



Palestine Economic Policy Research Institute

Matching Higher Education Graduates with Market Needs in the West Bank and Gaza Strip

**Mahmoud El-Jafari
Dareen Lafi**

March 2004

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- ♦ Identifying developmental challenges and priorities and enhancing applied research.
- ♦ Providing technical support to PNA bodies (executive and legislative), the private sector, and NGOs to enable them to function more effectively and enhance good governance.
- ♦ Promoting the participation of civil society institutions in socio-economic policy formulation and decision-making.
- ♦ Broadening public debate on socio-economic issues and ensuring oversight of public performance.
- ♦ Disseminating information and enhancing public awareness, transparency, advocacy, and accountability.
- ♦ Strengthening socio-economic policy research capacity and institution building in Palestine.
- ♦ Sponsoring and training young Palestinians in socio-economic applied research by including them in MAS research teams.
- ♦ Attracting expatriate Palestinian, Arab and international economists, social scientists, and experts to contribute to and review MAS research.
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The Palestine Economic Policy Research Institute –MAS- engages in the publication of applied research papers and studies related to the Institute's program in the area of economics and social science and conducted by full or part time researchers.

The Institute abides by the following standards and procedures to ensure the high quality of its research publications:

1. The approved research project should be conducted or supervised by a specialist senior researcher. The research must not have been published previously or submitted for publication elsewhere.
2. The terms of reference of the study are approved by an internal MAS scientific committee (consisting of senior researchers) to ensure accurate goals, appropriate use of scientific methodology and procedures and the timetable for completion.
3. The internal scientific committee supervises the work of the researcher or team of researchers through periodic progress reports.
4. The initial draft of the study is reviewed by the scientific committee for objective content-related amendments to be added to the second draft.
5. The second draft is then submitted for evaluation in accordance with the terms of reference to two or three external academic experts specializing in the subject. Provided that there is a positive evaluation by at least two experts, the researcher is asked to review the study taking into consideration the objective recommendations of these experts.
6. The study is presented for discussion at a public workshop attended by academics, researchers, and representatives from public and private sector institutions related to the subject of the research.
7. Comments and feedback from the workshop are incorporated into the study and the final draft is reviewed by the scientific committee to ensure that the necessary amendments have been made. The study is then edited.
8. Research papers written in English are translated into Arabic and published in both languages. An executive summary in English is attached to research papers written in Arabic.

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Summary

Recent reports from the Palestinian Central Bureau of Statistics (PCBS) show a surge in unemployment among Palestinian graduates, reaching around 25% in 2002. There are a number of reasons for this, some related to the nature of Palestinian higher education and others related to the local job market itself.

One of the characteristics of Palestinian higher education institutions, namely universities and community colleges, is their inability to match output (graduates) to the needs of the job market. In essence, the skills possessed by graduates remain very limited and fail to meet job market requirements, particularly in the private sector.

Since their establishment, higher education institutions have depended on irregular flows of financial support and assistance from abroad. With limited resources, there have been growing deficits for development and operating expenses. The fall in financial support from Arab and international donors to Palestinian higher education institutions over the past decade has significantly undermined the quality of education. The irregularity of financial assistance has aggravated budget deficits and universities have never managed to cover more than 57% of operating expenses from their own resources. The annual deficit of Palestinian higher education institutions is estimated at US \$20 million. As a result, the ability of these institutions to provide developed academic programs, quality research, and specialized consultancy services has declined. Institutions have been unable to provide the necessary requirements, namely equipment, books, advanced laboratories, and computers, in addition to their failure to recruit and retain qualified staff due to low salaries. The limited material resources have been reflected in research activities, the competency of teaching staff, and the failure to keep abreast of up-to-date developments in teaching methods and curricula. As a direct result, the quality of graduates has declined and there is a low level of achievement.

Israeli policies over the past three decades have had the effect of distorting both labor and product markets. A large gap is apparent between supply and demand mechanisms in the local market, which is tied vertically to supply and demand within the Israeli product and labor markets. Furthermore, the Israeli authorities adopted policies to disengage the Palestinians from their economic and physical resources, effectively taking the whole Palestinian

economy hostage and depriving it of its right to grow. The development of independent Palestinian manufacturing and production potential has been impeded, leading to a decline in quantity and quality. PCBS surveys show that only 10% of employees in the Palestinian production and service sectors are graduates, while the rest have less than 9 years of schooling. In contrast, 70% of graduates were employed in the education and health sectors, as well as in self-employment. Most employees in education were local graduates. Although 70% of all public employees are higher education graduates, their jobs are characterized by low productivity and low salaries.

Much of the relevant research, local and international, surveys the reciprocal relationship between institutions of higher education and economic institutions in general. Research has also been conducted into the relationship between graduates from Palestinian higher education institutions and the local job market in both public and private sectors.

The author of this study made active use of the published research to formulate a quantitative analysis of patterns. In estimating qualitative models, the author depended on preliminary data collected from five questionnaires sent to the following groups:

- ✧ Graduates from Palestinian universities and community colleges employed in the local economy.
- ✧ Unemployed graduates from Palestinian universities and community colleges.
- ✧ Employers of graduates from Palestinian universities and community colleges.
- ✧ Students on the verge of graduation from Palestinian higher education institutions.
- ✧ The deans and heads of department of higher education institutions.

The questionnaires were used to obtain primary data to estimate the following:

- ✧ Equations to evaluate the factors determining the field of specialization of employed graduates and students at higher education institutions.
- ✧ Equations to determine the waiting period before graduates enter the job market on the basis of their, or another, specialization in the West Bank and Gaza Strip.
- ✧ Equations to determine the decisive factors in graduates obtaining their current jobs.

- ✧ Equations to evaluate the criteria applied by employers when choosing graduates for work in the public and private sectors in the West Bank and Gaza Strip.
- ✧ Equations to assess the degree of efficiency of academic programs in imparting knowledge, ability and skills to graduates, as assessed by employers.

The author assessed the skills and abilities acquired by students during their university education, in addition to university teaching methods as viewed by faculty members and students. In light of this assessment, the link between academic programs and the requirements of the local job market in the West Bank and Gaza Strip was evaluated. In addition, these equations were formulated and estimated for teaching professions⁽¹⁾ and applied sciences⁽²⁾ on the one hand, and for employers of graduates in both private and public sectors, on the other. The study also endeavored to determine the factors behind high graduate unemployment via the questionnaire targeted at unemployed graduates.

To highlight the problems related to the failure to match graduates with the needs of the local job market, the number of students graduating, unemployed graduates, and graduates employed in different economic sectors were predicted for 2000-2020 according to several scenarios. This was achieved by formulating auto-regressive models using secondary data issued periodically by the PCBS and the Palestinian Ministry of Education and Higher Education between 1994-2000, as well as data collected between 1970-1994 by the Israeli Bureau of Statistics and published in the Annual Statistics Yearbook and other statistical publications during those years.

The study reached the following major findings:

1. A graduate's choice of subject was not based on any prior plan or link with the local job market but rather was a result of personal desire or ambition regardless of previous knowledge of the type of job.
2. Graduates did take into consideration the possibility of continuing graduate study but economic variables, such as the cost of education and expected income after graduation, did not influence their decision to choose a particular subject. The reasons cited by students for choice of subject were the same as those cited by employed graduates.

(1) Teaching professions include arts, education, *Sharia* and science majors.

(2) Includes health, medical, agricultural, engineering, law, management, and economics majors.

3. Information on job vacancies and sectors lacking sufficient educated and trained human resources was inadequate and incomplete. Such information, if available, would play a significant role in directing students towards more suitable subjects.
4. Anticipated monthly income, language skills, and computer and Internet skills were all factors that reduced the waiting period for a graduate finding a job after graduation.
5. Non-competitive factors, such as party affiliation, favoritism, and personal contacts, substantially reduced the time taken for graduates to find employment in the public sector, particularly in the Gaza Strip.
6. Graduates lacked a number of skills necessary for the local job market. However, the decision to employ a graduate was not based on their individual skills or abilities but rather on a comparison with other candidates and their qualifications, particularly in the private sector.
7. Tough criteria applied in the employment of graduates, particularly in the private sector, aims at securing high rates of productivity commensurate with the wages offered.
8. In order to bridge the gap between graduates and the requirements of the job market, a number of measures must be taken by the public and private sectors and Palestinian institutions of higher education. The administration of higher education institutions should tap the expertise of public and private sector leaders in order to develop academic courses and programs. The feedback from employed graduates can identify the skills and abilities required by students on graduation to enable them to integrate into the local job market.
9. Wages in the public sector should continue to be determined on the basis of academic qualifications rather than on performance and productivity. The use of favoritism and personal connections in the employment process gives out the wrong signals, impedes the impact of market indicators, and reduces the importance of skills-related criteria.
10. The absorption of growing numbers of graduates depends not only on the subjects studied or the possession of skills and academic qualifications, but also on the ability of the public and private sectors to create jobs. This necessitates intensive public and private investment at a rate parallel to growth in the work force, particularly in fields that require graduates. Given the dramatic drop in job opportunities for graduates in the Arab world, these markets cannot be counted on to absorb new graduates as was the case in the 1970s and 1980s.

The threat to more efficient higher education output lies essentially in the lack of job opportunities, particularly for graduates with professional specializations that are in demand in other labor markets. Due to the

shortage of jobs in applied sciences, many of these new graduates emigrate to Canada, the USA, Australia, and elsewhere. In fact, these developed countries have for many years attracted human capital from developing countries. In fact, Palestine along with other less developed countries, has been deprived of the returns of investment in human capital.

In the light of these findings, the following recommendations are outlined below:

1. Introduce measures to determine subjects for study according to economic factors such as the cost of education, expected income after graduation, and available vacancies. Students will then enroll in fields that guarantee acceptable jobs with high incomes and returns while specializations not required by society will disappear. However, social factors are still the major determinants for students enrolling in a field of study and education is considered a product for consumption. The funding of university education could be financed via the establishment of loan funds for students, making available detailed publications on available jobs. These are the most important steps to be taken and the Ministry of Labor can contribute to the production and distribution of these publications.
2. The curricula pertinent to fields of study that produce surplus graduates should be modified and revised to make them more flexible and more responsive to market needs. This should improve the quality of Palestinian higher education. It is possible, in this respect, to benefit from the experience and expertise of Arab and overseas universities to achieve curriculum changes as follows:
 - ✧ Draw up plans to retrain faculty members involved in teaching specializations with too many graduates to study these new courses.
 - ✧ Develop courses and programs by sending faculty members on sabbaticals in public and private sector institutions to identify or learn about the skills and knowledge required by graduates for the job market. This can be done by offering applied courses and by solving some of the problems facing academic programs in Palestinian universities and community colleges. Teaching staff could also be sent abroad for a short term, one year for example, to US and Canadian universities to study the most advanced academic programs and become familiar with up-to-date information and references (books and journals) in their specializations.
 - ✧ To implement these steps, the relevant authorities must establish a clear policy. The Ministries of Education, Higher Education, and

Labor in particular need to coordinate the relationship between higher education institutions and the public and private sectors. A framework of transparent arrangements is needed to create a coordinated relationship between them and funding and other facilities should be made available in accordance with the following medium and long term plans:

- Developing curricula, programs and courses more closely linked with the labor market and local environment. These will be adaptable, offering training and applied courses to students and supporting and funding educational facilities such as laboratories and libraries.
- For courses and programs to be linked to jobs, the higher education institution must be fully aware of the facts relating to the labor market. This will enable them to provide advice and guidance on different issues pertinent to the nature of the profession and the requirements demanded of graduates.
- The private sector has a responsibility to provide financial support to Palestinian higher education institutions via the following means:
 - Participation in the establishment of academic curricula and offering courses relevant to both the local labor market and the needs of the private sector.
 - Offer practical work experience to students which would be counted towards their degree qualification and offer consultancy advice on the development of local courses.
 - Provide financial and technical support to Palestinian higher education institutions to train students prior to graduation.
 - Sponsor talented students with scholarships and job opportunities following graduation.
- The Ministry of Education and Higher Education should assume the following responsibilities:
 1. Provide both technical and financial support for academic subjects required in the local market at the expense of subjects no longer required.
 2. Coordinate between private and public sector institutions and ascertain from them the number of graduates and skills required. The Ministry would act as a link between these bodies and higher education institutions, enhancing their

- role in formulating policies and the conditions for the licensing and approval of academic programs.
3. Provide higher education institutions with financial assistance, especially those in chronic financial difficulties.
 4. Reconsider the goals of higher education in terms of:
 - The actual and projected needs of the labor market.
 - Linking educational policies to economic development objectives.
 - Monitor the structure of the labor force by maintaining a balance between academic and practical subjects and increase the percentage of graduates employed in economic institutions.
 5. The Al Quds Open University must reconsider its goals and mission to ensure that its admission requirements reflect these.
 6. Reconsider the structure and programs of existing higher education institutions and create accreditation systems that are strictly applied to link specializations with the needs of the job market. Varied programs need to be approved rather than copied from the old programs of Arab universities.
- Like the Ministry of Education and Higher Education, the Ministry of Labor also has a number of responsibilities:
1. Create a database for higher education institutions of the needs of the local job market in terms of different specializations.
 2. Create a database for graduates on vacant positions in private and public sector institutions.
 3. Coordinate with higher education institutions to provide students and graduates with training courses to acquire the skills required by the job market.
 4. Act as an intermediary between higher education institutions and public and private sector enterprises. The Ministry of Labor can provide information about specific business problems to faculty members who can work on finding a solution during their sabbatical and will also gain practical experience which they can pass on to students.

5. Lead the campaign related to the Civil Service Law and the provision of incentives for students and graduates of technical community colleges.
- Those in authority should work with university administrators to reconsider the goals of education in accordance with existing and future needs. Educational policy must be linked to economic development by maintaining a balance between vocational and academic specializations and increasing graduate employment in the manufacturing and services sectors.
 - Ensure the availability of high quality graduates of different levels in vocational and academic specializations to meet the needs of the economy. The relevant bodies must look at incentives to encourage students to join vocational institutions in order to redress the existing imbalance in the distribution of students joining higher education institutions. For example, 40% of students are enrolled at Al-Quds Open University while 54% of students attend the remaining eleven universities. There are also 6% of higher education students attending more than 20 community colleges and institutes. Equally important, professional criteria must be respected in public sector employment, which should be on the basis of the job requirements. University graduates should not be employed in jobs that do not require university qualifications. These measures will make skilled work available and reduce disguised unemployment in public sector institutions. Many graduates work in fields unrelated to their own specialization yet receive higher salaries than those without university qualifications.
 - Another option is to reduce the attractiveness of the Civil Services Law to graduates by directing it towards the private sector. Public employment must also respect professional and competitive mechanisms and the number of vacancies available. As a result, the workforce will switch automatically from the public domain to other economic sectors. Community college education could become part of university education and the system could direct students towards different levels of education according to the needs of the job market. This will guarantee optimum use of educational facilities and reduce students from predominating in specific fields, as is the case in

colleges of arts, humanities, and social sciences where unemployment among graduates is around 70%.

- Any economic development must spring from an enhanced quality of higher education, which will be reflected in increased economic productivity and greater graduate absorption into these sectors. It is not logical that only 10% of employees with thirteen years or more of schooling are employed in the economic sector, excluding health and education.

