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THE SUCCESSFUL INTEGRATION OF FOREIGN-BORN INSTRUCTORS IN THE ACADEME: LESSONS FROM ISRAEL'S LARGEST PUBLIC COLLEGE

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Abstract

Similarly to other industries, the academic world has increasingly become a 'global village', in which foreign-born instructors constitute a large proportion of university faculty. Most studies on foreign-born faculty members have documented various difficulties in the integration of foreign-born instructors in academic institutions. This paper presents data indicating the successful integration of foreign-born instructors in Israel's largest public college, and identifies the factors that contributed to this success. Data are based on several measures used to assess faculty members on an annual basis in teaching, research, administration, and community service. Linear discriminant analysis (LNA) was performed to examine whether faculty assessment scores distinguish between Israeli-born and foreign-born instructors. Findings show that foreign-born instructors have become successfully integrated in the institution. Four complementary explanations for their successful integration are proposed. We conclude with a discussion of managerial implications for institutions seeking to diversify their staff and successfully integrate foreign-born instructors FBF in higher education institutions.

Key words: foreign-born instructors, faculty assessments, social networks theory, similarity-attraction paradigm.

Introduction

For many decades, American universities have attracted a large number of faculty members from all over the world (Lee, 2004). These immigrants are attracted by the high standards of living, academic freedom, better work environment, absence of corruption, and above all, superior opportunities created by a system of meritocracy unparalleled in the world (Bradford, 1990). This global trend has expanded and intensified since 1999, when the Bologna Accords were signed by the education ministers of the European countries. The treaty aims to make it easier for students and researchers to access European education systems. Now signed by 45 countries and reinforced by the Lisbon Recognition Convention, the impact of the Bologna process extends beyond the European boundaries.

The job market in U.S. has become less accessible to young workers in science and engineering fields, relative to many other high-level occupations. While these obstacles discourage US

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students from being active in these fields, the benefits are still sufficient to attract large immigrant flows, particularly from developing countries (Freeman, 2005). The growing number of attractive job opportunities in the US economy for native college graduates and the low rate of return of investments in graduate education have led to a rise in the percentage of foreign-born faculty in American universities, especially in technical areas. After completing their academic work, many foreign students remain in the US to serve as academic instructors, government scientists, or industrial researchers fueling the US economic engine further towards greater level of success (Gwynne & Kay, 1999). According to Finkelstein et al. (1998), foreign-born faculty members comprise more than one-sixth (16.9%) of all new entrants, compared with only one-ninth (11.5%) of all senior faculty members.

Despite the ever-increasing number of foreign-born scientists in the US, very few studies have examined the research activity and performance of this group; This field is often termed an "understudied topic" (Manrique & Manrique, 1999; Mervis, 2004). This lack of knowledge may conceal a serious gap between national policies to encourage immigration and internal institutional practices in academic research institutions The main objective of this research is to provide policymakers empirical evidence of successful integration of foreign-born scientists at the largest Israeli public college, reflected in these scientists accomplishments in teaching, research, and community service. Universities and colleges around the world may use the Israeli experience to enhance their understanding of the integration of foreign-born scientists and the benefits this process offers.

Our paper opens with a review of the literature on foreign-born instructors, highlighting their complicated status. Their impressive achievements are contrasted by the discrimination, stigma, and loneliness they suffer. In the second section of this paper, we report a study on foreign-born instructors at Israel's largest public college. Findings reveal successful integration of foreign-born instructors, measured in their performance scores in the areas of teaching, their research publication record, and their academic ranks. The paper concludes with a discussion of the possible factors that contribute to this success.

Foreign-born Faculty Members

The rise of America has historically benefited from imported talents, and higher education has traditionally played a crucial role in the areas of pure and applied sciences (Lin, Pearce & Wang, 2009). According to the findings of Stephan and Levin (2001), foreign-born scientists contribute disproportionately to the knowledge production of US science. They found that 19.2% of the members of the National Academy of Engineering (NAE) and 23.8% of those of the National Academy of Sciences (NAS) were foreign-born. Not only do foreign-born faculty members enhance the offering of various academic programs, they also write "hot papers" that have higher than average citation rates (Gwynne & Kay, 1999). In fact, Khafagi (1990) suggests that "without the use of foreign-born faculty, universities would have suffered difficulties in handling the educational and research programs that are currently supported" (p. 69).

A study of 750 expatriate faculty members found that the respondents are generally productive researchers. More than 35% have each published more than 20 refereed journal articles; 12% have published between eleven and 20 articles; 29% have published between five and ten articles; and the remainder have published fewer than five articles. Thirty-five percent have published books or written chapters in books. They have also published numerous proceedings and participated in many conferences (Quazi, Quddus, Debnath, & Tandon, 2004).

Using multiple indicators, Lee (2004) found that foreign-born scientists do not differ significantly from their native-born counterparts in research collaboration and grants. In terms of publication productivity, however, foreign-born scientists are consistently more productive than their nativeborn colleagues. Even when relevant variables are controlled, being foreign-born still has a strong positive effect on publication productivity. This study also examined the impact of being foreign-

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born on research collaboration. Collaboration and grants have a significant positive effect only on the productivity of native-born scientists, whereas the strong research preference of foreign-born scientists contributes to their relatively higher productivity (Lee, 2004). Foreign-born scientists have a similar number of collaborators, a similar strategic motivation for collaboration, and a similar number of co-authorship pools as do native-born scientists. Mamiseishvili http://www.springerlink. com/content/223x16q25j64v522/ – ContactOfAuthor1#ContactOfAuthor1 and Rosser (2009) also found that international faculty members were significantly more productive in research, but less productive in teaching and community service activities compared to their US-citizen colleagues.

In contrast to the data shown above, some research findings suggest that minority faculty exhibit lower research productivity, a strong teaching orientation, and substantial commitment to institutional service. According to Olsen, Maple & Stage (1995) have found that compared to native-born scientists, foreign-born scientists are less engaged in collaboration and have fewer grants and are slightly less productive especially during the first three years after their PhD, though the difference is not statistically significant.

Furthermore, although most studies indicate that foreign-born academic scientists and engineers are more productive than their US-born peers in all areas, they face various difficulties and challenges. Any academic embarking on a teaching career is continually evaluated on her ability to teach, conduct research, publish, and perform other duties. Foreign-born faculty members working in US universities, however, face a unique set of challenges that differ from those faced by their native-born colleagues (Collins, 2008).

Despite expectations, higher education appears to lag substantially behind society as a whole in terms of diversification efforts, at least with regard to the composition of its faculty. Diversity trends in higher education have most closely paralleled local and national population efforts in disciplines where pay for faculty and program graduates is comparatively low. Where compensation for faculty and graduates is high, the diversification process is substantially retarded (Micceri, 2003).

If they are invited to serve in the administration, foreign professors often find themselves left in the lower echelons as program advisers, coordinators, or chairpersons. Moreover, average salaries and work satisfaction levels for foreign-born scientists are lower than for US-born scientists (Corley & Sabharwal, 2007). Asian-Americans do not derive comparable benefits from several characteristics associated with higher salaries for Caucasian Americans and appear to have more limited pathways to higher salaries (Lee, 2002).

Micceri (2003) examined the relationship between ethnic origin of faculty and academic ranking. He found that minority and female faculty growth is more prominent in the lower salaried ranks; Since the diversity initiative began (1996), only for associate professors has the curve steepened upward for minorities and females, while the assistant professor trend flattened for both groups.

Some researchers have claimed that cultural bias, racial profiling, and sheer nepotism impede advancement and scholarship on some campuses (Ngwainmbi, 2006). For example, with a nationwide survey of 2,265 foreign-born faculty members of US universities, Manrique and Manrique (1999) found that 38% of the respondents felt that they had been discriminated against either by fellow faculty or by administrators. Furthermore, nearly one-half of the respondents knew other foreign-born faculty who had been targets of discrimination. Although discrimination is largely subjective, immigrant scientists are more likely to have some forms of discrimination-related di-sadvantages that might affect their research activities (Heylin, 1992). Some PWIs (Primarily White Institutions) have been accused of preventing tenure-seeking minority professors from enjoying the same academic freedoms as their White colleagues. In many cases, PWIs have implemented narrowly defined scholarship policies that are inconsistent with the broader spectrum of academic freedom. By doing so, tenure committees have undermined cultural research. These constitute significant aspects of the research interests of many minority professors, and hence the professors are more often denied tenure. Some institutions are notorious for racially profiling candidates before a "suitable" one is selected for a teaching and/or administrative position. Others recruit persons who

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fit a geographic, ethnic or gender profile without seriously evaluating his/her credentials. The majority of women and minority are concentrated at less prestigious two – and four-year colleges, and at the lower end of the faculty ranks, or in non-tenure track positions.

According to a *Scientist* magazine survey (Park, 2001), a majority of foreign-born scientists responded that communications pose their greatest problem in research due to the language difference. Communication problems may also adversely affect foreign-born faculty members' social and psychological well-being. Drawing on several office-hour interactions between international teaching assistants and American college students, Chiang (2009) examined the linguistic and cultural sources of communication problems. Collins (2008) also presented findings on the negative reactions of students to the accent of foreign-born instructors.

As reported in a recent *Science* article (Mervis, 2004), even foreign-born scientists who graduated from the US universities still have language problems in their early career stage as a faculty member. Some foreign-born faculty members said that students are reluctant to have them serve as thesis committee members, and relatively few students registered for classes taught by foreign-born instructors. Racial and cultural biases exist in the classroom as well. White students often openly question the intellectual caliber of their Black professors, while African-American students automatically accept the authority of White professors. Both groups often minimize the talents and contributions of foreign-born faculty (particularly African and Asian professors). Some people believe that students learn less with foreign-born professors because of their accents and problems articulating American phonetics. Many students, parents, and legislators doubt the ability of foreign-born instructors to ensure that students secure adequate achievements (Alberts, 2008).

Cultural differences in educational practices can lead to misunderstandings between faculty members and students (Collins, 2008). In her survey of 30 foreign-born faculty members from different countries, Collins found that 87% of the respondents reported stress arising from the need to cope with cultural differences, such as the degree of formality deemed appropriate in social or professional relationships. Sixty-three percent of the respondents reported feelings of isolation and loss of contacts with friends and family members. Although some respondents mentioned support groups that were designed to fill their social needs, these groups are apparently not very active or well publicized. Two potential sources of support, the chairs of the departments and the institution's international office; were found to offer inconsistent assistance, which led to the negative feelings of going through the adjustment process alone with very little help. About one-third of the professors at historically Black colleges and universities come from developing countries, mainly Africa and India. Though highly qualified, many of these foreign-born instructors report being overworked, underpaid, underappreciated, and face discrimination from African-American professors, students, and staff.

FSU Immigrant Faculty in Israeli Academia

In 1989, the former Soviet Union opened its gates to citizens who wished to emigrate. This event triggered the second wave of immigration to Israel from the FSU (after the first wave of immigration from the Soviet Union in the 1970s). By 2008, the number of FSU immigrants to Israel from this second wave exceeded one million. The FSU immigrant population is highly educated relative to the Israeli-born population. Between 2000 and 2008, 31% of the immigrants had academic or scientific occupations or technical and professional occupations (Ministry of Absorption, 2008). These immigrants came to Israel seeking new socio-economic opportunities, and viewed employment as a major element of their integration in Israel (Menahem & Geist, 1999). Today there are 15,700 scientists in Israel who immigrated from the FSU in the last wave of immigration (Mei-Ami, 2008).

The complexity characterizing the status of foreign-born instructors in academic institutions is evidence of the asymmetry in benefits and drawbacks in terms of their integration. The meaning of

these asymmetric data is that there is a gap between rhetoric and reality, and this gap may diminish the ability of academic institutions to benefit from the impressive potential of foreign-born instructors.

The study reported herein assumes that an important goal of policymakers is to establish a more racially and ethnically diverse academe. The study explores the achievements of foreign-born instructors at Ariel University Center, Israel's largest public college, measured by faculty assessment scores, compared to those of Israeli-born faculty members, as an indicator of the successful integration of foreign-born instructors. Faculty members at academic institutions perform a wide range of activities, including: teaching, research, research publications, presentations at conferences, submitting research grants, academic administration, community service, etc. Assessments of faculty activities and achievement-based rewards have become important topics over the past four decades (Altbach, 2000; Gillespie, Hilsen & Wadsworth, 2002; Hearn, 1999; Tarquinio, Dittus, Byrne, Kaiser, & Neilson, 2003; Wadsworth, 1994).

Methodology of Reseaerch

The main research question of the present study is whether foreign born faculty members have integrated successfully into Ariel University Center (AUC). Successful integration means that their achievements are not inferior to the accomplishments of their native-born peers, as measured by faculty assessment scores in several fields.

Ariel University Center is the largest Israeli public college and is in the process of securing recognition as a university. Ariel University Center of Samaria was established in 1982 as a college in Kedumim. Its academic history began as an extension of the Bar-Ilan University in 1990 with the move to the Science Park in Ariel. That year, a Research Institute was founded, hiring a group of new immigrant researchers from the former USSR. The decision to establish the Research Institute was based on the understanding that research is an integral part of an academic institution. Several of these researchers constitute the core of the academic faculty in a number of Engineering and Natural Science Departments. AUC's four faculties (Engineering, Social Sciences and Humanities, Natural Sciences, and the School of Health Sciences) offer undergraduate degree programs in 23 departments. Four of these departments award masters degrees. The AUC also offers 9 double-major programs, as well as programs in the School of Architecture and School of Communications.

AUC has established its status as the largest public academic institution in Israel that is not a research university, both in number of students, number of senior faculty members, and variety of degree programs. In the 2008-9 academic year, the student body comprises more than 8,000 students.

As seen in Figure 1, the faculty at AUC comprises four main ethnic groups: (a) Israeli-born, (b) US-born, (c) FSU-born, and (d) other foreign-born instructors (i.e., Argentina, France, and Syria).

The rector of AUC is a FSU immigrant who arrived to Israel in 1992. He is the first FSU-born professor to achieve such a high academic rank in Israel. He earned a Dr. Sc. degree in physical chemistry at the USSR Academy of Science, Institute of Metallurgy. Shortly after his arrival to Israel he became a faculty member in the Department of Physics At AUC. Sixteen years later, he was elected to the position of Rector of AUC.

The Dean of the Faculty of Natural Sciences is also a FSU-born immigrant who arrived to Israel 20 years ago; the head of the Department of Molecular Biology immigrated from FSU 13 years ago. The head of the Department of Electric engineering was born in the US and immigrated to Israel 18 years ago; the head of the Department of Communication was born also in the US and immigrated to Israel 20 years ago.

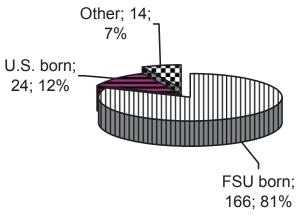


Figure 1. Ethnic origin of AUC faculty.

Sample

This study is based on 206 academic faculty members from the AUC. 62.6% of the faculty members are native Israelis, 19.4% are immigrants from the FSU, 12.1% are US-born, and 5.8% came from other countries (See figure 1 above). FBF in this study are professors that arrived to Israel after 1989, the year in which the mass immigration from FSU has began. In order to examine the correlation between faculty member demographic data and assessment scores, faculty members were divided into four groups of origin: Israel, FSU, USA, and others.

At the AUC, faculty members who hold at least a 2/3 full-time teaching position, and are ranked in the top 60% of assessment scores earn an annual bonus, based on their achievements during the previous year. Bonuses range from 7.5% (the lower 20% of the excellence scores) to 15% (the middle 20% of the excellence scores) to 20% (the top 20% of the excellence scores), according to the number of points accumulated. This study calculates average scores based on five measures of assessment, and primarily peer evaluations of academic activities by senior colleagues, including deans, and student evaluations of teaching quality.

Results of Research

The first part of the study examined links between personal and professional data of academic faculty and their country of origin with the aim of analyzing differences between native Israeli and immigrant faculty members. Items analyzed are gender, age, seniority, departmental affiliation, employment status and rank. On the whole, it was found that there is no link between age, status and rank on one part, and country of origin on the other. Concurrently it was found that there is a link between gender, seniority and departmental affiliation on one side, and country of origin on the other.

Table 1.	Breakdown of Faculty	/ Members and Country	y of Origin by Gender.
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Origin	Isr	ael	FS	SU	U	SA	Oth	ners	Tot	tal
Gender	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Male	86	66.7	32	80	18	72	11	91.7	147	71.4
Female	43	33.3	8	20	7	28	1	8.3	59	28.6
Total	129	100	40	100	25	100	12	100	206	100

Table I and regression analyses indicate a significant link between gender and country of origin: There is a significantly higher percentage of women among native Israeli faculty members than among immigrant faculty members. Furthermore, males dominate the faculty: 71.4% of faculty members are male and 28.6% female. This gender breakdown does not compare favorably with the

PROBLEMS OF EDUCATION IN THE 21st CENTURY Volume 20, 2010 **49** national picture. According to the Central Bureau of Statistics, in 2006/7 females constituted 43.6% of the faculty of social sciences and humanities on the national level; 29.3% of the faculties of exact sciences, and natural and life sciences; and 37.6% of the faculties of health sciences and medicine (CBS, 2008, Table 8.58).

Origin	Isr	ael	FS	SU	US	SA	Oth	iers	To	tal
Seniority	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
3 years or less	21	16.3	9	22.5	4	16	1	8.3	35	17.0
3-5	50	38.8	6	15.0	6	24	2	16.7	64	31.1
6-10	26	20.2	14	35.0	3	12	1	8.3	44	21.4
11+	32	24.8	11	27.5	12	48	8	66.7	63	30.6
Total	129	100	40	100	25	100	12	100	206	100

Table 2.Breakdown of Faculty Members by Seniority at the Academic
Institution and Country of Origin.

Table II and chi-square test results indicate a statistically significant correlation between years of seniority at the academic institution and country of origin (χ^2 (9) = 22.95, p > .01). Approximately one-quarter of native Israeli and FSU-born faculty members have been working at the present place of employment for 11 years and more, while among US-born faculty members 48% have been associated with the institution for over 11 years. Among immigrants from other countries, 66.7% have over 11 years of seniority.

Origin	Isra	nel	FS	SU	US	SA	Oth	ners	To	tal
Faculty	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Architecture	6	4.7	0	0	2	8	3	25	11	5.3
Health Sciences	11	8.5	0	0	1	4	0	0	12	5.8
Engineering	27	20.9	15	37.5	4	16	0	0	46	22.3
Soc. Sciences & huma- nities	74	57.4	7	17.5	16	64	4	33.3	101	49.0
Natural Sciences	11	8.5	18	45	2	8	5	41.7	36	17.5
Total	129	100	40	100	25	100	12	100	206	100

Table 3. Breakdown of Faculty Members by Faculty and Country of Origin.

Table III and chi-square test results indicate a statistically significant correlation between departmental affiliation and country of origin (χ^2 (12) =63.66, p>.001). 57.4% of native Israelis and 64% of US-born faculty members teach at the Faculty of Social Sciences and the Humanities, while only 17.5% of immigrants from the FSU teach at this faculty. In addition, 45% of immigrants from the FSU teach at the Faculty of Natural Sciences and 37.5% at the Faculty of Engineering. There are almost no immigrant instructors (from the FSU, USA, and other countries) at the Faculties of Architecture and Health Sciences. Their academic staff is primarily Israeli-born.

Finally, in order to examine to what degree background variables distinguish between immigrants and native Israelis, a discriminant analysis was performed. No differences were found between native Israelis, immigrants from the FSU, immigrants from the USA and from other countries. However a borderline significant tendency towards differences between native Israelis and all immigrants was found.

The predictors of differences between Israelis and others included the following variables: seniority, age, sex, academic rank, tenure (background variables), and assessment scores (achievement variables). This series of variables was found to have a borderline significant contribution to the distinction between immigrant and Israeli-born faculty members (Wilks' Lambda = 0.94, df = 6, Chi Square = 12.22, p = .057). As mentioned above, the following three variables were found to contribute to the distinction between immigrants and native Israeli faculty:

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- * Seniority (F (1,204) = 4.30, p < .05): Immigrant faculty members have greater seniority than native Israelis.
- * Scoring on excellence criteria (F (1,204) = 4.45, p < 0.05): A greater percentage of immigrant faculty members versus native Israelis satisfied the criteria for salary bonuses.
- * Gender (F (1,204) = 3.75, p = 0.054): Among native Israeli faculty members there is a higher percentage of women than among immigrant faculty members.
- * **Departmental affiliation** (χ^2 (12) = 63.66, p > .001): Whereas the majority of the native Israelis and the faculty members born in the US work in the Faculty of Social Sciences and Humanities, the great majority of FSU-born faculty members are affiliated with the faculties of natural sciences and engineering.

The second part of the study examined relationships between faculty members' assessment scores and their country of origin, with the aim of analyzing differences between native Israeli and immigrant faculty members.

Table 4.Breakdown of Faculty Members by Scores on Bonus Criteria and
Country of Origin.

	Isr	ael	FS	U	US	SA	Oth	ners	To	tal
Satisfies criteria	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Yes	86	66.7	20	50	16	64	4	33.3	126	61.2
No	43	33.3	20	50	9	36	8	66.7	80	38.8
Total	129	100	40	100	25	100	12	100	206	100

Table IV and chi-square test results indicate a significant correlation between assessment scores and country of origin (χ^2 (2) = 7.74, p < .05). One-half (50%) of FSU-born faculty members met the criteria for an annual bonus, as did 66.7% of faculty members from other overseas countries (except the US); However only 36% of US-born faculty members and 33.3% of native Israelis met the criteria for the bonus. In all faculty assessment categories, foreign-born faculty members scored higher than Israeli-born faculty members.

Faculty members also are awarded points for participating in institutional, national or international academic committees (e.g. teaching committees, admission committees), and for serving as a chairperson of such committees. Results of the analysis of variance indicated statistically significant differences in scores for academic administration by origin (F (3, 76) = 4.56, p < .01). Faculty from the US and other countries received higher scores for academic administration than native Israeli and FSU-born faculty members (see Table V).

Table 5.	Means and Standard Deviations of Faculty Scores for Academic
	Administration in 2007 by Country of Origin (maximal scoring: 10).

Origin	Mean	SD	Ν
Israel	3.63	3.56	43
FSU	2.25	2.34	20
USA	7.67	9.75	9
Other	7.50	3.93	8
Total	4.05	4.69	80

Discussion and Conclusion

Most academic institutions in Europe and the US hire large numbers of foreign-born faculty members. However, research on higher education has not paid adequate attention to documenting the special issues and difficulties they face. This paper offers an attempt to contribute to our unders-

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tanding of the challenges and opportunities of foreign-born instructors in academic institutions. We believe policy makers of academic institutions should take steps to facilitate the integration of foreign-born instructors in academic institutions to benefit from their accomplishments in teaching, research, and community service.

This study compared achievements of foreign-born and native-born faculty members **in Israel's largest public college.** The study was based on 206 academic faculty members from the Ariel University Center, where 37% of all faculty members are foreign born. These scholars might be deemed a success story, as the research findings indicate that they have become well integrated at the institution. Far from suffering from discrimination and inferior accomplishments, the immigrant faculty members produced outstanding achievements. We believe a combination of the following four factors has yielded good results for both faculty and the institution: (a) a fit between supply and demand for faculty; (b) supportive social networks; (c) strong motivation; (d) the herd effect and cultural superiority.

(a) Supply and demand

A major factor that may explain the impressive achievements of foreign-born faculty members in Ariel University Center is the correlation between the high level of demand for experts in the fields of natural sciences and engineering in Israel in general, and at AUC in particular, due to the limited number of native-born experts in these areas. Thus, foreign-born faculty members, and especially FSU immigrants, who specialized in these areas in their country of birth have faced little competition in the workplace and have attained high academic ranks with little obstacles.

According to the Coordination and Budget Committee of Israel's Council for Higher Education) CHE, 2008), Israel's seven universities offers a total of 18,720 faculty positions. Three of these universities are located in the geographic area of AUC. Between the 2004–2005 and 2005-6 academic years, the number of positions in these fields declined by 1.5% - 2.9% in two of the three universities, while five jobs were added at the third. At the same time, the number of candidates for these positions continued to increase steadily. It is impossible to estimate the number of applicants for each academic position, since this information is classified. We can estimate this number by the number of doctoral students who were awarded their doctoral degree. According to CHE figures (2009), 450 people received a doctorate degree in 1989-9; in the 1999-2000 academic year this number had risen to 800; in 2002–2003 999 doctorate degrees were awarded; and in 2003-2004, the number rose to 1,135. In percentage terms, the annual increase in the number of doctorate degrees awarded also rose from 5.9% in 1999–2000, to 13.6% in 2003–2004. The large number of PhDs creates a large pool of potential applicants who compete for the limited number of university positions. The scarcity of academic positions in Israeli academic institutions has increased migrant scientists' motivation to excel.

This factor provides empirical support for the Pipeline Argument. This argument holds that the lack of representation of ethnic minorities among professors in general, and particularly at the rank of full professor, is simply a lack of qualified candidates (Sanderson et al., 2000). This argument may suit American academia, and receives validation in Israel in which the opposite situation occurs: a large pool of highly qualified candidates leads to the successful integration and even over-representation of immigrant professors.

Another factor that facilitates the entrance of immigrant professors to academe and their promotion within the academic institution is the positive stereotypes associated with Soviet culture in Israel. In Israel, Russian culture is considered more prestigious by both veteran Israelis and FSU immigrants. For example, findings a recent survey of FSU immigrants indicate that 62% of the respondents believe that Russian culture is superior to the Israeli culture, and 43% prefer to educate their children according to Russian cultural values. Communication researchers have pointed to popular satirical articles that portray native Israelis as uncultured boors who lack basic manners.

Native Israelis tend to attribute to FSU immigrants positive traits such as high-quality human capital and a good level of education. A study by Peres and Lissitsa (2000) also found an apprecia-

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tion among native Israelis for FSU immigrants' professional and educational capabilities. According to this study, native Israelis believe that FSU immigrants excel in two fields – science and technology, and discipline and working relations. A study by Schwartzwald and Tur-Kaspa (1997) also found that immigrants are positively evaluated for their accomplishments and intellectual skills. Moreover, studies by Gal (1994) and Vadana (1997) found that native Israelis have a positive evaluation of the immigrants' contribution in two key fields – culture and the economy.

(b) Supportive social networks

As described in the literature review, a large number of foreign-born faculty members experience negative feelings of loneliness and suffer from a lack of social support. It is reasonable to assume that this emotional state adversely affects their psychological well-being and academic productivity. In contrast to the poor social support for foreign-born faculty members in the US and Europe, foreign-born faculty members in Israel live in dense social networks. Most are immigrants who arrived with their nuclear families and/or friends from their homelands; They tend to live in clusters of FSU immigrants, which provide social and emotional support. Three aspects of the social network can shed some light on the density of social networks of FSU immigrants: Satisfaction with social relationships, frequency of social interactions, and number of family members. According to data from the Social Survey of the Israeli Central Bureau of Statistics (CBS), immigrants express moderate levels of satisfaction with their social and familial relationships; compared to the levels expressed by their veteran counterparts, these levels are a little lower, though not significant, on all measures (Bokek-Cohen & Lissitsa, 2009).

Policy makers in higher education institutions should enhance social support for foreign-born faculty members and facilitate their emotional and psychological well-being. This support can be given either formally, by a special office that is designed to provide appropriate support, or informally, by assigning a mentor to each foreign- professor, to assist in the professor's acculturation process, help her become familiar with local values, and provide social support.

(c) Motivation

One of the most frequently cited differences between immigrants and natives is work motivation: Immigrants tend to be more motivated to work and to achieve success. In American and European academe, the legal status of foreign scientists increases their motivation in their research endeavors (Espenshade & Rodriguez, 1997), because US immigration laws prohibit off-campus employment of professors. In contrast, immigrant professors in Israel automatically receive citizenship according to Israel's Law of Return and benefit from generous public assistance programs designed to facilitate their social and economic integration.

Most foreign-born faculty members who arrive in the US plan to stay for a short term: They view their academic experience outside their homeland as a means to boost academic career and will help them secure a promotion when they return. Accordingly, their efforts at integration are a reversible experience. In contrast, one of Israel's main national goals is to attract returning Jews, especially those who are highly educated, and to help them to integrate in society. Accordingly, foreign-born faculty members in Israel are immigrants with full citizenship, and the vast majority of immigrants do not wish to return to their countries of origin. Accordingly, their motivation to excel is very different, though not necessarily greater.

(d) The herd effect and cultural superiority

The Ariel University Center of Samaria was established in 1982 as a college in Kedumim, which is a small village near the city of Ariel. Its academic history began as an extension of the Bar-Ilan University in 1990 with the move to the Science Park in Ariel, where a rapid expansion of the College's programs took place. That year, a Research Institute for Mathematics and Physics was founded, hiring a group of new immigrant researchers from the former USSR.

It is well documented in organizational research that small organizations are more likely to rely on informal methods of recruitment (Tanova, 2003). As the original members of the Research Institute were FSU immigrants, it is assumed that the recruitment of additional scientists to the institute was based on a "herd effect" whereby FSU immigrant scientists invited colleagues from their wide social and professional network to join the institute.

Epstein and Hillman (1998) present their "herd model" for immigrants' decisions in the host country. They consider individuals making sequential decisions regarding emigration. Each individual receives a signal that conveys private information regarding preferred locations abroad, and also observes the decisions made by previous emigrants. The herd behavior which ensues gives rise to geographical concentration in host countries of immigrants from a single location. Herd effects can be expected to have both positive and negative consequences. On one hand, immigrants benefit the social support of immigrants of their ethnic origin, including information and advice. On the other hand, if there is a scarcity of jobs in a specific geographic location, immigrants are more likely to suffer from unemployment or bad employment conditions because of the large supply of candidates for each job.

A major strength of the present study is its quantitative data about scientists of the same ethnic origin. Data from the large group of FSU-born professors enable us to identify common features of this ethnic group rather than analyzing individual professors of diverse ethnic origins. If, for example, discrimination were present against a particular ethnic group, data of the promotion and ranks of all the professors of this group would enable us to explore this discrimination. Another source of the advantage in studying scientists of the same ethnic origin is the possibility to control for linguistic/cultural characteristics that are commonly shared among people of the same ethnic background.

The measurements used in this study have strong advantages. The faculty bonus criteria do not focus only on the number of journal articles published as the measure of research productivity; rather, the quality of research and other outputs (e.g. patents and conference proceedings) are also included. However, the publication score does not take into account the quality of journals and the impact or quality of the published articles. Patents are a major research output, particularly in some engineering fields (such as mechanical engineering and bio-engineering). Conference proceedings (with peer review) are equally important in some disciplines (e.g. computer science and computer engineering).

Nonetheless, the sample has two limitations. First, data was collected only from professors at a single institution, the AUC. Although this offers some benefits (such as the similar organizational culture and organizational design) in comparing research activity and performance, the sample is not representative of the entire group of foreign-born scientists in Israel, and a broader sample is needed that represent this group in all academic faculties in Israel. Secondly, the professors sampled in this study are engaged in several disciplines. Considering the different nature of disciplines, this diversity limits our ability to draw causal inferences available from the analysis. A sample of professors in a single discipline might yield results with a much more powerful explanation of cause and effect. For example, scientists of natural sciences and engineering tend to secure more funds than other social researchers.

As for the measures used to evaluate foreign-born faculty members' integration, the bonus criteria used in this study also includes faculty members' success in securing research funding. This performance indicator is problematic since it depends on the financial state of funds all over the world. There are also time lags between fundraising and publication productivity. The survey data lacks some important variables that could significantly improve the causal inference. Specifically, the data lack information on professors' level of language proficiency, cultural assimilation, and reasons for immigrating to Israel.

Future research should be conducted using a qualitative approach in order to provide social, emotional, and psychological insights to foreign-born faculty members' experience in academy. Several strong points of the study warrant replication. Our knowledge of the process of foreign-born

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faculty members' integration has been advanced by examining the context in which successful and less successful instructors work. In doing so, this research has filled a gap in our understanding of the factors that influence academic performance in general, and those of foreign-born faculty members in particular.

The literature review indicates that there is a contrast between goals of diversity (equal opportunities) and the reality of minority representation in faculty ranks in many institutions. AUC represents an academic institution in which these goals go hand in hand, to the benefit of all sides. Our paper highlights several factors that reconcile rhetoric and reality. We hope our findings may help policymakers of academic institutions establish a more racially and ethnically diverse faculty, to the benefit of students, faculty, and the society at large.

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