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RESEARCH REPORT

From Higher Education to Employment: Evaluation of the Excel HT Program for Arab Students in Hi-Tech Fields – Summary Report

Ayala Hendin

The study was initiated and funded by the JDC-TEVET Employment Initiative

RR-722-16

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Jerusalem May 2016

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Executive Summary

1. Background

Israel's hi-tech industry is characterized by a great demand for employees and relatively high-paying positions. The Arab population, however, is under-represented in this field and young adults wishing to enter the hi-tech job market face many challenges: the distance of large hi-tech companies from Arab residential areas; the lack of a relevant professional network for the hi-tech market; prejudice of employers; and security sensitivities of companies that operate in the defense industry and therefore limit the employment of Arabs. The companies, meanwhile, contend with a shortage of suitably-educated candidates, are reluctant to hire special populations who may interpret work-related problems as discrimination; and incur additional costs in adapting the workplace to a diverse population. In addition, many companies are unaware of the importance of workplace diversity.

In recent years, there have been many initiatives by the government, the private sector and the third sector to create integration models and policies to augment the integration of Arabs with academic degrees into employment, particularly into hi-tech. JDC's TEVET Employment Initiative and the non-profit ItWorks, devised the Excel HT Program in response to the abovementioned challenges and in order to increase the number of trailblazers in the Arab population who might lead the way to the hi-tech industry.

The program began in 2009 and addresses Arab engineering students at the ORT Braude College, Haifa University and the Technion – Israel Institute of Technology who show potential for excellence in employment and social leadership. Participants receive a one-time scholarship of NIS 5,000, spend an academic year learning theoretical and practical professional English, leadership and "soft" skills, and preparing for employment. In addition, they receive personal guidance from program coordinators who assist them with job placements and integration into employment (for up to 3 years); they participate twice annually in an employment club and once in a meeting designed to publicize the program and present its accomplishments; and they are obligated to 60 hours of volunteer activities.

The Myers-JDC-Brookdale Institute was asked to conduct a formative evaluation study. The goal was to learn about the participants' satisfaction with, and the perceived contributions and outcomes of, the program in order to improve and modify the model, and decide on its expansion to additional locations and employment fields.

The study population consisted of all participants and graduates of the program from its inception in October 2009 until its completion as a development program in the summer of 2015. The study was conducted in two stages:

1. In the first stage, we conducted in-depth interviews with program staff and with all the participants and graduates of the six cohorts implemented until the summer of 2014 (the study relates to the graduates of the first three cohorts as a single cohort). A total of 76 interviews were held at this stage: 47 graduates were interview, as were 29 participants still studying in the

program. In addition, we observed screening workshops and several meetings covering selected program components.

2. In the second stage, we broadened the study and examined another cohort of participants (2014/15), interviewing 55 participants, all still studying. We also compared the outcomes for program graduates with those of similar non-participant young adults, and interviewed four employers regarding their satisfaction with their engagement with program staff.

2. Selected Characteristics of Program Implementation

The program was designed utilizing a logic model that defines desirable outcomes and, according to these, the requisite inputs and outputs. Implementation is examined with reference to the general organizational infrastructure of the program and its various components. We examined staff retention, program branding, the model for recruiting and screening candidates, program budgeting, the model for employer contacts, cooperation with additional projects, the extent of implementation of each of the components, and the model for the incorporation of the program.

The following are our central findings on the program implementation:

- The model for recruiting and screening candidates is based on a number of prerequisites: field of study, institution of study, and average marks. Some of the screening is performed by evaluation centers whose decisions are made together with the program staff.
- The program budget amounts to some NIS 7,000-8,500 per participant.
- The model for employer-relations is based on an examination of the potential of relevant companies and their status in terms of growth, regression, stability or profitability; these measures govern the working program with the given company.
- The program is implemented amid contact with initiatives, projects, organizations and various companies working towards the same goal and helping one another achieve the desired outcomes.
- The program is marketed to future employers as offering excellent candidates for hi-tech. Marketing strategies are varied, relying on advertising, publicity and Internet groups.
- All the program components (professional English, leadership, soft skills and preparation for employment, personal guidance, employment club and volunteering) were implemented almost completely, and participation was full.
- Some components, such as professional English, soft skills and the leadership workshop were highly structured. Others, such as volunteering, the employment club, contact with employers and support were less structured.
- The 2013/14 cohort had difficulties with staff retention. For this reason, a work program was developed to retain staff.
- The program was incorporated and expanded in January 2015 following Government Decision 4614 on the placement of members of Arab society in the hi-tech industry. It is being implemented by the ItWorks non-profit in the center of the country, Jerusalem and the south, and by the Tzofen non-profit in the north.

3. Characteristics of Participants and Motivation to Participate in the Program

a. ***Personal characteristics.*** Most of the participants were men (52%). In the first three cohorts, the program was designated for Druze and Circassian students only. Subsequently, when it expanded to the entire Arab population, Muslims became the largest group (43%) – nearly all from localities in the north of Israel.

b. ***Scholastic characteristics.*** Participants attended the Technion (53%), ORT Braude (27%), or Haifa University (18%);[1] 44% participated in the program in their final year of studies. Nearly all participants were studying engineering or computers.

c. ***Motivation to participate.*** Most interviewees had heard of the program from friends or family (55%). The two main reasons for participation were preparation for employment (66%) and the scholarship (50%).

4. Participants' Satisfaction and Perceived Program Contributions

We asked the interviewees a series of questions regarding their satisfaction with the program and its contributions to their employment, personal and social skills, language and leadership.

- We asked which components had most contributed to their employment and studies. They reported that the leadership and soft-skills components had advanced them the most.
- Interviewees reported that they had gained new knowledge to a great extent from all program components, and especially from the leadership (41%), and personal guidance component (41%).
- ***Employment skills:*** We asked about the contribution of the program to the interviewees' employment skills. They reported that the program had contributed particularly to their familiarity with different methods of job search (82%), their ability to write a resume outlining experience and skills (81%), and to their ability to clarify important points in the course of job interviews (74%). The program also introduced them to leading hi-tech companies and the nature of the work there (48%), improved their ability to formulate an employment plan (48%) and to define salary expectations (45%).
- ***Personal and social skills:*** We asked about the contribution of the program to their personal and social skills. The most cited contributions were time-management skills (71%) and self-confidence (76%)).
- ***Language:*** Interviewees noted that the program had contributed to their English speaking, reading and writing ability (42%), and to the same skills in Hebrew (34%).
- ***Leadership:*** Most interviewees reported a great or very great impact on their acquisition of tools of social and professional leadership (88%); their ability to imagine themselves involved in activity leading to social change in the future and their desire to become part of the managerial level.
- ***Volunteering:*** We asked about their satisfaction with the various components of volunteering; 81% reported satisfaction, to either a great extent (43%) or to a very great extent (38%) with the

[1] Students in institutions that are not part of the program accounted for 2%.

effect of their volunteering in the areas or with population they addressed; 67% reported satisfaction, either to a great extent (42%) or a very great extent (25%) with the coordination of volunteer, study and job-search hours; and 77% reported satisfaction, either to a great extent (38%) or a very great extent (39%) with the support for volunteering that they received from the coordinators. The most common form of volunteering was working with high school students.

- ***Satisfaction*** was high with the program atmosphere, the staff, and physical conditions: at least 79% were satisfied to a great or very great extent with every area. At the same time, satisfaction with the program schedule was lower, particularly with the hours of operation.

5. Scholastic and Employment Outcomes

Interviewees were at different stages of their studies at the time of the interview. Some had completed their studies, while some were still students.

Study outcomes: The average study duration for interviewees who had completed their studies was 4.36 years and, commonly 4, in line with the norm for engineering. The grade-point-average was about 79 with no considerable differences between the various institutions. Regarding further studies, 75% reported an interest in pursuing a second degree or a doctorate.

Employment outcomes:

- At the time of the interview, 81% of those who had completed their studies were employed, as were 41% of those still studying.
- Of the interviewees who had completed their studies, 56% were working full-time (at least 30 hours/week and/or a 90% position); 33% were working at, temporary jobs.
- Nearly all those employed worked in hi-tech (whether or not they had completed their studies). Workplaces that employed at least three interviewees were Intel, Amdocs, Galil Software, and the Technion.
- The average hourly wage for full-time employees was NIS 49, and for NIS 44 for part-time employees.
- At least 70% of the employed interviewees were satisfied with most aspects of their work. Some were very satisfied with their treatment by superiors (66%), by co-workers (64%), with their interest in the work (53%), and with the degree of their job independence (51%). For other aspects, the rate of satisfaction was lower: the time it took to get to work (47%), the work hours (45%) social conditions and benefits (33%), advancement opportunities (30%), and salary (19%).

6. Outcomes for the Comparison Group

We examined the outcomes for program participants vs. non-participants. The comparison group numbered 23 peers of the participants possessing similar characteristics for institution, area and year of study. We asked them about their socio-demographic characteristics and their results in studies and employment. However, due to the small size of the comparison group, no clear-cut conclusions can be drawn.

Study outcomes: The range of grade-point-averages for both groups was similar (76-80). The comparison groups showed a shorter duration of studies, and a greater desire to pursue a second degree or doctorate (91% vs. 70%).

Employment outcomes: At the time of the interview, more program participants than non-participants were employed (56% vs. 52%), and those working full-time earned on average more than the comparison group, whether by a gross monthly calculation (NIS 8,541 vs. NIS 7,354) or on an hourly basis (NIS 49 vs. NIS 46). For all aspects, the job satisfaction of program participants was higher than of the comparison group.

7. Conclusion

In general, the findings show that the participants were very satisfied with the program and felt that it had contributed to them. The various components are being implemented successfully, and participation is virtually full. Of the employed graduates, 81% are employed in hi-tech. Most report great satisfaction with their work although the rate working at temporary, time-limited jobs is high (33%). These outcomes attest to the importance of providing ongoing support and paying special attention to the quality of employment.

As noted above, the study goal was to enable JDC-TEVET to learn about the latent potential of expanding the program and disseminating it to new districts or new fields. The Ministry of the Economy has since adopted parts of the program and begun to implement them in October 2015. The ministry chose to adopt the more structured components (professional English, soft skills, preparation for employment, and leadership), as well as personal support and the employment club.

Acknowledgments

We would like to thank our colleagues at TEVET - Netta Rosenfeld and Safa Garb - for their support and assistance with the work on the report. We are grateful to the ItWorks staff: Angham Sakar, Si Avivi, and Yifat Bron for their cooperation and for opening the program doors to us, as well as to program graduates who shared their experiences and perceptions with us.

Thanks, too, to our colleagues at the Myers-JDC-Brookdale Institute for their help throughout: Denise Naon, director of the Center for Research on Employment of Special Populations, for her important support and advice all along the way; Yael Hadar and Abraham Wolde-Tsadick for their assistance with fieldwork and data analysis, as well as the fieldwork staff, particularly Mark Malkovich for his great help in managing the fieldwork. Thanks to Anat Berberian and Revital Aviv-Matok for editing, and Leslie Klineman for print layout and production.

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