

# Losing Our Minds

Last July, the *Wall Street Journal* ran a feature article on the Talpiot Program, an elite IDF project which trains fifty handpicked, top-scoring students each year in mathematics, physics, and other sciences, and tasks its cadets with developing ground-breaking military technologies. Inspired, in the words of one graduate, by “the grand pursuit of helping our country,” Talpiot graduates are responsible for such advances as electric-energy-propelled projectiles and low-vibration helicopter seats. Today, however, two decades following the rise of the global high-tech industry, its graduates are more likely to become entrepreneurs than engineers. They have founded dozens of companies specializing in security equipment, encryption software, communications, and high-end Internet hardware. Former Talpiot graduate Arik Czerniak, for example, runs a high-tech company that lets users post video clips online, a service which has gained immense popularity amongst web surfers. And something else has changed in the past two decades as well: Like many other recent Talpiot graduates, Czerniak lives and works in California’s Silicon Valley.

Indeed, over the last few decades an increasing number of Israel’s best and brightest have left home for greener economic or professional pastures abroad, a trend that has been acknowledged as a bona fide “brain drain” in Israeli public discourse. The numbers demonstrate the severity of this problem. According to a report published last year by economists Omer Moav and Eric J. Gould in the *Israel Economic Review*, between 1995 and 2004, educated Israelis (i.e., those with a bachelor’s degree or higher) were 2.5

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times more likely to emigrate than those with less education. Israel thus has the dubious distinction of being one of just a handful of developed economies suffering from a brain drain. Usually, it is poor countries with lower percentages of highly educated men and women that contend with this issue. In fact, relative to the size of its population, Israel is second only to the United States in exporting educated workers, ahead of India, Pakistan, Canada, and the European Union.

Of particular concern is the flight of Israel's academic faculty. A report published last February by Dan Ben-David, a professor at the Tel Aviv University department of public policy, found that "the rate of academic emigration from Israel to the United States is unparalleled in the Western world." The figures he cites are nothing less than astonishing: While the ratio of European scholars in America to scholars in their home country ranges from 1.3 percent in Spain to 4.3 percent in the Netherlands, Israeli scholars in America "are in a class by themselves," according to the report. In the 2003-2004 academic year, Israeli academics residing in the United States represented a full quarter of the entire senior staff of Israel's academic institutions. "If Europeans are concerned about the migration of their academics to the States," writes Ben-David, "then Israelis should be nothing less than alarmed."

While this phenomenon is particularly pronounced in the fields of technology and science—Israeli computer scientists frequently occupy no fewer than five or six faculty slots in leading American university departments, and almost a tenth of Israeli physicists and an eighth of Israeli chemists work on American campuses—the humanities have not been spared either. The same report found that the number of Israel philosophy professors in top American departments accounts for 15 percent of Israeli philosophy professors residing in Israel. Moreover, since statistics show that 96 percent of all educated emigrants who left Israel beginning in 1995 have remained abroad, turning extended sabbaticals into permanent residence, it is clear that the best minds of today's generation are leaving—and they're not coming back.

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No wonder, then, that Science, Culture, and Sport Minister Galeb Majadle, speaking at a special Knesset session earlier this year, described the mass departure of the country's scientists and high-tech professionals as a national emergency and declared that their return is an "urgent" goal. Similarly, Dan Ben-David has warned that Israel's economic and defense sectors will face "catastrophic consequences" if this "hemorrhaging of leading minds" does not cease. For Israel—a country roughly the size of New Jersey, two-thirds of which is desert—the only true natural resource is brainpower. It is brainpower that ensures Israel's military edge over its enemies in the Middle East, just as brainpower ensures its competitive edge over foreign players in the global tech market. But this advantage cannot be taken for granted. The departure of the country's top scientific and technological talents leaves it particularly, even dangerously, vulnerable. Moreover, in light of the Jewish state's crisis of leadership and rampant corruption in the public sphere, the emigration of humanities professors—those entrusted with imparting the values and ideas essential to building good character in the next generation—is a no less troubling development.

Put simply, those assigned the task of safeguarding Israel's future can no longer allow the exodus of Israel's brightest minds to continue. The time has come for an open and honest examination of the causes of Israel's brain drain, and the quick and decisive implementation of the measures necessary to reverse the trend. Now, before it is too late.

**W**hy are so many brilliant Israelis leaving their homeland? For starters, money. While it is true that low pay is a near-universal complaint among academics, the situation in Israel is particularly dismal. In a system that harks back to the country's socialist origins, Israeli universities are governed by a collective labor agreement. This precludes the payment of competitive salaries based on merit or the matching of salary offers from universities abroad. As a result, an entry-level Israeli lecturer earns a net salary of

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less than \$2,000 a month, whereas in the American market he would earn, on average, more than \$6,000 in an economics department and more than \$10,000 at a business school. Understandably, then, many Israeli professors look to universities abroad in order to make a more lucrative, or simply viable, living. As Israeli economics Professor Josh Angrist, who now teaches at MIT, explained in a 2006 *Jerusalem Post* article, “I was tired of the situation here. The Israeli system does not reflect the reality of pay differential by field. It’s the public system and it’s not very flexible.... Talented people who might like to work in Israel have to pay a high price for that financially.” The lack of flexibility mentioned by Professor Angrist resulted in this year’s professors’ strike. Complaining that their wages had eroded by 15 percent since 2001, Israel’s senior lecturers refused to teach for nearly three months, leading to fears of a cancelled semester.

Then there are taxes. Israel’s taxation policies practically push talented young workers out of the country. It is easy to see why: Israeli taxes on labor, goods, and services are among the highest in the world. Take the example of a high-tech professional with a very respectable salary of 20,000 shekels (approximately \$6,000) a month. After deductions for income tax, national insurance (the Israeli equivalent of American social security), and health care, he takes home only about half that amount. When combined with further deductions for VAT, purchase taxes, local taxes, licensing fees, and even Israel Broadcasting Service fees, his marginal income shrinks to the point where he may find it difficult to support his family.

As if the economic burdens were not enough, Israel is also severely lacking in employment opportunities. Once again, Israel’s academics are among those most affected: According to the report compiled by Ben-David, the number of senior faculty members in Israeli universities from 1973 to 2006 rose by just 12 percent—from 4,389 to 4,937—although the country’s population grew by 109 percent. Even when the relatively new, non-research colleges are included in the equation, the overall number of senior faculty in Israel grew by just 30 percent during this period. In other words, the number of senior faculty per capita in Israel’s research universities has been steadily

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*falling* for over three decades. The number of faculty members at the two largest Israeli universities, the Hebrew University in Jerusalem and Tel Aviv University, shrank by 14 and 21 percent, respectively, over this same period. The staff at the Israel Institute of Technology (the Technion) in Haifa—a prestigious institution which has produced two Nobel Prize winners—has grown over the course of thirty-five years by exactly *one* slot. Of course, it is not the role of universities to create jobs for their graduates—their primary goal is to provide knowledge, not employment—but there is no doubt that the existing system, which keeps longtime faculty members entrenched in their positions regardless of their ongoing contributions to research and pedagogy, prevents the infusion of new blood into Israeli higher education and leads to institutional ossification and inefficiency.

In this sense, the lack of employment opportunities at Israel's institutions of higher education reflects the sclerosis of the Israeli labor market in general. The bloated public sector, the powerful unions, and labor laws that render workers nearly untouchable once employed—all work against capable newcomers. Similarly, anyone who has ever tried to find employment in Israel knows that *protektzia*, or “connections,” is crucial to success: Israeli hiring practices are notorious for their dependence on personal contacts and nepotism as well as their frequent disregard for demonstrated skill.

In today's global economy, however, countries are in fierce competition for the brightest minds, and Israel will pay a high price for its failure to reward talent and encourage entrepreneurship. Fortunately, some government ministers are attempting to enact policies that will at least partially ameliorate the country's brain drain. Former science and technology minister Matan Vilnai, for example, has sought to initiate a program intended to encourage outstanding Israeli scientists and researchers to return to Israel after completing their studies abroad through a combination of higher salaries and investment in Israeli laboratories. This is a step in the right direction, as is the recent appointment of a government committee to propose substantive changes to the university system in the wake of this year's professors' strike.

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Unfortunately, many of those attempting to halt the emigration of Israel's best and brightest do not understand the real reasons behind it and may inadvertently worsen the situation. In June 2007, for instance, a government committee headed by former finance minister Avraham Shochat recommended raising the research budgets of Israel's universities, hiring more senior faculty, and paying competitive salaries—all important and necessary reforms. But the committee also chose to pass a significant part of the economic burden of these changes on to the students, who, by Israeli standards, already pay too much. It is doubtful that raising the number of young people who cannot afford the benefits of academia will, in the long run, enhance Israel's intellectual stature. On the other hand, it is equally difficult to see the point of such statements as that of Michael Melchior, chairman of the Knesset's Education, Culture, and Sport Committee, who blamed the brain drain on Israel's "capitalist worldview"—apparently failing to grasp that the absence of adequate incentives and competitive conditions is precisely what drives talented academics and scientists out of Israel and into countries whose market economies ensure them greater compensation.

If there is any hope of reversing this dangerous trend, it must begin with a willingness among Israel's leaders to re-examine the structure of the country's higher educational system—indeed, of its economy in general—and to consider far-reaching changes which will make it easier for the country's most brilliant minds to build their futures in Israel and, in so doing, to build Israel's future as well.

**O**f course, even these reforms won't solve the problem entirely. There are other reasons for Israel's brain drain about which fairly little can be done. Life in the constant shadow of terror, for instance, is far from easy and can be both physically and psychologically exhausting. Nor, for that matter, is mandatory military service an appealing prospect, although it is certainly necessary. Moreover, Israel is undeniably handicapped by its size: There are simply fewer universities in Israel than, say, the United

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States, and thus fewer positions to be had. In light of these realities, it is all the more inspiring to hear Israel's Nobel Prize-winning game theorist Robert (Israel) Aumann—who immigrated to Israel from the United States—declare at a ceremony held in his honor in November 2005, “If a scientist chooses to work in the United States, good luck to him. This country is for those who want to work in it, and those who have the determination, spiritual devotion, and sensitivities.” In a similar vein, another Israeli Nobel Prize winner, Aaron Ciechanover, stated in a letter to *AZURE* (Winter 2008):

Science and technology are universal subjects, independent of nationality, and one can study them and excel at them anywhere in the world. Israel is certainly not the best place to learn or build a career in these professions. Thus, anyone wanting to learn and apply them in Israel must do so out of a sense of national responsibility and a desire to contribute to the advancement of his country.

There is no doubt that today's young Israelis, perhaps more than the citizens of any other country, need a good reason to commit to living in and sacrificing for the ongoing project that is the Jewish state. Unfortunately, today's Israeli society is more cynical and individualistic than ever before; ideals like devotion to and sacrifice for one's country have fallen out of fashion. Moreover, if the Zionist ethos, which sanctifies the individual's obligation to the collective national endeavor, can be said to be in critical condition, then in Israeli academia—entrusted with the cultivation of the country's best minds—it no longer has a pulse. For this to change, economic and structural reforms in institutions of higher education are not enough. Israel also, and more importantly, needs a comprehensive overhaul of the educational system, one that addresses its inability—or unwillingness—to instill in the younger generation those values which strengthen the connection between the individual, his people, and his homeland.

The current apprehension over the “brain drain”—inside and outside academia—should not be the concern of Israelis alone. In truth, everyone

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who desires the success of the Jewish state should be troubled by these developments and work to arrest them. Nor is a mere holding action alone sufficient. Rather, the trend must be completely reversed. We must do everything in our power to ensure that the brightest Jewish minds, nurtured in the finest educational systems around the world will be drawn toward Israel and not pushed away from it. This will require a serious investment of energy and resources whose goal must be to make Israel a center of study and research, of knowledge and of free and creative thought—to place it, in short, in the vanguard of the world’s intellectual superpowers.

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