. Macro-level factors are considered such as market conditions and unemployment, government policies and the educational system. In addition, the study provides a detailed analysis of meso and micro-level factors that must be considered. These factors include issues relating to the economy (e.g., wages, new technology, gaps in level of development among the regions). Others relate to the nature of the private sector (e.g., nepotism, provision of training, human resources policies) and the educational system (e.g., access and quality of education, practical skills that fit the needs of the market). Other factors relate to accessibility and freedom of movement and to additional cultural and social factors.

a) Unemployment (limited labour market) is the most serious problem

- 94 percent of business owners believe that unemployment in their sector is (very serious), (serious) or (somewhat serious). Only 5 percent believe that it is not serious.
- 100 percent of the representatives of educational/vocational institutions, 94 percent of business owners and 87 percent of employees/graduates believe that the limited availability of jobs is a serious factor that limits employment.
- 95 percent of employees/graduates confirm that it is difficult for new graduates to find a job; with 46 percent saying that finding a job is (very difficult), 41 percent (difficult) and 9 percent (somewhat difficult).
- Among new graduates still unemployed, 98 percent confirm that it is difficult to find a job.
- Equally concerned are the representatives of educational institutions, where 95 percent state that it is difficult for their new graduates to find a job.

The first factor mentioned as an impediment to employability is the limited labour market and the inability of the economic system to generate sufficient new jobs. The lack of independence of the Palestinian economy was

persistently cited as the core issue. While interest in the issue of (skills gaps) is gaining momentum in the national discourse, some observers and participants in the focus groups placed the inadequate skills second in importance after unemployment:

> *"The core problem in Palestine is the limited ability of the market to generate quality jobs; this discourages universities from innovation; the private sector from investing in skills development and government feels that whatever it does in this field is irrelevant."* (Expert, West Bank)

> *"As much as we try to build skills of students, they will be faced with the limited markets internally and regionally; under this complex political situation, the investors will not invest to the maximum; the regional markets are highly competitive with increased restrictions on Palestinians; we are only partially part of the international economy."* (Expert, Gaza)

While recognizing the salience of exploring the (skills gaps issue) and the need to address it at all levels, some experts and focus group participants question the increasing interest in (skills gaps and development). They warn of the rise of a new fad that might prolong the problem and perpetuate the status quo if treated in separation from the root causes:

> *"All international organisations are now racing to look at this issue; we have been involved in so many studies; will any of them really deal with the closure, the limited movement, the lack of control over resources, etc?'* (Focus Group Participant, Gaza)

> *"I hope that this experimentation with all these new trendy concepts (entrepreneurship, internships, training, etc) will not just be a fad and it will fail and prove at a later stage that it was a waste of time and resources like many other fads before it."* (Trainee, Gaza)

> *"As an educational and training centre, we appreciate the need for skills enhancement, but let's make sure that the initiatives to deal with that are not separated from the need to have fundamental reform in the educational system where most of the problems lie."* (Representative, University, West Bank)

Others were not as sceptical. They believed that the issue of (skills gaps) must be at the centre of the national discussion. They assert that there are many possible improvements that could occur even under the present conditions. In fact, some claimed that human resource development will entail the improvement of the educational system, lead to a stronger economy and, as such, will empower Palestinians in their struggle for independence, while genuinely dealing with the real obstacles and the problem of (skills gaps) in a sustainable manner:

> *"Human capital is the most important aspect of development; if we improve the technical and personal skills of our youth, we will be able to excel in all fields."* (Educator, Gaza)

> *"When I was able to build my own business, I became more confident about my skills and my self-esteem improved; now I can be active citizen in my community."* (Young Entrepreneur, West Bank)

b) Policies as an impediment

- 95 percent of employees/graduates and of business owners, and 92 percent of the representatives of educational/vocational institutions believe that weak policies to harmonise the offerings of educational institutions and the needs of the market is a serious factor that limits employment. This was a key theme in all discussions; all parties agreed that national policies in education, the economy and the relationship between them is lagging and does not fulfil the evolving needs. One of the main issues is the weak policies, or complete absence of any, that support and guide the issue of training within private sector companies:

  > "Companies are not obliged or encouraged to devote budgets or policies to improve skills among new graduates; they are not encouraged, through tax exemptions, to invest in research or train new graduates or employees." (Employer, West Bank)

In addition, most are critical of the role of government in higher education. They claim that there is no credible system of licensing, accreditation and monitoring. The government is not providing public universities with sufficient funding to respond to needs. In addition, the government does not provide vision and unification of goals, nor sufficient leadership to ensure responsiveness to evolving needs, quality of education, harmonization and complementarity.

"Our government is a sitting duck; all things are occurring around it with no real guidance or leadership. While it should not interfere with education, it should provide national policies and strategies and enforce regulations and laws; it should also make sure that the all kinds of education are responsive to the needs of the market." (Educator, West Bank)

"Where is the real effort to bring together the educational institutions and the private sector? How many times did we say that we need to shift the focus on TVET? Will the government move to really make sure that universities are not wasting the time of students and society?" (Economist, Gaza)

This critical view of the government's role at the policy and coordination levels is not universal. Experts from the various groups targeted in the research cited the beginnings of a realisation of the challenges in the field and seeds of work in this respect. For example:

"We have been engaged in many efforts to improve the educational system; we have trained teachers in schools, placed new, clearer regulations; built laboratories and libraries, etc. At higher levels of education, we provided licensing for new, more responsive programs; we have more stringent quality controls and accreditation practices." (Government Official, West Bank)

"We have a number of programs that address the need to bridge the skill gap, we work with international organisations and local companies to present new skills to our students; we have agreements with government institutions to provide them with skilled graduates in a number of fields including nursing and health practitioners." (Representative, Educational Institution, West Bank)

c) Limited harmonization between educational institutions and the private sector

- 94 percent of representatives of educational/vocational institutions, 93 percent of business owners, and 90 percent of employees/graduates believe that the (extent to which educational institutions are aware of market skills needs) is a serious factor that limits employment.
- 58 percent of business owners do not believe that there exists sufficient joint programming with educational institutions to align the provided skills with the needed skills. In contrast, 36 percent believe that such joint programming exists. Among them, only 4 percent believe that the programming is intensive. This implies that less than 2 percent of the full sample believes that joint programming is intensive. At the same time, only 29 percent believe that the quality of joint programming is (good). This implies that roughly 14 percent of the full sample believes that the existent joint programming is of (good quality).
- The views of representatives of educational/vocational institutions vary greatly from those of business owners regarding the existence of joint programming. As much as 67 percent of the representatives of educational/vocational institutions believe that there is sufficient joint programming with businesses to align the provided skills with the needed skills. They, however, share the view that joint programming is limited and of low quality.
- The limited nature of joint programming is repeatedly confirmed in interviews and focus groups. All stakeholders mentioned the issue of weak joint programming as an impediment to developing skills.

"While there is increasing talk about harmonization between universities and the private sector, the reality is that the efforts are limited and unsustainable." (Employer, West Bank)

"Joint work between the private sector and academic institutions is a rarity; when it happens it is pushed by an international donor." (Academic, Gaza)

Many others have criticised the lack of government resolve to establish clear policy guidance in this respect. The current efforts are described as scattered, non-systematic, with no unified vision or overall goal articulated in a national plan. The lack of minimum standards and requirements to regulate an effective relation was frequently cited.

"You find signs of cooperation here and there; our university has a joint program with the private sector, but it will end with no real results as our efforts are not connected with what others are doing." (Academic, West Bank)

"We have a good program with a leading university; our program only works with a few students to train them, but how about the tens of thousands of students? What if we stop? There will be no more cooperation." (Company Representative, West Bank)

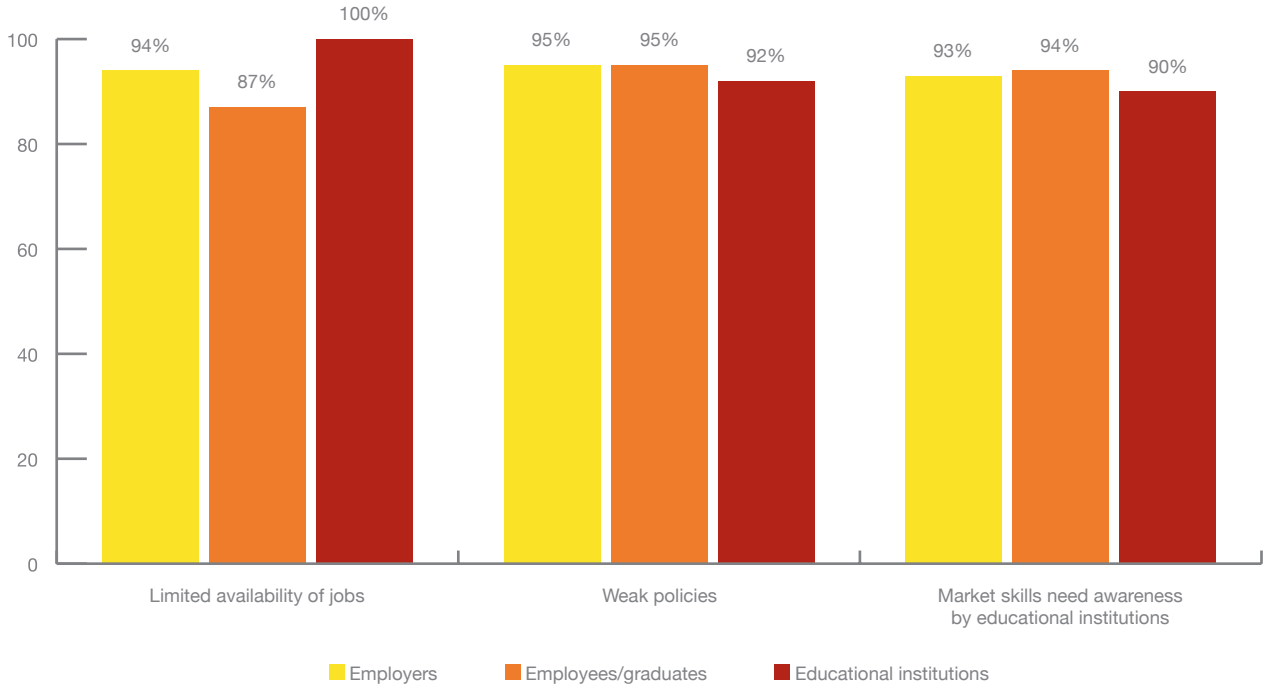
- Only 21 percent of representatives of educational/vocational institutions believe that their institutions provide theoretical skills to their students. 54 percent believe that they provide a balance of theoretical and practical skills in preparing graduates for the labour market. In addition, 24 percent believe that they provide practical skills. The (positive) perceptions among representatives of educational/vocational institutions are confirmed in their view of the degree of their graduates' preparedness for the labour market. 21 percent of them believe that their graduates are (highly prepared) for the needs of the evolving labour market. Another 55 percent believe that they are (prepared) and 17 percent believe that they are (prepared to some extent).
- These beliefs are hotly contested by the qualitative data obtained from graduates and employers. The most common sentiment observed during the interviews and focus groups was the following:

> *"Teaching in our universities is highly theoretical and academic, with no practical usage whatsoever."* (Graduate, Gaza)

To others, the fact that some academics believe that their teaching is (practical) and (geared towards the market) reflects the nature of some majors to some extent, but does not fully apply in most cases:

> *"Some academics really think that they provide practical skills to graduates; this might be partially true in some majors such as engineering, but is not true in most other majors. The fact they think this is the problem: Are they delusional?"* (Employer, West Bank)

Figure (2): Factors that limit employment (percentage saying very significant, significant, and somewhat significant)



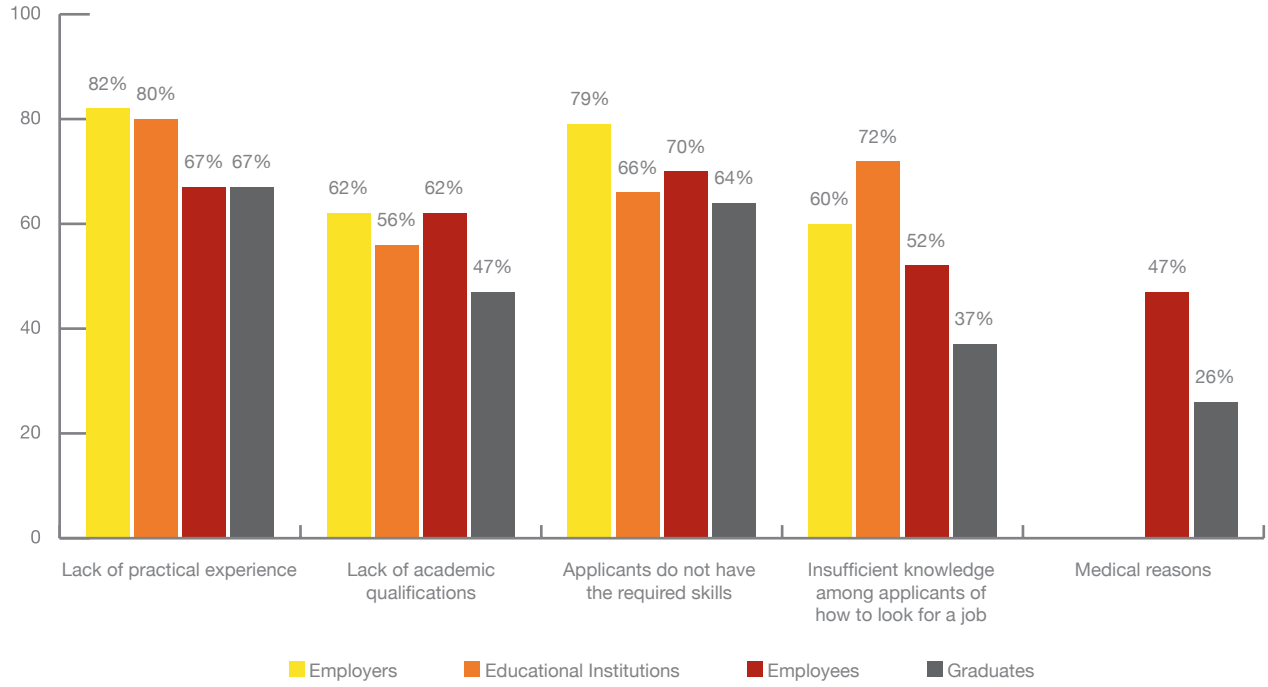
The extent of the challenge in relation to the provision of practical skills by academic institutions is also confirmed through other survey data, as shown below.

d) Lack of (practical skills) as a leading factors limiting employability

- Figure (3) below shows that all groups of respondents, except employees, agree that the (lack of practical experience among applicants) is the most significant factor limiting employability. The gap between the perceptions of business owners and educational institutions on the one hand and employees and graduates on the other hand is interesting.
- The significance of the factor relating to the perception that (applicants do not have the skills that are now required in the marketplace) places second for business owners and graduates, while it is the most significant for employees.

- The significance of the factor relating to (insufficient knowledge among applicants of how to look for a job) is contested between the different groups. While representatives of educational institutions and business owners view it as highly serious, employees view it as somewhat serious, while graduates as not very serious.
- The lack of academic qualifications (Shahadeh) among applicants is viewed as significant by a majority of all groups, but graduates.

Figure (3): Factors that limit employment (percentage saying very significant and significant)



Qualitative data provide further insights. Many believe that lack of practical experience is not limited to the inability of graduates to find training opportunities, but is tied into the nature of the educational system at all levels. It also reflects the dysfunctional relationship between the needs of the economy, the offerings of universities and overall national policy.

> *"Our education since we were children is disconnected from the real world; they teach things that we can never use."* (Graduate, Gaza)

> *"We teach children to memorise and repeat after us, but we do not really ask them to go out and look for real experiences around them."* (Teacher, West Bank)

Others stress the limitations of the present system to provide real-world, practical experiences that bridge the education with the market:

> *"There is no system whatsoever when it comes to ingraining practical training into education; we all know the problem, but no one is really doing something about it."* (Representative of Chambers of Commerce, Gaza)

> "*The only real experience might be obtained in the streets, outside of school. I left school because I wanted to have real-life experience. I worked in West Jerusalem since childhood; I know this was my way out of the wrath of school."* (Employee, East Jerusalem)

> *"I decided to study carpentry; this is more real and I could do what I want with that. I got some schooling and then had to go the nearby settlement to work; much of my experience came with the work."* (Employee, Area C)

Many, however, acknowledge that some attempts are taking place, albeit limited:

> *"There are some interesting training programs going on. We as Chambers of Commerce provide practical training for new graduates, some companies provide internships; but this is limited in size and scope. The quality of training needs to be assessed."* (Representative of Chambers of Commerce, West Bank)

> *"We provide training opportunities to new graduates. We pay for part of their salary for six months; this is funded by an international organisation."* (NGO Official, Gaza)

> *"Our program with universities entails training students for one year and the university gives them credit for the training. I am worried that this is isolated; there is no system within the university to apply this to all needy students and to sustain such program to become part of their system."* (Employer, West Bank)

e) Detailed analysis of the factors leading to unemployment and skills gaps

In addition to the above-listed factors, the data below show that the contributors to unemployment and (skills gaps) are perceived to be multi-faceted: institutional (nepotism), regional (access to jobs and freedom of movement), educational (gaps in specific specialisations), and (gaps in on-the-job training). The least important factors are generally related to discrimination against specific groups in society, especially youth, the elderly and women. In addition, there is a low recognition of (access to education) as an important factor. Table (5) presents these perceptions, ranked by priority among respondents.

Table (5): Percentage of respondents who believe that the following factors contribute to unemployment and skills gaps

Business Owners		Employees/Graduates		Educational Institutions	
Factor	**%**	**Factor**	**%**	**Factor**	**%**
1. Nepotism	82%	1. Nepotism	95%	1. Nepotism	92%
2. Inability to access outside markets	81%	2. Inability to access outside markets	81%	2. Inability to access outside markets	81%
3. Education gaps in particular areas of specialisation	80%	3. Education gaps in particular areas of specialisation	81%	3. Gaps in on-the-job training	76%
4. Inability to move from one region to another	79%	4. The presence of job opportunities in specific regions	78%	4. Inability to move from one region to another	76%
5. Gaps in on-the-job training	77%	5. Inability to move from one region to another	78%	5. The presence of job opportunities in specific regions	74%
6. Gaps in expectations around wages	76%	6. Gaps in on-the-job training	77%	6. Education gaps in particular areas of specialisation	73%
7. New/shifting technologies	75%	7. Gaps in expectations around wages	75%	7. Employment discrimination against persons with disability	66%
8. The presence of job opportunities in specific regions	75%	8. New/shifting technologies	72%	8. New/shifting technologies	65%
9. Lack of knowledge about potential career opportunities	69%	9. Lack of knowledge about potential career opportunities	72%	9. Lack of knowledge about potential career opportunities	64%
10. Employment discrimination against persons with disability	67%	10. Employment discrimination against persons with disability	64%	10. Gaps in expectations around wages	63%
11. Employment discrimination against elderly applicants	58%	11. Employment discrimination against women	61%	11. Employment discrimination against elderly applicants	62%
12. Employment discrimination against women	57%	12. Employment discrimination against elderly applicants	59%	12. Employment discrimination against women	52%
13. Employment discrimination against youth	53%	13. Employment discrimination against youth	57%	13. Employment discrimination against youth	45%
14. Access to education	52%	14. Access to education	54%	14. Access to education	44%

The widespread belief that nepotism is a major issue was explained by some of the participants in the interviews and focus groups:

> *"No one could deny that there is nepotism, especially in public employment; private companies also get some pressures to appoint this person or that."* (Expert, West Bank)

> *"If you do not have connections, you will never get a job."* (Unemployed Graduate, Gaza)

> *"Job opportunities are very limited; I had to use all of my resources including connections; why not? If everyone is doing it, it should not matter."* (Employee, West Bank)

The issue of nepotism is also closely related to the issue of social discrimination against women, youth, elderly and persons with disability:

> *"I was denied training in a technology program because they felt it was useless to train me as a female; they wanted men who can come to work in the evening and work on the weekends; they did not even ask me if I could; they just assumed that I will not."* (Employee, West Bank)

> *"Females do not have the same opportunities to obtain skills that fit the needs of the evolving market; they are streamed by their families and the school system to choose academic majors to prepare them to be housekeepers; they are discouraged from engaging in trainings in faraway places or outside of the country."* (Expert, Gaza)

> *"We try to encourage young women to enrol in our training programs. We must do much more to deal with the social and cultural obstacles that they face in trying to obtain equal opportunities in trainings and internships."* (Company Official, West Bank)

> *"We target women in our entrepreneurship program, but then we could not do that well without understanding their realities at home and in the community."* (NGO Official, Gaza)

Box (3): Gender-specific obstacles

The previous sections of the report illustrated the various layers of obstacles confronting women in the labour market. They are, in part, the product of social stigma, not deficiencies in women's skills or education. In reality, women are more represented in higher education than men. However, despite higher rates of enrolment, women face a unique set of obstacles. One of the most pressing is the societal norm that women's education should be geared to conform with stereotypical gender roles. As a result, women are overrepresented in health care, teaching, arts and humanities and life sciences, while underrepresented in fields such as engineering, physics and other hard sciences.[126] Most distressing of all is that higher education has been shown to be a non-factor in women's future employment. A study conducted by the Royal Academy of Science International Trust (RASIT) determined that, in 2010, 33.8 percent of women with 13 or more years of schooling were unemployed, compared to 1.2 percent of women with no schooling.[127] This trend is indicative of the power of patriarchy in Palestinian society, as highly educated women are not desired as employees and face other difficult obstacles in starting their own businesses. As a result, many highly educated women are forced to accept work well beneath their capacity that conforms to gender stereotypes. The most common of these are the agricultural and service sector; in 2011 the former accounted for 22.2 percent of women's employment, while the later accounted for 59.7 percent.[128] Other women may opt for early marriages, circumstances that may similarly force them to adopt maternal and domestic roles.

Discrimination against youth was not viewed as a major challenge, as there are no embedded cultural or legal obstacles that limit their opportunities. This does not preclude that some participants in the research cited some signs of discrimination, such as the lack of belief in youth and the low trust in their capabilities. Discrimination based on age seems to be more concerning when it comes to older citizens; many of the stakeholders and employees cited examples of such discrimination. To some, this type of discrimination is inevitable as the private market must think

126 Women and Education in Palestine: Is Education Improving the Status of Women. RASIT, 2010.

127 Ibid.

128 Al-Botmeh, Samia (2013). "Barriers to Female Labour Market Participation and Entrepreneurship in the Occupied Palestinian Territory".

of its best interest when looking at this issue, as one employer asserted. The discrimination against persons with disability is even more pronounced:

> *"Let's be real, persons who have a disability will not help me in the same way that others will."* (Employer, East Jerusalem)

> *"Our companies have no awareness of the utility of having persons with disability in their companies; they still believe it is an unnecessary burden. We need to study this carefully and find the best means to calm these fears."* (Representative of Chambers of Commerce, West Bank)

> *"The law must ensure that discrimination is not practiced against any group."* (NGO Official, Gaza)

The research revealed that other sources of discrimination might exist in the fields of skills development and employment. Some say that political affiliation influences decisions to recruit employees or graduates for trainings. According to one graduate in Gaza:

> *"They did not consider my application for a scholarship until they found out about my political affiliation; I was not surprised that they rejected my application."*

Another example of political discrimination was expressed by a West Bank graduate:

> *"The teacher was always recruiting students close to his political affiliation to training courses outside of the university."*

This claim was denied by many university officials and was considered as an exception.

Another source of discrimination is geography as some participants cited that they were not given training and work opportunities because they lived far from the city centre. They were told that it would be too expensive to include them:

> *"I was denied training and work opportunities because I live in Area C with my community surrounded by checkpoints; many felt that I will not be at work on time and my transport will be too expensive."* (Graduate, Area C)

Other sources of discrimination emanate from social and cultural perceptions of (socially correct) appearance and behaviour:

> *"I do not know what my problem is. I do not seem to present myself well in interviews, someone told me that I should dress and look better."* (Unemployed Graduate, West Bank)

> *"I dress too conservative to the taste of some companies, they think that does not sell."* (Female Unemployed Graduate, West Bank)

> *"They tell me that my dress is too liberal; that is not good for business."* (Female Unemployed Graduate, Gaza)

The above results suggest that while the limited size of Palestinian labour market is considered as a major obstacle to employability, there is also wide concern with all other factors that are considered both results of economic limitations and causes for limited potential in the achievement of economic development and advancement of the Palestinian private sector. The results of the study show that limited employability is not only due to a limited labour market, but also to a complex set of factors. The stakeholders stressed the importance of national policies conducive to proper and systemic harmonization between the offerings of educational/training institutions and the evolving needs of the labour market for skills. The findings also illustrate the emphasis stakeholders placed on institutional improvement including the areas of nepotism and educational reform. In addition, the results show the role of the private sector as a key player in promoting skills. Furthermore, the issue of accessibility to local and national markets is stressed. The complex set of social and cultural factors epically in relation to discrimination against specific groups (e.g., women, youth and persons with disability) and regions (rural areas including Area C, East Jerusalem and Gaza) is also viewed as important.

f) Career counselling in educational institutions as an issue

One of the challenging issues relates to the availability of career counselling, be it in schools or universities. The results on this issue are somewhat conflicting, indicating varying understandings and a degree of vagueness in the meaning of "career counselling." 25 percent of all employees/graduates state that they have received some career advice during high school. Furthermore, 35 percent of college graduates state that they have received some career advice during university years. In contrast, 62 percent say that they have never received any career counselling. In addition, one third of all university graduates and 55 percent of representatives of educational/vocational institutions say that they know that their educational institution has a career service office.

A closer examination of the school and university system in Palestine reveals that there are no formal (career counselling offices) within them, with few exceptions. As indicated earlier in the section on the (supply side), educational institutions have been experimenting with various methods to facilitate the entry of students to the labour market. Some have recently established counselling mechanisms for specific groups of students; others organise (recruitment days) where private companies and other employers provide an opportunity for students to familiarise themselves with labour market offerings; in other cases, educational institutions have provided trainings for students to prepare them for the market. Having said this, the whole notion of (career counselling) is a recent development among Palestinian schools and universities. In addition, there is no requirement from the government that educational institutions must provide career counselling.

These circumstances are reflected in the opinions of participants in interviews and focus groups. Consensus seems to exist that counselling opportunities are underdeveloped at the present time, but there is recognition of their importance in preparing students for entry into the labour market:

> *"We provide students with advice when they approach us."* (Academic, West Bank)

> *"Much of the advice is informal, but we are trying to institutionalise career counselling."* (Academic, Gaza)

> *"What I have received is training to establish my own business, but it stopped there with no follow up after graduation."* (Young Entrepreneur, West Bank)

> *"An international organisation is working with a number of universities to provide students with the knowledge they need to be able to find jobs; they build their capacity in writing their CVs, presentation and interviewing."* (Representative of an International Organisation, West Bank)

2.3 On-the-job training and human resources development

One of the indicators demonstrating the multi-dimensional nature of the issue of (skills gaps) is related to the effort and time needed to bridge the gap as the graduates find employment. The role of business in providing new employees with the needed skills is also an important area of investigation. Respondents were questioned about their experience with new employment and other issues pertaining to the role of private companies in providing on-the-job training.

a) Reaching a level of competence

The majority of business owners are optimistic about their ability to provide new hires with the competence they need to fulfill their required tasks. 61 percent of them stated that they need six months or less to prepare a new employee to reach a degree of competence fitting the needs of work. 29 percent stated that they need six months to one year. In contrast, 7 percent stated that they need more than a year to prepare a new employee for the work.

Qualitative data show that the level of competence reached is contingent on a number of factors including the sophistication of the job under question. It was reported by employers that requirements to reach competence vary. For example, management jobs at mid and higher levels require more than two years of extensive experience, while jobs at entry level might require less than six months. In addition, small business owners report shorter periods to reach competency, while medium and large-size companies report longer periods.

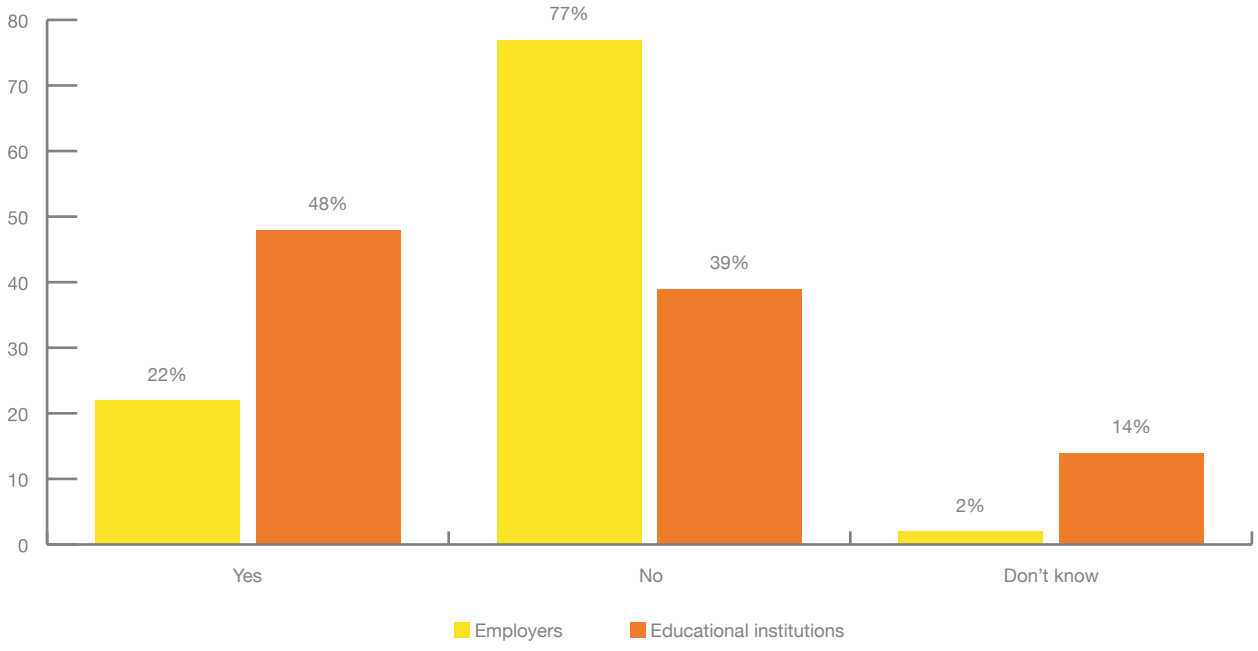
In addition the fact that the majority of employers state they need six months or less to prepare a new employee to reach the needed competence in line with the nature of the Palestinian private sector. Data in the background section show that the majority of businesses are simple, small and family owned. They lack the level of sophistication that

requires a high-level of technical skills as indicated previously, which makes the initiation process of a new employee a simple one.

b) Provision of human resource development

- Only 22 percent of business owners report that their companies have a dedicated training and human resource development budget and policy. 77 percent report that they do not have such budgets.
- A majority of business owners (58 percent) state that their businesses do not provide any systematic/regular training for new employees, while 41 percent state the opposite.
- At the same time, only 28 percent of business owners say that their companies have provided training for theirs employees during the past 12 months. Much of the reported training (63 percent) was described as (on-the-job training), 8 percent as (classroom training), while 29 percent described it as (both).
- 25 percent of employed respondents believe that their companies have a dedicated training and human resource development budget and policy.
- 17 percent of employed respondents, however, report that they received training that was sponsored by their companies during the past 12 months. 83 percent disagree.
- Only 21 percent of representatives of educational institutions believe that employers provide proper training to their new employees.
- As many as 48 percent of these representatives believe that companies have a dedicated training human resource development budget and policy. This is much greater than reported by employers. This confirms the gap in knowledge between the private sector and educational institutions. In addition, it confirms other findings that representatives of educational institutions are not sufficiently familiar with the private sector (as evident in the following graph).

Figure (4): Palestinian companies have a dedicated training/human resource development budget and policy



Interviews and focus groups with representatives of businesses show that the role of business in providing human resource development is more complex. On the one hand, many confirm that while large companies might have dedicated budgets and clear policies for human resources, medium-size businesses are limited in this respect and small businesses have none. On the other hand, it was clarified that when companies devote a budget or an administration for human resources, it is mostly for management of daily and mundane aspects of human resources such as salaries, promotions, leaves and similar issues. It was difficult to find any business that has a clear mandate on the development of human resources.

> *"We are too small of a business to have a human resource budget. We train our newcomers to do the work through immediate supervision and on-the-job training."* (Employer, Gaza)

"When we talk about our human resource unit, we are talking about a unit that manages employees on a daily basis, but it does not have the resources to do much more." (Employer, West Bank)

"In our bank, we have clear steps on how to train new recruits. We all know the steps needed to get them to the needed level of confidence." (Employer, West Bank)

"Our company invests in our staff extensively. We get them to take training courses with specialised institutions in Palestine and sometimes outside." (Employer, West Bank)

The problem, to some experts, goes beyond the provision of training, and is primarily about the ability of businesses to identify their skill needs. This is especially true among medium and small-size businesses. According to a key informant, representing the Chambers of Commerce:

"The vast majority of our members do not have the capacities or the skills to identify their needs of skills. They are traditional and not familiar with modern human resource development methods that could improve their potential to strengthen their businesses." (Representative, Chambers of Commerce, West Bank)

This might also speak to a bigger issue relating to the 'business development' or strategy of the businesses and where they are headed in the first place. This is not fully understood at the enterprise level, let alone at the sub-sector level, most of the time. This sentiment was confirmed by a large number of employers and representatives of Chambers of Commerce in all regions.

c) Seeking training by employees and graduates

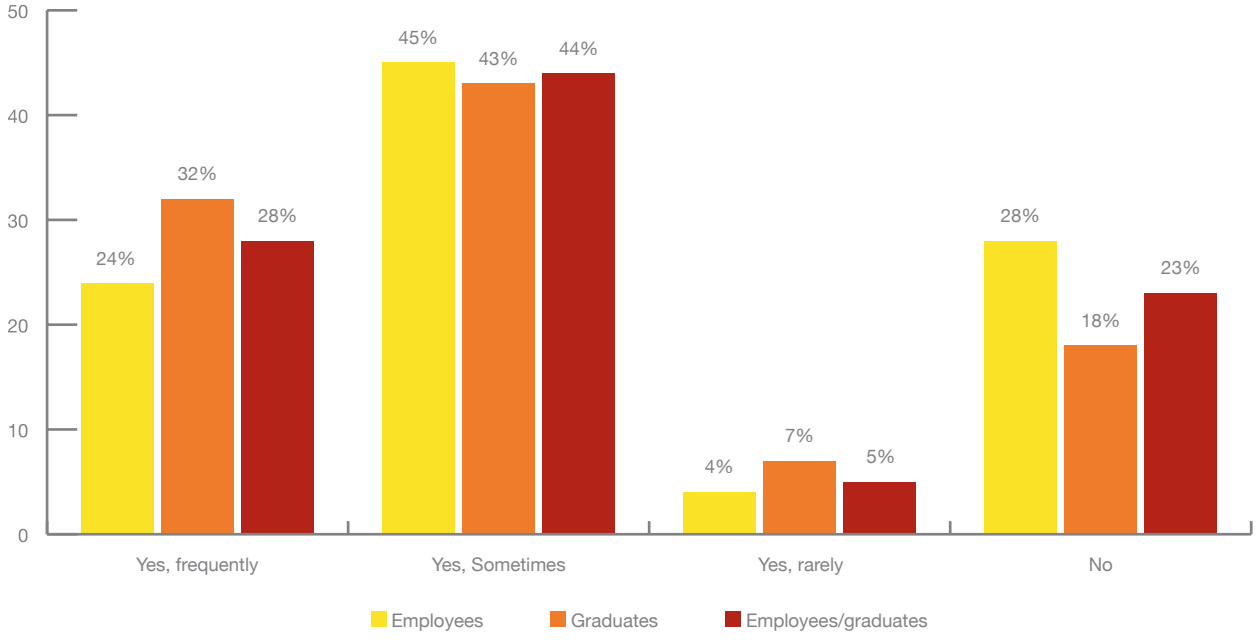
- The data reveal another interesting finding, namely that the largest group of employees and graduates do not actively seek training that will enhance their opportunities for employment or re-employment. In total, 39 percent of employees/graduates say that they do not pursue such opportunities (42 percent among employees and 30 percent among graduates). Only 30 percent confirm that they actively seek training and 19 percent do (to some extent).
- Only 28 percent of all employees and graduates report that they (frequently) utilise the Internet to develop their skills and knowledge in their field of work/specialisation. 44 percent say that they do so (sometimes) and 5 percent (rarely) do so. As much as 23 percent say that they never use the Internet to develop their skills.
- Among employees, 28 percent never use the Internet for skills development, compared to 18 percent among graduates.

These levels confirm earlier figures produced by the PCBS, which show that the majority of Internet use does not have economic value added. Fewer than 20 percent of those surveyed are using the Internet for work purposes, less than 5 percent for both financial services and e-commerce, while almost 80 percent are using the Internet for entertainment purposes. The same survey also shows that computer use is also mostly limited to social purposes. Only 3.4 percent of Internet users use the Internet for e-commerce purposes[129]. This pales in comparison with neighbouring countries such as Jordan, where "in the 12 months between September 2009 and September 2010, e-commerce transactions totalled 192million USD, with over 15 percent of Internet users engaged in e-commerce, while the entirety of IT sector sales in Palestinian was estimated in 2009 to be approximately 250million USD.[130]"

129 *PCBS, Main Findings of Household Survey on ICT, 2011*.

130 Tucker, Tremaine (2012). "THE ICT SECTOR IN PALESTINE: Current State and Potentials." *Palestine Economic Policy Research Institute (MAS)*."

Figure (5): Do you utilise the Internet to develop your skills/knowledge of your field of work/specialisation?



The relatively low rates of initiative to actively seek training and skills-improvement are due to a number of factors as revealed by the qualitative findings:

1. **Lack of knowledge**: Some of the participants in the focus groups cited lack of knowledge of training offerings and institutions that provide them as an impediment to seeking training. This is also related to the issue of targeting, where some participants felt that the targeting of trainings and other skill-development initiatives are limited to specific regions (mostly the middle of the West Bank and Gaza City) and target those who need them least and already have relatively good access to existing resources;

2. **Discrimination/nepotism**: Others said that trainings are provided to those who have connections and are not open to all graduates or employees in need;

3. **Quality of training**: Many employees and graduates felt that many of the trainings offered do not truly help them in their search for work or improving their job performance;

4. **Despair related to the labour market**: Some participants felt that the job market is too limited; with time they became very discouraged, citing that they have been involved in many initiatives but never found a job.

The above results represent an alarming indicator of lack of initiative and poor self-continuing learning. This might also serve as an indication of poor motivation which is illustrated in other sections where some graduates felt that whatever learning they gain will not help them get a job given the limited opportunities. At the same time, some employees felt that there is no need to develop their skills as they will not advance in their jobs due in part to nepotism and favouritism within the businesses. Those who are hired face limited opportunities, outside of basic on-the-job training. The allocation of budgeting for human resource development is far from universal and only applies to a minority of businesses, mainly large ones that can afford it. This is evidenced by the fact that only 17 percent of employees say they received training.

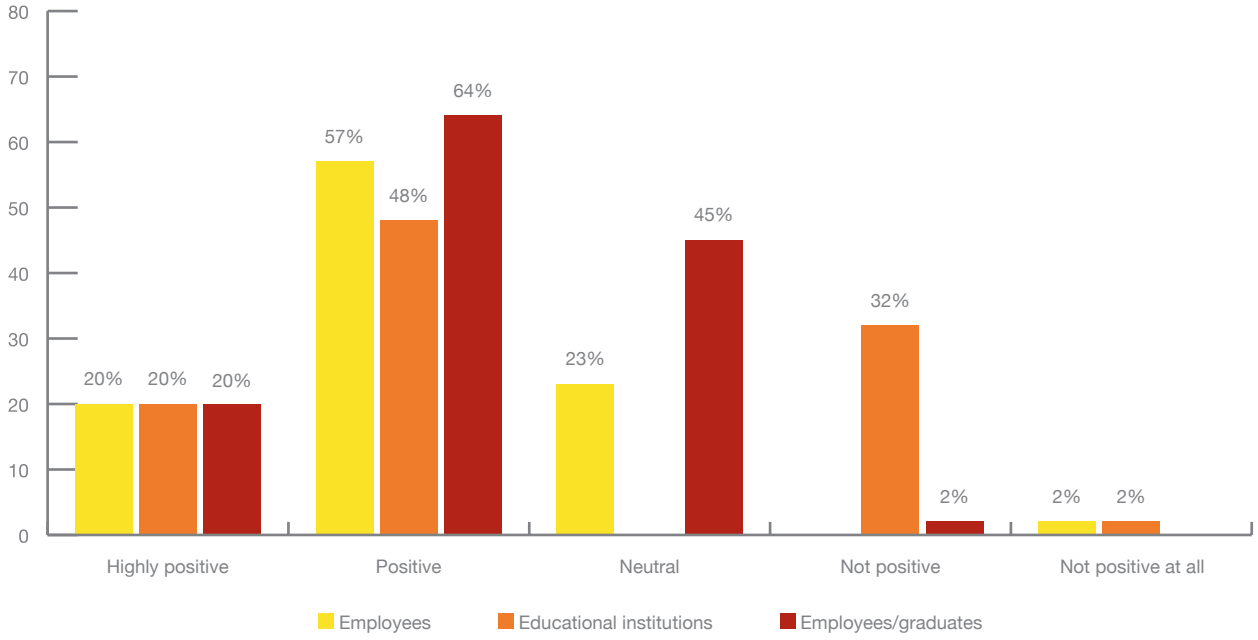
2.4 The role of new providers of skills

For the purposes of this study, the term (new providers) refers to business development centres, human resource development agencies, incubators, business accelerators and centres of excellence. All stakeholders were questioned

about their knowledge and evaluation of the offerings of these providers. As indicated previously, new providers offer a variety of programs in training, business development initiatives, use of new technology, and empowerment of entrepreneurs, career counselling and information sharing. The following is an assessment of the overall knowledge and perception of (new providers) in general. Further research needs to be carried out for more details on each type of offering.

- The following data show that employers are more familiar than graduates and representatives of educational institutions with the offerings of new providers. As much as 55 percent of representatives of the educational institutions say that they are familiar with trainings offered by new providers. Only 27 percent of employers and 24 percent of employees/graduates say that they are familiar with the offerings of new providers.
- Among those who are familiar with the work of new providers, the perception is generally positive. Among business owners who are familiar with the work of new providers, 19 percent perceive the offerings as (highly positive) and 57 percent as (positive). 23 percent say that they are (neutral).

Figure (6): Evaluation of the value of the offerings of the new providers



- Representatives of educational institutions are split in their evaluation of offerings made by new providers. While 19 percent of them perceive the offerings as (highly positive) and 48 percent as (positive), as much 32 percent believe that these offerings are not positive.
- As much as 66 percent of employees/graduates who are familiar with the offerings of new providers say that they participated in at least one training (71 percent among graduates and 59 percent among employees).

The above data show that employers are the most familiar with offerings made by new providers. This is interesting given that graduates and educational institutions are the neediest in regards to this knowledge. The data also show that familiarity with the work of new providers leads to positive evaluation in general. Qualitative data, however point to a more complex picture when it comes to assessing the work of new providers. The results show that their work is at the centre of controversy among participants in the research interviews and focus groups. One point of view asserts that this type of support is positive based on the following arguments:

1. **Timeliness**: Many asserted that given the failure of the market and the challenges facing the Palestinian economy, there is a significant need for the skills and values that new providers offer.

2. **Bridging mechanism**: Others believe that the work of new providers is essential to bridging the gap between the needs of the market and the offerings of educational institutions.

3. **Benefits to individuals**: Many of the graduates who participated in trainings and entrepreneurial awareness and guidance initiatives praised the results and cited the positive influence that they had on their lives.

4. **Connecting to international markets**: Some of the organisations and graduates believe that the offerings of these providers allow Palestinian youth to be more competitive in the international markets; the developments in new technology allow them to explore new fields and connect with outside employers.

The opponents of this view offer a number of arguments:

1. **Skills promotion is not an alternative to true development**: Some claim, as mentioned previously in the report that the promotion of skills, entrepreneurship and the increasing focus on personal aptitudes/skills might lead to a disregard for the real, root causes of unemployment in Palestine. These causes are considered to be mostly ingrained in the prevailing political economy.

2. **Focus on the educational system**: Many claimed that this increasing attention, and hence funding, to alternatives to the educational system will distract from the need to overhaul the educational system. Any true reform must be implemented in the educational system itself and not outside of it.

3. **Lack of policy and strategy**: Many believe that the work of new providers is donor-driven with no nationally owned policy or strategy to lead this effort.

4. **Lack of harmonization**: Some believe that donors and the institutions that they work with are contributing to the fragmentation of efforts by working without much coordination in this field.

In any case, this controversy calls for more objective investigation of the sector as a whole and its impact on the overall development of Palestinian education, skills development and benefits to the private sector. This is echoed in the sentiments of experts and employers:

> *"This is a new field; we are still experimenting with new methods of developing skills and entrepreneurship. We cannot make judgments now; only after some time passes can we study this and evaluate."* (NGO Official, Gaza)

> *"There were some studies on specific projects that showcase achievements; we need more than project reports; we need a thorough independent study of the sector."* (Employer, West Bank)

Overall, greater research is needed on the role of new providers in the understanding of skills gaps, but the preliminary data is auspicious. With the exception of educational institutions, all other stakeholders hold positive views of these providers, demonstrating some degree of efficacy. However, it should be noted that educational institutions are almost twice as familiar with the offerings of new providers, perhaps adding extra credence to what could be a more informed group. Regardless, awareness among all groups remains low and greater connections between new providers and their beneficiaries and contemporaries remain to be made.

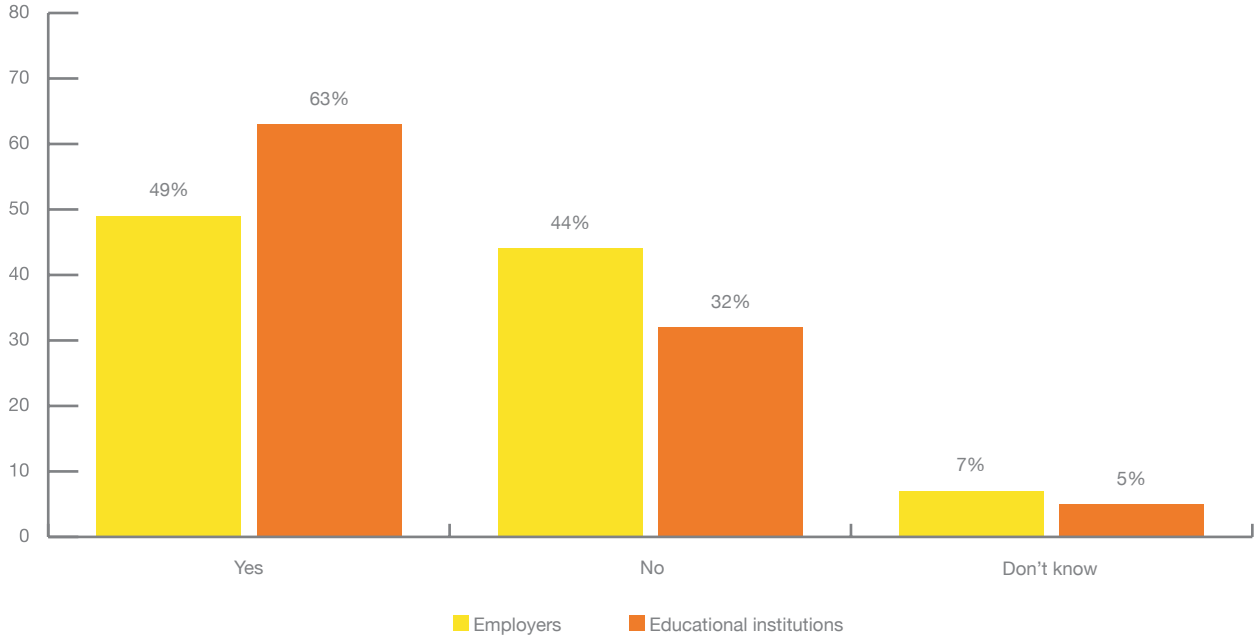
2.5 Entrepreneurship and skills

The study investigated some aspects of entrepreneurship considered highly connected to the presence/absence of a skills gap. The relationship between entrepreneurship and skills is still a question of investigation, where the nature of causality is not fully elaborated. The overall results, as well as the detailed results on regions and other background variables, show that this relation is a complex one.

a) The current situation

- 49 percent of business owners and 63 percent of representatives of educational institutions believe that new graduates are able to establish and successfully run their own businesses.

Figure (7): Do you believe that the new graduates are able to establish and successfully run their own business?

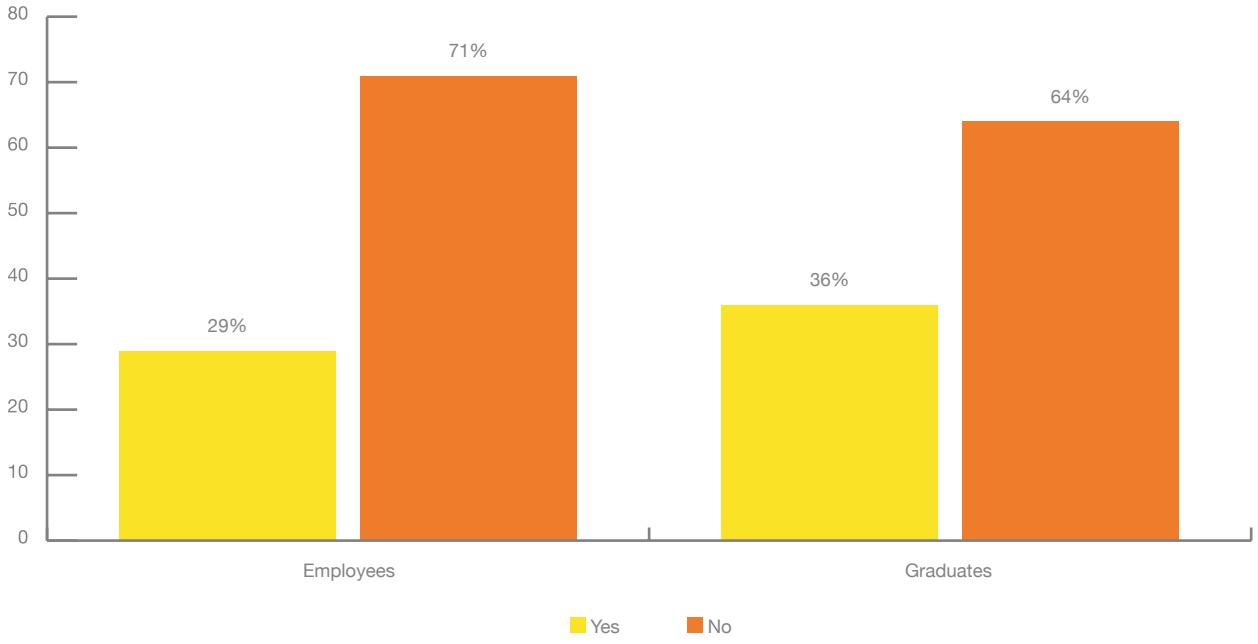


- 11 percent of the interviewed employees report that they own their own business. This is compared to 3 percent among unemployed graduates. 45 percent of those who report owning their own business say that the business is in their area of study.

b) Intention to establish a business

- 33 percent of those who do not currently own a business say that they intend to establish their own business. One third of them anticipate this occurring in more than three years from now, while 26 percent say that they will establish their business within one year.

Figure (8): If you do not have your own business, do you plan to establish your own business?



- Among those who intend to establish their own business, 95 percent of them believe that they will succeed in doing so.

When we asked graduates and employees about the motives in establishing their own business or decision to refrain from doing so, many arguments were provided. There are varying reasons behind (entrepreneurship) including ones that show personal initiative and quality, but others that illustrate the nature of the economy and the limited opportunities:

1. **Vocational education**: Some of the participants with a vocational background argued that their skills require that they look for work with a contractor or establish their own businesses. They felt that they are more equipped than graduates of academic institutions to initiate and establish a business. This is confirmed in the survey data as well, where a larger number report having business than graduates of other institutions;

2. **Limited job opportunities**: Most graduates said that they prefer to have a secure job than to struggle on their own. Yet, as many of them could not find jobs they turned to alternatives including establishing their own small business;

3. **Family culture**: Other participants cited family culture as their main drive to establish a business; many of them come from families that have owned independent businesses for generations;

4. **Personal preference**: In a few cases, employees/graduates cited that they always wanted to be independent and have their own business; they feel that this is the best option for them.

The qualitative data confirmed the relevance of the obstacles listed in the survey questionnaire, but elaborate on and emphasised on the following obstacles:

1. **Credit and loans**: This was the most cited of all factors, as many of the employees/graduates mentioned that the credit system in Palestine is too complicated and has weak provisions intended for young people who do not have collateral or have limited experience in business;

2. **Limited skills**: Most young people, as illustrated in the quantitative data, were not reached by organisations that provide training, advice and credit to hopeful entrepreneurs. Many have no information on the process of establishing a business.

3. **Factors related to Area C**: It was illuminating to find that the vast majority of graduates in Area C are either employed by the PA or work in settlements. When exploring this issue with some of the participants in the workshops and in the interviews, additional insights surface. Most young people in Area C are faced with the limitations on land, building, licensing and therefore refrain from establishing businesses. If they wish to move into city centres, they are faced with the high cost of establishing a business. As such, many of them, with or without a university degree, opt for work in the relatively high-paying jobs in the nearby settlements.

4. **Factors related to East Jerusalem**: Qualitative data on East Jerusalem reveal the complexity of owning a business under the present circumstances. Many believe that the impositions and restrictions of the Israeli authorities are too harsh and discourage young people from establishing their own businesses. They are referring to taxes and the monopoly of Israeli businesses in the city including in the fields of tourism, agriculture, construction and trade. Many say that they find it easier to simply find a job with Israeli employers than wrestle with the arduous challenges.

Overall, Palestinians appear optimistic and self-driven, evidenced by strong desires to start their own firms and confidence they will succeed. However, it cannot be ignored that many of them will face startup problems, related to the thorny political situation that is not conducive to entrepreneurship. For Palestinian entrepreneurship to achieve its potential capacity, efforts will have to be made to ameliorate the risks associated with politics, especially in Area C and East Jerusalem.

2.6 Assessment of skills gaps and needs

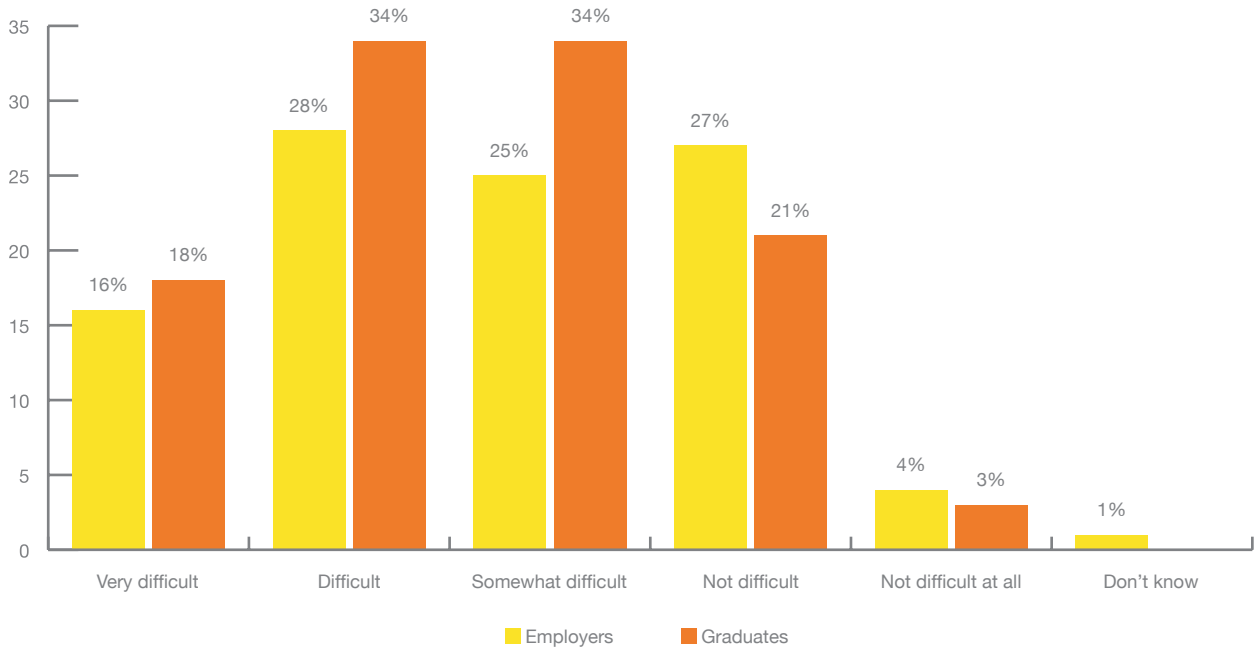
This section provides a detailed account of the needs for skills. It starts with a general assessment that compares the needs for technical skills versus organisational and personal skills. An evaluation of the needs for skills by employers

is presented. Finally, the study provides a priority listing of needs based on the level of gap between demand (what employers need) and supply (assessment of the skills of graduates).

a) Most difficult skills to find (general view)

- A majority of business owners (68 percent) report that it is difficult to fill job vacancies with the necessary technical skills. Among them, 16 percent report that it is (very difficult), 28 percent report that it is (difficult) and 25 percent report that it is (somewhat difficult). In contrast, 31 percent believe that filling job vacancies with the needed technical skills is (not difficult) or (not difficult at all).
- This is mirrored in the results of the survey among new graduates, in which the majority of them (76 percent) report that it is difficult to find a job that fits their technical skills (18 percent-very difficult; 34 percent-difficult and 24 percent-somewhat difficult).

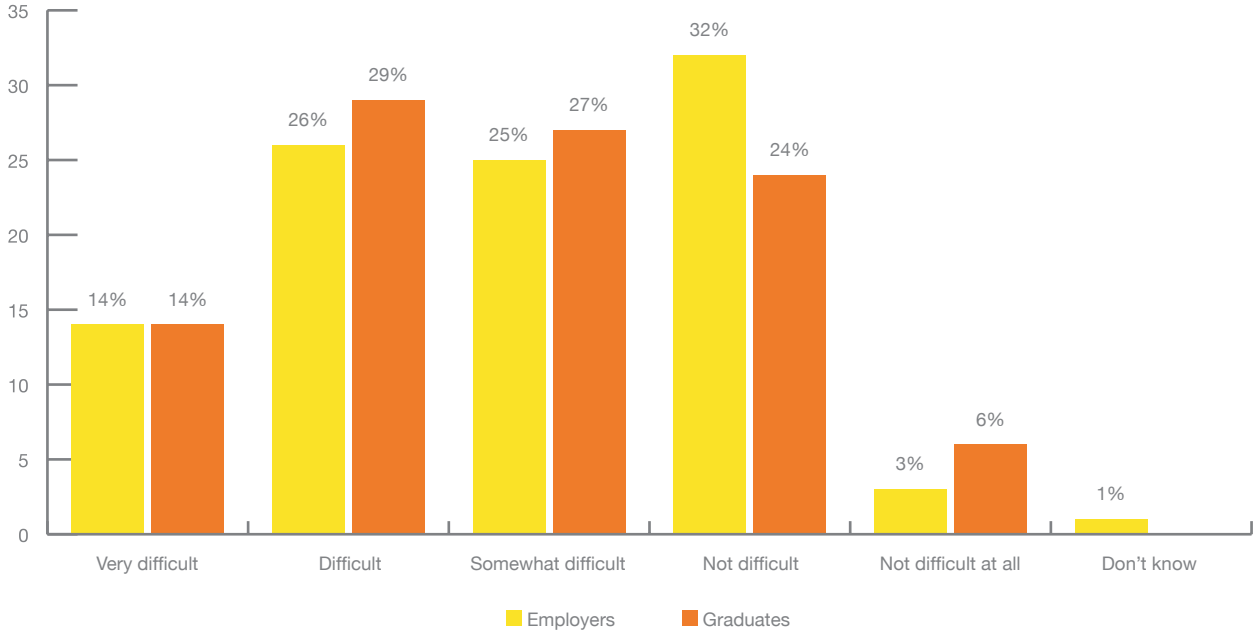
Figure (9): Difficulty to fill/find a job with necessary technical skills



- A majority of business owners (65 percent) report that it is difficult to fill job vacancies with the necessary personal skills[131]. Among them, 14 percent report that it is (very difficult), 26 percent report that it is (difficult) and 25 percent report that it is (somewhat difficult). In contrast, 35 percent believe that filling job vacancies with the needed personal skills is (not difficult) or (not difficult at all).

131 Personal skills are fully explained further in this report and include (among others) communication, interpersonal effectiveness, work ethics, customer oriented skills, integrity and transparency, adaptability/flexibility and working under stress time management, influencing/assertiveness/persuasion, motivation, innovation, creativity and entrepreneurship, leadership/people management, critical and analytical thinking and gender awareness.

Figure (10): Difficulty to fill/find a job with necessary personal skills



- The results of the survey among new graduates confirmed this gap, where a majority (71 percent) report that it is difficult to find a job that fits their personal skills (14 percent very difficult; 29 percent difficult and 27 percent somewhat difficult).
- In this respect, representatives of educational institutions echo the sentiments of business owners and graduates.
- Among the companies surveyed, the most difficult positions to fill are the senior positions (52 percent), followed by entry-level positions (23 percent) and mid-level positions (19 percent).

Qualitative data reveal that the struggles of graduates and companies in aligning skills with the needs of the labour market are deeper than the quantitative data demonstrate:

> *"When I graduated, I felt a huge shock; quickly I realised that my education was a waste of my time and money. My family invested in me and thought that I will save them from poverty; but what I found out is that I was living a myth."* (Unemployed Graduate, East Jerusalem)

> *"We truly struggle to find appropriate skills for our business. We place ads and get hundreds of CVs, but unfortunately we find that even the top contenders are lacking the skills required for the job."* (Employer, West Bank)

While the survey results show that the priority is in high-level positions, qualitative data confirm that the core issue is finding the right skills at all levels (not only high-level). The issue, to employers, is competence in the skill fields required:

> *"For us to find someone who has real expertise is matched by our inability to find new recruits; we need high-level managers, but we also need people who can do the detailed entry jobs; in truth, we need good skills at all levels."* (Employer, West Bank)

> *"Mid-level, management and leadership positions are lagging. I have to do everything myself with the new staff and labourers as I have no one to really do the mediation with them on a daily basis."* (Employer, Gaza)

b) Detailed analysis of needs from the perspective of employers

The surveys show that all types of skills (technical, management and personal) are important and needed. At the general level, private sector employers show more concern with (technical skills – 50 percent) than (personal skills – 27 percent and organisational/management – 23 percent). A detailed assessment of skills needs, however, show that employers are very concerned with (organisational/ management and personal skills). The qualitative data confirm the findings of the surveys in all fields of skill needs.

In terms of the most needed *technical skills*, employers ranked them (according to importance to the private sector) in the following manner:

The first tier of technical skills needed by employers includes the following:
1. Technical skills in the field of our industry (71 percent)
2. Oral communication (69 percent)
3. Technology (computers, Internet, etc.) (63 percent)
4. Marketing using social media (58 percent)

The second tier of needed skills includes the following:
5. Business/management/planning (56 percent)
6. Business writing and written communication (55 percent)

The third tier of needed technical skills includes the following:
7. Use of cameras and smart phones in ways that serve the work (43 percent)
8. Other languages (36 percent)
9. Research & development (36 percent)
10. Problem solving based on analytics (36 percent)

As for the *personal skills* needed, the following results show great variation in importance for employers.

The first tier of personal skills needed by employers includes the following:
1. Communication and interpersonal effectiveness (85 percent)
2. Work ethics (respect of time, use of time, dedication, etc) (85 percent)
3. Customer-oriented skills (85 percent)
4. Integrity and transparency (85 percent)
5. Adaptability/flexibility (adapt to change) and working under stress (84 percent)
6. Time management (79 percent)
7. Influencing/assertiveness/persuasiveness (78 percent)

The second tier of needed skills includes the following:
8. Motivation, innovation, creativity and entrepreneurship (74 percent)
9. Leadership, people management/teamwork (74 percent)
10. Looking for new knowledge in the field independently and active learning skills (71 percent)
11. Ability to work independently (69 percent)

The third tier of needed skills includes the following:
12. Recognizing opportunities (64 percent)
13. Project management and decision-making (59 percent)

The fourth tier includes the following:
14. Critical and analytical thinking (51 percent)
15. Gender awareness (51 percent)

While indicative these rankings do not tell the full story of the gaps between the assessed needs of employers and the available skills among employees and graduates. This gap is more indicative of the real challenges and areas of improvement that must be tackled in addressing the (skills gap) among Palestinians. This is illustrated in full in the next sections (c & d).

c) Measuring the gaps in technical skills

The skills gap is further illustrated when measuring the extent of need for skills as assessed by employers on the one hand and the assessment of available skills among employees and graduates on the other hand (illustrated in Table [6]). The following are examples of the gap between needs and provided skills:

- The largest skills gap between perceived demand by employers and supply by graduates is in the area of (technical skills in the field of the industry) (gap of 43 points).

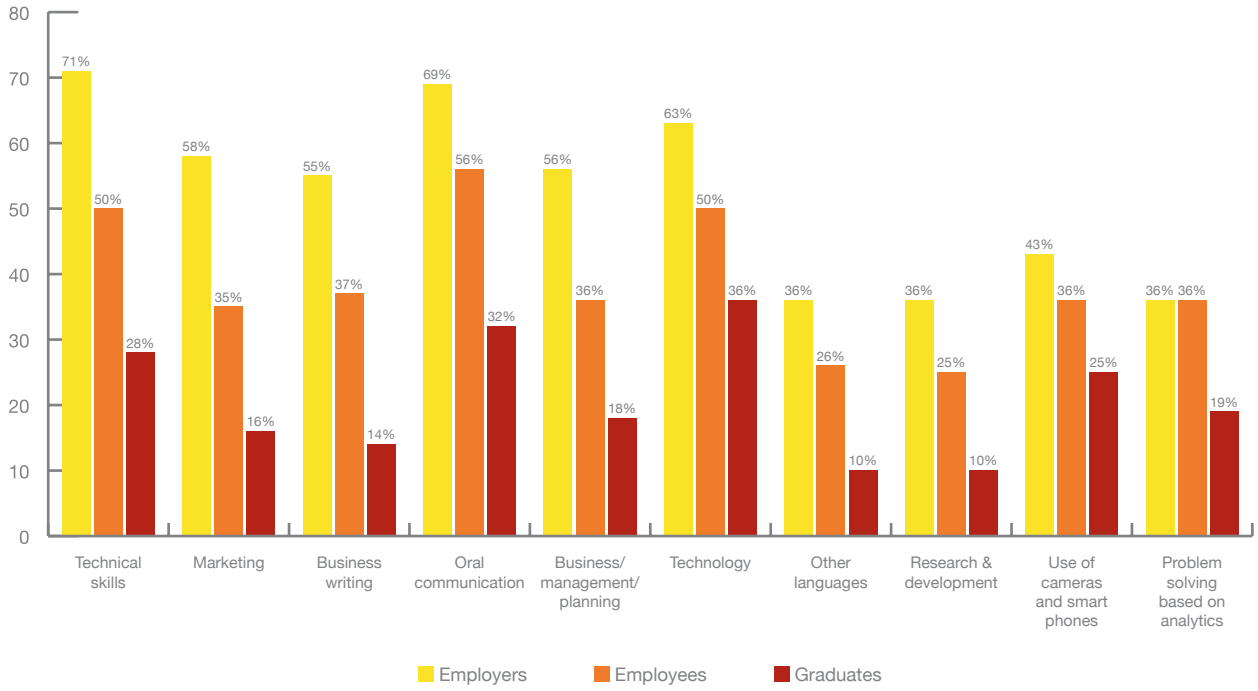
- This is followed by gaps in the following two areas of skills: marketing using social media (gap of 42 points) and business writing and written communication (gap of 41 points).
- The next largest technical skill gaps are in the areas of business/management/planning (gap of 38 points) and oral communication (gap of 37 points).
- The fifth largest technical skill gap is in the area of technology (computers, Internet, etc.) (gap of 27 points).
- The gaps in the areas of (other languages) and (research & development) are also significant (gap of 26 points each).
- The least perceived gaps between the need for skills and their availability among graduates are the (use of cameras and smart phones: 18 points) and (problem solving based on analytics: 17 points).
- In all areas of technical skills, the gap between the needs of employers and the available skills is larger among graduates than employees. This begs the question of causality: does employment lead to the improvement of skills or is it the availability of skills that leads to employment? It is assumed that more experienced employees have more practical experience and as such report higher levels of skills than graduates. If work is the main source of experience, many wonder how will graduates who do not have a chance to work acquire the skills. This is additional evidence of the skills gap; graduates should report higher levels of confidence in their skills leading to a smaller gap compared to the levels reported by employees and in relation to the level of needs reported by the employers. Again, this is another alarming indicator of the limited educational and training regime in Palestine and the weak bridging mechanisms.

Table (6): Technical skills gaps (ranked by level of gap between employers' needs and graduates' self-assessment of skill)

Skills	(1) % of employers saying skill (important to a large extent)	(2) % of employees saying skill (available to a large extent)	(3) % of graduates saying skill (available to a large extent)	Gap between (1) & (2)	Gap between (1) & (3)
Technical skills in the field of our industry	71%	50%	28%	21	43
Marketing using social media	58%	35%	16%	23	42
Business writing and written communication	55%	37%	14%	18	41
Oral communication	69%	56%	32%	13	37
Business/management/ planning	56%	36%	18%	20	38
Technology (computers, internet, etc)	63%	50%	36%	13	27
Other languages	36%	26%	10%	10	26
Research & development	36%	25%	10%	11	26
Use of cameras and smart phones in ways that serve the work	43%	36%	25%	7	18
Problem solving based on analytics	36%	36%	19%	0	17

The following graph clearly illustrates the level of skill gaps between needs of employers and available skills of graduates.

Figure (11): Technical skills gaps (gap between needed technical skills by employers and the reported available technical skills by graduates and employees)



d) Measuring the gaps in personal aptitudes/skills

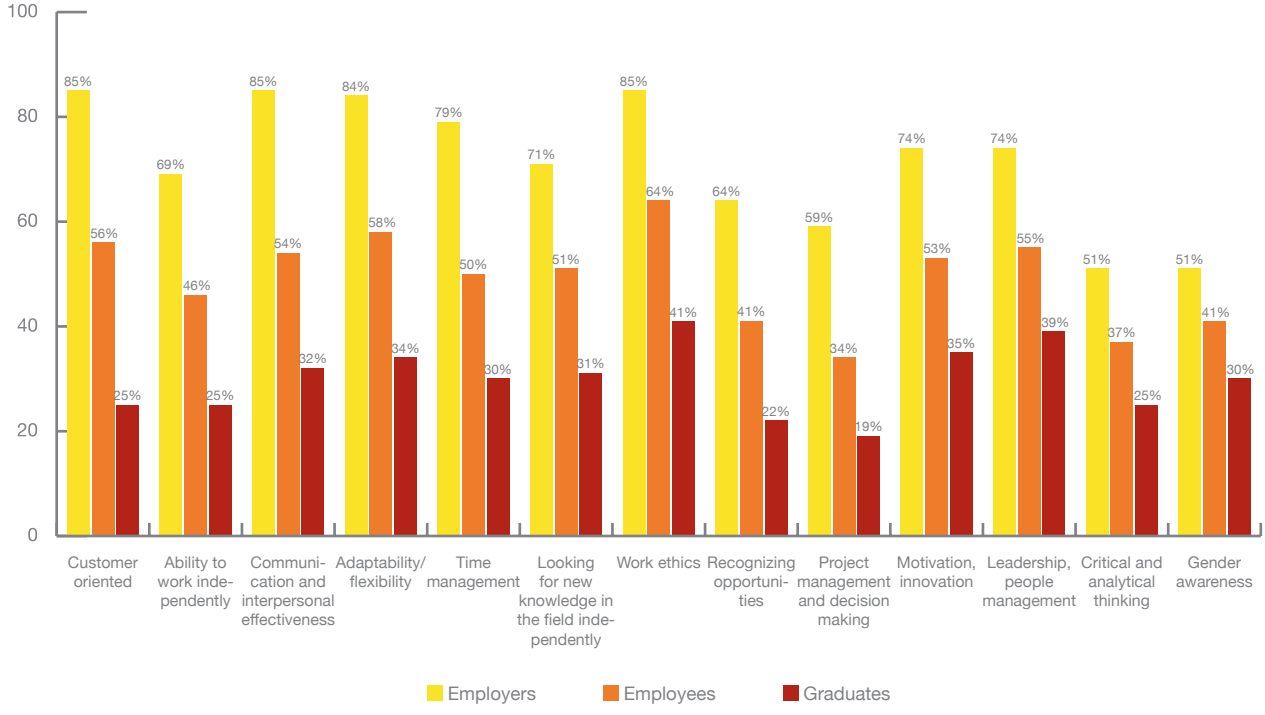
The following are examples of the gap between the needs of employers on the one hand and the self-assessment of skills by employees and graduates on the other hand:

- The largest skills gaps between perceived demand by employers and supply by graduates are in the areas of **customer-oriented skills and communication and interpersonal effectiveness (60 and 53 points, respectively).**
- This is followed by a gap in the following skills: adaptability/flexibility (adapt to change and work under stress) and time management (50 and 49 points, respectively).
- The next largest personal skill gaps are in the areas of work ethics and ability to work independently (44 points each).
- The gaps that follow are in the areas: Recognizing opportunities and project management and decision-making (42 and 40 points respectively) and motivation, innovation, creativity, entrepreneurship (39 point gap).
- The least perceived gaps between the need for skills and their availability among graduates are: leadership, people management/teamwork (35 point gap), critical and analytical thinking (26 point gap) and gender awareness (21 point gap).
- In all areas of personal skills, the gap between the needs of employers and the available skills is larger among graduates than employees.

Table (7): Needed personal/management skills (ranked by level of gap between employers' needs and graduates' self-assessment of skill)

Skills	(1) % of employers saying skill (important to a large extent)	(2) % of employees saying skill (available to a large extent)	(3) % of graduates saying skill (available to a large extent)	Gap between (1) & (2)	Gap between (1) & (3)
Customer-oriented skills	85%	56%	25%	29	60
Ability to work independently	69%	46%	25%	23	44
Communication and interpersonal effectiveness	85%	54%	32%	31	53
Adaptability/flexibility (adapt to change) and working under stress	84%	58%	34%	26	50
Time management	79%	50%	30%	29	49
Looking for new knowledge in the field independently and active learning skills	71%	51%	31%	20	40
Work ethics (respect of time, use of time, dedication, etc)	85%	64%	41%	21	44
Recognizing opportunities	64%	41%	22%	23	42
Project management and decision making	59%	34%	19%	25	40
Motivation, innovation, creativity, entrepreneurship	74%	53%	35%	21	39
Leadership, people management/teamwork	74%	55%	39%	20	35
Critical and analytical thinking	51%	37%	25%	14	26
Gender awareness	51%	41%	30%	10	21

Figure (12): The needed personal skills by employers/the available personal skills by graduates and employees



The the findings of the graphics above point to the following conclusions:

1. While gaps in technical skills are important, the gaps in personal skills are much more pronounced. A comparison between the graphs show the major skills gap is a (personal/organisational one) for the most part.
2. Technical skills continue to be important as basic to skills development. While necessary, technical skills are insufficient without the accompaniment of solid personal and organisational skills.
3. The need for communication skills is crosscutting; the data show that all aspects of communication (oral communication, other languages, business writing, and interpersonal effectiveness) are all integral to the development of skills.
4. People-centred skills are important; they include customer-oriented skills, marketing, leadership, people management and teamwork, problem solving and gender awareness.
5. The finding that research & development, critical and analytical thinking, and gender awareness, all high-value skills in modern companies, are receiving low scores in terms of priority is indicative of the level of advancement within the Palestinian private sector; it is an indication of a low-level of realisation of the salience of these skills to business development.
6. There is a great need for flexibility and multi-tasking in the existing environment of economic fluidity and vulnerability to economic uncertainty. This is especially important for small-size businesses (the largest number of businesses are small, family-based businesses).[132]
7. This further illustrates that all personal skills are connected; if one is lacking significantly, it will indicate the lack of other personal skills and lead to additional challenges to employability.

132 Full disaggregation based on region, sector, size of business and other factors is presented in the next section.

3. Influencing factors relating to skills gaps

The following section provides an analysis of cross tabulations between the various questions pertaining to the issue of skills gaps and other related variables including: region, economic sector, size of business, gender, level of education, field of specialisation and place of experience (graduation).

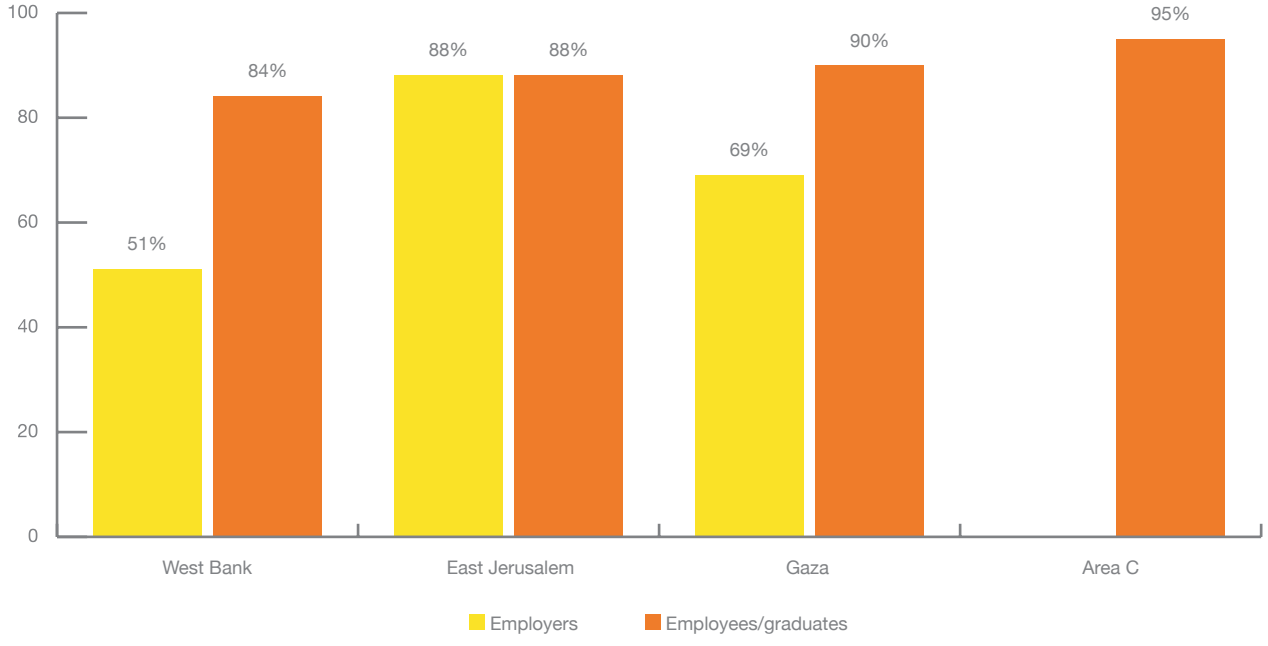
3.1 Regional variance

Taking into consideration the varying circumstances facing the different Palestinian regions as explained in the background section earlier, the analysis provides insights on East Jerusalem, Area C, the rest of the West Bank and the Gaza Strip as much as possible.[133]

a) Difficulty in filling available positions

It was interesting to find that East Jerusalem employers report the most difficulty in filling job vacancies (88 percent), followed by Gaza employers (69 percent) and West Bank employers (51 percent). **Employers from all three regions equally believe that the skills gap problem is severe**. This regional variance is confirmed through the data from employees and graduates, as 56 percent of East Jerusalem employees/graduates believe that their skills are useful to the needs of employment at a level of 5 points or less (on a scale of 10). This sentiment is shared by 35 percent of employees/graduates in Gaza and 30 percent in the West Bank. The Jerusalem sense of (inferiority) in this respect is further confirmed through the data, where 23 percent of East Jerusalem employees/graduates feel that that their currents skills will definitely allow them to find a job, compared to 55 percent among Gaza employees/graduates and 57 percent among West Bank employees/graduates.

Figure (13): Percentage saying it is very difficult or difficult to find a job (by region)



133 The West Bank is used sometimes to refer to the full region including East Jerusalem and Area C, of the remaining West Bank including Area C but not East Jerusalem or the remaining West Bank excluding both regions. The context of each statement should be considered.

b) Hiring unqualified staff

77 percent of East Jerusalem employers say that they have never employed someone who is not qualified, followed by Gaza employers (48 percent) and West Bank employers (40 percent). Having said that, East Jerusalem employers are most critical of the current skills of graduates, as only 3 percent of them are definite that the current skills of graduates will allow them to find a proper job, followed by West Bank and Gaza employers (25 percent each). This might be an indication of two parallel phenomena: while East Jerusalem employers have more options to select skilful employees, they are also the most cognizant of the real problems that face graduates not only in Jerusalem but also in the other regions. This might also be a confirmation of other research results that demonstrate these employers have higher levels of capacity to identify needs.

c) Seriousness of unemployment

49 percent of Gaza employers believe that the unemployment problem is (very serious). This is shared by 39 percent of West Bank and East Jerusalem employers. Taking into consideration the percentage of employers believing that the unemployment problem is (very serious or serious), the data show that employers from East Jerusalem are the most concerned (94 percent), followed by Gaza employers (80 percent) and West Bank employers (73 percent).

d) Finding a job

Graduates and employees from Area C report the most concern with finding a job. 53 percent of them say that it is (extremely difficult) to find a job. This view is shared by 51 percent of employees/graduates in Gaza, 47 percent of West Bank employees/graduates and 22 percent of East Jerusalem employees/graduates. This does not mean that finding a job is less difficult in East Jerusalem, as 66 percent believe that finding a job is (difficult), compared to 42 percent in Area C, 40 percent in Gaza and 37 percent in the West Bank.

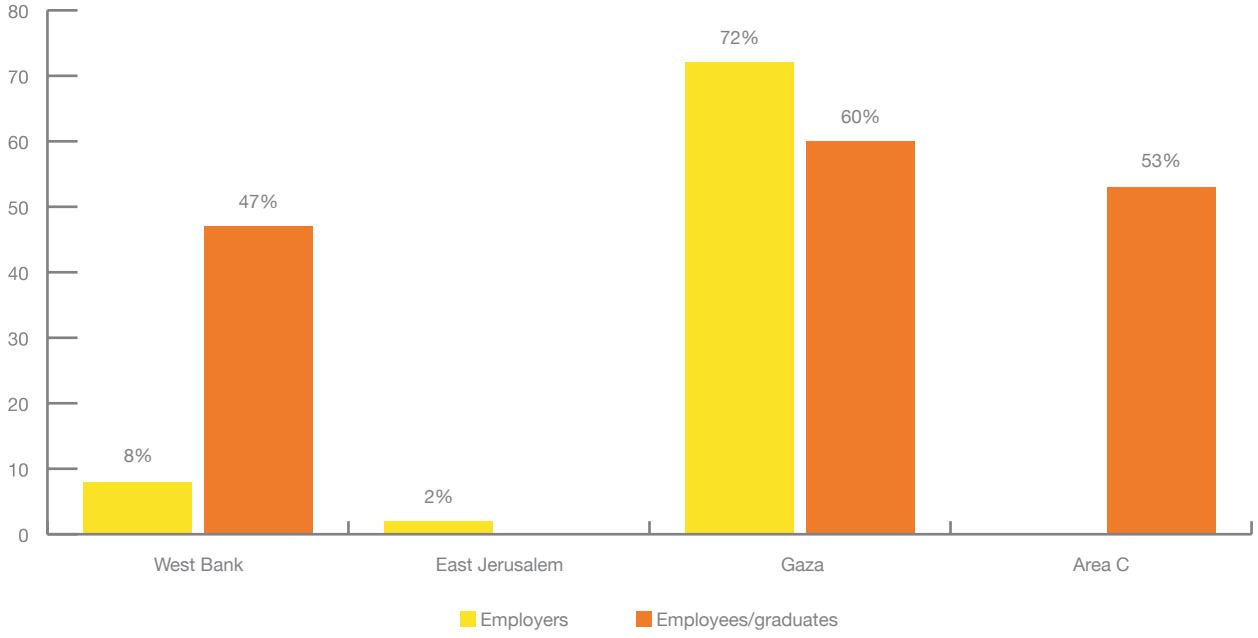
e) Applying for jobs outside of one's specialisation

42 percent of employees/graduates from Area C report that they have (in many occasions) applied for jobs that do not align with their specialisation. This is compared to 34 percent among employees/graduates from the rest of the West Bank and Gaza. The rate is lowest in East Jerusalem (26 percent). Employees provide further evidence on the lack of alignment between skills and work. This feeling of mismatch is highest among Jerusalem employees, where 59 percent of them say that the level of alignment between their skills and their current job is 5 or less (on a scale of 10). The sentiment is also prevalent among Gaza employees (52 percent) followed by West Bank employees (42 percent).

f) Lack of mobility

Gazans are most concerned with the issue of travel limitations as an impediment to employment. 72 percent of Gaza employers and 61 percent of employees/graduates believe that (inability to move from one region to another) is a (very significant) contributor to unemployment. This is compared to 48 percent of West Bank employers and 47 percent of employees/graduates. In East Jerusalem, almost no employer, employee or graduate cited limited movement as (very significant), though 33 percent of employers and 38 percent of employees/graduates cite it as (significant). Among employees/graduates, 61 percent in Gaza, 53 percent in Area C and 47 in the West Bank believe that (inability to move from one region to another) is a (very significant) obstacle. In addition, 38 percent of East Jerusalem employees/graduates believe that limitation on movement is (significant).

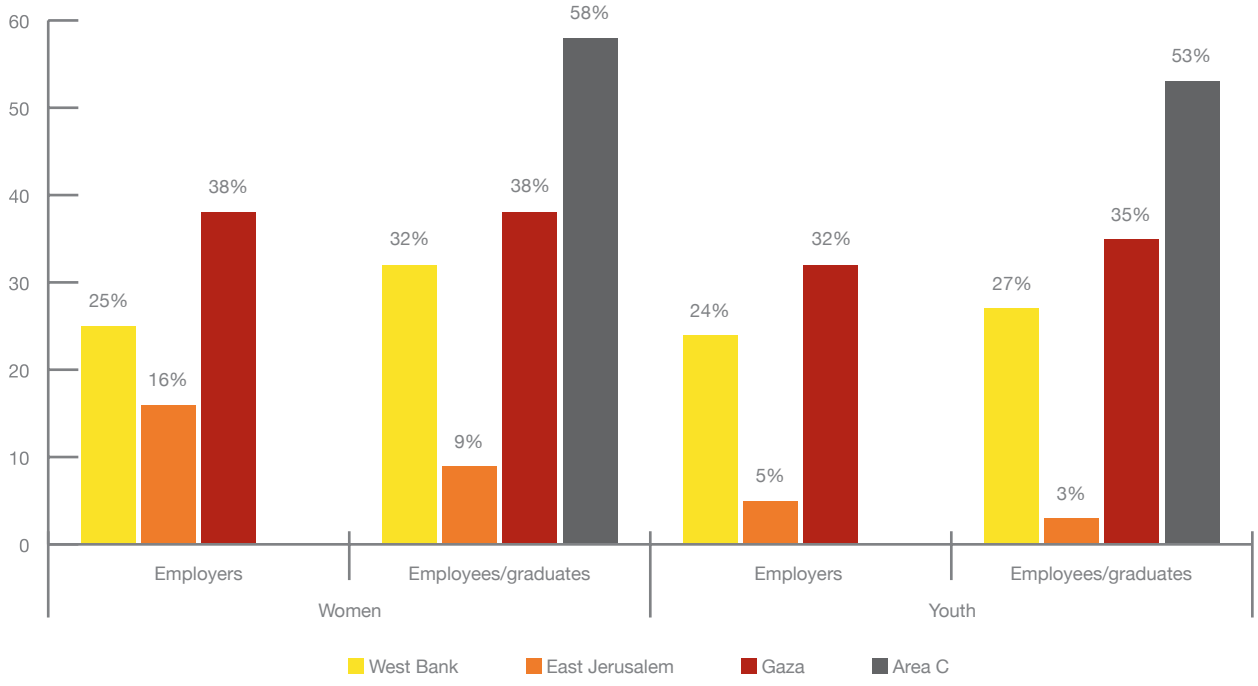
Figure (14): Percentage saying mobility is a very significant contributor to unemployment



g) Discrimination against women and youth

Discrimination against women and youth in employment is more felt among Area C graduates, where 58 percent of them believe that discrimination against women is a (very significant) cause of skills gaps. In addition, 53 percent of Area C employees/graduates believe that discrimination against youth is a (very significant) cause of skills gaps. These sentiments are highly felt in Gaza as well, followed by West Bank, while East Jerusalem comes in a distant last. Among employers, discrimination against women and youth is mostly felt in Gaza, followed by the West Bank, with a much smaller percentage perceiving discrimination in East Jerusalem. As to discrimination against persons with disability, it is mostly felt by West Bank employers, followed by Gaza and East Jerusalem. While discrimination again women is an issue of concern in all regions, it is more felt in Area C. This is due to economic and social circumstances. One, job opportunities are very limited in this region and competition over jobs produces higher levels of discrimination. Two, most of Area C is rural and occupied by the Bedouin where the cultural norms are predominantly patriarchal and the roles of women are mostly predetermined. The results show that more educated residents (included in the sample) believe that this is an issue to tackle.

Figure (15): Percentage saying that discrimination against youth/women is a very significant factor in causing skills gaps



h) Joint programming

Gaza employers are the most dissatisfied with joint programming between the private sector and educational institutions (67 percent), followed by East Jerusalem employers (61 percent) and West Bank employers (53 percent).

i) Alignment between educational/training and the needs of private sector

On a scale of 10, 62 percent of East Jerusalem employers, 61 percent of Gaza employers and 50 percent of West Bank employers gave the alignment between the offerings of educational/training institutions and the needs of their companies a score of 5 or less.

j) Dedicated training budget

One third of East Jerusalem employers, 22 percent of West Bank employers and 19 percent of Gaza employers say that their companies have a dedicated training/human resource development budget. At the same time, 82 percent of East Jerusalem employers, 40 percent of West Bank employers and 34 percent of Gaza employers say that their companies provide regular trainings for new employees.

k) Involvement in training

West Bank employees show a higher rate of involvement in formal training provided by their employers during the past 12 months (22 percent), compared to 15 percent in East Jerusalem and 11 percent in Gaza.

l) Offerings of new providers

While East Jerusalem employers are the most familiar with the offerings of (new providers), they are the least satisfied with the quality of their contributions. 44 percent of East Jerusalem employers say that they are familiar with offerings by new providers; 28 percent of West Bank employers and 22 percent of Gaza employers say the same. At the same time, **only 3 percent of East Jerusalem employers say that the offerings are (highly positive), compared to 15 percent among West Bank employers and 34 percent of Gaza employers**. This regional variance, emphasizing the disadvantage of East Jerusalem, illustrates that none of its surveyed employees/graduates participated in any training offered by new providers. In contrast, 87 percent of Gaza employees/graduates and 63 percent of West Bank employees/graduates are familiar with these offerings say that they participated in at least one. This is echoed by 29 percent of Area C employees/graduates. This implies that 21 percent of Gaza employees/graduates, 16 percent of

West Bank employees/graduates and 11 percent of Area C employees/graduates declare that they participated in a training offered by business development centres, human resource development agencies, incubators, business accelerators and centres of excellence.

m) Capacities of the private sector

Gaza employers are more concerned with the building of capacity among employers to assess needs and provide skills than their West Bank and East Jerusalem counterparts. For example, 46 percent of Gaza employers say that it is (very important) for employers to build their own capacity in human resource development, compared to 39 percent among West Bank employers and 19 percent among East Jerusalem employers. In addition, 51 percent of Gaza employers say that it is (very important) for employers to build their own capacity in assessing needs for skills development, compared to 44 percent among West Bank employers and 21 percent among East Jerusalem employers. This is alarming in terms of the ability of the private sector to lead efforts to build its own capacity, but also in terms of its ability to identify strategies and courses of action for future growth in a forward looking manner and in cooperation with other relevant partners.

n) Seeking skills enhancement among employees/graduates

Area C employees/graduates are the most active in seeking training to enhance their opportunities for employment, with 50 percent engaging in the undertaking. This is shared by 35 percent in Gaza, 30 percent in the rest of West Bank and only 6 percent in East Jerusalem. The level of interest among Area C employees/graduates in seeking skills development is further confirmed, as 37 percent of them say that they utilise the Internet to boost their skills in their field of specialisation. This is compared to 33 percent in Gaza, 26 percent in the rest of the West Bank and 15 percent in East Jerusalem.

o) Entrepreneurship

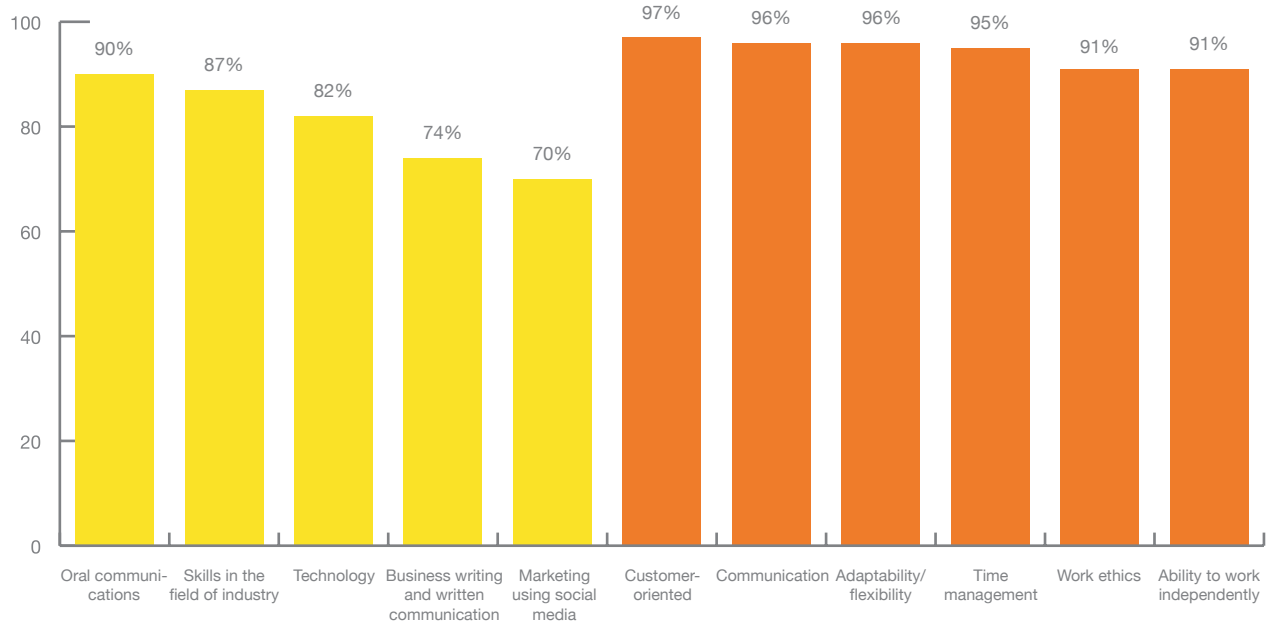
The data shows significant variance among the regions in terms of entrepreneurship among employees/graduates. No respondents in Area C and only 1 percent of East Jerusalem respondents report that they have their own business. This is compared to 8 percent among West Bank employees/graduates and 7 percent among Gaza employees/graduates. This tendency for weaker levels of entrepreneurship is evident in the results that show that only 12 percent of East Jerusalem respondents and 13 percent of Area C respondents who do not have their own business intend to establish one. This is compared to 33 percent in the West Bank and 39 percent in Gaza.

p) Most needed skills

While the most needed skills are the same in all regions, the level of importance and the ranking differs to some extent:

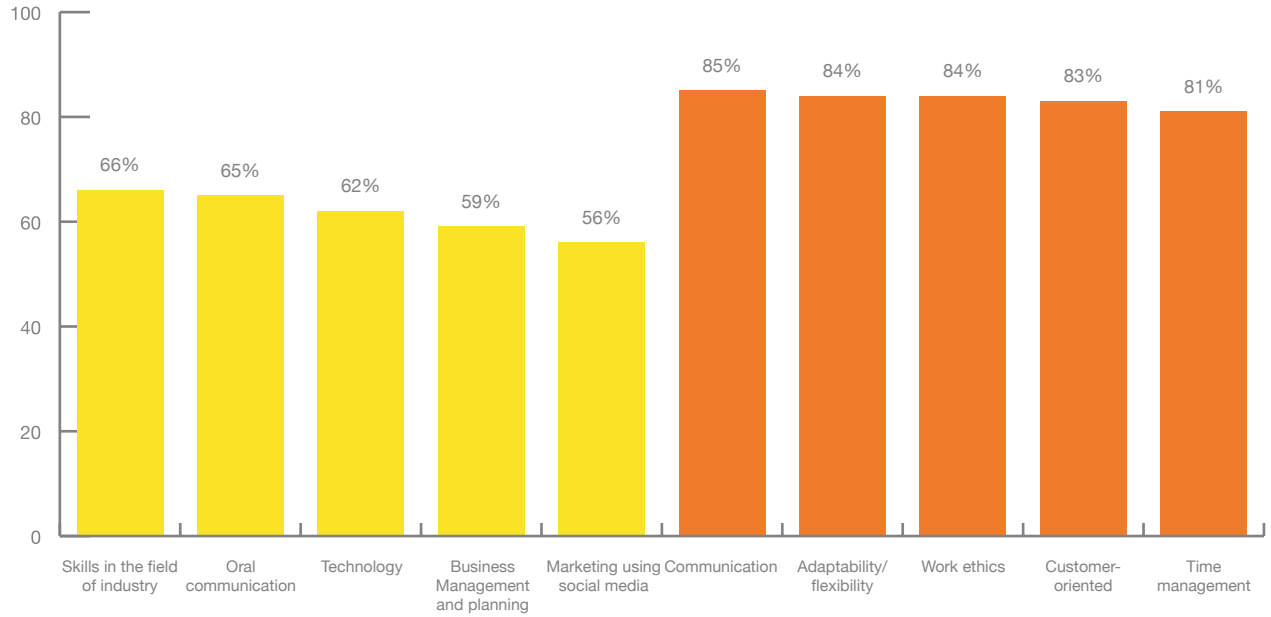
- ***East Jerusalem*:** The most needed technical skills, as reported by East Jerusalem employers, are the following: Oral communication (90 percent), skills in the field of their industry (87 percent), technology (82 percent), business writing and written communication (74 percent) and marketing using social media (70 percent). The most needed personal skills for employers are the following: Customer-oriented skills (97 percent), communication, adaptability/flexibility (96 percent each), time management, leadership/teamwork (95 percent each), work ethics and ability to work independently (91 percent each).

Figure (16): Most needed skills for East Jerusalem employers (technical skills in yellow, personal skills in orange)



***West Bank*:** The most needed technical skills, as reported by West Bank employees, are the following: Skills in the field of their industry (66 percent), oral communication (65 percent), technology (62 percent), business management and planning (59 percent) and marketing using social media (56 percent). The most needed personal skills are the following: communication (85 percent), adaptability/flexibility (84 percent), work ethics (84 percent), customer-oriented skills (83 percent) and time management (81 percent).

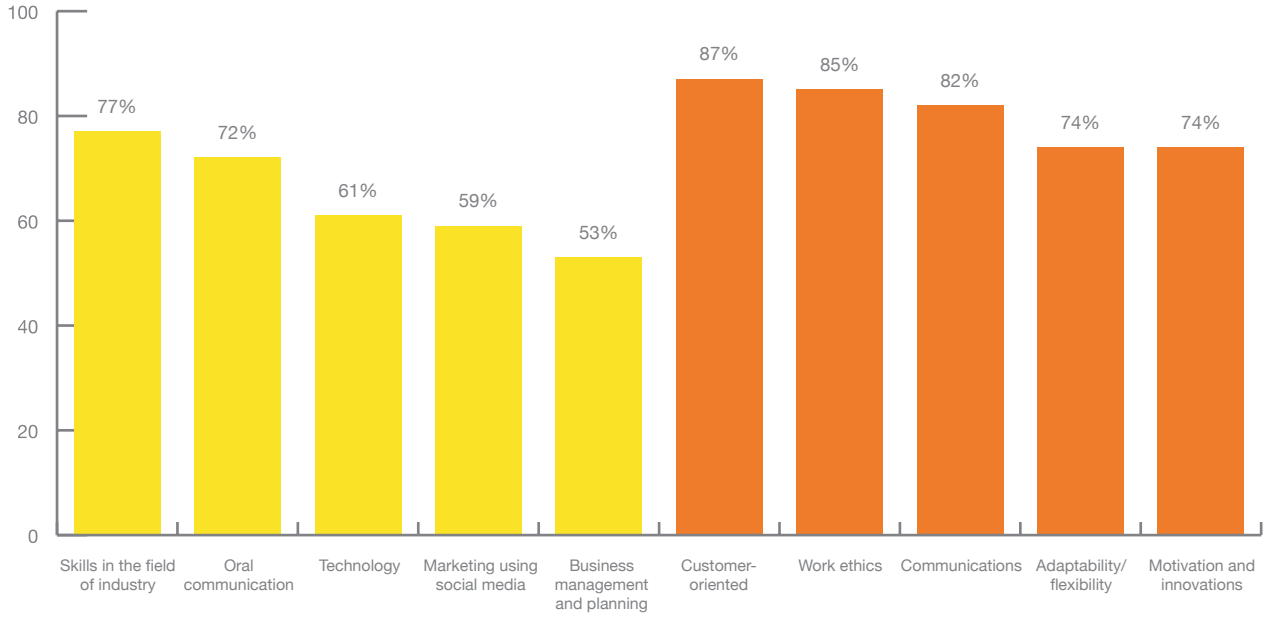
Figure (17): Most needed skills for West Bank employers (technical skills in yellow, personal skills in orange)



***Gaza*:** The most needed technical skills, as reported by Gaza employees, are the following: Skills in the field of their industry (77 percent), oral communication (72 percent), technology (61 percent), marketing using social media (59 percent) and business management and planning (53 percent). The most needed personal skills are the following:

Customer-oriented skills (87 percent), work ethics (85 percent), communication and adaptability/flexibility (82 percent each), motivation and innovation (74 percent).

Figure (18): Most needed skills for Gaza employers (technical skills in yellow, personal skills in orange)



While employers across all regions believe the issue of skills gap is severe, there are important variations to remain cognizant of. East Jerusalem employers report the greatest difficulty in filling job vacancies, while those in the West Bank report the least. Logically, more employers from Gaza state that unemployment is a serious problem than respondents in other regions. Graduates and employees from Area C report the most difficulty in finding a job, and also the greatest rate of applying outside their specialisation; a logical connection as employment in Area C is very limited and many turn to Israeli settlements for employment. Discrimination against women is most palpable in Area C, perhaps as a result of prevailing social and cultural norms, though it is recognised among employers, employees and graduates in all regions. While employers in Gaza are most dissatisfied with joint programming between the private sector and educational institutions, those in East Jerusalem are least satisfied with the alignment. Entrepreneurship is distressingly low, almost nonexistent, in Area C and East Jerusalem, while slightly higher in the West Bank and Gaza.

Almost all East Jerusalem employers prize personal skills. While customer-oriented skills, communication and adaptability and flexibility are rated highest, almost all are identified as a need by 90 percent of respondents. In contrast, these employers place oral communication and skills in the field of industry as the two most important technical skills. Among those in the West Bank, skills in the field of industry, oral communication and technology are the three highest rated technical skills, and communication, adaptability/flexibility and work ethics the highest rated personal ones. Gaza's need for technical skills largely mirrors the West Bank, though customer-oriented skills are valued highest among personal ones.

3.2 Economic sectors' analysis in terms of skills gaps

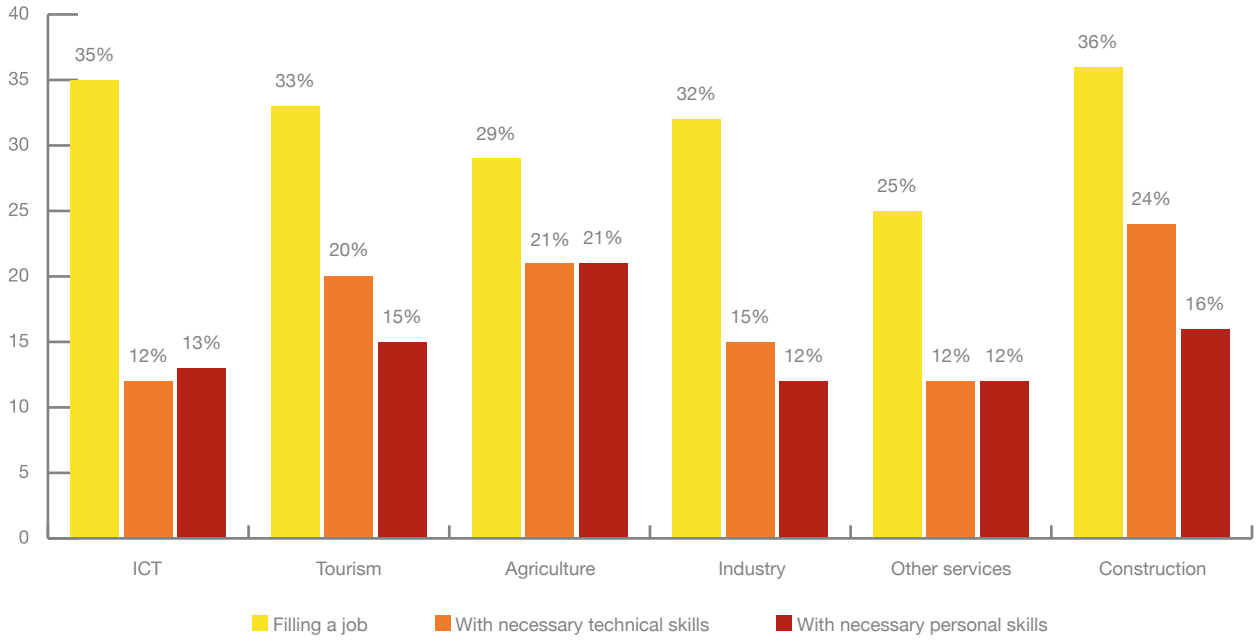
The study surveyed employers from six economic sectors: ICT, tourism, agriculture/agribusiness, industry/ manufacturing, construction and (other services). The results show there are some common issues facing all sectors in relation to skill gaps and there is variance in some respects, as illustrated in the following analysis.

a) Difficulty in filling available positions

Employers in the construction and tourism sectors report the greatest difficulty in filling job vacancies (76 percent and 74 percent respectively), followed by the ICT sector (62 percent), agriculture/agribusiness (56 percent), industry and other services (54 percent). As for filling job vacancies with the necessary **technical skills**, employers from the

tourism sector (58 percent) report the greatest difficulty, followed by industry and construction (47 percent each), ICT (42 percent), agriculture (36 percent) and other services (33 percent). Employers from the agricultural sector believe that the (skills gap) is severe (58 percent) at a higher rate than employers from other sectors (tourism-48 percent; industry-47 percent; ICT-40 percent; construction-35 percent).

Figure (19): Percentage of employers saying it is very difficult to fill a job vacancy (by sector)



b) Hiring unqualified staff

49 percent of employers in the construction and agriculture sectors say that they have never employed someone who is not qualified, followed by employers in the tourism sector (46 percent), employers in the ICT sector (40 percent) and employers from the industry sector (38 percent).

c) Seriousness of unemployment

Only 20 percent of employers in the construction sector believe that the unemployment problem is (very serious). This is shared by 38 percent of employers in tourism and industry. Employers in ICT and agriculture are more concerned (50 percent and 47 percent, respectively).

d) Lack of mobility

Employers in agriculture and tourism are most concerned with the issue of travel limitations as an impediment to employment. The majority of them (65 percent and 62 percent, respectively) believe that (inability to move from one region to another) is a (very significant) contributor to unemployment. This is compared to 55 percent in industry, and 43 percent in both ICT and construction.

e) Discrimination against women and youth

Discrimination against women and youth in employment is more present among tourism employers, **where 46 percent believe that discrimination against women is a (very significant) cause of skills gap**. They are followed by employers in agriculture (36 percent), ICT and industry (26 percent each) and construction (20 percent). A higher level of concern for discrimination against youth is present in agriculture (36 percent) and tourism (31 percent), compared to lower rates in all other sectors.

f) Joint programming

Employers in agriculture and industry are the most dissatisfied with joint programming between the private sector and educational institutions (63 percent each), followed by ICT and tourism (58 percent) and construction (41 percent).

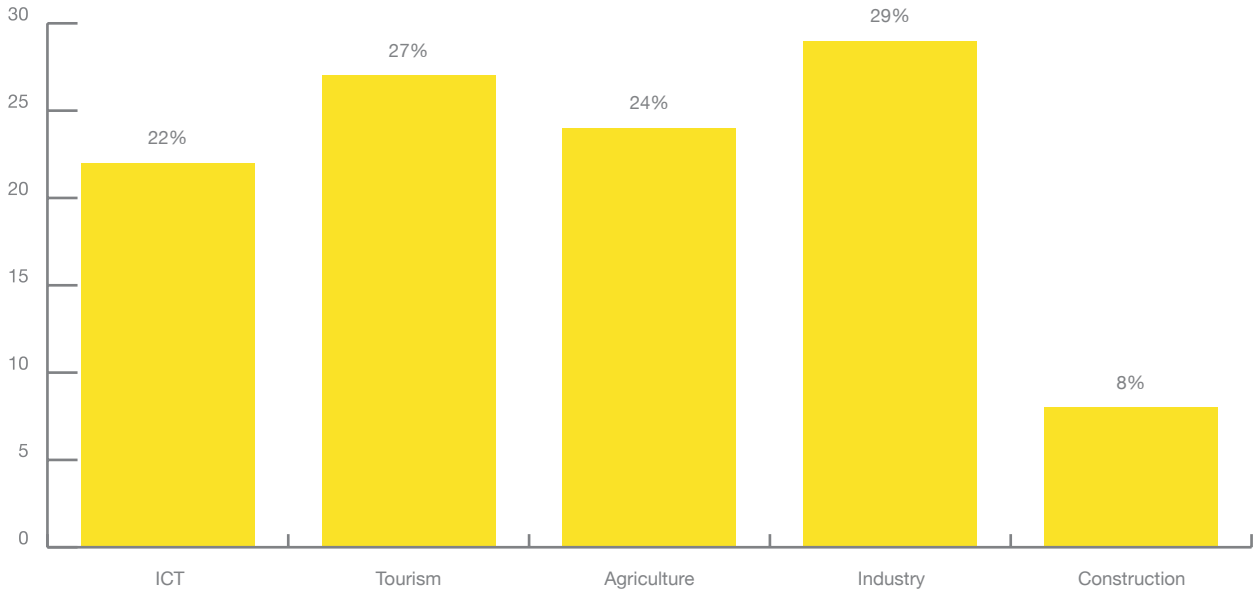
g) Alignment between education/training and the needs of private sector

On a scale of 10, 69 percent of employers in industry, 51 percent of employers in agriculture, 50 percent in tourism, 45 percent in ICT and 41 percent in construction gave the alignment between the offerings of educational/training institutions and the needs of their companies a score of 5 or less.

h) Dedicated training budget

Dedicated training/human resource development budgets are least present in the sectors of construction (8 percent) and agriculture (14 percent). In comparison, 27 percent of employers in industry, 22 percent in ICT and tourism have stated that their businesses have a dedicated training budget. At the same time, 49 percent of ICT employers say that their companies provide regular trainings for new employees, compared to 41 percent in industry, 37 percent in tourism, 25 percent in agriculture and construction.

Figure (20): Percentage saying their company has a dedicated training/human resource development budget (by sector)



i) Offerings of new providers

Employers in ICT and construction say that they are the most familiar with the offerings of (new providers), at a rate of 32 percent. They are followed by all other sectors at 25 percent. Satisfaction with their offerings varies, reaching 23 percent of tourism employers saying that the quality of offering is (highly satisfactory), compared to 16 percent in ICT and industry, and 13 percent in agriculture.

g) Capacities of private sector

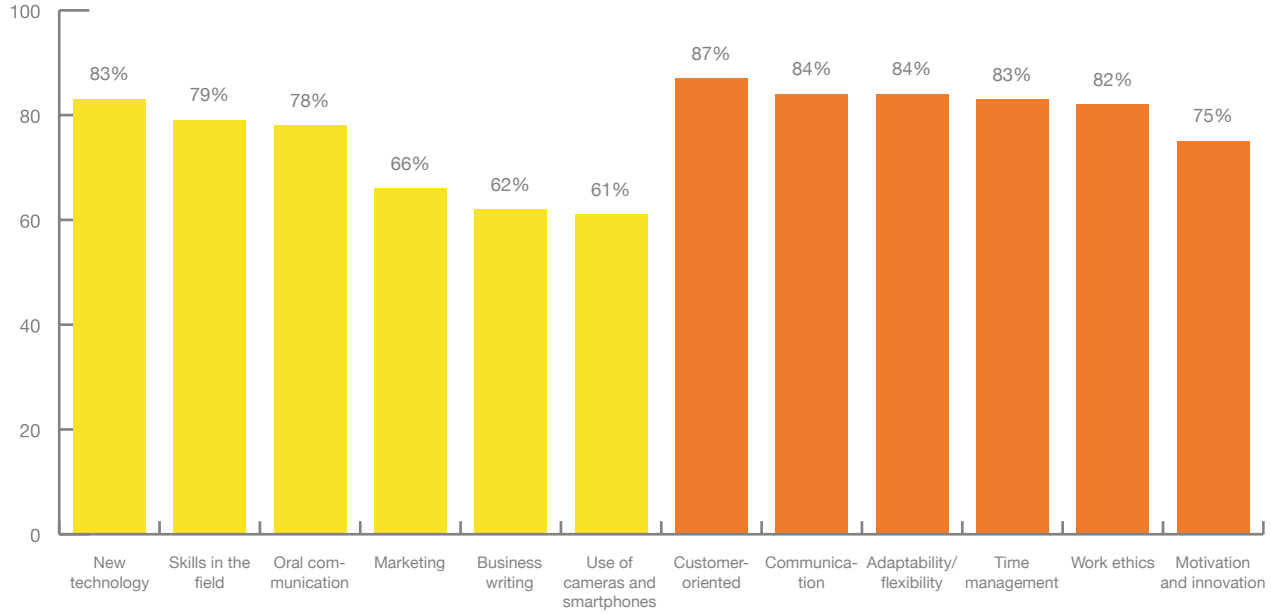
Employers in the agricultural sector are more concerned with the building of capacity among employers to assess needs and provide skills (48 percent) than their counterparts in the other sectors: ICT (40 percent), industry (38 percent), construction (36 percent) and tourism (34 percent).

k) Most needed skills

While the various economic sectors have similar needs, the data show some variance specific to each sector:

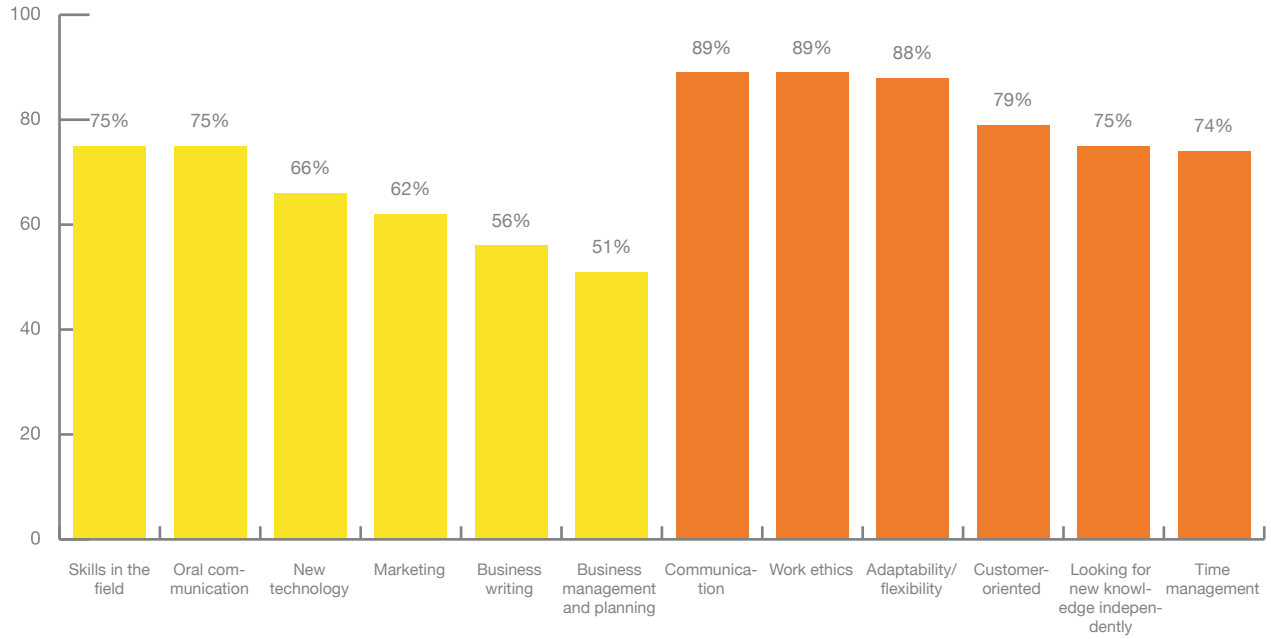
■ ***ICT:*** The most needed technical skills as reported by ICT employers are the following: New technology (83 percent), skills in the field of their industry (79 percent), oral communication (78 percent), marketing using social media (66 percent), business writing and written communication (62 percent) and use of cameras and smart phones (61 percent). The most needed personal skills are the following: Customer-oriented skills (87 percent), communication, adaptability/ flexibility (84 percent each), time management (83 percent), work ethics (82 percent) and motivation and innovation (75 percent).

Figure (21): Most needed skills for ICT sector employers (technical skills in yellow, personal skills in orange)



■ ***Tourism*:** The most needed technical skills as reported by tourism employers are the following: Skills in the field of their industry and oral communication (75 percent each), new technology (66 percent), marketing using social media (62 percent), business writing and written communication (56 percent) and business management and planning (51 percent). The most needed personal skills are the following: Communication and interpersonal effectiveness and work ethics (89 percent each), adaptability/flexibility (88 percent), customer-oriented skills (79 percent), looking for new knowledge independently (75 percent) and time management (74 percent).

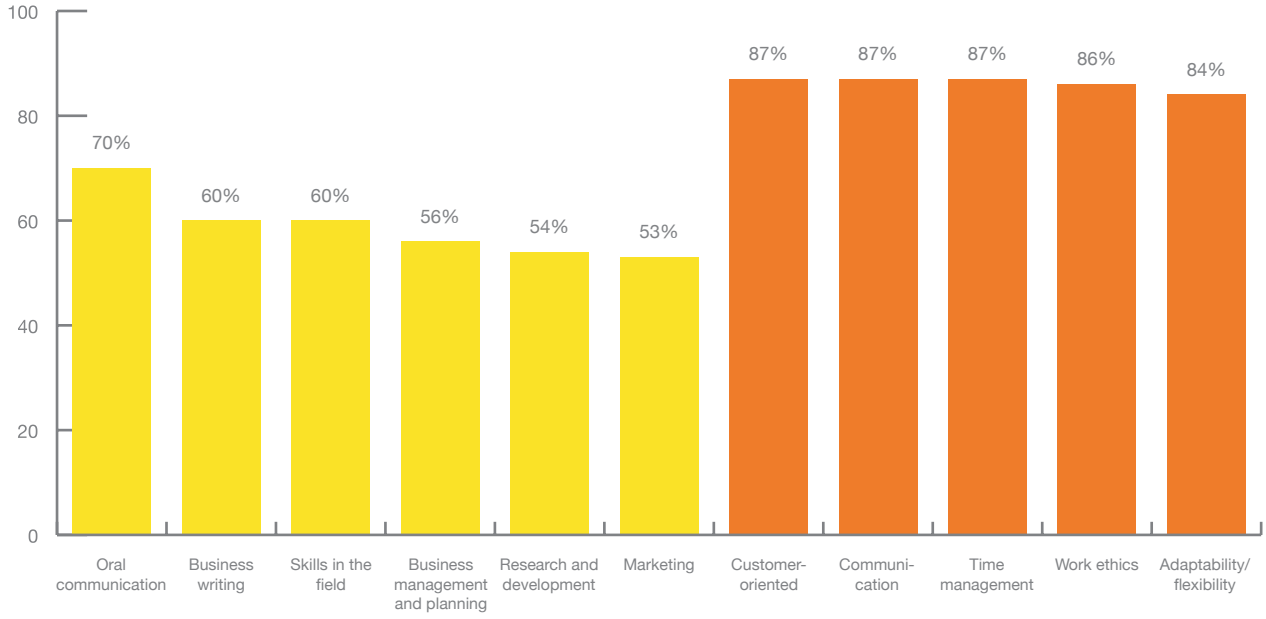
Figure (22): Most needed skills for tourism sector employers (technical skills in yellow, personal skills in orange)



■ ***Agriculture/Agribusiness*:** The most needed technical skills as reported by agriculture/agribusiness employers are the following: Oral communication (70 percent each), skills in the field of their industry and business writing and written communication (60 percent), business management and planning (56 percent), research and development (54

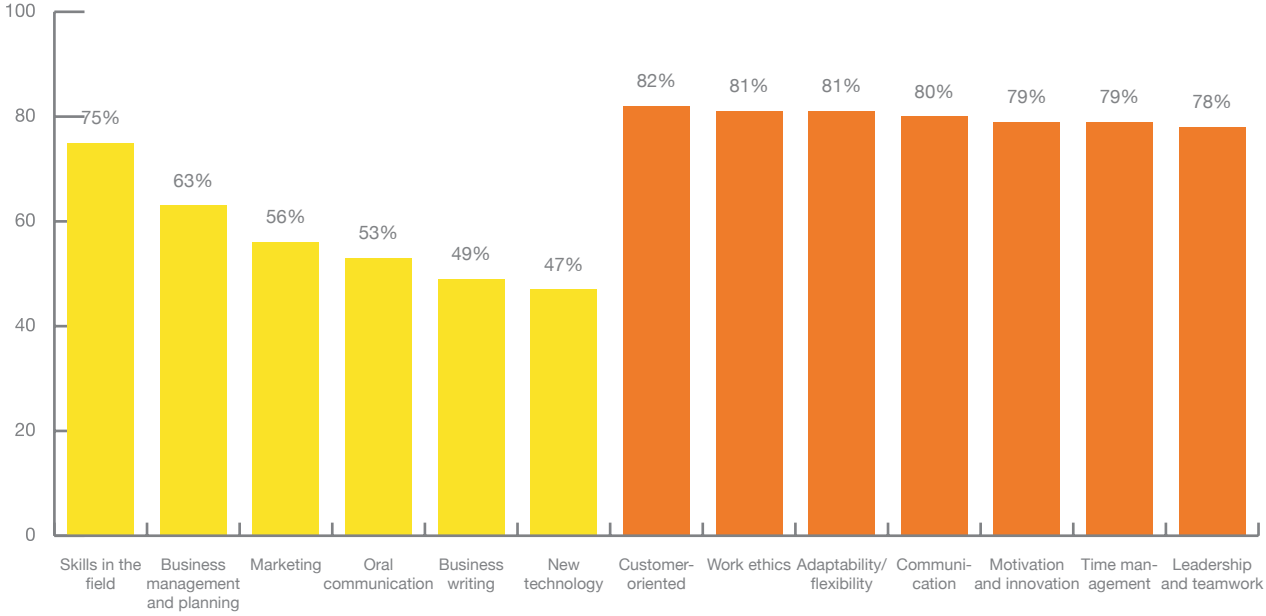
percent) and marketing using social media (53 percent). The most needed personal skills are the following: Customer oriented skills, communication and interpersonal effectiveness and time management (87 percent each), followed by work ethics (86 percent) and adaptability/flexibility (84 percent).

Figure (23): Most needed skills for agriculture sector employers (technical skills in yellow, personal skills in orange)



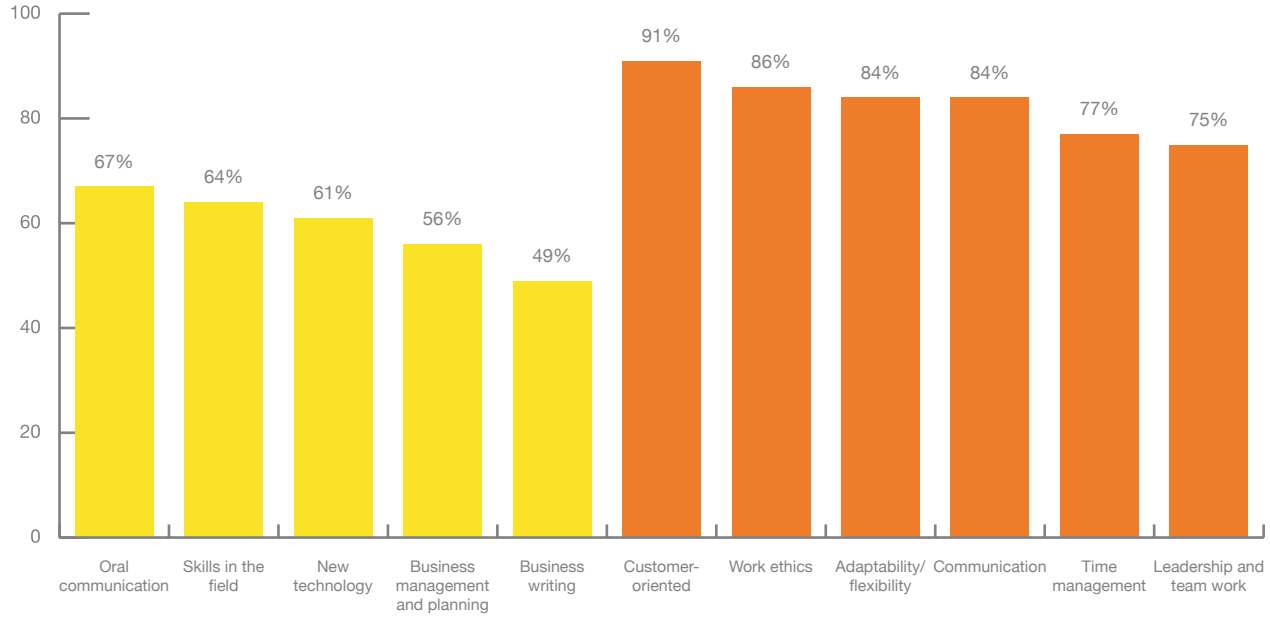
***Industry/Manufacturing*:** The most needed technical skills as reported by industry employers are the following: Skills in the field of their industry (75 percent), business management and planning (63 percent), marketing using social media (56 percent), oral communication (53 percent), business writing and written communication (49 percent) and new technology (47 percent. The most needed personal skills are the following: Customer-oriented skills (82 percent), adaptability/flexibility and work ethics (81 percent), communication and interpersonal effectiveness (80 percent), motivation and innovation and time management (79 percent each), leadership and team work (78 percent).

Figure (24): Most needed skills for industry sector employers (technical skills in yellow, personal skills in orange)



■ ***Construction*:** The most needed technical skills as reported by industry employers are the following: Oral communication (67 percent), skills in the field of their industry (64 percent), new technology (61 percent), business management and planning (56 percent), and business writing and written communication (49 percent). The most needed personal skills are the following: Customer-oriented skills (91 percent), work ethics (86 percent), adaptability/ flexibility and communication and interpersonal effectiveness (84 percent each), time management (77 percent), and leadership and team work (75 percent).

Figure (25): Most needed skills for construction sector employers (technical skills in yellow, personal skills in orange)



Employers in construction and tourism report the greatest difficulties in filling vacancies, though those in tourism have the greatest difficulty finding the needed technical skills. Employers in the field of agriculture are most likely to find the issue of skills gap severe, while those in ICT and construction are least likely. Tourism employers are most likely to believe discrimination against youth and women is a cause of skills gap, while those in construction and industry are least likely. Joint programming is viewed least positively by employers in agriculture and industry, as well as alignment between education and the private sector.

In terms of technical skills, all sectors, with the exception of ICT, rank skills in the field of their industry to be more needed than new technology. This is telling in regards to opportunities for private sector expansion and competitiveness through modernization. Firms may first need to establish a foundation of the minimum skills for success, before strategies can be implemented to introduce modern technology. Among personal skills, all sectors highly prize customer-oriented and communication skills, while in specific sectors emphasis on work ethic and time management appear.

3.3 Size of business

For an effective analysis of the results, the businesses under study were divided into three sizes according to number of employees: Small (1-9 employees), medium (10-49) and large (50 plus).[134] The results show that while large

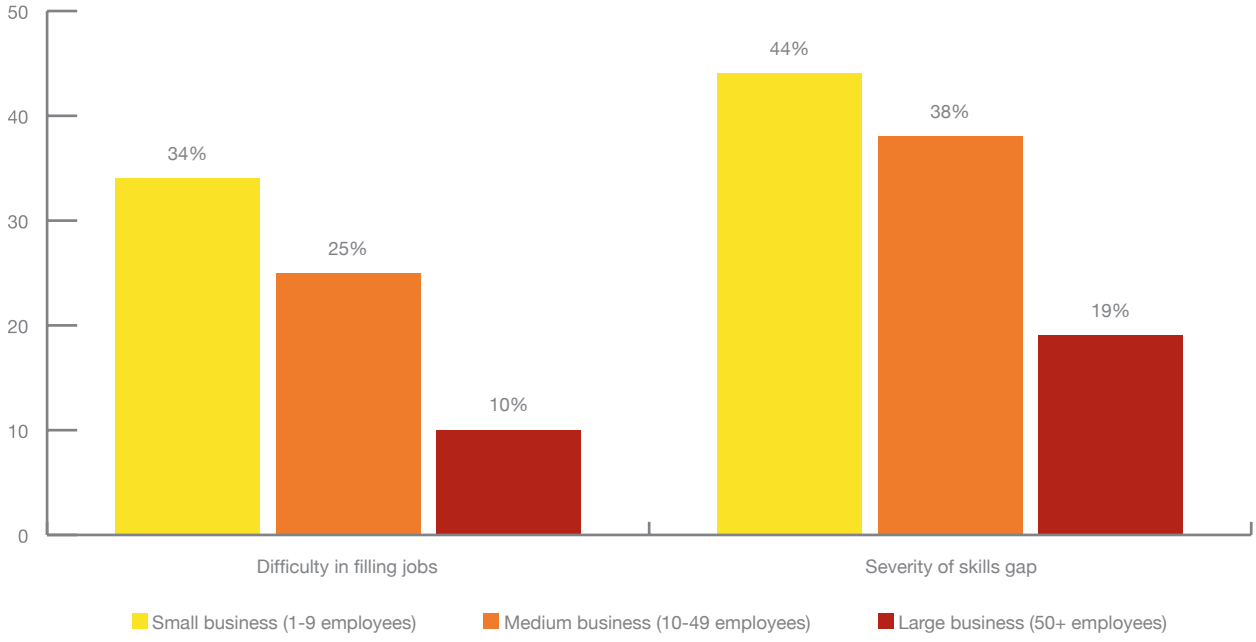
134 The PCBS uses the following classification: Micro: 1-4 Small: 5-19 Medium: 20-49, Large: 50+. However, these classifications are done for their data collection purposes. After analyzing our own data, we found similar patterns between the 'small' and 'micro' groups, and hence used the classification described here. Furthermore, the Ministry of National Economy's Country Report, "SMEs and their role in economic development of Palestine" says the following: "There is no clear classification for small and medium-sized enterprises, and neither accurate or reliable statistics about the number of small and medium-sized enterprises. This is simply due to the lack of criteria determining the size of small and medium-sized enterprise, due to the negligence of SMEs from the side of governmental institutions, private organisation, Chambers of Commerce and NGOs." The classification we use in this report was also confirmed by a member of the Chambers of Commerce in an interview.

businesses seem to be on the cutting edge of bridging the skills gap, small-size businesses suffer the most and medium-size businesses are most expressive of the need for improvement. The positions of these types of businesses are illustrated through the following analysis.

a) Difficulty in filling available positions

While all businesses equally feel the brunt of the unemployment problem, the impact of the skills gap is felt differently. While 10 percent of large businesses say that it is very difficult to fill job vacancies, 25 percent of medium and 34 percent of small businesses say the same. In addition, while 19 percent of large businesses believe that the skills gap is (very severe or severe), as much as 38 percent of medium and 44 percent of small businesses agree.

Figure (26): Percentage saying it is very difficult to find a job/and that the skills gap is very severe



b) Hiring unqualified staff

57 percent of employers in large businesses say that they have never employed someone who is not qualified. This is compared to 50 percent among medium businesses and 43 percent among small businesses.

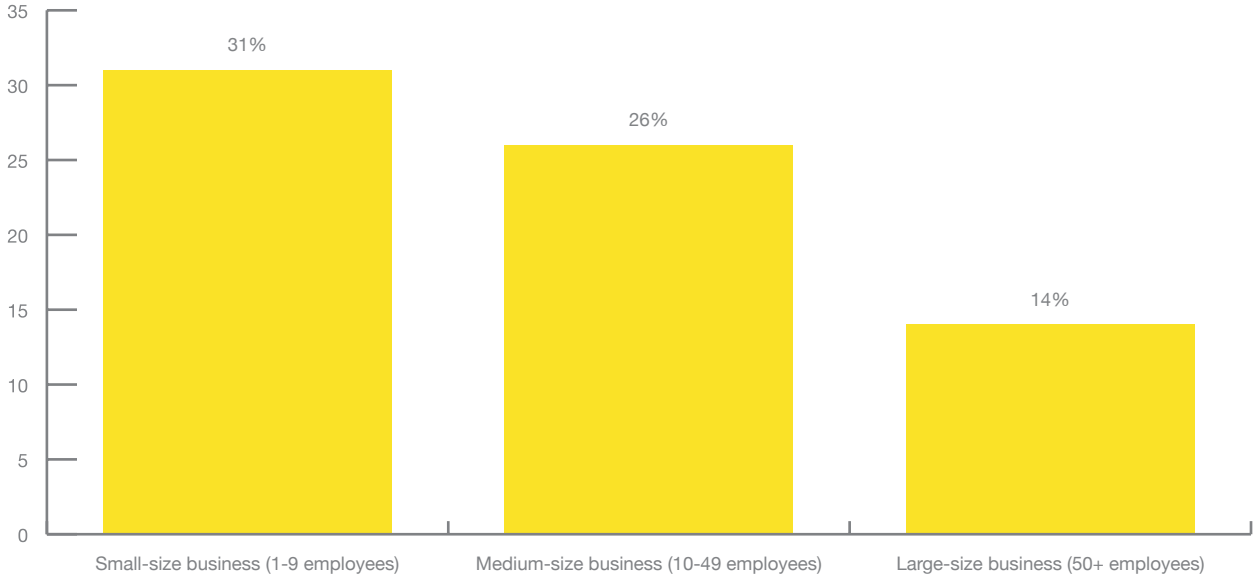
c) Lack of mobility

Employers in small and medium-size business feel the impact of limited mobility more than larger businesses. The majority of them (52 percent and 56 percent, respectively) believe that (inability to move from one region to another) is a (very significant) contributor to unemployment. This is compared to 38 percent among employers in large businesses.

d) Discrimination against women and youth

Discrimination against women and youth in employment is more felt among small businesses, where 31 percent of them believe that discrimination against women is a (very significant) cause of skills gap. They are followed by medium-size businesses (26 percent) and large businesses (14 percent). The same trend applies to other aspects of discrimination, including discrimination against youth, the elderly and persons with disability.

Figure (27): Percentage saying discrimination against women is a very significant cause of skills gaps



e) Joint programming

Employers in small-size businesses are the most dissatisfied with joint programming between the private sector and educational institutions (59 percent each), followed by medium-size businesses (56 percent) and, finally, large-size businesses (48 percent).

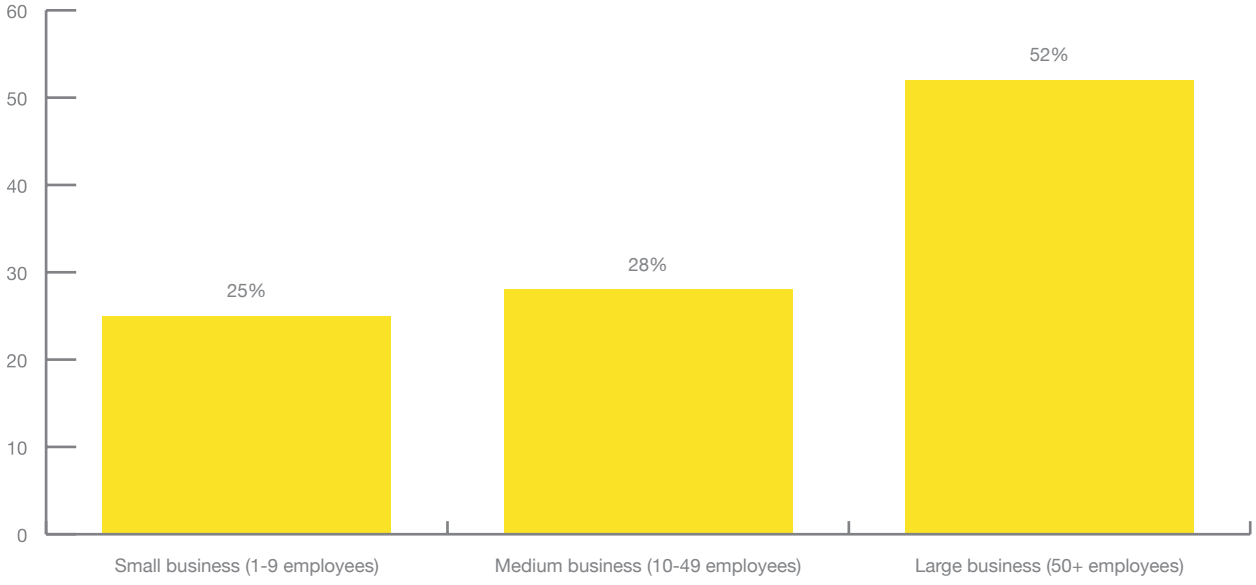
f) Dedicated training budget

One of the largest gaps between small and large businesses is the allocation of dedicated budgets for human resource development. As much as 52 percent of large businesses report that their businesses have a dedicated budget and policy for human resource development, compared to 36 percent among medium-size businesses and only 16 percent among small-size businesses. This finding is further verified through the question on training provision. 57 percent of large-size businesses report providing training to employees during the past 12 months. This is compared to 41 percent among medium-size businesses and only 22 percent among small-size businesses.

g) Offerings of new providers

This is another area where small businesses are disadvantaged. Employers in large-size businesses say that they are the most familiar with the offerings of (new providers) at a rate of 52 percent. Medium and small-size businesses are much less familiar (28 percent and 25 percent, respectively).

Figure (28): Percentage saying they are familiar with new providers



h) Capacities of private sector

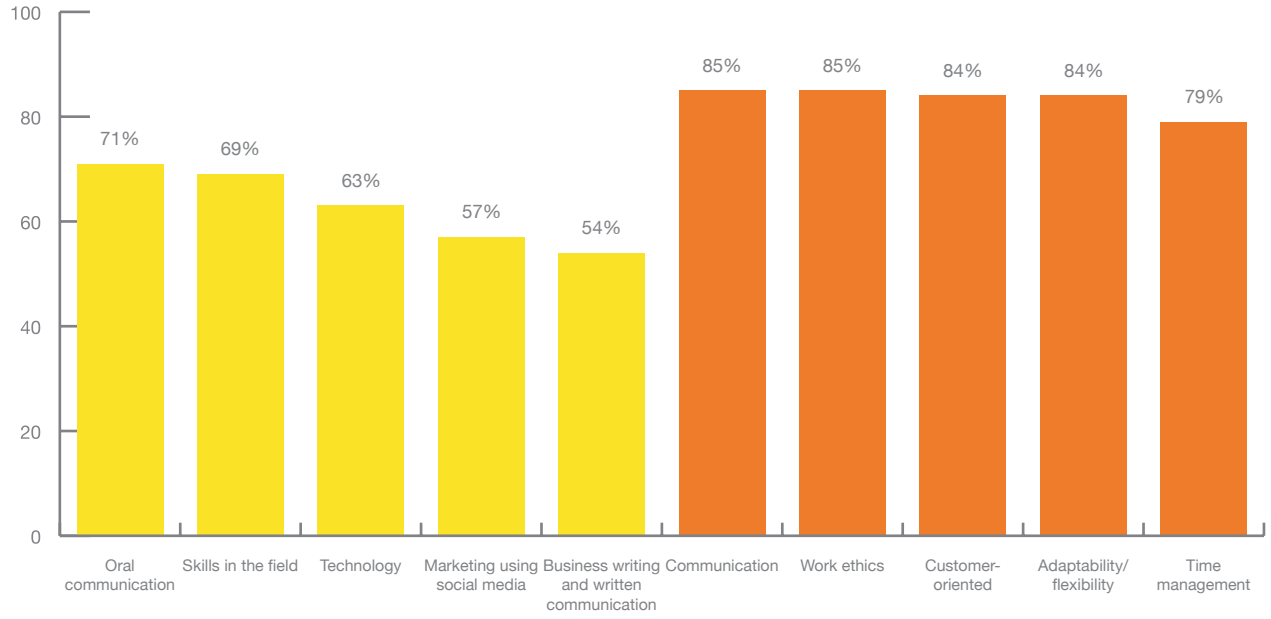
Medium-size businesses seem to be the most concerned with the building of capacity among employers. For example, 56 percent of employers in medium-size businesses believe that it is very important for employers to build their own capacities in human resource management. This is compared to about one third among large and small businesses. In addition, 57 percent of medium-size businesses believe that it is very important for employers to build their own capacity in assessing needs for skills development in their companies. 48 percent of large businesses and 39 percent of small businesses agree.

i) Most needed skills

While the majority of large businesses report an urgent need for technical skills, the majority of small businesses report an urgent need for personal, organisational and management skills. For example, while 57 percent of employers in large businesses report that their most urgent needs are technical, 51 percent of medium and 48 percent of small business agree with that. In contrast, 52 percent of small-size businesses (which make up about 73 percent of all surveyed businesses) report that their most urgent needs are personal, organisational and management skills. It is important to highlight that small-size business (1-9 employees) make up about 89 percent of all businesses in Palestine.

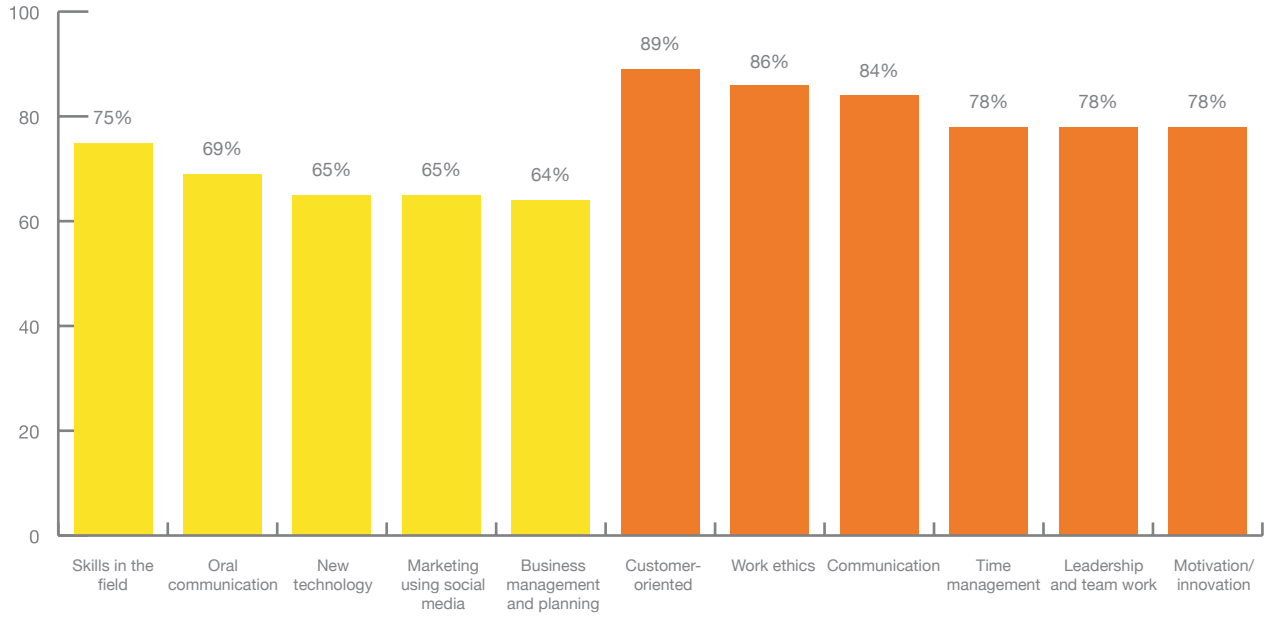
■ ***Small-size businesses (1-9 employees)*:** The most needed technical skills as reported by small-size businesses are the following: Oral communication (71 percent), skills in the field of their industry (69 percent), new technology (63 percent), marketing using social media (57 percent) and business writing and written communication (54 percent). The most needed personal skills are the following: Communication and interpersonal effectiveness and work ethics (85 percent each), customer-oriented skills and adaptability/flexibility (84 percent each) and time management (79 percent).

Figure (29): Most needed skills for the small-size business employers (technical skills in yellow, personal skills in orange)



***Medium-size businesses (10-49 employees)*:** The most needed technical skills as reported by medium-size businesses are the following: Skills in the field of their industry (75 percent), oral communication (69 percent), new technology and marketing using social media (65 percent each) and business management and planning (64 percent). The most needed personal skills are the following: Customer-oriented skills (89 percent), work ethics (86 percent), communication and interpersonal effectiveness (84 percent) and time management, leadership and team work and motivation/innovation (78 percent each).

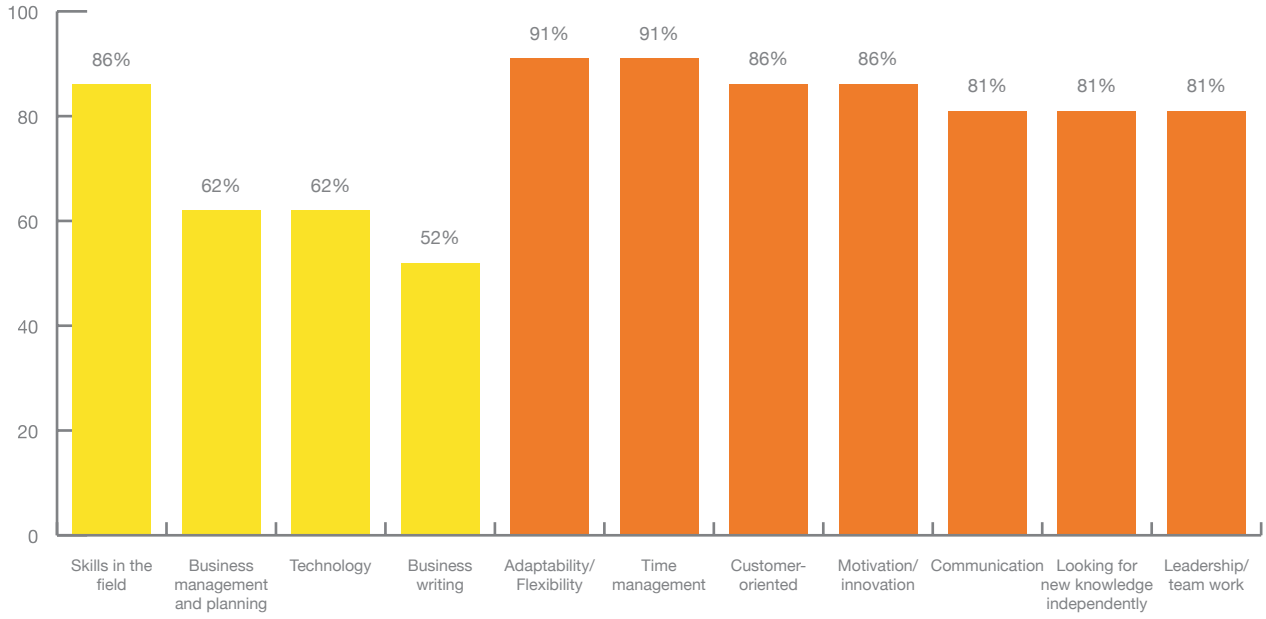
Figure (30): Most needed skills for the medium-size business employers (technical skills in yellow, personal skills in orange)



***Large-size businesses (50+ employees)*:** The most needed technical skills as reported by large-size businesses are the following: Skills in the field of their industry (86 percent), followed by business management and planning and

new technology (62 percent each) and business writing and written communication (52 percent). The most needed personal skills are the following: Adaptability/Flexibility and time management (91 percent), customer-oriented skills and motivation/innovation (86 percent), followed by communication and interpersonal effectiveness, looking for new knowledge independently and leadership/team work (81 percent each).

Figure (31): Most needed skills for the large-size business employers (technical skills in yellow, personal skills in orange)



Recognition of the severity of skills gap, as well as the difficulty with filling vacancies, appears to be correlated with business size. Large businesses report the least difficulty in filling vacancies and the lowest belief that the issue of skills gaps is severe, while the opposite is true among small businesses. Overall, small businesses seem to be bearing the brunt of the negative circumstances associated with the labour market. They are most likely to report feelings of discrimination, the greatest prevalence of hiring unskilled workers, the most dissatisfaction with joint providers and the least familiarity with offerings of new providers. These are inauspicious trends, as they may point to the stratification of businesses and the entrenchment and expansion of monopolies in the form of large businesses. With smaller businesses reporting such difficulties, economic mobility and growth may be severely impeded.

Small and medium-size businesses consider skills in the field, oral communication and new technology among the top three needed technical skills, and customer-orientation, work ethics and communications among the top three in personal. In contrast, large size businesses identify skills in the field, business management and planning and new technology as the most important technical skills and adaptability/flexibility, time management and customer-orientation the top three in personal. These results also serve to indicate how large businesses are increasingly distinct from their counterparts, while small and medium ones are almost uniform.

3.4 Gender

While male and female employees/graduates equally recognise the challenges in gaining skills and obtaining employment, **males show a greater level of confidence in their skills and prospects in the labour market**.

a) Obstacles to gaining skills and employability

Males and females tend to equally recognise the challenges facing them in gaining skills and obtaining employment. For example, an equal percentage of males and females recognise that the following obstacles as very serious: lack of practical skills among graduates, mismatch of skills and market needs, insufficient knowledge of how to find jobs, new/shifting technology, discrimination and the presence of nepotism. The main area of variance is in their perception of mobility, **where males are more concerned about this issue than females**.

b) Finding employment

Male employees/graduates tend to be more aggressive in their attempts to find employment regardless of their specialisation. For example, 39 percent of males say that they have applied in many occasions for jobs that are not aligned with their specialisation, compared to 27 percent of females. This figure probably reflects the pressure on males to be the primary breadwinner in the family.

c) Enhancing skills and job opportunities

More female employees/graduates are seeking personal development. For example, while 34 percent of females say that they are actively seeking training that will enhance their employability, 23 percent of males say the same.

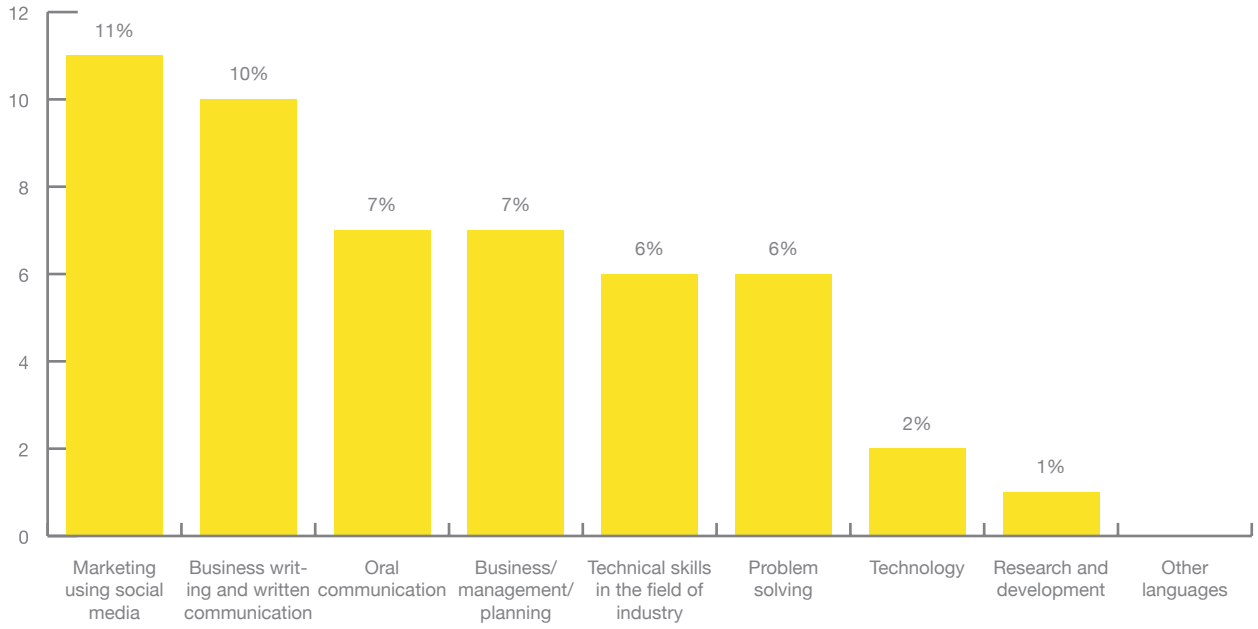
d) New providers

More females (27 percent) than males (22 percent) report knowledge of trainings offered by new providers. As to the actual enrolment in these trainings, females and males tend to show equal rates (14 percent females and 13 percent males).

e) Assessment of own skills

Males tend to be more confident about the level of their skills than females. For example, 55 percent of males are confident that their current skills will allow them to find a proper job; 48 percent of females share the same view. In addition, males tend to say that they possess skills at a higher rate than females. The following figure illustrates this trend and shows that the highest reported gaps are in the following technical skill areas: Marketing using social media and business writing and written communication. The smallest gaps are the following skill areas: Other languages and research and development.

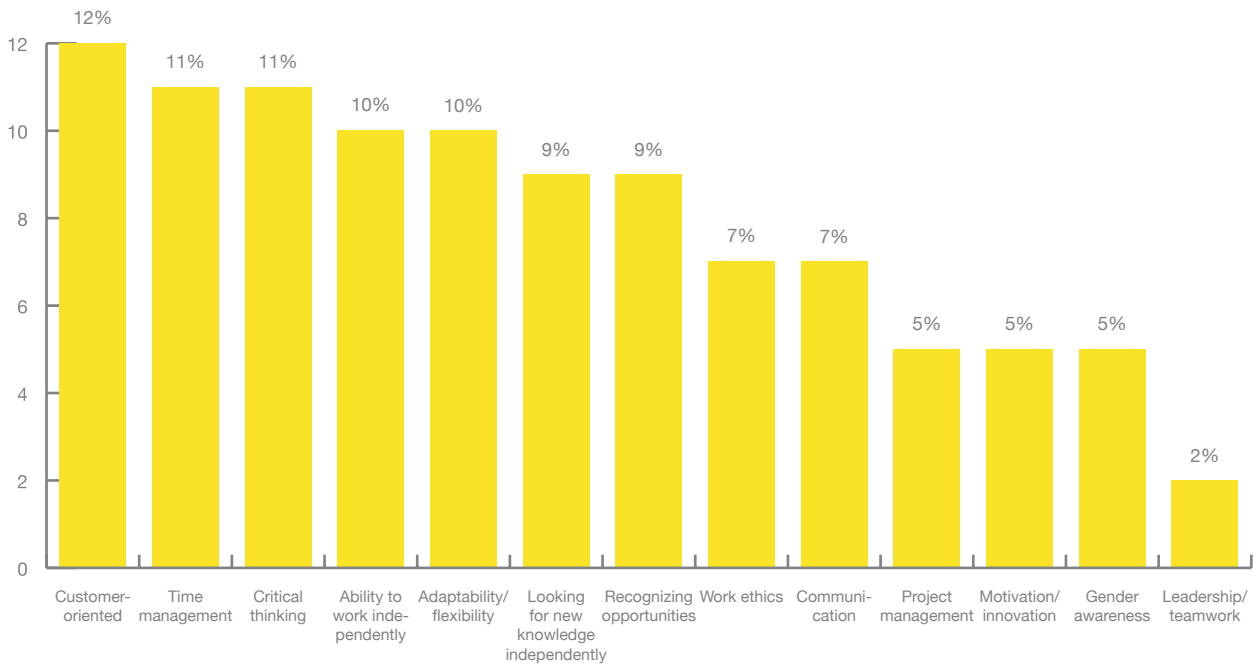
Figure (32): The needed technical skills by employers/the available personal skills by graduates and employees[135]



The following figure illustrates the gaps in assessing personal skills and aptitudes between males and females. It shows that the highest reported gaps are in the following personal skill areas: Customer-Oriented skills, time management, critical and analytical thinking, ability to work independently, and adaptability and working under stress. The least reported gaps are in the following skills areas: Leadership/team work, gender awareness, motivation, and project management and decision-making.

135 The percentages indicate the difference between males and females, in favour of males.

Figure (33): Gaps among employees/graduates reporting that they possess the following personal skills to a large extent (by gender) [136]



f) Entrepreneurship

The gender gap is starkly apparent when analysing business ownership, where 11 percent of male employees/graduates report that they own their business. This is compared to 2 percent among female employees/graduates. Among males who do not have their own business, 37 percent say that they intend to establish their own business. This is compared to 27 percent among females who currently have no business. Females (35 percent) are more likely than males (27 percent) to consider establishing a business, as a more distant endeavour (more than three years).

Males and females are equally cognizant of the economic circumstances they face in developing skills and finding employment, including mismatch, absence of practical skills among graduates and insufficient knowledge of finding jobs. It is interesting that while males are more aggressive in finding employment, females are more likely to seek training for personal improvement. This could be because female respondents are less confident in their skills compared to males. The highest gaps in technical skills from employees/graduates perspective are in the areas of marketing using social media, business writing and written communication. Among personal skills the highest gaps are reported in customer-oriented skills, time management and critical and analytical thinking. There is a distinctly apparent gender gap related to entrepreneurship, where males are more likely to own, and more likely to intend to own, their own businesses.

3.5 Level of Education

Education seems to be a contributor to a greater feeling of a skills gap and lower level of opportunities

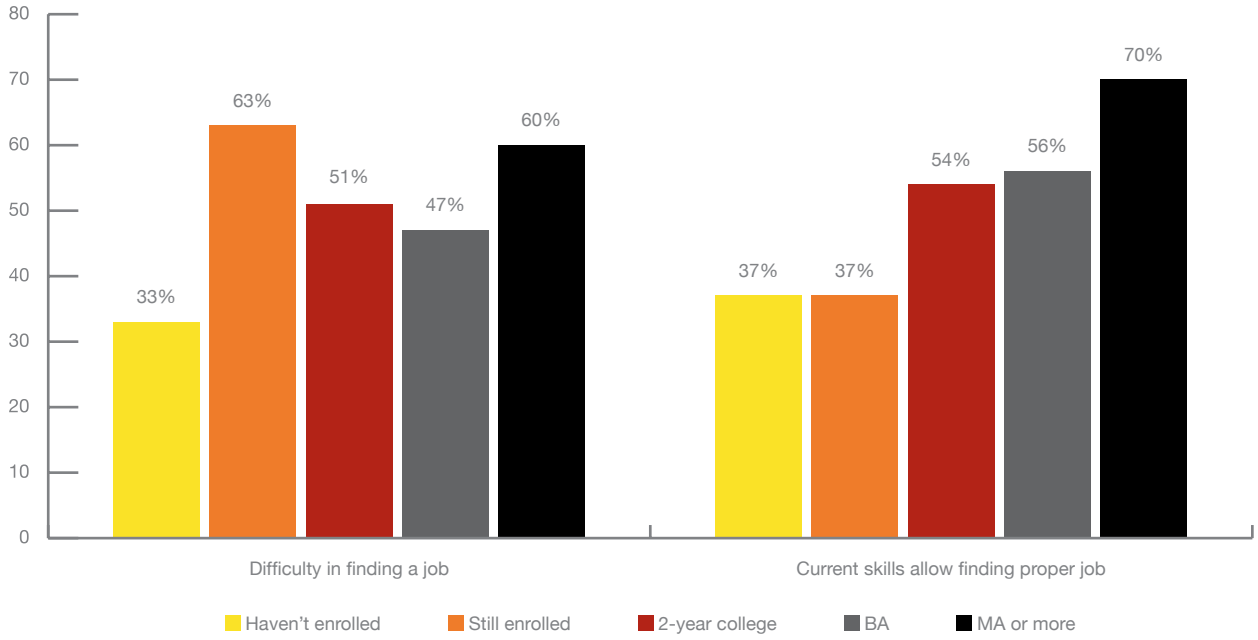
a) Finding a job

The least-educated employees/graduates report the least difficulty in finding a job, as one third of the respondents with no university education report that it is (very difficult) to find work. This is compared to 47 percent among BA holders, 51 percent among 2-year college graduates, 60 percent of MA holders and 63 percent among respondents who are still enrolled. The quality of work sought by each group has an influence on their perception of their own

136 The percentages indicate the difference between males and females, in favour of males.

employability. **While the least educated have the most confidence that they will find a job, they realise that their current skills are not the reason as 37 percent of them are definite that their current skills will allow them to find a proper job**. This is compared to 54 percent and 56 percent among BA and MA holders (respectively).

Figure (34): Percentage saying it is very difficult to find a job and that their skills allow them to find a proper job



b) Alignment between education and market needs

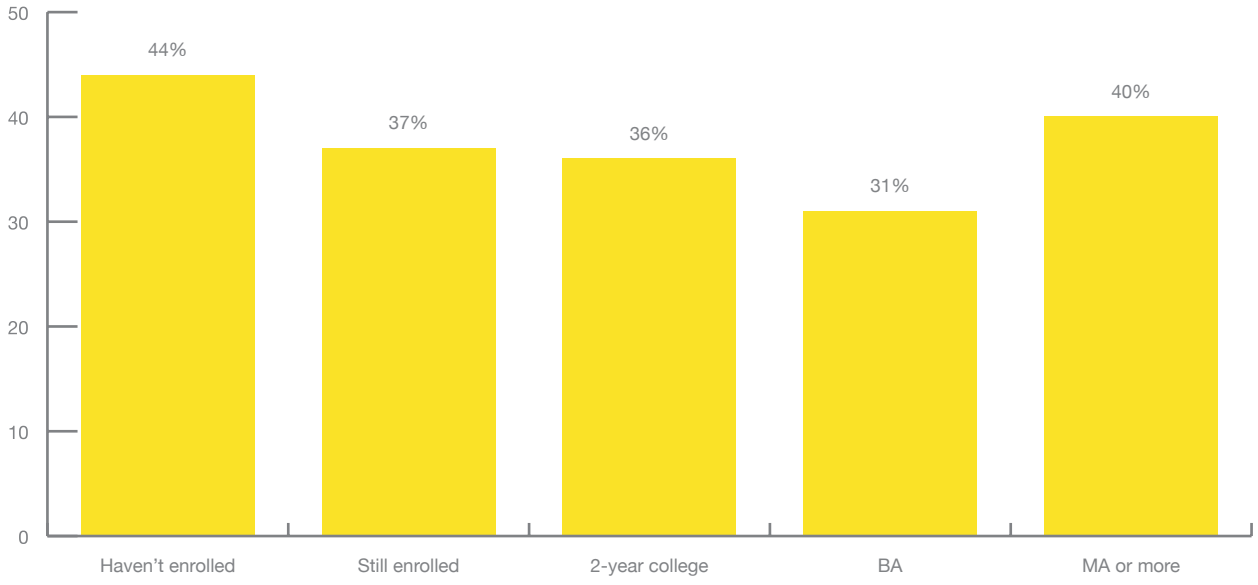
The least educated are the most disappointed by the alignment between the educational system and the needs of the labour market. Two thirds of these respondents believe that there is no alignment between the two[137], hence, their lack of enrolment in university education. The rate of disappointment among all other educational categories was lower (47 percent among those who are still enrolled and 2-year college graduates and 54 percent among BA holders). The disillusionment with education among the least educated and the still-enrolled in college is further confirmed when asked about the utility of their education to their present work. 63 percent of those who are still enrolled in education and the least educated state that the level of utility of their education to their jobs is 5 or less (on a scale of 10). This is compared to 37 percent among 2-year college graduates and 30 percent among BA holders.

c) Applying for jobs

The least educated and the most educated are most likely to apply for jobs not aligned with their specialisation. 44 percent of the least educated and 40 percent of MA holders say that they have applied in many occasions for jobs that do not align with their specialisation. This is compared to 37 percent among respondents still enrolled in education and 2-year college graduates, and 31 percent among BA holders.

137 They gave the degree of alignment a score between 0 and 5 on a scale of 10.

Figure (35): Percentage saying they have applied for a job that does not align with their specialisation in many occasions



d) Seeking self-improvement

The more educated have more access and more motivation to seek additional self-improvement. 50 percent of MA holders, 36 percent of BA holders and 37 percent of those who are still enrolled report that they actively seek training to enhance their opportunities in employment. This is compared to 31 percent among 2-year college graduates and only 10 percent of those who never attended college. In addition, the data show that 59 percent of the least educated do not use the Internet to develop their own skills/knowledge. This is compared to 37 percent among respondents still enrolled in education, 23 percent among college graduates, 15 percent among BA holders and 10 percent among MA holders.

e) Receiving formal training

The more educated have better opportunities to receive training, where 25 percent of MA and BA holders say that they have received formal training sponsored by their employers during the past 12 months. This is compared to 14 percent among 2-year college graduates, and 5 percent among respondents still enrolled in education and those who never attended college.

f) Offerings of new providers

Familiarity with the training offered by new providers is positively correlated with level of education. The least familiarity is among the least educated and respondents still enrolled in college (5 percent) and increases among the most educated (25 percent among diploma holders; 29 percent among BA holders and 50 percent among MA holders). As to the actual participation in trainings or other offerings made by new providers, only 3 percent of the least educated, 5 percent of the those still enrolled in college, 21 percent of college graduates, 17 percent of BA holders report that they participated in such offerings.

g) Entrepreneurship

Level of education does not appear correlated with entrepreneurship. 7 percent of respondents with no university education, 5 percent of respondents still enrolled, 9 percent of college graduates and 6 percent of BA holders say that they own their own business. The small variance might indicate that university education provides a lower level of incentive for entrepreneurship and limits the options of graduates, while at the same time the least educated need to struggle more to secure a living. At the same time, 2-year college graduates are more equipped with technical skills that allow them to be independent.

h) Perception of own skills

It does not appear that education is always positively correlated with perception of skills among respondents. In fact, the results are mixed depending on type of skill and in most cases show that increase in self-perception of skills

is highest among 2-year college graduates, while in some cases there is no change among respondents across all educational levels. The following shows the skills that received the highest scores among respondents from three levels of educational attainment: never enrolled in college, 2-year college graduates and BA (plus) holders:

- ***Never went to college*:** Respondents who never attended college believe that they have the higher levels of competence in the following fields of skills (when compared with other educational groups): Other languages (possibly referring to Hebrew) and critical and analytical thinking. They also report possessing ability to work independently at higher levels than reported by 2-year college graduates. In addition, all three educational groups report the same level of competence in the following skill fields: Marketing using social media and use of cameras and smart phones for business development.

- ***2 year college graduates*:** This group of respondents seems to be the most confident about its skills. Compared to holders of BA degrees or higher and respondents who never enrolled in college, graduates of 2-year colleges report higher levels of competence in most fields of skills: Technical skills, business and planning, new technology, customer satisfaction, adaptability, time management, looking for new knowledge, work ethics, project management and decision making, motivation and innovation and gender awareness. They also report equal levels of competence as those among BA (plus) holders in the following fields: Recognizing opportunities, critical thinking, problem solving based on analytics, and research and development.

- ***BA (plus) holders*:** The results show that BA (plus) holders are the most modest in their assessment of their skills. Only in a very small number of skills do they report higher levels of competence compared to less-educated cohorts: Business writing, oral communication, communication and leadership.

Finding employment is easiest for the least educated of respondents, while most difficult among MA holders and those still pursuing education. However, while the least educated are the most confident they will find work, the higher educated (BA and MA holders) are most confident in their skills. Lesser educated respondents are the most critical of the connection between education and the labour market, which may explain why they are also the least likely to seek self-improvement, compared to more educated respondents. Similarly, awareness of offerings of new providers is correlated with education, as BA and MA holders are most likely to be cognizant of these opportunities, as well as take part of them. However, more-educated respondents are least likely to be entrepreneurs, possibly indicating a lack of the needed technical skills or the preference to find a job with steady pay and lower risks.

Most alarmingly, education does not appear to be positively correlated with perceptions of skills. In reality, 2-year college graduates boast the highest confidence in their personal skills. These respondents are most confident in the areas of technical skills, business and planning, new technology and customer satisfaction. Respondents who never attended college have greater confidence in other languages, critical and analytical thinking and ability to work independently. BA (plus) holders are far more modest, only among business writing, oral communication and communication and leadership are they more confident.

3.6 Working in the field of specialisation

We asked employees if they work in their field of educational specialisation. **On almost all issues, employees working in the field of their specialisation have more confidence and positive perception of their own situation, when compared to those who do not work in the field of their specialisation**. This raises interesting questions: does the presence of personal confidence promote a successful experience in finding a job in one's specialisation? Or is working in one's specialisation the cause of promoting his/her skills at all levels? This issue calls for further investigation into these questions and determining the extent to which each question applies. Still, the data show that both groups equally struggle to find a job.

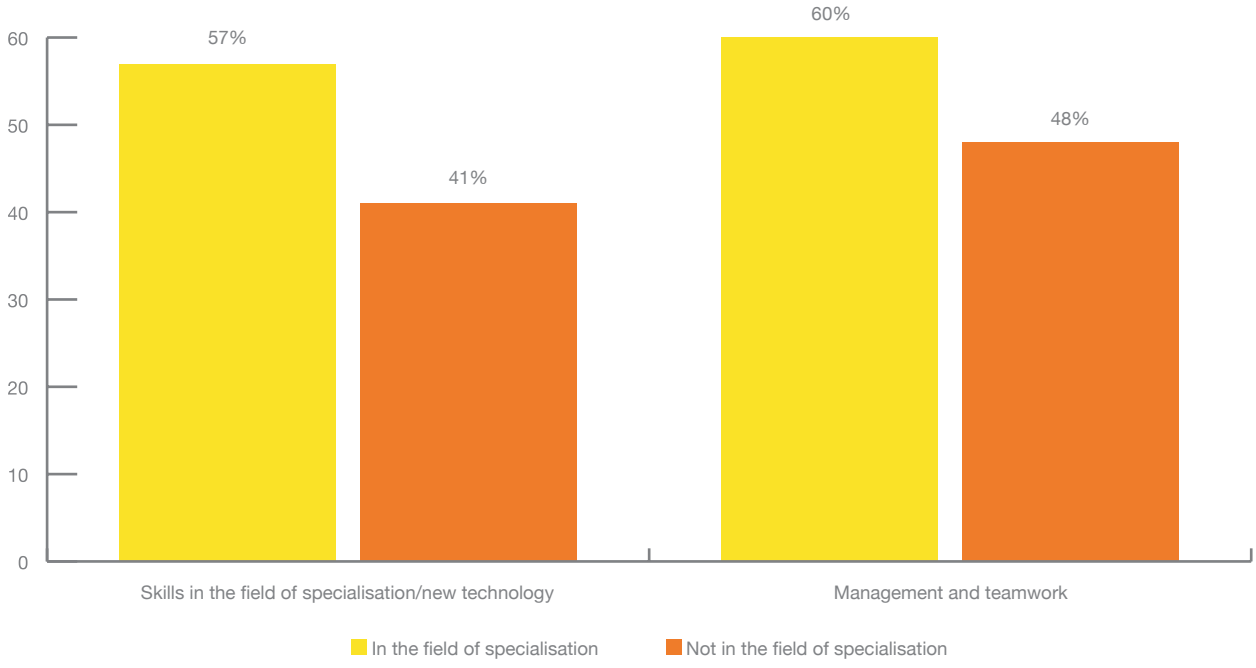
a) Finding a job

Equal percentages of employees working in the field of their specialisation and those who do not say that it is difficult to find a job. The first group is more focused in its search for work, as 27 percent of them say that they applied in many occasions for jobs that do not align with their specialisation. This is compared to 47 percent among those who do not work in their field of specialisation. In part, this is due to a higher level of confidence in their skills, where 69 percent of the first group says that their current skills will allow them to find a proper job. This is compared 41 percent among those who do not work in their specialisation.

b) Assessment of own skills

Employees working in their field of specialisation show higher levels of confidence about their skills compared to those working outside. 57 percent of the first group says that (technical skills in the field of their specialisation and skills in new technology) are available to a large extent, compared to 41 percent among the second group. In addition, 60 percent of the first group believe that they have (management and team work skills) while 48 percent of the second group agree.

Figure (36): Percentage saying the following skills are available to a large extent



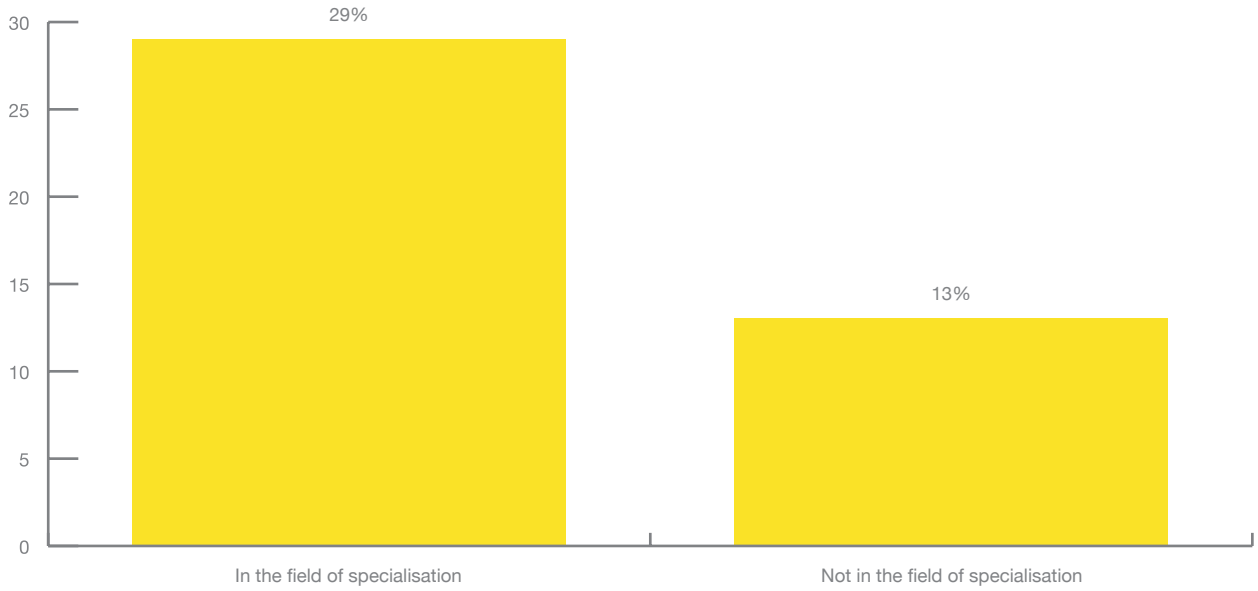
c) Seeking self-improvement

33 percent of the employees working in their field of specialisation say that they actively seek training to enhance their own skills compared to 21 percent among the second group. In addition, while 19 percent of the first group never uses Internet to develop their skills, as much 39 percent of the second group says the same.

d) New providers

Familiarity with the offerings of new providers is higher among employees working in their field of specialisation (29 percent) than those who are not (13 percent). In general, 18 percent of the first group and only 6 percent of the second group say that they participated in or benefited from programs offered by new providers.

Figure (37): Percentage saying they are familiar with new providers



Employees, regardless of whether they work in their specialisation, believe it is difficult to find a job. However, those working in their specialisation are more confident in their skills, explaining why they also report lower rates of applying outside their field. These employees are also more likely to actively seek self-improvement, demonstrated by their greater prevalence to use the Internet to develop skills. Workers in the field of their specialisation are also more aware of the offerings of new providers, though awareness is fairly low for both. They are also more likely to have participated in, and benefited from, these offerings.

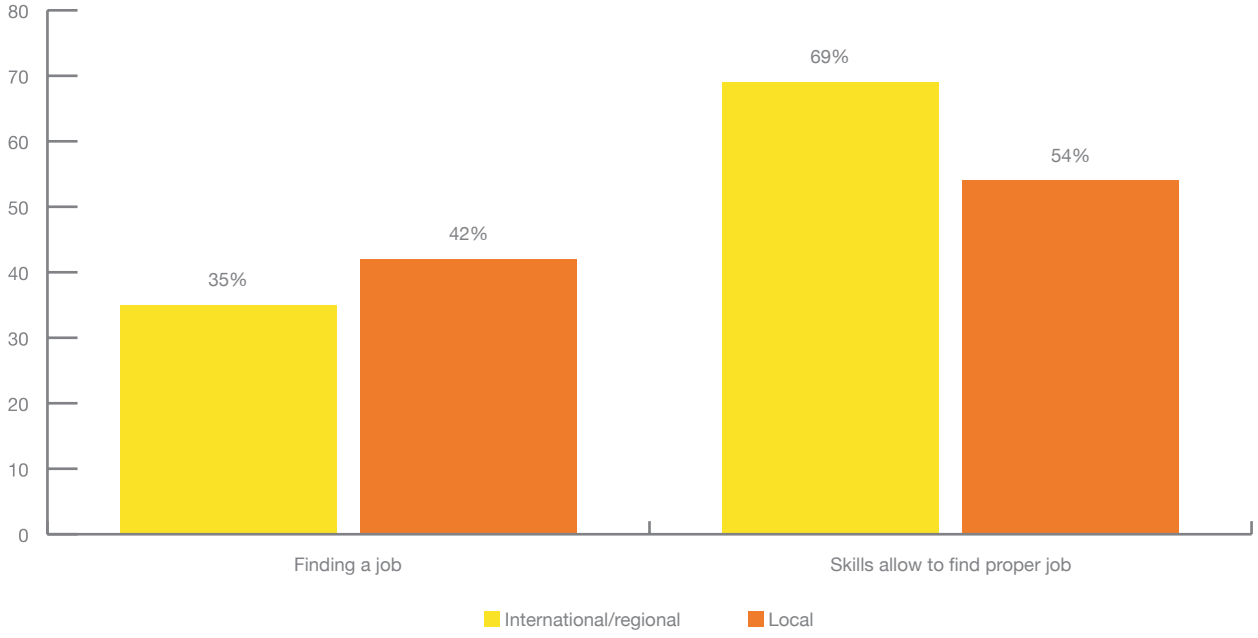
3.7 Place of Experience

Experience with international/regional employers is positively correlated with self-perception of one's own skills and prospects.

a) Finding a job

35 percent of employees who had experience with international/regional companies say that finding a job is (very difficult). 42 percent of these who have no international/regional experience say the same. Both groups, however, had to apply in many occasion for jobs outside of their own specialisation (36 percent among employees with international/regional experience and 32 percent among others). In part, this is due to a higher level of confidence in their skills, where 69 percent of the first group says that their current skills will allow them to find a proper job. This is compared 54 percent among the second group.

Figure (38): Percentage saying it is very difficult to find a job and that their skills allow them to find a proper job



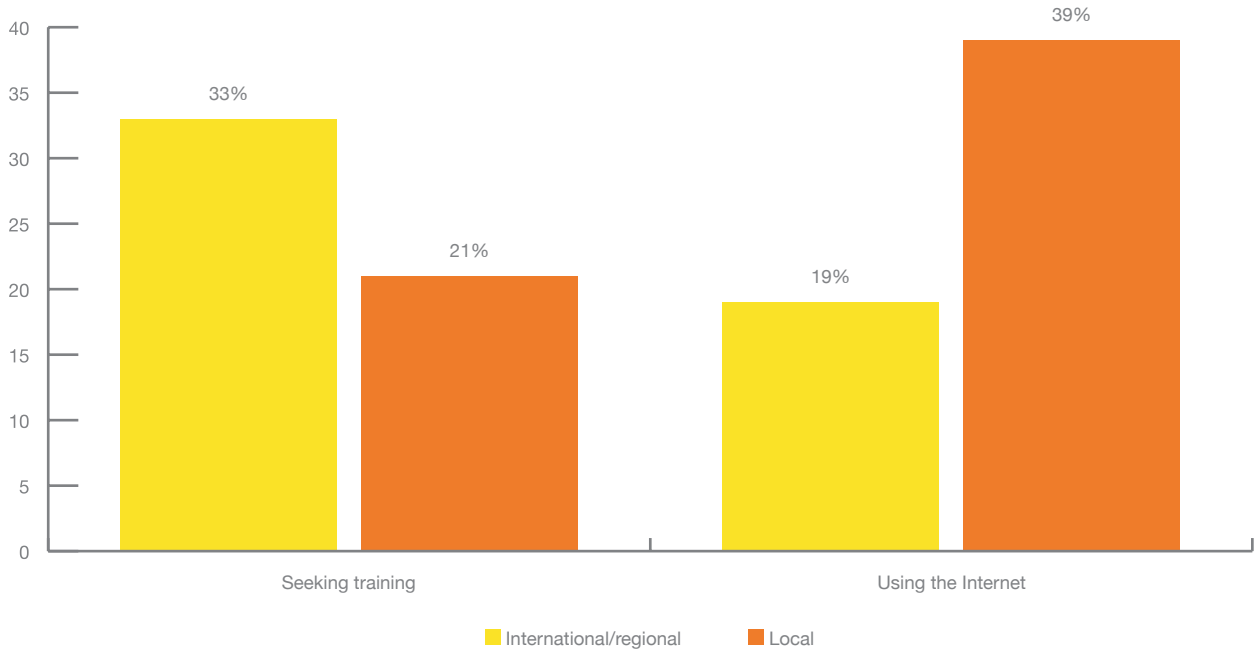
b) Assessment of own skills

Employees with experience in international/regional businesses show higher levels of confidence about their skills compared to those without experience. 60 percent of the first groups say that (technical skills in the field of their specialisation and skills in new technology) are available to a large extent, compared to 49 percent among the second group. In addition, 65 percent of the first group believe that they have (communication and interpersonal skills), while 53 percent of the second group believe the same.

c) Seeking self-improvement

35 percent of the employees with experience in international/regional businesses say that they actively seek training to enhance their own skills compared to 26 percent among the second group. In addition, while 9 percent of employees with experience in international/regional businesses never use the Internet to develop their skills, as much as 31 percent of employees with local experience state that never use the internet to develop their skills.

Figure (39): Percentage saying they seek training and use the Internet to develop their skills



d) New providers

Familiarity with the offerings of new providers is higher among employees with experience in international/regional businesses (31 percent) than those with no such experience (21 percent). In general, 20 percent of the first group and 12 percent of the second group say that they participated in or benefited from programs offered by new providers.

e) Career counselling

Employees with international/regional experience report receiving career counselling at a higher rate (34 percent) than those with only local experience (23 percent).

Employees who have had experience with international/regional companies report a slightly more positive experience when it comes to finding a job than their counterparts. However, despite the fact that these respondents are also more confident of their skills, both groups say they have applied for work outside their specialisation at roughly equal rates. Respondents with foreign experience are also more likely to seek opportunities for self-improvement, as well as use the Internet for these purposes. They also boast greater familiarity with offerings of new providers, and have higher rates of enrolment than employees without international/regional experience. Finally, and perhaps most importantly, employees with foreign experience have received career counselling at higher rates than their counterparts, perhaps boosting their appraisals of their own skills and ability to find work.

Box (4): Place of graduation

The study attempted to provide some insights into the relation between country of higher education (Palestinian vs. non-Palestinian higher education institutions) and the issue of skills gap. The study yielded very limited data as the percentage of graduates from non-Palestinian institutions was slim (reaching only 6 percent of all graduates). In addition, these graduates come from a highly heterogeneous educational background. While some of them graduated from Israeli and Arab colleges, others graduated from Asia, Europe and North America. While no final conclusions might be drawn from the existing data, the following insights might help in pushing the debate forward and in identifying future research questions:

1. A larger group of graduates from Palestinian institutions (89 percent) report that it is (very difficult or difficult) to find a job, compared to (71 percent) among graduates of non-Palestinian institutions.
2. Graduates of non-Palestinian institutions are more confident about their skills than graduates of Palestinian institutions. For example, 46 percent of the first group are confident that they that they possess the needed technical skills, compared to 39 percent among the second group. The gaps are higher when it comes to personal skills. For example, while 55 percent of the first group is confident that they possess the skills of (motivation, innovation, creativity and entrepreneurship), only 44 percent from the second group report the same. In addition, 50 percent of the first group and 44 percent of the second group are confident that they have (communication and interpersonal skills).
3. Graduates of non-Palestinian institutions report owning their own businesses at a much higher level (20 percent) than graduated of Palestinian institutions (6 percent).
4. These results are offset by greater levels of self-learning among graduates of Palestinian institutions. It is possible that their realisation of the extreme difficulty in finding a job is driving them to show a level of initiative:
    - While they believe that finding a job is very hard, they still believe that their current skills will allow them to find a suitable job (55 percent compared to 48 percent among graduates of non-Palestinian institutions);
    - A higher percentage of graduates of Palestinian institutions (56 percent) report that they actively seek training that will enhance their opportunities for employment, compared to 36 percent among graduates of non-Palestinian institutions;
    - The extra challenges and the drive for self-enhancement might also explain the higher level of knowledge of the work of new providers (27 percent compared to 18 percent among graduates of non-Palestinian institutions).

While these results are not conclusive, they point to the comparative advantage that graduates from non-Palestinian institutions have over graduates of Palestinian institutions. They also point to the higher level of reported technical skills among the graduates of non-Palestinian institutions. **More important is the larger gap on personal skills**. While many of the graduates come from similar Palestinian schools, college education is important for enhancing the level of personal skills. Finally, while graduates of Palestinian institutions face more challenges, they have greater impetus to seek self-learning and additional skills.

Chapter Three

Conclusions and Recommendations

Introduction

This section provides the main conclusions and recommendations of the study. The conclusions reflect the findings of our primary research and the existing empirical research from additional sources. The recommendations reflect the dialogue that occurred during the participatory research process and included all stakeholders.

In general, the study concludes that in terms of skill development, a skills gap refers to the gap between level of skill needs reported by employers and the level of skills provided by graduates and employees. As such, skills that exhibit the largest gap are the ones that require the greatest efforts in developing. In terms of technical skills, the top six skills exhibiting the largest gap, in order of largest to smallest are the following: Technical skills in the field of industry, Marketing using social media, Business writing and Written communication, Oral communication, Business/ management/planning, and Technology (computers, Internet, etc.). In terms of soft/personal skills, the top six skills exhibiting the largest gap between employers' needs and graduates' self-assessment of skill, in order of largest to smallest, are the following: Customer-oriented skills, Ability to work independently, Communication and interpersonal effectiveness, Adaptability/flexibility (adapt to change) and working under stress, Time management, and Looking for new knowledge in the field independently along with active learning skills.

All sectors show difficulties in filling vacancies and in finding employees with the requisite technical skills. The agriculture sector views the skill gap as more severe compared to other sectors. Employers in the construction and tourism sectors report the most difficulties in filling job vacancies, while employers in agriculture and tourism are most concerned with the issue of travel limitations as an impediment to employment. Discrimination against women and youth in employment is more felt among tourism employers, where almost half believe that discrimination against women is a very significant cause of skill gaps. While the most needed skills vary by sector (i.e., ICT's most needed skill is "new technology" while the tourism sector's most needed skill is "oral communication"), familiarity with "skills in the field of their industry" ranks consistently at the top of the most needed skills lists among all sector. This indicates possession of technical skills specific to the sector of work is the most valuable type of skill graduates can possess entering the labour market. Unemployment is of great concern to employers in all sectors, with relatively lower level of concern among employers in construction.

Conclusion 1: Evidence of skills gap

The skills gap is perceived to be present and serious both by employers and by employees/graduates. Private sector businesses face a shortage of labour with the requisite technical and personal skills, and employers even view their current staff as possessing inadequate skills. The majority of businesses report that they have hired persons who do not meet all the stated requirements for a job, and a large majority report that they have 50 percent or less of the skills that they need for their business. Graduates also are aware of a skill gap, as significant numbers find it difficult to find a job that suits their technical skills and apply for jobs that do not align with their skills. Part of this gap might also be due a to misjudgement of the current skill levels, as a significant number of employers view the current labour force as lacking in skills, while many in the educational institutions still feel that the challenge lies mostly outside of their domain. At the same time, a significant number of graduates believe they have the requisite skills to obtain employment but must obtain work to gain practical experience. Contributors to unemployment, and by extension skill gaps, are perceived to be multi-faceted: institutional (nepotism), regional (access to jobs and freedom of movement), and educational (gaps in specific specialisations), and (gaps in on-the-job training) are among the most commonly cited by our data.

Seriousness of the problem: Recommendations		
Recommendation	**Activity and responsibility**	**Time-Frame**[138]
Recommendation 1: Encourage more awareness and greater buy-in among employers and businesses that are sceptical of the impact of a skills gap or the sustained nature of programming to ameliorate the gap by highlighting the consequences of skills gap in their industry and the economy overall.	Organise awareness workshops and a conference to share the results of this study with all stakeholders. This could be facilitated by INGOs/NGOs (e.g., CARE) though it should be led and owned by skills development actors, including the MoEHE, MoE, Chambers of Commerce, other business associations, educational institutions and the media. This 'facilitation' can also be a starting and immediate point for creating the proper dialogue in a market-oriented manner.	Short Term
Recommendation 2: Continue to raise the profile of the issue of (skills gaps) and promote awareness of the relevance of this issue to the development of the Palestinian economy, the competiveness of its private sector and the implications of the educational system output. This research is definitely a key starting point to increase awareness of the root causes of poor skills development relating to both poor skills (supply) and limited opportunities (demand). Both the supply side (especially educational institutions) and demand side (employers) should be targeted as actors and beneficiaries of these endeavours, not only because of the mutual responsibility they share in preparing a skilled Palestinian workforce, but also to encourage collaboration that can produce innovative and comprehensive initiatives.	Prepare meetings/workshop programs that target all stakeholders and work with them on an in-depth understanding and an increased level of awareness; and plan actions with them. This might also include short, well-articulated working papers that summarise the specific results of the research as they pertain to every sector and stakeholder. This might leverage INGOs/NGOs and Palestinian (neutral) partners who work in this field in collaboration with representatives of the targeted sectors in the private sector and the aligned ministry.	To start in the Short Term but to continue over the Medium Term and Long Term.
Recommendation 3: Promote the concept of an 'economic ecosystem' among education suppliers, with particular emphasis on the integration of career counselling into institutions and curricula to complement instruction. Economic ecosystem is an original concept that relates how the labour market, specifically the skills of new entrants and existing employees are influenced by the action, and inaction, of all actors on the supply and demand side. As nothing occurs in isolation, it is critical that the recognition of joint dialogue and partnership is encouraged through strategies and bodies that link all actors. Career counselling is one such example, where the needs of employers and the demand side are recognised and reflected in supply side bodies to encourage relevance.	Establish long term mechanisms for dialogue and exchange of information. This might entail establishing a national forum and database. This might be led by Chambers of Commerce and the relevant ministries, in collaboration with all stakeholders.	Medium to Long Term

138 Please note that it is difficult to define a time frame that is consistent across the board, as they vary widely by context and by sector. For example, 'short term' adjustments are different for the banking sector compared to the education sector. In this light, we define our time frame as follows:
- Short Term: Action that has the pre-requisites in place, can start immediately, and is achievable with relatively little resources.
- Medium Term: Action that is at an intermediate level, needs certain prerequisite action to be done beforehand, and requires a moderate amount of resources. Usually spans a number of years into the future.
- Long Term: Action that needs a large number of years to fully accomplish. Requires large-scale changes in direction and strategy and the use of significant resources.

Conclusion 2: Variance in perceptions

Gaps in perception appear to be multi-faceted and occurring at all levels. First, findings show a gap in perception among employers and potential employees, while the majority of employers do not have much faith in the skills of their employees, almost half of the graduates believe that they possess the proper skills to allow them to find a job. There also exist gaps in perception as to both the technical and soft skills as perceived by employers on the one hand and the perception of self-possession of skills among employees and graduates on the other.

Another variance in perception exists regarding the extent to which graduates are prepared to meet the needs of the labour market. The majority of business owners, educational and vocational institutions and graduates agree that difficulties in finding a job due to the limited availability of positions in the face of a large labour force cause severe levels of unemployment. That said the majority of them believe that skills gaps are a major cause of limiting graduates' ability to gain employment. There exists a contradiction in the beliefs of the private sector and graduates versus educational institutions as to the extent to which educational institutions provide skills suited to the labour market as well as the harmonisation of offerings of educational institutions and the needs of the market. All parties agree that lack of practical skills significantly limits employment options. Discrepancies in perception between the three parties are prominent. The majority of the private sector and educational institutions view the lack of practical experience among applicants and the lack of skills required in the marketplace as severe, while a smaller section of employees and graduates concur. Large sections of the private sector and educational institutes believe graduates lack knowledge in how to search and apply for jobs, while a smaller number of employees and, especially, graduates concur.

Awareness of the problem: Recommendations		
Recommendation	**Activity**	**Time Frame**
Recommendation 1: The present study must be followed by extensive dialogue based on its results. This, however, should lead to a sustainable dialogue mechanism at the national level. Dialogue should focus primarily on ways to integrate employers' expectations with the educational system. One of the most alarming circumstances, revealed by our survey data, is that barely any 'intensive' programming exists between suppliers and employers. This should come to the fore in any constructive debate and brainstorming on alleviating the skills gap.	Prepare a program of action that encourages national and sector-by-sector debate in the different regions. These economic-sectoral debates must culminate in a sustainable, long term institutional setting that follows up on the evolving changes. This should be led by a national forum and supported by the private sector and possibly an international donor.	Long Term
Recommendation 2: Use the media and new technology to create further dialogue and awareness on the issues with a focus on the issues raised in this study including: the gaps between the demand and supply, regional variance, with a focus on Area C and East Jerusalem, the relationship between reconstruction of Gaza and the need for competent skills, discrimination in skills development based on social and cultural factors, etc.	The activities could include developing and hosting forums on social media sites to encourage discussion on issues as perceived by educational institutions, students, employees, employers and governmental actors. Drawing on the needs, expectations and experience of employers develop online tutorial and simulation websites that provide audio-visual instruction on the skills necessary to enter the labour market, such as: writing an illustrative CV, conducting an interview, registering a business, applying for a loan, etc. These activities might be organised by relevant providers of services from Palestinian NGOs and centres that work in this field in collaboration with educational institutions and the MoEHE and private sector associations.	Short to Medium Term
Recommendation 3: Promote self-learning methods that are universally accessible to all Palestinians with Internet access.	The activities might be modelled on existing initiatives in Jordan and Egypt, most notably the TVET Portal, a joint effort by GIZ, the Egyptian Productivity and Vocational Training Department (PVTD) and Jordanian Vocational Training Corporation (VTC). The portal includes a variety of self-paced online courses on important skills and industries, as well as a list of best practices and is open to any individual or organisation. If possible advocate for inclusion of Palestinian TVET institutions and bodies to the website/group and the possibility of student and instructor exchanges among the three countries. A combination of NGOs, educational and private sector institutions might work together to achieve this.	Short Term

Conclusion 3: Regional gaps

East Jerusalem businesses report the highest difficulty in filling vacancies, followed by Gaza and then the West Bank, which matches the data gained from employees and graduates; Area C graduates face the most difficulties. Lack of alignment between skills of employees and work is prevalent among all regions. East Jerusalemites reported the lowest familiarity and exhibit the least benefit from new providers of skill, while Area C employees/graduates report the most activity in seeking training. Gaps between perception and attendance of training through the employer, and existence of dedicating training budgets exist across all regions. Discrimination against women and youth is reported highest in Area C and Gaza, while discrimination against persons with disability is highest in the West Bank. Entrepreneurship activity (intent and starting a business) is lowest in Area C and Jerusalem.

Regional gaps: Recommendations		
Recommendation	**Activity**	**Time Frame**
Recommendation 1: Integrate the issue of skills development in Area C with the ongoing and future efforts; only through economic development in the region will youth be empowered to seek to further their skills and become competitive.	Incentivise and work with training centres to offer courses or mentoring to ambitious residents from Area C, who display the greatest rate of interest in training (50 percent). This can be accomplished by reserving a determined amount of seats in training programs for residents of Area C, subsidising transportation to training centres (often in cities), and offering programs in Area C that are dependent on human not technical resources (such as mentoring, assistance in developing business plans, applying for loans and licenses, and others). This might be implemented in conjunction with the existing initiatives that work in the region (e.g., SIDA and UNDP-CRDP, EU, AFD, FAO and many others).	Medium to Long Term
Recommendation 2: Work closely with East Jerusalem businesses to identify and help overcome the complex set of obstacles facing them; they need to feel that they also benefit from the Palestinian educational system, hence further dialogue on Jerusalem-specific issues.	Organise a mechanism for dialogue and coordination between East Jerusalem businesses, the PA, the rest of the Palestinian private sector and international organisations. This might be led by the Chambers of Commerce working in East Jerusalem in collaboration with other business associations in the region.	Medium Term
Recommendation 3: Work on cultural discrimination against women, youth and persons with disability. Regions such as Gaza and Area C might need further attention in this respect. Break down stereotypes to employability, notably women must work a limited schedule to account for maternal responsibilities or disabled employees cannot match their able-bodied counterparts.	Raise awareness and promote and disseminate success stories and role models that will encourage marginalised groups to seek employment and boost self-confidence and simultaneously break down stereotypes among employers. In addition raise awareness among training providers and human resources directors in companies of gender-sensitive planning for training and other skills-enhancement activities. This might be approached through women rights-based organisations and businesswomen associations in collaboration with the Ministry of Women Affairs and gender units in the relevant ministries.	Short Term

Conclusion 4: The urgent national need for forward thinking in terms of skills development

A labour market that can adapt to changing trends is critical to continued economic growth and the development of firms and employees alike. This is particularly difficult in Palestine as the volatile political climate renders the market vulnerable to unpredictable contractions and expansions, largely driven by political factors. The incredible rate of SMEs, comparable to large enterprises, also poses significant problems, as these firms have only a local view of circumstances, not a national or even global one. Consequently, while these firms may have an innate understanding of their immediate needs, in terms of skills, a broader perspective is necessary to account for what skills may be necessary in the future. This vacuum of strategy is best filled by government ministries, Chambers of Commerce, unions and economic experts (like MAS). Our data indicates that though firms appraise technical skills as the most urgent contemporary need, they anticipate that organisational and personal skills will be far more vital in the future. Accounting for this data, it is important for empowered policymakers to adopt a forward thinking attitude to meet these concerns.

Forward Thinking and Skills Development: Recommendations		
Recommendation	**Activity**	**Time Frame**
Recommendation 1: Develop a National Skill Forecasting Initiative (NSFI) to predict circumstances and needs of the adapting Palestinian labour market. Skill forecasting is an evaluation tool that has become increasingly popular in Europe and is used to anticipate changes in the labour market, as related to skills of employees and entrants. Data is drawn from a variety of sources notably sector, occupation, qualification level, gender, age and other relevant variables.	A Palestinian model should be adapted, drawn primarily from the models pioneered by the European Centre for the Development of Vocational Training, which is universally available for employers, jobseekers, educational institutions (especially career counsellors), government officials, donor organisations, etc. A good start would be to develop a preliminary working group that can lay the foundation for the drafting of the inaugural report. This working group should be composed of expert statisticians, experts in the field of economic development, representatives of the government, labour market and educational institutions, and anyone else necessary to provide context or skills. The ultimate goal should be the production of a National Skill Forecast for the coming years in the form of a final report, with an accompanying database for additional analysis. This is necessary now to strategically guide the reform process of the education system and the implementation of policy and other recommendations in a forward looking manner. In fact, this forecasting initiative should be in line and coordinated with the country's competitiveness at the regional (MENA) and global level.	Medium Term
Recommendation 2: Analytical investigation should be conducted into the perception of employers that soft skills will be more necessary in the future of their firms.	This short-term investigation should seek to define how employers perceive soft skills and also catalogue which are the most important. Based on these results, a strategy should be developed to integrate soft skills instruction into educational curriculum and also on-the-job training. The integration should be viewed as a multi-year (possibly 3 or 5) process with annual reports produced to indicate progress based against a set of benchmarks, as well as lessons learned to adjust.	Short Term

Conclusion 5: On the role of government

There is a distinct lack of a national or economic policy or strategy at the government level to identify market demand for skills, or forecast the type of skills that might be needed in the future. Since markets (and jobs) are dynamic, there is always a need to develop skills for what might be needed in the future, as the skills that are relevant now might become less relevant in the future, especially with growing and evolving sectors, such as the ICT sector. There is also a lack of a strategic role to coordinate efforts between educational institutions, the private sector, and the needs of the labour market.

One pilot program that can be attempted in other sectors is that of the Union of Stone and Marble, where coordination between the Ministry of National Economy and Palestine Polytechnic University helped bridge some gaps between what is required and the status quo of the marble and stone subsector.

The role of government: Recommendations		
Recommendation	**Activity**	**Time Frame**
Recommendation 1: The government must lead the efforts that attempt to bridge the skills gap through development of clear policy guidance and strategies to, ultimately, create a system conducive to a harmonised supply and demand.	Create a forward-looking skills development strategy that is well integrated with other national and sectoral strategies. This strategy should highlight where skills should be in the next five to ten years, recognizing the micro-climate nature inside Palestine. This should include a joint effort comprising all relevant ministries, as opposed to individual and isolated efforts by ministries in their own fields, which may only further promote fragmentation.	Short to Medium Term
Recommendation 2: Develop clear policy guidance and regulation to ensure that schools, colleges, and universities are providing applied, real-life and practical skills for students.	Further develop and implement a national accreditation system, such as the National Qualification Framework, for TVET programming that allows graduates to transition to tertiary education, accounting for the concerns of admissions departments related to quality and aptitude of entrants. This is the work of the MoEHE in collaboration with the private sector and other relevant ministries and stakeholders.	Medium Term
Recommendation 3: Establish a mechanism to ensure that schools and universities have established consistent career counselling services. This also requires the development of uniform and standardised criteria of qualifications to ensure counsellors are competent.	Prepare a policy paper that stipulates the need for career counselling services and the requirements to establish such services. Start with model centres in schools and universities. This needs to be supported by an international organisation with experience in this field with the MoEHE, the school system and universities in collaboration with the private sector.	Medium Term
Recommendation 4: Develop clear guidelines to organise the relationship between educational institutions and private sector businesses in working together to develop skills through internships, long term placement, dual systems and funding mechanisms. This requires the establishment of incentives for both parties to encourage involvement.	Learn from the current collaboration mechanisms and establish more models for collaboration with focus on internships and dual system of relation between educational institutions and the private sector. The educational system should take the initiative with financial and other support from private sector companies.	Medium to Long Term
Recommendation 5: Work with the present scattered efforts and develop a unified body that continually provides data, analysis and expectations for future development in the field of skills needed for the economy.	Establish a national task force that will establish clear mechanisms to regulate the relationship between private sector and educational institutions. This should be done in collaboration between the MoE, private sector with its chambers and associations and the organisations that provide services to students and graduates (new providers).	Short to Medium Term
Recommendation 6: Continue to work on job descriptions and certification by the Ministry of Labour. If implemented, this should provide the incentive to students and institutions to work according to existing criteria based on the needs of the market.	Continue the current work and expand it to a larger number of jobs. This effort is led by the MoL and supported by international organisations such as the ILO.	Short Term to Medium Term

Conclusion 6: On the role of the private sector and on-the-job training

The role of the private sector in the development of skills and their linkages with educational institutions – outside of specific "new providers" – is limited. The majority of business owners themselves are dissatisfied with joint programming between the private sector and educational institutions, and give low rating to the alignment between educational/training and the needs of private sector. Gaza employers are especially concerned with the building of capacity among employers to assess needs and provide skills.

No clear consensus exists on the definition or extent of existence and availability of career counselling between graduates, employees or educational institutions. While the majority of businesses are optimistic in their abilities to train new employees and a large section stated that they do provide regular employee training, only a small amount of companies have a dedicated training human resource development budget and policy. This is corroborated by the small number of employees who have been recipients of any training by their companies. Employees and graduates also rarely seek training programs or utilise the Internet and online resources to develop their skills.

The private sector is a key player in skills development and in bridging the gap between businesses and educational institutions:

The role of private sector: Recommendations		
Recommendation	**Activity**	**Time Frame**
Recommendation 1: Build the capacity of businesses, especially small (1-9 employees) and medium-size, (10-49 employees) to assess and identify their own needs of skills as part of a larger sub-sectoral or sectoral strategy and a clearer business development/strategy that taps into opportunities and competitiveness.	Organise trainings for small and medium-size companies in the field of needs assessment, business needs and potential skills needs. This might be implemented with the Chambers of Commerce.	Short to Medium Term
Recommendation 2: Build the capacity of businesses in the field human resource development by introducing concrete skills relating to on-the-job training, sources of training, use of new technology, etc.	Organise trainings on the issue of skills gaps (identification and best practices) with human resource units in Palestinian businesses. This is an opportunity for better connecting educational/ training institutions and employers. This will be an opportunity to encourage greater cooperation in this sector between the two groups in terms of budgeting, sharing of best practices and other thematic issues.	Short to Medium Term
Recommendation 3: Promote R&D, innovation and creativity in educational institutions with a clear linkage to the immediate and long-term needs of the private sector. Draw on R&D that is currently active in universities, yet going unheeded by those outside.	Establish a (skills development fund) by pooling resources from large and medium-size businesses to fund applied and student research in areas of interest to the private sector. Donors and NGOs can trigger/ start the fund but should make sure that this two way relationship in terms of R&D has clear incentives for both the educational system and the private sector. Success models should also be promoted largely to trigger scale-up and more adoption by other sectors, private sector companies, universities, etc.	Medium Term
Recommendation 4: Evaluate the present initiatives that provide training and other skills development to students, graduates and employees. Measure not just final results and performance but also perceptions of stakeholders regarding efficacy and preference.	Sponsor a comprehensive, well-targeted study in this field to be carried out by a neutral research center.	Medium Term

Recommendation 5: Learn more from the experience of present initiatives by private sector actors[139] to consolidate and unify systems to play a harmonised and systematic role in the skills development.	Expand the current efforts by increasing the number of private companies that adopt the same methods and as such increase the number of beneficiaries. The selection of companies that will be incentivised to adopt such efforts is essential and a clear relation with educational institutions must be established.	Long Term
Recommendation 6: Publicise and celebrate models of success in the field of skills development especially from the point of view of the beneficiaries, while utilising their experiences to inspire and empower other needy students and graduates. Focus specifically on women, particularly the presence of female employees, executives and entrepreneurs in fields that are both modern and also considered 'non-traditionally acceptable' for women.	Establish an annual prize for the most successful initiatives at the level of providers and beneficiaries. This might be funded by one of the business associations and other companies under their social responsibility funds.	Short Term
Recommendation 7: Identify the specific skill needs of small and medium-size businesses, members of the Chambers of Commerce, and the needs to build their capacity in the fields of training and human resource development, especially the members of the Chambers of Commerce and Industry.	Carry out a detailed and specialised study using survey research in collaboration with the Chambers of Commerce Union. Based on the findings, support workshops to improve the capacity of SMEs and Chambers of Commerce in identifying key and specific skills that can help their members be more competitive and tap into market potential, enabling these institutions to continue to uphold these practices in a sustainable manner in the future.	Short to Medium Term
Recommendation 8: Raise awareness of training opportunities and new providers among small (1-9 employees) and medium-size (10 – 49 employees) businesses. Our survey reveals that small and medium-size businesses are the least aware of these offerings, limiting the ability of their workers to grow and develop with modern opportunities. Similarly, providers should not only target new start-ups but also existing companies that require these services, especially those primed for growth.	Establish clear mechanisms among new providers to reach these groups. This might be collaboration between new providers and the various business associations.	Short Term
Recommendation 9: Establish joint dialogue and initiatives between linked economic subsectors, predicated on the comparative advantage of each. An example that is both popular and successful around the world is the pairing of the tourism sector with the ICT sector. The comparative advantage of the former in modern technology could help boost Palestine's profile for international travellers, help booking offices, travel agencies and hotels develop a social media presence or design web applications for booking, checking in/out, etc.	Identify the model sector that will comprise the starting point. A stakeholder well-suited to the success of this recommendation is the Chambers of Commerce, which provides a common forum for Palestinian businesses, though the input of relevant ministries (MTIT, MoT, etc.) should also be encouraged to ensure feasible endeavours informed by the private and public sector. Responsible ministries should also be encouraged to pursue joint initiatives and develop strategies and policies predicated on collaboration, instead of isolation.	Medium to Long Term

139 Listed in the background section and including those of Jawal, Itesalat, Rawabi, Chambers of Commerce and others.

Conclusion 7: On the role of educational institutions

Education plays a large part in the level of skill gap and in determining the levels of opportunities. At the aggregate level, we observe uncontrolled rates of growth in higher education, with a higher education certificate seen as preferable to vocational certificates. To accommodate the high and increasing enrolment rates, universities have grown very rapidly and are still increasing their admission of new students and student bodies and expanding their programs. Such high enrolment, and consequently, graduation rates leads to an oversaturated market of graduates, which reflects negatively on employment opportunities and the nominal wages of these graduates.

Regarding the skill gap, surprisingly, the least educated report the least difficulty in finding a job, as well as reporting the most confidence that they will find a job. However, the least educated and the most educated show the highest amount of flexibility in "branching out" and seeking alternatives outside of their main skill set; the least educated and the most educated find themselves having to apply for jobs not aligned with their specialisation more than other educational categories. Moreover, among our respondents, the level of education showed no correlation with entrepreneurial activity nor with the perception of own skills. This raises questions regarding the extent to which educational institutions promote skills. Moreover, it is a question whether attending educational institutions might build specific human capital but also restrict graduates from building skills that allow them to seek other fruitful employment opportunities that fall outside of their major. The least educated are happily diversifying their opportunities, willing to accept different employment opportunities.

The role of educational institutions: Recommendations		
Recommendation	**Activity**	**Time Frame**
Recommendation 1: Interventions should involve attempting to curtail the ever-expanding growth of educational admission, although a nationwide change in admission policies – such as, admittance in accordance with Tawjihi percentile grades – is hard to accomplish.	Organise conferences consisting of government stakeholders, such as the MoEHE, representatives of educators and higher education institutions themselves to brainstorm standards and admission policies that can control enrolment figures in line with the demand side. This is a short-term goal, though the implementation of conclusions, recommendations and systems drawn from this meeting should be planned accordingly.	Short to Medium Term
Recommendation 2: Develop the institutional set-up and capacity in career counselling involving the educational system, and the parents of the students in attempts to change some of the negative stigma associated with vocational degrees. There is a need for awareness campaigns, while establishing more vocational schools and colleges.	Organise trainings for educational institutions that already have existing career counselling centres but are presently inadequate to serve the needs of graduates. Encourage educational institutions to immediately develop counselling centres, by allocating budgets for resources, professionals and trainings, with a series of benchmarks. Develop awareness-raising campaigns promoting the utility and efficacy of vocational educational. While awareness campaigns should be carried out in the short term, fully functional career counselling centres may take longer to develop. Major actors involved should include TVET institutions, donors with TVET projects/centres and experience in awareness raising, local ministries and TVET graduates serving as success stories.	Short to Medium Term
Recommendation 3: Entice educational institutions to provide extra-curricular activities that correspond to the most needed skills identified by research and public and private sector coordination.	Establish local and regional initiatives that provide training and exposure for energetic graduates in fields relevant to their specialty. These can include programs to run a mock business, internships with promising enterprises, etc. These should be tied to the private sector, and should be organised to be both inclusive and competitive to offer incentives for individual and institutional success.	Medium Term
Recommendation 4: Create some success models that illustrate the potential for changing teaching styles from (indoctrination) to (learning based on real-life experiences by students).	In the short term, identify teachers who are potential role models, further develop their capacity and showcase their successes. Draw upon the experience of educational NGOs with experience in the region or internationally to incorporate effective past examples.	Short Term
Recommendation 5: Establish and encourage the creation of programs with professional orientations as opposed to a complete focus on the research and academic. One example is the current MBA program at Birzeit University. These should include curricula that are focused on developing practical technical and personal skills suited to the needs of the private sector.	Identify universities that already have such programs in action (such as MBA programs) and study their degree of success using the data to help guide future strategy. Attempt to attract funding for practical and professional training programs (MBA, Urban Planning, Public Policy, programs in the arts, etc.). Also there is a need to instil methods of teaching that give more focus to gaining practical skills.	Medium to Long Term
Recommendation 6: Introduce courses on self-enhancement, better communication and presentation, job search and entrepreneurship in all universities.	Identify universities that already have these courses in some degree and a measurement of their success, using this data to inform a more national strategy. Curricula on relevant subjects should be sought from international models, primarily in the Arab World and similar countries, to inform course development. For relevant topics have a tiered system of study, not courses that exist in isolation (Entrepreneurship I, Entrepreneurship II). Attempt to link these courses to other majors/minors to encourage enrolment.	

Conclusion 8: On the role of new providers

Educational institutions are more familiar with the existence of new providers of skills compared to businesses and employees/graduates. While overall the perception of these providers is positive, only a small number of employees and graduates have utilised their training programs. East Jerusalem businesses are the most familiar with new providers but express the most dissatisfaction with their offerings, at different rates than in the West Bank and Gaza. Employers in ICT and construction are more familiar with the offerings of new providers compared to other sectors. In relation to business size, medium (10-49 employees) and small-size (1-9 employees) businesses are far less familiar with the providers of new skills compared to large businesses, which adds further disadvantages. While the differences between males and females in familiarity and enrolment is the services of new providers are small, familiarity with the training offered by new providers is positively correlated with level of education.

Despite the fact that the development of such providers is a recent phenomenon, and the fact that participation in their services remains limited, there is a growing amount of data including from individuals who attended such programs indicating that they are contributing positively to the advancement of skills.

The role of new providers: Recommendations		
Recommendation	**Activity**	**Time Frame**
Recommendation 1: An important first step is to raise awareness of the existence of such providers and promote their positive influence in hopes of increasing the demand for their services.	Organise campaigns across Palestine, emphasising the comparative advantage of new providers, particularly in fields of entrepreneurship. Efforts should be made to reach most Palestinians through Internet, newspaper ads, radio and TV campaigns, and all other necessary forms. It is particularly vital that these campaigns reach more marginalised Palestinians such as women, youth, those living in geographically isolated areas and the disabled. These campaigns should also be launched as quickly as possible.	Short Term
Recommendation 2: Providing and enhancing effective and high quality centres (accelerators, incubators, BDCs, among others) should start as soon as possible, since such processes are long, and awareness and trust in their services needs to reach a certain threshold on the market before concrete benefits can be observed. More programs targeted at women and youth should also be encouraged, especially in areas of highest need/potential, including Area C and East Jerusalem.	Conduct a study on the state of all providers, including their current circumstances, reach, needs and other information vital for development of a national 'New Providers' strategy. This should inform initiatives to be undertaken by donors, the national government, and particularly the private sector. The practices of new providers who have recorded success in including women and youth should be codified in a national strategy, and replicated and expanded wherever possible. Create facilitation platforms (a cluster combining pre-incubators, incubators, accelerators, BDCs, and representatives of other key actors, including investors) to trigger coordination and cooperation amongst the various providers and help provide entrepreneurs with the 'right skills' and better link between actors. This can be enforced by donors/ INGOs and the PA, as this has been more successful in other clusters and sectors (e.g., food security cluster, health cluster). Increase awareness among new providers about constraints and opportunities of skills gaps and development based on gender (i.e., how to empower women through skills development to mitigate social norms and culture-confidence building, adding key skills such as negotiations and cooperation). As the need amongst employees/graduates/ entrepreneurs for such services is extremely high compared to the capacity of new providers, look for more scalable and feasible ways to provide services to a larger number of entrants (e.g., maybe incubation is not the most feasible way for the right reaching out).	Medium to Long Term
Recommendation 3: Ensure the intensification of the work of these providers and the sustainability of their methods and tools through proper and timely integration with the educational system.	Establish a working group that includes new providers, relevant government and educational institutions, donors and the private sector to provide guidance and facilitate the harmonisation and exchange of experiences. This should be predicated on continuous contact and dialogue to account for changing trends that can be mutually reflected. An immediate action to be taken is a comprehensive study of all offerings, namely connection and relevance of programs and courses to provide context and a good starting point.	Short to Medium Term

Conclusion 9: The question on soft skills and technical skills

The data shows clear need of all types of skills, with a larger importance placed on technical skills at the immediate level. A larger variation is present in employers' assessment of the need for personal capabilities/aptitudes. The data show a clear trend for increasing interest in all types of personal skills. As previously mentioned, great emphasis was placed on communication-related skills. In addition, people-centred skills were considered as vital. Those include customer-oriented skills, leadership and team work. Another area of value-added skills includes work ethics, motivation, innovation and creativity. This confirms the relevance of 21st century skills, especially Learning Skills represented by the 4 Cs: Critical Thinking, Creative Thinking, Collaborating and Communicating. The achievement of these components entail additional dimensions including growing leadership, making a difference, being a voice, sharing ideas and learning from others.[140]

In all areas of both technical and soft skills, the gap between the needs of employers and the available skills is larger among unemployed graduates than current employees. This raises the question of whether those with a higher level of skill set are the individuals that are able to find employment, or whether gaining employment builds one's set of skills.

Moreover, large gaps exist both in terms of technical and personal skills between the level gauged by employers and the level of self-possession reported by employees/graduates. It is possible that employees/graduates are over confident in their reporting, or that employers lack the ability to identify the skills possessed by their employees.

The presence of technical skills is necessary and lagging, but not sufficient. It must be combined with the development of personal skills and aptitudes. This has been confirmed throughout the research.

140 Partnership for 21st Century Skills, http://www.p21.org/.

Soft skills and technical skills: Recommendations		
Recommendation	**Activity**	**Time Frame**
Recommendation 1: It is hard to imagine that values such as entrepreneurship, self-esteem and confidence, work ethics, communication and interpersonal effectiveness are achieved through involvement in a course. Such values are promoted through an empowering of family and school with the right learning environment (definitely not teaching by instructions).	The educational system must heavily invest in building the capacity of the school system to build character and other personal skills needed for today's markets. The family must also be approached to allow for individuality, motivation, innovation and freedom of expression among children. Such investment should be guided by a national strategy that is multi-staged, with clear benchmarks and informed only after an inclusive drafting process. The drafting should be carried out by the MoEHE, MoSA, educational institutions, relevant NGOs, and others. While the drafting of a national strategy should be viewed as short-term, changing values and educational instruction should be viewed as a medium to long-term pursuit. An activity that can start immediately is to encourage changes in the learning environment inside schools, colleges and universities. First, the educational system must understand the size of the problem and its impact on the private sector and the economy, let alone on employees, graduates, and entrepreneurs. One suggestion mentioned above is to promote success models that illustrate the potential for changing teaching styles from (indoctrination) to (learning based on real-life experiences by students).	To start in the Short Term, but should continue to the Medium and Long Term.
Recommendation 2: Educational institutions continue to need support to develop the technical skills of students in most fields. Preoccupation with the development of personal skills should also be accompanied in full by the development of technical skills.	Using the information provided to the needs of the labour market, improved, or, in some cases new, curricula should be developed in regards to school type, grade and other factors. Work should be done to standardise common curricula incorporating skills related to the labour market, with continuous updating as necessary. Ways to integrate technical skills with personal skills should be explored, particularly real world experiences offered through partnership between educational institutions and the private sector.	Short to Medium Term
Recommendation 3: Acquisition of soft skills is particularly pressing for potential employees who are forced to seek work outside of their specialisation, an unfortunately high percentage according to our data. As such, the development of universal soft skills should be encouraged, though in a way that does not compromise acquisition of technical skills, until the labour market can better absorb new entrants into their specialties. This is also key, considering the changing dynamics of the market in all of Palestine, especially in Gaza and Area C.	Similar to the previous recommendation, a standardised common skeleton curriculum for instruction should be developed at the national level. This should account for the teaching of 21st century skills[141], according to the needs of the labour market.	Medium Term

141 21st century skills are defined to be Critical Thinking, Creative Thinking, Collaborating and Communicating.

Conclusion 10: Entrepreneurship

In light of the high unemployment rates in Palestine, the role of entrepreneurship becomes more imperative. At the aggregate level, while Palestinians display high levels of intent to start their own businesses, and where the majority of educational institutions and half of the business owners believe that new graduates are able to establish and successfully run their own businesses, data measuring actual levels of entrepreneurial activity is much lower. The perception of the ability and measurements of the intent of starting new businesses far exceed the actual number of employees who own their own business. It is worth noting however that TVET graduates seem to fare better in entrepreneurial activity compared to their peers, as the TVET graduates' rate of entrepreneurship exceeds the national average. Moreover, entrepreneurial activity for males exceeds that of females.

The data show significant variance among the regions in terms of entrepreneurship among employees/graduates. Almost no Area C and East Jerusalem respondents report that they have their own business, which is alarming. This is compared to 8 percent among West Bank employees/graduates and 7 percent among Gaza employees/graduates. Moreover, respondents from Area C and East Jerusalem exhibit lower levels of intent to start their own businesses compared to the West Bank and East Jerusalem. This raises a question of causality: Does lack of entrepreneurial skill/intent cause workflow into low-skill work in Israel/settlements or does the availability of such jobs cause disinterest in entrepreneurial activity? This also raises a question of "needs-based entrepreneurship," and perhaps the West Bank and Gaza have higher entrepreneurship rates because the only employment options are found in starting a business.

Entrepreneurship: Recommendations		
Recommendation	**Activity**	**Time Frame**
Recommendation 1: In terms of policy recommendations, one could follow the example of countries such as Malaysia, Rwanda and Mozambique who have taken successful steps in that regard. An UNCTAD[142] report suggests a starting point would be to incorporate entrepreneurship education into the overall poverty reduction strategy. One of the most effective examples is promoting a strategy of Lifelong Learning (LLL), a philosophy that emphasises regular transition between training institutions and the labour market.	This requires additional curricula and policy development at the government level, but also investment in teaching and learning strategies in fields like advanced literacy, mathematics and ICT. The Revised TVET Strategy has already accounted for the integration of LLL, but further development should be pursued across the entire education sector. An analysis of student learning methods is an effective tool at the beginning of the process for informing context, areas that need the most attention and possible goals. The analysis of learning methods should be carried out immediately, with improvement of teaching and learning strategies being viewed as a medium term goal.	Medium Term
Recommendation 2: Promote a more enabling environment for women's entrepreneurship by engaging all stakeholders with customised strategies.	Higher education institutions should immediately devise awareness raising campaigns to encourage women to pursue majors and fields that are traditionally restricted as a result of social pressures. This can include targeting primary schools to begin the process early and less abruptly. Incubators should build on the established and successful models such as allocating incubator spots for female entrepreneurs and encouraging competitions to identify strong business models. Finally, NGOs with strong connections in certain economic sectors should be encouraged to provide training opportunities to women who do not have the financial resources, time or live in geographically isolated areas (like Area C) on good business practices and entrepreneurship.	Short Term

142 United Nations Trade and Development Board Investment, Enterprise and Development (UNCTAD).(2011). "Entrepreneurship education, innovation and capacity-building in developing countries". *Geneva: UN.*

Conclusion 11: Skills for private sector competiveness and value-added

A major difficulty for Palestinian firms and the economy overall in the coming years is regaining export competitiveness. This has become particularly troubling as a result of progressive declines in sectors that are traditionally competitive, and also have high opportunities for the creation of value-added and more innovative products. A 2013 study by the World Bank concluded that "Palestinian exports are concentrated in low value added goods and services...such as processed stone, low end furniture...and other products characterised by the use of old technologies."[143] This report illustrates how the integration of new technology is instrumental in remaining competitive, as well as fostering an environment for the inclusion of those already possessing value-added skills, or developing many in existing employees.

However, our data is not promising in regards to encouraging competitiveness and value-added skills through modernization. At the aggregate (not sector-specific) level, the gaps between some of the key skills for value addition and competiveness are shown in Table (8) below:

Table (8): Gaps in skills considered relevant for value addition and export competitiveness

Key Category	Gap (difference between employers' needs and available skills):
Technical skills in the field of our industry	43
Innovation, creativity and entrepreneurship	39
Recognizing opportunities	42
Business/management/planning	38
Customer-oriented skills	60
R&D	26

Among all economic sectors surveyed, only the ICT sector considers familiarity with "new technology" to be a more important skill than "skills in the [respective] field." In the industry sector, the one with arguably the greatest potential for regional competitiveness, the gap between skills in the field (75 percent) and new Technology (47 percent) is alarmingly pronounced. This is not encouraging from an economic and skills development standpoint and raises an important dilemma for moving forward: Should focus be devoted to providing the fundamental skills employers need to build a foundation for advanced skills development, at the expense of international competitiveness? Should an effort to modernise economic sectors and employees through advanced and value-added skill development be undertaken immediately to preserve international competitiveness, with the risk that this may not be possible without resolving the fundamental skill deficiencies? This is not a question of either-or but rather a key strategic moment to determine the appropriate balance, which is NOT a question about skills development only but also a question of an economic sector's competitiveness at the local, regional (MENA), and international level. These two sectors (skills development, private sector competitiveness) should be combined in strategic/tactical/operational discussions as they are intertwined and affect each other mutually.

In essence, the private sector itself needs to be able to determine opportunities that enable increases in competitiveness, where businesses have the capacity of understanding the types of skills that add value to their organisations; naturally this process varies by sector and in an ideal world, different private sector establishments in different sectors would be able to identify the most valuable skills that boost their business' competitiveness. Unfortunately, our data shows that this ability seems to be lacking, as certain types of skills that are valuable in increasing company development and competitiveness (e.g., R&D and problem solving skills) are placed in the third tier of most valuable skills, as rated by the private sector. This highlights an inability within the private sector to identify the skills needed to foster development and competitiveness.

143 Fiscal Challenges and Long Term Economic Costs: Economic Monitoring Report to the Ad Hoc Liason Committee. World Bank, 2013.

Competitiveness and value added: Recommendations		
Recommendation	**Activity**	**Time Frame**
Recommendation 1: Organise a conference, summit or national gathering among all major stakeholders (economic development experts, representatives of economic sectors, government ministers, education suppliers, etc.) to determine the appropriate path forward in terms of skill development and economic competitiveness.	The aim of this meeting should be the design of a policy framework on the national level that provides guidance to all actors, with relevant benchmarks and clear goals to provide direction and a multi-phased, multi-year strategy for economic revitalisation. It should be stressed that though the ultimate aim of such a conference is a unified, national direction, a one-size-fits-all approach is discouraged, as our data reveal that all economic sectors have different needs and priorities. As such, strategies should be customised to fit the respective advantages and disadvantages currently prevailing in each economic sector. This should be viewed as immediately implementable, with the design of strategies taking no more than a year.	Short Term
Recommendation 2: Identify opportunities for immediate initiatives to boost local and international competitiveness.	Drawing on existing data of economic capacity and possibilities for growth and employment, identify which sectors have the greatest potential for value addition and competiveness and target accordingly – in line with the national strategy. Our data indicates that the ICT sector is the one economic sector where new technology is considered a more pressing need than skills relevant to the field, indicating strong levels of competence with modern norms and necessities. Immediate initiatives include partnerships with foreign companies to encourage FDI, collaboration on regional R&D projects, particularly with Jordan who has a similarly robust ICT sector and providing capital for the development of new software for export, engineered by Palestinian professionals. This might entail further advocacy for a 3G network.	Short to Medium Term
Recommendation 3: Encourage the integration of ISO standards across Palestinian firms to improve Palestine's international profile. Application of ISO standards ensures foreign markets and investors that goods produced are reliable and high quality and can increase a country's share of foreign markets. However, ISO standards are rarely available free of charge, which can discourage smaller firms from investing.	A few customised recommendations come to mind for addressing the aforementioned issues. First, the MoL and the Chambers of Commerce should work with employers to recognise which firms can immediately apply for and begin integrating modern ISO standards into their work. Second, the MoL and Chambers of Commerce should conduct a national survey to identify small firms which could benefit from ISO standardisation, but are unable to as a result of financial difficulties. Financial assistance can be provided by government bodies, the private sector, foreign donors and others willing to contribute in order to standardise Palestinian exports and firms as quickly as possible.	Short Term

Conclusion 12: Data insufficiency and exchange

Measurements of skills or the presence of indicators through the Labour Force Survey and the PCBS are almost non-existent. Even data tracking graduates – which somewhat proxies for the level of skill – while present for traditional universities and institutions, is fragmented when considering entrepreneurship and the TVET sector. For example, when considering the TVET sector, there is an absence of tracking graduates by institutions following their matriculation, an absence of connection between graduates and institutions and an absence of a national monitoring system to supervise the sector. Even determining the amount of the workforce with TVET education is a difficult procedure and depends on the classifications assigned by the researcher. In addition, the sources of data and research on the issues at hand are scattered between the Ministry of Labour, Ministry of Education and Higher Education, PCBS and many other national and international actors.

Integrating indicators developed internationally that measure skill supply and skill demand would provide a good first step in attempting to incorporate such indicators locally, as this would allow future researchers to track the dynamic of skill development in the Palestinian market with relative ease. In the framework of the Skills for Competitiveness project, the OECD LEED[144] has created a statistical diagnostic tool for helping local policy makers to understand their local labour market.

Data insufficiency and exchange: Recommendations		
Recommendation	**Activity**	**Time Frame**
Recommendation 1: Develop national indicators that measure and track the concept of (skills gap); such tracking needs to be regular (possibly annual) and might best be connected to the Labour Force Survey (PCBS). Tie these figures to existing, yet underpowered, institutions and instruments to increase their profile and efficacy.	Task the Higher Council of TVET as well as the MoEHE to develop a national database on relevant figures, such as enrolment, performance and future employability and mandate that TVET and educational institutions provide these figures on an annual or regular basis. Ensure that the database is visible and accessible to both potential students and employers to root out harmful stereotypes. Additionally, expand the Labour Market Information System (LMIS) to be more skill-based. This could include adding a fifth section devoted exclusively to skills, or expanding the second section on educational suppliers to list curricula.	Short to Medium Term
Recommendation 2: Create a mechanism that would consolidate the available data and research on the issues related to the skill gaps.	This might be in the form of a portal and dialogue form using new technology. This can be tied to the potential empowerment and expansion of the LMIS. The LMIS is a particularly useful tool as it is tied to both the MoL and MoEHE, requiring joint dialogue and recognition of mutual aims. It is important for this mechanism to highlight key differences in terms of skills gaps based on size of enterprise, region, gender, economic sector, vocational and non-vocational and other factors mentioned previously. Ideally, this is a short-term recommendation. A portal is relatively easy to create and maintain when utilising experts and the existing data should be sufficient to launch such a mechanism. Obviously, for the portal to remain relevant it will have to collect up-to-date data at an established frequency, which will require a research component functioning across the near future.	Short to Medium Term

144 Froy, F., Giguère, S., &Meghnagi, M. (2012). Skills for competitiveness: a synthesis report (No. 2012/9). OECD Publishing.

Conclusion 13: Research questions for further analysis

While the current research into the presence of skills gaps in Palestine, and the related causes, is detailed and analytical, it should not be viewed as exhaustive. Many questions still remain to be explored in any future efforts to produce a more comprehensive illustration of the state of the Palestinian labour market and the relevant skills. The following is a brief list of additional research questions, considered relevant for future investigation:

- What is the impact of new providers on a skilled workforce? The current research was devoted to knowledge that such providers existed, but did not explore how these providers affected skill development.
- How do graduates of educational institutions in Palestine compare with graduates with degrees from outside Palestine, in terms of employment, perceptions, and other important factors?
- What role does government/ministry policy play in skills development? This was investigated partially through qualitative data, and can be further explored through quantitative analysis focusing exclusively on national strategies, initiatives and direction.
- How have perceptions of skills gap changed over time? As this current analysis does not serve as an baseline, midline or end-line component of a larger analysis, it cannot track changes over time. However, the survey tools can easily be adapted for similar purposes in the future, a useful attribute as CARE's long term planning extends to 2030.
- How do more quantitative, economic indicators, such as capital intensity, value added per worker and labour productivity play a role in skills development and the skills gap?
- What is the role of the political environment and circumstances in generating the skills gap? This could be instrumental in determining unique factors that impact firms and individuals in Area C, East Jerusalem and Gaza.
- What are the perceptions of donors and aid agencies related to skills gap? These firms and individuals comprise an important stakeholder group, though they were not included in the present research, future inclusion (quantitative or qualitative) could yield interesting explanations and valuable recommendations.
- What role does informality play in determining the skills gap? A significant amount of firms (particularly small enterprises) are informal and investigating their role in the labour market could yield vital insights.
- How is Palestine performing as a country in terms of 21st century skills compared to other countries?

Annexes

Annex (1): Bibliography

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Annex (2): List of interviews

Bashar Al-Masri	Bayti Real Estate Investment Company
Asma'a Salamah	RAWABI
Amani Muadi	Palestinian Information Technology Association of Companies (PITA)
Jamal Jawabreh	Federation of Palestinian Chambers of Commerce, Industry and Agriculture
Akram Hijazi	Federation of Palestinian Chambers of Commerce, Industry and Agriculture
Samir Abdallah	Palestine Economic Policy Research Institute (MAS)
Mohammad Masrouji	Jerusalem Pharmaceuticals Company
Mohammad Almbaid	International Youth Foundation
Marwan Tarazi	Centre of Continuing Education/Birzeit University
Mohammad Skeik	Pal Trade-Gaza
Yousef Sha'at	Palestinian Information Technology Association of Companies (PITA)
Raed Murad	Palestinian Technical College
Hassan Qanou'	Islamic University
Maher Taba'	Chamber of Commerce
Tayseer Shaqalieh	Mercy Corps
Jamil Hamad	Gaza Community Training College (GTC-UNRWA)
Khader Shniwra	Palestinian Federation of Industries (PFI)
Tayseer Muheisen	Agricultural Consultant/PNGO Representative
Jawdat El Khudary	Al Mathaf Hotel

Annex (3): Focus groups

Target Group	Location	Date	Number of Participants
Donors and International Agencies	Ramallah	17-9-2014	15
Educational Institutions	Bethlehem	18-9-2014	6
Employers in Large and Medium-Size Establishments	Ramallah	21-8-2014	8
Government and Economic Research Centres	Ramallah	8-9-2014	11
New Employees in Private Sector	Abu Dees	30-8-2014	6
New Graduates	Jenin	26-8-2014	10
Trained Youth	Ramallah	2-9-2014	14
Women Entrepreneurs and Business Organisations	Ramallah	1-9-2014	9
Women Business Entrepreneurs	Nablus	21-8-2014	8
Unemployed Graduates	Hebron	17-8-2014	16
Industrial and Tourism Organisations	Hebron	1-9-2014	5
Youth Entrepreneurs	Ramallah	27-8-2014	7
The Chamber of Commerce	Qalqilya	11-9-2014	8
The Chamber of Commerce	Ramallah	17-9-2014	6
New Graduates	Rafah	23-9-2014	16
Educational Institutions	Gaza	28-9-2014	6
Women Entrepreneurs	Gaza	29-9-2014	5
Youth Entrepreneurs and Trained Youth	Gaza	12-10-2014	10

Annex (4): Methodology and detailed results of the Linear Probability Model

In the PCBS Labor Force Survey, there exists a question that asks participants on whether they have attended a vocational training course.[145] Stemming from the availability of such data, we were interested in examining whether attending such a course, holding all else constant, affects an individual's chances of gaining employment. To this end, we have devised a Linear Probability Model (LPM) in an attempt to capture this relationship. A Linear Probability Model is a special case of a binomial regression model where the observed variable for each dependent observation takes values which are either 0 or 1 (in our case, this represents employed or unemployed). The model is represented as follows:

$$\Pr(employed_i) = \beta_0 + \beta_1 trained_i + \beta_2 female_i + \beta_3 trained\_fem_i + \beta_4 Sch.years_i + \beta_5 age_i + \beta'_6 D'_1 + \beta'_7 D'_2 + \varepsilon_i$$

Where:

- $\Pr(employed_i)$ represents the probability of employment,
- $trained_i$ is a dummy variable taking the value of 1 if the individual attended and/or graduated from a training course and 0 otherwise.
- $female_i$ is a dummy variable taking the value of 1 if the individual is female and 0 otherwise.
- $trained\_fem_i$ is an interaction binary variable taking the value of 1 if the individual is a female who has attended a training course, and 0 otherwise. This dummy variable is in essence measured against the omitted category of trained male.
- $Sch.years_i$ is the years of schooling completed,
- age_i represents the age of the individual, and
- D'_1 and D'_2 are matrices of dummy variables controlling for educational attainment and industry respectively.

By interpreting the LPM regression coefficients of this model, we will be able to determine whether on average, individuals in our sample faced a higher probability of gaining employment by attending the training course (coefficient β_1); whether on average a female in our sample faced a lower or higher probability of being employed compared to males (coefficient β_2); and whether on average a female in our sample who attended a training course faced a lower or higher probability of gaining employment compared to males who attended the same course (coefficient β_3). We are also able to determine the effect years of schooling and age had on the probability of gaining employment (coefficient β_4) and (coefficient β_5) respectively. This is all done while also controlling for educational attainment and the type of industry (matrices D'_1 and D'_2). The education binary variables are measured against the omitted condition of illiteracy, while the industry binary variables are measures against the omitted condition of working in the agriculture sector.

Nevertheless, the LPM model has certain weakness. First, the LPM suffers from heteroskedasticity inherently due to its construction. The LPM by default operates under the Bernoulli distribution. Assuming y_i is the Left Hand Side variable, and x_i is the Right Hand Side variable, y_i can only take values of 0 or 1. Therefore, given x_i, ε_i can only take on two values as well. Hence, the expected value of y_i can be represented as follows: $E(y_i|x_i) \equiv p(x_i)$. This means that the variance will be $V(y_i|x_i) = p(x_i) \cdot [1 - p(x_i)]$ and that the variance is dependent on x_i, and hence, the inherent heteroskedasticity. One method to correct for this is to use Heteroskedasticity-robust White Standard errors. The LPM standard errors reported in Table (8) below have been corrected using this method.

Another issue that arises with the use of the LPM is that the probabilities are not bounded by the unit intervals. The LPM represents a linear relationship between attending the training course and the probability of being employed.

145 Verbatim text of the question states "Training course attendance (such as training course that managed by ministry of labour, Qalandia institute)".

Consequently, nothing restricts the values of the probability of the employment variable from exceeding 1 or falling below 0, especially if one tries to apply the regression to values that widely differ from those used in the data set. However, since we are not using this model in order to forecast or predict future unemployment probabilities, this shortcoming is less relevant.

Table (9): Regression analysis for selected results

Variable (std. error)	(1) LPM
Trained	0.1213*** (0.006)
Female	-0.1388*** (0.002)
Trained_fem	-0.0923*** (0.009)
Age	0.0028*** (0.000)
Sch.years	0.0072*** (0.001)
Can read and write	0.0490*** (0.006)
Elementary	0.0514*** (0.006)
Preparatory	0.0548*** (0.012)
Secondary	0.0342** (0.015)
Associate Diploma	0.1789*** (0.017)
BA/BSc.	0.2725 (0.019)
Higher Diploma	0.4141*** (0.061)
Master	0.4638*** (0.029)
Doctorate	0.5931*** (0.039)
Manufacturing	0.2498*** (0.009)
Construction	0.1535*** (0.009)
commerce, hotels, restaurants	0.2349*** (0.008)
transport, storage, communications	0.1978*** (0.012)
Services	-0.2942*** (0.006)
Observation	105,586
R^2	0.43
F-statistic (p-value)	0.00

*Note: Robust standard errors in brackets; *, **, and *** correspond to 10, 5, and 1 % significance level.*

The results of the LPM provide us with highly useful information. First, the model shows that on average, a person who has taken the training course was 12.13 percent more likely to be employed, taking into account gender, level of education, age and industry. A female in the sample, even while controlling for education and industry, was 13.88 percent less likely to be employed and a female who has taken the training course was 9.23 percent less likely to be employed compared to males who attended the same course. Increases in the level of schooling corresponded to increases in the probability of being employed; for example, in comparison to a person who is illiterate, a person with an elementary level of education was 5.14 percent more likely to be employed, while a person with a bachelor's (or master's) degree was 27.25 percent (or 46.38 percent) more likely to be employed. Regarding industry, the omitted condition in this model was work in the agriculture sector. A coefficient of 0.2498 on the manufacturing variable means that an individual working in manufacturing, while controlling for all the other factors present in the model, was 24.98 percent more likely to be employed compared to an individual working in the agriculture industry. Workers in the industries of construction, commerce hotels and restaurants, and transport storage and communications also faced higher probabilities of employment compared to workers in the agriculture sector. Interestingly though, the model shows that on average, taking into account gender, level of education, and all the other variables in the model, a worker in the services sector was 29.42 percent less likely to be employed than a worker in the agriculture sector. One explanation could be that the services sector is by far the largest sector in the Palestinian economy, and thus faces stiffer competition for employment.

Annex (5): Sample distribution for all surveys

1. Private sector sample distribution

Sample Distribution			
District		**Size of organisation (full-time employees)**	
Jenin	8.4%	1-4	49.3%
Tubas	1.4%	5-9	23.7%
Tulkarm	5.0%	10-19	14.3%
Qalqilya	2.2%	20-49	8.4%
Salfit	2.0%	50-99	2.6%
Nablus	11.0%	100 or more	1.6%
Ramallah	9.4%	**Nature of work**	
Jerusalem	7.2%	Personally owned	55.6%
Jericho	1.2%	Family owned	19.9%
Bethlehem	5.2%	Shareholders	23.7%
Hebron	14.8%	Other	0.8%
Jabalya	5.2%	**The primary activity of your business?**	
Gaza City	13.2%	ICT	24.2%
Deir Albalah	4.2%	Tourism	19.4%
Khan Yunis	6.0%	Agriculture/Agribusiness	14.0%
Rafah	3.8%	Industry/Manufacturing	16.4%
Region		Other services	11.2%
Gaza Strip	32.3%	Construction	5.1%
East Jerusalem	7.2%	Other	9.8%
Area C		**Gender**	
The rest of the West Bank	60.5%	Female	11.1%
Israel and settlements		Male	88.9%

2. Employees/graduates & unemployed sample distribution

Sample Distribution (Total)			
District			
Jenin	5.5%		
Tubas	2.8%		
Tulkarm	5.5%		
Qalqilya	2.6%	**Educational Attainment**	
Salfit	2.8%	Did not enrol in university education	14.0%
Nablus	5.5%	Still enrolled (college-university)	1.8%
Ramallah	8.6%	2-year college	20.2%
Jerusalem	8.5%	BA	63.0%
Jericho	3.0%	MA or more	0.9%
Bethlehem	2.7%	**What was your educational stream in school?**	
Hebron	14.7%	Arts/Literature	58.3%
Jabalya	5.3%	Science	30.0%
Gaza City	15.8%	Vocational	3.6%
Deir Albalah	5.3%	Business/Commercial	4.7%
Khan Yunis	5.7%	Other	
Rafah	5.7%	Doesn't apply	3.4%
Region		**Where did you receive/are you pursuing your first college/ university degree?**	
Gaza Strip	37.8%	West Bank university	50.6%
East Jerusalem	8.7%	Gaza university	35.1%
Area C	1.8%	Israeli university	0.4%
The rest of the West Bank	51.7%	Arab university	2.3%
Israel and settlements		European North American university	0.3%
Gender		Other region	2.4%
		Does not apply	8.8%
Female	38.2%	**If unemployed, time since you graduated:**	
Male	61.8%	I graduated within the past 6 months	20.5%
If applies: Where did you receive/are you pursuing your second college/university degree?		I graduated between 6 months and 12 months	13.7%
West Bank university	11.2%	I graduated between 12 months and 2 years	21.6%
Gaza university	1.5%	I graduated more than 2 years ago	44.1%
Arab university	0.7%	**Current work status:**	
European North American university	0.5%	Unemployed (I have no job now and I am looking for a job)	46.2%
Other	0.1%	Working on seasonal basis	5.8%
Does not apply	86.0%	Working part time	8.7%
		Full-time employment	39.3%

Sample Distribution (Graduates and unemployed)			
District		**Age**	
Jenin	5.5%	18-23	29.5%
Tubas	2.8%	24-29	55.0%
Tulkarm	5.5%	30+	15.5%
Qalqilya	2.6%	**Educational Attainment**	
Salfit	2.8%	Didn't enrol in university education	6.3%
Nablus	5.5%	Still enrolled (college-university)	
Ramallah	8.7%	2-year college	20.4%
Jerusalem	8.5%	BA	72.9%
Jericho	3.0%	MA or more	0.4%
Bethlehem	2.6%	**What was your educational stream in school?**	
Hebron	14.7%	Arts/Literature	62.3%
Jabalya	5.3%	Science	31.5%
Gaza City	15.8%	Vocational	1.4%
Deir Albalah	5.3%	Business/Commercial	4.9%
Khan Yunis	5.7%	Other	
Rafah	5.7%	Doesn't apply	
Region		**Where did you receive/are you pursuing your first college/ university degree?**	
Gaza Strip	37.8%	West Bank university	59.1%
East Jerusalem	8.5%	Gaza university	39.3%
Area C	3.6%	Israeli university	0.4%
The rest of the West Bank	50.1%	Arab university	1.2%
Israel and Settlements		European North American university	
Gender		Other region	
Female	50.2%	**If unemployed, time since you graduated:**	
Male	49.8%	I graduated within the past 6 months	21.2%
If applies: Where did you receive/are you pursuing your second college/university degree?		I graduated between 6 months and 12 months	13.6%
West Bank university	12.3%	I graduated between 12 months and 2 years	20.8%
Gaza university	2.5%	I graduated more than 2 years ago	44.3%
Arab university		**Current work status:**	
European North American university		Unemployed (I have no job now and I am looking for a job)	91.9%
Other		Working on seasonal basis	8.1%
Does not apply	85.2%	Working part time	
		Full-time employment	

Sample Distribution (Employees)			
District			
Jenin	5.5%		
Tubas	2.8%		
Tulkarm	5.5%		
Qalqilya	2.6%	**Educational Attainment**	
Salfit	2.8%	Didn't enrol in university education	21.7%
Nablus	5.5%	Still enrolled (college-university)	3.6%
Ramallah	8.5%	2-year college	20.0%
Jerusalem	8.5%	BA	53.2%
Jericho	3.0%	MA or more	1.5%
Bethlehem	2.8%	**What was your educational stream in school?**	
Hebron	14.7%	Arts/Literature	54.4%
Jabalya	5.3%	Science	28.6%
Gaza City	15.8%	Vocational	5.9%
Deir Albalah	5.3%	Business/Commercial	4.5%
Khan Yunis	5.7%	Other	
Rafah	5.7%	Doesn't apply	6.6%
Region		**Where did you receive/are you pursuing your first college/ university degree?**	
Gaza Strip	37.7%	West Bank university	42.6%
East Jerusalem	8.9%	Gaza University	31.1%
Area C		Israeli university	0.4%
The rest of the West Bank	53.4%	Arab university	3.4%
Israel and settlements		European North American university	0.6%
Gender		Other region	4.7%
		Does not apply	17.2%
Female	26.3%	**If unemployed, time since you graduated:**	
Male	73.7%	I graduated within the past 6 months	
If applies: Where did you receive/are you pursuing your second college/university degree?		I graduated between 6 and 12 months	16.7%
West Bank university	8.1%	I graduated between 12 months and 2 years	44.4%
Gaza university	0.8%	I graduated more than 2 years ago	38.9%
Arab university	1.3%	**Current work status:**	
European North American university	0.9%	Unemployed (I have no job now and I am looking for a job)	0.2%
Other	0.2%	Working on seasonal basis	3.4%
Does not apply	88.7%	Working part time	17.6%
		Full-time employment	78.8%

For those who work only:

If employed, how long did it take you to find your first job?	
I found a job within the first 6 months after graduation	26.9%
I found a job after 6 months to a year	23.8%
I found a job after one year of graduation to 2 years	24.2%
I found a job after 2 years of graduation	25.1%

Are you:	
Free work (work with a contractor on daily basis)	17.5%
Self-employed (own established business)	49.9%
Employed in family business	9.1%
Employed in another private sector business (whether local or international companies)	23.4%

Is your current work in the same field of your educational specialisation?	
Yes	54.4%
No	45.6%

Do you have any work experience working for non-Palestinian institutions/companies whether in Palestine or outside?	
Yes	12.5%
No	87.5%

If yes, where?	
Israeli company/organisation	1.6%
Arab company/organisation - Arab region	59.7%
European/American/Canadian company/organisation	24.2%
Other regions	14.5%

3. Educational/vocational institutions sample distribution

Sample Distribution			
District		**Gender**	
Jenin	5.0%	Female	26.7%
Tubas	0.9%	Male	73.3%
Tulkarm	5.0%	**Region**	
Qalqilya	2.8%	East Jerusalem	23.1%
Salfit	0.9%	Area C	3.2%
Nablus	7.8%	The rest of the West Bank	2.3%
Ramallah	24.8%	All the West Bank	26.9%
Jerusalem	7.8%	Gaza and the West Bank	36.6%
Jericho	1.8%	**Nature of institution**	
Bethlehem	11.0%	Vocational/technical training	19.1%
Hebron	9.2%	Academic institution	53.5%
Jabalya	0.5%	Specialised new technology/ entrepreneurship institution such as a BDC, incubator, accelerator, etc.	3.7%
Gaza City	18.3%	Other	23.7%
Deir Albalah	2.3%		
Khan Yunis	0.9%		
Rafah	0.9%		