

**Higher Education Governance in Developing Countries,  
Challenges and Recommendations:**

**Iran as a case study**

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**Abstract**

This paper discusses the challenges to higher education in Iran and summarizes a range of expert studies, including those of the writer. Common to all the studies is the goal of improving Iran's higher education system by analyzing its internal and external challenges. This review makes several policy recommendations, including a turn from bureaucratic management to transformational leadership, more resources dedicated to workforce development and research, and outreach for help and advice from institutions and experts.

### Introduction

Education is central to development and a key to attaining the [Millennium Development Goals](#). It is one of the most powerful instruments for reducing poverty and inequality and lays a foundation for sustained economic growth (World Bank, 2009). A recent survey by *The Economist* (2005) identified four reasons why higher education faces fundamental change:

- the democratization, or “massification,” of higher education means that ever increasing numbers of people in “developed” and “developing” countries are gaining higher education qualifications;
- the rise of the knowledge economy for which universities are a vital driver;
- the globalization of higher education, turning the sector into an import-export industry;
- and
- the competition higher education institutions face for students and funding.

These changes mean that higher education funding, recruitment, research, collaboration, and teaching must take place in an outward-looking, international setting (Lunn, 2008).

In most developing countries, higher education exhibits severe deficiencies, with system expansion an aggravating factor. Demand for increased access is likely to remain strong, with public and private sectors seeking to meet it with an array of new higher education institutions. Rapid and chaotic expansion is usually the result, with the public sector generally under-funded and the private (for-profit) sector focused on short-term, market-driven needs. An absence of institutional quality measures makes students’ choices uninformed, making it difficult to enlist consumer demand in the battle to raise standards. Developing countries are left with a formidable task of expanding their higher education systems and improving quality, all within continuing budgetary constraints (World Bank, 2000, p.36).

There is a strong correlation between economic development and the spread of higher education and the societal returns on higher education, including the spread of knowledge and culture (Fergany, 2000, p.5). But, ineffective management and policies in higher education can also hinder development. Higher education in Iran today suffers from an overall lack of quality. Much of this can be traced back to ineffective management, increased enrollments, a shortage of technology, antiquated instructional methods largely based on memorization, and misaligned incentives for teachers and students.

Today, with the increased speed of information and telecommunication technology , many changes have occurred in society. But, Iran's old higher education system doesn't have the capacity to meet current needs. It faces numerous challenges and crises, and needs reform and transformation. This study will examine Iran's higher education system, and how the lack of quality and effective management has influenced it. It will recommend how to meet current challenges and build a better educational system.

### **Higher education in developing countries**

Perhaps Iranians can learn from the challenges faced by neighboring countries. Schwartzman (2001) asserts that, in spite of large differences in social structures, economic conditions, cultural and historical backgrounds, higher education systems in most countries face similar challenges, some of which conflict.

They need:

- more research capacity to enhance their countries' presence in a world where science and technology play an ever-growing role;
- to combine elite with mass higher education, in order to provide meaningful and useful information to millions who wish to learn and upgrade their credentials;
- to provide lifelong education to a large public that seeks not only formal degrees, but to keep up and readapt to a rapidly evolving labor market; and

- to maintain and grow their universities as centers for culture and scholarship, providing their societies with a space for the development and maintenance of critical knowledge, independent thinking, social identity building, and values.

Schwartzman believes higher education institutions face two main limitations:

First, resources. The same factors inducing higher education reform also limit the availability of resources for higher education institutions. The financial adjustments required by a highly competitive and unpredictable global economy, and the growing demand for social services by impoverished populations, increase the cost of basic education and public health, and limit what is left over for higher education expansion and reform.

Second, institutional arrangements and traditions. Almost everywhere, higher education institutions are organized as part of the public service, often with strong collegial decision-making mechanisms. But, the rules, regulations and operational practices of civil service and collegial management are not the most suitable for adapting rapidly to change.

**Pakistan.** In a survey of Pakistan, Iqbal (2004) writes of serious deficits in the quality of staff, governance, academic standards, student preparation, research facilities, libraries, and laboratories. The higher education system is simply not at par with international standards. The result is a higher education system not particularly relevance to societal needs, and a shortage of graduates in the more practical fields, such as the sciences.

**India.** Shrivastava (2006) lists the major challenges in Indian higher education as follows:

- over-centralization, which limits institutional autonomy and accountability and can be very slow to respond to change;
- variable quality, with poor, often inflexible responses to market needs;
- weak knowledge creation due to weak interactions with the economy, society, and other academic and research institutions;

- difficulties in recruitment and retention of qualified teachers in critical fields;
- diminishing and skewed public funding leading to system inefficiencies; and
- limited access and regional disparities.

**Iraq.** Robertson (2009) believes the most fundamental of the many challenges facing Iraq's higher education sector is that of re-establishing its universities as independent institutions, dedicated to education, and free of political, religious, and ethnic influence.

There has been no independent quality control agency to monitor and ensure minimum standards in teaching and research across higher education institutions. And there have been no government or private research-funding bodies to consistently encourage, nurture, and reward excellence in research.

Likewise, there has been little possibility of international collaboration for a generation of academics that has never had the opportunity to engage internationally. Nor have there been many opportunities for international publication given the country's isolation and the higher education system's declining academic rigor.

**Azerbaijan.** According to Isaxanli (2005), Khazar [University] has been implementing PhD programs for a long time now and is the only university in Azerbaijan doing this. Political stalemate keeps higher education reform in a frozen condition. Inconsistency and contradiction between a rapidly changing environment and growing demand, on the one hand, and old, obsolete laws on the other, hold back development.

**Turkey.** The World Bank (2007) reports that education and skill levels in Turkey lag international standards, including those of the European Union [EU]. Significant disparities also exist in educational quality and access by gender, social and economic group, and geographic location. While educational attainment and skill levels are low in Turkey, private returns to education are high. There are positive returns for secondary as well as tertiary level diplomas. In addition, the positive impact of education on earnings is even greater for females than for males.

Increasing educational attainment and performance at all levels of education are key to Turkey's successful entry and integration into the EU. Indicators of educational quality and access are much lower in Turkey than for current EU countries, however. Low education and skill levels present a major concern and bottleneck for Turkey in job creation and competitiveness.

Developing countries face similar challenges of funding insufficiencies, low standards, political and religious influence on universities, and poor incentives. But, some challenges are unique to a country, such as joining the EU for Turkey and ongoing armed conflict in Iraq.

### **Higher education in Iran today**

The tradition of university education in Iran dates from the early centuries of Islam. By the 20th century, however, the system had become antiquated and so was remodelled along French lines. The first modern university in Iran—Tehran University—was founded in 1934; the Ministry of Science was formed in 1967 (CE).

Iran's Islamic Revolution in 1979 (CE) closed the universities for two years. Then, in 1982 (CE) Imam Khomeyni tasked the Cultural Revolution Committee to reopen them with trustworthy and faithful Muslim professors and students. Fifty-three universities, colleges, and other higher education institutions were re-formed in four groups: engineering and technical sciences; literature and humanities; art; and business and administrative sciences (MSRT, 2009a).

Governance of higher education in Iran is dispersed among state-run, private (Azad), and distance-learning universities. At state-run universities, students must pass a centralized exam and are accepted according to their exam rank and special privileges; it is free-for-all, and very competitive. At private universities students must pass a centralized exam and also pay tuition for full- or part-time programs (MSRT, 2009b).

According to Zahedi, the Science Minister, among the total Iran population of 70 million are 3.5 million university students. Among them number about 1 million studying with distance-learning universities, 1.2 million in private (Azad) universities, 0.5 million in applied–scientific universities (under MSRT governance), and the rest in state-run universities. They are taught by about 50,000 faculty members (Bazyab.ir, 2009).

Admission requires a secondary school diploma and a passing score on the national university entrance exam (Konkoor). Diplomas awarded include:

- the *Fogh-Diplom* or *Kardani* (equivalent to a baccalaureate in technical engineering) after 2 years of study;
- the *Karshenasi* (a/k/a, “licence” or bachelors degree) after 4 years of study;
- the *Fogh Licence* (masters degree) after 2 years of study beyond the *Karshenasi*; and
- the PhD (doctoral degree) which requires a Fogh Licence, a passing score on an entrance examination, admission to a program, and completion of that program’s requirements (Wikipedia, 2009).

Because university admission requires a high score on the *Konkoor*, Iran's secondary students spend hundred of hours, sometimes several years, studying for it. A high score is necessary for admission to programs that can lead to careers in medicine, dentistry, pharmacy, or engineering. Mid-level scores lead to admission to programs in, for example, the sciences, communications, economics, and political sciences. Special privileges can greatly affect test scores and admission, particularly in graduate programs. Families of students who feel pressure to succeed in their exams may pay for extra tutoring or out-of-school classes to help prepare for university entrance exams, such is the commitment of Iranian families to education as a social good.

Tables 1 and 2 classify student enrollments by year, program, and gender between the years 1375–1376 (CE 1996–1997) and 1385–1386 (CE 2006–2007).

**TABLE 1. STUDENTS OF ISLAMIC AZAD UNIVERSITY BY BROAD FIELD OF STUDY, SEX AND ACADEMIC LEVEL**

Academic year and broad field of study	All degrees			Associate's			Bachelor's		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
1996-97	613468	362872	250596	67725	37643	30082	517522	305478	212044
2001-02	806639	416571	390068	200207	107419	92788	568934	285515	283419
2002-03	864190	428755	435435	229906	123192	106714	594205	281040	313165
2003-04	968206	486616	481590	291953	159127	132826	634191	301793	332398
2004-05	1098491	568498	529993	378463	212555	165908	676290	329313	346977
2005-06	1197521	622706	574815	417262	234744	182518	731155	358409	372746
2006-07	1289637	696199	593438	453446	266869	186577	779308	396049	383259
Medicine	44019	5187	38832	13006	1558	11448	22640	1031	21609
Humanities	552958	234822	318136	143979	59522	84457	383972	161046	222926
Basic sciences	106141	26833	79308	18644	3800	14844	81265	20611	60654
Technical & engineering	463965	363523	100442	237306	179169	58137	219232	178080	41152
Agriculture & veterinary	83623	51258	32365	22016	16018	5998	53543	28524	25019
Arts	38931	14576	24355	18495	6802	11693	18656	6757	11899

Academic year and broad field of study	Master's			Professional and speciality doctorate		
	Both sexes	Male	Female	Both sexes	Male	Female
1996-76	18070	13209	4861	10151	6542	3609
2001-02	24974	15929	9045	12524	7708	4816
2002-03	27617	17157	10460	12462	7366	5096
2003-04	27486	17218	10268	14576	8478	6098
2004-05	30140	18811	11329	13598	7819	5779
2005-06	35216	21672	13544	13888	7881	6007
2006-07	41464	24718	16746	15419	8563	6856
Medicine	110	45	65	8263	2553	5710
Humanities	23258	13076	10182	1749	1178	571
Basic sciences	5529	2034	3495	703	388	315
Technical & engineering	7050	5939	1111	377	335	42
Agriculture & veterinary	3810	2648	1162	4254	4068	186
Arts	1707	976	731	73	41	32

SOURCE: *Amar amuzesh aali Iran, Daneshgah Azad* [Statistics of higher education, Azad University].

**TABLE 2. STUDENTS AT UNIVERSITIES AND HIGHER EDUCATION INSTITUTES <sup>(1)</sup>  
BY BROAD FIELD OF STUDY, SEX AND ACADEMIC LEVEL**

Academic year and broad field of study	All degrees			Associate's			Bachelor's		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
1991-92	344045	247076	96969	43141	36670	6471	242835	167349	75486
1996-97	579070	369907	209163	85165	58209	26956	418692	257327	161365
2001-02	759870	381505	378365	146389	90302	56087	532525	238509	294016
2002-03	809567	396719	412848	172965	111612	61353	552907	231339	321568
2003-04	923913	430493	493420	195369	124155	71214	641718	252517	389201
2004-05	1018980	469410	549570	210845	137046	73799	713461	274524	438937
2005-06	1191048	534201	656847	293422	173603	119819	793955	299345	494610
2006-07	1538874	650075	888799	283284	160800	122484	1131538	420798	710740
Medicine	97846	33001	64845	27726	7488	20238	32590	7842	24748
Humanities	788330	282829	505501	71678	39505	32173	683439	225083	458356
Basic sciences	197096	66475	130621	1372	575	797	179000	57710	121290
Technical & engineering	311678	204034	107644	129828	87888	41940	158177	98257	59920
Agriculture & veterinary	74781	33860	40921	12405	6688	5717	52547	22200	30347
Arts	69143	29876	39267	40275	18656	21619	25785	9706	16079

  

Academic year and broad field of study	Master's			Professional doctorate			Speciality doctorate		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
1991-92	14070	11714	2356	39519	28208	11311	4480	3135	1345
1996-97	26832	22061	4771	39837	26533	13304	8544	5777	2767
2001-02	35481	26440	9041	34093	17574	16519	11382	8680	2702
2002-03	39174	28071	11103	32159	16245	15914	12362	9452	2910
2003-04	42719	29324	13395	30749	14474	16275	13358	10023	3335
2004-05	50226	33348	16878	30291	13881	16410	14157	10611	3546
2005-06	57775	36606	21169	29689	12828	16861	16207	11819	4388
2006-07	76406	43623	32783	29455	12842	16613	18191	12012	6179
Medicine	2562	1216	1346	27141	11923	15218	7827	4532	3295
Humanities	29509	15556	13953	0	0	0	3704	2685	1019
Basic sciences	14126	6470	7656	0	0	0	2598	1720	878
Technical & engineering	21115	15797	5318	0	0	0	2558	2092	466
Agriculture & veterinary	6204	3196	3008	2314	919	1395	1311	857	454
Arts	2890	1388	1502	0	0	0	193	126	67

SOURCE: *Amar amuzesh aali Iran, Vezarat olum, tahgigat, fanavari* [Statistics of higher education, Ministry of Science, Research and Technology].

1. Excludes Islamic Azad University.

In Table 3, summary statistics from Iran's Institute for Research and Planning in Higher Education (IRPHE), as translated by the Author, profile Iran's higher education system in the year 1386–1387 (CE 2007–2008). The number of students studying at universities was 20 percent larger than in the previous year.

**Table 3. Higher education in Iran: Summary statistics, 2007–2008**

	Total (000s)	Percent
<b>Numbers of university students</b>		
Total	3,392	
Male	1,596	47
Female	1,796	53
<b>University degrees awarded</b>		
<i>Kardani</i> (associate degree)	86	13
<i>Karshenasi</i> (bachelor degree)	527	80
<i>Karshenasi Arshad</i> (master degree)	32	5
<i>Doctori Herfe'e</i> (professional doctorate)	5	1
<i>Doctori Takhasosi</i> (speciality doctorate)	6	1
<b>University enrollments by field of study</b>		
Medicine	219	6
Humanities	1,516	45
Basic sciences	341	10
Technical & Engineering	982	29
Agriculture and veterinary	189	6
Arts	144	4
<b>Numbers of instructional staff</b>		
Total	144	
Faculty	108	75
Male	89	
Female	20	
Other instructional staff	35	24
Male	25	
Female	8	
<b>Full-time faculty members by rank</b>		
Professors	2	4
Associate Professors	4	7
Assistant Professors	20	37
Lecturer	27	51
Instructor-Lecturer	1	1

SOURCE: *Amar amuzesh aali Iran*, [Statistics of higher education in Iran], Institute for Research and Planning in Higher Education (IRPHE).

### Higher education in Iran: Current challenges

Iran's current challenges in higher education can be categorized in three groups: internal; external; or a combination of both. Internal factors are those within administrators' control; external factors are those out of administrators' control (Sayyari, 1994, p.20).

#### Internal factors

**Students.** Today, our universities face rapid growth. But, to increase quantity we have sacrificed quality. Sami'e (2008) differentiates between "massification" and "vulgarization". The former means balanced quantitative and qualitative development of a higher education system so that it provides equal opportunity for all applicants without social, economic, political, and cultural discrimination. The latter is a political appeal to massive social requests, and insists merely on quantitative expansion. The vulgarized university diminishes its role to that of a vocational institute, what researchers in Iran call a "big school".

The challenges are as follows:

- Students do not learn problem-solving and creative thinking in primary and secondary education. After all the hard work to enter university, many are still unprepared for a very different type of work.
- Senior students imply that they are unfamiliar with library use, research methods, the English language, or writing in Persian (Sayyari, 1994, pp.29-30).
- Some students travel to universities away from home, resulting in greater expenditure and homesickness.
- Some students are uninterested in their major fields. Many young males are avoiding military duty and choose any major available at their entrance exam rank (e.g., urban students with no farming background majoring in agriculture [*Iran Newspaper*, 2009, p.7]).

**Faculty.** Iranian professors are not paid high salaries. They are often hired for their connections to powerful politicians rather than for talent or knowledge. Likewise, promotions are often not based on talent, either (Sayyari, 1994, p.26). Many faculty member are underqualified and out of touch, with out-of-date knowledge and skills.

**Curricula.** Curricula have two aspects: *main credits* relate to specialized fields of knowledge; and *general credits* are designed to improve the values, norms, and ideals (Tofighi, 2002). In a survey conducted by Majidi and Fatehi (2006, p.37), students confirmed that they are satisfied taking religious courses as general curriculum but they object to the instructional methods used. In addition, too many courses are filled with theoretical rather than practical subject matter.

**Laboratory and workshop facilities.** Sayyari (1994, p.33) claims an improper utilization of available facilities, with students not allowed to use scarce lab equipment.

### **Factors both internal and external**

**Management.** After the Islamic Revolution, many administrators operate by trial and error. There is little evaluation of managers' performance and little professional development. This assumption has been accepted that since they are specialist, so are professional managers. There is little opportunity to share experiences or transfer best practices from one university to another (Sayyari, 1994, pp.33–34).

There exists a stifling combination of over-centralized, bureaucratic administration with few fixed rules and regulations. Thus, managers are reluctant to act and do not effectively plan for the future.

Noorshahi (2006) believes universities need transformational leadership to replace bureaucratic management. In the end, to succeed universities must be competitive both nationally and internationally.

**Rules and regulations.** After the Islamic Revolution, planning and decision-making were centralized. Yet, there exist many stakeholder organizations which do not necessary coordinate their work, such as: the Ministry of Science Research and Technology; the Ministry of Health and Medical

Education; the Ministry of Teaching and Training; the Planning and Budget Organization; the Religious Education Center; the Cultural Revolution Supreme Council; the Expediency Discernment Council; and the Parliament of the Islamic Republic of Iran (Soltani, 2008, p.7). This proliferation of authority reduces transparency and puts managers under stress and doubt (Arasteh, 2001, p.41).

**Unemployment among university graduates.** Education encourages development and development encourages employment. But, few faculty are familiar enough with industrial and service enterprises to offer courses relevant to the job vacancies that exist (Rahmani, and Nazari, 2007, p.1)

The most influential factor in Iranian graduates' underemployment is a lack of alignment between their education and the needs of the labor market. However, some external factors, out of higher education's control, play a part, such as: a lack of entrepreneur culture; undeveloped private job-filling enterprises; relatively few job vacancies; and poor labor market planning (Eshagian, 2007; Keshavarz, 2007).

Today, women make up more than 50 percent of Iranian university students. With more women in school and a later average age of marriage, the birth rate has declined. Nonetheless, women's employment has decreased in the last few decades, due to sex discrimination especially in industry, management, and high level positions (Iravani, 2005).

**E-learning in Iran.** In the last decade, experts have founded an e-learning center in the IT engineering college at Amirkabir University ([www.aku.ac.ir](http://www.aku.ac.ir)). The government plans to provide higher education centers throughout the country, especially in remote areas, and e-learning is a plausible method for providing the instruction. Other e-learning programs include Takfa Design ([www.takfa.ir](http://www.takfa.ir)) (students can enroll here without any entrance examination but according to their interests) and Elm va Sanat University ([www.elearning.iust.ir](http://www.elearning.iust.ir)) (ICT\_ir, 2005).

But there remain many challenges (Fayaz, 2004; Hanafizahed & Hodaepour, 2008; Yaghoubi, 2008). Arasteh (2004, pp.3–5) describes them as follows:

- a poor infrastructure of equipment, facilities, and service, such as proper cables, high-speed Internet, and advanced computer systems;
- few curriculum designers or faculty members experienced in e-learning;
- unreliable telecommunication services;
- students' poor understanding of English; and
- doubts about open- and equal-access to information and information technology.

### **External factors**

**University-industry gap.** According to UNESCO, higher education has three functions: knowledge production (research); knowledge transfer (education); and knowledge distribution (service).

Iran's educational system is based on knowledge transfer, with little concern for research and services. Soltani (2008, p.5) believes the most important challenge in this respect is the lack of demand from industry. About 70 percent of industry is state-run, with the private sector so undeveloped and weak it cannot afford to invest on research. The state-run sector fulfills its needs by purchasing technical information from developed countries with its oil profits. In such a situation there is no need for R&D as all needs can be met from outside sources (Mo'een, 2004).

Another factor may be cultural (Entezari, 2007, p.7). Iranian culture advocates individual works, or family aggregations. By contrast, developed countries' culture supports teamwork and venture investing in ideas that are most likely to win. In Iran, some early steps have been taken to support new methods of investing, team building, long-term capital return expectancy, and entrepreneurship training.

### **Recommendations**

The research suggests that a transition from the current to a more desirable situation could use the following policies:

- develop courses that teach entrepreneurship and research methods;
- consider charging tuition and fees at state-run universities;
- improve relations between universities and industry;
- consider recruiting international students, as have other countries such as Malaysia, Singapore, and India;
- move toward knowledge production and management, and away from simple knowledge transfer;
- train instructors in modern pedagogical methods;
- encourage cooperation among universities nationally and internationally;
- document experiences in higher education reform so that best practices can be replicated;
- establish professional development centers for faculty members;
- institute short-, mid-, and long-term strategic planning; and
- benchmark and conduct comparative analyses of successful higher education systems in neighboring countries.

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