International Journal of Educational Technology and Learning
ISSN: 2523-0581
Vol. 15, No. 1, pp. 15-27, 2023
DOI: 10.55217/101.v15i1.684

The social effects of higher education in Jordan

Raed Adel Sabha[1]
Basimeh Mohammad Khaleel[2]

[1]*Agriculture Economics and Agribusiness, Social and Applied Sciences Department, Home Economics Division, Princes Alia University Collage, Al-Balqa Applied University, Amman, Jordan.*
Email: raed.sabha@bau.edu.jo
[2]*Nutrition and Food Technology, Social and Applied Sciences Department, Home Economics Division, Princes Alia University Collage, Al-Balqa Applied University, Amman, Jordan.*
Email: basima_Khalil294@bau.edu.jo

Abstract

Few studies have examined the social effects of higher education. These studies have shown that there are personal and community effects, like low crime rate, greater civic participation, and improved performance across a host of socioeconomic measures. Depending on some and more of the variables or measures of previous studies, the current study tried to determine whether higher education institutions have achieved the goals for which they established, through identifying the social effects of higher education in Jordan, by analysing published data of a group of social variables related to graduates of higher education institutions in Jordan. The study shows that higher education did not show any positive effect across most of the studied variables, such as unemployment, idleness, income, spending behaviour, and family size, which indicates that higher education institutions did not achieved their goals in those aspects, regardless of the reasons behind that.

Keywords:
Higher education in Jordan
Higher education institutions
Social effects.

Publisher:
Scientific Publishing Institute

Received: *12 June 2023*
Revised: *24 July 2023*
Accepted: *7 August 2023*
Published: *29 August 2023*

(♣ Corresponding Author)

Funding: This study received no specific financial support.
Institutional Review Board Statement: Not applicable.
Transparency: The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.
Competing Interests: The authors declare that they have no competing interests.
Authors' Contributions: Both authors contributed equally to the conception and design of the study. Both authors have read and agreed to the published version of the manuscript.

1. Introduction

As Higher education offers great value to individuals, the economies where educated individuals work and live, and society in general, Higher education institutions such as universities and colleges are considered very important, as they play important roles in shaping students behaviors through their educational systems, methods, and the courses they offer, depending on the efforts of faculty members, and partnerships with the local community. They also have specialized and trained staff that will help shape the personality of learners and prepare them for their future lives.

In addition to the foregoing, they considered to be the most important institutions of nations and societies for evolution and development, and their roles have increased with the growing demand for knowledge, civilizational and societal transformations, the necessities of possessing the ability to compete, preserving

privacy and identity, and the challenge of meeting and providing the requirements of sustainable development. All of these issues, problems and requirements impose huge challenges and transformations on high education institutions to serve their societies and carry out their various functions (Adam, 2014).

High education plays an important role in the development and evolution of society, through contribution in graduating certified and trained individuals to work in all fields and different specializations. Whereas its institutions entrusted with a set of objectives that fall under three main functions: education and human resources preparation, scientific research, and community service (Al-Samadouni & Ahmad, 2005).

In a similar context, Zaher (2006) mentioned that high education institutions have three basic functions: teaching, scientific research, and community service, as follows:

- Teaching (education). Teaching is considered an important function of all educational institutions, as through teaching, knowledge spreads, and cultural and civilizational heritage pass on from generation to generation, which leads to the preparation and development of students, and preparing them to access different fields of work.
- Scientific research. Scientific research is important as teaching process, if not greater. Complexity of life problems and community issues, confirms day after day the importance of scientific research in solving issues and problems faced by societies.
  Both types of scientific researches lead to the discovery of facts, and increase scientific and applied knowledge, in order to serve man and his well-being, plus revealing problems impede his progress and well-being.
- Community Service. Through this function, high education institutions and scientific research centres contribute to the transition of societies from one stage to another in development and evolution process, by solving problems, enhancing use of resources, and setting priorities

Based on the presented, it will be obvious that high education institutions, in order to carry out the previous functions effectively, they must take into account the needs and requirements of society, and recognize that they are part of it, found to serve it and develop it, otherwise they become one of its problems.

In the same direction, Abd El-Gaphaar (1995) mentioned that specialists set three groups of objectives for the high education institutions, summarized in:

- Cognitive objectives. Which concern everything about knowledge, including development and spread.
- Economic objectives: which concern maintaining and developing the society's economy, and overcoming economic problems, through providing it with qualified human resources and experience.
- Social objectives: which concerns maintaining social fabric of the society, and overcoming the social problems.

Regarding the social role of high education institutions, there are several positive social effects (social benefits or returns) of higher education in society, like low criminal rate, higher civic participation, and better performance across a set of socioeconomic measures, like work conditions, consumption decisions, finding job opportunities related to education levels, lower depending on social charity network, lower incarceration rates, higher charity, better health status, and desirable family size (Hill, Hoffman, & Rex, 2005).

In the same context, Chan (2016) found two sets of socioeconomic benefits of higher education, one was public or societal, the other was personal, such as advanced knowledge, better health and life expectancy, higher social status, higher employment, better consumer decision making and others.

Al-Shakhaibi (2012) added, beside the educational responsibility, high education institutions have a significant social responsibility, as they considered to be knowledge and scientific pool, within it, educators, scholars, researchers and seekers of knowledge would contribute their ideas, aspirations, capabilities and researches to the advancement and development of society in different ways.

Social responsibility towards society is a process through which efforts for both individuals and institutions can be unified to serve, protect and develop the society, and high education institutions could be one of the leaders in this matter through building a knowledgeable responsible person, who cares about his/her community, and willing to serve others through formal and voluntary activities.

But unfortunately, even they are convinced of the importance of their role in society through their social responsibility, there is neither effective strategy or clear policy to link the educational efforts of high education institutions to society, nor to enhance their role effectively in community service, this was confirmed by Khawajah (2005) that high education institutions are still generally unable to build a strong interactive relationship with community, and this is highly evident through weak contribution of those institutions in affecting positively the political, economic, social and environmental society aspects. It is also noted the absence of initiatives aimed at activating the role of high education institutions in bringing about community development.

Accordingly, ignorance and lack of social responsibility, is more dangerous for public and private institutions than ignorance of its management and operating, because ignorance or lack of social responsibility destroys than disrupts, while ignorance of management or operating is disrupting to the extent that can be repaired (Othman, 1986).

In the midst of what the Arab world in general, and Jordan in particular, is facing from the exacerbation of economic, social and environmental problems in the current time, the efforts of all the individuals and society institutions must collaborate to overcome those contemporary challenges, and this requires defining the role of each party, and monitoring its performance, and then evaluating it, to ensure the improvement of social, economic and environmental conditions of individuals of society.

On the other side of the equation, the RAND Corporation of Middle Eastern Youth (2014) "youth of Jordan", stated that the impediment of youth transition to a more productive economic living is due to a number of reasons, such as: the gap between youth expectations in obtaining high-paying government jobs, and the limited supply of these jobs, inability of educational systems to provide appropriate levels of skills, or the right type of skills, slow economic growth and rigid policies towards business or the labor market which prevent employment in the private sector, and finally demographic inflation, which adds a large number of jobs seekers to the labor market every year.

In a close approach of high institutions role to preventing social problems, the economic researcher (Badran, 2022) believes that the unemployment crisis in Jordan is uprising year after year, not only in terms of percentage, which reached 25% last year, While it declined to 22.6% for the current year, but in terms of social and economic problems behind it, as these numbers and percentages hide behind them more miserable and more complex details, the unemployment in some governorates reached unprecedented levels, as it is 29% in Tafilah, 28% in Ma'an, and 21% in Ajloun.

On the other hand, 50% of the Jordanian labor force are high education graduates, more than 28% of them are unemployed, while 80% of high school graduates go on the academic track.

On the third hand, unemployment among females' high education graduates is 78.7%, while it is 24.6% among males, and among young people in general it exceeds 50%.

The head of the Civil Service Bureau in Jordan in 2023 confirmed that there are 460,000 high educated applications in the bureau, and some of whom have been waiting for years, while the number of the expatriate workforce exceeds 1.3 million people. At the same time, the figures show that women's participation in the labor market is still one of the lowest in the world, at around 14%, while in many other countries their contribution increases to 30%, 40%, and even exceeds 50% in many countries. That means our society is only operating at 64% of its productive and creative capacity.

The persistently high rate of unemployment in Jordan contrasts with the economic growth in Jordan, which creates job. Several factors seem to explain the discrepancy. Growth in the manufacturing sectors (particularly garment industry) and construction contributed to the creation of many new jobs, but most of these opportunities were for foreign workers, due to their low wages. Between 2001 and 2005, an estimated 200,000 jobs were created, two-thirds of which were occupied by non-Jordanian workers. Foreign workers (mostly from Egypt) generally don't mind working for low wages, unlike Jordanians. There is also an incentive for employers to hire foreigners, as they work on temporary contracts, which does not make employers obliged to participate in social security or pay termination benefits for them. researches also indicate that unemployed Jordanians are not only willing to take up new jobs that are provided for the sake of their low wages, but also because of the nature of the jobs themselves, in what is popularly known as the "culture of shame", where many young people refrain from working in jobs that their families or communities consider to be inferior or inappropriate (Razzaz & Iqbal, 2008).

The economic effects of the high unemployment rate among young people are clear, and have the same degree of seriousness as the social effects, and both of which have a comprehensive policy effect in the Middle East and North Africa region in particular, and for young people in particular, the inability to provide for their livelihoods prevents them from fulfilling their social roles as adults, declining employment opportunities, along with the high cost of living (especially housing), delay a young person`s ability to marry and start a family. Consequently, among other things, economic exclusion leads to social exclusion, and for many young people, a sense of social exclusion reduces confidence in existing social and democratic institutions, increases the tendency to violence and cognitive extremism, and may lead to self-destructive or health-threatening behaviors, including drug abuse, which is recently increasing rapidly in the region (DeJong, Jawad, Mortagy, & Shepard, 2005).

Previous studies and expert interviews point to several important factors that explain the relatively high unemployment rate, especially among young people, in Jordan. One of these factors is the unrealistic expectations among those of working age to obtain a government job, while the private sector has the largest share of employment rates. The second is the incompatibility of skills of young people and those required by the labor market, which is common throughout Arab region. Surveys of recruiters in the region indicate that graduates of secondary and post-secondary education do not possess the basic skills necessary for a smooth transition to the labor market, including soft (personal) skills such as interpersonal skills, problem-solving skills, teamwork skills, foreign language skills, and technical skills (Mourshed, Farrell, & Barton, 2012; PricewaterhouseCoopers, 2008).

On the other hand, it is not reasonable or acceptable for the Jordanian government to take unemployment numbers as if they were a normal issue, as it carries with it risks that threaten social security, starting with the expansion of poverty, which has reached 24%, and continuing through feelings of misery and frustration, the

rise of crime and drugs, and even the rise of divorce rate, and delay in marriage, in addition to the enormous waste of human capital invested in by both the citizens and the state (Badran, 2022).

It is time for the government to realize that economic growth at acceptable rates that exceed population growth rate and steady unemployment rates can only be achieved except by industrializing the national economy in its various sectors, in accordance with a clear program developed by the government in partnership with experts and the private civil and academic sectors, within the framework of social economy, which depends primarily on national financing for projects.

As a measure of quality of high education, the average government spending on students in high education institutions reflects the qualitative level of educational service provided, while other factors were remaining constant, rise of government spending on students in high education institutions is associated with better service for them (basic services directly related to the educational process and secondary services), and development of educational equipment, which has a positive effect on the overall educational environment, thus providing better educational outcomes. Table 1 and Figure 1 show that the student's share of spending on higher education was (357 JOD) in 2014, the value of this type of spending rose to (437 JOD) in 2018 (Al-Smadi, Al-O`toom, & Al-Rashdan, 2019).

Table 1. Student's share of government spending on higher education (dinar/year) during the years (2014-2018).

Years	Enrolled students in universities for all levels	Total expenditure on higher education (JOD)*	Student's share of higher education expenditure (JOD/student)
2014	286031	101988876	357
2015	278359	110000432	395
2016	268845	119868722	446
2017	276000	122895330	445
2018	282500	123348000	437

Note: * JOD is the abbreviation of the unit currency of Jordan "JORDAN DINAR".

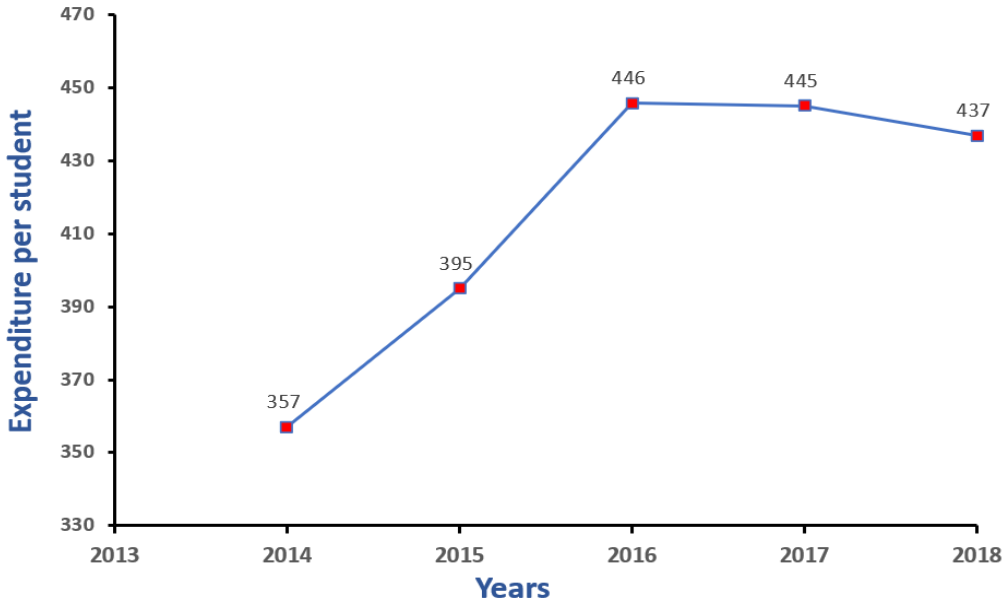

Figure 1. Student's share of government spending on higher education (dinar/year) during the years (2014-2018).

Comparing these numbers with the student's share of government spending in other countries, the student's share of government spending in Jordanian universities is very modest, reaching ($627) in 2017, While in Saudi Arabia, is (12972 $) in 2017, and in Lebanon (3250 $) in the same year, in Algeria, (3200 $), and in some European countries such as France and Germany, exceeds (18000 $) a year (Al-Smadi et al., 2019).

2. Previous Studies

- Al-Momani (2020) Conducted a study aimed at identifying the role of Yarmouk University in reducing of unemployment from the perspective of postgraduate students. To achieve the objective of the study, the researcher used the qualitative approach (case study). The study sample consisted of 28 postgraduate students at Yarmouk University. The results of the interviews showed the following:
  The educational policies, different teaching strategies, linking theory to application, and curricular and extracurricular activities play a major role in reducing unemployment. Plus, the various means of

cooperation, community partnership, and getting rid of the culture of shame contribute greatly in limiting of unemployment. While the most important suggestions were:
Establishing and investing in various projects to employ graduate students, and improve the quality of education and its outputs.

- Chan (2016) had examined the published studies between 2000 and 2016 to identify the socioeconomic benefits of higher education in the literature, using Critical Interpretive Synthesis (CIS) method, and he summarized them into two sets of socioeconomic benefits of higher education, public or societal, and personal, such as advanced knowledge, better health and life expectancy, higher social status, higher employment, better consumer decision making and others. Chan findings were:
  - Higher education institutions mostly focus on global objectives aimed at reforming society and the individual cognitive skills. While, undergraduate students mostly focus much more on personal, economic, family, and development goals.
  - Governments and labor markets expect higher education institutions to develop skilled professionals that align with individualistic and careerist motivations.
  - Undergraduate students do acquire knowledge, dispositions and generic skills at the completion of their higher education degree programs, but not often in traditional higher education institutions.
- In the report from the productivity and prosperity project (p3) about the value of higher education: individual and societal benefits (with special consideration for the state of Arizona) conducted by Hill et al. (2005) a group of societal monetary and non-monetary benefits had been found:
  - As monetary benefits, the authors found that the Individual earnings were strongly related to educational attainment. People who have completed high school earn more than those who have not; people with a bachelor's degree earn more than those with only a high school diploma; and those with a graduate education earn more than those with only an undergraduate education, for example, Average annual earnings of individuals with a bachelor's degree are more than 75 percent higher than the earnings of high school graduates, as the differential in earnings based on educational attainment has increased over time.
    In addition, the benefits to an individual from a university education vary with the quality of the institution attended. Those who graduate from an elite university earn substantially more than those who graduate from a lower-quality institution.
  - As non-monetary benefits in regions with high proportions of college graduates included lower crime rates, greater and more informed civic participation, better work conditions, higher saving rates, better consumption decisions, better finding job opportunities related to education levels, lower depending on social charity net, less criminal behavior and lower incarceration rates, higher charity, higher social cohesion, better health status, and desirable family size.
- Dagger, Tarawneh, and Al-Qudah (2016) Conducted a study aimed at identifying the degree to which Jordanian high education outputs match the labor market needs, from the point of view of administrators of local community institutions in Jordan; to contribute to proposing solutions that could improve outputs of higher education in Jordan, in line with the needs of the labor market. The study sample consisted of (380) individuals from the administrators of local community institutions (labor market).
  The study results showed that the study sample members' assessment of the degree to which the Jordanian higher education outputs are in line with the labor market needs was average, and showed no statistically significant differences in the degree to which the outputs of Jordanian higher education are in line with the labor market needs, from the point of view of the administrators of the community institutions, according to the variable (type of employment).
- Hunaiti, Al-Majali, Al-Abdul-Razag, Shammari, and Aletoui (2014) Conducted a study aimed at identifying the economic and social factors of unemployment, from the point of view of families in the southern region of Jordan of the governorates of Karak, Tafilah and Ma'an. To achieve the objective of the study, the methodology of the social field survey of the study cases was used by means of a questionnaire survey of 1,538 families from the targeted community in the Southern Region of Jordan. It was possible to identify a number of factors which had an average explanation rate of 69.5%:
  Rehabilitation factor (human and material), socio-cultural factor, labor market information factor, psychological factor, administrative corruption factor, and social obligations factor.

3. Study Problem and Questions

Public and private higher education institutions strive to prepare good, qualified, and trained citizens, who are able to interact with life's variables and challenges (Al-Etrebi, 2011; Haksheh, Eid, & Abd El- Latef, 2017) and this is consistent with the objectives Jordan universities were established to achieve, which are the graduation of aspiring generations with scientific qualities, productivity, and a moderate understanding of life, with the skills that will enable them to live and progress in a rapidly changing, challenging, and risky world (Ministry of Higher Education, 2018)."

From above, the question that the study is trying to answer will be whether high education institutions have done their part, or they are far from accomplish it? Especially since college graduates face many problems, as the study will show for a decade or more, and to answer this question, the study will try to uncover the effect of high education institutions on their graduates from several social aspects.

4. Objectives of the Study

The study aims to identify the effect of high education on its graduates in several social aspects such as: unemployment levels, employment levels, income levels, spending behaviors, divorce levels, and average family size, based on official data available from the department of Statistics, plus reports and statistics published by ministries and official departments in Jordan.

5. The Importance of Studying

The study is important because it reveals whether high education institutions have achieved their objectives as planned when they were established or not, and this is important in two sides:

1- Theoretical importance: The study will provide information on the social effect of high education on its graduates.

2- Practical importance: The current study may serve to raise the awareness of all those involved in high education in Jordan in particular, and education in general, whether in the public or private sector, about:

- The weakness of high education institutions in achieving their objectives, and the great separation from the local, regional and international community.
- The necessity of developing integrated radical solutions to address this situation, so that economic, social and environmental problems do not worsen and become out of control.

It may also provide appropriate recommendations to improve the role of high education institutions in achieving their objectives.

The results of the current study will benefit planners in Jordanian high education institutions in developing treatment and prevention plans for students and society alike. In addition, the current study may open the door for researchers to conduct further studies on the subject using new variables or methodology.

6. Terminology of Study

6.1. High Education

Academic programs offered by universities and colleges (intermediate diploma, bachelor's degree, high diploma, master's degree, doctorate) as national public and private institutions for higher education and scientific research. These institutions established in the Kingdom under the Jordanian Universities Act No. 18 of 2018 (Ministry of Higher Education, 2018) and they include government and private universities and colleges located in the northern, central and southern regions.

6.2. Social Responsibility

Drucker defined social responsibility as "the commitment of the establishment or institution to the community in which it operates" (Drucker, 1977).

7. Study Limitations and Parameters

The generalization of the results of the study is determined in the light of the following limitations and determinants: the current study is limited to statistical data approved and published by the Department of Statistics, plus to reports and statistics published by ministries and official departments in Jordan.

8. Study Methodology and Procedures

8.1. Study Approach

In this study, the descriptive analytical approach was used for its suitability to the objectives of the study.

8.2. Procedures

In this study, published data and information and reports from several resources have been used, such as department of statistics, ministry of labour, civil service bureau, while the data and information was about employment levels, unemployment levels, income levels, spending behaviours, divorce levels, average family size, for the years 2010 to 2021, or as available.

9. Results and Discussion

1- The data series in Table 2 shows that there is low demand for post-secondary education, indicating high costs of higher education on one hand, low levels of income on the other hand, and high preference of many for finding a job over obtaining a higher degree, although Since 2017, just over a quarter of the population over 15 years of age hold higher degrees, however, this may indicate that individuals choose higher education under the influence of social and cultural factors, as the belief of finding a suitable job is linked to the

educational level, despite the burden that the costs of higher education pose on families, and placing them or the student in heavy debts. This matter is confirmed by declining Jordan to 103rd out of 138 countries according to the Global Knowledge Index for the year 2021, after it was 79th in 2020, and it's also confirmed by declining significantly in the higher education sector from 50th in 2020 to 125th in 2021 (Country Status Report, 2021).

Table 2. Percentage (%) of the Jordanian population aged 15 years and over who hold higher education degree (intermediate diploma and bachelor's degree or more).

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
%	22.3	22.9	23.3	22.8	22.3	22.6	22.7	25.9	26.5	26.3	26.2	26.3

9.1. The Effect of Higher Education on Unemployment and Idleness Levels

A- Unemployment level:

The data in Table 3 shows an increase in the unemployment rate among higher education degree holders, it also shows that about one five to quarter of higher education degree holders suffer from unemployment, which can be attributed to several factors, such as the lack of economic growth to the degree that leads to creation of sufficient job opportunities, the reluctance of some to work in some available jobs, for social reasons (culture of shame), or personal reasons such as the lack of skills needed by the labor market (e.g. interpersonal skills, problem-solving skills, teamwork skills, technical skills (mathematical, computational), lack of or lack of proficiency in foreign languages, detail attention skill, and mentoring skills, as well as the difference between the prevailing wages in the labor market and the required wages, the competition of foreign workers, and the disparity of geographical regions in the number of available jobs and the number of applicants, increasing number of higher education graduates, and declining quality of education (Country Status Report, 2021); (Mourshed et al., 2012); (PricewaterhouseCoopers, 2008); (Razzaz & Iqbal, 2008); (Department of Statistics, 2021). In general, Jordan ranked 34th globally on the 2021 world Unemployment index out of 208 countries, thus it has decreased (15) ranks of 2020, when it was 19th out of 179 countries (Department of Statistics, 2022).

Table 3. Unemployment rate for the Jordanian population aged 15 years and over who hold higher education degree (intermediate diploma and bachelor's degree or more)*.

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
%*	14.9	14.6	14.13	15.77	14.7	16.6	18.5	20.35	20.1	19	23.3	24

Note: * Unemployment rate = (number of unemployed/number of unemployed and employed) X 100.

B- Idleness level:

According to the definition of the Jordanian Department of Statistics, a jobless or inactive person is "someone who is able to work, and look for a job, but does not find it", as Table 4 shows that the percentage of inactive individuals who hold higher education degrees is high, and it is not less than 45% of the total inactive individuals during various years, which indicates a lack of sufficient number of jobs, and large number of those inactive higher education degree holders is in saturated majors, which are not required by the labor market. This indicates poor government strategic planning to determine majors in educational institutions, and poor personal and family planning when choosing a higher education major, which formed a big gap between market need and the number of graduates. This is added to the lack of personal and technical skills of graduates required by the labor market. There is also a percentage of inactive higher education graduates who refuse to work in specific jobs for social reasons, despite the availability of job opportunities.

Table 4. Percentage of inactive Jordanians aged 15 years and over who hold higher education degree (intermediate diploma and bachelor's degree or more)*.

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
%*	45.6	44.8	46.5	49.9	48.5	49.6	47.2	49.2	50.3	48.9	46.4	48

Note: * Percentage of the inactive for the educational level = the number of inactive for the educational level / the total number of inactive in all education levels.

9.2. The Effect of Higher Education on Employment

The data of Table 5 indicate that the majority of higher education graduates are concentrated in high-level occupations (1, 2, 3), although the data fluctuated slightly among years. This indicates their desire to occupy high-level occupations for economic or/and social reasons. However, it does not necessarily indicate higher incomes in these occupations, because choosing the appropriate occupation is also influenced by non-economic factors as was previously shown. They are also spread in middle level (4, 5) and low level (6, 7, 8, 9) occupations, which indicates a lack of suitable number of occupations, diversity of their major fields, and the acceptance of them various occupations that may not suit their major fields.

Despite all of this, the percentage of inactive (jobless) among them is approximately 50%, as shown in the previous table.

Table 5. Percentage of employed Jordanians aged 15 years and over who hold higher education degree (intermediate diploma and bachelor's degree or more) in various occupations (%).

Year	2010	2011	2012	2013	2014	2015	2016
1- Legislators, senior officials and managers	99.8	99.6	97	99.2	99.1	97.2	96.8
2- Specialists	99.6	99.6	99.7	99.7	99.9	99.8	99.9
3- Technicians and assistant specialists	78	80.6	81.7	82.7	83.3	79.7	86
4- Supporting office staff	13.2	12.2	15.1	14.2	9.5	9	3.9
5-sales and service workers	12.2	14	13.9	14.1	12.1	13.5	10.7
6- Skilled workers in agriculture, forestry and fishing	5.8	4.4	4.1	5.3	3.5	5.4	4.9
7-Craftsmen and their related professions	5.4	4.6	6	6.8	6.1	7.1	6.2
8- Factory and machinery operators and assembly workers	4.4	4.7	4.6	4.3	5	4.8	5.1
9- Workers in elementary professions	2.3	2.5	2.4	2.3	2.3	3.3	2.8

The data in Table 6 largely support the view presented in the previous table that the largest percentage of higher education graduates are concentrated in higher positions (education, health, technology, communications, finance, and insurance), despite the small fluctuations between years. This indicates that higher education graduates tend to occupy positions that they think are suitable for their educational level, society, and with high wages, but at the same time are spread out in middle positions (real estate, entertainment, energy) and lower ones (rest of jobs), indicating the lack of adequate proper jobs and wages.

Table 6. Percentage of employed Jordanians aged 15 years and over who hold higher education degree (Intermediate diploma and bachelor's degree or more) based on current main economic activity.

Year	2010	2011	2012	2013	2014	2015	2016
Agriculture, forestry and fishing	12	11.2	13.1	8.5	6.3	7.3	7.6
Mining and quarrying	35.3	30.6	22.8	26	19.8	25.9	27.4
Transforming industry	21.1	23.7	22.1	22.1	20.1	20.9	23.4
Electricity, gas, steam and air-conditioning supplies	40.6	55.6	50.2	42.3	29.8	36.3	43.4
Water supply, sewage and waste management and treatment	22.4	42.9	46.3	40.2	26	27.1	12.2
Construction	20.1	19.2	17.9	17.2	16.6	12.6	12.1
Wholesale and retail trade, motor vehicle and motorcycle repair	21.7	23.5	23	22.8	20.5	22.5	21.7
Transport and storage	15.8	14.4	14.7	14.5	14.3	14.6	16.6
Lodging and catering services	23.2	23.2	20.4	21.6	19.2	16.6	21
Information and Telecommunication	69.2	73.5	73.4	77.2	80.9	82.6	82.5
Finance and insurance activities	76.9	80.1	81.5	82.1	84.6	86.8	85.7
Real estate activities	42.3	37.7	48.8	56.8	60	40.3	45.9
Vocational, scientific and technical activities	81.2	83.2	84.4	89.8	89.4	84.1	85.9
Administrative and support service activities	30.9	26	28.4	31.6	28.2	28.8	33
Public administration and defence, compulsory social security	27	27.4	28	26.9	26.7	25.9	25
Education	83.7	84.9	85.8	85.7	85.9	84.5	83.7
Human health and social service activities	74.8	79.5	79.3	80	79.6	78.8	80.6
Arts, leisure and recreation activities	32.2	32.6	38.3	32.1	33.4	35.4	40
Other service activities	18.8	21.1	23	26.4	24	21.8	20.5
Household activities as an employer, household activities to produce goods and services for their own use	5.3	4.8	7.1	5.1	7.6	0	10.3
Activities of extraterritorial organizations	65.1	54.6	60.4	60	69.4	71.9	66.5

On the other hand, the data in Table 7 indicate that most of those looking for another or additional work are those who have degrees less than secondary school, such as primary and elementary, which is normal, because they often work in low level jobs, therefore having low incomes. However, the fact that higher education graduates are in second place for those looking for another or additional work indicates a defect in income, and that it is not sufficient to cover the cost of living, which is supported by the monthly income categories table, and the annual expenditure.

Table 7. Percentage of employed Jordanians aged 15 years and over who are looking for another or overtime job by educational level.

Year	2017	2018	2019	2020	2021
Uneducated	2.4	2.4	2.1	1.6	2.1
Less than secondary sch.	68.4	70.3	74.2	74	74.3
Secondary sch.	9.4	7.5	7.5	5.1	8.8
Intermediate diploma + bachelor's degree and higher	19.8	19.9	16.2	19.3	14.8

Table 8 data show that the percentage of individuals who have obtained new job with higher education degrees compared to other educational levels has ranged from approximately 32-43%, an average of 38.3%, compared to approximately 25-37% leaving the labor market, an average of 31.6%, and this is a normal replacement of labor. On the other hand, the data indicate an improvement in the creation of jobs for higher education graduates since 2018, with an average of 39.3% created jobs, with the exception of 2020, which coincided with the spread of the coronavirus pandemic. However, comparing these results with the results of the previous table shows that these new jobs did not reduce unemployment for higher education graduates, and this indicates a rise in the number of higher education graduates compared to the number of new jobs created.

Table 8. Percentage of individuals 15 years and over who hold higher education degree (intermediate diploma and bachelor's degree or more) who obtained a new job, or left job, and the percentage of new jobs created or lost.

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2020	2021
New Job	39.6	38.4	37.3	37.4	31.6	32.4	38.5	42.2	41.2	39.4	42.9
Quit Job	27.3	24.6	31.9	35	28	31.5	36.8	36.2	31.9	28.2	36.3
Missing and updated jobs	50.1	49	41.4	38.8	33.6	33	39.6	46	58	(8.4)	51.5

9.3. The Effect of Higher Education on the Income Levels and Spending Behavior

The data of Table 9 show that the largest percentage of higher degrees is in the income category (300-499) followed by (≥ 500), and this is considered normal and consistent with the data in the previous tables, which showed that most of the higher degree are concentrated in higher positions. However, the movement of the percentages during different years is fluctuating, not increasing as expected. Logically, the decrease in the percentage in one category implies an increase in another, the decrease in the percentage of higher degrees in the larger income categories means an increase in the lower income ones, which explains the impulse of some of them to seek additional job, or a new one, as shown in Table 7. This also indicates a lack of improvement in income levels, but rather a decrease in them, especially in the private sector.

On the other hand, the largest percentage of higher degrees is concentrated in the category (300-499) not (≥ 500), and this indicates that there is no economic feasibility of higher education, and many of the higher positions occupied by higher degrees are of middle-income levels, and most of the new jobs created are of medium to low income level.

Table 9. Percentage of employed Jordanians aged 15 years and over who hold higher education degree (intermediate diploma and bachelor's degree or more) according to the monthly income categories from work.

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Less than 100	0.86	0.62	0.52	0.5	0.28	0.35	0.22	2.9	2.5	2.1	1.6	1.9
199 -100	5.3	4.3	3.9	3.1	2.6	2.5	2.4					
299 -200	30	24	18	17	14	13.4	13.9	8.9	10.5	9.5	9.6	9.5
499 -300	43	51.6	57	59	62.2	61.3	60.8	53.6	59.4	62.8	58.8	53.5
500 and more	20.4	19.4	20.5	20	20.8	22.4	22.7	34.6	27.6	25.6	30	35

Table 10. Average annual and monthly current income in JOD of different educational level for the year 2017.

Education level	**Illiterate\ Read and write**	**Elementary**	**Preparatory**	**Basic**	**Vocational apprenticeship**	**Secondary**	**Intermediate diploma**	**Bachelor**	**Higher diploma**	**Master**	**PhD**
Average annual household income	7909.3	9399.4	11301,3	7482,5	8118,3	11557	12883,3	16577,1	15529,8	20046,3	25939
Average monthly household income	659.1	783.3	941.8	623.5	676.5	963	1073.6	1381.4	1294.2	1670.5	2161.6

Table 11. Percentage of Jordanian households according to categories of annual household expenditure and the educational level of the head of the household for the year 2017.

Education level	Illiterate \ Read and write	Elementary	Preparatory	Basic	Vocational apprenticeship	Secondary	Intermediate diploma	Bachelor	Higher diploma	Master	PhD
Less than 2500	3.5	0.6	0.7	0.5	0	0	0.1	0	0	2.8	0
5000 > -2500	23.1	11.1	7.1	8.7	3.9	5.1	3	1.9	1.7	1	0
7500> -5000	28.4	26.6	18.8	29	32.3	15.7	13.2	9.3	10.5	5.4	1.7
10000> -7500	19.5	22.5	21.8	26.6	22.6	22.7	19.1	15.9	14.1	12.9	4.8
12500 > -10000	12.5	15.8	17.8	16.6	17	18.9	18.3	14.5	5.8	14	12.2
15000 > -12500	5.4	8.9	11.4	7	9.2	12.3	11.1	12.6	21.4	10.2	8.6
17500 > -15000	2.7	5.1	7.8	5.8	8.1	8.5	10.8	11.8	13.9	7.6	14.9
20000 > -17500	2.3	2.6	4.7	2.1	2.1	5.1	7.6	7.5	9.5	9.6	8.2
22500 > -20000	0.8	2.2	3.3	1.3	0.9	3.5	2.8	5.2	4.7	7.1	10.5
25000 > -22500	1.1	2	1.5	0.9	1.8	2.6	3.4	3.9	4.8	4.9	2.3
25000 and more	0.9	2.7	5.2	1.7	2.1	5.7	10.6	17.4	13.6	24.5	36.7
Total	100	100	100	100	100	100	100	100	100	100	100

Table 12. Percentage of Jordanian households who spend approximately equal to or more than their average annual income.

Education level	Intermediate diploma	Bachelor	Higher diploma	Master	PhD
Average annual household income	12883,3	16577,1	15529,8	20046,3	25939
Percentage of Jordanian households spending almost equal to their average annual income and more	46.3%	45.8%	46.5%	36.5%	36.7%

The data in Table 12 (was calculated using the annual income data in Table 10, and annual expenditure in Table 11 for higher education degrees –intermediate diploma and higher- for the year 2017), show that more than one third to about half of Jordanian households supported by higher education degrees heads spend equal to their average income or more, which means they do not save, and are in debt, and that higher education has not had a positive effect on their financial decision making. This justifies the fact that about one fifth of higher education employees seek other or additional job. This means that either consumerism is widespread, and the desire to change level of living among higher education graduates is greater than others, or that the cost of living is high, but it does not necessarily mean that other Jordanian families live in a better living level, but they preferred to live at a certain level that would help them save for the future (Department of Statistics, 2022).

9.4. The Effect of Higher Education on Rates of Divorce

Despite the lack of detailed data of the rates of divorce at different educational levels, the data in Table 13 clearly indicate that the learners in general are more likely to practice divorce than the illiterates. This is strange, especially since they work in better jobs and income levels. However, it seems again that consumerism, and the desire to change the level of living among learners is more than the illiterates, which increases the social and economic burdens on spouses, psychological pressures and family problems as well, in light of the continuous rise in prices, and the lack of improvement in income levels for years.

Table 13. Number of divorces by educational status.

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Educated	15505	16046	17635	18970	20911	22070	21969	21123	20206	18122
Uneducated	202	40	61	6	0	0	0	87	73	1119

9.5. The Effect of Higher Education on Family Size

The data in Table 14 indicate that the effect of educational level is not great on family size, as the average family size in general in 2017 was (4.9). The average family size among illiterates is even less than among educated in general. Even though this average is for one year, this average has remained almost the same over the different years, as shown by Table 15. This indicates that education has little effect in relation to traditions and customs, and that the average family size has not been affected by poor economic conditions Jordan is

experiencing, in terms of low income levels, high prices, and high unemployment rates. This confirms the increase in the economic and social burdens on the heads of families, and explains to a large extent the high rates of divorce, and the desire of many to find additional work.

Table 14. Average household size by educational level in 2017.

Education level	Illiterate\ Read and write	Elementary	Preparatory	Basic	Vocational apprenticeship	Secondary	Intermediate diploma	Bachelor	Higher diploma	Master	PhD
Average household size	4.1	4.9	5.4	4.8	5.2	5	5.1	4.5	5.5	4.5	4.9

Table 15. Average Jordanian household size in different years.

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021
Average household size	4.78	4.78	4.78	4.8	4.8	4.8	4.8	4.8	4.8

10. Conclusion

Now, going back to the question this study is trying to answer, which is whether higher education institutions did their duty, or was there a disconnect between their performance and what they were required to do, and relying on the knowledge of the effect of higher education on its graduates from different aspects to answer that question. The observer of the previous results will know that the effects of higher education were not positive on the various aspects studied, it did not improve the numbers of unemployment and idleness for its graduates, it did not change their spending behavior for the better, and it did not change the size of their households significantly, all of these points indicate the failure of higher education institutions to play their role, and that the disruptions that afflicted various sectors such as health, industry, trade, housing, and others have afflicted education sector in general, and higher education in particular, so that the increase in the number of higher education graduates implies low quality graduates, so it does not necessarily mean a desire for higher education because of its quality, but because there is an old idea among Jordanians that having a higher degree increases the chances of getting a good job, regardless of the validity of this idea.

As a result of everything that was presented, Jordan's ranking on the global happiness index continued to decline from 2013 until 2022, where Jordan ranked (134) out of (146) countries, achieving a score of (4.512) out of (8) scores, making it among the least happy countries in the world (Department of Statistics, 2022).

References

Abd El-Gaphaar, A.-E. (1995). Invitation for development of university education. *Studies in University Journal, University of Ein Shams, 1*, 13-18.

Adam, N. O. A.-E. (2014). Universities: A study of concept, origin, and mission. *Al-Jazeera Journal of Educational and Humanities Sciences, 11*(1), 1-33.

Al-Etrebi, H. (2011). The role of universities in achieving intellectual security. *Arabic Future Journal, 18*(70), 157-224.

Al-Momani, S. A. (2020). The role of yarmouk university in curbing unemployment from the perspective of postgraduate students. *Jordanian Zaytonah University Journal for Humanitarian and Social Studies, 1*(1), 152-175.

Al-Samadouni, I., & Ahmad, S. (2005). Activation of faculty members of Egyptian universities in community service. *Journal of Education, 23*(127), 17-84.

Al-Shakhaibi, A. A.-S. e. (2012). *New horizons in university education* (1st ed.). Cairo: Dar El-Fikr Al-Arabi.

Al-Smadi, A., Al-O`toom, S., & Al-Rashdan, I. (2019). *Spending on higher education and research in Hashimait Kingdom of Jordan: International indices and comparisons, digital journalist blog, 2019*. Retrieved from https://www.jmidigitalmedia.com/?p=1029

Badran, I. (2022). *Crisis of unemployment and the role of universities in addressing it*: Al-Gad Newspaper, May 11,2022.

Chan, R. Y. (2016). Understanding the purpose of higher education: An analysis of the economic and social benefits for completing a college degree. *Journal of Education Policy, Planning and Administration, 6*(5), 1-40.

Country Status Report. (2021). *Jordanian economic and social council.* Retrieved from https://www.esc.jo/ReportView.aspx?Id=140

Dagger, A., Tarawneh, I., & Al-Qudah, M. A. (2016). Level of mmatching of output of Jordanain high education to labor market needs. *Dirasat Journal for Educational Sciences, 43*(5), 2033-2049.

DeJong, J., Jawad, R., Mortagy, I., & Shepard, B. (2005). The sexual and reproductive health of young people in the Arab countries and Iran. *Reproductive Health Matters, 13*(25), 49-59. https://doi.org/10.1016/s0968-8080(05)25181-9

Department of Statistics. (2021). Department of Statistics. (2021). *Jordan annual statistics book, issue No. 72*. Retrieved from http://dosweb.dos.gov.jo/databank/yearbook/YearBook2021.pdf

Department of Statistics. (2022). *Jordan in international indicators report 2021*. Retrieved from https://dosweb.dos.gov.jo/DataBank/Analytical_Reports/International_Indicators/International_Indicators.pdf.

Drucker, P. F. (1977). *An introductory view of management*. U.S.A: Harper's College Press.

Haksheh, F. F., Eid, A. A. E.-F., & Abd El- Latef, M. S. M. (2017). The role of Prince Sattam Bin Abd Al-Aziz University in raising awareness and preventing psychotropic substances: Field study. *Education College Journal- Al-Azhar University, 36*(176), 427-532.

Hill, J. K., Hoffman, D. L., & Rex, T. R. (2005). *The value of higher education: Individual and societal benefits (With special consideration for the state of Arizona)*. Retrieved from WP Carey School of Business, Arizona State University, A Report from the Productivity and Prosperity Project (P3):

Hunaiti, D., Al-Majali, F., Al-Abdul-Razag, B., Shammari, N., & Aletoui, M. (2014). Economic and social factors related to the situation of unemployment in South Region of Jordan. *Jordan Journal of Agricultural Sciences, 10*(3), 631-646.

Khawajah, A. A.-A. (2005). *Principles in socialization*. Algeria: Wahran.

Ministry of Higher Education. (2018). *Jordanian Universities Law No. 18 for 2018*: Higher Education Ministry Publications.

Mourshed, M., Farrell, D., & Barton, D. (2012). *Education to employment: Designing a system that works: McKinsey center for government*. Retrieved from https://www.mckinsey.com/industries/education/our-insights/education-to-employment-designing-a-system-that-works

Othman, S. e. A. (1986). Socialization responsibility and muslim personality: Educational psychological study. In (2nd ed., pp. 42). Cairo, Egypt: Anglo-Egyptian Bookshop.

PricewaterhouseCoopers, M. B. R. A. M. F. (2008). *Arab human capital challenge: The voice of CEOs*. Dubai: United Arab Emirates.

RAND Corporation of Middle Eastern Youth. (2014). *Youth in Jordan- transitions from education to employment: RAND Center for Middle East public policy*. Retrieved from Library of Congress Control Number: 2014940276:

Razzaz, S., & Iqbal, F. (2008). *Job growth without unemployment reduction: The experience of Jordan*. Washington, DC: World Bank.

Zaher, A. S. (2006). Academic performance quality indicators in higher education institutions: An applied study at Asir Region's educational colleges. *Saudi Journal of Higher Education, 2*(4), 93-175.