

Regulation of Academia in Israel: Legislation, Policy, and Market Forces

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Received: July 22, 2016

Accepted: September 8, 2016

Online Published: September 26, 2016

doi:10.5539/jel.v5n4p165

URL: <http://dx.doi.org/10.5539/jel.v5n4p165>

Abstract

The rapid development of Israel's system of higher education in recent years has led to a sharp rise in the number of students, the establishment of new institutions certified to award degrees, and legislation and policy changes. The evolving circumstances are explored in the current article, which follows the sources, causes, and justifications for these changes. The study analyzes three major processes that occurred in Israel's system of higher education since its reform in the early 1990s: the increase in the number of students, admission terms to the departments, and the demand for studies. The research findings indicate that it was the government's decision to establish colleges in the early 1990s, rather than free market forces, that led to the considerable increase in enrollment for academic studies. Then again, free market forces appear to determine admission terms to the various departments in accordance with the principles of demand and supply. Furthermore, the government intervenes to regulate the supply of high-demand fields of study but does not complement this by acting to regulate demand trends, which are determined exclusively by the free will of applicants. Therefore, the research conclusion is that Israel has no clear well-formulated policy on higher education, a fact that allows the unrestrained detrimental domination of this system by free market forces.

Keywords: higher education, Israel, public policy, regulation

1. Introduction

1.1 Expanding Accessibility to Higher Education around the World—From the Elite to the Masses, from Selective Admission to Full Accessibility

Beginning from the mid twentieth century higher education underwent a process of transformation from the lot of an elitist minority to that of the masses. This process was manifested in a sharp rise in the quantities of students in most western countries (Lindberg, 2007; Toutkoushian & Shafiq, 2010; Finnie & Usher, 2007). The rise affected, among other things, the number, size, diversity, and structure (Vaira, 2004) of institutions of higher education throughout the world. These changes, in addition to the rise of the "knowledge society" (Bridges et al., 2014), demographic developments, slow economic growth, globalization (Enders, 2004), and increasing global competition (Dobbins & Knill, 2014; Dobbins, Knill, & Vögtle, 2011)—changed the face of higher education and necessitated a new approach to regulation, control, and supervision of the developing and diversifying system (Davidovitch, Sinuany-Stern, & Iram, 2013).

Most western countries tried to cope with the changes by means of structural reforms intended to change regulatory patterns of higher education (Norton, 2012; McLendon, 2003). For example in the United States, from 1985-2000, states throughout the federation debated over 100 different proposals for reform in the structure, function, and authority and governance patterns of their systems of higher education (McLendon, 2003). In European countries, dozens of reforms were attempted beginning from the 1980s, with the aim of restructuring relations between the government, society, and institutions of higher education (Dobbins & Knill, 2009). In Australia a committee was convened with the purpose of examining the structure of the academic system and the changing needs for managing institutions of higher education in the new global economy (Bradley et al., 2008).

The committee published its conclusions in a final report (Note 1), which determined that it is necessary to increase federal regulation of higher education (Bradley et al., 2008).

All the various structural reforms proposed or implemented throughout the world have one thing in common—the search for an optimal method of governance for higher education on the institutional and systemic level, with the aim of dealing with the challenges of higher education. Until World War II the system of higher education reflected the existing social order and served as a hothouse for nurturing the elite (Bourdieu & Passeron, 1977; Collins, 1979). From the second half of the twentieth century the system of higher education expanded significantly (OECD, 2003) and its target population changed. This was the beginning of the era of “higher education for the masses” (Trow, 1970; Arun et al., 2007). Higher education was perceived as the basic right of all citizens. For example, in the 1950s the participation rate of the relevant age group in academic studies was 3-5%, while by the mid-1990s it had reached approximately 20% in the UK, 35% in France and Germany, and 55% in the US (Guri-Rosenblit, 1994). At the beginning of this era, the matriculation certificate served as an entrance ticket to institutions of higher education. The growing demand for higher education, on one hand, and the fact that the expansion of the universities did not meet the demand, on the other, resulted in recent decades in the transformation of admission policies to institutions of higher education throughout the world. The system became more meritocratic, i.e., the matriculation certificate, which until then had been a universal, exclusive, and sufficient term of admission to universities, underwent a process of devaluation. Various institutions no longer considered it sufficient, and added to their admission terms criteria such as achievements on psychometric exams and appearances before admission or selection committees.

This trend of expansion within higher education was evident in Israel as well, and Israel’s system of higher education underwent a revolutionary transition in recent years, which some call a metamorphosis (Gur-Zeev, 2005). The changes in this field involve various aspects of Israel’s higher education: a sharp rise in the number of students, establishment of institutions certified to award degrees, changes in legislation, changes in regularization and policy, and changes in the general policy with regard to the aims of academic institutions. All these have changed radically, leading to a series of acute public debates. The many controversies center, one way or another, on a single major issue: how does academic freedom, as manifested in a free academic “market” (in the spirit of the liberal approach), fit in with the regulation of higher education (according to the social-egalitarian worldview espoused by Karl Marx)? Thus, the purpose of the current study is to explore to what degree is the regulation of Israel’s higher education motivated by free market forces and to what degree does it seek to shape the market of higher education.

1.2 On Regulation and Globalization—Public Policy in the Process of Change

Regulation, in its widest sense, is the collection of laws and regulations that regularize the exchange of commodities and services in society (Moran & Wood, 1993). The term “regulation” may be interpreted as regularization, supervision, intervention, or standardization of a certain activity. In the government context, regulation refers to an action that regularizes activities that are within the authority of the government. Government regulation reflects the involvement of the government in a certain activity, with countries differing in the extent, design, and implementation of their regularization policy (Arbel-Ganz, 2003).

The concept of regulation originates from the economic theory (Stigler, 1971), whereby a major goal of supervision is the defense of public interests (Waters & Moore, 1990). Historically, the United States is considered to have been the first to embrace government regulation, by using administrative mechanisms to supervise the free market. The United States, which stands for the principle of market forces, saw a need in the early twentieth century to supervise the markets in order to stabilize market forces, supervise prices, and set threshold conditions for entering the markets. These goals changed over time, and today the goals of regulation primarily involve defending public health, avoiding risk, and preventing the exploitation of weak segments of society (Sunstein, 1990).

The change in the objects regulated is strongly connected to the process of globalization (Arimoto, Huang, & Yokoyama, 2005)—a socioeconomic process that instigated an ideological and paradigmatic revolution throughout the entire world. From the 1960s the welfare state began to lose force and Keynesian economics were abandoned. This approach, that supported government involvement and supervision of the markets, was replaced by the “weak state”, which lets an “invisible hand” dictate economy reality. As globalization gradually took hold, the principle of competition spread, leading to liberalization and privatization of the markets. However, after many years of full confidence in pure market forces and in the power of the “invisible hand” to guide the economy and society, we are witnessing the emergence of the “new regulatory state”, i.e., a new public policy implemented by progressive countries (King, 2007). The new regulatory state exists in extensive geographical

areas: United States, the UK, and other European countries, and some indicate a regulatory state within states that are not regulatory by definition (Moran, 2002). The regulatory state is the improved nation state, which relinquished bureaucratic policy and the principle of welfare in favor of another type of public supervision, that which operates on the principle of separating extensive areas of public policy. This separation is evident in the boundaries between policy designers in the various departments, and policy executors, in the structuring of a formal distinction between consumers (the government) and suppliers (the market), and in the establishment of independent institutions that serve as the long arm of the government, which aims to influence the market in the name of public interests (King, 2007).

Some claim that globalization is the basis for changes in the higher education policy, changes that are taking place in many countries around the world (Menachem, Tamir, & Shavit, 2008). It has spread capitalism and transformed it into a type of ideological doctrine that can be applied to all areas of life. As a result, concepts from the domain of capitalist economics have been imported to within universities, affecting their very essence. These effects, by transforming knowledge into a type of “commodity” (Marginson, 2009), increased competition and accessibility, on one hand, and on the other created an urgent need to ensure the quality of the system’s products, protect the status of education, and avoid an “inflation” of academic degrees. In the context of higher education, the question is whether there are supervisory mechanisms? If so, what are they and how do they operate? The following is a review of the situation around the world in this area.

1.3 Policy on Higher Education—Models from around the World

It was no mere chance that led Israel’s higher education to receive extra emphasis beginning from the 1990s. This was a reflection of a world trend known as “global mastication” of higher education (Kim & Lee, 2006). The enormous increase in the demand for higher education created, on the one hand, pressure on governments to solve the problem of access and, on the other, raised the need for supervision of the system. On the fundamental level, i.e., with regard to policy, the government was required to reach a decision on two main aspects—accessibility and funding, and the relations between these variables are fairly complex. High accessibility increases the number of students but also the economic burden on the government. In such cases the government must deal with the dilemma of commercializing institutions of higher education by opening the market to private institutions. Consequently, accessibility rises and the funding problem is solved however the institutions vary in quality. This is the situation in the United States, which has both private universities and public colleges. These circumstances indeed increase the accessibility of higher education but create real differences in the quality of the institutions and their products (Eckel, 2007). Another option is to restrict accessibility by means of high selectivity and full funding of institutions, creating a limited and inaccessible system of higher education but one that has very high standards and is elitist, as in China and the Soviet Union (Zhong, 2006).

Most western countries tend to comply with the demand for accessibility by opening the higher education market to competition (Kelchtermans & Verboven, 2008; Kim & Lee, 2006), however commercialization and privatization occur concurrently with the application of government supervision (Beerkens, 2008; Douglass, 2007). The extent of supervision varies, where in some countries all institutions of higher education are supervised by the government, while in others supervised institutions exist side by side with privately run institutions. The type of supervision might include self-evaluation by the schools themselves (Brown, 2006), accreditation, public reports, a review board, or international peer review. Funding of supervision might be public or private and supervisors may include representatives of the universities or representatives of all institutions together (Bernstein, 2002).

The source of funding changes as well, where some countries embrace a model whereby the university is operated and funded by the government and tuition is very low or nonexistent. In these countries higher education is perceived as a right to which every citizen is entitled. In other countries institutions are public but students are required to cover a large part of the cost of studies. A third model is involves concurrent private and public institutions (Douglass, 2007). In the United States, for example, the regulatory model operates on several levels, with registration carried out on the state level and supervision performed by the federal government and private accreditation institutions. Private accreditation is performed by a professional body and a regional body funded by the university and including representatives of all institutions (Bernstein, 2002).

In Sweden higher education is public but, there too, it must cope with the market dilemma. The country, which was in the past a distinctly welfare state, is now globally run. Higher education, formerly planned and supervised, is now a system with extensive freedom of action. Universities, however, object to commercialization, which might increase their independence from the establishment but involves expansion of the contractual element at

institutions of higher education. An extensive study conducted by Tolofari (2008) found that in Sweden the consensus tends towards retaining higher education in the public sphere, both in academia and among policy shapers. The study shows that the Swedes are reluctant to use contacts within global education as a means of expanding the country's exports.

South Korea went through a similar process to that of Israel in its higher education. In recent decades higher education has spread to significant parts of the population. While in the 1970s the number of students was seven percent of the relevant age group, today more than fifty percent of high school graduates continue to higher education (Phelps et al., 2003). Kim and Lee (2006) claim that, as a result of the change in policy enacted by the South Korean government, accessibility to higher education increased significantly—the system is capable of accepting more than eighty percent of high school graduates. In addition, the flourishing of private institutions contributed to development of the South Korean economy. These changes were indeed accompanied by increased accessibility, but as a result the system of higher education became very dependent on the private sector. The researchers claim that this is problematic since government supervision is unsuitable. They say that in order for the education system to benefit from market forces government supervision is necessary, as well as outlining the most suitable structure for activities of the institutions, students, and various faculties. In their opinion, this is essential for creating an academic sector that is both efficient and egalitarian.

Similar to Israel, South Korea as well is encountering many challenges due to the changes experienced by the system of higher education: economic, social, political, and educational. The Korean government chose to cope with the considerable increase in the demand for higher education by discarding its strict regulation of the system and widely relying on the private sector. In Korea as in Israel, the restrictions on private institutions with regard to accreditation was cancelled, symbolizing the beginning of privatization of higher education—more than ninety five percent of students study at private institutions. A similar process occurred in China, who for many years espoused strict supervision of institutions of higher education and a limited elitist system. The enhancement of globalization processes, together with the rise in demand for higher education, led the country to reconsider its strict policy of supervision and to adapt itself to the demands of the market (Mok & Ngok, 2008). The state responded to the challenges of globalization by opening its higher education sector to private institutions and even to foreign branches. This decision led to a considerable flourishing in the number of institutions, as well as to diversity and pluralism. Nonetheless, today there is a great deal of tension between the government and private institutions, and the sense is that the government has lost its capacity to supervise. Mok and Ngok (2008) contend that there is an urgent need to develop a formal uniform regulatory mechanism adapted to the new market circumstances.

Hence, it appears that all over the world countries are encountering a new situation in which there is a lack of adjustment to the changing market on the policy level. Countries that traditionally utilized a well supervised system of higher education must now outline a new policy in order to deal with the processes of privatization and commercialization that have emerged in the field of higher education (Beerkens, 2008; Eckel, 2007; Mok & Ngok, 2008; Van der Walt et al., 2003). Israel is no different in this respect, as in the middle of the second decade of the millennia it too has arrived at a hopeless situation.

1.4 Characteristics of Israel's Public Policy on Higher Education—A Historical Perspective—The Change in Israel's Economic World View

The State of Israel, founded on the basis of a social democratic economic world view under the leadership of the Mapay party (Hebrew acronym for "Workers of the Land of Israel") went through a conspicuous change in its economic world view with the rise to power of the Likud (Mahal) party in 1977, a party that espouses freedom of action for free market forces. While Israel's economic policy was transformed, the process of globalization also began to accelerate and expand. This process brought with it concepts such as competition, commercialization, market forces, free market. While, traditionally, higher education was a domain protected from economic processes experienced by society (Eckel, 2007), epitomizing freedom of thought and free research (Volansky, 2005), at present capitalist logic has begun to knock on its door as well, threatening to erode its standards. This logic has at its basis the sanctification of the principle of utilitarianism and utilization of the "invisible hand" as its compass. As stated, knocking on the door of academia has and is occurring all over the world at different rates; some have opened the door wide while others only partly, as shown above.

The rise to power of the Likud party in Israel indeed led to attempts to implement the doctrine of the classical liberal approach, however in practice this approach was only partially implemented. This was a result, first and foremost, of the political price that the new ruling party was concerned of paying if it were to implement a full systematic policy. Today it is possible to identify in Israel policy patterns compatible with the neoliberal

approach that began developing in the world at large and in Israel in particular in the early 1990s. The economic policy of the neoliberal regimes is characterized by use of indirect regulatory policy instruments, with the purpose of creating and encouraging free markets, supporting and encouraging their functionality, and helping private players accumulate capital through support and connections with the global business world and the global financial network.

According to the neoliberal approaches, one's quality of life can better progress and develop through private individual entrepreneurship of society's talented, who are given the liberty to realize their talents within a framework characterized by granting many strong rights to private ownership, free market, and free commerce (Harvey, 2005; Clarke, 2004; Frow, 1999). According to this conception, the government has an important role in shaping and urging regulatory processes aimed at maintaining private ownership, free market, and free commerce, but it must maintain a distance and take care not to participate directly in the market and in the provision of social services. The markets and not the government represent a pure manifestation of the people's will (Frank, 2000). This economic policy has been implemented in Israel, as stated, by various regulatory authorities since the early 1990s, and these became major players in shaping the local economy.

1.5 Independent Self-Regularization

Even before the State of Israel was declared in 1948, higher education was a top priority of the Jewish Settlement in the Land of Israel. Two of Israel's fundamental institutions of higher education were founded in this period: the Technion (1925) and the Weizmann Institute (1934). Their establishment indicated the significance of education for the state in its initial stages of formation: "The State of Israel must set itself a goal: to impart to the entire younger generation with no exceptions, whether the parents are affluent or poor, from Europe or from Asia and Africa, an elementary, secondary, and tertiary education—this means providing every boy and girl in Israel with an academic education" (Ben Gurion, cited in Michaeli, 2008).

At that time most areas of life were colored in political hues (Gal-Nur, 1985). However the academic institutions were managed by an independent self-regularized regime (Menachem et al., 2008). These arrangements were sufficient until the state was established, however once it was founded concerns arose that schools of higher education as well would show political inclinations. In the first years of the state, most of the funding was controlled by the government, and there were quite a few attempts to make academia "relevant" and also to impose bureaucratic supervision (Gal-Nur, 2009).

1.6 Supervised Self-Regularization

These attempts were unsuccessful and government intervention in academic matters was prevented by the legislation of the Council for Higher Education Law (1958). This law put an end to varied proposals that sought to impose government supervision on Israel's higher education, and it arranged for establishment of the Council for Higher Education (CHE). The CHE was declared "the government institution for matters of higher education in the country" (Council for Higher Education Law, 1958, endnote 3). Its roles included granting academic recognition, examination of the curricula, and allocating public funds from the state budget to all institutions of higher education.

The council consisted of a group of twenty five apolitical members, of whom seventeen were from academia. The purpose of the council was to serve as an intermediate agency between the government and the self managed institutions of higher education (Gal-Nur, 2009). Beginning from the mid-1970s, another agency responsible for budgetary aspects joined CHE activities—the Planning and Budgeting Committee (PBC). This committee acts as the operational arm of the council and is responsible for distribution of funds according to criteria determined by the council.

The joint activity of the CHE and the PBC created a public regulatory system that made it possible for universities to conduct themselves independently while supervised by state organs. Concurrently with external supervision, however, the universities enjoyed self-supervision. In those years the CHE was the gatekeeper of academia, exclusively regularizing entrance to the field of higher education, the structure of the market and its organization, as well as the funding of each institution (Menachem et al., 2008). These agencies bore the administrative responsibility for Israel's system of higher education. This policy, also called the "uniform policy regime" (ibid.) came to its end in the early 1990s with the higher education reform of the 1990s.

Towards the end of the 1980s, economic, social, political, and demographic processes began emerging, eventually leading to a perceptual change with regard to public services. The rising power of the new right wing and neoliberalism called for the redesign of public services in general and of education in particular, by market forces (Volansky, 1994). This call also reached the Knesset, Israel's parliament, and in Resolution 3694

(Resolution of the State of Israel, 1994) it confirmed the expansion of the number of institutions entitled to award academic degrees. At the same time, the activity of extra-budgetary academic institutions was approved, as well as the opening of Israeli branches of foreign universities (Bernstein, 2002). In 1995 amendment number 10 to the Law of Higher Education determined that colleges as well would be entitled to award academic degrees, constituting part of the system of higher education. A college, according to the words of the law, is “an institution of higher education that is not a university and that has been certified to award its graduates a recognized degree at one or more of its units or that received a certificate of permission” (Council for Higher Education Law, Amendment no. 10, 1995).

These three resolutions created: diversification, privatization, and internationalization of the system of higher education (Menachem et al., 2008). Diversification was manifested in the tripling of the number of public colleges eligible for funding albeit not for research purposes, as compared to the 1980s. Privatization was created by the approval granted to private institutions to award academic degrees, whereby they are subject to the CHE but not supported by it. Internationalization was manifested in the entrance of branches of foreign universities and the approval to grant academic degrees. Until 1998 (Amendment 11 to the Higher Education Law) these branches operated with no local supervision.

These resolutions led to the expedited opening of (state funded) public colleges and (non-state funded) private colleges as well as the establishment of branches of foreign universities. The resolutions, finalized nearly two decades ago, changed the face of Israel’s higher education. They symbolized a paradigmatic transformation of the regularization policy customary in Israel until that time, a transformation that led to the flourishing of institutions of higher education and a considerable rise in the number of students—where in the late 1980s the rate of undergraduate students aged 20-29 was about eight percent, by the 2003-2004 school year it had reached fourteen percent. In total, in 2004 there were about one hundred and fifty thousand undergraduate students, not including the Open University, and in academic colleges their number reached four fifths that of university students.

The rise in the number of students admitted to academic colleges was particularly conspicuous in disciplines valued in the labor market. These processes accelerated with the approval of the Council for Higher Education to open graduate programs for research degrees at colleges (Zussman, Forman, Kaplan, & Romanov, 2009). Policy change usually reflects a deeper shift in society. Clark (1983) claims that, with regard to higher education policy, this involves a relationship between three elements: government authorities, the academic establishment, and the market. At present, in the mid-2010s, the policy issue has added significance, considering that the struggle for the future of higher education is at its height (Gur-Zeev, 2007). This struggle is primarily ideological, where some seek to apply market forces to academic life, and others seek to preserve the existing regulatory mechanisms. Hence, it appears that ideologies are merely a matter of policy, dictating the mix of relations between market forces and government authorities.

The end of regulatory processes involving Israel’s higher education does not seem to be anywhere near. In our opinion, this is because the factors responsible are avoiding any uniform and clear policy. Higher education policy appears to have taken a passive form. The absence of a clear uniform direction guiding the approach to higher education has led to the current study, which deals with an issue at the heart of the public debate on higher education—to supervise or not to supervise? To intervene or not to intervene? This fundamental question is complemented by other sub-questions, on whether academic supervision is indeed the proper course of action, and if so, to what extent? If we choose to implement market principles in Israeli academia, to what degree should they be allowed to operate? What is the price of such a decision? What is the most suitable policy? Is it possible to retain excellence while maintaining accessibility? In the current study we shall describe and analyze public policy for development of Israel’s higher education as formulated and implemented from the early 1990s until the current time, and determine whether this policy is a product of purposeful regulation or of embracing free market principles.

1.7 Development of Israel’s System of Higher Education as Deen through the Different Political-Economic Approaches

As stated, Israel’s system of higher education went through a significant process of development from the founding of the state until the present. During this period the number of institutions granting academic degrees increased, as did the number of undergraduate and graduate students (Note 2) (Davidovitch & Iram, 2014). The CHE and the PBC, responsible for formulating the policy on higher education, initiated a reform in 1993 (Note 3) that led, in the matter of one decade, to a deep change in the structure of opportunities to acquire academic schooling in Israel. As a result of this reform, Israel’s system of higher education has changed, and since the

early 1990s the universities have been joined by many colleges, forming a more open and extensive structure of higher education in a wide range of fields. This, however, has proven to be a mixed blessing. The extremely rapid growth of Israel's higher education has had negative effects as well, with reduced standards of teaching and learning in academia, and lower government funding of schools and universities. The ratio between students to senior faculty, sixteen students to every senior faculty member in the mid-1990s, has diminished to some twenty five students to every faculty member in the mid-2000s. Furthermore, the entrance of foreign branches, the opening of nine new private schools, the increase in the number of public colleges, all led to strong competition that has proved detrimental to the quality of students and faculty. All these have had a negative effect on Israel's system of higher education and has prompted criticism against it. This criticism of the quality of higher education and the frequent budgetary crises (voiced primarily by the universities) led the government to establish a committee, which in 2007 recommended ways of improving the state of higher education and promoting regulatory processes for this purpose (Volansky, 2007).

As a result, the accelerated development of Israel's system of higher education aroused a list of sharp public controversies. The many controversies center, one way or another, on a major issue: what is the relationship between academic freedom, manifested in an almost independent academic "market" (in the spirit of the neoliberal approach), and regulation of higher education (according to the social-egalitarian world view based on the doctrine of Karl Marx)? Therefore, the purpose of this study is, as stated, to explore to what degree the regulation of Israel's higher education is motivated by free market forces and to what degree it seeks to shape the higher education market. Does the model underlying Israel's public policy resemble the liberal model in the United States which espouses, as stated, opening the education market to free competition while expanding accessibility and cancelling public funding, or is it perhaps more reminiscent of that implemented in countries with a centralized economy, such as China and the Soviet Union, where accessibility to studies is limited and schools receive full funding?

2. Method

The conclusions of this study are based on statistical data concerning trends of registration to and demand for academic studies at Israel's various institutions of higher education, admission requirements for the different disciplines, and the actual number of students. On the basis of these data, the study analyzes Israel's public policy on higher education, as reflected by its budgeting policy both for the different disciplines and for the educational institutions.

3. Results

As stated, in the last two decades, Israel's system of higher education has undergone dramatic changes manifested, among other things, in a rapid and conspicuous increase in the number of students at schools of higher education. In the 1990s the system was characterized by a particularly rapid increase in the number of students, with the vibrant demand for academic studies and the opening of new schools of higher education joining to create a new situation constituting a point of encounter forming the balance between demand and supply (CHE, 2014). In order to conclude whether the development of Israel's system of higher education is the product of a well-formed and planned government policy or the result of the government's post factum reaction to circumstances formed by free market forces, we shall examine three issues. The first of these deals with the demand for academic studies versus supply, as typical of the system of higher education prior to the reform that motivated the opening of the colleges.

3.1 *The Increase in Israel's Schools of Higher Education—Preplanned or Post Factum?*

In the late 1980s-early 1990s, Israel had only eight universities (Note 4) that received applications from thousands of candidates annually. In order to examine whether the decision to open additional schools stemmed from a steady increase in the demand for higher education, the following are the numbers of applicants for undergraduate university studies at various points in time (See Figure 1).

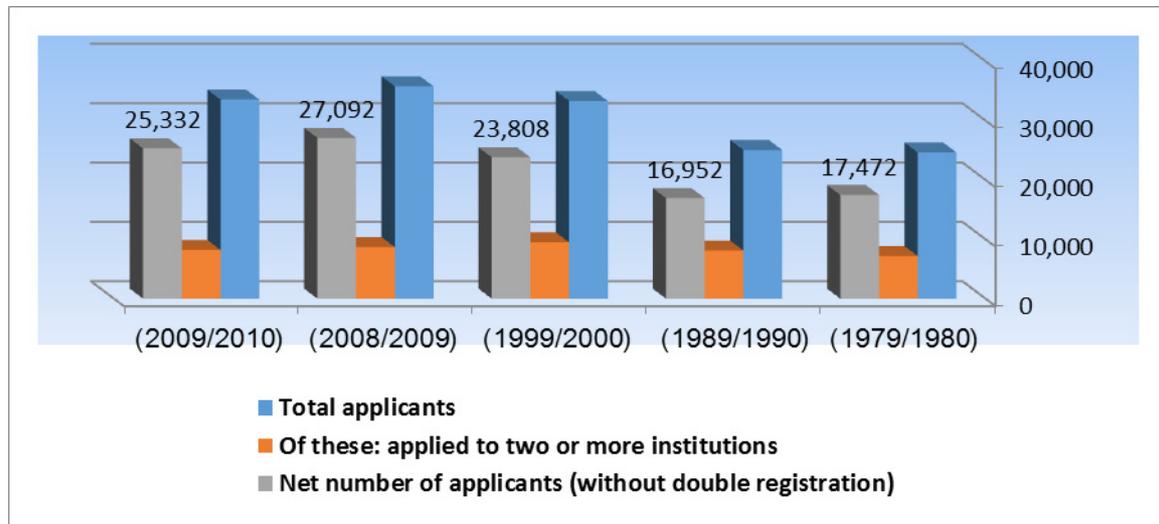


Figure 1. Number of applicants for undergraduate studies at universities in Israel during 1979-2010 (by periods) (Note 5)

The data presented in Figure 1 show that in periods prior to the reform in higher education (1993) no significant rise, if any, was evident in the number of applicants for the eight universities then active in Israel. The conspicuous increase in the number of university applicants was evident only about a decade later in the years after the reform once the gates of higher education were opened to new institutions. In contrast, this shows that the decision to expand the number of schools of higher education in Israel had nothing to do with free market forces, i.e., increased demand for undergraduate studies, which allegedly motivated the state to enact a reform aimed at increasing the supply of institutions providing higher education services. Rather the opposite, the government's decision to enact the reform created competition between the new and older schools (colleges and universities, respectively), urging them to formulate massive marketing operations and even to reduce the terms of admission to some of the departments. These changes led to a rise in the number of applicants for undergraduate studies at the universities in the years after the reform was enacted (Cohen & Davidovitch, 2015).

3.2 Terms of Admission to the Department—A Derivative of the Department's Academic Features or of the Demand for Its Services

Terms of admission to the various departments are determined by the schools themselves, but do they reflect the free market outcome, i.e., the point of encounter between supply (disciplines) and demand (number of applicants registered for these departments), or real needs in terms of the cognitive ability required of applicants in order to complete their studies?

With the aim of investigating this issue, data on the demand for six selected departments from three different disciplines will be presented: From the first discipline—physics and mathematics, which are exact sciences from the Faculty of Natural Sciences. From the second discipline—economy and law, considered logical professions, although they are not exact sciences rather are associated with the Faculty of Social Sciences, and from the third discipline—psychology and social work, considered humanistic professions. Figure 2 presents the numbers of applicants for studies at the six departments inspected in the study (Note 6) (See Figure 2).

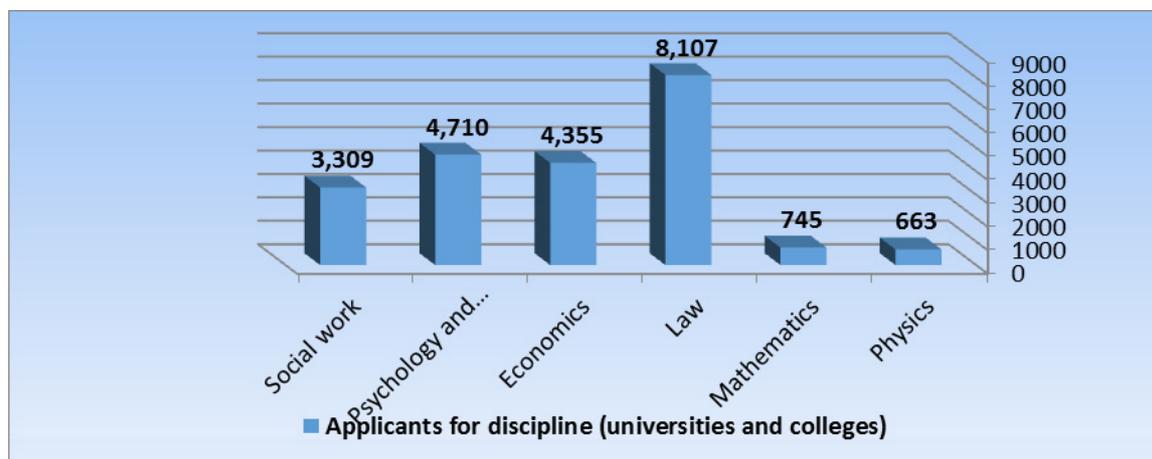


Figure 2. Number of applicants for Israeli departments in the 2010 school year (universities and colleges) (Note 7)

The data presented in the figure show that the demand for the exact sciences (physics and mathematics) is considerably lower than the demand for logical professions (law and economics) as well as than the demand for humanistic studies (psychology and social work). Then again, these studies probably require a higher cognitive level of students, who in the course of their studies must cope with quantitative courses in subjects considered difficult. Hence, it would be right to examine whether admission terms at Israeli universities reflect the necessary academic demands for succeeding in these studies or the low level of demand for them. Table 1 illuminates this issue (Cohen & Davidovitch, 2015) (See Table 1).

Table 1. Data on admission to the various departments at Israeli universities for the 2014 school year (Note 8)

The Academic Institution	Measure	Physics	Math	Law	Economics	Psychology	SW
Tel Aviv University	Coordinated score	640	620	651	620	650	582
Hebrew University	Psychometric score	584	572	716	654	740	618
Ben Gurion University	Quantitative total	600	600	NA	650	670	645
Haifa University	Psychometric score	500	500	665	660	660	615
Ariel University	Coordinated (combined)	551	590	NA	580	580	600

The data in Table 1 show no congruence between the strict academic requirements for studies in specific departments and their admission terms, as presented by Israel’s different universities. It would have been reasonable to expect that admission to studies with strict academic requirements, such as physics and mathematics, would require a high admission threshold both in absolute terms and compared to less “difficult” departments, however the data in Table 1 refute this assumption.

The low demand for physics and mathematics studies appears to moderate the real admission requirements necessary to succeed in the exact sciences in all universities investigated in this study. In contrast, the increasing demand for law, economics, and psychology studies appears to have motivated universities (Note 9) to artificially raise admission terms despite the fact that strict admission terms are not necessarily crucial for the applicant’s success in the department. Hence, free market forces evident in the supply of slots for the various departments versus the demand for studies in these departments is the dominant factor affecting admission terms.

This conclusion led us to another issue worthy of study, mainly: Does the State of Israel allow free market forces to determine the demand for higher education on their own? This might lead, on the one hand, to an excess of professionals in a certain field, possibly causing an occupational crisis in those fields or, on the other, to a lack of certain professionals, thus detracting from the ability of society as a whole to function. In order to answer these questions, we shall examine factors affecting registration to the various departments at academic institutions in Israel and try to find evidence of the government’s intervention in creating demand or supply for a certain

department by providing financial incentives and various benefits to applicants or to the academic institutions (respectively) (Cohen & Davidovitch, 2015).

3.3 The Demand for Fields of Study—A Result of Free Market Forces or Reflecting an Interventional Policy

The policy of the State of Israel on higher education is reflected in the policy of the PBC published on the website of Israel's CHE (Note 10) and has prominent features capable of affecting registration to the various departments. The first feature is associated with the PBC policy for setting maximal student quotas approved for subsidy at each of the institutions of higher education funded. Table 2 presents the number of students approved for funding by the PBC from 2010-2015, at several random representative academic institutions in various categories (See Table 2).

Table 2. Number of funded students by institution and degree (Note 11)

	2010	2011	2012	2013	2014	2015
Universities						
Bar Ilan University	16,100	16,100	16,420	16,544	16,667	16,863
Hebrew University	19,170	19,170	19,170	19,170	19,170	19,170
Tel Aviv University	23,920	23,920	23,920	23,920	23,920	23,920
Art Schools						
Bezalel	2,069	2,077	2,077	2,077	2,077	2,135
Shenkar	2,250	2,317	2,358	2,442	2,547	2,732
Engineering Colleges						
Ort Braude	2,549	2,647	2,720	2,831	2,923	3,122
Sami Shamoon	3,535	3,626	3,776	3,846	3,956	4,195
Holon Technological Institute	3,016	3,143	3,237	3,281	3,351	3,501
General Colleges						
Jezreel Valley	3,500	3,705	3,786	3,891	3,978	4,067
Tel Hai	2,649	2,831	2,957	3,015	3,107	3,306
Sapir	4,716	4,915	4,990	5,025	5,080	5,200
Rupin	2,181	2,583	2,671	2,718	2,857	3,189

The data in Table 2 indicate two conspicuous trends: First of all, the number of university students funded by the PBC did not rise during the years examined (Note 12). In contrast, it appears that the PBC allows colleges to increase their number of students and, accordingly, gradually raises the number of funded students (although at a markedly slow and careful rate). Second, the budgeting policy of the PBC attests to its wish to increase the number of engineering students and thus consistently increases the number of students funded at engineering colleges (Cohen & Davidovitch, 2015).

A further feature indicated by analysis of the PBC policy has to do with setting the subsidy rates of the various institutions for different fields of study, which reflect the public policy by which the total number of students in the various disciplines at Israeli institutions of higher education is determined. As a fact, the total expenditures required of an academic institution in order to operate study programs in the various disciplines is not uniform and reflects the nature of the courses (Note 13). Similarly, the total income of each institution from the various departments is also not uniform and reflects the number of students in the department (Note 14). Hence, it would be reasonable to assume that the tuition charged for each student would reflect the profitability of the department, such that a more profitable department would charge lower tuition, and an unprofitable department higher tuition.

The question is whether the subsidies provided by the PBC are full and cover the discrepancy between the real cost of teaching at the various departments and the uniform tuition charged? Or maybe these are differential subsidies that reflect the government's preference for maintaining and developing certain disciplines? In order to

answer this question, subsidy rates approved by the PBC for academic institutions shall be presented in Table 3 by the various departments for the years 2011-2015.

Table 3. Participation rates of the PBC in university costs for 2011-2014 (Note 15)

	Social sciences	Physical natural sciences	Engineering	Humanities	Law studies	Psych.	Social work	Business (Management)
2011	17.00	62.90	47.20	30.40	15.10	20.00	19.80	15.20
2012	17.30	63.90	47.90	30.80	15.40	20.30	20.10	15.40
2013	18.20	67.60	50.40	32.50	16.20	21.40	21.20	16.30
2014	18.35	67.75	50.79	32.70	16.33	21.54	21.33	16.38
2015	18.59	68.63	51.44	33.12	16.54	21.82	21.60	16.59

The data in Table 3 clearly indicate a differential budgeting policy that reflects the government's preference for promoting specific disciplines in which it has a national-social stake. This statement derives from the relatively low funding base for students studying law, business and management, social sciences, social work, and psychology, compared to the relatively high funding base for the humanities, engineering, and physical natural sciences.

Hence, it appears that the CHE is aware of the faults of the free market and its incapacity to independently regulate the number of students in the various disciplines in a way that will meet society's needs and therefore tries to regulate them itself both by providing high financial incentives to the academic institutions to admit more students to studies of professions necessary for the local labor market and Israeli society, and by setting lower subsidies for less vital disciplines. This policy, presented explicitly in the documents of the CHE and indicated by the PBC budgeting model, attests to a real attempt at intervention by the government in the number of students at the various institutions and in the different disciplines. Nonetheless, PBC policy and the policy of the academic institutions are incapable of affecting demand for the various disciplines created by registration for studies. This since PBC policy does not include incentives as well as financial and other benefits (such as scholarships, loans, subsidized tuition, etc.) for applicants (Cohen & Davidovitch, 2015).

4. Discussion

This study examines regulatory processes enacted in Israel in the field of higher education from the early 1990s until the present, and seeks to conclude from the findings with regard to the nature of the economic policy implemented in this important area. The study focused on three issues: First of all, examination of the causes that led to opening the gates of higher education in the reform carried out in the early 1990s, which made it possible to establish academic colleges side by side with the universities. Is this factor related to the government's response to pressures applied by free market forces, i.e., to increased demand by applicants who sought entrance to universities, which were compelled to operate a particularly selective system due to capacity limitations, or to the government's intentional acts involving willfully creating circumstances with no connection to free market forces? The research findings presented in Figure 1 show that the demand for academic studies at universities did not increase significantly during the years prior to the reform, and therefore the conclusion is that the decision to expand the number of schools of higher education in Israel had nothing to do with free market forces. Furthermore, the government's decision to enact a reform in the system of higher education is what led to the conspicuous increase in the number of applicants for academic studies, creating competition between the new and older schools (colleges and universities, respectively), who had to adapt themselves to the new circumstances by aggressive marketing, reducing admission thresholds, etc., and thus contributed to the increase in demand for academic studies.

Moreover, it appears that the government's purposeful policy of developing higher education, as manifested in opening many academic institutions, focused primarily on short-term tactical aspects, without taking into consideration long-term considerations related to the survival rate of these institutions in the tough competitive conditions formed as a result of the reform. No attention was given to planning the government's ability to fund all the students registered at these institutions, leading inadvertently to a state of deficit that would make it hard for them to survive. No attention was given to exploring the practical need for certain professions that have flourished considerably since the institutions were opened and led to a virtual bubble with no social justification

(Note 16). Thus, these circumstances, which began through a purposeful policy of the government and were then led by free market forces, create many problems, both budgetary (for the Ministry of Education and for institutions of higher education), and concerning the employment of graduates (particularly in the social sciences).

The second issue presented in the study examined the factors that determine admission terms for the various departments: a comparison between the data concerning demand for the different professions (Figure 2) and the requirements for admission (Table 1) leads to the inevitable conclusion that high-demand fields have stricter admission terms than low-demand fields, unrelated to their nature and to the cognitive requirements of students in order to succeed in their studies. Namely, free market forces manifested in the supply of slots in the different departments versus the demand for studies in these departments constitute a dominant factor in determining admission terms. These free market forces moderate and sometimes even completely neutralize the real requirements for studying at the various departments as derived from their academic contents and from the cognitive level required of students.

The third and final issue examined trends in registration for the different disciplines and whether these trends reflect the natural demand and the independent wish of young Israelis to acquire a certain profession or are perhaps the result of a planned government policy that regulates the numbers of students in each department and institution according to its social, political, and economic needs. The research results presented in Tables 2 and 3 indicate a direct attempt at intervention by the CHE, which acts to regulate trends of registration for the various disciplines according to the social and economic needs not satisfied by free market forces. As stated, however, this government policy is incapable of affecting the demand for the various disciplines as created by registration. This since the PBC policy does not include offering incentives and benefits to applicants.

In conclusion, Israel's policy on higher education as reflected in the decisions of the CHE and the PBC is not unequivocal. On one hand it acts to transform higher education based on different considerations (economic, social, and ideological), but on the other it lets free market forces determine admission terms to the disciplines according to the point of encounter between supply and demand, with no direct relationship to academic and cognitive requirements for success, and thus might harm the level of teaching and the standard of graduates. Moreover, the PBC's interventional policy with regard to encouraging registration for certain fields has absolutely no effect on demand rather, as stated, only on supply, as it includes no incentives for applicants to the preferred fields.

This inconsistent policy does not take into consideration the long term effects on Israel's system of higher education. This partial budgeting policy has led some of the institutions to budgetary deficits and extremely difficult survival problems. Moreover, the ability of these institutions to take on new faculty members and researchers has been curtailed due to lack of funds, and as a result we have witnessed the brain drain of young researchers to other destinations around the world.

The PBC's limited policy of regulating the number of applicants to institutions of higher education in Israel in general and to the various disciplines in particular has made it possible for free market forces to become the dominant and even exclusive factor in creating a short or excessive supply of graduates entering the labor market. These shortage and excess were translated immediately by the schools to reduction of admission thresholds in less attractive fields and unrealistic raising of admission terms for high-demand fields. Such an unregulated free market has, of course, consequences for Israeli measures of employment, unemployment, and pay.

Thus, it is possible to state that Israel's policy in the field of higher education is compatible with the neoliberal world view that espouses indirect courses of regulation with the aim of creating and encouraging free markets, but avoids fully shaping them. Such a policy implemented in a critical field for the future of the country is unhealthy from a social-national and economic point of view and might bring about the annihilation of Israel's higher education in the foreseeable future. At present it is already possible to discern growing cracks in the basic principles of this important system that stands for striving for excellence, quality, and service, and is currently dealing with the increasing devaluation of academic degrees (on different levels), the departure of young researchers (brain drain), budgetary difficulties, and even budgetary collapse of academic institutions, leading to severe problems in the Israeli labor market by creating a lack of certain professionals and an excess of others. It appears that this important area should be managed by the government instead of by free market forces, so that the coming years will show a resumption of the quality and excellence typical of Israel's system of higher education until the early 1990s, a system that managed to "produce" high standard graduates whose many achievements affected quality of life in Israel in particular and the development of research and the applied world in general.

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Notes

Note 1. Called the Bradley Report.

Note 2. Studying for Master's and PhD degrees.

Note 3. Until 1993 the law forbade establishment of non-research schools in Israel, however in that year the Minister of Education, Amnon Rubinstein, decided on a reform in higher education and changed the law. From 1993 to the present dozens of colleges have been established, and most offer academic programs for Bachelor's and Master's degrees in the same disciplines as the various universities.

Note 4. Including the Open University.

Note 5. Source: Central Bureau of Statistics: Table 1.1: Applicants for undergraduate studies at universities.

Note 6. Israel's Central Bureau of Statistics publishes data on applicants for Israel's universities and colleges annually. However since 2011 its publications present the number of applicants (i.e., the demand) for the various fields of study by faculty rather than listing the number of applicants for each department. Therefore, it is only possible to present data on applicants to the various departments for 2010 as published on the Central Bureau of

Statistics' website and to reach conclusions about current trends on this basis, assuming that they have not changed considerably since the data were published.

Note 7. Source: Data of the Central Bureau of Statistics, Table 1.18.

Note 8. Source: University websites. Bar Ilan University does not publish its admission terms and was therefore not included in the table.

Note 9. Aside from Ariel University, which does not offer law studies, and where admission terms for economics and psychology are lower than in the other universities.

Note 10. Source: Website of the Council for Higher Education—Planning and Budgeting Committee: http://che.org.il/?page_id=440.

Note 11. Source: Budget books of the PBC for 2010-2015: Appendix no. 5.

Note 12. Aside from a minor increase at Bar Ilan University.

Note 13. Operating laboratories and computer labs versus lectures in a regular classroom, holding small study groups versus lectures before a large audience, etc.

Note 14. A large department will earn more revenues for the institution, and vice versa.

Note 15. Source: PBC budget books for 2010-2015: Appendix no. 5.

Note 16. A good example of this is law studies, which have flourished since the mid-1990s. Since 1995 the number of attorneys in Israel has grown four-fold! As a result, graduates are finding it hard to fit into the competitive labor market. In 1995 there were 14,480 attorneys in Israel, and in 2014 there were 56,577! Source: Calcalist, article by Anat Roeh, "The swollen bubble of the law faculties is beginning to leak", November 12, 2014, pp. 2-3.

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